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THE RAILROAD MAN'S MAGAZINE

NOVEMBER

THE FRANK A. MUNSEY COMPANY NEW YORK AND LONDON

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THE RAILROAD MAN'S MAGAZINE

CONTENTS FOR NOVEMBER

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VERSE AND DIVERSE.

MISCELLANEOUS.

ISSUED MONTHLY BY THE FRANK A. MUNSEY COMPANY.

175 Fifth Avenue, New York, and Temple House, Temple Avenue, E. C., London

FRANK A. MUNSEY, President RICHARD H. TITHERINGTON, Secretary. CHRISTOPHER H. POPE, Treasurer.

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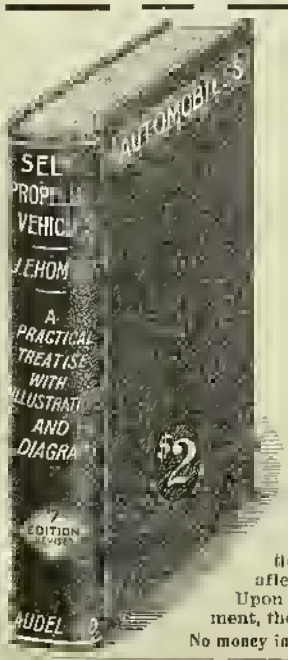

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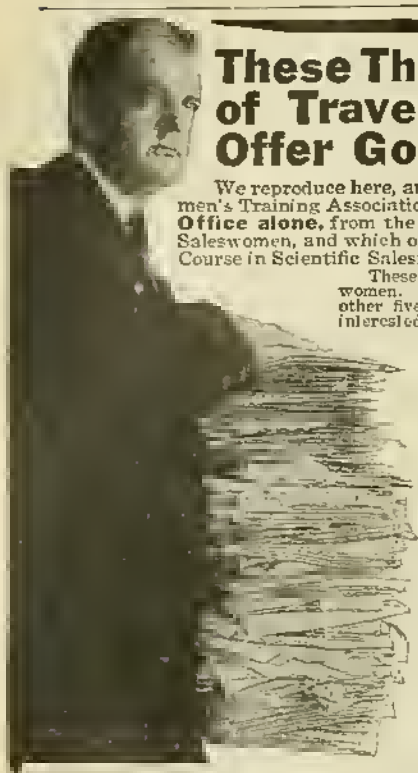

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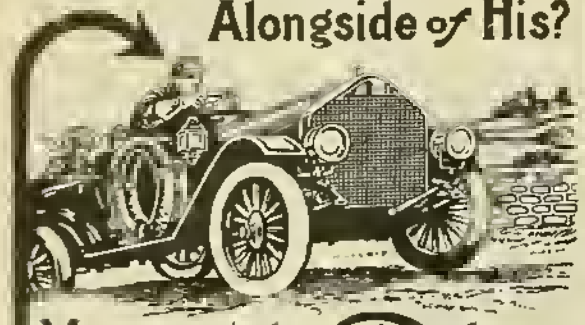

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THE RAILROAD MAN'S MAGAZINE

Vol. XIII. NOVEMBER, 1910. No. 2.

Tales of the Tallow-Pots.

BY TOM JACKSON.

IF you think that a fireman can't spin a yarn that is full of real ginger with tobasco trimmings, just read this bunch, by Tom Jackson, which we have selected to open the Thanksgiving number of THE RAILROAD MAN'S MAGAZINE. They contain just the sort of spice that one expects to find in all things at this feasting time of the year.

It is a pretty ordinary railroad happening in which a diamond-pusher fails to figure in some way or other. When it comes to excitement, he is generally Johnny-on-the-spot, and he is the hero of as many hair-raising adventures as any other member of the crew.

Most of these tales were gathered at the recent Brotherhood Convention held in St. Paul, Minnesota, where the boys assembled in large numbers.

In a Dakota Blizzard—The Two Johns—Why a Mail Clerk Became a Sleuth —The Troubles of a Smokeless Hog—How "Kim" Met the Governor.

HERE is a fireman's story of a Dakota blizzard:

"The beautiful snow was swirling round our train in chunks. It was thirty-five degrees below zero, and the wind was blowing a hurricane.

"The only air we could see from the cab window was absolutely white air, and we couldn't see so awful much of that. Most of the time we two in the cab couldn't see the nose of the engine. In a particularly clear swirl of snow, we sometimes were able to make out a large-sized section-house, as far away as a hundred feet.

"It was on the division out of Fargo westward. The Great Northern was spending five hundred dollars a day just to keep the track clear on that one division. We crawled along, never faster than ten miles an hour, and we were all day getting over the division.

"My engineer liked to keep his conversation consistent with our surroundings—he would talk of nothing but polar expeditions.

"Well, we slowed down to four miles an hour, and strained our eyes on the lookout for an expected station and a water tank. The engineer was doping out the reason why polar bears are white, when suddenly, I interrupted him by shouting:

"'We just passed the station! We'll have to back down and find it again!'

"When we finally got next to that station, I went in and sat down by the stove. The station-agent said:

"'I'm going to sleep on the floor of this office to-night.'

"'But your rooming house is only a hundred steps up the road,' I replied.

"'True,' he said. 'But look at the prevailing atmosphere within that hundred steps. After dark you can't see even the headlight of an engine. Is there any certainty, then, that a lantern in front of my house would guide me?

"'Do you know what happened to a section-hand out here last night? It's gospel truth. He was walking track and happened to step out from between the rails. He didn't step more'n two feet from the track, of that he is sure, yet he walked round and round in a circle all the rest of the night, trying to find the track again.

"'So I'm not taking any chances in finding my room, even if it is only a hundred steps away. I'll sleep here.'

"We then crawled up to the water tank. I pulled the spout down and let in the water. As I shoved the spout up, a voice in the blizzard said:

"'Do you know your wheels are frozen to the rails?'

"It was the voice of Superintendent Jim Davis—the same Jim Davis who is now general superintendent of the Oregon Short Line.

"He was on the train during all our trouble with the blizzard that day, and a better railroader never lived. He even helped us with the hand-picks, in chopping the engine free from the rails. For, sure as you're born, in those few minutes the drippings from the spout had frozen and we were held so fast to the track by the ice that we had to chop for a quarter of an hour before we got loose.

"Maybe it wasn't chilly to the extent of some forty below zero, when we reached the next tank. I pulled the spout down and let the engine drink its fill. Then I tried to push the spout up. I say tried, because I never did push that spout up within the same hour in which I pulled it down. I did not comprehend what had really happened till a voice out of the blizzard cried:

"'It's frozen fast and you can't turn off the water, and we're going to lose every gallon in the tank!'

"It was the voice of Superintendent Davis again.

"He was right, too. I couldn't stop the flow of water. I couldn't raise the spout because it was frozen fast to the intake. So the water from the tank flowed on and on till the last gill of sixty thousand gallons left the tank empty.

"Well, what was the effect? As fast as the water flowed down around us it turned to ice till we found our drivers frapped in an iceberg four feet high.

"We had to chop ourselves out with hand-picks again. This time we needed the assistance of all the available section hands. It took us fully two hours to chop our drivers free of the rails.

"We proceeded once more. Night was coming on fast. Suddenly my engineer stopped dead and said:

"'A drift ahead. This will about be our finish.'

"It was our finish, too. The section-men refused absolutely to take out the work-car or to leave the section-house. They declared they wouldn't venture outdoors again till the blizzard eased up a little.

"'That's insubordination,' said my engineer to Superintendent Davis. 'Why don't you fire those men?'

"'What would be the use?' Mr. Davis replied. 'New men would insist upon staying in by the stove, just the same as these men are doing.'

"'Well, then, offer them money.'

"'The Great Northern Railroad and Jim Hill together haven't money enough to induce those men to come out, once they have proclaimed their intention of staying in till the blizzard is over.'

"'What's to do, then?'

"'Nothing but grin and bear—till further notice.'

"We backed to the nearest station and lay there till morning, by which time the blizzard had lost half its force, and the section-men came out and cleared the track.

"Let me tell you something about that drift that may seem incredible. What you think caused it? The section-foreman told us that he was puzzled because that part of the track lay in such a position that no drift had ever been known to pile up at that particular point.

"When they got the track free of the drift they discovered that it was caused by a piece of coal no larger than an orange, which had fallen from a tender.

"The snow up there is as dry as flour, and any little object on the right-of-way will start a drift. Unless we find the object that started a drift, it will make trouble for trains all winter. That's why, in the fall, gangs

IT TOOK US FULLY TWO HOURS TO CHOP OUR DRIVERS FREE OF THE RAILS.

of men go over the right-of-way picking up every stone big as a chestnut and pulling out every weed more than two inches high.

"Well, I reckon, you can guess now that a Dakota blizzard doesn't do a thing to the railroads."

The Two Johns.

The Convention of the Brotherhood of Locomotive Firemen and Enginemen, held in St. Paul last summer, brought delegates from every State. There were over 750 present—the largest meeting the Brotherhood ever held.

In addition, there were some three hundred wives, sisters, and daughters of the firemen present.

The result was this: During the month of June, locomotive firemen, wearing the badges of their order, were as thick in St. Paul as colonels in Kentucky, while ladies wearing the insignia of the auxiliary were as plentiful as brides at Niagara in the same month.

One day the convention was addressed by James J. Hill, just plain "Jim Hill," as he was called by "Bill" Carter, president of the Brotherhood, who introduced the builder of the Northwest Empire.

The day following Mr. Hill's address I was standing outside the auditorium where the convention was held, talking to one of the delegates, who said:

"Jim Hill, yesterday, told us firemen that we must save our money, 'because,' he said, 'the worst is yet to come in this country.' He said that we must save for the sake of our wives and children.

"Well, Jim Hill's remarks reminded me of a fireman I knew in Chicago. His name was John Allen, and he had a run on the Chicago and Northwestern.

"By a strange coincidence, the name of the engineer who was this fireman's cabmate was also John Allen.

"John Allen, the fireman, never would save a cent. Money slipped through his hands, like gravel through a sieve. One day his engineer said to him:

"'John Allen, so long as you can't save money, why don't you carry life insurance, same as I do, so as to provide for your wife in case of accident.'

"'John Allen,' replied the fireman, for they always addressed each other by both their names, 'what's the difference whether I

spend all my money for things I need and enjoy, or spend it all for insurance premiums like you do? You have never saved a cent. You hand out all your spare cash for life insurance.'

"'True, John Allen,' said the engineer. 'But then—the more I spend in that way now, the more my wife will get when I am numbered among the soldiers who perished on the battlefields of the rail.'

"Well, John Allen, the engineer, kept on taking out more and more life insurance, till he had some thirty-five thousand dollars' worth of policies. All the men of the engineers' brotherhood who heard of John Allen's insurance habit marveled as the total grew higher and higher.

"Then, one day in March, 1910, along came a life-insurance agent who found Fireman John Allen at the roundhouse and said to him:

"'Is this Mr. John Allen?'

"'That's me,' replied the fireman.

"'Well, I hear you favor life insurance. Now let me place before you a proposition that you simply can't—'

"'Hold up!' cried the fireman. 'You've got the wrong John Allen. You want that spendthrift engineer of the same name. You'll find him over there in the switchman's shanty. He's easy. Go after him.'

"The next day, John Allen, the engineer, announced that he had taken out five thousand dollars more insurance, making a total of forty thousand.

"'Why!' exclaimed the roundhouse foreman, when he heard the news, 'John Allen is now the highest insured locomotive engineer in the whole country—bet you anything you like.'

"It was so. John Allen, the engineer, carried higher life insurance than any other man of his trade.

"A few days after that the two John Allens were running their fast passenger train forty miles an hour, down near Flagg, Illinois, when—you can guess what happened. Bang! Into some standing freight-cars the passenger train plunged. Out of it, Fireman John Allen emerged alive, while in the wreck lay Engineer John Allen, dead.

"And forty thousand dollars was paid by the life-insurance companies to his widow.

"A few days later, Fireman John Allen walked into the roundhouse and said to the foreman:

"'Give some one else my run to-day. I'm layin' off.'

THE PIECE OF COAL THAT MADE ALL THAT TROUBLE WASN'T BIGGER THAN AN ORANGE.

"'What's ailin' you?' asked the foreman.

"'Oh, nothin' particular. I'm just going to begin to-day to save a little money by spending all I earn.'

"He walked thoughtfully across-town to the office of that insurance-agent who had mistaken him for John Allen, the engineer. To the agent, John Allen, the fireman, said:

"'Perhaps it would be just as well if you were to let your doctor examine me for my wife's sake, just in case I should suddenly become included among the soldiers who perished. Say, John Allen was a wise, shrewd, far-sighted old spendthrift, wasn't he?'"

After the delegate to the fireman's convention finished telling me this tale, he hurried into the auditorium, only to reappear a moment later and sing out:

"Hey there, you! That yarn I just spun for you about the two John Allens cost me ten cents a minute."

"How's that?"

"Why, we made a new rule in here yesterday by which any man coming late to the daily meeting is to forfeit half a day's pay. I forgot all about it. We're each of us paid seven dollars a day for attending the convention. Well, I gabbed with you so long that I got in here thirty-five minutes late. It cost me a total of three dollars fifty—or one dime a minute. And Jim Hill begged us yesterday to save our money."

"Shut that door!" yelled a delegate inside the auditorium.

AND YOU MEAN TO TELL ME YOU'E GOING ON YOUR RUN NOW—DRESSED LIKE THAT?

A Mail-Clerk Sleuth.

"Fermin Keyes was a railway mail clerk, but he should have been a railroad detective. He was a born sleuth."

So said one of the visiting engineers, who, though not a delegate, had been attracted to St. Paul by the convention.

"Fermin Keyes was a pal of mine," the engineer continued. "I had a run out of Los Angeles on the Southern Pacific, and Keyes's mail-car was usually attached to my train. We traveled together a great deal, his run being between Los Angeles and El Paso.

"One day in April, after pulling into the Espee depot in the City of the Angels, Keyes rushed up to the engine excitedly, and, pointing to one of the passengers who had just left our train and was walking up the platform, said:

"'Paul, see that dapper-looking, pallid-faced, weak-kneed lunger? Well, he makes me think of a Cain.'

"'Fermin,' I answered, 'what is there about that ordinary tuberculer, of which there are billions in this southwest country, to make you think of a walking-stick?'

"'Oh, no! Not that kind of a Cain,' he said. 'I mean the sort of a Cain that slew Abel. Paul, I'm strangely interested in that young fellow. Hanged if I know why. He's got a cold eye, and there's something about his general appearance that comes out and hits *me* in the eye.

"'He boarded the train at Maricopa. I noticed him, and soon as I finished sorting my mail, I went into the day-coach and got into conversation with him. He's a department-store clerk by trade—and he's come here to Los Angeles looking for a job. I don't know why, but I'm going to follow him and see where he puts up.' He ran away.

"I believed that railway mail-clerk to be

suffering from what is called a vagary—and let it go at that.

"Next day, however, when I was about to pull out of the Espee depot, Keyes came up on a run and gave me this information:

"'Paul,' he said, 'I read in the newspapers, last night, that the lunger I pointed out to you yesterday morning is a sure enough assassin. He murdered a man over in Tucson. This lunger, at the time, was known as Louis Etinge. There's a thousand dollars reward offered for his capture. Say, Paul, I'm going to get that thousand. Good-by.'

"'Then you're not coming on your run to-day?'

"'No. I've taken a lay-off to get that thousand.'

"When I returned to Los Angeles next day, there stood the railway mail-clerk waiting for me.

"'I'm determined to get every dollar of that thousand all for myself,' he said. 'So I went to a detective agency and got sworn in as a regular detective. I've authority to arrest my man wherever I may find him in California.'

"'Where's the murderer?' I asked, coming to the point most important.

"'Flown,' answered Keyes. 'I told you I'd find out where he stopped—and I did. I went to that place soon as I become a real sleuth—but he had gone. Yes, he's gone to San Pedro, and I'm going to take a train down there immediately. Good-by.'

"Well, I didn't see Fermin Keyes again for many days after that. When he did show up at the station, he was dressed like a tourist. He carried a suit-case. Between his teeth was a perfecto.

"'So you're back on the job, are you?' I said. 'And you mean to tell me you're going on your run dressed like that?'

"'Run nothin',' he answered. 'I'm off on a vacation. Going to visit my friends in Tucson. Paul, I got the whole thousand.'

"He then told the story of how he got it.

"When Fermin Keyes arrived at San Pedro, Louis Etinge had again flown. After two days of inquiring, Keyes at last discovered that his quarry had taken a train to San Diego.

"Down went the amateur to San Diego, only to find that his man had again disappeared. Two days more of hunting, and he finally found that the murderer had shipped for San Francisco.

"Then Keyes, on a train, began a race with the steamer that was carrying his man. Which one of them would get to San Francisco first?

"Keyes's train pulled into San Francisco. In a cab he sped down to the wharf, only to find that the steamer from San Diego had arrived four hours before. His man was engulfed in the human maelstrom of the city.

"But, as I told you, Keyes was a born sleuth. He remembered that Etinge was a dry-goods clerk. Keyes began visiting one department store after another till—he found Louis Etinge behind a counter.

"'Cain,' said my friend, the railway mail-clerk, to his prisoner, 'why did you slay Abel?'

"'I could plead insanity,' was the answer. 'I was really insane, you know. But what's the use? I'm a lunger. I'll be dead in six months. So—what's the dif?'"

A Smokeless Test.

"Smokeless engine! Humph!"

Thus exclaimed Fireman Ed O'Connor, as he climbed aboard the locomotive to which had been given the nickname "Old Ironsides."

"Sootless engine! Rot!"

Such was the remark made by Engineer Tom Garland, as he mounted to the cab of "Old Ironsides."

The engine in question had just come out of the roundhouse at the Stockyards' station of the Chicago Junction Railroad.

The two men in the cab ran Old Ironsides over to a siding and backed on two cars that were to be hauled as a train. These were the superintendent's inspection car in the rear and a glass-fronted coach next to the engine. This was an observation car from which a good view could be had of the smokeless, sootless locomotive.

Within the two cars were fifty guests of the railroad. Their host was Mr. Bristow, general attorney for the company. His fifty guests included three aldermen and forty-seven railroad men.

The two men in the cab were joined by the inventor of the smokeless, sootless contrivance.

The train had run a mile or so, when Fireman O'Connor suddenly sneezed. So did Engineer Garland. So did the inventor of the non-smoker.

Fireman O'Connor sneezed a second time, and then said:

"Tastes like smoke to me."

Engineer Garland coughed, choked, then gasped:

"Smells like soot to me."

The fifty men in the observation-car, all watching the smokeless engine, sneezed, coughed, choked, gagged, and wiped tears from their eyes and black soot from their faces. Alderman Stewart remarked:

"Thought I swallowed smoke. Must be mistaken. That's a smokeless engine."

The engine was belching not only volumes of the blackest, sootiest substance, but also flames. The train stopped with such a sudden jolt that the fifty guests were flung all over the car.

In the cab, Fireman O'Connor, finding his mustache on fire, beat the flames out with his hands. Engineer Garland scraped the flames

DOWN THE TRACKS THE FIFTY GUESTS PROCEEDED TILL THEY FOUND A STATION.

In the cab Fireman O'Connor cried:

"She's coming out in clouds—thickest smoke I've ever seen out of a stack."

After a look at his engineer and the inventor, he added:

"Gents, your faces are black with what looks like soot—but it can't be soot, 'cause this is a sootless engine!"

In the observation-car the company's representative, Mr. Bristow, was saying:

"Gentlemen, wait just a moment. It will be all right. It's unfortunate that this should happen, but I'm sure it's only some temporary trouble. We've been running this engine for six months without smoke or soot."

Just then one of the aldermen cried, "Fire!"

from his hair. The inventor tenderly felt his blistered face.

O'Connor cried, "We're on fire! Stop her, Garland!"

The fifty guests piled out and formed a bucket brigade.

The engine-curtain was blazing furiously. The brigade extinguished the flames. The coal in the forward part of the tender was cackling as if in a fire-box. The volunteer fire department threw water on the burning coal.

Then the inventor said:

"Gentlemen, you must not judge my smokeless engine by this test. My contrivance can be fitted to any locomotive, furnace, boiler, or stove. It has been tested success-

fully many times in the last six months. It is a genuine wonder!"

"He's right," put in Mr. Bristow, the general attorney for the railroad company. "All that's the matter to-day is a defective flue that clogged the air-valves and threw the gases generated by fire into the cab and—"

"Say," interrupted one of the aldermen, "where's the nearest station at which we can get an engine that smokes and flings forth soot—just normal smoke and just every-day soot? We want it to take us back to town."

Down the track walked the fifty guests till they found a station.

They boarded a train hauled by an engine that was neither smokeless nor sootless. With them went the singed and blistered inventor and the coughing railroad attorney.

They left Fireman O'Connor and Engineer Garland standing by the half-burned "Old Ironsides," applying wet handkerchiefs to their scorched faces.

THEY SAW THE ENGINEER WALK A LITTLE WAY UP THE TRACK AND SIT DOWN ON A TIE ALONGSIDE OF A WOMAN AND TWO CHILDREN.

"Sootless engine! Rot!" exclaimed Garland, as he bandaged his forehead.

"Smokeless engine! Humph!" grunted O'Connor, as he fumbled with the remaining half of his mustache.

Fireman Bert was on the head end of the "hog train" with Engineer Kimball. As their train pulled across Illinois, between Quincy and Havana, the fireman said to the engineer:

"Kim, what were you spouting about last night at your Brotherhood meeting? Something about wanting to lay a matter before Governor Dineen—something about locomotive boilers?"

"Boiler inspection," replied Kimball.

The train was nearing Havana, and the engineer eased up so as to take the "hog train" in on a walk.

"Yes, boiler inspection," Kimball continued. "What I said was that we need State

inspection of locomotive boilers. There are Federal inspectors of steamship boilers, and there are city inspectors of boilers in cities. Why shouldn't there be State inspectors of locomotive boilers. We need 'em, I tell you. Wouldn't I like to get a private word with Governor Dineen on that subject."

"Have you ever seen the Governor?"

"No, but I'd know him from his picture, all right, if ever I should run across him. I bet I could convince him that it is his duty to start something in the legislative line that would lead to the appointment of State inspectors of boilers."

The "hog train" pulled into Havana and out again, and proceeded leisurely toward Pekin. Suddenly it halted.

Passengers thrust their heads out of the windows to see what caused the stop.

The engineer jumped off his cab, walked up track, and sat down on a tie alongside of a woman and two children.

Passengers then filed out of the coaches and went forward and met Fireman Bert.

"What we stopping for?"

"Family discussion," replied the fireman.

"Whose family?"

"The engineer's. That's his wife and kids he's talkin' to."

"Land sakes! What's his family doing here?"

"His wife is going shopping and needs some money. She signaled to him to stop."

"Hi, there, engineer!" called one of the passengers. "Get a skate on!"

"Just a moment," Kimball called back.

Expectant silence reigned a moment among the impatient passengers, during which they heard Mrs. Kimball say:

"Well, shall I paper the kitchen or whitewash it?"

A passenger, braver than his fellows, said to Kimball:

"Engineer, you should have some consideration for others, sir."

"Exactly what I'm doing," replied Kimball. "I'm having consideration for my wife."

The important-looking man received this rebuke with a smile, then strolled back to the coaches.

At the same time one of the passengers said something in a low tone to Fireman Bert.

"You don't say!" exclaimed the fireman. He, too, smiled.

After deciding that it would be cheaper to whitewash the kitchen, Engineer Kimball rose, and the "hog train" proceeded.

When the train pulled into Pekin, the important-looking man came to the engine and reached up his hand to the engineer, saying:

"Let us shake hands, mister. I thank you for carrying me safely and," with a broad smile, "as expeditiously as your family matters would permit. Good luck to you!"

"Same to you, old man," replied Engineer Kimball, taking the proffered hand. "Be good to yourself," he added, "and remember that in considering the welfare of others, a man should think of his wife first."

When the important-looking man walked away, Kimball saw his fireman shaking with laughter, holding a wad of waste over his mouth to muffle his chuckling.

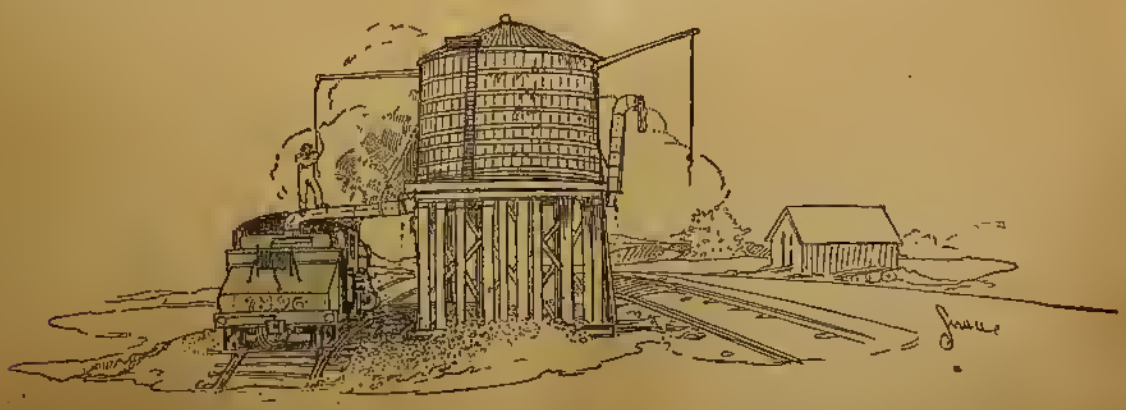
"What you snickerin' about?" asked Kimball. "And, say, what did that duffer shake hands with me for? He's a queer dub."

"You wanted a chance for a private word with the Governor of Illinois, didn't you, Kim?" asked Fireman Bert.

"Sure."

"Well, you've had two of the bulliest chances for a private word with him that you'll ever get. That hand-shaker was Governor Dineen."

Engineer Kimball collapsed on his seat and kept from fainting only by fanning himself vigorously with his cap.



SILENT JIM.

BY LESLIE CURTIS.

Written for "The Railroad Man's Magazine."

SO you're a brand-new fireman, and you're lookin' for Silent Jim?
You're green all right, for every man on this trunk line knows him.
Transferred from the Lackawanna? Well, I don't envy you none,
If you're goin' to fire for Silent Jim—it's a mighty lonesome run.

Jim's due here any minute now. Set down and take a quid.
I've half a notion to put you wise. You ain't much more'n a kid.
Don't chew? Well, roll a cigarette, there's makin's in the pouch,
But don't get sore at Silent Jim. It isn't a case of grouch.

It's purty nigh eighteen years ago—he was only a fireman then,
Every one called him Sunny Jim, he was popular with the men.
Always happy and smilin', and, say, but he married a prize!
Purty and cute—a pippin—with regular pansy eyes.

One day he came to the roundhouse, handin' out sheepish grins.
We couldn't savvy the reason, till he told us that it was twins!
So the boys went up to the house that night to look at the little things,
Most every one of us loaded down with rattles and teethin'-rings.

While we was standin' around the room, laughin' and kiddin' Jim,
His wife jest opened them pansy eyes, and held out her arms to him.
We filed out sort of embarrassed like, and nothin' much was said—
But, next day, down at the roundhouse, we heard that the wife was dead.

Well, Jim came back to the run again, lookin' as white as chalk.
We shook his hand, and it meant a lot, we hadn't the nerve to talk.
He sent the twins to his folks down South, or so the women heard,
For since that day, he's been Silent Jim—never speakin' a word.

Just notice, sometime, about three miles out, a graveyard on a hill;
If you've got sand to look around, there's tears on the window-sill,
And always that awful silence; well, I don't envy you none—
Here comes Jim now! Luck to you, kid! It's a mighty lonesome run!

THE A. P. CIRCUIT.

BY GEORGE GILBERT.

Old Pop Murphy Tells of the Time When He Saved the Honor of the Service.

FEW lights were burning in the big main room of the Eastern United Telegraph Company's office, and few brazen tongues clicked between brazen lips of sounders. The Wheatstone circuits were still; the local and way wires were all deserted.

Here and there a through wire sputtered, but the bonus men on the Boston "quad" still kept up their "message-a-minute" average under the stimulus of increased earnings. At the big switchboard an incandescent gleamed occasionally to lure the night chief on to test for the "swing" that had bothered a suburban wire during the rush hours of the evening, while over in the east corner of the repeater gallery old Pop Murphy, spare of frame, keen of eye, bald of head, with scanty, bristling mustache quivering with the nervous tension under which he was laboring, tended the "peters" of the A. P. circuit.

From helix-screw to armature adjustment his hand wandered, while he anxiously watched the flickering sparks as they glimmered between the platinum of "the points." Down across the Jersey meadows a fog hung heavy, and the conditions were ideal for the formation of weather crosses, making the current vary with each change in the variant winds.

Because the insurgents had chased the regulars in Washington that day the A. P. Washington report was heavy and important, and must be coaxed through from south to north, from coast to coast, that newspaper readers might learn of the latest riffle in mercerized insurrection in the halls of Congress.

When the company had an emergency of that sort, when all other repeater men failed in the nicety of their adjustments, Old Pop—who had handled the first set of repeaters ever made; who knew all there was to know of practise and theory in that line; when to jam the armatures close to the magnets; when to tighten the armature springs and when to throw in or out extra battery on either side—was invaluable.

Because he could cajole a President's message out of the fog or sneak the dots and dashes of a string of difficult cipher messages past the interference of an aurora, his grip-stricken arm was no longer called upon to do the arduous work of transmitting. He enjoyed a pensioner's status with the company.

As I listened to the rhythmic swing of the beautifully coded Morse fleeting west to Chicago and the coast and east to Boston and the New England States, I caught, as it were, an undertone of dots and dashes—thin, clear, and ghost-like in their quality.

A Buffalo wire was connected with the instruments on the table back of me. The sounder was silent, but from the table itself the weird tapping came; but its weirdness was not new to me.

Somewhere in the maze of wires to the West this wire was near another, and across the gap leaped the mystic waves which telegraphers call "induction," causing one wire to vibrate with the impulses carried by another, as one tuning-fork responds to the harmonics of its neighbor. Leaning my head on the table from whence the induction came, I heard:

A342CH WR 34 Paid.
UNION STOCK YARDS, CHICAGO, ILL.
ARMENT & CO., PORTLAND, ME.:
Malacos lyngyrium, Car 3445—

Then the induction faded. I had heard a portion of the Chicago beef-ciphers as they came swinging out of the West to the caricing stations.

"Murphy," I asked, "what is induction?"

"'Tis the forerunner of the wireless," said the veteran.

"'Tis waves of some sort that separate themselves from the wire they belong to and mix in on another wire, where they have no business to be."

"Listen to the swing of that fellow's stuff in Washington," he said. "By the fairy-ring of Kilroe, his arm could pound Morse through a wire that reached to the planet Mars. 'Tis not so fast, but clear and plain, and he does not overrun his copy. He makes less noise than some, but he gets the copy over the wire."

"He would not get much over the wire to-night," I said, "without your hand to ease it over the peter-points."

"Let be, let be," said the old man, though he was pleased with the compliment.

Again the induction murmured its elfin undertone. Murphy cocked an ear toward the table from which it came.

"I mind once when induction saved a man from disgrace and a woman from suicide," he said.

I waited patiently for the tale.

"Heard ye ever of Billy Hubson, once champion sender of the world?"

I had; who had not?

"He had a peculiar way of gripping his key," said Murphy. "Not with a full grip, but with a loose wrist and wide-open points. Two fingers on the inner edge of the key-knob, and his thumb clear. His dots were like Wheatstone, and his dashes just enough longer than the dots to make his Morse a marvel of sweetness to the ear. It was easier to take him forty words a minute than any other man at thirty.

"Once you heard his stuff going over the wire, you could always recognize it, exactly as you could a friend's voice over the telephone. It sounded fine and manly, like himself."

"N. Y., N. Y., N. Y., Q. D., Q. D.," called Washington.

"I. I, Q. D.," answered Old Pop, his grip-stricken wrist wabbling like a hen's foot as he answered the New York peter-call, known the world over to all sons of Morse.

"West says I'm coming heavy," said Washington.

For a moment Murphy was busy with his adjustments, and then the A. P. report went joyfully on again.

"I'll not describe Hubson to you," said the veteran. "Because it's only his style of brass-pounding that figures in this story of mine.

"About the time Hubson won his gold medal for sending fifty-two words a minute, uncoded, in the big tournament, a nice-looking little chap blew into 195 one day and struck the chief for a job. He had come from a way-railroad station up in Connecticut, and his name was James Cargan.

"Now, Cargan was a sprig of a man, with a smooth, round, peachy face, dainty hands, a wisp of a mustache, and pale-blue eyes. Something in the droop of his under lip was not favorable; but he had a ready tongue and a nice easy way, and before long he was off the carpet before the chief and onto a wire.

"First off, they put him on a way-wire near my table, as they have many a youngster, that I might note the quality of his copy and sending. Typewriters were just coming into fashion then, but Cargan needed none. He wrote like a whirlwind, and every word looked as if it came out of a copy-book.

"'He'll do,' said I to McKenna, the traffic chief. 'He will be fit for the Oil City duplex in a month.' So he got the job.

"When I went back to my table, there was a man standing behind Cargan, listening to his wire. Soon this man beckoned across the room to another fellow, and he came across. The second man was Ned Wilson, a watery-eyed, spindle-shanked, wizened-up Scot, who worked in pool-rooms and brokers' offices when he could, and in commercial offices when he had to. Just now he had to do the latter, because he had lost a good pool-room job through drink. The two men stood back of Cargan a while.

"'Watch his grip,' said the first man, a stranger to me.

"Wilson looked at Cargan and listened.

"'He has the Hubson grip,' said Wilson.

"I noticed it. The lad had his key held as Hubson held his, and his sending sounded enough like Hubson's to be the same.

"The stranger turned around and saw me. He looked me in the eye a moment, and then looked away. A man who cannot look another in the eye steadily is thinking bad thoughts. The stranger had black hair, dark eyes, and a beard that made his face look blue where the close-shaven hairs pricked through. He was big and burly.

"'Who's your friend?' I asked Wilson.

"'Ben Mahone,' said the Scot; 'just in from Frisco, looking for a sit.'

"'Pleased to see you,' I said, lying as I said it, for he was a far-down, if ever a

man was, and small use have high-up Irishmen for the far-downs.

"They went out, and I took notice of Cargan. There he was, not minding anything in the world but his wire, and happy to have a job in the big 195 office. And, sure as I am alive, he was sending like Hubson.

"Out of a million telegraphers, no two have the same swing to their Morse; but he was the millionth and one. In all my experience I never heard the like of it. He had the speed, the accurate touch, the judgment. Only one thing did I notice different, and that was when he sent the word 'the.' He jambed it a bit on the front of the following word, whatever it was, a thing Hubson never did."

"W. B., W. B., bk, bk, bk," called Chicago on the west wire. Murphy leaned over the west repeater lovingly, and Chicago Morsed a complaint to him. "Washington too light," he said.

"I, I," said Murphy, and then he straightened out the "bug."

"To resume," said Pop. "Cargan soon fitted himself into the office like a piece of apparatus. He was early to work and eager to 'wolf' the extra time. He was making money and friends, and soon the girls on the city wires and short circuits, where women do best, had their eyes on him.

"Best of all, was he known to Agnes Danaher, a pretty slip of a Jersey girl, who worked the cotton local. She was a sweet creature with a rosebud mouth, blue eyes, deep brown hair, and dainty.

"Unto her Cargan clung so earnestly that the other girls teased her about him.

"One afternoon, as I was balancing up the Philadelphia quad for the chief of the south board, who should come sidling up to me but Agnes Danaher. Her lips were quivering and her eyes were ready to brim over.

"'Pop,' she says, 'when you see me go for the elevator to-night, come after me and talk to me in the hall.' Before I could turn, she was gone, but soon across the room I caught the clacking of her sounder. It had an agate sound that made it easy to pick out of the roar of a thousand hammerings in all parts of the room.

"I had her words in mind all afternoon, and when I saw her go out I made bold to impose on my chief's good nature and followed her, although I was not through my trick!

"In a corner of the hall I found her, 'What is it, Agnes?' I coaxed.

"'Tis about Ned Wilson,' she said, 'I am afraid of him and Ben Mahone, that's come from Frisco.'

"'What have they said to you?' I asked, hot with rage to think of them even speaking to a decent girl.

"'Nothing,' said she, 'but they are after Mr. Cargan every little while, and I saw them whispering to him on the corner last night when I came out. He was to take me home, and he turned away from me as if he were ashamed and let me go home alone.'

"'I will look into this,' I said, 'I like it no better than you do.'

"'McKenna,' said I, to the traffic chief next day, 'where is that Ben Mahone from Frisco, who wanted the job here not long ago.'

"'He's over in Hoboken,' said the chief. 'They were short of men over there and I sent him over.'

"'I like him not,' says I.

"'No more do I,' says McKenna, 'but he serves to work a wire.'

"I cast my eye for Wilson, and there he was over in the far corner, where the Jersey wires came in. I edged near him and heard him call Hoboken.

"'Is that you, Ben,' he asked.

"'I, I,' said Hoboken.

"Thinks I to myself, thinks I, I'll hear what you two say, but Wilson muffled his sounder with his hand and began to send. When it came Hoboken's turn, Wilson kept the sounder still but let the relay armature tip play against his thumb's edge and so got the Morse silent and sure, reading it by touch and not sound—a trick not many can do.

"'Time for me to play tricks, too,' said I, thinking to save Agnes Danaher's beau from I knew not what. It was before Hugh Grant chopped the poles off all the streets and put the wires under ground, and the roof was a mass of wires and cables. Going to the switchboard, I grabbed a box relay set and edged quietly out into the hall and climbed to the roof.

"On the roof was Casey, the trouble chaser. 'Your diagram of the Jersey grapevine circuits?' says I. 'The chief wants me to make a few tests here.'

"Out came his diagram, open went the cable box and soon I had my set clicking away on 203 Jersey.

"'Cargan promised me this morning,' wired Wilson, in his jerky, slovenly fashion, like peas rattling in a pan, 'that he would work it to-morrow.'

"'O. K.,' came back from Mahone over in Hoboken. They stopped and began sending

the Eastern Union's own business, as they should have been all along.

"'What did Cargan promise him?' I said out loud.

"'How do I know,' said Casey, looking on me as one daft.

"'Tim Casey,' said I, 'you have a brass head and a pea for a heart—and mind your own business.'

"'You're daft, man,' said Casey, throwing his pliers at me, just as I went through the scuttle hole of the roof.

"We had heavy work that night. The newspaper wires were full of advance stories of the big Guttenberg race that was to be run next day. The Lexow investigation had driven most of the pool-rooms out of New York, but those that were left were making big money and all over the country.

"The tip was out that Candelabrum was to win the race and his closing odds were 1 to 5 and then 'out' altogether. The closing of the pool-rooms in New York had advertised the racing game all over the country, because the newspapers had been carrying pool-rooms in the head-lines for weeks, and that made thousands of people who otherwise never would have thought of a bet on a race otherwise. I watched the repeaters in my division that night. I planned to put down some of my over-time money, so I looked over the odds.

"Candelabrum at 1 to 3 I saw, and I remember now no other horse in the Guttenberg Plate that year save Yellow Tail. He was at the tail of the list and he stood 100 to 1.

"To think my ten dollars might be a thousand if I bet on him and he won, and the pool-room didn't bust before I got the money! But I had better sense than to play those long shots.

"While I was sitting there, away from everybody, the wires got quiet, as they will at times, even in the midst of a busy day. Now, late at night, the lull came with a queer suddenness.

I was wondering what was wrong, when I heard an induction on the very table where I sat, to which a Buffalo wire was connected. It was an old Erie wire, over the Old Reliable clear across the State—a rusty, old iron string no one would use now, when copper is none too good. A bad reputation old 31 Erie had for 'bugs' and weather crosses of all sorts. I bent my head to the table to see what the old witch was yammering about and what waves she was stealing from her betters, when I heard this message:

HOBOKEN, June 13.

JAMES SWITZER, HOTEL WEATHERBEE, WILKESBARRE, PENNSYLVANIA:

Put all on the Plate. Everything fixed. Get away as soon as you get official.

N. E. O. MABHEN.

"Then came another to a Buffalo address and one to Chicago, and all in the same words and all signed the same. Idly I wrote that queer signature on a message blank and studied it. As I did so the induction stopped and the old Erie 31 was unbewitched."

The A. P. circuit's speed increased. As he saw "30" in sight the operator at Washington settled to his work. His Morse sounded clear and sweet in an increasingly staccato crescendo.

Murphy listened appreciatively. "There's music," he said. "If I had time I could demonstrate to you that the Continental code is hog latin and the Morse code the language of the angels above." He mused awhile before taking the thread of his tale:

"All next day I kept wondering about the odd signature to those messages that went out of Hoboken when I got that induction cross.

"It kept bothering my head all morning and, in the afternoon, as I set up the 'peters' for the race wires, I kept thinking of it. When we got the Guttenberg wire going, she began to snap like wildfire and, in a second, I threw open the key and asked:

"'Hubson, how did you come to get down there to-day?' for it was Hubson, the world's champion sender.

"'Hallo, Murph,' he answered. 'I just blew in from the south, and McKenna sent me here to handle the Guttenberg stuff.'

"'73,' says I.

"Soon I got a call to the switchboard, and there Chief McKenna warned me:

"'Murphy,' says he, 'we have it from our secret service that the Big Butch gang of wire tappers will try to pull off something big on the Guttenberg Plate race to-day. A lot of advance money is said to be on Yellow Tail in the early pool-room books, and he has no show to win.

"'I sent Hubson a message at Jacksonville five days ago to come up to send the Guttenberg stuff to-day, and we have good men at relay points, who know each other's sending and whom we can trust.

"'If anything goes wrong, it will go wrong between this office and "The Gut" track. You know Hubson's stuff over the wire, and for the honor of the service I ask you to be watchful to-day.'

I gave my promise and I kept it, but

not in the way he meant. But then I did not know that I would create an evasion to save two souls from ruin.

"Back to the Guttenberg wire I went, anxious as a hen for her chickens to hatch. Hubson was sending the preliminary race gossip—the 'guff' we call it. After he had sent a few items and the betting odds at that time, half an hour before the races began, the wire stopped for, perhaps, half a minute.

"I noticed that was queer, then listened.

"'The track is fast,' began the next item of guff. The way that 'the' was hooked onto the following word caught my ear. Quick as a flash things pieced themselves together in my mind. I looked over to the Oil City wire, where Cargan should be and he was gone. I looked over in the corner where Wilson should be and he was gone.

"I remembered that signature on the induction messages I had heard from Hoboken the night before, and I wrote it out again, 'N. E. O. Mabhen!'

"It was 'Ben Mahone' in cipher! I knew nothing would go wrong before the races began, so I went over to the Hoboken main wire and asked if Mahone was in the office. He was not.

"Then I went back and sat down again. It was clear to me. Cargan had been picked by the gang of wire tappers to send the race news that day from a wire-tapper's station between New York and 'The Gut.'

"It was the old game. The wire was to be 'grounded' at the wire-tappers' station; Hubson was to keep sending; what he sent would be repeated word for word until it came time to send the winner and official confirmation of the race they had planned to make their killing on, and then the name of a fake winner would be substituted and the rest of the races sent O.K.

"The pool-rooms all over the country would pay off, and the gang's cappers in half a hundred cities would make a huge killing and then fade away. If Hubson asked the receivers in the race-news section a question, or they had anything to send him, the tappers would throw a switch and he would get it.

"The wire-tappers had a copy of the message ordering Hubson from Jacksonville to Guttenberg. They knew that he would not sell out for love or money, but they had planned to stall him by putting Cargan, his wire double, at the key of that 'tap-plant.'

"No sooner had I arranged this in my head than I heard a sigh behind me. I turned, and there was Agnes Danaher. She was listening to 'The Gut' wire.

"I saw in the flash that she knew all about it. 'Agnes,' said I, 'come here. Now, tell me what is really on your mind.'

"We were alone behind a big pillar at the far end of the room. No one was noticing us.

"'That is James Cargan,' she said, pointing to the instruments that were clicking out his shame. 'He told me all about it last night, and swore me to secrecy,' she said in broken whispers. 'He stands to gain one thousand dollars for this day's work.'

"'And why didn't a decent girl like you tell some one?' I asked angrily.

"She turned red and then white. 'He is too much to me,' she said.

"'Too much or too little,' said I, 'you should expose a skinner like that.'

"'Oh, pop,' she cried, 'I love James Cargan, and I cannot have him go to prison. Don't tell any one—I want to marry him.'

"'Go back to your wire, and work with what nerve you have left,' said I, 'and if this man can be saved, I'll do it, not for him, but for you.'

"She went, and I began to cudgel my brains. Here I was, with the honor of the service in my hands, Agnes Danaher's secret in my keeping, and the ears of the keenest men in the service on me. But none of them had ever noticed that Cargan jammed his 'thes' onto the following word when he sent. Not much did he jam it, but enough for me to know. He could fool ten thousand operators, but not me.

"I listened to his stuff. I knew that Hubson's sending was being relayed in some cellar or garret or sewer-hole between 195 and 'The Gut,' and was being passed through tainted hands to the outer world that was betting its good money on Candelabrum, while a cheap skate would win.

"Then I formed my plan. I chuckled inside to think of how easy it would be to save the foolish young man, and at the same time hurt the wire-tappers in the sorest spot—the pocket-nerve.

"In my pocket I chanced to have a bit of small, flexible wire. This I attached to the 'binding post' of the relay on the Jersey side of the race 'peters.' I let the other end dangle right over the 'ground' wire 'binding post,' and then I was ready to split the wire myself whenever I wanted to, without throwing the 'ground' switch. If McKenna came—a snatch, and the wire would go crumpled inside my pocket.

"So I waited. The Plate race was the third. The first and second went all right, for I knew that the gang would not try to

work their game on but one race—wire-tappers never do.

"After the second race 'The Gut' wire lay idle, after the post odds, and the corrected list of jockeys and weights were sent.

"'They're at the post,' signaled Cargan, repeating the flash he had stolen from Hubson.

"Then I put the 'ground' on, and held it. That put the wire 'dead' on the other side of the 'peters,' but I could hear on the Jersey side every word that Cargan said. I had tapped the wire to save one wire-tapper and break, financially, the rest. Soon Cargan clicked, 'They're off at "The Gut,"' but it never got to the wires of the racing section. He began the description of the race.

"'Candelabrum first; Yellow Tail second.'

"I saw McKenna start away from the switchboard. He came part way and shouted: 'Anything wrong on "The Gut" wire?'

"I held my nerve well for Agnes Danaher's sake and for the honor of the service.

"'No, sir,' I said; 'probably they are long in getting away.'

"I felt like a whipped cur for lying.

"I turned to Cargan's side of the wire, while the race-section side lay dead.

"'They are in the stretch,' he signaled. 'Yellow Tail leads by a head—by half a length; with Candelabrum second, and Jim Daly third—dot—dot—long dash; *Yellow Tail wins by a scant length!*' he flashed into my dumb, grounded wire.

"I laughed to think of it. He gave the time, and, in two seconds more, the official confirmation. Then my finger went to the armature spring on 'The Gut' side of the wire, and I felt it flutter. That meant that Cargan had taken the wire-tappers' instruments off, and that once again I had a straight wire to Guttenberg, with the real Hubson at the end.

"The fool thought the gang had made its killing, and he was dusting out of the tappers' crib to save his hide. I had just time to snatch the 'ground' wire and crumple it into my pocket, when Chief McKenna came booming toward me down the side aisle of tables. Just as he got to me Hubson began the 'guff' for the fourth race. As McKenna heard it he gave a roar.

"'Where is the third race?' he signaled.

"'Didn't you get it?' asked Hubson.

"'Not a tick,' said McKenna.

"'There was some trouble on the Jersey side a minute ago,' I said, 'but it did not seem serious.'

"I had never failed McKenna, and he never doubted me. 'Must have been a swing to a ground,' he said. 'Anyway, no harm has been done—no one has tried to "slip over a wrong story of the race." Then, to Hubson: 'We did not get the third race. Quick—flash it.'

"How mad Hubson was! The way he ripped that story out was a caution to hear, and when the sporting world did get it Candelabrum was the winner and Yellow Tail was left at the post.

"Half a million dollars was paid out in pool-rooms in all parts of the country in a jiffy. It all went to those who had really won it, and not to those who had beguiled Cargan to treachery."

"The A. P. wire was fairly humming now. 'Last sheet,' the wire pulsed to the east and west, where a hundred presses waited for "30" before they began to roar forth the avalanche of another day's history.

"And then?" I queried.

"Well, that night Agnes and I called at James Cargan's room, and found him panic-stricken. His conscience was gripping him hard. He knew something had gone wrong, and the wire-tappers had sent him word that they would have his life because he had thrown them down.

"Agnes Danaher scorched him with her tongue, and he broke down and told me all about it. For Agnes's sake I held my peace."

The veteran paused. He seemed dreaming.

"I could take you to James Cargan's home to-morrow," he said, "and introduce you to Mrs. Agnes Cargan and all the little Cargans, but I will not. Cargan's not his name, anyway. Maybe I have not told you the truth; maybe this is only an idle tale to while away the hours till '30' comes; maybe my brain is bewitched with induction. It is sufficient to say that Agnes Danaher and I made a man of him—"

"30!" sang the A. P. wire.

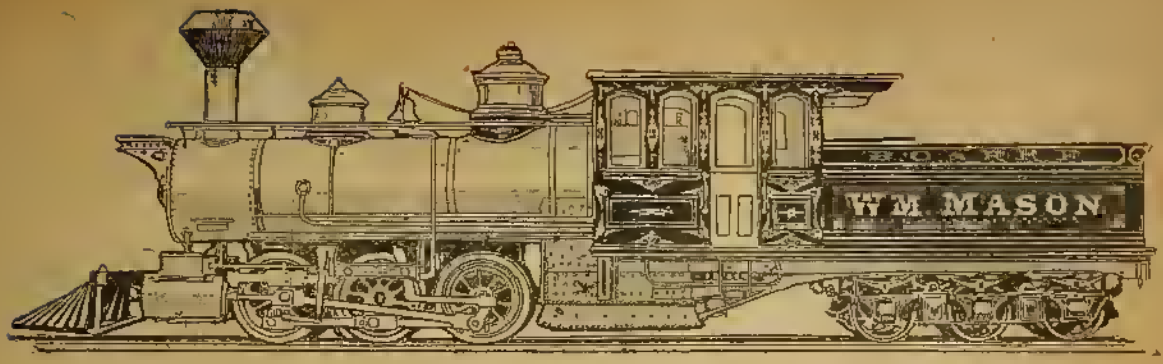
"Fifty-two books is the count to-night," signaled Chicago.

"O.K. 30, all, east and west!" signaled Washington.

"30!" said I to old Pop Murphy.

"And '73' to you, and the top of the morning," cheerily answered the veteran as he threw the switches that cut the copper nerves between north, east, west, and south.

"N. E. W. S." are the initials of the cardinal points, and the messages from all four make the *news* of the day; and "30" ends each day's story just as another is ready to be pulsed wherever the wires reach. And "73"? Why, that is Morse for "best regards." So, "30" and "73."



LOCOMOTIVE "WM. MASON," BUILT IN 1847, ONE OF THE FIRST LOCOMOTIVES IN AMERICA TO BE EQUIPPED WITH THE WALSCHAERT VALVE-GEAR.

The Walschaert Valve-Gear.

BY ROBERT H. ROGERS.

WHILE locomotives have been growing larger and more powerful year by year, necessitating heavier parts and stronger construction, one factor that has not changed in the slightest degree since the adoption of the standard gage is the length of an engine's driving axles. Four eccentrics, crowded closely together between the frames where they are almost inaccessible to the engineer and difficult to keep properly lubricated, soon set engine-builders to looking about for a better mechanism to open and close the steam-ports. It was not until they experimented with the invention of a Belgian shop superintendent that they discovered the solution for which they were looking.

The Walschaert valve-gear has been tried, with the greatest success, on all the heavier types of passenger and freight locomotives both in this country and Europe. It is rapidly displacing its predecessor—the Stephenson link motion—on account of its smoothness of action and the ease with which it may be repaired.

Mr. Rogers, whose experience as a master mechanic has rendered him an excellent judge of the merits of this up-to-date mechanism, has given us a thorough explanation of all its details, with some hints for use in cases of breakdown.

The Operation, Construction and Maintenance of Egide Walschaert's Remarkable Invention, Showing Its Many Points of Superiority Over the Old-Time Stephenson Link Motion.

CURIOUSLY enough, locomotive development appears to mature in grand cycles, instead of embodying a steady and unfaltering progress which might logically be expected to follow the conception of a machine which stands unique in that it received immediate recognition as the one great solution of land-transportation.

Students of locomotive lore are well acquainted with the fact that many of its most prized details to-day had their beginnings years ago, and that between them and the present a period of nearly half a century ensued during which they fell either into disrepute or were forgotten. Familiar illustrations are the bushed-side rods, the brass end-play liner on driving-boxes, and the now

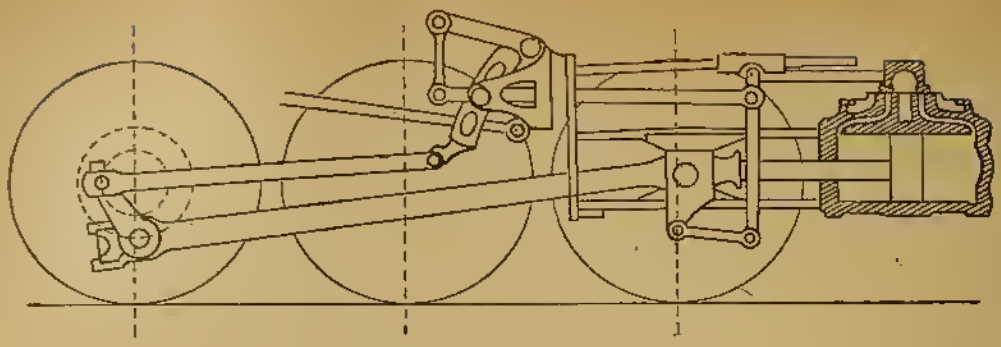


FIG. 2.—THE WALSCHAERT VALVE-GEAR.

This motion particularly appeals through the presence of a relatively small number of parts, and because all of these parts are on the *outside* of the locomotive, whereas in the Stephenson link motion the parts are all underneath and between the frames. The Walschaert gear thus embodies undisputed points of superiority in ease of inspection and accessibility to repairs.

universal "sharpshooter," or straight smoke-stack.

Ross Winans, the famous Baltimore railroad man and engine builder, employed these latter devices on his "camel-back" locomotives in the early days of the Baltimore and Ohio Railroad. All of them and many more dropped out of sight, only to return again unto their own, and in all probability they are with us now to stay until steam traction is supplanted forever by some other form of motive-power.

It is not so generally known, however, that the now much exploited Walschaert valve-gear, undoubtedly the most practical solution of the slide-valve problem ever presented, is also one of these resurrected items from the now nearly forgotten days.

Startling as this novel design may appear in contrast to the time-honored Stephenson link motion, which served effectually until the century-mark had been nearly reached in its history, and notwithstanding the amazing rapidity which has characterized its introduction into American practise during the past half dozen years, the fact remains that

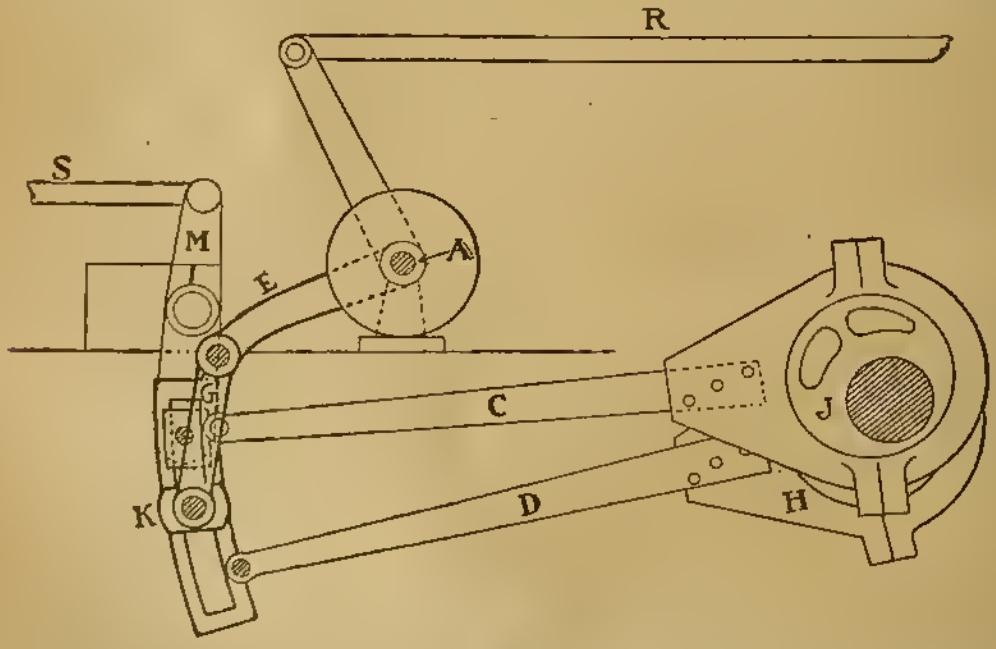


FIG. 1.—THE STEPHENSON LINK MOTION.

This is the general arrangement of the valve-gear which for nearly three-quarters of a century appealed to American practise as the most logical solution of the slide-valve problem. It will be noted that two eccentrics are required, one for either direction in which it is desired to run the locomotive, whereas in its successor, the Walschaert, illustrated above, but one eccentric is necessary, and that the entire motion is on the outside of the engine, instead of underneath it, as in the instance of this motion.

there is nothing new about it. On the contrary, it is quite ancient; older than the motion which it is fast supplanting, and indeed almost as old as the locomotive engine itself.

Stephenson bought the shifting-link valve-gear, which erroneously bears his name, from William Howe, the true inventor, one of his pattern-makers, of Newcastle, England, in 1843. Stephenson practically pirated this invention, inasmuch as he allowed Howe but twenty guineas for the idea, lock, stock, and barrel.

The latter failed to perceive the value of his ingenious model until after the sale had been consummated, and retired into obscurity, while Stephenson hastened its application to every locomotive subsequently turned out from his works, and so diffused the idea that it remained the standard, at least in American practise, until 1904.

In the meantime, and coincident with the experiments of Howe and Stephenson, the invention destined after sixty-six years to succeed their shifting-link motion was born in the state railway shops at Malines, Belgium, in 1842. It did not receive the spontaneous acclaim which heralded the valve-gear with which we have been most familiar, but that he who evolved it builded even better than he knew is well evinced by the tremendous popularity which it now enjoys.

Egide Walschaert, the inventor, was born in 1820 at Mechlin, then a little retired village in the vicinity of Brussels. The railway line from Brussels to Malines was opened in 1835, and that decided the career of young Walschaert, who entered the Malines railway shops in 1842.

Walschaert's Patent.

His wonderful aptitude for locomotive problems is illustrated in the fact that in two years he became chief superintendent of the shops of the Brussels Southern road, and at the early age of twenty-four had already acquired to an eminent degree all the qualities which go to make a successful engineer. These sterling qualifications should have secured to him the position of technical director of the system's locomotive service, but it is humiliating to state that he remained chief shop superintendent all the remaining active years of his life.

On October 5, 1844, M. Fischer, engineer of the state railways at Brussels, made an application in the name of Egide Walschaert for a patent of an invention relating to a new valve-gear for locomotives. This Belgian patent was accorded by royal decree on November 30, 1844, for a term of fifteen years. The rules of the railway company did not allow foremen of shops to advertise a patent in Belgium to their benefit, and this explains perhaps the part played by M. Fischer, who, however, never laid any claim to the invention.

The mechanism described in the patent of 1844 presents a strong resemblance to that which has at present come into its long-delayed appreciation, and the inventor constructed in 1848 a similar valve motion for application to locomotive No. 98. At that time the valve-gear in use was that of Sharp, with two eccentrics and the usual forked rods.

Won Early Success in Europe.

As has been mentioned, the shifting link attributed to Stephenson had been invented by Howe in 1843, and it is therefore doubtful if Walschaert had ever seen it before his own patent was granted. He also invented a valve-gear for stationary engines, somewhat on the Corliss or Sulzer principle, and he built at Brussels a shop for the manufacture of these engines, which was managed by his son.

Although recognition of the splendid qualities of the Walschaert valve-gear has been tardy in this country, it must not be assumed that the inventor passed unhonored through his long and useful life. At the Paris Exposition of 1878, a gold medal was awarded him for his engine, and in 1883 the exposition at Antwerp awarded him a diploma of honor, in which his locomotive valve-gear was given merited praise.

Walschaert died on February 18, 1901, at St. Lilles, near Brussels, at the age of eighty-one years. His reputation, however great, was accepted with singular modesty, and his business relations were met with absolute disinterestedness.

He gave his remarkable invention to the world at a time when the study of steam distribution and valve-gears was in its infancy, and he was deprived of the resources of a science which was not yet developed. On account of his great merits it is unfortunate that proper justice has not always been accorded Walschaert, as the ingenious mechanism which was original with him has been purloined for long years in the greater part of Europe. He passed away just three years before the first valve-gear which bears his name made its advent into the United States.

Prior to 1904 the exclusive valve motion in this country, if not in the entire western hemisphere, was that of the Stephenson link. It had seemingly proved to be the survival of the fittest, well exemplified in the fact that it was embodied in upward of 40,000 locomotives.

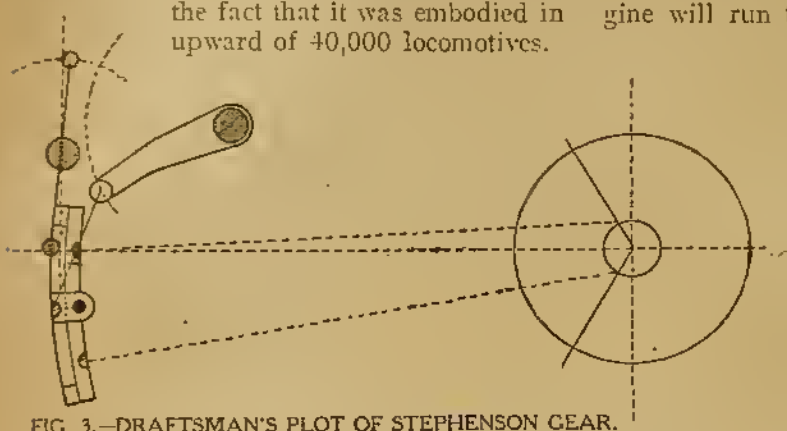


FIG. 3.—DRAFTSMAN'S PLOT OF STEPHENSON GEAR.

This diagram represents the scheme to scale for one side of an ordinary locomotive equipped with the Stephenson link motion. The motion of the latter is complex to a degree, and infinite care must be exercised in its laying out. Before the drawings are finally prepared for shop use they are usually proved on a full-sized model of all the parts.

It is assumed for the sake of this article, which is intended to be explanatory of the Walschaert gear, that the Stephenson link motion is understood by its readers. It may, however, be well to briefly define the problem which presents in the instance of any valve-gear, in order that the points of superiority attained by the Walschaert may be fully appreciated.

The Stephenson Link Motion.

Locomotives are propelled by the to-and-fro motion of the pistons in the cylinders, communicated to the driving-wheels through the medium of connecting parts, viz.: cross-heads and rods. To insure this to-and-fro, or reciprocating action of the pistons, the steam must be alternately admitted and discharged from either end of the cylinders.

This latter distribution is effected by a slide or piston-valve, which is the same for any style of valve-gear, and in which the point to be aimed at is to secure an ease of movement with the least multiplicity of parts. Every motion must necessarily embody the reversible as well as the forward feature, in order that the locomotive may be propelled in either direction at the will of the operator.

In the Stephenson link motion, the general arrangement of which for one side of the engine is shown in Figure 1, two eccentrics are employed for each cylinder. One of these is fixed or keyed on the main driving axle or shaft in such a position as to move the valve so that the engine will run in one direction, and the other eccentric is set so that the engine will run the reverse way.

The ends of each pair of eccentric-rods, "C" and "D," are attached to what is called a link, "K," the object of which is to furnish the means of quickly engaging or disengaging either eccentric-rod to or from the rocker, "M." The rocker in turn is connected to the main valves through the medium of the valve-stem, "S."

It will be noted in the sketch that the link is suspended by a bar, "G," called the link-hanger, to the end of the lifting shaft-arm, "E." This shaft has an upright arm, to which is connected the reach-rod, "R," and this in turn to the reverse lever in the cab.

In Figure 1 the Stephenson link motion is depicted in "full go-ahead" or forward gear; that is entirely under the influence of the go-ahead eccentric, which in this case is the eccentric marked "J." Should it be desired to reverse the position of the valve (not shown in the drawing) it is effected by pulling the reverse lever, and this, through the medium of the reach-rod and the pivoted point "A" of the lifting shaft, raises the link until actuated by the "back-up" eccentric, "H."

Where Walschaert's Gear Excels.

From this brief description it is apparent that two sets of the above apparatus are required on each locomotive, one for each side, any locomotive being necessarily two distinct engines, although the adjustment of the valve-gear is such that their action is harmonious. Consequently, the Stephenson link motion in entirety embodies four eccentrics, with their rods and straps, two links, two link-hangers, and a lifting shaft extending across the engine with two arms, one for each link.

This is the valve-gear which was solely in use in this country for sixty-seven years, and probably would have retained supremacy had not the tremendous strides of the last few years in increasing the size of locomotives

dictated its retirement in favor of the Walschaert.

It will be noted that the Stephenson link motion is entirely underneath the locomotive, between the two frames. This did not prove a serious objection while the parts remained light in weight and their size could be restricted to reasonable proportions.

In the modern locomotive, however, it became necessary to have them of such size that there is scarcely room enough for the four eccentrics on the same axle between the frames. They are crowded together so that it is practically impossible for the engineer to give them the lubrication and inspection which hard service demands. The Walschaert gear, however, being outside the engine in its entirety (see Fig. 2), is perfectly accessible, and can therefore be much more easily maintained.

The Stephenson link, under the influence of two eccentrics, moves through wide angles, resulting in a wedging action of the link-block, which strains the gear and produces lost motion. The Walschaert link, driven by a single eccentric, moves through smaller angles and produces less lost motion.

By removing the valve-gear from between the frames, as has been done in the instance of the Walschaert gear, a better opportunity is afforded to strengthen the frames through cross braces, which the regular link motion prohibits, and thus the possibility of frame breakages is reduced.

The Walschaert gear also shows a distinct advantage over the Stephenson link motion as regards permanence of adjustment. When a heavy freight-engine is half-way between shoppings the Stephenson link motion is slack and loose, while the Walschaert valve-gear is in practically as good condition as when it left the shop, there being no large eccentrics to keep lubricated, and its hardened pins and bushings are valuable adjuncts.

These are some of the reasons why a large number of American railroads are now equipping their engines with the Walschaert valve-gear. Seldom in the history of the development of the locomotive in this country has any improvement, once introduced, been so rapidly accepted as has this type of valve motion; and, inasmuch as its use will undoubtedly increase, a clear understanding of the elements at least of its construction and operation will be expected from those who operate and maintain engines so equipped.

Details of Construction.

In order that a clear understanding be attained of this mechanism, it is thought advisable to present the subject with the assistance of a few simple sketches, and in these all elaboration of detail has been omitted to prevent any possible confusion of the central idea. Some of the parts have been much exaggerated in comparative size for the sake of clearness; but fidelity has been strictly adhered to in the outline and proportion of the connecting parts, the combined action of which produces the motion desired.

Referring to Fig. 4, in which is illustrated the outline diagram of this motion, it will be noted that the Walschaert gear derives its motion from an eccentric-crank, or return crank, on the main crank-pin. The rod from this eccentric-crank is secured to one end of the link, which is pivoted in the center on a

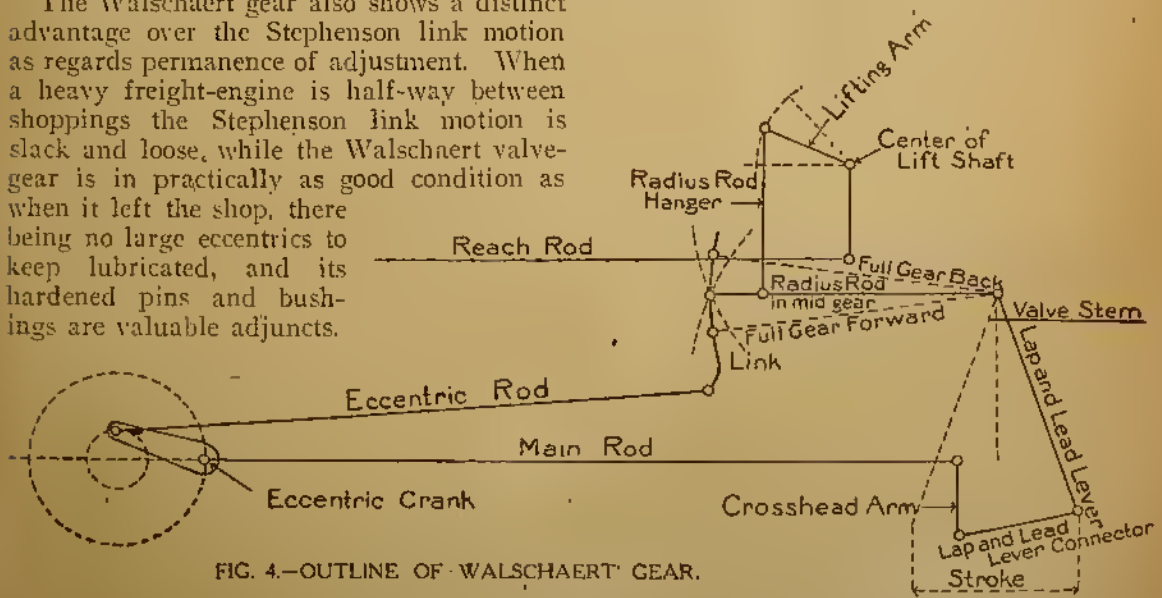


FIG. 4.—OUTLINE OF WALSCHAERT GEAR.

The above represents a properly proportioned plot of this motion as arranged for inside admission-valves, and on it has been placed the names of the various parts as recommended by the American Railway Master Mechanics' Association. Starting at the crank-pin we have the eccentric-crank, eccentric-rod, link, reach-rod, lift shaft, radius rod-hanger, radius-rod, lap and lead connector, and crosshead-arm.

pin held by a bracket bolted to the guide yoke. In the completed form these parts are also illustrated in Fig. 2, which represents the application of this gear to a consolidation engine.

The link-block is secured to the radius-arm, or bar, one end of which is attached to the end of the valve-rod, or stem, so-called, and the other end to the lifting arm of the reverse shaft. It will also be noted that the valve-rod is attached to a lever which derives its motion from the cross-head. This last detail determines the lap and the lead of the valve, and gives them a fixed value, whereas the Stephenson link motion gives a variable lap and lead, affected by the valve travel.

Gets Motion from Two Sources.

The motion imparted to the valve by the cross-head connection, however, is small, as the cross-head arm and the lap-and-lead connector are attached to the lower end of the lap-and-lead lever, while the radius-rod and valve-stem are connected close to the upper end, thus imparting only a slight motion to the valve-stem.

As the motion of all valve-gears is quite a complex study, it is extremely difficult to analyze the Walschaert from an elementary standpoint; but reference to the six diagrams, illustrated in Fig. 5, may serve to convey a fair idea of its motion. In this instance the valve is outside admission, and the motion is represented throughout as in full forward gear, or with the reverse lever in the extreme forward position.

As has been mentioned, the valve receives its motion from two distinct sources; first, from the eccentric-crank, which gives the long travel to the valve, and, second, from the cross-head by means of the lap-and-lead lever, which would give a short travel to the slide-valve, even were the eccentric-rod disconnected.

Starting with diagram one, Fig. 5, as the valve is outside admission, with the main pin on the back center, the eccentric-crank is on the top quarter, or a quarter of a revolution ahead of the pin, and the radius-rod is connected to the lap-and-lead lever below the valve-stem. The link is in its central position, and the valve would be in its central position on the seat if it were not for the motion given to it by the lap-and-lead lever.

As it is, however, the cross-head being at the back end of the stroke, the lower end of the lap-and-lead lever is at its extreme back position; and the angle assumed by the lever has moved the valve forward, as indicated by the arrow, a distance equal to the lap of the valve plus the lead. The steam, therefore, enters the back steam-port to the piston, as indicated by the curved arrow, while the other end of the cylinder is open to the exhaust.

In diagram two the piston has moved forward a distance equal to about eighty-five per cent of the stroke, the valve has traveled to its extreme forward position and back again, as indicated by the arrow, until it has closed the back steam-port, while the front port is still open to the exhaust. In other words, the valve is at the point of cut-off.

In diagram three the piston has moved still nearer to the forward end of the stroke. The exhaust edge of the valve is now in line with the edge of the back steam-port, so that any further movement will open communication with this port and the exhaust. The front port, on the other hand, has been closed to the exhaust, and whatever steam is ahead of the piston will be compressed.

In diagram four the piston is at the extreme forward end of the stroke; the angle assumed by the lap-and-lead lever has moved the valve back a distance equal to the lap plus the lead; the front port is open for the admission of steam, and the back port is open to the exhaust.

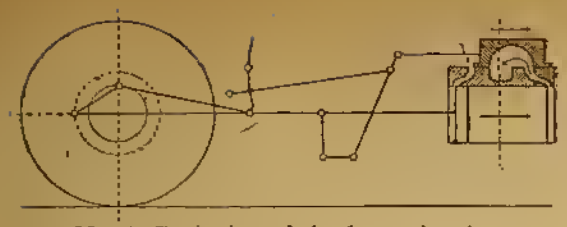
Finest Adjustment Is Possible.

In diagram five the piston is moving toward the back end of the cylinder, and the valve has just closed the front port to the admission of steam, showing the cut-off position of the valve on the back stroke.

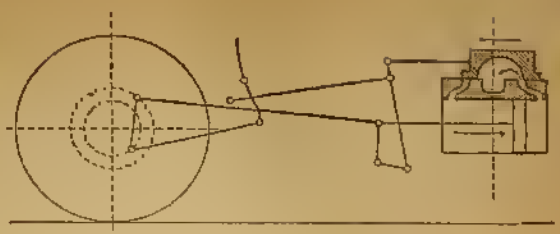
In diagram six the piston is very nearly at the end of the back stroke, and the valve is about to open the front port to the exhaust, while the back port is closed to the exhaust, and compression is taking place in the back end of the cylinder.

In these diagrams, which it is believed will give a clear idea of the changes assumed in the position of the connecting parts during one revolution of the driving-wheels, it is quite apparent that when the reverse lever is hooked up the link-block will be brought closer to the center of the link, and the motion imparted to the valve-stem by the radius-rod reduced proportionately. It is thus possible to work the valve with the equally fine adjustment of cut-off permissible with the Stephenson link motion.

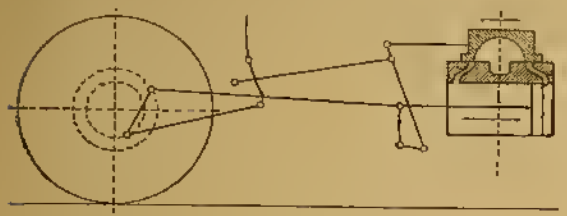
Referring to the outline drawing, Fig. 4,



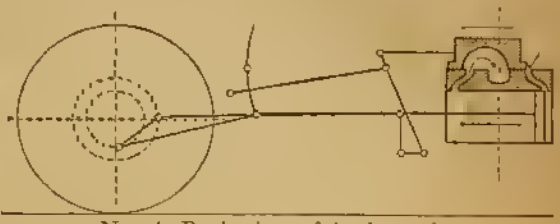
No. 1. Beginning of the forward stroke.



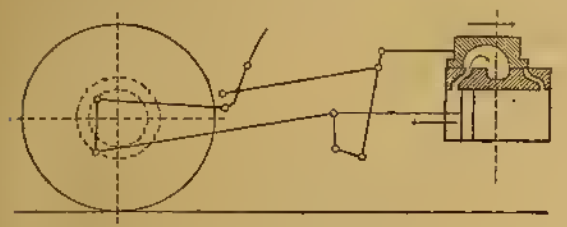
No. 2. Point of cut-off. Forward stroke.



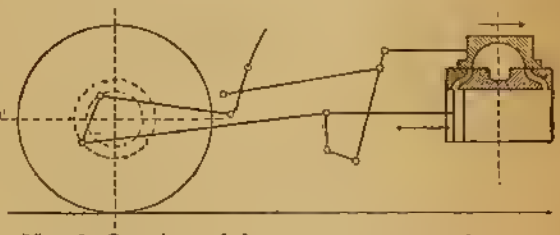
No. 3. Opening of back steam port to the exhaust. (Point of release, forward stroke.)



No. 4. Beginning of back stroke.



No. 5. Point of cut-off. Back stroke.



No. 6. Opening of front steam port to the exhaust. (Point of release, back stroke.)

FIG. 5.—WALSCHAERT VALVE EVENTS IN ONE REVOLUTION.

This series of diagrams represents the different positions of the valve for different positions of the crank-pin during one complete revolution of the driving-wheels. For the sake of simplicity the valve and cylinder are shown in section, while the other points of the gear are represented by their center lines and center points only. As will be apparent, the diagrams are out of proportion, the valve and the eccentric throw having been enlarged in order to bring out more clearly the positions of the edges of the valve relative to the edges of the cylinder ports.

the radius-rod is shown in the center of the link, as it would be with the reverse lever in the center of the quadrant, hence the valve-stem can receive no motion from the eccentric-crank; but it will be noted that it is still influenced by the lap-and-lead lever, or cross-head connection, and the point of connection between the valve-stem and the lap-and-lead lever is selected to permit the motion of the former to equal the sum of the lap of the valve and the lead desired on either side of the center line.

Built to Stay Put.

To change the lead of the Walschaert valve-gear it is necessary to change either the lap of the valve, reducing it to increase the lead, and increasing it to reduce the lead, in which case the cut-offs will occur at later or earlier periods in the stroke respectively, or to change the lengths of the arms or distances between the connecting points of the lap-and-lead lever. Increasing the distance between the radius-rod connection and the valve-stem connection to the lap-and-lead lever would increase the lead, while shortening this distance would decrease it.

The question frequently arises among machinists and apprentices, to whom this gear is yet unfamiliar, whether its parts are as susceptible to adjustment as the old familiar Stephenson link action; in other words, whether the valves can be set should occasion seem to require it. The general impression among the rank and file is that no adjustment is possible; but, while this is true, in the abstract, it does not imply that no correction can be made.

On the contrary, when intelligently approached it is possible to do many things toward straightening out faulty conditions, although it cannot be denied that the real valve-setter is the man who primarily lays the motion out on the drawing-board.

In the first place, the eccentric-crank, from which the link derives its motion, is supposed to be properly located and keyed to the crank-pin as a permanency. In fact, if the draftsman's work is properly done, there is little liability to inequality in the movement of the motion.

After a long study, combined with practical experience in connection with the Walschaert gear, the writer recommends the following compilation of rules, which he has often applied to advantage in making readjustments to this motion in roundhouses after the engine had been delivered by the builders, and presumably in a condition for the best results.

These instructions apply to piston-valve engines with inside admission, with combination lever fulcrum located above the valve-stem, and with the link-block below the center of the link when in the forward motion, this being the general arrangement of the motion on passenger engines at least.

How Adjustments Are Made.

Assuming all parts of the valve-gear to be correctly proportioned, it is possible to proceed as follows:

(1) With port lines marked on valve-stem, main-rod valve, and all parts of the valve-gear connected, excepting the link end of the eccentric-rod, adjust the link-block so that there will be no movement of the valve when the link is oscillated on its center. In case both valves do not remain stationary with one position of the reverse lever, adjustment must be made on the lifting device of either side until they do.

(2) With reverse lever in its central position, as found above, next connect the link end of the eccentric-rod and find both dead-centers of the engine, and with a tram mark the same on the wheel from any rigid point; also mark the extreme travel points on the guides at the same time, checking the port lines for equal lead and square lead by adjusting the valve-stem as per Case 1, following.

(3) With valves approximately set and ready to run over in order to get the different valve events, place engine in the forward motion and catch the front and back centers, at the same time noting the positive of the port lines as in Case 1. Repeat this operation with engine in the backward motion. With position of port marks noted there may be readings similar to either of the four cases following. After adjustments are made the valves should be run over in their principal positions. Valves may be considered as practically correct when the cut-off and release events in the forward motion, at the usual running position (say twenty-five per cent cut-off) do not vary over one-thirty-second of an inch, though, of course, closer adjustment is desired if possible.

MORE RULES FOR ADJUSTMENTS.

(1) The eccentric-crank is correctly set when the sum of the leads in forward and back motion are equal. Thus, in Fig. 6, A + B = C + D.

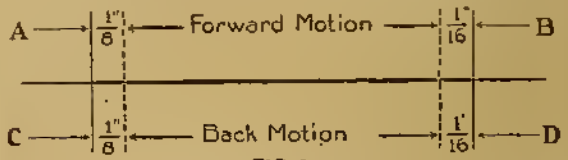


FIG 6.

(2) Shortening the eccentric-rod increases the lead at points C and B, and decreases the lead at points A and D (Fig. 6), and *vice versa*. This may be done by means of liners in the strap end of the rod.

(3) Decreasing the throw of the eccentric-crank decreases the leads in forward motion, and increases the leads in backward motion, and *vice versa*.

FOUR CASES OF VALVE-PORT READINGS.

Case 1. When the two leads on the forward centers in both motions, and the two leads on the back centers in both motions are equal; but the forward center leads are not equal to the back center leads,

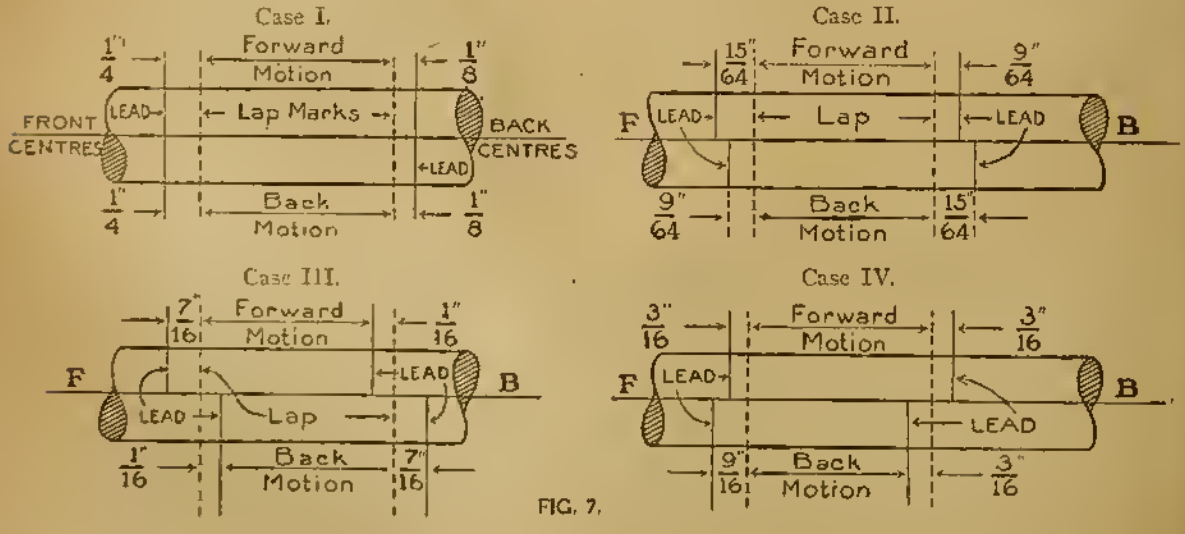


FIG. 7.

as shown in Fig. 7, they must all be made equal, as follows. Adjust the valve-stem an amount equal to

one-quarter the difference of the sums of the leads in both motions, thus:

$$\frac{\left(\frac{1}{4}+\frac{1}{4}\right)-\left(\frac{1}{8}+\frac{1}{8}\right)}{4}=\frac{1}{16}\text{ in.}$$

In this case the valve-stem should be adjusted 1-16-inch to the right. This shows, according to Rule 1, that the eccentric-crank is set correctly.

Case 2. When the leads come, as shown, that is, the forward motion lead on the front centers is equal to the back motion lead on the back centers and the forward motion lead on the back centers equal to the back motion lead on the front centers, they must all be made equal by shortening the eccentric-rod an amount equal to three-fourths the difference of the sums of the leads, thus:

$$3\left|\frac{\left(\frac{15}{64}+\frac{15}{64}\right)-\left(\frac{9}{64}+\frac{9}{64}\right)}{4}\right|=\frac{9}{64}\text{ in.}$$

When this is done there will be equal leads in both motions.

Case 3. Here we have 1-16-inch negative and 7-16-inch positive lead in both motions. In this case the valve may be squared by shortening the eccentric-rod an amount equal to three-fourths the total sum of the positive and negative leads, thus:

$$\left(\frac{7}{16}+\frac{7}{16}+\frac{1}{16}+\frac{1}{16}\right)\frac{3}{4}=\frac{3}{4}\text{ i}$$

If the leads came just the reverse of the above we would have to lengthen the eccentric-rod to equalize them.

Case 4. The figure shows 3-16-inch positive lead on both centers in the forward motion, and 9-16-inch positive lead in the back motion on the front center, and 3-16-inch negative lead in the back motion on the back center. First move the valve-stem 3-16-inch toward the back center. The next step is to equalize the lead as in Case 2. This may be done by lengthening the eccentric-rod. See Rule 2.

Some Temporary Repairs.

In connection with the above instructions, it may be added in passing that it is best not to experiment with the Walschaert valve-gear until thorough familiarity has been attained with its mechanism. Properly speaking, the parts are non-adjustable, the above being offered merely for the interest it may have in illustrating what can be done.

Having considered the principles of the motion, the next phase of the subject, and that which will naturally be of the greatest interest to all engineers, is what may be done in case of a break-down. Although impossible to lay down rules to cover every case that might arise, some of the more usual failures can be briefly reviewed and the best and quickest course indicated to follow in such cases.

Suppose, for instance, an eccentric-crank, eccentric-rod, or the foot of the link is broken; or one of the link trunnions twisted off, the other trunnion holding the link up in position.

In such cases take down the eccentric-rod, disconnect the back end of the radius-rod from the lift shaft-arm, and secure the link-block in the center of the link. With the motion disconnected and blocked in this way, the valve on the lame side receives a travel from the lap-and-lead lever equal to twice the amount of the lap plus the lead, which gives a port opening equal to the amount of the lead.

This permits leaving the main rod up on the disabled side and running in with both sides; as the cylinders can be lubricated, and, although the cut-off will be very short on the disabled side, the steam that is admitted will do a certain amount of work and the engine can be reversed.

Other Break-Down Remedies.

In accidents where it is necessary to block the valve to cover the ports, if the engine has no relief-valves in the cylinder-heads to remove, the best practise is to remove the main rod on the disabled side. In such instances as a broken main rod, bent piston-rod, or cylinder-head knocked out; if the valve has inside admission and there are no relief-valves, the engine may be disconnected and blocked as follows:

Disconnect the front of the radius-rod from the lap-and-lead lever and suspend it clear of the latter by means of a wire or chain from some convenient support. Secure the valve to cover the ports. This can usually be done by means of a set-screw provided in the valve-stem cross-head for this purpose; but, if there is no such set-screw, the valve-stem cross-head may be blocked. Take down the main rod and block the cross-head at the back end of the guides.

With the valve motion disconnected in this way, the reverse lever is free to operate the other side, and the engine can be run in on one side. If the cross-head arm, lap-and-lead lever connector, or lap-and-lead lever is broken, the engine might be blocked in the same way, except that, of course, such of the broken parts should be removed as would in any way interfere with the running of the engine.

If the valves have outside admission and there are no relief-valves in the cylinder-heads, in cases where it is necessary to secure the valve to cover the ports such as have been considered, it may be effected as follows: Disconnect the radius-rod from the lap-and-lead lever and take down the latter, as otherwise the front end of the radius-rod would strike the lever as the radius-rod moves back and forth to the motion of the link.

Suspend the front end of the radius-rod from the valve-stem cross-head guide, using for the purpose a wire or chain (the fire-door chain, if no other is at hand). Secure the valve to cover the ports, and take down the main rod and block the cross-head at the back end of the guides.

These are the more common break-downs with which an engineer may have to contend, and the above solutions by Mr. C. O. Rogers, of the American Locomotive Company, to whose paper the writer is indebted for some of the material in this article, will necessarily be of assistance. After the principle of the motion has been grasped, any failure of the parts can be handled as readily as those of the Stephenson link motion.

The Walschaert valve-gear was first introduced into this country in 1904, being embodied in the first Mallet articulated compound ever employed in American railway practise, No. 2,400, built at the Schenectady works for the Baltimore and Ohio Railroad, and since that time forty per cent of the new engines turned out have been so equipped.

Since it may be applied to any type of engine without material change in the design or multiplication of the moving parts, there seems little doubt, in view of the other points of superiority which have been commented on, that in a short time it will become the standard locomotive valve motion in this country, as it is now the accepted type on the railroads of Europe.

UNIVERSITY GETS TESTING PLANT.

The Chicago Northwestern Turns Over to Illinois Students Its Equipment for Locomotive Testing.

"UPON the recommendation of Mr. Robert Quayle, superintendent of motive power and machinery," says the *Railway and Engineering Review*, "the locomotive testing plant of the Chicago and Northwestern Railway has been presented to the University of Illinois.

"Under the immediate directions of Mr. H. T. Bentley, assistant superintendent motive power and machinery, it has been taken from its foundation, the bearings and other running parts have been put in good order for service, and the plant, with all the special patterns used in its construction, has been loaded and shipped to the University of Illinois.

"It is understood that the plant will be held by the university pending the construction of its proposed transportation laboratory. The testing-plant was designed under the general direction of Mr. Quayle, aided by Mr. E. M. Herr.

"The drawings were developed under the immediate direction of Mr. E. B. Thompson, now superintendent motive power and machinery of the C., St. P., M., and O., but who at that time was chief draftsman for the C. and N. W. Mr. Quayle had been made chairman of the master mechanics' committee on exhaust pipes and steam passages, and some time before, while master mechanic at South Kaukauna, Wisconsin, had improvised a testing-plant by lengthening out the members of a passenger-car truck to make the wheel spacing agree with that of the drivers of the locomotive he desired to test, and by mounting this truck bottom side up in a pit in such a manner that he could run a locomotive upon it.

"Encouraged by these earlier experiments, he later advocated the testing of locomotives at the Fortieth Street shops of the C. and N. W. The result was this plant. The proceedings of the Master Car Builders' Association will show that this plant was an important factor in the development of several committee reports dealing with the design of exhaust-pipes, steam passages, draft pipes and stacks. The plant was found useful also in working out various other problems of more immediate interest to the railway company.

"In recent years it has been idle. The plant consists of foundation-plates, pedestals, and three pairs of axles with their bearings, supporting wheels, friction-brakes, etc. It was the first of its kind to be supplied with permanent mounting rails, by use of which a locomotive could be rolled on or off the wheels without resort to temporary blocking.

"It is announced by Dean Goss, of the College of Engineering, that the plant at the university will constitute a portion of the equipment of the School of Railway Engineering and Administration, and that when installed it will be operated under the immediate direction of Professor Edward C. Schmidt, in charge of railway engineering."

IN THE HORNET'S NEST.

BY DAN DUANE.

A Life for a Life, with Love and Vengeance to Spur Him On.

CHAPTER I.

When Carmita Came.

ACCORDING to the old French testament, which registered his birth as having occurred on May 4, 1797, Eugene Caillo was eighty-three years old at the time of his death.

Close on to fifty years he had lived on the high table-land at the base of Mount Whitney, hoarding, pinching, and delving into the earth for the yellow gold, until the superstition, ignorance, and vain imagining of the miners and cattlemen in the country for miles around had become accustomed to estimate his wealth as commensurate with that of Monte Cristo and other fabled possessors of fabled fortunes.

He was a mystery, and, therefore, speculation knew no limit. As a matter of fact, he was not a poor man; for when the money was eventually found, it counted up into the thousands numbered by eighty, and all in shining American gold with the significant stamp of the United States fair upon its face.

Old Caillo was a keen, crafty, avaricious fossil, bent almost double with toil and the self-imposed privations of his miserable existence. To him, the end of all things was the accumulation of gold; and, as Goethe's hero gave his soul for his lost youth, so did this aged miner give all that might have passed for that abstract quantity in his unwearying search for the metal that was to him the Alpha and Omega of life—the one thing he worshiped.

His claim covered about two thousand acres of the fairest and most fertile land in the mountains, and was known as "Caillo's Flat." Crossing it laterally came the county road from Rosalia. The Crood, the swift-running mountain stream the Mexicans had long ago called El Rio Santa Maria, infiltrated the best portions of it, giving him crops of barley, wheat, and oats that were marvels to his few neighbors.

He worked early and late, and it hurt him sorely that twice and sometimes thrice a year, at plowing and harvest and in the spring *rodeos,* he was obliged to hire a few extra hands to help him secure the lavish bounty of nature.

But in all his "ground-sluicing" he was never known to work other than entirely alone.

To the right of the road, and facing Mount Whitney and the west, stood the house—an old Mexican 'dobe, falling to pieces in many places, but, withal, good for years of shelter. It had deep-set, shutterless windows, a low, square roof, and was shaded from the hot sun of Southern California by massive fig-trees.

Three years before old Caillo died, Carmita came.

The mines called "Hardtack," "Rex Monte," and "Comet" were in full blast then, and paying well. The nearest town to camp was Tres Pinos, and that was seventeen miles away. "Caillo's Flat" was but six, a clear saving of eleven hard miles.

With crafty, coyote-like sagacity, old Caillo reflected on the situation, and decided he would become a store-keeper. There was plenty of room in the old house, so he fitted the north end of the 'dobe with a rude counter and shelves, and notified the camps that he was prepared to furnish them with any necessity or luxury they required at a cost that would merely cover the expense of transportation into the hills.

Then he sent for Carmita.

Carmita was the child of his dead sister and her Spanish husband, also dead, by name Ramon Arcana. When she came to "Caillo's Flat" she had just commenced her eighteenth summer, and on her clear-cut, oval, olive-tinted face shone all the glorious, sad serenity of the southern sunset. Her eyes were luminous, starlit, and reflective, and when one looked into their liquid depths, and saw the wealth of passionate tenderness and true womanhood living there, he believed in a soul.

The new life seemed strange to her, and revoltingly hard and cruel—and most cruel of all things she saw was her uncle, Eugene Caillo.

Born a peasant, with all the shift and privation that entails, she had been the child of her father, and by him passionately loved and tenderly cared for. Now that he was dead there was no one of her blood but her uncle, and fate had given her to him.

There was a hunger in her heart ever for the one word of love that never came, for which all the strength and loveliness of nature surrounding her failed to compensate.

The coarseness of the miners and cattlemen who came to the store at whose counter she now presided wounded her gentle nature as sharp thorns, and her whole being shrank and turned from the publicly expressed words and looks of admiration they sought to give her.

Love to her was so sacred, so holy a thing, she could not fancy its pure, white presence in the fumes of vile tobacco and still viler whisky. But she lived her life with courage and true womanly dignity, giving the sorrow and the unutterable longing in her heart no words, and doing her duty so faithfully, so patiently and uncomplainingly, that, had it been possible for old Caillo to have cared for anything, it would have been the beautiful Carmita.

CHAPTER II.

The Master of the Rancho.

THE master of Rancho Buena Vista, Philip Garrick, had been in the foothills since the last October, which was before Carmita came, and the comfortable log-house on Badger's Flat which he called home, was peopled only by his three vaqueros.

A mystery was Philip Garrick—a mystery rivaling in interest the fabulous possessions of old Caillo. Much and varied had been the talk and speculation regarding him, but prophets and gossips of the range were for once utterly baffled and obliged to content themselves with their own not over-satisfactory conclusions.

He never spoke of himself or referred to the past in any way.

They only knew that six years back they had seen him for the first time when he quietly took possession of Noriega's stock and ranch; that he had paid cash for it with a check on the bank at Rosalia, which had been duly honored without question; that he had altered, repaired, and fitted up the place until his, without dissent, was the best ranch in the mountains.

His face was fair, with a light in his blue eyes that commanded their respect, despite its youth and the careless good nature of his smile. His figure was slight, erect, and athletic, and he rode well, and was singularly adept with a *riata* for a tenderfoot.

There was a certain inexplicable something about his carriage, his manner, and the tone of his voice they had never known before. And last, and what was, perhaps, greater than all else with them, he seemed in no way bothered by an insufficiency of money.

Gradually and unpresumingly he took his place among them, taking his share of the joys and sorrows of the small community with cheerful graciousness and manliness.

This continued until the morning he rode back to his home, in the spring after Carmita came, when he was, by all odds, the most popular man in the mountains—popular with all save one man, and that was James Gormley, superintendent of the Comet mine.

"You will observe well the *señor* who was just here, Carmita," cackled old Caillo, in his mystifying patois of mingled French, Spanish, and Mexican. "He is a gringo, oh, yes, but then different, my girl, far different from any you will see and quite my best customer, yes, better even than El Señor Gormley.

"We know nothing of him, actually nothing. A closer mouth than his is not to be found among my own or your mother's nation, but he pays well, girl—pays, and always in fair, yellow gold that is so beautiful to see; and you are fair to see, Carmita, fair to the eyes of youth, and, you understand me, I would have you smile your sweetest on the Señor Philip, for when a girl smiles the gold of young fools comes easily, and there is no better place for the Señor Philip's gold to come than to me, who understand how to treasure it and to keep it at its worth."

Carmita drew back. Her look pictured her disdain.

"Ha! ha! this young *señor* is rich, do you hear me!" the old man continued. "Rich! Two thousand fine cattle, and the finest *rancho* in the mountains. But don't lose your heart, he is not for you. You have your dear old uncle, and he loves you too well, far too well to lose you."

The thin, parched lips of the miser parted, showing the black snags of teeth in the skeleton jaw, while a grin of restrained satisfaction spread over his mummified face.

She had seen him only a few times, but since his first coming to the store life had grown fairer, almost dearer to her.

When the coarse and brutal admonition of her uncle reached her, the blood rushed violently to her olive cheeks, and she felt as if he had given her a blow, yet, withal, with a strange sense of guilt on her as if deserving it.

She could not have even told the little crucifix above her bed, but the subtle melody of Philip's tones, soft and caressing as the sigh of the south wind, had reached her and touched her and filled her with a happiness that was akin to pain.

Her southern nature, doubly strong from the control she had of it, had gone out to meet this new voice, this fair face, this gracious courtesy of a true nobility, as a lark springs out and upward to meet the morning sunshine.

His presence had come to her as the summer rain comes to a thirsty rose, and even before she had learned to speak the hard consonants of his name softly and reverently to the beating of her heart, she knew and felt herself a guilty thing, inasmuch as her womanhood shrank from what each stifled throb of her bosom told her to be the truth.

CHAPTER III.

Gormley Speaks His Mind.

WHEN the sun arose, then arose Carmita, and the manifold duties of the day began. The old house, from its former state of neglect and dirt, now shone with neatness and order.

Her hands, which toil seemed powerless to harden or defile, were never idle. This was a luxury her hitherto weary heart could not allow itself, even had her circumstances permitted its indulgence. With the simple morning meal finished, there was the house to be tidied up, and the poultry and calves to be looked after, until the shadow of the sun on the kitchen floor told her it was time to take her place in the store in chance of possible early patrons.

Then she would seat herself at the door—the white crests of the mountains and the long white road stretching away to Rosalia before her, while the linnets and thrushes sang their love-songs and builded their homes in the fig-trees above her head.

Busily stitching on some garment of old Caillo's, she would lose herself in the one solace her life knew—her dream of Philip, for the white road that wound its way so sinuously through the barley and wheat of the fat lands of "Caillo's Flat" also took the direction of the Rancho Buena Vista. Just to think of him was a pleasure.

There was one face she dreaded—dreaded even more than the crafty, cadaverous face of her uncle when it was convulsed and distorted with avaricious disappointment and anger from a valueless day in the ground sluices.

It was the face of Gormley, the superintendent of the Comet mine.

Since her coming, his had been the eyes, and his the voice of any stranger to greet her the oftenest. A false, dark, sensuous face, fringed with a thick, black beard; a large mouth and aquiline nose; black, beady eyes, gleaming, restless, with the fascination of the rattlesnake, and a smile which, if given to a man following a lonely trail on a dark night, would cause him to feel for his six-shooter and keep Mr. Gormley at a respectable distance in front of him.

Gormley had told her several times that he loved her.

He had told her this ere she had been on the mountain two months, and all of her gentle nature arose in rebellion and disgust at his presence and his coarse words.

The vaqueros and the men at the various mines had noticed his attentions, and they, knowing him, and understanding the situation, and the utter impossibility for him to be honest in any way, except in an attempt to deceive some one, said, publicly, that "Jim Gormley never missed an opportunity in trying to feather his own nest, and that old Eugene Caillo's yellow 'shiners' were a mighty attraction."

With no greater barrier to their possession in his way than the frail life of the miser and the white throat of the girl, it behooved him to spend his smiles lavishly; to go often, and to stay long; to pass unheeded the ill-concealed repulsion and fear of the girl at

his advances, and to keep the way clear of all possible rivals.

CHAPTER IV.

Carmita Tells Philip.

"YOU will hear me, Carmita, you will not turn from me, and think my words untrue. Listen, my beloved. I take those stars above us as witness to my truth. Could I help loving you; could anything that knows the breath of life see you and not love you?

"You have seen my love, you must have seen it. Day after day have I come here only to hear you speak, only to feel in my heart the glory of your smile.

"Life could not be life again without your presence in my soul, there would be no sunshine, no light to warm my eyes in the morning, and the nights would be worse than death—for in death, I might know you, Carmita."

The river of Wary splashed and crooned and sung over its pebbly bed; the far-off sound of sheep-bells came melodiously across the distance, and a crescent moon hung suspended as a sickle of silvery fire above the white brows of the Sierras.

In the old "'dobe," lost in dreams of his yellow god, lay old Eugene—and here in the soft light of the crescent moon, with the waters at their feet and love in their eyes, stood Philip and Carmita.

The moonbeams touched to silver her raven hair. Her bosom heaved and her breath came quick, but in her dark, passionate eyes there was no question, no attempt at concealment.

She placed both hands on his shoulders, and, looking up at him with the trust of a loving woman, said, in her sonorous, liquid, Castilian:

"Oh, my Philip! You have too much mercy for Carmita. You ask me do I love you, beloved. Look into my eyes and read the answer there."

CHAPTER V.

The Missing Miser.

"SENOR! your words are useless! They are worse—they are cruel! They are a wrong to me, and a wrong to him who is more than myself."

Her big eyes flashed, and she drew herself up and walked away with the majesty of a goddess.

Gormley bit his lip and struck his boots two or three times sharply with his quirt—then the old, cynical, hypocritical smile came back to his face, and, following her with mock humility, he slowly said:

"Him, *señorita!* Excuse me if I fail to understand you. You have not, as yet, done me the honor to mention who 'him' is."

Carmita turned slowly, her eyes still flashing.

"It is unnecessary, *señor.* Were you a gentleman you would not ask," she said quietly. With a slight, dignified inclination of her head, she entered the house.

Gormley stood for a moment irresolute whether or not to follow her further, but the look of her face daunted him. With a smothered curse, he walked to his horse, and, mounting, raked his spurs in the animal's flanks until it dashed furiously down the road snorting with pain.

"So, ho! my Señor Garrick, you have stolen the march on me, after all!" he muttered between his teeth. "And the fair Mexican flower will not only give you her sweetness, but will empty all the old miser's treasure into your already well-lined belt.

"She will, if Jim Gormley can't help himself. Well, we'll see, you accursed dog, we'll see; it's a frosty day in California when I get left."

The whole year was one glad, summer-time to Carmita. It mattered not that the flowers withered and died; that the birds all went away to the valley, southward; that the hills grew sere and brown; that the white mantles of the mountains seemed to be getting closer and closer with each day. No, it mattered not, for ever her heart sang; and the light that lay in her eyes was a fairer light than that of summer moons, for it was the light of perfect trust and absolute love.

Eugene Caillo had fought and continued to fight against the new-born happiness. His avarice had grown to extend to her, for she was a medium that produced much gold.

But Carmita was a woman now, and love made her strong. Patiently and cheerfully she bore with his complaining and upbraiding, but there was a look on her face that told him not to venture too far.

Then there was Philip now, and the cunning old man was crafty enough not to overstep the limit of his niece's endurance, as his reason told him that such an act would only produce a climax, the result of which would be the loss to him forever of his most profitable chattel. Were it not for this he would have struck her.

Had she been beautiful before, she was regal now. No passion-flower was more lustrous than her face; no mountain deer on the hillside more full of grace than she.

More than one strong, honest heart, beating in the broad breast of some cattleman or miner, sighed for her, as her soft fingers carelessly touched theirs when handing them a purchase at the store—but her eyes, with their radiant smile, were always out and away in the line of Rancho Buena Vista. Only one step and the sound of one voice could recall their gaze.

Gormley, after using all his deceits and wiles to provoke old Caillo to open revolt, had at last given up, and was seldom seen at the store.

Love had come to the old 'dobe, and love is greater than all.

The full moon of the last of December was hanging low on the snowy crest of Mount Whitney; a strange, weird light fell on the spectral peaks about him, and silvered the open lands of Caillo's Flat. The old 'dobe stood out in black and bold relief against the foreground of dazzling, ghastly whiteness. The shrill, mournful, savage cry of a mountain-lion came from the fastnesses of the mountains. The clock of the old kitchen struck eight, and the sound of a horse's hoofs, ridden at a gallop, fell sharp and distinct on the hard road.

As the sound of the horse's feet came nearer, Carmita rose hurriedly from her seat by the hearth, and, passing with a quick step to the door, flung it wide open to her lover, who was dismounting by one of the fig-trees.

Her face was white and weary. There was a frightened look in her deep, luminous eyes that was new to them.

"Oh, my Philip!" she said, as Philip drew her passionately to his arms. "It is good you have come, for I have been sore afraid and troubled. See, I am alone."

They entered the house, and she continued, "My uncle has not returned."

Philip looked questioningly into her eyes, and then scanned the darkness of the old kitchen lighted by the meager flame of one candle and the scant blaze on the hearth.

"Not returned, Carmita! Do you mean that he has not been home since morning?"

"Not since five o'clock this morning, Philip. He was working at the ground-sluicing on Bear Flat, as you know, and nobody ever works with him at the ground-sluicing.

"The evening meal was set at six, and I was so happy thinking of to-morrow that I scarcely heeded the darkness and he not yet home. Suddenly the clock struck seven, and then a wild fear came to me, and I reproached myself with the ingratitude of my happiness when that frail, tottering old man might have met some terrible calamity.

"Ah! it has been a long hour, my Philip, waiting your coming, but now that you are here I am strong again, for you will find my poor old uncle and bring him to his home! Do this for me!"

"Carmita, were you to wish it, he should have my life; you know that; but the man who has been cruel to you and so wronged me can never have my respect or my esteem.

"The old fellow has probably worked late, and, darkness catching him, has stopped at one of the camps. But he's an unfeeling wretch to leave you here alone to worry about him.

"However, set your fears at rest, my beloved. Old Eugene is too knowing to lose himself in these hills.

"But for your sake, and if you tell me to go and leave you here alone, I'll ride quickly over to the camps and find him."

"Yes, go, Philip! I've no fear to be alone! It will comfort my heart that my Philip, and so brave and strong an arm as his, are so merciful and forgiving."

The hours seemed long to her, but she waited with the patience and courage of a woman who loved—waited, alone, in the old house on the mountain.

She watched and listened and waited into the cold light of the dawn, and prayed for the safety of the one man who had never given her a kind word.

The west wind lulled in its moaning, the savage call of the mountain-lion was still, there was a convulsive heaving of the opaque shadows in the east.

The morning dawned, and Carmita was still alone.

CHAPTER VI.

The Finding in the Sluices.

AT length Philip Garrick returned. His good horse, Apache, was worn and jaded. There was a strange, baffled look on the rider's face—for he was alone.

"I have been everywhere, Carmita," he said wearily, "and no one has seen your uncle."

Carmita's tears were her strongest pleading that Philip should renew his quest.

He saddled a fresh horse and went forth once more in search of the man who had ever been his enemy. He was weary, embittered, and anxious, not for the fate of old Caillo, but for the girl whose face was so white, and whose eyes spoke to him so wistfully, so pleadingly, for his saving aid.

He took the trail directly to Bear Flat, and, following the course of the stream, he reached the open country.

Everywhere were the traces of the old miser's toil. The land was fissured and broken in all directions by deep gulches, all issuing transversely from the stream. He staked his horse with his *riata*, and commenced his search.

The sun told him it was two hours of midday, when, at the head of one of the sluices, he came to the place where Eugene Caillo had eaten his frugal noonday meal not twenty hours before.

This was the first clue.

Quickly he examined the sides of the sluice. Leaping into it, he walked slowly in the direction of the outlet.

The sluice was, perhaps, eight or ten feet deep, with a width at the top of two-thirds that number, and narrowing gradually as it reached the bottom, giving it the shape of a wedge.

The soil was of a loose, gravelly formation, with no piece of rock visible larger than an egg. Philip particularly noticed these characteristics. Nor at any future time was any stone discovered in the gulch which, of its own size and weight, was sufficient to cause a man's death, unpropelled by other forces than its own gravity.

He had followed the cut for three hundred yards from its source, when he suddenly halted as one turned to stone.

The cold shudder that passed through his blood and the sight that met his startled eyes told him his search was ended.

There, at the bottom of the sluice, face down, his body partially covered by gravel and dirt, lay old Eugene Caillo. The point of his pick protruded from above his shoulders, as if, while using it, he had fallen on it. By his side lay a heavy iron bar.

Controlling himself and conquering his aversion, Philip quickly removed the débris from the prostrate form, and, lifting the poor, attenuated body in his arms, bore it carefully to the bank above.

His first thought was for Carmita. What she would say; how to tell her?

True, she had never loved the miserable apology of humanity which now lay before him, with the vision of the yellow gold fled forever from the crafty eyes. But with her—true child of the south, bred to a sense of obedience and self-denial which makes duty to one's kin almost take the place of love—he knew that the tragic ending of the cruel old miser would be deeply deplored.

Thoughts like these flitted through Philip's mind as he stretched the withered form in the shade of a giant cottonwood. Covering the face with his own jacket, he mounted his horse and rode rapidly down the trail.

There was nothing to do but to break the news as tenderly as he could to Carmita; and then harness some mules and bring back to the 'dobe all that remained of the miser.

"It is even as I thought, Philip," said Carmita quietly, as she slowly brushed the big tears from her eyes, "it is even as I thought; and may Heaven have mercy on his weakness and forgive his sins."

Excitement ran high on the mountain when the news got abroad that old Eugene had been found dead in the ground-sluices by Philip Garrick. Miners, prospectors, vaqueros, and cattlemen for miles around flocked to the 'dobe and to Bear Flat, the scene of the tragedy.

Various and conflicting were the opinions and theories entertained as to how old Caillo met his death. He had been laid in his grave a fortnight before theory and opinion took the form of direct suspicion and denunciation.

Then the storm brewed by villainy and fostered by ignorance, greed, and superstition, burst, spending the full fury of its wrath on the unsuspecting heads of Carmita and Philip Garrick.

CHAPTER VII.

The Breath of Suspicion.

SHOW me an ignorant man, and I will show you a coward. Show me a brutal man, and I will show you a villain. Gormley was all of these.

Poisonous as a rattlesnake, vindictive and subtle as a blackmailer, smarting under the great disappointment to secure, through Carmita, the gold of Eugene Caillo, and stung to madness by the girl's calm contempt for him, Gormley had remained as quiescent as an anaconda waiting for its prey.

But now, behold—fate or his own hand had brought the prey within reach of his fangs.

Very insidiously, very cautiously, had he set his poisonous tale afloat, giving such bold and compact reasons, and using the casuistry fate had placed in his hands with such discriminative skill, that almost before he realized it the whole mountain and neighboring towns were aflame with the most ignorant suspicions against Carmita and Philip.

"Not that we can ever bring them to justice—oh, no," he said. "They have managed the job too cleverly for that. But it is only fair to yourselves not to care to mix with murderers, even though one be a mighty fine-looking girl and the other the owner of the best ranch in the hills.

"It doesn't take a wise man to see that they are the only ones who could be benefited by that old miser's death, and, depend upon it, it was Philip Garrick's arm that sent old Eugene to his last account—although, of course, we may never prove it."

All this he would say to bind his denunciatory remarks of Carmita and Philip as he rode through the country burning the torch of a dastard vengeance.

To Carmita, the shock caused by these suspicions came as a blast of wintry winds to a rose-garden.

When Philip told her, she had no word to give him in reply. A face, whiter than his own, turned mutely to him, with a wild, questioning appeal in her frightened eyes for the explanation he could not give.

A will, attested and signed, bearing recent date, had been found in the iron-bound oaken box, where the old miser kept his papers.

It bequeathed all he possessed, without reservation: "To the daughter of my dead sister, Madelon Carmita Arcana."

With the will was a paper containing descriptions and rude diagrams, accurately locating the place of concealment of old Caillo's treasure.

Philip read to the end the contents of both documents, and, without a word of comment, placed them in Carmita's hand.

A tremor passed over her when she touched the parchment. Bursting into tears, she flung her arms round her lover's neck, and sobbed convulsively. Then she was strong again. Quietly drying her eyes, she returned the papers to Philip.

"Nay, my Philip, give not to me these writings, the unholy worth of which has already sought to make Carmita accursed. Hide them once more from all men's eyes in the black secrecy of my uncle's strong-box, and there let them lie uncared for and unheeded until the morning sun brings back that day when you and I are free from taint to all the world."

CHAPTER VIII.

The Parting.

AND now, once more, spring had come back, and the first fair flowers of the year were blooming on old Eugene Caillo's grave: Apache, ready saddled, stood under the fig-trees before the 'dobe, waiting to bear his master away.

A few months before Gormley had suddenly left Bear Flat.

"Oh, Carmita, think ere it is too late. Is there no other choice left me than this? Let the law make you mine in name as love has made you mine in soul. Then will my going have no terror for me."

Into the grand, serious eyes of the girl came a light of quiet heroism that made them luminous as tropic stars. With the movement of the rich, undulating grace habitual to her, she approached Philip, wreathed his neck with her arms, and, pressing her lips to his, looked into his face and said, with the calmness of absolute passion:

"My beloved. Oh, my Philip. If I could only die for you. Help me to try to live. There will be no light for Carmita's eyes, no gladness for her heart. Day and night she can only work and wait and pray.

"Philip, this is love. Carmita's heartache, Carmita's life is nothing; but you, my beloved, you are all. Through all your ways, in waking and in sleeping—there will my heart be. Thou wilt think of me, here by the mountains in body, but thy soul will tell you Carmita has no life but where you are. I am strong enough to smile upon your going. I am strong enough to put away the heaven of your arms for the honor of my love for you—for the honor of your name."

When the sun set and the first stars were smiling on the rich valley-lands of Rosalia, Philip Garrick rode wearily through the little town with no response in his heart to the soft, languorous passion of the guitars that fell so dulcet on the air.

There was music and dancing in Rosalia. Lights were gleaming from every rose-bowered piazza and every house. Merry voices, shouting, laughing, and singing in the sensuous Mexican patois reached his ears as Apache cantered slowly through the streets redolent with the breath of orange-blossoms and countless roses.

There was music and dancing in Rosalia—but under the shadow of Mount Whitney, in the lonely kitchen of the old 'dobe, a girl with a white, set face, and a brave light in her eyes, knelt before the cross that was her mother's and whispered one name:

"Philip."

Anger, fierce in its righteousness, vengeance relentless in its pitilessness as a Corsican's, filled Garrick's veins, when the first breath of their evil suspicion had reached him touching Carmita.

For himself, he cared nothing what they thought or said. His strength to defend himself lay in the muscles of his right arm, and there was no man on the mountain who failed to hold them at their worth.

But Carmita! It was as well to hold the snow-flower corrupt or the fawn on the mountainside a conspirator.

Resolutely, methodically, untiringly, he went over every incident connected with the last days of old Caillo, with truer fidelity than a trained detective. He spent his money lavishly and in the right places, and was not long in tracing to Gormley the origin of all.

First there was the miner's protestation of love, and his repulse with ill-concealed loathing by Carmita; his threat of vengeance, and his mysterious and ominous silence.

Then, since the superintendent had so suddenly left the mountain, Philip had proved, by two reliable witnesses, that Gormley had ridden to Bear Flat on the day preceding the murder, in the endeavor to secure a loan to pay off his men. He had failed, but it was apparent to Philip that he must have been the last man to see the old miser alive.

Finally, while searching the ground-sluice at the place of the old man's death, Philip had found the torn fragment of an overall bearing the stain of blood and matted hair.

Closely examining the iron bar, he had little difficulty in tracing the blood-stain which had been hastily wiped from it by the piece of overall, and, as proof corroborative, partially buried in the sand, he drew forth to his eager eyes a small magnifying glass such as are used by prospectors, stamped with the initials "J. C. G."

Next to his love for Carmita was the fierce happiness of his coming vengeance.

"Carmita," he said almost exultingly, "the world is too narrow to hold the life of that murderer and my life, and when I reach him, beloved, then will Philip Garrick give back to him such mercy as he gave to me and mine."

After a month's time, he wrote thus:

> As yet, there is nothing with me but your love and hope.

Still later:

> It may be there are now twice a thousand miles between you and me, Carmita, but I had traced the villain to this far north-land, only to reach here and find he had doubled, and is now traveling southward, but justice and your love go with me, and I shall find him in the end.

All through the golden summer-time came the letters, alternating with success and disappointment, but never losing hope.

At length, at the close of a bright, crisp day early in December, a stranger came to the old 'dobe, riding straight from Rosalia, and handed to the patient Carmita a yellow envelope which held a telegram from the city of Carnullo—from Philip Garrick to Carmita Arcana.

It bore these words: "I have found Gormley."

Carnullo was to the southwest what the fair city of Paris is to France—its metropolis. The smallpox was raging there. Each night the people lifted their eyes to the brazen, cruel skies, and prayed for rain and the breath of the salt wind from the sea to banish the pestilence. But neither the wind nor the rain heeded, and despair succeeded terror.

At the beginning of a hot, sultry night, when the skies seemed one mass of seething, molten brass, Philip Garrick knocked at the outer gate of the city's pest-house.

"You have within a patient named Gormley; I wish to see him," he said to the attendant who answered his summons.

"I am sorry, sir, but it is impossible," replied the attendant.

"Nothing is impossible to an earnest man, my friend," said Philip, quietly interrupting him. "Here is gold. Admit me to Gormley."

The man trembled violently, and began to waver. Before him was more than a year's pay. Surely, it were worth braving detection.

"If you were some very near relative, sir," he stammered, "I might, from my pity for you, risk losing my place, for the patient you speak of is very bad, and without wishing to hurt your feelings, sir, may not recover."

A smile of double meaning flitted across Philip's white face as he placed the purse in the man's ready palm.

"Content yourself," he said. "I am his brother."

Around him was death in its most hideous,

loathsome form. The air he breathed was death too horrible even for thought. But the shadow of the smile still rested on his white face, and the steely gleam played in his blue eyes. He was not thinking of death; he was not thinking of anything.

He was beginning to feel his vengeance.

The room was absolutely bare—absolutely merciless. Through the open windows came the brazen glare of the sky and the noise of the "helpers" moving coffins. On a rude bed in one corner, naked and covered only with a sheet; tossing and writhing in the agonies of death, lay Gormley.

Philip almost trembled. He was afraid he had come too late.

The attendant entered with pen and ink, which he placed on a small table, and then retired.

Crossing to the bed, he touched the dying man before him, saying:

"Gormley! Gormley! Call back your senses once more, and look. Yes; I am Philip Garrick."

Again the smile flitted across the white face, and the gleam of steel shone in the blue eyes.

The effect of the words and the tone of his voice on the writhing wretch on the bed were as a powerful electric shock.

The bulging, distended eyes stared blankly into his; the swollen, distorted mouth made a wild effort to speak—at last finding words in:

"Fiend! have you come to taunt me with the murder of Eugene Caillo?"

Philip trembled. Bitter, cruel, merciless words were on his lips, but, ere his tongue gave them utterance, he seemed to see there before him, in the midst of the pestilence, the pure face of Carmita.

Following the desperate helplessness of Gormley's question, he seemed to hear her last brave words to him, "Thou wilt be merciful, my Philip, even as we all need mercy." Love was stronger than vengeance. Bending once more over the dying man, he poured into his throat a potion which had its effect at once.

"Gormley, listen," he said in a softer tone and with the smile gone from his face and the gleam from his eyes.

"I came here to gloat over your death; I remain to help you save your soul. Death is almost with you, no power on earth can stay its coming. It is needless for me to tell you that I have proof absolute of who killed Eugene Caillo; therefore, death is your kindest friend.

"You know the wrong you have done the innocent. You told Carmita you loved her. Let your last act be to help secure your eternal pardon. Repair your wrong to Carmita. See! Here are pen and ink, and here is a paper known to no eyes but mine. You know me, and you know I do not lie. This paper is a simple confession made by the man who killed old Caillo. I want you to sign it."

His staring eyes were getting dimmer, his breath came with a sickening gurgle, but the spark of divinity latent in all humanity brightened him, and he took the pen in his black and swollen fingers, scrawling the name, "James C. Gormley," and, without a word, fell back on the pillow, dead.

Philip had found his vengeance, and its taste was as dead sea fruit.

"You have earned your reward," he said to the attendant, "but he is dead. Here is more money—let him be buried with the respect due a man."

He went to an obscure lodging, bathed, and changed his clothing; thoroughly fumigating in sulfur fumes the parchment that held the precious confession. This he placed in an air-tight cylinder, and concealed it on his person.

Late that night the wire flashed to Rosalia, and, with the dawn of day, a special messenger bore over the mountains to the old 'dobe these words: "I am coming home. Philip."

(To be continued.)

Early Railroad Days In New England.

BY CHARLES FREDERICK CARTER.

BESIDES enjoying the proud distinction of having operated the first railroad in America, it is also the boast of New Englanders that no other part of the country is able to show the same degree of development in early railroad construction. The land of the Pilgrim Fathers may well be termed the birthplace of American railroads, for, with a few exceptions, most of the first attempts at operating wheeled vehicles on a track were fostered there.

It is true that the cautious Yankees were a little slow to put their money into such a new and venturesome project, but they soon discovered that the railroad had come to stay and was destined to be a sure dividend-earner.

Some of the practises of these early railroaders will bring smiles to the present-day railroad men to whom such stunts as a brakeman setting out on foot to locate a missing train or a station-agent having to keep the right-of-way clear of snow in winter are scarcely in the realm of probability.

When Every Train Had Two Conductors, and Agents, After Selling Their Tickets, Went Out and Collected them from the Passengers, and Locomotives Could Haul Five Cars.

CONSIDERING the Yankee's reputation for ingenuity, it is not to be wondered at that New England is credited with the first railroad ever built and operated on this side of the Atlantic. The formal opening of this pioneer line, the so-called Quincy Granite Railroad, was an event of some importance, which drew a considerable crowd of spectators.

Some were there who had been to England, where they had seen some of the colliery tramways then in use. These learned travelers pleased Gridley Bryant, the builder of the line, by telling him his railroad was quite as good as any in England. It makes this event seem very recent to learn that the man who drove the first team, or rather the first horse, on this first American railroad was still living at Chelsea, Massachusetts, as late as August, 1893.

Lewis Cheney, this original railroad man, in spite of his eighty-five years, had a very clear recollection of that historic opening-day in 1826, and he loved to tell how the crowd gaped when he cracked his whip and started the horse which drew the first load of sixteen tons of granite for the Bunker Hill Monument on three wagons, weighing five tons.

The road was slightly down-hill all the way from the quarry to the river, which helped the horse without detracting anything from the amazement of the crowd.

Some of the more impressionable spectators, who saw the horse driven by young Cheney walking off with a load of twenty-one tons, thought that in time railroads might amount to something, but it would hardly have been in keeping with the Yankee reputation for shrewdness if such radical views had been accepted implicitly on such slender evidence. New England, in fact, ac-

cepted the railroad with strong mental reservations.

When the innovation got into the happy hunting-ground of the Legislature, which it soon did, it excited the most intense alarm. Lawmakers had not then learned what a blessing a railroad bill of any kind can be to the politician who knows how to manipulate it skilfully.

This first unwelcome intrusion of the railroad in the State House was in the form of a resolution to the effect that a railroad from Boston to the Connecticut River would be of public advantage. Upon this innocent assertion the conservatives jumped with shameless disregard of the Marquis of Queensberry rules.

"Pass this resolution," shouted one of them, his face red and moist with excitement, "and who can predict the consequences? If we should say by our acts that such a work would be of advantage, who can say that some daring agitator may not arise and put the idea into practise? If such a work should be undertaken, the public credit would be overthrown, and every dollar of property in the Commonwealth would be in jeopardy."

The First Surveys.

After fierce opposition, the resolution was adopted by a majority of one vote. The forebodings of the minority, which came so near being the majority, proved to be only too well founded; for, after a great deal of discussion in the newspapers and in pamphlets, a daring agitator did induce the Massachusetts Legislature to authorize the appointment of a board of commissioners to cause surveys to be made for a railroad route from Boston to the Hudson River at or near Albany.

A large part of the route was surveyed that same year, to the infinite delight of the inhabitants. Not only on that survey, but for several years afterward, the country folk would turn out in a body and follow the surveying parties all day long, manifesting the liveliest interest in every move.

The engineers, like all their kind in those early days, were self-taught. Their equipment was very scanty, usually consisting of a pocket compass, and perhaps a level, and one of those heavy old iron chains, which were better suited for logging than for surveying.

The axmen with the parties, young farmers hired for the occasion, lost no opportunity to air their knowledge of engineering. One of the early engineers relates that one day he overheard an axman explaining to a group of inquisitive Yankees that the engineers found the distance across a river by measuring along its bank.

"But haow kin he figger it aout that way?"

"By logarithms, ye darned fool!"

How a Railroad Was Run.

The next Legislature authorized the appointment of a board of directors of internal improvements, consisting of twelve members, and appropriated money to finish the surveys and provide for plans for a railroad. The survey to the Hudson was completed, and three lines were run from Boston to Providence. In a report to the board of directors, published in 1829, Daniel Treadwell and his associates recommended that both roads should be built by the State. In trying to make the directors understand how a railroad was run, Treadwell said:

"Let us take an example of a railway which we will suppose to be one hundred miles long, and on which coaches to travel nine miles and freight-wagons to go three miles an hour enter upon their journeys at both ends of the railway at intervals of twelve hours only. The wagons in one direction must meet those of an opposite direction at distances of sixteen and two-thirds miles from either end of the railway, after allowing twenty-six minutes for rest, feeding and changing horses at each interval.

"The coaches would meet the opposite coaches midway; and they would meet trains of wagons at the distance of twenty-five and seventy-five miles from either end of the railway. There would then be eight points of meeting on the hundred miles, at each of which a siding or passing-place must be provided; and it must be evident that if the carriages arrive within the prescribed time, the passing would be effected without the least difficulty. Should a train of carriages arrive at a passing-place before the prescribed time, it would only be necessary that they should wait for the opposite train to arrive, when they would enter on the next stage of their journey."

Notwithstanding this lucid explanation of the *modus operandi*, the Legislature refused to invest any public funds in such a revolutionary venture. However, there was no objection to authorizing private individuals to fritter away their money that way, so several

charters were granted. They came to nothing, for no one would risk a dollar on railroad building. The Yankees were too shrewd for that.

Money-Back Stocks and Bonds.

The railroad cranks were so persistent that they returned to the fray at the summer session of 1831. The charter of the Boston and Lowell, granted in 1830, was amended to make it more attractive to possible investors, and the Boston and Providence and the Boston and Worcester Railroads were chartered.

The capitalists of that early day peremptorily refused to have anything to do with so crazy a scheme as a railroad; but by this time a few credulous business men of modest means could be found who ventured to put down their names for small amounts of stock. In popular parlance, though, there was a string to the subscriptions, for the subscribers reserved the right to back out if they did not like the outlook after receiving the reports and estimates of the engineers.

Surveys were vigorously carried on during the season of 1831. Next year the organization of the Boston and Worcester was completed, the subscriptions were made final, and in the autumn of 1832 contracts for construction were let. In the summer of 1833 track-laying was begun. The first nine miles from Boston to West Newton were opened April 13, 1834. By July 10 the track was extended to Needham, thirteen miles farther, and by November 18 of the same year to Westboro, a distance of thirty-two miles.

Soon after the line was opened to Needham the first locomotive built in New England was delivered to the Boston and Worcester.

"This locomotive," said the Boston *Advertiser*, "was built by Mr. Boulton at the Mill Dam Foundry in this city for the Boston and Worcester Railroad. The 'Yankee' is modeled after an English engine imported for the Lowell road, and takes regularly a load of forty tons in forty-seven to fifty minutes. It has made one mile in two minutes, three seconds.

The first train ran into Worcester, forty-four and five-eighths miles from Boston, July 3, 1835, and three days later a train-load of Bostonians made the run to Worcester in the remarkably fast time of three hours, to take part in a celebration of the completion of the road.

The construction of this line used up all the money that could be raised in Boston for railroad construction. The capital for the Boston and Providence was obtained in New York, while that for the Boston and Lowell was provided by manufacturers in the latter city. Both roads were completed in June, 1835, just a few days before the Boston and Worcester.

With the exception of the Norwich and Worcester, also completed in 1835, no further railroad building was attempted in Massachusetts for some time. The canny Bay-State folk concluded to wait and see how the railroads turned out before risking any more time and money on them. They were not to be carried off their feet by any spectacular performances, either.

Two Anti-Railroad Towns.

As late as 1842, when the Old Colony Road was first proposed, the opposition to it was strenuous, particularly in Quincy and Dorchester. A meeting was held at Quincy to fight the railroad, at which it was pointed out that a railroad to Boston would affect the price of oats, and so injure the farming interests of the town besides "breaking up Mr. Gillette's business."

Mr. Gillette was the proprietor of a stage-coach, which daily took six passengers to and from the city. Dorchester sent a committee to the Legislature to oppose the charter with every means at its command and thus prevent "so great a calamity to our town as must be the location of any railroad through it."

If it couldn't do that, the committee was instructed to try at least to have the road pass through the outskirts of the town. The efforts of the committee failed utterly. Mr. Gillette's business was ruined just as had been predicted, and the landholders of both towns found their property soaring in value from $75 an acre to $5,000 an acre, in spite of all they could do.

Record-Breaking Locomotives.

Meanwhile, the railroads were fighting their way in the face of strong opposition. Those first Massachusetts roads had only been in existence three years when they were visited, early in 1838, by J. Knight and B. H. Latrobe, the Baltimore and Ohio engineers, who were making a tour of all the American roads then in existence, in search of pointers to be applied in the conduct of their own road.

For their benefit, the Boston and Lowell folk trotted out the locomotive "Patrick." This iron monster weighed 8 1-5 tons, had cylinders 11 by 16 inches, a single pair of drivers 5 feet in diameter and carried a steam pressure of 70 pounds. On January 18, 1837, the "Patrick" had achieved the remarkable feat of hauling 32 open cars weighing 3,800 pounds and 5 covered cars weighing 5,000 pounds each, with loads which brought the total weight of the train up to 179 tons, a distance of 26 miles in two hours and fifteen minutes.

How the Pasteboards Were Handled.

The heaviest grade on the line was 10 feet per mile. This was the record for a locomotive of its weight, but the "Stonington," which weighed a trifle over a ton more than the "Patrick," and having larger cylinders and smaller drivers, hauled a train of 49 cars, making a load of 234 tons, 26 miles in 51½ minutes.

The rolling stock owned by the company early in 1838 consisted of 6 locomotives, 27 passenger-cars, 3 baggage-cars and 99 "burthen" cars. Ten miles of the track was laid with H rails and 26 miles with fish-belly rails. The "General Agent," at a salary of $3,000 a year, was the chief executive in charge of everything. The laws of Massachusetts required a brakeman to each two passenger-cars. The brakemen got $30 a month, and it also took two conductors at $45 a month to run a train.

This plan of having two conductors to a train was not peculiar to Massachusetts. On the New Jersey Railroad, in 1838, two conductors were required on a passenger-train of six four-wheeled cars and a baggage-car, which made the run between New Brunswick and New York at the rate of twenty miles an hour. One conductor went through the train and sold tickets to all passengers who boarded it at way-stations, while the other followed and collected them.

The selling conductor was furnished with a supply of tickets every morning. In the evening he turned in his cash and unsold tickets. Only the terminal stations, at New York and New Brunswick, could afford the luxury of ticket-agents, but "Superintendent of Transportation" George L. Schuyler declared over his signature, December 2, 1837, that the double conductor scheme had been tried for two years and had given satisfaction.

On the Long Island Railroad, at the same time, "ticket-masters" instead of agents, at $700 a year, sold the tickets and kept a record of the receipts, the name of the locomotive, the number of cars and passengers, the starting time and amount received for baggage and other details. At that time passengers were allowed fifty pounds of baggage free, while excess baggage had to pay two and one-half cents a mile for each hundred pounds.

A conductor, also at $700 a year, collected the tickets. The engineer on the passenger locomotive, which burned a cord of wood that cost $4.75 in running forty-eight miles and required daily two dollars' worth of repairs, received two dollars a day. His fireman and the brakeman each received half that sum, which simplified bookkeeping, for thirty days simply meant thirty dollars.

But to return to the Massachusetts railroads: Each road was operated by its own code of rules, regardless of what its neighbors did. For example, the rules on the Boston and Worcester required a freight-train to wait at a meeting-point forty-five minutes for the opposing train. If it had not arrived at the end of that time, the conductor was to take the engine and go and find out what was wrong.

On the Boston and Providence a train was required to wait fifteen minutes only at meeting-points. Then, if the opposing train didn't show up, a brakeman was sent with the "sign of a brakeman," which was a blue flag, to hunt up the tardy train. If at the end of another quarter of an hour neither train nor brakeman had appeared, the waiting train was to proceed with due care and prudence. If a train was delayed on the road for thirty minutes, the rules required that a brakeman be sent ahead with a blue flag.

Odd Practises of Early Railroaders.

In those early days the station-agent was no mere *bric-à-brac*. He had to do something for his salary. On the Boston and Providence, where the agents were dignified with the title of "master of transportation," they had first to sell the tickets, which were lettered like theater tickets now, with the cars labeled to correspond.

And then they went out and collected them, with the assistance of the conductor, while the train waited at the station. It was no sinecure, either. One train on September 5, 1837, carried 233 passengers, making the run of forty-one miles from Boston

to Providence in two hours and thirty-five minutes.

On the Boston and Worcester the locomotive department was under the immediate charge of the "depot-masters," otherwise the agents, who were held responsible for the good condition of engines and cars, and who were required to expedite the movement of trains and give orders to the enginemen.

In case of accident, it was the "master of transportation," not the conductor, who was required under the rules to take the necessary steps to get the disabled engines and cars on to the nearest turnout and open the line again. But it was in winter that the agent got what was coming to him. In an order, dated December 5, 1836, J. F. Curtis, superintendent of the Boston and Worcester, thus lays down the law:

"During the present winter it is expected that the road will be cleared of snow principally by engines and snow-plows, and the services of snow contractors will therefore be dispensed with unless specially called upon. The agents at the depots are expected after a heavy fall of snow to turn out with a horse and scraper and a few men and pass over the track from one depot to the other, to wit."

The Duties of a Station-Agent.

Here follows explicit instructions, defining the limits within which each agent is responsible for cleaning the track. The order then continues:

"The proper team will consist of two horses and four men. It is especially necessary to turn out promptly after a wet storm of snow and rain, as severe cold usually follows. Last year the road was closed for a week for want of a few hours' labor at the right time. Activity and energy on the part of agents will be duly appreciated by the corporation."

Engineers, too, had to do something for their two dollars a day. They could not show up at the last minute before leaving-time wearing kid gloves and a cigarette and turn their engine over to a hostler as soon as they came to a stop at the end of their runs.

When they were not on the road they were expected to tinker up their machines. Here is an extract from the rules for their guidance on the Boston and Worcester:

"No engineman will be employed who does not feel and show by his conduct regard for the interests of the company by taking great care of his valuable machine, examining her closely, seeing that she is kept in fine order, well oiled and fit for the road, and when out being careful how she is run."

And maybe they didn't teach the fireman his place. The Boston and Lowell preferred common hands at a dollar a day for firemen, because they were less likely to aspire to become enginemen. Such men were supposed to be more content with their pay and their jobs than mechanics possessing a knowledge of the engine that would fit them to take charge of it.

The First Railroad Organization.

After they had once got started, the New England railroads and the men who operated them made wonderfully rapid progress for a time. New England railroad men were the first in the world to appreciate the benefits of organization. The first of all railroad organizations was proposed at a preliminary meeting held April 5, 1848, in Boston, at which Isaac Hinckley, Charles F. Gove, Onslow Stearns, S. H. P. Lee, William A. Crocker, George Haven, Luther Haven, John Russell, Jr., William Parker, William Raymond Lee, Waldo Higginson, Charles Minot, and S. M. Felton were present.

At a second meeting, held on May 3, 1848, the organization was formed under the name of the "New England Association of Railroad Superintendents," with charter members representing twenty-five railroads.

This organization, at its meeting October 24, 1849, for the first time in the history of the railroad, took steps to adopt a standard time instead of local time for the movement of trains. A resolution was adopted in which it was declared that the association was "sensible of the great importance of a uniform standard of time upon railroads in New England." The time of a meridian thirty miles west of Boston was adopted as the standard, and this time was put into effect on fifteen railroads November 5, 1849.

Meanwhile the Western Railroad, which was to form a part of the line to the Hudson River, chartered in 1833, was growing slowly. The first sixteen miles were graded in 1837, and the first train ran into Springfield October 1, 1839. On September 13, 1841, the road was completed to Washington Summit. The western end of the route, under the name of the Albany and West Stockbridge Railroad, was completed from Greenbush, across the river from Albany, to Chatham Four Corners, a distance of twenty-three miles, December 4, 1841.

By using fifteen miles of the Hudson and Berkshire Railroad's track, a through route between Boston and the Hudson was established. Nine years after first breaking soil, through trains were running over this two hundred miles of road, crossing a summit at an altitude of fourteen hundred feet above sea level in ten hours and forty-five minutes.

An Influx of Lines.

Other roads were growing in every direction, not only in Massachusetts, but in Vermont, New Hampshire, Maine, Rhode Island, and Connecticut. In 1851 Massachusetts was the proud possessor of seven trunk-lines and other railroads, amounting in the aggregate to 1,411 miles, representing a cost of $60,992,183. In 1850 they carried 8,973,681 passengers and 2,500,000 tons of freight, earning $7,445,961.

Every one of the thirty-two towns of 5,000 inhabitants or more in the State had one or more railroads, while seventy-three out of ninety-eight towns having a population between 2,000 and 5,000 were on railroads. A police count made by order of the city marshal showed that on September 6, 1851, 116 passenger-trains, carrying 11,963 passengers, arrived in Boston, and 120 trains, carrying 12,952 passengers departed.

For twenty years' work, this was a pretty good showing. And this wasn't all, for these Massachusetts railroads made connections with 2,420 miles of railroads outside the State, which had cost the builders $91,749,035. All these roads brought trade to Boston, which was the basis for an era of prosperity unparalleled in the history of the city.

Boston's Railroad Jubilee.

Under the circumstances, Mayor John P. Bigelow and the city council, with the cooperation of the rest of the city, felt warranted in arranging for a railroad jubilee on September 17, 18, and 19, 1851. The specific excuse for this jubilee was the opening of railroad communication between Boston and Canada. In his proclamation, dated August 1, 1851, fixing the time for the jubilee, Mayor Bigelow felicitated Boston upon the fact:

"The several lines connecting us with Canada, northern New York, the Great Lakes, and the Far West are now complete, uniting us by railroad and steam navigation with thirteen States of the Union, comprising an area of 428,795 square miles, the two Canadas, the lakes with their 5,000 miles of coast, and bringing within our commercial sphere a population of 10,000,000 inhabitants."

A committee of seven, led by Francis Brinley, president of the council, was sent to Toronto to invite the Earl of Elgin and Kincardine, Governor-General of Canada, and other dignitaries and leading citizens of Toronto, Montreal, and Quebec to attend the jubilee. The committee, starting August 9, went by way of Northfield, Vermont, and Rouse's Point to Ogdensburg, covering the four hundred miles at an average speed of twenty-two miles an hour, including stops. From Ogdensburg they went to Lewiston, Hamilton, and Toronto by steamer.

Canada received the Bostonians hospitably, and heard of the coming jubilee with great enthusiasm. The committee returned home by way of Montreal and Quebec, reaching Boston August 21, after a journey of eighteen hundred miles.

Welcome Wearies the President.

The railroad jubilee was quite the biggest celebration ever seen in New England up to that time. President Fillmore, who had taken part in the celebration to commemorate the completion of the Erie Railroad from Piermont on the Hudson to Dunkirk on Lake Erie, on May 14 and 15 of the same year, attended, accompanied by Mrs. Fillmore, Secretary of War Charles M. Conrad, and Secretary of the Interior Alexander H. H. Stewart.

The Bostonians certainly did their best to make President Fillmore glad he came. A committee met him in New York, and escorted him by steamboat to Fall River. There a committee from the Legislature met him and welcomed him again. At Dorchester he was welcomed some more. Besides, the railroad track was sprinkled, so that the dust might not irritate the Presidential nose.

From Dorchester the party proceeded in carriage over a well-sprinkled road to Roxbury, where the President was welcomed again. He finally reached the Revere House in Boston at 2.30 P.M. on the 17th, and, after an hour's rest, was taken over to the State House, where Governor George S. Boutwell delivered the final welcome himself.

This surfeit of welcome was too much for President Fillmore, and he was unable to ride in the procession on the third day of the jubilee, which was to be regretted, because the prettiest girl in all Boston had been selected to present him with a bouquet. She was so flustered that she could not distinguish

between the President and the humbler citizen who had been selected to ride in the Presidential carriage, but addressed the proxy as "Mr. President."

A tent had been spread on Boston Common, in which a dinner, at which thirty-six hundred sat down, was given. Fillmore could not eat a mouthful, but he did manage to attend long enough to make excuses and say adieu to his hosts, after which he started at once for Washington. Lord Elgin was less fortunate, for he had to listen to speeches until after dark. As no candles had been provided, since the dinner began at 3.30 P.M., the orators reluctantly knocked off when it grew too dark to see their victims.

While Massachusetts was so busy being proud of her railroads, her neighbors over in Maine were working hard to establish a connection with Montreal. No other State in the Union is so deeply indebted to one man for its railroad system as Maine. That one man's name is known wherever railroads are known. It is mentioned, perhaps, oftener than that of any other man among those who have been connected with railroads. This Napoleon of the rail was John Alfred Poor, whose family has given its name to that greatest of railroad classics, *Poor's Manual*.

Poor's First Locomotive.

John Alfred Poor, a country lawyer from 'way daown East, happened to be in Boston in April, 1834, when the first section of the Boston and Worcester Railroad was opened. His inborn Yankee curiosity led him to go to see the event. The first locomotive in New England was imported from England, as was also its engineer. The latter was fully conscious of the dignity and importance of his position.

When the engine—an iron monster weighing eight tons, without any such superfluities as bell, whistle, sand-box, headlight, pilot, trucks, cab, steam-gage, water-glass, springs, injector, brake, or jacket—responded to the opening of the throttle and actually began to move, Poor said that his hair actually stood on end, and he forgot to breathe.

The sight, so he often averred, made the most profound impression his mind ever received in the course of a busy life. He was twenty-six years old at the time—old enough to take an intelligent and efficient part in the task of providing his country with the transportation facilities it needed, and he took up the task at once.

From that day until he died at the age of sixty-three he devoted himself, heart and soul, to the railroad. His reward consisted largely of the consciousness of a great duty well done, for he was not the kind of promoter who lines his pocket at the expense of others.

Maine was poor, and its people few, but a trifle like that could not discourage a man with the enthusiastic imagination and practical good sense of John Alfred Poor. In 1836, the first railroad in Maine, promoted by Poor, was opened from Bangor to Oldtown. That same year the Legislature provided for surveys to find the shortest and most practicable route from Belfast to Quebec, but nothing was done.

In 1839, a survey from Portland to Lake Champlain was authorized, but again nothing happened.

A Pioneer Promoter.

In 1843 Poor made public his plans for a railroad from Portland to Montreal, which now forms a part of the Grand Trunk, and for a second line from Portland to St. John and Halifax. For the next two years he went about addressing public meetings in behalf of his scheme, and he also traveled over the proposed route to Montreal. A company was organized, and surveys begun in 1844.

Boston had already started in the race for Montreal over three different routes, each of which had agents out soliciting aid. Boston had all the advantages, for it had the most people and money, being the metropolis of New England, and one of the greatest cities on the continent.

Portland then had a population of only fifteen thousand, and all its earthly possessions wouldn't have amounted to five million dollars at a liberal appraisement. The proud Bostonians sneeringly referred to Portland as a small fishing town.

But no city could be considered weak or helpless which had so energetic a champion as Poor. Boston was having everything its own way, and its agents in Montreal had nearly succeeded in winning Canadian support, when Poor, hearing how things were going, made a forced journey in a sleigh through the wilderness from Portland to Montreal in the dead of winter, arriving in time to prevent the board of trade from adopting a resolution in favor of the Boston route.

Portland Wins Out.

Poor's next move was to arrange for a race by teams with mail from Portland and Boston to Montreal, as a practical demonstration of

the superiority of the Maine route. The race, which was run with mails from the same steamer, resulted in a victory for Portland by the very comfortable margin of twelve hours. That settled it with the Canadians, and they adopted the Portland route.

The Atlantic and St. Lawrence Railroad Company, which was organized to build the American end of the line, turned the first sod at Portland, July 4, 1846, while the Canadians began on their end soon after. There was the usual difference of opinion about the gage.

Poor, being fearful that the more powerful interests in Massachusetts might gobble his pet road, favored the 5-feet-6-inch gage proposed by A. E. Morton, the chief engineer, chiefly because it had been adopted as the British government standard in India, instead of 4 feet 10½ inches, the gage of the Massachusetts roads. The broad gage was accordingly adopted, and this led to the adoption of the same gage for the Great Western Railroad of Canada.

Railroad building in the wilderness is a costly luxury under any circumstances, and altogether beyond the means of a small fishing town. In 1849 the company was short of funds, and ruin seemed inevitable. Poor came to the rescue with an idea, which was all he had to give. On his advice, the contract for building the whole line was let to Black, Wood & Co., at a fancy price, as the only means of salvation. The plan worked, and the road, two hundred and forty-six miles long, was built, the first through train leaving Portland for Montreal July 15, 1853.

To Shorten European Routes.

Poor, who in 1849 had bought the *American Railroad Journal*, founded in 1832, that he might the more effectively spread the railroad propaganda, and who in 1851 was elected president of the New York and Cumberland Railroad, redoubled his efforts in behalf of the line from Portland to Halifax, a trifle of eight hundred and thirty-five miles, in order to establish a short route from London to New York.

The completion of the Britannia tubular bridge over Menai Straits in 1850 enabled the London and Northwestern to run trains through from London to Holyhead, whence steamers crossed to Dublin in three and a half hours. The Midland Railway of Ireland, by the summer of 1855, was built half-way from Dublin to Galway, from which port it was only two thousand miles to Halifax. Poor thought the time would come when steamers could cross between Galway and Halifax in five days, and from London to New York in seven days.

A company, under the imposing name of the European and North American Railway Company, was accordingly chartered in 1855. The road was opened for traffic in 1871 with a great celebration in which the President of the United States and the Governor-General of Canada took part.

Poor's Prediction.

It must be confessed, however, that, as part of an international route, the road has not been a conspicuous success. Anybody who is in a hurry to-day can beat Poor's estimated time from London to New York two full days.

Poor did not fail very often, however. He had a better comprehension of the future possibilities of the railroad than most men of his day, as the following extract from a speech he made at Belfast, Maine, July 4, 1867, will prove:

"The coarser work of constructing the roadbed of railways is now understood, and we cannot expect any diminution in the cost of building it; but in the construction of the rolling-stock, in the quality of the superstruction, in economy of management, and in the supply of comforts to travelers, great changes are to take place.

"Wooden sleepers kianized or preserved in creosote will outlast the iron rail, if not maintain a life equal to that of the steel rail, which is gradually taking the place of the iron rail, being more than five times as durable. Steel boilers for locomotives will be found superior to iron ones, and cars will be adjusted with conveniences, comforts, and luxuries unknown at this day, enabling travelers to cross the continent without fatigue, and affording to business men facilities for carrying on communication by letter or telegraph while the cars are in motion."

A little authority makes some men as overbearing as the high rail on a curve.—Casuistries of the Fourth Ass't Roadmaster.

Commodore Vanderbilt's Tribute to the Railroads.

OVER the front of the old New York Central freight station at Hudson and Laight Streets, New York City, where the long trains laden with merchandise for the metropolis, and cargoes for the big European liners at their North River docks close by, are unloaded, the impressive statue and bas-relief of bronze erected by Commodore Vanderbilt, in 1868, to mark the progress of the railroads as commerce builders, still stands, time-worn and weather-beaten. It is a prophetic vision of America's pioneer railroad builder of the days that were to come, when the bulk of the traffic of a great nation would travel over rails of steel from one end of the continent to the other. The artist has grasped the idea of the first president of the New York Central with the hand of a master, and the picture in bronze, part of which we are glad to reproduce for our readers, is one that is full of power and symbolism. The central figure is that of Commodore Vanderbilt himself. Along the cornice of the station, on both sides, stretch locomotives, steamboats, and other products of the brain and forge which have helped to stimulate trade and bring progress and prosperity.

"BUT MINE WAS BETTER! MINE WAS MY FLESH AND BLOOD!"

"MY FLESH AND BLOOD!"

BY J. R. STAFFORD.

When the President's Car Was Run onto Siding 13, Unterburner Realized the Answer to His Question.

UNTERBURNER knew why he had been ordered to slip unnoticed through the yards to Hillis's private car. An investigation to ascertain why switchmen were always getting killed in Ruin Junction had been requested by the State Legislature. The president of the G. and T. had come in person to secure first-hand such thunder as he could to use against the railroad commissioners.

Though Unterburner considered an investigation all foolishness—he had run the switch engine in Ruin Junction yards every day for fourteen years—nevertheless he felt resentful as he plodded to the tryst. It was contemptible to go clandestinely about the defense of an honest position; so, in his own eyes his obedience was contemptible.

When at length he came to the car, which was on siding 13 with the forward trucks against a barricade of bolted ties, secure against running off down the grade, he felt more disturbed than ever about his summons. Moreover, the appointment seemed more like that of thieves than of honest men, for in the gloom of the smoke and fading day, the car was as dark as Egypt. However, he swung up onto the platform, and after five minutes spent in rattling the knob and thumping the glass panel, he succeeded in getting some one to open the door a crack, and ask: "who?" in a guarded tone.

He was quickly commanded to enter. He stumbled forward into absolute darkness.

The door closed softly behind him. There was a click, and the whole interior of the car seemed to explode in a blaze of lights. A young man with a wide, flat mouth looked up from his stealthy manipulation of the

thumb-catch under the brass knob and smiling craftily, as if this were a vastly shrewd achievement, whispered:

"Everything is on the q. t., here. When you get ready to go just pull the door shut easy. I won't be here; I'll be watching outside."

Unterburner, wishing that he might wring the fellow's neck, turned the other way.

President Hillis, seated at a little flat desk, smiled up at him. Hillis was bulky—his features were coarse, and his eyes were dull. He suggested some ponderous slow monster apt to crush unwittingly. Yet, suddenly his eyes narrowed as if to shrewdly say: "Now I have you!"

He waved with surprising ease to a chair.

Unterburner did not sit down. It made him uneasy to think of sitting in such a presence.

"Now," said Hillis, apparently heedless of the silent refusal, "what do you honestly think about the yards in Ruin Junction?"

There was an emphasis on "honestly" that disgusted the switchman. In retaliation for this and the whole dirty business, he would have lied if he could, but as fact was fact to him, and anything else impossible, he grudgingly answered:

"I think the yards are safe enough for men who don't get drunk and lose their heads. Of course, the sidin's all lay at grade, but ever'body knows that. They're paid to know that and keep it in mind. That's why wages in Ruin Junction are twenty per cent higher than they are in any other yard. But they don't keep it in mind. That's why they git killed. I know. I've been runnin' the switch engine here every day for fourteen year'."

President Hillis squeezed his hands together with a rasping noise and chuckled silently. Bending his head forward and dropping his voice to a very low tone he said:

"Good! Mighty good, Unterburner! By the way, the division superintendent here has been telling me that you've put in all these years here so that the extra pay might enable you to send your boy through college. The son of such a father ought to have a chance. I'm going to see that he gets one."

Unterburner would have given his body for a sure foothold for his son, but he shrank from this apparent gratuity of the ruler of the G. and T. He felt himself flushing as if under an insult, and he muttered:

"I'm much obliged to ye, but I guess ye needn't bother."

Hillis laughed uneasily. He studied Unterburner's face for a long time. Finally he said as if quite anew: "You are going to tell the commissioners just what you told me a little bit ago was your honest opinion of the yards?"

"Yes, I shall tell them what I honestly think." Then, as it dawned upon him that the offer had been intended as a bribe, he clapped his greasy cap onto his white head and started for the door.

"Wait a minute. You are not going to let any one know you've been down here."

"No," he choked, in his resentment, "I shall not. It might be said that I was fixed. That shall not be said about me, even as a lie."

Without a hint of leave-taking, he slammed the door behind him. Never in all his life had he been so deeply offended.

On his way home, as he sat smoking his pipe on the back porch, and later, as he tossed in his bed, he kept thinking about the incident. He finally dismissed it by making up his mind that he had done the proper thing, but even as he slept he dreamed dreams of anger.

Next morning, he decided to change his views concerning the yards—if that were possible. All of that day, as he steamed up and down the sidings, he watched for anything that might enable him truthfully to assert:

"This yard is dangerous even for an experienced switchman."

This effort, however, brought him nothing more than bafflement. Though switchmen missed couplings as usual, and, as usual, cars started to run off down the inclines, the men, always out of harm's way, would jump nimbly up the ladders and put on the hand brakes.

Not even a bumper beam had the dust shaken off it that day. Somehow, this proof of his life-time convictions about the yards displeased him. When night came he was suspicious of some crookedness.

As they were leaving the roundhouse, he overheard Hogan and Miller talking about extra pay. He stopped to ask: "Who's drawin' extra pay an' who's givin' it?"

"Did ye not know thot Prisidint Hillis's private car wor in the yarruds aal the noight?" Hogan demanded, with a broad grin, "Aan thot seein' it wad cost a pot av money should the commissioners rayquire the yarruds to be graded, his honor, Prisidint Hillis, is wisely spindin' a few dollars to have the yarruds kept fray av accdints?"

Unterburner was more disturbed than ever. He walked swiftly away from the pair. He

despised the company of such silly fools who would take money from the hands of Hillis for anything else than honest labor.

All the way home, he tried to twist out of this revelation some argument that might arm him for attack on the yards, but the only thing he could see in it was just the thing he had always said and believed: that nothing would ever happen to switchmen if they only had something to make them keep their wits.

Realizing that his own statement had suggested to Hillis the plan of extra pay, his anger almost choked him. More than ever, he wanted to do something against that man. The rage that comes of helpless anger possessed him when he felt that all he could say about the yards would be just what Hillis would say.

"YOU ARE NOT GOING TO LET ANY ONE KNOW YOU'VE BEEN DOWN HERE."

The next day, as he sat brooding in his cab with an hour of idleness before him, he still saw himself between the devil and the deep sea, and he was anxious to get his mind onto anything else.

A smooth-looking young man came alongside the engine. He had a pad of paper in his pocket, a camera tripod under one arm.

"Is your name Unterburner?" he asked.

"Yes. What do you want o' me?"

"I am a newspaper man. I want to get your picture and then some of your experiences in the yards."

"Who sent you?" Unterburner thought the young man's ears lay too close to his head, but, thinking of his son who was about the age of this fellow, he would be kind to him if it were possible.

"My boss," the other replied.

"And what if I do not let you?"

"Well, then I will have to go back."

"Will you get your pay just the same?"

"No, I am only a space writer. If I get the story and it's big enough to syndicate, I might make a hundred dollars. If I don't get it, I'll be out my time and expenses."

Unterburner thought it all over again. Finally he consented to the photographing and the interview, but when he had told his last story he still had some after-doubts and he asked: "You say that your boss sent you? Now, how did your boss happen to think of it?"

"Well, I can't say unless maybe he got it from President Hillis. I understand that President Hillis and the chief of the sheet I hang to are pretty close. Of course Hillis would want such a story. It might help a little with the railroad commissioners?"

"Then you must not print it." Unterburner objected quietly, not having had experience of the ways of young reporters. "I will not be talkin' to do that man any good."

The other, as if suddenly attracted by the sight of something in the gangway, edged into it and quickly down the steps to the ground.

"Come back here!" the engineman threatened. "Come back here!"

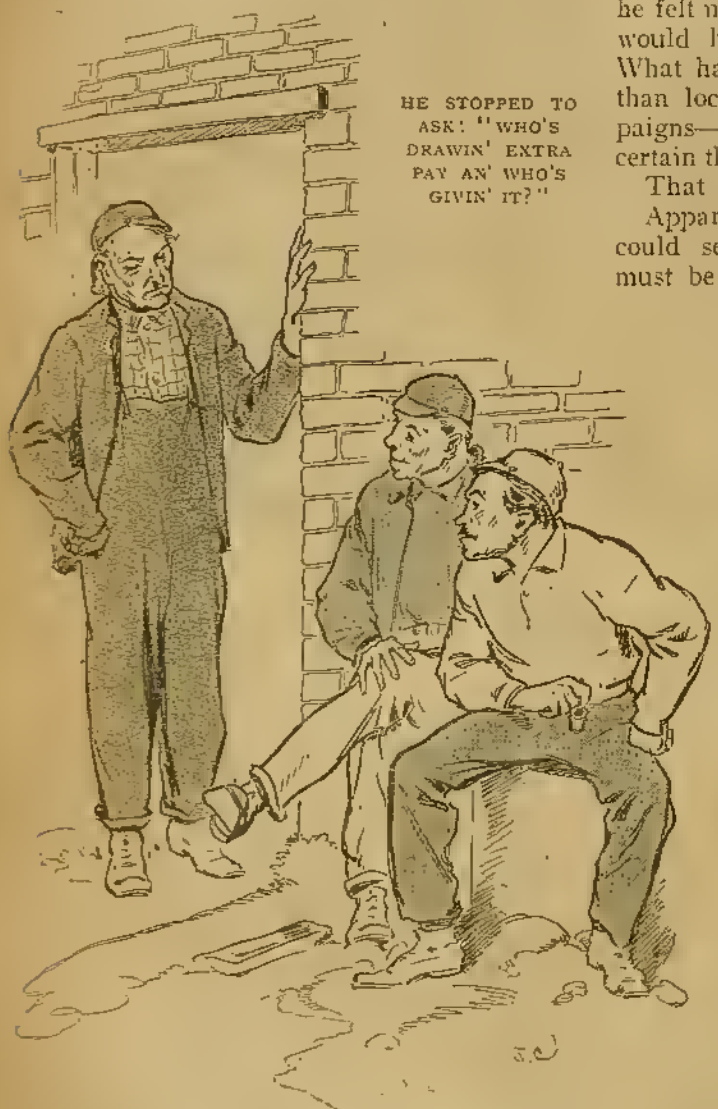
The one on the ground was already in full flight alongside the switch.

Unterburner caught up a wrench, intending to knock the fellow down; but, being on

the right-hand side of the cab when he faced the rear, he could not swing his arm effectively. By the time he had "cat-a-cornered" through the gangway and down the steps, and poised himself on the cinders, the runner was a hundred yards away. Nevertheless, he drew back and hurled the spanner with all his might.

The instant the iron left his hand, he realized that he had nothing at all against that mere boy. Though he knew that the latter was far out of danger, he felt his knees quaking and cold sweat on his body.

What if he had killed the lad! Like a flash, it came over him that all this, like all the rest, was Hillis's work. At the thought, his knees stiffened, he felt the cold sweat no more. Instead, his breath was coming hard and his fists were clenching.



HE STOPPED TO ASK: "WHO'S DRAWIN' EXTRA PAY AN' WHO'S GIVIN' IT?"

Slowly he made his way to where the wrench had fallen. More slowly he sauntered back to his cab. He was trying to discover a proper reason for the wish that it had been Hillis, and that Hillis could not have escaped. He knew that, for one wild moment, it would have filled him with keenest pleasure to have battered the president to death. As he had always had a great revulsion of murder, he was curious to know why he felt no revulsion at the thought of what he would have done had the chance offered. What had the official done? Nothing more than local politicians had done in the campaigns—offered him something for doing a certain thing.

That was all.

Apparently there was no difference—he could see no difference—yet he felt there must be a great one. He had been able to laugh at the ward-heelers, but the more he thought of Hillis the more tightly would his throat contract and his muscles jerk. Wondering at the significance of this, instinctively hating whatever it might be, he tried with all his might to drive it from his mind and heart.

For a couple of weeks he kept battling with himself and with his thoughts. He grew afraid, yet he knew his fear was only anger turned upon itself.

When the paper containing the reporter's story came, he pounced upon it, eager to see what it might develop in his brain.

The story, and the pictures illustrating it, covered a whole page. It was a good story. It made a hero of him. His wife, peering over his shoulder, read, and cried over the article.

But, instead of being pleased, he only experienced a great uneasiness. He kept asking himself, over and over again: "Now, what will come of this?" He knew it would be something hateful to him—and for this he hated Hillis.

When he returned from work, a few evenings afterward, he found his son—a fine lad, with eyes full of fire and a frame like a gladiator—awaiting him. Instead of the customary delight at sight of the youngster, Unterburner trembled from head to feet. He knew just what the answer would be, but he did ask:

"Why did you come home?"

"Mostly because of that article in the Sunday supplement. It made me want to come home to work in the yards, so that you might have it easier. And—and I would like to learn to do what you've done."

Unterburner's lips, which were always tightly closed when he wasn't speaking, now shut until they showed only a thin line. His eyes, that were always wide because of the great strain of his work, the strain of watching where failure to see in time meant death, now stared wider than ever.

He was thinking. This is the significance of it all. As his thought ran back to that night in the private car when Hillis had mentioned a chance for the boy, and *he* had refused the offer, it came to him that Hillis had designed it just as it had fallen. With a mighty oath, he wheeled out of the house and, running blindly down through the yards, came at last to division headquarters.

The yard-master, into whose arms he blundered at the door, looked up and asked: "What's the matter with ye, Unterburner? What's happened?"

"My boy has come!" He choked over the statement as if the fact implied some terrible consequence. "He'll be down here to ask ye for a job! Ye must not give it to him!"

"All right," the other promised. "I'll not hire him—unless, of course, something should happen to make me."

This was all Unterburner could ask, so he started for home. On the way he overtook Hogan.

At first the Irishman was unsociable; but at length he thawed enough to ask if the engineman had heard the news.

"My son came home," Unterburner replied, as if the incident were matter of public concern.

"Woosha! Phwat the divil do thot amount to? Th' sthory yiz had thim print in the paypers has caused the commission to lave be the invistigatin' av the yarruds. So the extra wages ended to-night."

Unterburner's heart thumped against his ribs. Things were coming fast now. He thought of his son, who had been strangely dragged into this net of circumstance, and he shivered.

But it was not a net of circumstance! It was the work of Hillis!

He panted under his fury.

When he reached the house, he could not bring himself to open the door. Retracing his steps into the yard, he walked up and down, trying to think what it was that must surely be coming.

He could imagine nothing more terrible than that the boy should get work in the yards; but, as the boy was not a fool, this was not so terrible. He could not rid himself of his thoughts, and all night long he walked up and down the narrow yard.

By morning, however, he had made up his mind. Entering the house, he found the others astir. He said to them: "I shall quit work. I am going down now to throw up my job."

"Ho-ho!" the boy laughed delightedly. "I didn't have any hope of you taking my plan so readily. I will go down with you. Perhaps they will let me have your engine."

"You shall not! We are going to leave this place! We must get away from here at once!"

"Are you crazy?" his wife asked, her eyes popping from her head. "Where would we go? What would we do for a house? We cannot sell this one, so there would be no way of getting money to buy another. We could not rent this one, so there would be no money to pay rent anywhere else. Unterburner, if you had ever done such a thing before, I'd think you had been out all night carousing. Have you?"

"No," he retorted angrily. "You know better than that. We've got to leave here. That's all."

"Why?" they both asked at once with sudden emphasis.

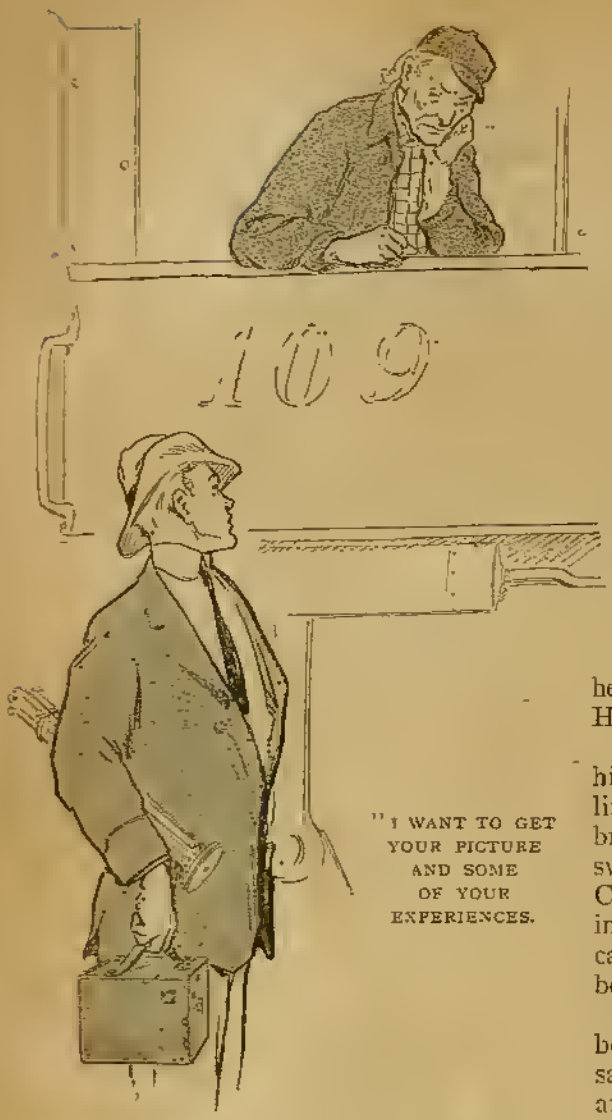
Though he knew that he could not answer, though he knew full well that his attempt to answer would only seem foolish, he plunged, then rambled on. Somehow he could not say the one thing he really wished to say: "I hate Hillis!"

He could not say that, because he saw no good and honest reason for his hatred.

Then, as they stood, open-mouthed, looking at him, he felt the hair prickle on the back of his neck, and a kind of cold contraction of his scalp, for the thought had struck him that he was playing a part in this awful thing that must come to pass. A foolish part, just as he had been now playing, but a part necessary to be played.

With a mighty resolution, he sought to throw it off. He would be a man. He would assert his unshakable unconcern of the things that could not strike him unless he blundered in their way. So he smiled as best he could and said:

"I was only joking. I was worried and could not sleep last night. So I feel foolish



"I WANT TO GET YOUR PICTURE AND SOME OF YOUR EXPERIENCES.

this morning. I will be all right after I get to work."

Even as he said this, he felt his heart leap and pound, and he knew that this intention was but another step in the way of the thing that would come to pass.

His wife, mistaking the reason of his agitation, smiled as she observed: "I knew you would go back to work."

This frightened him more than ever.

After breakfast, he hurried to the roundhouse. The climax was a certainty! At the end of every heart-checking cessation of his faculties, it seemed to him that his strength for the crisis failed. He would think of Hillis as the author of it all, and then he would grow gigantic in his will and power to slay. But then, after each panting struggle, as in his mind he had already done the deed, he would fall to wondering why he waited to destroy the man, whereupon the conviction always came that when the time did come he would be unable to play his part.

Why should he want the man killed? There was no reason—not the sign of a reason. At this he would seem to sink and sink; but, just as he was groveling to helplessness, something would whisper, "There will be a reason," and again he would tower and press his way with titanic stride.

Thus pausing, then running, stopping again, and bounding on, he came late to the roundhouse—but, late as he was, he was earlier than the switching-crew.

Automatically he backed his engine out onto the house track, and whistled the call for hands. Automatically, too, he saw the men come straggling along, their eyes red, their feet dragging. Somehow he seemed to know, as from years back, that they had been on a drunk because of the cutting off of the extra pay. He knew what must follow this.

It came twenty minutes latter. Donneley, his hands too nervous to unlock the main-line switch in time, missed opening it. The brakes would not hold back enough. The switch-engine, with Miller and Hogan and Campbell sitting on its buffer-beam, dashed into the end of a long string of loaded box cars. Miller and Hogan jumped, but Campbell fell under the wheels.

Then, like the march of things that had been coming to these moments for ten thousand years, he saw Campbell's body removed and carried over to the platform of the gloomy red station; a baggage-truck run out; the stained old sheet of gray canvas, tucked and carefully concealing; and, on the gray board underneath the truck and the canvas, he knew that the little brown puddles were growing drop by drop.

As that dark pageantry passed, another darkly significant took its place. The white-faced switchmen stood for a moment at the foot of the stairs leading up to the division superintendent's office. One slowly ascended. Presently he reappeared at the door. Behind him, Unterburner saw his own son.

Wild agony wrenched the heart-strings of the engineer. He would stop this accursed progress of inordinate sacrifice. But even in his resolution he knew that he would fail.

When they came alongside the engine he could only say to the boy, "Addicks promised me that he wouldn't hire you."

"Yes," the boy laughed, "but I asked the

superintendent about it and he said he had been ordered by President Hillis not long ago to let me have a job when there was a vacancy."

Unterburner struggled like a man bound. Feebly he threatened, "I'll quit the engine."

"Yiz will thin turn the ingin over to the b'y," Hogan observed. "I had that frum Addicks jist a minute ago, in case yiz tuk a notion to quit. It sames he has also been hob-nobbin wid the prisidint. It wor the prisidint's order."

Unterburner felt himself falling a thousand miles. His strength was going. Suddenly as he realized his unmanning weakness, he hurled it away. He would be himself. He must be himself. He would conquer it all in spite of all. What was there to unman him in the fact that his son was working by his side? The boy was no fool like other men. Like other men, he had eyes and ears and arms and legs and strength; and the wit to use them all when they were needed.

But even as he opened the throttle, there came to him for the first time in his life doubt of his theory in the practise of other men. Why had he been able to live through fourteen years in the yards when the other nearest record was only eighteen months, and that one had ended in a death?

He puzzled over it, but in some way he missed the connection. Then the needs of the work withdrew him. There were thirty loaded cars to be backed in from siding 14 onto 13 and then to the top of 13, which was half a mile away. As he nursed his steam, the question kept coming back and back again. Suddenly the notion seized him that the answer of this would be inevitable, because within that answer lay the hidden meaning of many things. A great calmness possessed him; the patience to wait a century.

Suddenly a yell rose from the front of the engine. It thrilled him through and through. He looked and saw Hogan and Miller piling off the buffer-beam on his side. Looking on past the switch into siding 13 he saw a single empty had been left up there the night before, now broken loose and running wildly down to the end of his train.

His heart seemed tearing itself from his breast. It was not because he knew that his boy was sitting in the middle of the buffer-beam, confident of the father in the cab; not because any harm might come to the boy; not anything of that sort.

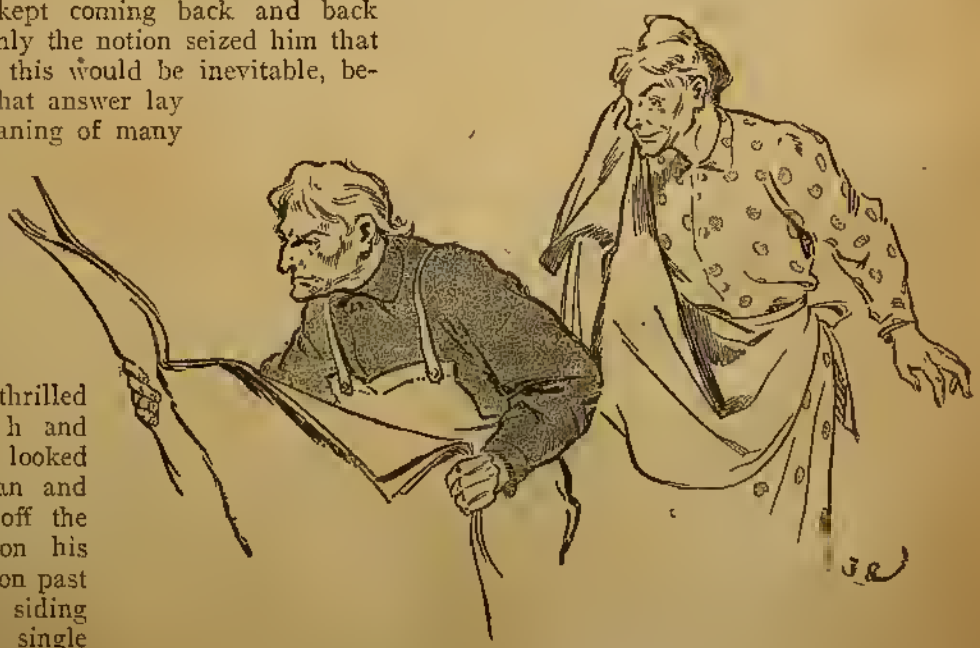
His frenzy was the realization of the awful truth that he had failed to see when he should have seen. He flung himself upon the reversing lever, while his left hand, shooting out, played like a nozzle of fingers on the throttle-turn.

He was in reverse. He started to open the throttle. The throttle stuck. He felt the train check, pause, and then start back—but this would not be enough.

He wrenched at the throttle with both hands. He could not open it. It would not open.

There came the long volleying crash of bumpers pounding against each other down a grade. It came with the crackling crash of accelerating fire from automatic guns. Unterburner reached for the air-valve to the train. He missed it. He set the engine-brakes. The drivers locked. From the head end came the roar of an exploding gun. Then fell a silence like the grave.

He did not need Hogan's gibberish for it. He knew what had happened on the buffer-beam. It had happened in the sequence of the seeds of destiny. He did not even get down out of the cab. Sitting at his window,



IT WAS A GOOD STORY. IT MADE A HERO OF HIM.

he saw once more the pageantry of Ruin Junction.

Before his eyes there passed in solemn review the first fatality he had witnessed in the yards, the next, the next, the next, and so on down through the years—down through the years, until this moment, when his son, the last, lay dead!

He knew the answer of his question now.

"It is but a matter of time until men and equipment fail."

Like the flash of the sun at morning, he saw that failure in Ruin Junction yards meant death for the man who failed.

Through the blinding horror of that truth something bright and glittering swept by. For an instant, he did not comprehend what it was. He thought it was something supernatural; but, as his vision focused, he saw a burnished engine on the main track slowing down. Behind the engine rolled a blind-drawn private car. The special stopped dead still. He felt a vaster strength than he had ever felt in the air of battles.

A man swung down from the engine on the main line. He ran over to Unterburner's crew. He shouted to them, "President Hillis's private car is to go down to the foot of this siding, as usual! It's to lie there all day! So you fellows be careful! He's wore out with a six-day fight with the railroad commission! Be careful! He's asleep!"

Unterburner saw the special glide smoothly down to a cross-switch leading to 13. Deftly the car was cut off, held, and then allowed to slip alone into the channel of the rails that ended far away in a barricade of rails.

Then, so calmly that they could not comprehend him, he asked his men: "Have you got the boy's body out?"

Hogan nodded.

"Close the switch after me when I get in."

The heat had gone out of the throttle-stem now. The throttle opened. He pushed his forty cars on up the way until his engine, too, was on 13. Reversing, he started back.

"Phwat the divil mane yiz? Did yiz not jist now hear it said we wor to kape aff this sidin'!"

But Unterburner, straining at the throttle to open to the widest, only flung back this wild answer:

"I'm goin' to finish my work in Ruin Junction yards."

Down that steep siding swept the heavy engine, under full head, with the weight of flying tons behind. It leaped like a thing gone mad to slay. Unterburner, his white hair streaming in the wind, his lips like a knife-edge, his wide eyes widened to their whites, danced upon the jostling coal-heap of his tender.

As he danced, he yelled mad phrases at the helpless car below:

"You man-trap!" "High wages was the bait in yours!" "But mine was better! Mine could never fail! Mine was my flesh and blood!"

Then came the crash of tender on car, of car on bolted barricade of ties. Through the débris that shot up from where the president's car had stood, the switch-engine, heaving upward, reared and toppled back upon the wreck, and the smoke rose like a black pall from the finished work of Ruin Junction's master-hand.

THE OPERATOR AT JAMESTOWN.

(Written at the time of the Great Flood.)

Message 1.

THE torrent poured across the plain,
Lapped torrents from the hills o'erhead;
"It looks as though 'twere going to rain,"
The laughing operator said.
And then she wired—she loved her joke—
"That reservoir may soon be broke,
You'd better all get out your arks";
They laughed forsooth to hear her larks.

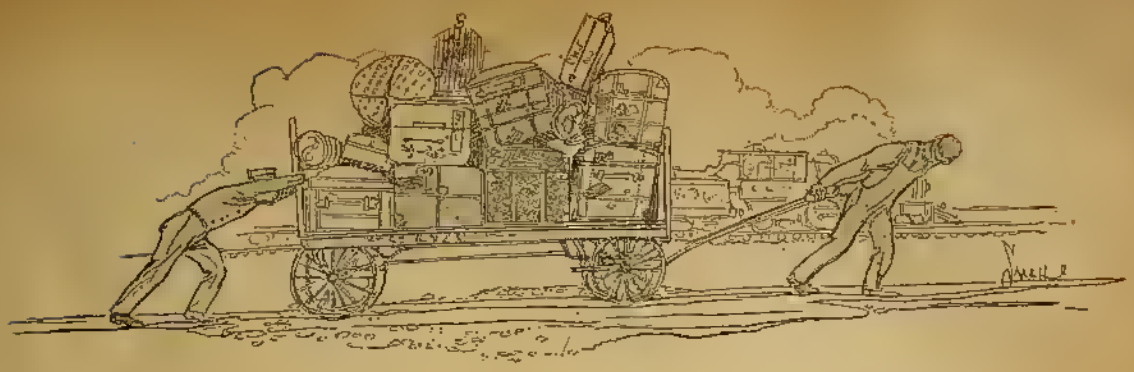
Message 2.

"There is a flood, and here's your proof—
We're telegraphing from the roof;
Flee for your lives; the muddy foam
Engulfs already many a home;
The water's at our window-sills—
The dam has broken through the hills."

Message 3.

"This is my last message." A hush
Along the wire; a sudden rush
Of waters. Help! Too late—they've swept
Where two brave women dying wept,
And weeping died, if they might save
The prey of Conemaugh's wild wave.

New York World.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 30.—From "Plug" to President; or, How Henry, the Rube Youth, by Patient Plodding and Perseverance, Rose from Poverty to a Private Car.

THIS is a bit of biography, written at the request of nobody and without any particular purpose. It was suggested by reading a little story in a newspaper of a railroad man who had gone up to prominence, well known as an organizer and as an executive who handles the destiny of a network of railroads.

He made a trip to the old homestead in the country to visit his mother.

This little incident of a son's affection is nothing within itself. Every dutiful son—whether prominent, prosperous, or otherwise—visits his mother now and then.

But this particular man is high up. He does not follow the straggling line of variegated humanity out of the smoker, as most of us do when we visit home. He has his private car, with polished brass and observation end. His coming is a matter of circumstance and flutter—another instance wherein "honey-boy comes home to mama with the bacon."

But the item of interest the newspaper finds in the visit is this: His private car sidetracks at a little country station; he is driven four miles directly toward nowhere, and brings up at a small country house, half hidden behind the luxury of shrubs and vines protected by a faithful guard of patriarchal trees.

This man of steel, iron, and electricity is back home!

He came from a farm. That's the point. He went all the way from spring water to the Chamber of Commerce and the Stock Exchange. That is a mighty distance. It makes us pause and take notice and write of it as one of the startling possibilities of American life.

It is hard to conceive how a boy brought up in the companionship of a span of mules and a Holstein cow, who treads down one corn-row and up another, can ever arrive at a commanding position in the affairs of his country. Yet, when he does so, every one is proud to speak of it and point to the humble surroundings of his childhood.

Among our Presidents we have had one who was an expert rail-splitter, one who divided his time between the farm and a tannery, and another who personally conducted a mule along the tow-path of a canal.

One summer, after the cinch-bug had ruined the wheat and the drought had fin-

ished the corn and two shotes had died of the cholera, the hero of this story turned his youthful face on agriculture and found a job on the section at a dollar-ten per day.

Then, after a long session of tie tamping, he straightened up, wiped the sweat from his face, and noticed the operator sitting in the depot office with both feet on the table and not even fanning himself.

Many a weary and exhausted youth, taking note of two feet on a table, has at once heeded the beckoning finger of destiny, thrown aside the tools of manual labor, and hurried to the telegraph-office. There, as from a cocoon, he issues forth in due time a fledgling, and lights in a tower with a mandolin, a red necktie, and balloon pants, care-free, and forgetful of all the toil that has gone before, and justifying the conclusion that there are better jobs than just hard work.

This particular boy from the farm went out and talked with his mother.

Somehow, working on the section did not appeal to him. Of course, he could see his way, by long and faithful service, of becoming section-boss, but he worked with such energy and faithfulness that he was afraid of putting a crimp in his spine, and he did not want to knot up his anatomy even to become a section-boss.

So he consulted his mother.

Being a faithful biographer, I am anxious, like all biographers who have gone before, to lay stress on this all-important fact—he consulted his mother.

The narrative of every great man contains that paragraph about the dutiful and obedient son and the wisdom and foresight of the mother. Where she directs and advises, and he listens to her. It doesn't matter how much of this is exactly correct—it reads well. All other great men have done this, and it shall be so in this instance. So once again—he consults his mother.

I do not know why great men in their youth never consult their fathers. The biographer sees to it that the old man does not muss up the picture by injecting his mattress whiskers into the color scheme. Father always remains in the background. He hustles for the provender, and gets no farther front than the rear railing.

Now, there are various reasons for a boy consulting his mother. Affection is the one that makes the best reading. In this case, however, it was because mother alone was the exalted keeper of the royal sock. She had it hid somewhere between the cabbage cave and the attic. It contained the family treasure. Son was not onto the combination. Oh, piffle! This almost spoils a good story.

Coming back to strong and effective lines—he consulted his mother.

"Mother," said he, "I've talked to the agent at the depot, and he says if I want to learn telegraphy and depot work he'll let me come in there and he'll teach me for fifty dollars."

"How much money will you have from your work on the section, Henry?" asked mother.

"Twenty-five dollars," answered Henry.

"How do you know you'll get a job after you're through?" asked mother.

You see, mother had dealt with the huckster-wagon man and itinerant pedlers long enough to have her wits about her.

"He says there's no trouble at all about that," answered the son. "Why, ma, do you know what they make every month?"

Ma shook her head.

"Some of them get as high as forty-five dollars a month."

"Mercy me!" exclaimed mother. "You could save a lot of money on them wages. But, Henry, you've got to be sure of a job. How do you know if you pay him fifty dollars right on the start he'll do anything for you? Henry, you've got to be careful with money. You can't run any risks."

After other consultations between mother and son, and after further negotiations with the agent at the depot, the matter of son's apprenticeship was arranged. Henry was to pay five dollars a months for five months and a final lump sum of twenty-five dollars when he landed his first job.

Mother guaranteed the faithful payment.

Son boarded at home. When he could use a horse, he rode; otherwise, he walked the four miles daily, taking his lunch with him.

In the fall it was arranged that Henry was to have a new suit of clothes out of the turkey money, to cost as much as eight dollars and forty cents. In this way he commenced a railroad career that ended in a private car with ebony porters and a French *chef*.

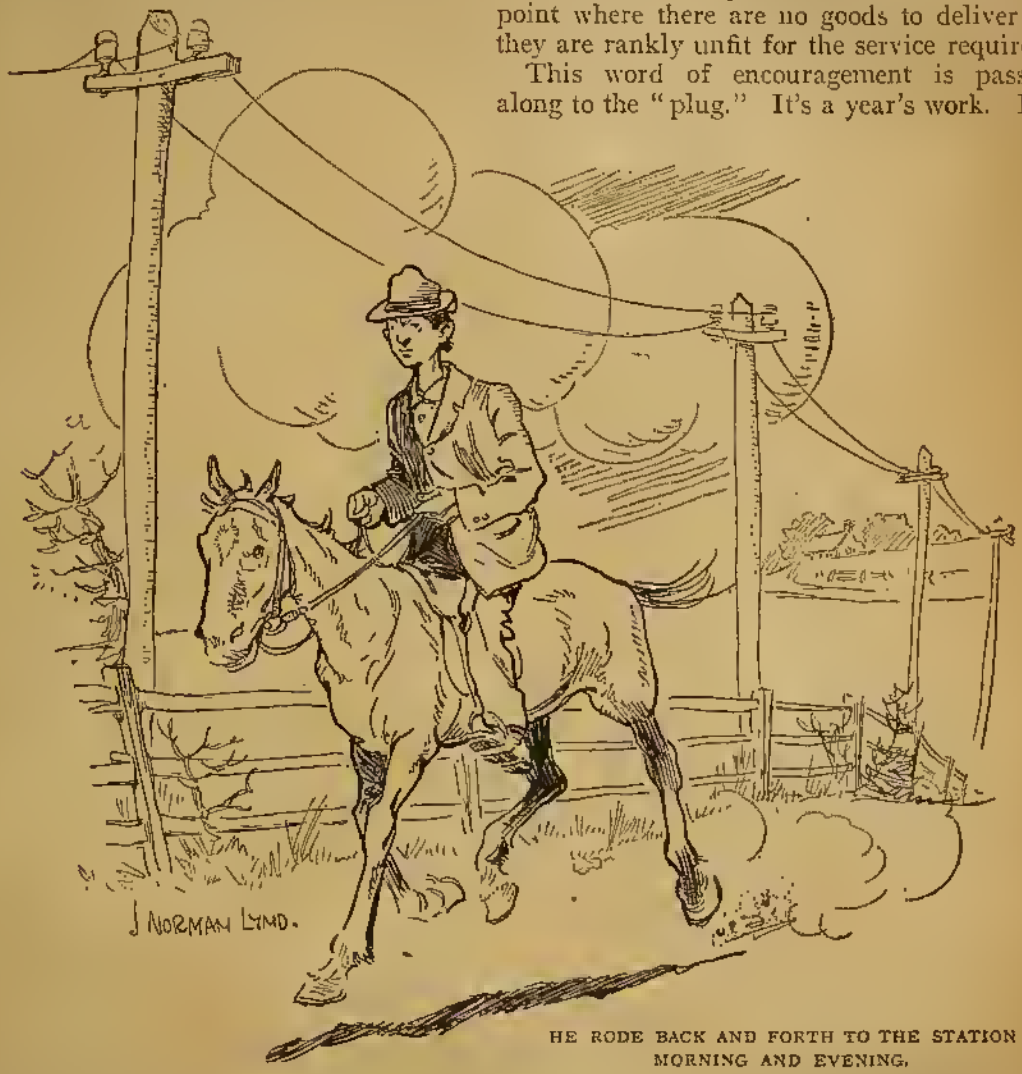
In the ordinary pursuit of life, when a boy goes in to learn a trade or business he is known as an apprentice or helper, and there is some dignity and standing to his position.

A boy learning telegraphy is despised and is an outcast from the beginning. He is known as a "plug." When he gets far enough along to venture on the wire with a few wild dots and dashes he becomes a "ham."

In the plug or early stages he sweeps out

the depot, carries the mail, looks after the switch-lamps, lugs in the coal, and reaches the point where he actually talks with the brakeman of the local, which lightens all labor and makes happy the day.

The "plug" makes rapid headway the first two or three months. He learns to send.



HE RODE BACK AND FORTH TO THE STATION MORNING AND EVENING.

This is comparatively easy. But the reverse operation of hearing a combination of dots and dashes and reducing them to writing is the difficult thing, and ordinarily requires a year or more of careful practise.

A "plug" can soon send, but he cannot receive. Learning to read it and put it down is slow work, and requires some perseverance and runs into the months.

If a "plug" chances to converse with an old operator about this time he is usually cheered along and encouraged by being told that he, the operator, learned it in three months, and had a good job just four months to the day from the day he commenced learning.

A wise "plug" will not heed these fairy stories.

There are no three, four, or five month operators. They have nothing but pin-feathers at that period. They cannot deliver the goods, and, if placed, it is either at some point where there are no goods to deliver or they are rankly unfit for the service required.

This word of encouragement is passed along to the "plug." It's a year's work. Do not take the four or five month prodigy seriously. Make note of that. When an operator boasts of his aptitude and quickness to arrive, he hasn't gone much after he arrived. That is the proof of the pudding.

The speediest proposition in telegraphy is the wiry, red-headed, freckled-faced Irish lad taken in the wild and without a frill in any other direction. He learns it faster, and he becomes the lightning-gear, ten-words-behind "phenom."

This is not a joke. It is a very sincere tribute.

By a certain native, nimble-witedness, he

has the same natural aptitude for telegraphing that his father had for police duty.

Henry worked hard. He had to dig it all out and treasure it away. He consumed the full year learning telegraphy, but, in the meantime, he learned a little more.

The agent gradually shifted the office-work to Henry's broad country shoulders, and Henry emerged with a little knowledge of billing, expressing, office accounts, and car reports.

This little stock of information got him a job as agent at a very small station, at a very small salary. A year later, they changed agents at Henry's home village, and Henry got the place.

He came back at a salary of forty-five dollars per month—the princely figure that had stirred his youthful imagination and kindled his mother's fondest hopes.

Henry was happy and envied. A neighbor dropped in to congratulate the parents, and "'lowed as how Henry was a powerful peart boy, and that he'd make his mark, and needn't be surprised if Henry wasn't township trustee or somethin', if they lived long enough ter see it."

Henry himself had neither ambition nor thought of the future.

With one lightning bound he had arrived. The coveted job at home and the forty-five dollars per month were his. The world contained nothing more.

He boarded at home, and rode horseback to and from the station every morning and evening.

When a flayed and frazzle-nerved captain of this strenuous day collapses he is hurried off to a city, where a specialist turns on an X-ray or some other contrivance for exploration and torture, but imposing enough in hocus-pocus and legerdemain to extract a fee of fifty dollars, finds the victim's nerves shattered and that he is suffering from malnutrition and various digestive disorders consequent thereto, and brought about by certain dollar-chasing habits which he knows the patient will not relinquish.

The specialist has but little in his pharmacoposia that will do any good, so he prescribes daily horseback riding of ten miles. This brings back the sparkle and healthy bloom so fully and freely described in the breakfast-food ads.

Horseback-riding is a fashionable prescription. It is high-class, exclusive, and shows that the patient is under treatment of a specialist of renown and can pay the price.

Out in the country the old home doctor tells the patient to "quit living like a durned fool," prescribes a little calomel and soda, and charges fifty cents.

Thus without intention, knowledge, or need, in full adolescence and flower of youth, Henry took on horseback-riding and built up a constitution that was an asset for many years to come. The old-fashioned country diet, and hand-churned, unadulterated buttermilk aided and abetted in this.

Many years later, in the hurry and worry of a different life, Henry paid over fifty dollars and consulted a specialist.

He prescribed horseback-riding and real country buttermilk.

There were not a great many things connected with the duties of a station-agent in a country town almost a generation ago to sharpen the wit or develop the intellect. So, that in pointing with pride to Henry's career, and preluding it with, "His first experience was as station-agent at Sulphur Springs," we are not stating anything that has any particular bearing on the career or final outcome.

To a lay member who does not know, it sounds well to say: "He began as station-agent at a small country town, or that his first work was on a section, and he went up and up until he became president of the road."

That reads well in the biography. Its chief purpose is to fire the imagination and stimulate the hopes of the lowly.

Henry hadn't much to do. He had two locals and four passenger-trains each week-day. He had a few reports to make up, and outside of these few duties he led a lazy and indolent life. Looking into it closely, it is difficult to see wherein it is in any way abetting or tributary to the high position of the chief executive of the road.

However, it must be written in his favor that he did well what little there was to do.

Henry had time enough to read Josephus, Plutarch, and the "Life of the Saints," but he was not much of a reader. He had leisure enough to have enabled him to have entered the list of perpetual-motion inventors, or to have tackled the problem of a dirigible air-ship, but he was not mechanically inclined.

He just sat around on the job.

At the end of the month he wrote up the monthly letter and comparative statement of the business of the station. He was glad to report that there were three cars of sawdust in sight to be shipped to Kokomo for the Johnson ice-house, and there might be a car of potatoes for Indianapolis, but could not say certain until next month. Ticket sales

LEMUEL SPENT THE SUMMER DAYS PITCHING HORSESHOES AGAINST ALL COMERS AND AVOIDING HARD WORK ON ACCOUNT OF BRINGING ON "THEM SUDDENT DIZZY SPELLS."

showed a little falling off, being $76 this month against $91 the corresponding month a year ago. The explanation of this was that fewer people were traveling.

It is to Henry's credit that he wrote out these comparative statements and explanatory letters very minutely. He spelled circumstance with an "s," but in time he overcame that.

He did other things worthy of note.

There was one Lemuel Spudd, whose wife was a successful gardener and chicken-raiser. Lemuel himself was a pensioner for three months' service, having gone as far as Nashville and ruined a magnificent constitution by crossing the Ohio River in a fog.

Lemuel spent the summer days pitching horseshoes against all comers and avoiding hard work on account of bringing on "them suddent dizzy spells."

Lemuel's reputation extended back into the far townships. When Henry, the new operator, broke into the game, Lem toyed with him, and bestowed upon him the usual taunts and contempt of a champion to a novice. But the new operator had a steady nerve and a good eye, and began pressing Lemuel for honors. The sporting blood of the village was up, and the final contest drew the population of the place to the spot.

Henry broke the world's record. In four throws he pitched four "ringers." The best Lemuel had ever done was three "ringers" and one "leaner."

From that day Lemuel was a dethroned idol. The laurels of the horseshoe championship were transferred to the new operator.

For a long time Lemuel was sour and sore, and remained at home with an alleged attack of the old army complaint.

Then Henry edged into the game of croquet that for seasons had been monopolized by Gene Steele, Jim Mock, and Zac Sample. In a short time he got so he could plunk them across the lot with deadly aim, squeeze through wickets on the narrowest margins, and place the balls like magic. The old veterans quarreled with him, complained of his manner of play, and found fault with his maneuvers and technique; but one by one Henry vanquished them all and became the village champion.

Then he stood up, chesty and defiant, and searched the horizon with an Alexandrian eye.

He spotted Sycamore Corner, a near-by village, triumphant and boasting over its base-ball club. Henry organized the Spartans to give battle.

He gathered recruits from the general store,

the blacksmith shop, and the farms. Feeling ran high. Sycamore Corner sent over word that they were calmly waiting, but what they would do to Sulphur Springs would be a sufficiency.

Henry was captain and catcher.

Sycamore Corner won the first game easily, but the second went to Sulphur Springs. The third and deciding contest took place on the Fourth of July.

Henry's husky aggregation was clad in overalls. Some of them were barefooted. The reputation of their native village was at stake. The sneers of triumph and the haughty contempt of the enemy rankled in every bosom. Sycamore Corner must be humiliated.

Humankind is much alike now, then, and everywhere. The wildest "bug" of Cubville or Giant Town has nothing in way of partisan intensity and effusive or abusive boisterousness not possessed by the militant followers of those two village nines in that far-away day.

The game itself was one of those magnificent cross-road exhibitions of the national sport.

There were a few fights on the line by the over-zealous and ultra-enthusiastic which added spice to the afternoon's entertainment, but in no way affected the issue.

The last half of the last inning found Sulphur Springs at bat, with the score of 37 to 34 in favor of Sycamore Corner.

Two men were out, but the bases were filled.

Henry came to bat.

The cries and shrieks of howling dervishes filled the air, and, while the enemy bellowed in derision, Henry missed two good ones, and the umpire bawled out above the din:

"Two strikes!"

Then Henry showed his metal. He arose to the occasion. In the crisis and pinch he steadied, and the next instant there was the sharp crack of the bat, and the ball sailed off until it faded away in the distant haze of the summer day.

Henry went the circuit with three ahead of him, and Sulphur Springs had won—38 to 37!

Thus in sport triumphant, Henry arose to the highest possible distinction in his native town.

The next day he scrubbed out the depot. It is only the truly great that can lay aside the laurel wreath at the very hour of triumph and return to the humble duties of life.

Lemuel Spudd nosed about.

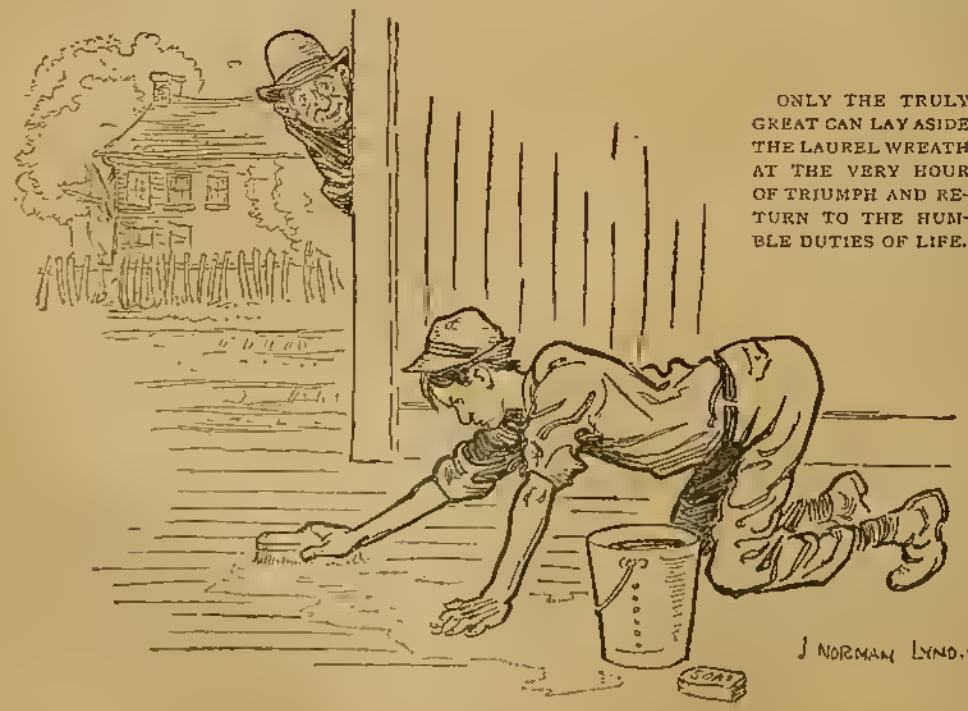
"Goin' to be an inspection?" he asked.

"Why do you want to know?" replied Henry.

"I see you're scrubbin' out. That's a purty good sign the big fellers air a comin' along."

"Well, if they do come," said Henry, "you make yourself scarce. If they want to ask you about anything, I'll send for you."

Spudd grinned in a silly manner and edged



ONLY THE TRULY GREAT CAN LAY ASIDE THE LAUREL WREATH AT THE VERY HOUR OF TRIUMPH AND RETURN TO THE HUMBLE DUTIES OF LIFE.

away a little, but beat no full retreat.

The entire population of a small town always consider the scrubbing of the depot the sign of an official visit next day. Every one lays close and holds himself in readiness.

A strange whistle or an engine with a single coach brings to the depot a swarm of the "nibby" and the idle curious that hang around the edge and intrude with an ignorant impudence.

They want to hear every word. They hope the superintendent will crush and humiliate the agent. They are eager for something to sizzle, and they do not want to miss any of it.

LEM HEARD THE SUPERINTENDENT TELL HENRY THAT HE HAD GROWN SOME.

You may be sure an agent is delighted to be surrounded by a delegation of his fellow-townsmen on these occasions. Not so much that they are often barefooted, bareheaded, and wonder-eyed, or that he needs the moral support of great numbers, but that they take such a keen interest in the affairs of his office and lend a certain yokel color to the perspective, so that the passing official instinctively places the agent as one of them.

In the winter Henry organized the Sulphur Springs cornet band—twenty members.

By spring they could play "No. 10" (a certain waltz) and "The Palms."

They may not have had the elegance and finish of Arthur Pryor, or the stirring cadence of John Philip Sousa, but, believe me, they sure did make the noise.

Henry played the tuba. He could send the hoarse notes reverberating half-way out home and back. He had six-cylinder, 80-h.-p. lungs, and a reserve force not mentioned in the catalogue.

So much for horseback-riding, country buttermilk, baseball, and tuba-playing. He was being developed into a "Lil Artha' Johnson."

If any reader has grown impatient and fretful following the byways of this narrative to know wherein there is anything about this country-station experience suggesting a fitness, or in any way preparatory to the highest duties in railroading, he now has the answer.

Ordinarily, a young man removed from the direct observation of the general officers and stationed at some isolated spot, or on some detached duty, must do something very much out of the ordinary, showing heroism, presence of mind, or some unusual aptitude to call attention to himself, or he is forgotten.

One day Lemuel Spudd, obeying an unerring instinct, hustled to the depot just as the superintendent's special pulled in.

Lem did not want to miss a word that passed, but he wanted to absorb it all casually and unconcernedly. He armed himself with a long pine stick and a sharp knife, and commenced whittling in an aimless and preoccupied manner and edged in.

Lem heard the superintendent tell Henry that he had grown some since he had come

to Sulphur Springs. The surroundings must agree with him.

Lem Heard the superintendent tell Henry something in return, but the only word he was certain of was—"buttermilk."

Lem crowded a little closer, and was disgusted to note that the superintendent was pleased, and that he asked Henry about "buttermilk," and narrated some "buttermilk" experience of former days.

This kind of talk did not please Lem. He wanted to hear Henry criticized and chastised, so he could hurry over to the blacksmith-shop and the general-store and spread the news that "Henry had got his."

In a spasm of disappointment Lem began whittling more desperately. Long shavings fell thick and fast on the cleanly-swept platform and under the official's feet in a sort of protest against the character of the conversation.

It all happened in an instant.

Henry obeyed a lightning impulse. He grasped the "nibby" and offending Lemuel by the nape of the neck, and by a dexterous yank and with two or three well-directed kicks he landed him clear of the premises.

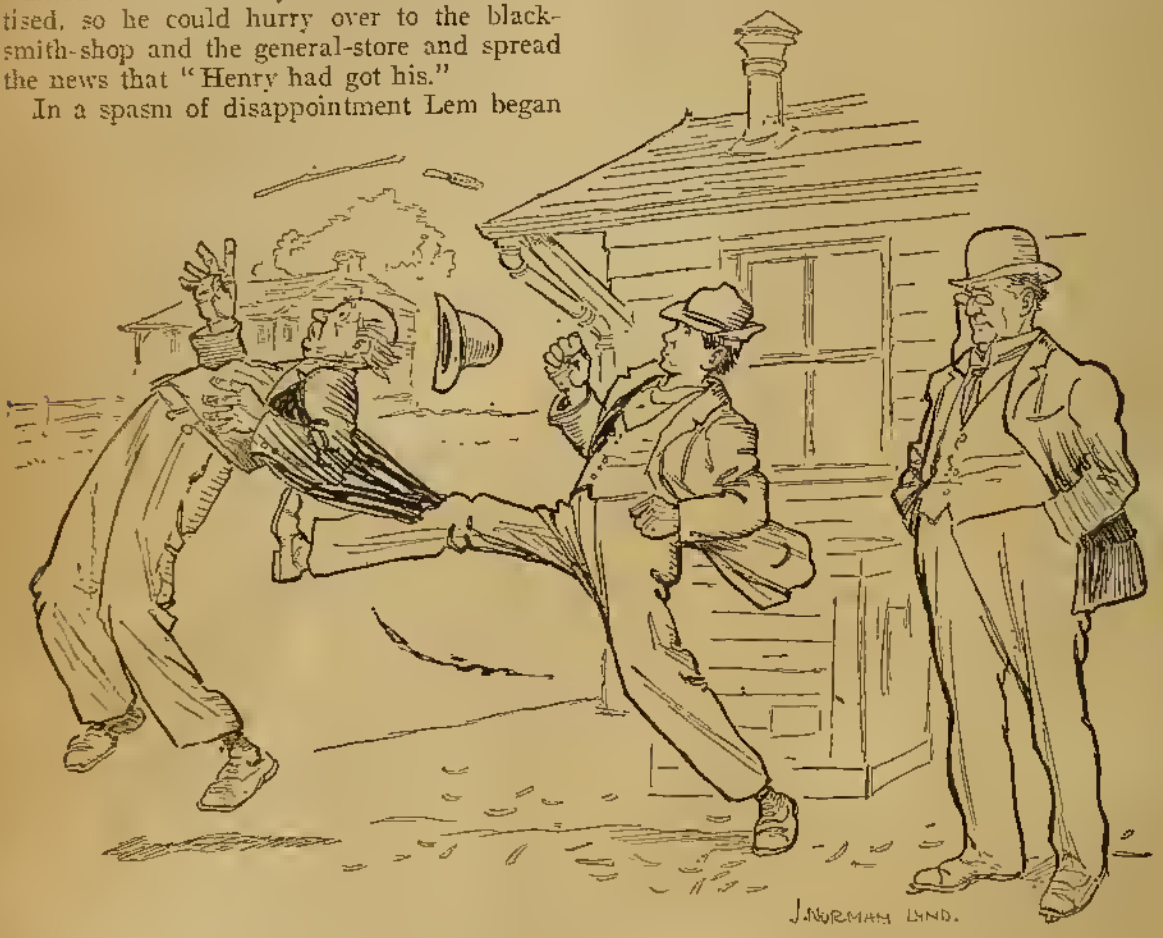
The next minute Henry tried to apologize to the superintendent.

"That fellow's a loafer," he explained. "It made me mad the way he tried to butt in and the way he was littering up this place. I—"

"Not a word," said the superintendent, greatly pleased; "don't forget that jug," and the special moved on.

A few days later Henry sent in a gallon jug of fresh, spring-cooled buttermilk, tagged to the superintendent.

It was the real old-fashioned article—



HENRY OBEYED A LIGHTNING IMPULSE.

neither overripe nor underdone—uncontaminated by butter coloring, preservative, or refrigerator taints.

It called for more.

One day a strange package accompanied the jug. It was a country ham.

When a man is offended for years by the saltpeter, the liquid smoke, and the forced chemical curing of the packing-house product, a country ham is like manna from heaven.

A country ham is not an article of commerce; and when one finds its way to the larder of a city man, it is either because he

has found the combination or because "Allah is good." For the country ham is where the shote is picked in the very pink, where the corn flavor is accentuated by the mild smoke of real hickory bark, where it is hand-rubbed and cured without forcing—and where the order always repeats, "Thank you for a little more."

For a long time there had been some trouble in the yards at night. The road found it difficult to get a competent man to handle the situation, which required the qualities of quick decision, some nerve, and character.

The superintendent decided on some changes. He reached for Henry.

He took him without experience or training, and put him in the yard. Henry learned the game, and made good. From that point he went on and up until he became the greatest of mazookums, with "rings on his fingers and bells on his toes."

Now, the point I am struggling to is this: Why should the biography of this great railroader lay emphasis on the commencement of Henry's career as a station-agent in a country village? What has that got to do with the case?

Why not start the biography this way:

"While employed in an humble position he passed the buttermilk along, and at the psychological moment he administered three swift kicks to one Lemuel Spudd, an intruder."

Honest, now, what caused the superintendent to call on the agent at Sulphur Springs to take a fighting job? And which gave Henry his opportunity?

A true biographer should not overlook trifles.

Old Chris Adelman.

An Alton Veteran Whose Name Has Stood for Faithfulness and Efficiency for Nearly Half a Century.

BY S. H. BROWN.

CHRIS ADELMAN is the oldest road engineer in point of service on the Chicago and Alton. Incidentally, his running-mate at the other end of the "Slater Accommodation," out of Kansas City—known everywhere as the "Red Hummer"—is John G. Alexander, the youngest conductor on the western division.

In the truest sense of the word, such men as Adelman are representative Americans, for they are built of those steadfast, calm, competent qualities that have made this country what it is. A typical American, Adelman is also a typical product of that vast railroad industry which Americans have done more than any other people to develop on gigantic, picturesque lines.

Adelman has been in the employ of the Chicago and Alton for forty-six years, and if confidence, competence, and activity count for anything, he is still a young man, though years and experience have put their marks on his hair and face.

CHRIS ADELMAN.

He joined the road as a brakeman in 1863, in the stirring times of the Civil War. Two years later he was promoted to fireman, and in 1869 he went to the right side of a freight-engine. Ten years later he was promoted to a passenger-engine; so that for nearly thirty years he has borne the chief responsibility for many hundreds of lives.

In 1879 the Alton secured its first entry over its own line into Kansas City, and Adelman pulled the first regular Alton train into the budding metropolis—a train of nine cars, including a diner, hauled by engine No. 145, weighing thirty-four tons.

One of the chief characteristics of the famous veteran is his dry humor, always kindly, but always to the point; and it is common belief that he has brought more firemen to a realizing sense of what he expected of them, with half a dozen words, than most engineers have done with the most accomplished and unsacred vocabulary at their command.

On one trip the green fireman that he had was a most enthusiastic shoveler. The sound of the popping valve seemed to be music to him, and when the injectors were working overtime he was happy. The value of coal was a thing unheard of by him, and the only place he liked to see it was in the fire-box; so he did his best to put the whole tender-load of it there as quickly as possible.

At last the engineer became impatient. The indicator showed top pressure, and they were bowling along finely, when another burst of industry seized the fireman, and, grabbing his shovel, he was about to swing a scoopful onto the fire, when Adelman's voice came to him:

"Say, if you don't like to see that coal, throw some of it out of the gangway."

A different case was that of the fireman who thought that the duty of making steam was quite secondary to an artistic appreciation of the landscape. They were in the middle of a run, and the fireman had just climbed on his box-seat, and, with a far-away look in his soulful eyes, was admiring the beauteous scenery.

The indicator hovered hesitatingly at twenty pounds under "pop," and showed a downward tendency. In other words, the engine was, technically, "cold." Suddenly the fireman came back to earth, and, with a praiseworthy desire to be helpful, he drew in his head and shouted:

"Say, Chris, there's somethin' poundin' down there."

"So?" queried the engineer. "Guess it must be icicles."

Just as much to the point was his remark to a fireman of the same school, who, having displayed no living interest in his fire after leaving Kansas City until they were approaching the grade for Independence, was aroused from his reverie by Adelman's voice inquiring:

"I've been working twenty minutes now. When do you expect to begin?" He began.

But not all the stories of Adelman are humorous. There have been times in his railroad career when the man of steel has shown up back of that every-day faithfulness, and when death and duty have ridden side by side on bright rails smeared with blood.

One such occasion was when, owing to the carelessness of a brakeman, a siding-switch had been left closed, and Adelman's engine crashed down the siding into a standing freight at Larrabee. Larrabee was a blind-siding, and Adelman was not required to either stop or slow down.

The crash was terrific. The fireman of the passenger-train was burned almost to a cinder in his own fire. The men in the freight-engine were instantly killed, a number of passengers were injured, and the engines were locked in one solid mass of twisted rods and plates.

Adelman was thrown many feet, and when he was unearthed from a mass of débris one leg was broken in three places and he was battered and bruised all over. And then, with his strength fast ebbing in the agony of his hurts, he gasped feebly:

"Look after the others; I'm all right."

There is no melodrama there. There is no mere "copy" for a sensational newspaper report. There is an actual man with torn, burned flesh and broken limbs, suffering to the point of death more agony than death as he gasps:

"Look after the others; I'm all right."

Yes, he's all right!

AN HOUR IN THE PIT.

BY ROBERT FULKERSON HOFFMAN.

Dan Lamy Sees the Beauty of Railroading, but He Once Longed for Something Safer.

"GOOD morning, brother; good morning! I hope you are rejoicing in the beautiful uplift of this delightful morning, these glorious mountains, this matchless blue sky, this sweet, stirring air! They make our task in life a beautiful one, do they not?"

Dan Lamy was not rejoicing in the uplift to any noticeable degree just at the moment, but he was very far from sad. He had acquired a wholesome sort of philosophy that carried him over the rough places of life with very little jolt, and sometimes enabled him to hitch his mental go-cart to a passing star and clamber in for a moment before it spilled him back to earth again.

So, Dan reached out between the driving-wheels of the big locomotive, which was shutting out his view of the mountains, the blue sky, and much of the sweet, stirring air; caught the low, slanting main-rod with his good right hand, and dragged himself out on his back from beneath the engine where he had been silently working.

Then, while his inverted, upturned face looked up into the friendly and enthusiastic face of the young minister who had spoken, Dan answered:

"Yes, sir. I'll allow they do—but I've seen the day when I'd have traded for something safer. There's times when a fellow feels like Bendy Striker said that day: 'For a nice, safe, clean job, gi' me preachin'.'"

He turned over on the ground with that, and rose stiffly to his feet, between the purring bulk of the waiting engine and the eager, upstanding figure of the young minister.

The sweet, sharp air swept down from the sun-tipped crest of Pelaya Mountain, rippling and wimpling the new-range grasses upon the nearer slopes. It toyed familiarly with the long frock of the young minister's coat and waved it like a banner from his stalwart legs. It sent the little column of smoke swirling and doubling upward in restless curlings from the locomotive's stack; and it caught up gently Lamy's empty blue blouse sleeve and waved it as in a mute, belated farewell to the good left arm that was gone.

The call of destiny had brought the young minister from his distant home on the plains newly to tend the little flock of Pelaya. Filled with a boundless enthusiasm for his work in a world which he had thus far found a smiling place, he had come rejoicing in his own perfect physical being and in a rather broad view of the surface indications of life as he saw it.

He soon discovered an unsuspected depth beneath the every-day manifestations of Pelaya's methodical, virile life. He had confessed to himself in the quiet of his modest study that there were times when he had felt much as if he were an overeager puppy caught tugging futilely at the free end of a very deep and firm root.

Therefore, being a man of sound judgment and right thinking, he had started out upon the premise that a good shepherd must follow his flock to the field, no less than cuddle it in the field.

The call of the despatcher—which is the frequent call of destiny for men who follow the rail—had brought the hard-run express engine from its stall in the roundhouse to the cross-over track at the station too hurriedly for the completion of Dan Lamy's regular routine.

Dan had followed, and so it had come about that the minister met an unknown member of his newly acquired flock, and Dan Lamy met the new minister whom he had not previously seen.

Just for the moment the young man of the

cloth regarded Dan's impassive face narrowly, while the suspicion that he was being laughed at brought a flush to his face. But when Lamy's far gaze came back from the gold and white of the mountain-top, across the swelling green of the slopes, and finally to the busy shops and the waiting engine before him, his faded blue eyes looked squarely into the sparkling black eyes of the minister, and he said:

"Yes, sir. It's certainly fine to have a part in all this!"

"Yes, glorious!" said the minister.

Each knew that the other had arrived on a mutual ground of respect.

"And Striker," said the minister easily. "He was your fireman? You are the engineer of this great machine?"

"Who, me?" asked Lamy.

In turn, he had suddenly come to question whether he was not being laughed at by this self-poised stranger; but one searching look dispelled the doubt. He answered:

"Oh, no! I'm only a wiper. They took her away from me in the roundhouse for a special that's coming. I have to finish her here. No," he continued as he resumed his wiping of the under parts, "I'm no engineer. I was meaning to be once, a while back; but after I lost the arm—why, that was all off, you know. Being an engineer, I mean," he explained with painful exactness.

"No, Bendy Striker was a machinist on the bits in the backshop, that time when he made them remarks about preachin' and that. I was his helper, and we were working on this same engine. I reckon she's been rebuilt, or overhauled, two or three times since then for heavy repairs. Seems to get better every time, too. Bendy Striker's improved a lot, likewise. He's roundhouse foreman over there now. There he goes now. Just crossing the turn-table. See him?" said Lamy in keen excitement.

He watched furtively between the tops of the engine frames and the belly of the boiler until a stalwart figure of a man had stalked into the open end door of the roundhouse and disappeared.

"Oh, he's a keen one!" laughed Lamy, as he resumed his puttering with a wisp of cotton-waste.

"There ain't no better. He's watching me, and he'll give me holy sailors if I don't get this engine done in time. Bendy wants everything looking its best; and he gets it, you bet!

"But the backshop's the place!" Dan announced with a wise shake of the head as he attacked his wiping with zeal renewed.

"Ever been over there?" he asked with an earnest upward glance, while he picked up his kit and moved to the next driving-wheel ahead.

"No, but I have been intending to go," replied the minister, following Lamy's lead.

"You'll see the big cranes lifting and carrying the engines like children in arms, and you'll see other things as fine and wonderful.

"But me! I always go and have a look at the old drop-table where we took the wheels out of them and put them in again, in the days when I was helping Bendy.

"You see how it's done? You've stripped your engine and took the wheels out of her, long before, we'll say. The boys have been swarming over her on the erecting pit for a month, like bees storing honey in a dead mountain-tree.

"Then comes a day when she's all snug and proud and shining with blue jacket and paint. But she's still setting squat on her blocking like a duck froze fast in the ice. You jack her up a bit at the front and run in her truck. You lift her a bit at the rear and slip a dummy pair of wheels under her.

"The big doors swing open at the head of the pit. The cable of the transfer hooks onto her, and she moves out slowly, like the bright sun had thawed that duck out of the ice and she's trying her legs for a start.

"The transfer snorts and grinds along, with her setting all quiet aboard, until she stops and begins moving backward onto the drop-table—say three pits farther along in the shop again.

"And there you are! She's standing with her front track blocked on the solid rails at the head of the drop-table, and her make-believe, dummy pair standing far in on the drop-table. Behind her stands the boys, all ready and anxious, with her three pairs of big, new-turned driving-wheels, and fresh-fitted boxes hanging on the axles.

"Do you see?" queried Lamy anxiously.

"I see," said the minister quietly.

"Then you haul out the two big, fork-headed ratchet-jacks — one on each edge of the drop-pit—and set them solid and good. You lift the big steel crossgirder and drop it into the forks of the jackheads, and slip the big girder and all ahead till it's under her deck iron.

"You swing to on the jack-levers till she rests heavy on the cross-girder. You yank out from under her the dummy pair and roll them clear away.

"There she stands! Big as a house, and bridged, all clear and free above the drop-table!

"You see?"

"I see," said the minister.

"All well, you say," continued Dan proudly, "and somebody waves a hand; somebody throws the big lever, and the drop-table starts sinking down upon the gears and screws under the floor. With it go the boys and the new drivers, you see, because you must be there to steer the boxes into the pedestals when she comes creeping up again.

"Me and Bendy had the back pair on this day I'm telling you about. It was just like every other such day, until the table had got low enough to let the drivers roll under the girder. Two pairs had been rolled ahead, and the boys were stooping and blocking them with bits of wood to keep them from rolling back.

"Bendy and me were just sighting our pair for its place on the rails—ahead a little and then back a little—while we kept looking up at the black tons of her hanging on the girder about eleven feet above us.

"Bendy's always set great store by Sunday and his family, and I guess his mind's kind of running on it then — that being a Saturday morning. Anyway, while we're rolling and wedging below and sighting and peering up into the half-dark above, Bendy's a singing a little piece that I never forgot, and likely never will. It went:

Then, gather the fam-bly round you Sunday morn-ing,
Let the ba-bies roll a-round upon the flo-or.

"Kind of jerky and laughing-like it went, that way, with Bendy prying and straining at the wheels:

Bu-ut I give to you the time-ly warn-ing:
You must ne-ver—

"Then it came!

"All sudden, it was, with a sharp snap like the breaking of a big, dry limb in the wind.

"One of the ratchet-jacks broke off short in the thread, just above the jack-body. The girder end struck a clip of fire off the broken jack-head, with the engine toppling down close after. The girder skidded forward and tore out another streak of fire from the steel rim of the drop-pit. Then it cleared the edge, all in a wink, with the engine falling close after.

"The rear of her came crashing down complete into the pit, with Bendy stooping and singing, as I say, by our pair.

"I hit him a cruel, hard punch back of the ear—'twas all I'd time to think or do—and knocked him half under the driving-axle of our pair. He fell, in the midst of his song, and his legs stretched out to the wall of the pit beyond the shelter of the wheel.

"Down she crashed, with a dust of bricks and mortar from the ripped pit walls, and the shivering noise of her was close and loud as a thunderclap in May on Pelaya's top.

"She shivered her grates on the rim of our wheel pair and sent the pieces raining down around us. She cupped her empty fire-box down over the wheel till it bent the axle and drove the wheels splintering off the rails and sunk them in the floor of the table.

"Then it all got quiet as death. We heard the running feet only of hundreds in the shop above. Bendy laid there, all quiet, and I laid still beside him for a while, sort of thinking at it. My arm felt numblike, and there wasn't anything to do—anyhow, not just then.

"The pit was plugged complete from above, with the engine crumpled down on us at the rear, and the rest of the boys trapped in the free space ahead. They were safe enough, for the while, but me and Bendy's in a bad fix.

"They began shouting are we hurt; and everybody begins hollering from above, are we hurt?

"I answered as best I could," said Lamy, as he picked up his kit and rounded the pilot into the bright sunshine on the other side.

"Yes?" said the minister, as he followed.

"Bendy sort of roused up at that," continued Dan, "and first thing he does is finish his singing.

He sings, like he's about half jagged:

Ne—Ne-ver ta-ke the horse-shoe fr-om the do-or.

"Then he lets out a yell that scares me full alive. They said, after, that you could hear it clean down to the end of the straight track through the shop. That's a big yell. And he kept it up, fighting to tear his legs loose from the broken plank and iron that was holding him; me up and battling to hold him down, for fear he'd bleed too free; the rest of them from above tearing things away and rigging a derrick to set us free.

"I thought I was there a week—they say it was only an hour—with Bendy yelling and fighting and singing, before my strength went, and I called to them that I couldn't hold his busted leg shut no longer. 'They must come help hold him,' I yelled.

"The road doctor got there by then, and he come sliding down the ladder they'd set, far as he could, with his little black box in his hand.

"But he couldn't get to us. Nope! Just scrooched down close among the twisted mess and peeked in first.

"Then he hollered at Bendy:

"'Hey, Striker! Now you lie quiet! Cuddle down now, or I'll come in there and— Do you hear, Bendy?' he says, as savage as anything; but, of course I knew he couldn't get in.

"And Bendy takes a wild look at him through the engine-frame and quiets down like a lamb: just bleating away, dull, at that song again.

"With that, the doctor tells me to hunt out Bendy's pulse and keep hold of it.

"'Now, count it when I raise my hand,' he says, 'and keep on a counting till I say: "There!"'

"He takes out his watch, and when I'm all ready and Bendy's a-singing, peaceable, he jerks up his hand and says: 'Count!'

"I go to counting to myself till he says: 'There!'

"'Eighty,' says I, and he pockets his watch, satisfied.

"Then he hollers up to them to bring him a dipper of water. Pretty soon, he shoves in to me, through the mess of bars and stuff, a little shiny squirt with a drop of water hanging on the end of it, and he whispers:

"'Jab that into the skin along his back and push the stopper!'

"I did. Bendy let out a terrible yell, and I had hard wrestling for mebbe half a minute again. Then he began to quiet down and, in a second more he seems to get clearer in his mind. He raises his head and says:

"'Hallo, Dan! What are we waiting on? Why don't she go up?'

"'That's all right, Bendy' says the doctor, before I can answer any.

"'We'll run her up, in a minute. You're all right—and a good job it's no worse!' he adds, mebbe louder than he intended.

"Anyway, Bendy seems to hear it all and he says, just before he went to sleep, and not being altogether clear in his head:

"'Yes, this job's all right. But, for a nice—clean—*safe* job—gi' me—preachin'.'

"'And,' says I, without thinking much: 'Me too, Bendy!'

"Bendy's always held that I done him proud that day, but I guess most anybody would have done as much. Wouldn't they?

"Oh, yes. They got us out all right, after a while. Bendy always wanted that I should go on and finish learning the trade with him. But, I never could stand working around that drop-pit afterwards, and if anybody lets out a sudden yell, or drops something heavy near by, I have to start and run a little. Can't help it. So, Bendy gave me this job of wiping when he took the roundhouse. I like it fine!

"What are you selling, brother?" queried Lamy as he advanced his box-seat to the rear driving wheel and looked with satisfaction at that last item in his task.

"Selling?" asked the brother.

"I am not selling anything," he continued thoughtfully. "I have been engaged in giving away some things which I thought were of great value. Now, I hope I may be able to offer a better quality soon."

"Oh, samples?" questioned Lamy, in the fullness of candor and friendliness.

"Why, yes, in a way," replied the visitor.

"I am the new minister," he said, while he reached for Dan's lone hand and closed upon it with a strong and honest clasp.

"Oh," said Dan, helplessly. "I didn't know. Mebbe I wouldn't have told you that about Bendy. Not *just* like that."

"I shall always be very glad that you did not know," replied the minister.

"But you'll like Bendy Striker," Dan assured him with evident anxiety.

"Say! There he comes now! He's after me, and he'll give me holy sailor if I don't finish this engine!" chuckled Lamy.

He bent again zealously to his task while the minister turned to search the strong, smiling face of the man who was bearing down upon them from across the tracks.

"Go on over and meet him," advised Lamy, turning for a brief glance.

"You'll like Bendy! But, he'll give me 'you-know,' if he gets here before I'm through!"

The minister went. That was the opening that let the new minister deep into the big, warm heart of Pelava.

A turning flange gathers no rust. Work is the finest polisher.—Sayings of the Super.

THE STEELED CONSCIENCE.

BY GEORGE ALLAN ENGLAND.

In the Whirl of Torture, Where a Man Is Broken in Body, Mind, and Soul.

SYNOPSIS OF PREVIOUS CHAPTERS.

JOHN GRAHAM, a young artist, discovers among his dead father's effects a diary which proves that his former guardian, a wealthy lawyer named Simon Dill, has robbed himself and his mother who has since died, of a large fortune accruing from a gold-mine in which Dill and Graham, senior, were once partners. Although engaged to Agnes Dill, the lawyer's daughter, Graham goes to Dill's office, presents his proofs and brands him as a criminal, demanding the money which his father has left him in trust. Dill finally pretends that he is about to make restitution, but by a sudden strategy fires his revolver, grapples with his ward, and, when the police rush in, hands Graham over to them as a robber and assassin. He conceals the diary, which is the sole proof of his own guilt. It is a case of one man's word against another's. Dill, who has dabbled in politics, manages to have Graham prosecuted before a judge whom he put in office. The artist is found guilty and sentenced to five years' imprisonment.

CHAPTER VII.

The Old Gray Wolf Again.

SEVERAL weeks after he had settled down into the routine of bunk and bars, tin plate and bare-board table, and had assumed his allotted work as an operator in the prison telephone-exchange, Dill came to see him. Stone and Barnard had both visited him the Sunday before, and had, as fully as the limited time permitted, gone over the case with him, outlining also a plan they had to present a petition to the board of pardons and the Governor.

Graham had only smiled and shaken his head, for already he had come to realize, even more fully than they, the prime mover in every such affair—pull. They had left him calm and quiet, even cheerful, as though dominated by some strange, far thought. Frankly, neither of them had quite understood him; and what we cannot understand is apt to make us a bit uneasy. They had gone away discouraged.

At Dill's appearance in the outer office, that May afternoon, authority scraped and bowed. Not every day did a long buff touring-car roll up over the cobbles from City Square and stop in Chapman Street before the harsh granite-and-steel monument of ugliness that serves the Commonwealth as a trap to hold those foolish or weak enough to be caught. The prison felt itself honored by that car and by the eminent philanthropist, who had written more than one article on "How Shall We Treat Our Unfortunates?"

The trusty in charge of the office—a "lifer" who owed his special privileges to years of consistent spying and "pigging" on his fellow captives—hastened to dip pen in ink for Dill to sign the register, and then to creak back the door leading into the corridor which gives access to the rotunda.

Dill, precise and smiling, holding his top hat over his broadclothed arm, stepped out into the great, round, stone-paved place, from which, on all sides, radiate the wings. All about it, from floor to roof, a matter of forty or fifty feet, rises a huge circle of steel bars; and in the center, whence all the tiers of cells, story upon story, can be plainly seen, stands the watchman's desk.

A monster cage, the rotunda, with an eye at the exact middle—a spider-web, with a spider ever keen-sighted for any move of the sad, gray flies caught in its spreading meshes.

Dill nodded familiarly to the watchman, who bowed servilely to him.

"Number twenty-seven hundred and four?" queried the visitor.

The guard consulted a book, called a warder, and sent him for the man, who now no longer had a name, but merely three figures and a zero to express his personality.

"Will yez take a seat, sir?" asked he, pointing at the circle of plain wooden chairs that surrounded the rotunda.

Dill thanked him, but remained standing. He walked slowly about the space, blinking up with a show of interest at the ranges of cells beyond the cage. As a prominent authority on prison-reform, and a writer on the problems of how society should best protect itself against the "lower classes," it behooved him to simulate observation during this, his first visit to the penitentiary in over six years.

But his real thoughts were far from the prison. He was remembering still the look on Graham's face when sentence had been imposed—a quiet, inscrutable look which had often since recurred to his mind—a look which had caused him the sensation that all of us feel when, at the Zoo, we wonder just what might happen if the lion's cage door should chance to open.

Dill had had more than one bad quarter of an hour trying to keep that persistent thought out of his brain. He still looked forward to fifteen, maybe twenty or more, years of social prominence, public admiration, enjoyment of life. Perhaps, if Graham should prove embarrassing, he might once more be put away as easily as the first time; perhaps not. Perhaps something might happen. Dill shuddered slightly.

"By all means, I must—ah—either intimidate the beggar, or, better still, mollify him. Best of all, point out to him his only chance for rehabilitation—through reform, eh?" he concluded, with a new sense of self-confidence. His powers of judgment, of word-building, of heaping fact on fact, of buttressing all with impregnable logic had, he knew, few rivals.

"Once let me talk to him, just talk," thought he, "and I wager I can change his views."

The clang of metal on metal, behind him, brought him round on his rubber heel. Dill always went shod with rubber; he loved noiseless walking. More than once it had helped him see things, hear things of value. He faced round. Two men stood just inside the big barred door that led from the cell-space into the cage of the rotunda. One was the blue-dressed warder; the other, Graham.

For a minute Dill's eyes narrowed. His heart swelled with almost irrepressible exultation at sight of the young fellow, the one-time menace, the potential danger, standing there, utterly within the grip of the law, absolutely shorn of power, caged, crippled in all his possibilities, helpless.

Graham remained passive, waiting for the warder to point him out a chair. This the warder did; and as Dill advanced across the open space, treading as softly as ever a sparrow-hunting cat stepped, he sat down, crossed one gray-clad leg over the other, and waited.

Dill noted the great change that had come over him—the close-cropped hair, revealing now the unusual height and depth of skull; the yellowing of the skin, which already showed the beginnings of prison pallor, due to miserable food, to lack of exercise, sunshine, and air; the thinning out of the cheeks, the neck, the corded hands; the deepening of the eye-sockets; the singular new light in the blue eyes.

Leaner though Graham had become, however, Dill saw that his shoulders were still straight and strong, and that the throat which showed through the opening of the coarse shirt was like a round, firm column as it rose to the close-shaven, prominent chin. Even the fact that the prisoner's nails were carefully trimmed and cared for did not escape Dill's eye as he drew near and sat down by Graham in the chair which the warder drew into place for him.

A minute the two men looked at each other. No word was spoken on either side. Dill blinked and fumbled at his glasses, while Graham's gaze was level and as steady as steel. The lawyer, disconcerted, set his tall hat down on the pavement, blew his nose with a flourish, and cleared his throat.

"My—ah—my young friend," he began, then stopped short. There was something in Graham's look that he instinctively felt made that line of approach, useful, perhaps, in other cases, quite too baldly absurd. Dill sniffed, fingered his watch-fob, and tried again. The warder, with a curious glance, moved away.

"You might as well know," said Dill, positively faced down by Graham's silence and the steady, searching eyes, "know—ah—that—that is, you understand. I have felt it my duty to come out here this afternoon, at considerable loss of time, and trouble, to—to see you.

"Duty, ah. A great word, duty. We all have a duty to perform to our fellow man, even to the most misguided, the most erring.

A duty to society; a duty to our neighbor. The unfortunate circumstances leading up to —to your present situation were—hm-m-m! —were forced upon you—upon me, I mean, upon me, were forced upon me in a manner which I need not rehearse here.

"How much I regret them all, only my Maker knows. He—ah—reads every heart and searches every soul. I trust that you will prove penitent and—and truly chastened, and that this retirement from the world will give you ample time to reconsider your ways. To take counsel with your inner self. To grow in patience and humility. To reform, radically and truly reform, so that when you —that is, so that there will never be any further cause to — ah — I hope you understand me?"

He paused, a little out of breath, and with his fine linen handkerchief nervously dabbed at his forehead. His hope was that Graham would make some answer, come out with some request, some reproach, best of all, some threat; for then, he felt, he could immediately take the whip-hand of the situation. Once he could get a man to talking, to arguing, he knew how deftly he could entangle him, how cleverly put him in the wrong.

Many and many a client, betrayed and plundered, he had dealt with thus, in jail or out; but now he seemed to feel a force different from anything he had ever known, superior to his, baffling, redoubtable.

The sweat started in reality, though the prison air was chilly and dank. He shifted his feet uneasily and sat there a moment, almost forgetting what he had come there to say, unable to lay tongue to a word. A cell door jarred and grated. Rough-shod feet clattered somewhere on iron. A footstep sounded on the rotunda.

Dill looked up. Another visitor had entered—a sturdy, big-chested man, with a face lined by suffering, with eyes which had been dimmed by the bitterest tears in this sad world, the tears of parenthood. The visitor sat down, a few chairs distant, and waited. Dill, revived to action, began again:

"Coming down to practical fact," said he, lowering his voice and leaning a bit nearer to Graham, "you must realize how terribly this unfortunate affair has broken me. To be forced, actually forced—ah—to take action against a former ward of mine, against the son of an old friend—I trust you grasp my meaning?

"The situation is quite intolerable, now, my boy. I have decided to leave the city, the country, in fact. To retire from practise for a while, permanently, it may be. To take my—er—my daughter, you understand, and go abroad, where I can secure for her cultural and matrimonial prospects far superior to any in America. Very agreeable climate and conditions of life, you know, on the Riviera. Cannes, or Nice, or some one of the towns along the Mediterranean will no doubt suit us exactly.

"Orange-groves, olive-orchards, sea-bathing, social amenities, and all that. Rather a contrast, eh, with this?" he added, an undertone of bitter malice running through his voice like the red thread in British naval rope, hidden, yet real.

"Bless my soul, what a contrast! The way of the transgressor is hard, my boy; virtue is—is—ahem! As I was saying," he hurried on, lowering his eyes before the silent, cynical look of Graham, "as I was about to remark, undoubtedly my daughter will be materially benefited by residence abroad.

"The painful memories of this affair will be soon obliterated. She has been much distressed—er—that is, she was at first, but—after all the facts came out—not from me, you understand, not from me, but in the public press, then she seemed to become more reconciled. Much more so. Yes, indeed. To forget. Entirely so. I—we—ah—that is, a trip abroad will doubtless effect a complete change in her sentiments. I trust you comprehend me fully, and make up your mind to relinquish all—that is to say—"

He stopped again. Though Graham had not spoken, yet something had come into the young man's face, an expression, a gleam of light in his eyes, that Dill knew spelled danger. He had seen somewhat that look on the night when Graham had first confronted him with the diary. Wisely he desisted.

"In conclusion," he went on, leaning over and picking up his hat, which he carefully dusted on his sleeve, "in conclusion, let me say only two things. One is that the—the bonds, you understand—the bonds you were so imprudent as to lay claim to, have been put in a safe place. Positively secure, you know.

"So, also, the—ah—evidence which you seem to think you had. Rather an interesting souvenir, for me. More prudent, I think, to leave such things than to carry them abroad. So, when you are at liberty again, do not, I pray you, be so foolish as to take a long trip for absolutely nothing. For positively nothing. Nothing, in any way.

"I feel confident that a young man of your intelligence and doubtlessly fundamen-

tal good sense will grasp my meaning and act accordingly. Nothing can ever be gained by trying to see either myself or my daughter again. A lock-box in a—a lock-box, you know, is sometimes most convenient."

Graham did not move nor speak, but sat listening simply, because listen he must. Dill stood up and pulled his overcoat around his stooping shoulders.

"One word, and then I must—ah—really, I must go, you know," said he, glancing up at the prison clock. "Your sentence is indeterminate. Everything rests with you. Good conduct and a sincere desire for reform will shorten this time of necessary discipline. The reverse will lengthen it.

"After it is over, I trust you will resume your former occupation and—hm-m-m!—succeed. Any second offense, you know—"

He paused, interrupted by the entrance into the rotunda of another prisoner—a mere boy, not over eighteen years old. Graham, for the first time since Dill had begun talking, took his eyes from the lawyer's face to look up. He already knew the boy's story—a hold-up escapade, construed as highway robbery, with a ten-year sentence.

The other visitor, the stout man, was standing there with arms wide open, tears gushing down his face. Into his arms staggered the boy, ghastly white. He had been in prison only a week, and had not yet learned to steel himself against it. He flung himself upon his father's breast, sobbing; and the father, bending his head, took the boy's face in both his hands and kissed him. It was all quite irregular. The warden had to intervene.

Dill, profiting by the diversion and having said all that he had come to say, decided he had better not linger to dole out the moral maxims he had been planning to conclude with. Glad of the chance to get away, he noiselessly crossed the floor, tapped at the wicket, and was let out.

Two minutes later he was in the big buff motor, which, with a growl of gears, started on its swift course toward Boston, and Number 2704 had been led back to his place in the prison exchange.

All the way over the Charlestown Bridge, Dill was thinking hard.

"Didn't say a word," he reflected, poisonously angered by his failure to draw Graham's fire or to impress him in any way, bitterly humiliated by the memory of Graham's cool, clear eyes, that seemed to look him through and through. "So, then, he's stubborn yet, damn him! Well, they'll take that out of him, all right. Just a word from me to the chief, and—they'll break his nerve, safe enough. They know how! We'll see—we'll see!"

But all the rest of that day, that night, and many, many days and nights, even after an ocean rolled between him and America, he still saw those eyes. Still read in them something that not all his logic or hard commonsense, not all his reasoning, not the orange-groves, the silver-glinting southern sea, nor anything on earth could banish from his fear-stricken, brooding mind.

CHAPTER VIII.

First Lessons.

NUMBER 2704's cell-mate was a middle-aged, quiet man, somewhat bald, with a pointed little grayish beard, which, as a special privilege, he was allowed to cultivate. His left eye had a curious cast, due to the fact that a couple of black spots had punctured the gray iris. This peculiarity gave him the appearance of never looking directly at anybody or anything; it caused him a sort of squinting appearance, disconcerting and ominous. Yet, as a matter of fact, no milder-spoken man existed than he.

During the evening hour, when conversation was occasionally permitted, he sometimes talked a little with 2704, though even then he usually preferred to read books from the prison library, one after the other. He was an earnest, studious fellow, and one whose observations showed a great insight and a strong grasp of facts. He was not expansive in the least, but gave 2704 to understand that, once his day's work was done in the shop, he preferred to follow his own devices. He never volunteered his name, or any data as to his crime or sentence, and 2704 did not violate prison ethics by asking him.

The only title given him, beside his number, was "Piano," which 2704 inferred was due to his fine and dexterous fingers. He often wrote a short article or a bit of verse for the little *Mentor*, the penitentiary paper. Though quiet, he was far from disagreeable. Twenty-seven-O-four considered himself lucky to be bunking with such a man, rather than with some dope-smuggling, maundering, cursing brute.

Three months, or a little more, had passed; Barnard's occasional visits had dwindled to almost none at all; Stone's weekly letter had become two-weekly and showed signs of stopping altogether, before something happened that brought Piano and Switch, as his cell-

mate had been christened, because of his work, closer together, that established between them a bond of personal sympathy, and caused the older man to talk a little, guardedly, at such times as talk was tolerated.

This is how it came about. Almost opposite 2704's seat at the long, bare table in the whitewashed, cavern-like room where, three times daily, the convicts hastily and in enforced silence ate their miserable food, sat the young boy who had been "jobbed" by the police on the highway-robbery charge. The boy knew, as well as the authorities did, that his crushing sentence had been imposed simply because a gang of house-prowlers had been tearing things wide open in Boston of late, and the police had been obliged to save their faces by burying somebody.

He had been that somebody, that was all. This knowledge had made him restive and bitter. Once or twice already he had been "stood out" for some minor infraction of the rules. He had already been marked for punishment. Inhuman eyes watched him continually.

It was one afternoon at supper that the blow fell. The boy had been driven hard in the shop all that day, and had sulked. His appetite had gone back on him, and the supper made him downright sick. He turned away from the piece of "punk," or bread, and the tin basin of soup, made a wry face, and in a clearly audible voice gibed: "Sky-blue!"

At the sound of the word, which few prisoners would have dared utter in the presence of authority, a snicker ran along the funerally-silent table. Instantly a warder was upon the boy, hauling him away. Twenty-seven-O-four did not laugh. He only sat there, mad clear through, his mouth open as though to protest. He, too, was summoned for complicity and insubordination. Along with the boy, he was made to "dance on the carpet."

But 2704 refused to turn accuser. He was foolish enough to say that the soup was thin, and that he didn't blame the boy for kicking. That any word of his should thrust the lad into deeper torture was unthinkable. As a result, each of them got twenty-four hours in the "cooler" on bread and water.

That first experience with darkness, solitude, hunger and a despotism just as autocratic as that of any czar, gave 2704 some new thoughts, some thoughts such as, even after all he had gone through, he had never known the like of.

For the first time, now, he had come face to face with an item of the prison code—a code diametrically opposed to that of honor, a code wherein truth and kindness are crimes, while deception, boot-licking, and tale-bearing are virtues. He returned to his cell and to his studious mate with his brain stunned, his soul afire.

But "Piano" only smiled at him, condescendingly, almost as though in scorn.

"What business of yours, after all, was it what they did to him?" asked he in a low voice, so as not to be overheard by any one, official or eavesdropper.

"You mean that no matter what happens, what rotten injustice is put through—"

"Exactly. Justice, my young innocent, has no meaning in here any more. No, nor injustice. It's power that counts. Nothing else. Just as you found out before you came. Oh, I know about your case, all right. We know these things here. My advice is, see nothing, hear nothing, feel nothing. Get mum. Go into a trance, as it were. Just tick off the days, that's all. Sometime you'll be out, and then—there'll be things to do. But now, forget it. Don't try to help anybody. You can't, and you'll get in bad with the 'mugs.' Remember, a 'stive' isn't the outside world. It's a corner of Hades. Now you know what I mean. Are you wise?"

Without bothering for an answer, Piano took up his book again and, by the light of the incandescent, began to read. His mate saw that the volume was "Past and Present." He wondered. Why, thought he, should a philosopher like this, a man who chose for his companion Carlyle, be doing a term in the penitentiary? Urged by a sudden great curiosity, he asked:

"How in the world do you know all this and so much more? You must have seen some pretty rough work."

"Have I? You guess right first thing. What I've seen and heard would fill a book ten times bigger than that!" And he held up the volume of Carlyle. "Oh, no. I'm not going to scare you by telling you too much. No use of it. But after you'd seen the third degree worked on a helpless, quivering wreck, or seen a sick man tortured in the sweat-box, or heard a cell-mate shriek when they put the 'humming-bird' onto him—"

"Humming-bird?"

"Why, yes. Don't you know? They chain a prisoner into a metal tank, and then connect a sponge and a wire with a powerful

battery or dynamo. A warder, with rubber gloves on, passes the wet sponge over the naked body of the man till he faints or goes mad. It's a lulu!"

"Impossible!"

Piano laughed again. "Nevertheless, they do it," he replied. "They also give the water-cure. I've had it myself. They bound me in a bath-tub and squirted water down my throat, with a hose, till I had all the sensations of drowning, and lost consciousness. Oh, nice.

"But, after all, there are worse things than those. If you'd seen, as I have, a woman—a woman, I say—strung up by the thumbs and whipped until she fainted, or a girl bound into a whipping-machine and the machine turned till her blood ran, I reckon maybe you'd think a few things. But you'd never blow, my son. Not if you understood what you were up against. Nay, nay, sonny!"

"Wouldn't I? Well, I rather guess I would!"

Piano merely shook his head. "If you did," he answered, "you'd get a bigger dose of the cubby-hole than would be healthy, that's all. They'd break you—as they've broken so many thousands of others—body, soul, and mind, and, in the end, turn you out a hopeless, debased wreck, sure to drift into quod again sooner or later.

"I've never known a man to buck the system yet and get away with it. They kill without thinking much more of it than you would of lighting a pipe. It's brutality systematized. It's a force that knows its power. It can't be broken. No use, no use!"

He paused a moment, thinking. "The whipping-machine," he resumed, "had leather straps, by the way. Straps with iron rivets set in. Used in a Southern prison, where men are gallant. Those pens, down there, are torture. They use a whip, in some of the camps, called a 'red heifer,' about six feet long and notched at the end to make it bite. Before they flog, they dip it in lime-water to make it heavier. Every stroke flicks off the skin and takes out the flesh. Oh, yes, a good many men die from the effects, but what's the difference—when there are always plenty more?"

Twenty-seven-O-four gasped.

"Do you mean to tell me that in the United States—that in a free country—"

Piano smiled. "Ever see the 'bull-rings'" asked he. "No? They also call 'em the 'strappadoes' and the 'hook.' They're used for hanging up men by the wrists, like beef carcasses, and letting 'em swing. How long? Oh, one day, maybe. Maybe seven or eight, just as the warder feels about it. Great institution!

"I knew about a chap named William Hamlin, nineteen years old, out at the Pontiac reformatory. That's in Illinois, you know. They strung him up for thirty-eight hours. William wasn't very husky, I guess. It killed him. Spine was broken in two places. Oh, yes, you can find it in the records, if you ever care to look for it."

Piano's mate stood up suddenly, and began pacing the cell.

"One little case I remember," continued Piano, "that may interest you as showing how many rights you've got now. It happened in the jail at Erie, Pennsylvania."

"Well?"

"One of the boys kept insisting on his rights as a citizen, same as you seem to think you can. One day two or three of the warders threw him down a few flights of iron stairs, that's all. Nearly every rag of clothes was torn off him, and he was bleeding all over when they chucked him back in his cell. I never thought a man could let out such a heart-broken yell as he did. It was his last protest. He never said anything about having any rights after that. Learned his lesson, you see. As a matter of fact, a dog has just as many rights as a prisoner, that any official is bound to respect. That's gospel."

The young convict started to say something in a loud and angry voice, but Piano checked him.

"S-s-sh!" commanded he. "Don't be a fool. Want a touch of the cat yourself?"

"Go on!" said 2704 fiercely.

"I did a 'finif' in the Rhody pen, once," remarked Piano reminiscently. "Now, I can't go into many details, because there isn't much time left to-day, but I'll give you one or two little incidents I saw or knew of. I heard of men being kept in foul and rat-infested cells, chained to the doors, getting the gout on two bread-and-water hand-outs per day.

"I saw one lad beaten up with blackjacks till he was knocked out and bloody, and then given thirty-eight days in the black cells. I saw more than half a dozen laced up in the strait-jacket. That's hell, the jacket is. If it's placed at all tight, it cuts your wind almost off, and displaces your insides so that quite often you're injured or crippled for life. Sometimes it kills. I saw men kept in that infernal thing all the way from one to twelve hours, and I know that sometimes they're put

in for days at a time.' For what reason? Assault on an officer? Not a bit of it. I'll tell you. For having talked in the shop, or handed an apple or something brought in by a friend to some other 'con.'

"Then, there was another fellow, Bliss, who used to have epileptic fits. Once, when he came out of one, he found a warder sticking a needle into him to see whether he was really sick or just 'flickering.' Still another, Wells, died about two hours after they took him out of the dark cell, one time. Potter's field and the dissecting-table for his. Just a few cases to show you I'm right and you're wrong, my boy, that's all."

"But—but—can't anything be done? Aren't there boards of visitors, or—anything, to appeal to?"

Piano laughed. "Oh, yes," he answered. "But just you try appealing, and see what happens! I've known floggings to take place when visitors were actually in the jail. Of course, there were yells and howls and all that. 'What's the trouble?' 'Oh, just a man brought in with the d. t.'s. The doctors are trying to quiet him, poor chap!'

"An open-and-shut game, I tell you. Nothing doing. If the abuse happens to break a bone or a neck, or something, why—an accident has happened, that's all. Or they say a man has been unfortunately injured while trying to make his 'elegant'—his escape, you know. Here. Look at this for a sample, will you?"

He reached up to the shelf in the corner, took down the compulsory Bible, and opened it. Inside the back cover a little pocket had been cleverly fashioned by separating the end-paper from the cardboard. Out of this pocket he slipped a few papers, looked them over, selected one, and handed it to 2704. The young convict looked at it.

"Read that," said Piano. "I've always kept it as rather an interesting sample of man's humanity to man, and one phase of twentieth-century civilization. It's good, eh?"

"Merciful Heavens!" exclaimed 2704, his eyes fixed on the yellowed scrap of paper, a clipping from some journal. His jaw tightened as he read:

TAKEN TO GALLOWS WITH HIS THROAT CUT.

JAILERS BANDAGE THE CUT AND DRAG MAN LIMP TO EXECUTION.

SANTA FE, February 26.—John Conley, a miner, who killed James Redding and Charles Purdy at the Guadeloupe placers, was hanged to-day at Taos, a few hours after being found in his cell with his throat cut. The wound was bandaged. Limp and almost unconscious, Conley was dragged to the gallows and slipped through the trap, death resulting from strangulation.

Conley had been convicted by a jury, eleven members of which spoke only Spanish, and the trial was conducted with the aid of an interpreter. He had appealed to the Supreme Court, but didn't have money enough to push the case. Governor Hagerman refused a reprieve of thirty days.

Conley, who was born at Albany, New York, said he killed the two men in self-defense. He was a veteran of the Civil War.

Piano, smiling, stretched out his hand, took the clipping, and tucked it back into the Bible, which he replaced on the shelf.

"Not money enough, you notice," said he. Calmly, he went on reading his Carlyle.

CHAPTER IX.

A Sly Bird Spreads Its Wings.

EIGHTEEN months lagged past, each day long as a week, each week a month, and every month seemingly a year. Twenty-seven-O-four had long ago fallen into the routine. To him the outside world had come to be a distant memory. It seemed to him he had been always pent in bars, walking up and down iron stairs, silently eating miserable "chuck" in a cavern, with no taste of anything humanly decent except on holidays—for the current prison jest was that the inmates lived on six square meals a year.

He could scarcely imagine that exercise could be anything save a wretched mockery of tag or base-ball in a bricked yard, or a ghastly farce of amateur theatricals. Chapel he attended because it was a little break in the misery, a chance to let his voice out in the hymns—and how the convicts bellowed them, blowing off steam for days and days of enforced silence! But to the service he never paid much heed. He knew the type of man who preached only too well; the type of lecturers, too, that sometimes came, white-vested, to deliver platitudes. Some of these made him think of Dill occasionally, and at such times a new light would come into his dulling eyes.

Eighteen months of daily and hourly torment for a free spirit like his, "cribb'd, cabined, and confined" because of what? Because of having asked for justice. Nothing more. Not a moment of the time but burned the iron in his soul.

All this time he was learning, learning many things. Learning never to interfere, whatever happened; learning to be deaf, and blind, and dumb—not to see blows, hear shrieks, or answer insults. Learning to bow his neck to the yoke. Learning to submit. For it was useless to resist, after all.

He came to know about the dope-traffic in jail, the smuggling and sale to prisoners of opium and other drugs, carried on by trusties and warders at a huge profit—five dollars' worth of stuff bringing forty or fifty. He came to know how men, even in distant parts of the penitentiary, could communicate with each other by means of ciphers, go-betweens, rappings, and curious secret codes. He learned how a steel bar may be cut with a mere silk thread and emery powder.

He began to get an insight into prison traditions and the uncanny superstitions of criminals—the charms and talismans that crooks habitually carry, their custom of often leaving an object at the site of a crime, their formulas and beliefs, all the way from a simple word to the ghastly "hand of glory" and the "slumber-thumb," cut from a corpse and believed to prevent arrest or make a victim sleep.

Such things, and many, many, many more, scoffed at by the uninformed, but vitally real in the underworld, he came to know. And, added to his own experience with the law, he piled up endless similar cases about other convicts. He began, in short, to understand the truth, the cleavage of society into two sections, the precise relation that the law bore to each.

So the year and a half passed. And as winter settled into spring again, he began to get well into the prison harness, to think prison thoughts, live prison life unprotestingly, accept without question everything that happened.

Perhaps the strongest force of all to steady 2704, however, to keep him calm and passive, was the thought that good conduct would hasten his return to the world of living men. His own experience, added to what Piano from time to time told him—as, for example, a man getting five years for having stolen a drink, or another being sentenced to seventy-five days for the theft of seven pennies, while an upper-class theft of a million went unpunished—such knowledge developed in him a clear perception of the truth, the real character of modern law. He remembered, too, a thing Piano had once said.

"Law? Why, my lad, law's a net. The big fish break through it; the little ones get hung up by the gills. That's all there is to that!"

The thing stuck in his mind. He pondered it. His keen intelligence gave it unequivocal assent. All these things, and many another which only a thick book would find space to describe, worked on him constantly. They molded him, formed and altered him. Not all at once, but gradually, yet with absolute logic and honesty, he shucked off the conventions of life and assumed the realities. And his pale, prison-worn, sensitive face showed now another strength—the strength that comes from recognition of truth.

More and more, despite what he knew now of Piano's real career, he came to sympathize with him, to share his views, to accept the wise and shrewd dicta which this singular man, cultured, yet fully in touch with the underworld, its life, its *argot*, its thought, occasionally let fall. And so it was that, more than any other person at the gray old penitentiary, he felt a sense of keen loss, of deprivation, when one day Piano disappeared.

I doubt if the head warden himself regretted that disappearance more than 2704. When Piano was missed at supper, when he was found not to be in his cell, or anywhere about the prison—when by whisperings, tappings, secret and devious ways the information trickled through the sad hive that a break had been made and a getaway pulled off, 2704 had a hard fight with himself not to wish the man back again.

Half that night he lay, turning on his bunk in the rough blanket, feverishly wondering what had happened and just how the thing had been brought to pass; marveling at the nerve and self-restraint of the man who, evidently having planned this move, had never by word or sign or look so much as hinted it to his closest companion.

His admiration would have been full ten times keener had he known the truth, known the whole story, the long planning, the infinitude of careful thought and preparation that had led up to the escape. More than six months before, Piano had succeeded in getting a place on the editorial staff of *The Mentor*. He had known when one of the three editors had been released at the expiration of his sentence. For months and months before even that he had been writing and sending in items and articles, with just this end in view. He had applied for the vacant post, and had got it. That had been the first step.

"*The Mentor*," you understand, that lit-

tle gray-covered magazine written, edited, mimeographed and circulated inside of the prison walls exclusively by men who have "done things," as the phrase is, has its office down in a little room on the level of the yard. This room had for a long time attracted Piano, because of possibilities that his quick eye had seen there. Once he could gain access to that room and could spend uninterrupted hours there, he felt sure of results.

There were, he knew, three editors—one to make stencils for the mimeograph, one to handle the machine and help edit, one to do literary work exclusively. Piano coveted the job as mimeographer, where he could use the waxed sheets, the paper, the blue ink and the machine. That job he secured.

He soon learned all there was to learn. His eye, practised to take in the whole lay of an office or a bank at one glance, had no difficulty in estimating every possibility of the room. Its walls were of bare stone. Its two windows, barred of course, looked out at the base of the towering prison-wall. Its furniture consisted of three desks, the machine, a big filing-cabinet, and a few shelves and drawers. To the outsider, nothing very promising there. To Piano, everything.

Working on the editions for a month or two, each edition consisting of 10,000 sheets, he scraped off a little wax here, a little there, until he had accumulated, all unnoticed, a ball possibly the size of half an egg. This took a long time, but Piano had more than enough—had seven years yet to serve, in effect. Time was no object.

The wax was easily hidden at the back of one of the drawers, under a pile of old, discarded manuscript. When enough had been obtained, he smuggled it, via the subterranean channels that exist in every prison, to an accomplice whose exercise hours allowed him access to the iron door separating the eastern yard from the corridor leading to the front office. After a couple of weeks or so, the wax found its way back to Piano. On it was a certain impression. Piano studied this, and smiled.

Confiding in nobody, not even the other two convicts who worked with him, but watching his chances, using a minute now and then, when he happened to be alone in the office-cell, he fashioned a key from a strip of cast-iron which he detached under the machine where there was not one chance in a hundred it would ever be missed.

No one could have made such a key, from a wax impression, even with a file and all appliances, but an ex-safebreaker and yegg. Piano did it, with only the tiny screw-driver that was used for repairing the machine. It took him a long, long time, but at last it was done, the key hidden where the wax had been, and the wax was crumbled up, then bit by bit thrown into the waste-basket and so lost to view.

All this time, other work had been going forward. One of the steel strips of the mimeograph frame unaccountably broke, about a month after Piano began his work on the paper. A new one was ordered and put on. The pieces were thrown into a drawer, innocently enough. There were two of them.

Next day, two pieces were taken away, but the warder never thought of fitting them together to see if they made up the total original length. Had he done so, he would have found some three inches missing.

That three-inch strip of thin steel stayed for a few days tucked away under a box. After that, with now a bit of labor, then a bit, it gradually became a file. A file that Piano knew could easily be bound with string to the blade of the little screw-driver. The screw-driver handle, he figured, would be easy to hold and would prove all-around convenient.

Sizing up the situation, at last, he took account of stock on his inky fingers.

"Key. All right for that. File. O. K. With what I've done already on the two middle bars, give me half an hour and I'm fixed. Ink, blue ink. Lots of it. Tubes full. Cap—remains to be made. Plenty of cardboard, paste and paper. Take things all together, I should say about the middle of next week would be a good healthy time to go for a stroll. Sorry to give up a steady job as assistant editor on a paper—especially when times are so hard, too—but this spring weather certainly does make me uneasy. Heigh-o!" he yawned. "I suppose I've got to begin earning my own living again, before long!"

A step sounded in the corridor and a warder peered through the bars of the office-door. But he saw only a studious-looking, inky-handed man in a gray suit wearily working the frame and the big rubber roller of the old machine.

CHAPTER X.

The Bird Flits.

TWO circumstances, Piano knew, must fall together, before he should dare to make a break. First, he had to choose an

afternoon when he could have at least half an hour to himself in the basement room; and second, that hour must come coincidently with the presence of old man Flynn in the front office. Flynn was a superannuated guard, stupid and somewhat short of sight, but still serviceable enough to sit at the desk and receive visitors.

The front office work, of course, was never calculated to bring him into any direct contact with the prisoners. Piano did not reckon on having much trouble with the man, especially if the lights had not been turned on in the hall at the time when he should pass through it toward the street.

With considerable skill he obtained the information that Flynn was usually on duty Monday, Wednesday and Friday afternoons from four to six. The attempt, then, must be made at one of those times. Piano waited. Waiting, he used his few free minutes, now and then, to good advantage, constructing a close imitation of a warder's cap.

The abundance of pasteboard, paper, mucilage and cord, gave him all needful materials. He fashioned the thing with the editorial scissors, painted it blue, and blackened the vizor with different colored mimeograph inks; then lettered the front of it very cleverly with the gold paint wherewith on special occasions the editors were wont to decorate the cover of their magazine. When it was done he surveyed it, in private, under a dim light, and assured himself that it was good. Then he emptied a file-box, put the papers into other boxes, hid the cap in the empty box and stood the box in behind a row of others on the top shelf.

"I guess," said he, "things will be doing soon, now."

Everything ready, he one evening took a copy of *The Mentor* to his cell. This copy he marked, here and there, with little pin-pricks; he then mailed it out to an address in South Boston. It passed inspection all right. The recipient studied it carefully and prepared for action.

For more than three weeks he waited patiently, never by any look or word betraying himself, till everything should fall just right. At last his chance came.

It was a rainy April afternoon, the twenty-first of the month. All day the clouds had lowered. Gray mists had hung over the city, thickened by smoke and steam from the railway just to west of the prison walls and by fog drifting up from Miller's River, beyond. There had been no exercise in the rain-splashed, dreary yard. Everybody seemed depressed and irritable. The chief editor, his work done, had been drafted off to help in the book-keeping department. Piano and the other man had been left alone. It was just after four o'clock. An inspection had been made; Piano knew that the chances were against anybody else visiting the basement till supper time, half an hour later.

"Now!" thought he, straightening up from his work and looking his companion fair in the eyes with his peculiar squint.

"Tired, eh?" asked the other, sighing as he paused for a moment over the stencil he was graving.

"Not half so tired as you'll be in about one minute," answered Piano, "if you so much as peep! Now, no questions! Just put your hands together, so—and be quick. I'm going to tie you up!"

The man gaped at him; but Piano's words and look left no room for controversy. He obeyed.

Piano lashed him quickly with cord that had fastened a bale of paper. "This," said he, "will keep you from getting a taste of the dark-hole or the sweat-box. I'll gag you, so; now then, all you have to say is that I strong-armed you, and you're safe. You'll only have to stay this way a little while. I guess you can stand it!" With great speed and skill he triced the man, then shoved him over into a corner, made him lie down and bound his feet.

"There you are, now," he remarked. "Remember, if you ever snitch—well, you know!" The man, glad enough to help a fellow-convict, after all, only winked in signal of comprehension and lay still.

"You 'round' on me, and I'll get you, sure as guns!"

Piano gave no further heed to him, but opened a drawer, fumbled in the back of it, brought out his steel file and quickly lashed it to the screw-driver. Then, going over to the window, he knelt and began working away at one of the bars.

At the first stroke, the file plowed through a mixture of wax and dirt that had concealed a cut more than half-way through the bar. Piano labored fast and hard. In five minutes he had finished that bar and had begun on the other, which had likewise been prepared.

A step sounded somewhere outside, far down the hall. Piano waited, listening intently. His face was a trifle paler than usual, but calm. His eyes were steady. The sound died away. Again he threw himself at the filing.

Both bars, now, were cut. Before bending them inward, Piano did a very curious thing. He peeled off his coat and trousers, threw them on the stone floor, and reached for a bucket that stood in the corner. Into this he emptied the contents of three tubes of blue ink, tubes which he ripped up with the file and squeezed out almost with a single gesture. He snatched the big benzin bottle from the shelf where he had placed it after the last clean-up of the machine, and emptied it into the bucket, too. Hastily he stirred the mass with the scissors. The benzin quickly dissolved the thick, pasty ink. There resulted a large quantity of thin blue liquid.

Into this liquid he threw the trousers, sopped them up and down, turned them, dipped them. He drew them out and wrung them. From dark grey they had become dark blue.

The coat he treated likewise. There was hardly enough liquid left. He swabbed the coat round and round, spreading the color. He held it up and surveyed it.

"Rough work," said he, judicially. "But it'll have to do, on a pinch. After the rain wets me down, I guess the general effect will pass. It's got to! But I'll just take these along, anyhow, in case of trouble." And he slipped the scissors into his pocket.

It took him hardly a minute to dress, and soon he stood in the office-cell, clad from head to foot in wrinkled blue clothes.

"Lucky there is lots of rain, this P.M!" he added. Then he set the cap on his head, ran over to the desk, took the key that he had made, and pocketed it.

"Mum, you!" he commanded, turning to the tied-up convict on the floor. "You know how long a boxman's memory is!"

A moment he stood listening. Came a far stroke on a gong, followed by the faint slamming of a door.

"Work's over," said he. "They'll be at supper, now. Couldn't be a finer time!" He paused, as though he had forgotten something. "Hm-m!" he added. Then he drew the scissors from his wet pocket, and with two or three firm cuts squared off his pointed beard. "I guess that will help some," he concluded.

Over to the window he stepped, seized first one bar, then the other, and with a remarkable display of strength, bent them, hauled them inward, twisted them aside. He snatched a mucilage-pot from the desk, poured a handful of mucilage into his palm and smeared it quickly over the large pane of glass. Then, picking up a sheet of newspaper, he pressed it against the gummed window.

One sharp blow with the scissors handle; the glass broke, but, held by the paper, did not fall jingling to the bricks outside, as it would otherwise have done. Piano deftly enlarged the hole. In less than two minutes he had broken the pane almost entirely out and had laid the pieces of glass on the floor. The way was now clear, for him, into the yard.

He stood an instant peering out. The yard was deserted. Under the white glare of a light on the wall, nearly opposite, the wet bricks and little puddles of water sparkled unevenly. No sound, save the pattering of the rain.

"I guess she'll do," remarked Piano, in a calm voice. "So long, buddy!" He paid no further attention to the tied-up man in the corner, but stuck his head out through the window, cautiously looked up the yard, then down it, noted that nobody was in sight, and—silent as a ghost—straddled the sill. A second later, he was outside in the rain.

One glance told him that the guard upon the wall was around the corner, to westward, and that the coast was clear. Quietly, unconcernedly, he walked with a quick and firm step down the yard, turned an angle of the prison, and approached the door leading into the corridor that he knew communicated with the office.

"I sure do smell of gasoline, something savage!" thought he. "But I guess if I go right through, old Flynn won't fall for it before I'm out. We'll soon see, anyhow."

Now he was at the door.

He stopped to listen, but no sounds came to him save the drizzle of the pattering storm.

He took from his pocket the key, and noiselessly inserted it in the lock. He tried to turn it, but it stuck. With a precision, a skill, a nicety due to long years of experience he manipulated it, listening intently. He tried again. It resisted. He gave it the full strength of his hand. The lock yielded, grating; the bolt slid back. Piano smiled and nodded.

He attempted to withdraw the key, but this he could not do.

"No matter," said he to himself. "I sha'n't need it again. It'll make a good souvenir for the mugs."

He turned the knob, pushed the door gently inward, stuck his head into the dark corridor and looked both ways. Nobody in sight. "Cinch!" exulted he. "Cinch, sure as guns!"

Into the corridor he stepped, closed the door after him, and with a firm, business-like step walked toward the office. As he went, he settled his cap over his eyes and squared his shoulders. His left hand he slid into his pocket, where the scissors lay.

Now he was at the office door. Now the door was open. Piano in a lightning glance, his heart throbbing suddenly as though to burst, saw that only Flynn sat at the desk inside the partitioned space where the register is kept.

"Rotten day, all right," said Piano, stepping into the office.

The old man, barely glancing up from his paper, grunted assent. He thought he saw nothing but a rain-soaked warder. Piano gave him no time for observation, but looked up at the clock on the right hand wall, thus partly concealing his face. Then he turned and walked forward across the square-tiled floor toward the exit.

Already he had reached it, when something—the instinct of the old-time watchman, perhaps, or possibly the curious odor of benzin that now permeated the office—warned Flynn of danger.

"What's that ye say?" asked he, dropping his paper. "Hey, youse! Come back, here! Who th' deuce—?"

Piano, answering not, swung the outer door open and passed through. The blood was hammering in his temples; his breathing was labored and painful, but he controlled himself.

On the broad upper step of the granite stairs leading down to the paved space in front of the prison he even forced himself to pause, an instant, and to look up at the sky as though debating whether to go on or not. Then, quite deliberately, he walked down the steps—out into the world again!

Outside, yes, but how far, how infinitely far from safety yet! For already the old watchman was after him. Piano reached the bottom of the steps, turned to the right and advanced in the direction of the little triangular space where Chapman, Austin and Washington Streets all converge.

He had now perhaps fifty yards to go before he could swing into Chapman and make a break for the railroad, a quarter of a mile southwest—his objective point. Flynn, from the steps, was bawling something after him, he knew not what. Other cries arose. A gong began to bang and rattle. Piano spat out a curse.

Nothing to gain, now, he realized, by subterfuge or any more delay. He jammed his cap tight down onto his head, picked up his heels and broke into a swift run. Behind him he heard cries and sharp, excited voices. A revolver cracked. Past his head zooned a waspish bit of lead. Piano fled.

Up in front of him loomed a man, a civilian, with outspread arms. Piano leaped at him, brandishing the scissors. The man's courage died; he jumped aside and swore. Piano doubled the corner of the wall, to the right, and like an arrow sped along the brick sidewalk through the gloom. His feet, shod in rough prison leather, clattered a rapid-fire tattoo.

There were only a few people abroad. The street was ill lit by occasional flaring gas-lamps. Piano's blue clothes and vizored cap confused folk. He had a block or two the start of any real pursuit. And, cleverly, he shouted as he ran:

"Hey! Stop! Stop! Head him off! Hey, *there* he goes!"

Thus shouting, pointing wildly, he diverted attention as he passed the gaping, occasional citizen like a streak of blue, a vague and swift form in the down-settling fog. That was all he wanted, now, just to prevent interference from in front. As for anything behind, he knew he could outdistance all comers for a few minutes, till his wind should begin to fail. "Just let me reach the track, and I'm all right!" he thought.

Now he was there; now he leaped past the gateman's shanty, darted westward, with a gathering crowd shouting behind him and impeding the officials. Now, right at hand, he saw a train of box cars.

"Here's luck, eh?" thought he, and like a storm-blown wraith vanished under one.

Up again, on the other side, he scuttled toward the freight-yard. Behind him he heard shouts, cries, confusion. Despite his panting breath, the pain in his lungs, the leaping of his overtaxed heart, he laughed.

"The bulls will get a run for their coin anyhow, a good one!" he gibed.

"There he goes!" yelled a voice. A rock came whirling, then a lump of coal. Piano made a dive between a couple of cars, crawled on hands and knees, unseen, across a spur track, and reached another string of empties.

But, as he scooted along the cinders between that string and a file of oil-tanks, an overall-clad brakeman suddenly barred his passage. Piano saw the man crouch and double his fists.

Waiting not to be attacked, the fugitive

snatched up a broken fish-plate, weighing perhaps ten pounds, and hurled it, full force, with most excellent aim.

The brakeman flung up his arm, then dropped it, limp and broken, with a howl. Piano rushed at him, landed him a blow on the jaw, and passed, agile as a hunted jack-rabbit.

He heard a whistle blowing; then came the rapid tolling of a big bell.

"Lots doing, eh?" grunted he.

Near a switch-tower he paused to reconnoiter. For a minute or two, he had shaken pursuit off his trail. Panting, he glanced about him.

"There's the tower, all right," he said. "The lumber-yard's just beyond. If I can only reach that, now, I'm O. K."

Down the yard he heard voices calling, coming nearer and nearer. Two tracks from him, a clattering *bump-bump-bump* told him a train was being moved. Warily he dodged under a car, crawled across a vacant track and reached the slow-moving train.

He stepped between two of the cars and hoisted himself on the bumpers. Crouching, he was carried slowly past the tower. Then he heard angry yells. Rightly he surmised that some officer or other was shouting at the engine-men, ordering them to shift no rolling-stock till the yard had been searched.

With a satirical smile he peered out from his shelter. Dimly through the fog he saw men stumbling along the track toward him; two or three lanterns splotched the gloom with yellow.

"Come along, and welcome!" he gibed, climbing over to the other side of the train, which now gritted to a stop.

As the brake-shoes stopped squealing, he dropped lightly to the ground. "There she is!" he exclaimed.

Before him rose a high board fence, over the top of which he saw piles of seasoning lumber. Piano skirted this fence, slinking double in the railroad-ditch, slopping through mud and water, directly toward the noise of pursuit which now sounded ever louder. As he went, he scrutinized the fence.

"Ah!" said he, all at once.

One of the boards had a chalk-mark on it. Piano scrambled up out of the ditch, took hold of this board and pulled it outward. It had been detached at the bottom, and gave. He pulled harder. He made an opening big enough to crawl through. Into the lumber-yard he crept. The board sprang back into place.

He stood up, drew a long breath and looked around him. At sight of another chalk-mark on a pile somewhat to the left, he smiled. "Slim has certainly been on the job and done things right!" he affirmed cheerfully. "That *Mentor* I sent him did the biz!"

Proceeding through the mud to the marked pile, he knelt down, reached far in under it and felt around. His fingers touched something—a bundle. He drew the bundle out, and opened it.

"Couldn't be better," smiled he, surveying by the dim light the greasy overalls and jumper, the cap and worn shoes it contained.

Three minutes later he stood there in the garb of a workingman.

"Here goes for the old stuff, and they're welcome to it!" he exclaimed. He laid his discarded outfit on the ground, put a rock on it, rolled clothes, shoes and rock all together, and with a great heave hurled the mass far over the fence. It fell into an empty coal-car, where, next day, it was discovered out at Allston—a clue which utterly finished up the tangle of purposeless official pursuit.

In the pocket of the disguise Piano found a cob pipe, tobacco and matches. Calmly he filled the pipe and lighted it. Then, smoking like an honest man weary with a hard day's work, he made his way through the lumber-yard to the gate, passed through unchallenged with the crowd of home-going toilers, and thereafter vanished wholly from the ken of the law.

Just a little over a week later, Number 2704 received by mail from New York a book which, after having been inspected at the office, was allowed to reach him. It was a copy of Carlyle's "Past and Present." There was no donor's name inscribed, but Chapter II, "The Sphinx," had been marked with a blue pencil.

Twenty-seven-O-four smiled to himself.

"Well, Piano," reflected he, "I guess you're safe, by now. It's just possible—maybe more than possible—you and I may meet again, one of these days. I shouldn't wonder if perhaps you could help me, help me more than any law, eh?"

Then he sat down and began reading the chapter.

CHAPTER XI.

New Thoughts and an Old Friend.

WE understood, before it was half done, why Piano had chosen just this book from among all others, and this chapter in

the book. For, here and there through it, sentences and paragraphs leaped out at him, convincing, thought stirring, inspiring as the occasional shrewd, bitter or philosophical flashes that the escaped yegg had formerly at rare intervals let drive at him. Over a few lines he lingered especially, his eyes vague and half-closed as though seeing far visions.

He read the chapter through, that evening, and the whole book in a few days. The chapter itself he reread, many, many times in the succeeding months. Some of its fatalism, its savagely worded, triumphant irony burned itself into his brain; it became part of him; it helped him to see clearly, to understand some things which till now had been but half-seen, dimly comprehended.

> Foolish men imagine [cried Carlyle to him], that because judgment for an evil thing is delayed, there is no justice . . . Judgment . . . is many times delayed some day or two . . . but it is as sure as life, it is as sure as death! . . . Forget that, thou hast forgotten all. Success will never more attend thee. No more success; mere sham-success . . . rising ever higher, toward its Tarpeian Rock.
>
> The din of triumphant Law-logic, and all the shaking of horsehair wigs and learned sergeant gowns having comfortably ended . . . what says the high and highest Court to the verdict? For it is the Court of Courts, that same; where the universal soul of Fact and very Truth sits President—and thitherward, more and more swiftly, with a really terrible increase of swiftness, all causes . . . crowd for revisal—for reversal with costs. Dost thou know that Court; hast thou ever had any Law-practise there?

He thought of Dill, reading those words, of Dill who all the long, long years had robbed him and betrayed him; who, for a mere asking of justice, had reft him of liberty, love, reputation, future, perhaps of life itself; who now dwelt in luxury and ease, in safety, in the enjoyment of honor and esteem, all buttressed and defended by the thing called law. He thought of Agnes, taken from him by perjury and fraud—Agnes, whom he did not blame, whose face still haunted him—Agnes, lost forever, if the judgment of the court, of organized society should be allowed to stand.

So thinking, his mouth tightened, and the strange look that Dill had noticed in his eyes, the look that had so filled the old man with apprehension and venom, came back more strongly, more full of purpose than ever.

> . . . Oceans of horse-hair, continents of parchment, and learned-sergeant eloquence (he read), were it continued till the learned tongue wore itself small in the indefatigable learned mouth, cannot make unjust just. . . . Enforce it by never such statuting, three readings, royal assents; blow it to the four winds with all manner of quilted trumpeters and pursuivants, in the rear of them stand never so many gibbets and hangmen, it will not stand, it cannot stand.

"The unjust cannot stand?" queried the convict of himself. "Ah, but I doubt that! A legal judgment, rendered in court and backed by all the powers of the State—what shall overthrow it? Justice? That is another matter. Justice and law—two different things.

Things are, because certain men have the power to make them so. Men who are the masters; what they decree must stand, right or wrong. If wrong, then right must come about because of other and different mastery. Mastery it is, at any rate, that wins. The master comes into his own. The "master—" Over that word and that idea, he brooded long.

He read further:

> In this world, with its wild-whirling eddies and mad foam-oceans, where . . . judgment for an unjust thing is sternly delayed, dost thou therefore think there is no justice? It is what the fool hath said in his heart . . . I tell thee again . . . one strong thing I find here below the just thing, the true thing . . . If thou hadst all the artillery of Woolwich trundling at thy back in support of an unjust thing . . . I would advise thee to call halt . . . If the thing is unjust, thou hast not succeeded; no, not though bonfires blazed from North to South, and bells rang . . . and the just thing lay trampled out of sight, to all mortal eyes an abolished and annihilated thing.
>
> Await the issue. In all battles, if you await the issue, each fighter has prospered according to his fight.

And again:

> What is justice? that, on the whole, is the question of the Sphinx to us. The law of Fact is, that Justice must and will be done. The sooner the better; for the Time grows stringent, frightfully pressing!
>
> . . . The grand question still remains, Was the judgment just? If unjust, it will not and cannot get harbor for itself, or continue to have footing in this Universe.

All this and much more he read and pondered. He came to understand the character of law as a class thing, made by property,

to defend property, and backed up by police, courts, prisons, guns, armies, navies, every instrument of force or repression capable of being used by property, which is to say, the master of the world. Out of it all came to him a clear conception of that mastery; the idea of it gradually took possession of him. But as yet he had gained no very clear idea of the manner in which he meant to put it into practical form.

Bred all his life to respect the law, merely because it was the law, without inquiring into its origins, meanings, or applications, he did not in a single moment arrive at the full consciousness of the thing that he must do. Yet, through all the days and weeks and months that followed, the leaven of understanding, of knowledge, of determination was surely working in his soul.

One day, after he had almost learned the book by heart, an idea occurred to him. He marked certain of the most stinging passages and had it sent to Martin Stone, in New York. Later, he wrote Stone a letter which gave him to understand that the book was to be forwarded to Dill, at San Remo. Dill eventually received it; and his insomnia took no benefit from its reading. Always before the old man's eyes hovered the vision of a time, surely to come, when all his subterfuges, all his power could no longer keep the sender of that book behind steel bars; when Graham should be Graham again, no longer 2704; when justice—not law—might yet be done.

Each month that passed, aged him six months. He grew, almost from day to day, decrepit. Agnes, who smiled but rarely, sat with her father long, long hours, gazing out through the palms and orange-trees at the Mediterranean, at the red and blue sailed, latteen-rigged fishing boats. She had grown grave and very thoughtful, it seemed; but with all her thought she asked no questions of her father. She, too, had her problems, deep, seemingly insoluble.

So, for them all, the time dragged on.

As it passed, 2704 found himself more and more wholly forgotten by the outside world. Barnard had long since given up any pretense of coming to visit him, and Stone's letters were growing very rare. The convict came to think the thoughts of the penitentiary, to live its life, even to take a certain interest in its brutal or petty happenings and its inmates. Men in prison, he found, differed very little from men outside. They had simply been caught, that was all.

When an occasional commission or sociological club came to visit the place, to peek through the bars, pry, question and patronize, do like people at a zoo, all save actually poking the convicts with umbrellas, 2704 grew sick at their drivel and hypocrisy. It all sounded like Dill himself.

The prisoner had a keen notion that much of all visitors' interest rose from the sneaking, hidden fear each one of them had that some time they too might surely get their just deserts and sit in gray. Thinking of this, 2704 recalled Piano's wisdom, and smiled.

He lived his own life of reflection in the company of books. He did his work, said nothing, got no black marks and became a model prisoner. He refused to let persecution goad him to anger. If shrieks rang through the iron house of sorrow, if some unfortunate "went woody" and dashed himself howling against the bars till drugs and force quieted him, 2704 listened, thought, but kept silent.

Twice came awful days when the word was whispered round that a condemned man was "going up Salt Creek." Days when nobody went to work in the shops, when the atmosphere grew tense with horror, when bullet-headed and misshapen hulks of men, damned by their birth and breeding, knelt in fear on the stones, prayed, moaned, cursed, gibed, wept—execution days when in the death-house the chair burned out a human life. Then 2704 noted everything. He neither cursed nor prayed. He thought.

So two years more passed. The prisoner found that subtle changes were taking place in the structure of his mind. Each trivial incident began to assume undue importance. Things that, outside, would not have been worth a minute's thought, began to loom big before his mental vision. He found himself losing his sense of proportion. If anything went wrong at the switch-board, if the library-officer came to his cell while he was out at exercise and his book was not changed, that slight annoyance cast a gloom over him, made him brood for an hour or two.

What man, asked he, ever was "reformed" by any such unnatural conditions of seclusion, silence and monotony? What man, having committed crime, but must go forth from prison a worse man than he had entered it, wiser in methods, instructed by the masters of evil, embittered, hardened? Twenty-seven-O-four shuddered. His hope, now, his one desire was that something of his old self might be left to him at the time of his release.

Release came at last, a commonplace and routine thing like every other. One May day, four years and a month from the time of his incarceration, 2704 was summoned to the office. There he was told that, the following week, he would be free. He was given a stereotyped moral lecture and sent back to his work. The news made little impression on him. It seemed to bear no essence of reality—to be a mere delusion, a bit of fiction, a vapor of the fancy. Rather than elation, it brought anxiety.

A strange feeling of apprehension, of shrinking from the outside world began to possess the convict. What would it be like, now, liberty? The other time friends, the work, the world—what? The man realized that his years of servitude, of dependence, had worn down his nerves and brain. Habit had worked its will on him. When the last day came, he felt that he would rather put off his freedom for another day.

"Not to-day," he thought. "To-morrow, perhaps; to-morrow I shall be ready. Not to-day!"

They gave him a cheap, ill-fitting suit of shoddy clothes, a five-dollar bill, some platitudes and perfunctory hand-shakes, and turned him out like a blind man into the glare of furnaces—a blind man who knew not which way to turn that he might avoid the fire.

As he stood on the granite steps, blinking up at the sky, breathing the spring air, looking with wonder at the passing drays and wagons, his ears offended by the unusual noise, he felt for a minute the strong impulse to walk back into the shelter of the penitentiary, go to his switch-board, or return to his accustomed cell and take up once more the half-finished book.

"It's—it's all so different from what I thought it would be like!" he exclaimed. Dazed and perplexed, he stood there a minute or two, trying to realize the truth that he was free. Free, yet not the same man that he had been. Never the same man, never any more!

Years and years gone, far more years than the actual toll of four; a seeming eternity. Graham gasped slightly, walked down the steps with an uncertain, slouching tread, turned to the right, and with the prison shuffle, due to endless lock-stepping, started toward City Square.

How high the houses seemed; how ominous the open, unbarred spaces! Almost like a sufferer from that singular disease called agoraphobia, he shunned the outer edge of the sidewalk and crept along close to the wall. He touched the wall with his hand; it gave him confidence. Two or three passers-by turned to look at him, smiling with wise patronage. *They* knew!

At the corner of the long wall, where the penitentiary enclosure ends, he stopped. There was an open square to cross. He stood looking at it, confused and weak. Suddenly he turned his head and started sharply. A man had spoken to him.

"Carlyle!" the man had said. Just that one word.

Graham looked at the man, not yet understanding.

He saw a compact, middle-statured fellow of indeterminate age, shaven, carefully and correctly dressed, with a singular cast in his world-wise, steady eyes. The man stretched out a palm to him. Graham shook hands, unresistingly.

"I knew you were getting your turn-out, this afternoon," he remarked. "We have a way of knowing things, all sorts of things, in my world. That's more than your 'respectable' friends can say. I notice there aren't any crowds of them waiting to receive you, eh?"

"Who—who are you?" asked Graham astonished.

"Who am I? Oh, just a lover of good comfort and good literature, an especial admirer of Carlyle, that's all." And the man laughed easily. "Come along," he added, taking Graham's arm. "You need somebody with you, for a while, till things begin to straighten out. I know all about it, myself. I've been there, newly-hatched, more than once—feeling just like you feel now. Don't worry; don't try to think; just come along with me. I'll see you through. Trust me, my lad. I've never sunk a pal yet, and I never will. Come!"

Graham felt a sense of singular uneasiness, almost of dread. But, half-dazed as he was by the strong light, the noise, the vacancy of the unbarred spaces before him, he yielded.

The two men, arm in arm, headed along the ugliness of Charlestown's streets toward the "L" station in the square. The greater ugliness of the penitentiary faded behind them.

All at once Graham stopped, passed a hand over his eyes, and looked the man square in the face.

"Piano? You?" cried he.

(To be continued.)

The World's Record For Passenger Traffic.

BY C. W. BEELS.

DURING the week beginning Monday, September 5, at 1 A. M., and ending Saturday, September 10, at noon, the trunk-line roads running into New York City unloaded 1,262,940 people. Pretty near the entire city of Philadelphia landed by trains in the great metropolis. The entire population of Madrid, Rome, and Yokohama poured into this great big New York inside of 132 hours.

And this was accomplished with no more commotion than would be occasioned by the arrival of a delegation from Cowcreek Corners!

This is the greatest record for train-service in a single city. Within ten hours on Labor Day the New York Central lines alone handled over 42,000 *extra* people. This number, added to the 80,000 *regulars*, is the record for *one terminal*.

Not an accident was recorded on any road handling these hundreds of thousands of human beings.

How 1,292,940 Human Beings Were Safely Landed by Trains in New York City in One Week. The Greatest World Industry—and Why.

GREATER NEW YORK, the imperial city of the western hemisphere, now contains 4,766,883 inhabitants. These are the figures as given out by the Census Bureau which is now completing its work at Washington, D. C. That is a pretty big family for Father Knickerbocker to take care of, and especially in summer, when most people feel the necessity of a trip to the mountains or the sea.

It is estimated that over one-half of the population of Greater New York seeks the country in some way or other during the hot weather. The populace goes away some time between the months of April and July

Colossal transportation figures of the week's business (beginning September 5), with the railroads running into New York City.

Railroad.	Trains.	Extra Passengers Carried. Cars.	Baggage.	Persons.	Reg. Passengers.	Total.
New York Central.....	178	1,424	136,940	252,600	240,000	492,600
Pennsylvania.....	125	1,000	97,800	68,000	120,000	188,000
Erie.....	47	329	12,750	19,740	90,000	79,740
Lehigh Valley.....	42	294	26,740	17,640	60,000	77,640
Lackawanna.....	14	140	15,781	8,400	76,000	84,400
Long Island.....	22	176	19,872	10,560	300,000	310,560
Totals.....	428	3,363	309,883	376,940	886,000	1,262,940

but it returns in a heap. Labor Day marks the end of the outing season, and on that day, and the day following, the railroads entering New York City handle an army of people.

The New York Central lines estimated that over 325,000 homeward-bound people passed through their gates on Labor Day of this year—and the majority of that number was recorded between twelve o'clock noon and midnight.

The New Haven and New York Central, in addition to its normal commuting traffic of 60,000 passengers a day, brought in 90,000 returning holiday folk.

The Seashore Division of the Pennsylvania in addition to its normal 20,000 incoming passengers, brought back about 24,000 who had been staying on the Jersey coast.

The Long Island Railroad, which through August carried about 50,000 passengers each way daily, had to transport 14,000 extra holiday folk, who have been spending the summer on the north or south Long Island shores.

Over 250 Extra Cars.

In consequence, the home-coming rush, which, according to railroad men, was the biggest that has ever followed a Labor Day in this city's history, did all kinds of things to the time-tables, and strained railway equipments to their fullest capacity. The Central and New Haven had to put on 253 extra cars. The Long Island had to run eighteen extra trains of ten cars each.

The Pennsylvania, on its Seashore Division, tapping Asbury Park and the other Atlantic Coast resorts as far as Point Pleasant, had to put on thirty additional trains. Most of these were made up of the Pennsylvania's new steel cars, seating 88 passengers each. There were from eight to eleven of these cars in each train which pulled into the Pennsylvania train-shed.

The Adirondack Express, which runs from the Thousand Islands to New York City, perhaps broke the record for passenger-trains, so far as size is concerned. This train was sent over its route in sixteen sections.

The first arrived at the Grand Central Station on time, the sixteenth just four hours later.

New York Central officials, a week before Labor Day, found that the Adirondack Express would have to carry 12,500 passengers from the northeastern part of the State into this city. To carry 12,500 passengers in the ten cars of which the Adirondack Express is made up on ordinary nights!

Big railroads don't have much trouble in meeting such problems. The New York Central simply said: "All those people want to get home in one day and it is up to us to get them home."

Over 12,000 in One Train.

The company, by telegraph and phone, got a line on about 150 drawing-room, sleeping-car, and day-coaches by evening. They divided these up into sixteen separate trains, and sent the Adirondack Express with its 12,500 home-seeking passengers back to this city in sixteen sections.

These sections had to be started five minutes apart. Passengers in the last section were consequently something like 1 hour and 20 minutes late in reaching this city. But this, the railroad company pointed out, was a lot better for the passengers than trying to crowd 12,500 into a smaller number of cars.

The Seashore Division officials of the Pennsylvania pleased its home-coming crowds mightily on Labor Day by doing something which might have tangled up a less well-organized railroad considerably and which puzzled many watch-holding passengers a good deal.

Feeling sure that the home-seekers would begin collecting at the various stations long ahead of time, the officials decided to run the 9.30 in nine sections and have the first of these sections start fifty minutes ahead of schedule time.

The Separate Sections.

Each section was made up of from eight to eleven cars, calculated to hold eighty persons each. The guards and conductors were also instructed to shout:

"New York train! First section of the New York Express!" unusually loud when the train entered a station.

Most of the holiday folk who were waiting on the platforms were so anxious to get home that they didn't take time to look at their watches, and scrambled aboard in triumphant ignorance of what the railroad had done to please them.

Many of the first section's passengers were startled when they reached New York City and saw by the clocks on the buildings that they had arrived here fifty minutes ahead of time.

The Pennsylvania Railroad had to run two additional baggage-trains of six cars each, on Labor Day, so numerous were the trunks the road had to carry. According to its officials, the New York, or Seashore Division, brought back twenty per cent more home-comers than it did after Labor Day last year.

The Long Island Railroad also carried more people home to New York than on any other Labor Day in its history.

"We carried 600,000 people out of New York City on July 4," said one Long Island official. "We didn't carry them all back again, but we carried back 880 pieces of baggage and between 1,500 and 2,000 boxes full of fish, crabs, and oysters, which our patrons had caught themselves.

"This also happens to be cauliflower time, and what room in the baggage cars that wasn't taken up with fish, contained vegetables. On Labor Day night, because of the rush, almost all our trains were from twenty minutes to one and a half hours late. There was not an accident."

Figures that Talk.

The crowd which waited for home-coming relatives in front of the bulletin board on the upper train-level of the New York Central's terminal was much pleased with the working of the automatic announcing system which the Central had introduced. Under this system, the number of each incoming train is seen by an operator in the Mott Haven observation tower. He telephones it both to the superintendent's office and to the operator at the Fifty-Fourth Street switching tower.

The Fifty-Fourth Street towerman is the king of the whole yard from the point of view of responsibility. His mind is trained to tell into exactly which one of the many sidings he can switch each incoming train. While he jams down a lever, an assistant telephones to the superintendent's office.

This office is equipped with an automatic writing device which communicates with the bulletin board on the upper track-level where the passengers' friends are waiting. The superintendent writes the news about each train on a pad, which is part of this automatic writing device. This writing appears on a similar pad beside the announcer on the upper track level, who in turn writes it with chalk on the bulletin-board.

"This has been easily the largest Labor Day traffic we have ever had," said a New York Central official. "We carried in 150,000 people this morning, and since Friday have brought back 650,000. Since Friday we have had to put on 720 extra cars. We brought back almost as many people on Saturday and Sunday as we did last night and this morning. New Yorkers are beginning to understand the inconvenience of all trying to come home on the same train.

A Mountain of Trunks.

"In three days the New York Central has brought in 30,000 pieces of baggage, and the New Haven Road has done likewise. This has kept our new automobile baggage-trucks, which carry twenty-five pieces of baggage a trip, busy all the time."

"You must take in a lot of money from all these passengers," I said to one of the railroad officials.

"Yes, we do," he replied, "but we have use for it all. The railroads are employing nearly 1,800,000 people to-day, and if you count in the families that are dependent on these employees it is easy to estimate that we are supporting a big percentage of our population.

"The biggest business in the country to-day is railroading," he went on. "There are 2,500 roads now in operation in the United States, and if they could hoard the money they gather from day to day, from freight and passengers, there wouldn't be a dollar left in the country at the end of a year. Every piece of metal and paper currency in the country would be in the railroad treasuries. The railroads earn in a year five times the whole world's output of gold; thirty times this country's gold output; they take in four times as much money as the Steel Corporation, five times as much money as the government itself—more money than is represented in all our trade over seas.

Seven Millions a Day.

"It's a big business that takes in $2,600,000,000 in a year. This is $7,000,000 a day—$7,000,000 a day!

"And $3,500,000 of this money, every day of the year, goes into the pay-envelopes of the workers. For half the money gathered in by the railroads—half of this $2,600,000,000 a year—is the workers' share of the biggest of American businesses.

"So in two years the railroad workers receive in their pay-envelopes as much money as there is in circulation in the whole country!

"Big figures, these! There is the humble trackman, usually an alien from the slums of Europe, who doggedly obeys the orders of the track-foreman. Out of every $100 gathered in by the railroads, $6 goes to him—five times as much as goes to the railroad officials. The figures are big, you see, whether you start from the bottom or top.

"Workers actually get $50 out of every $100, for from the $25 paid for materials—rails, cars, engines, buildings, etc.—$10 goes to workers in these industries. Every time you spend a dollar at a railroad ticket-office or freight-office, you are paying 50 cents for wages.

"The pay-roll of the United States railroads amounts to a billion dollars a year.

"When you look over this billion-dollar pay-roll, you get an idea of the bigness of railroading. Take the smallest item there is—$28,000,000 paid in wages to telegraphers and despatchers, an army of 40,000 men at the key. This is more money than all the telegraph companies in the country spend in wages.

What Goes to the Workers.

"Perhaps the largest item is $210,000,000 in wages to shopmen. You know, perhaps, that railroads have shops, where they mend broken wheels and put new paint on cars. On the New York Central, climbing up the hill out of Albany, with the help of a snorting 'pusher' on behind, you may have noticed a group of brick buildings—the West Albany shops. Or, going over the Pennsylvania, your attention has been attracted, perhaps, to the Altoona shops.

"But did you ever know that the railroad shops of the country employ an army of 350,000 men, earning $200,000,000 a year in wages? This repair end of the railroad business is bigger than the business of the Steel Corporation itself—more men and more wages.

"The army of shopmen has a big job. In the shops of the big railroads locomotives and cars are built as well as repaired. The smaller roads buy their equipment from the independent builders, but there is no road so small but that it has its shops for repairing equipment.

"The railroads own 2,200,000 cars—of which 50,000 are passenger-cars. Made up into one train, these cars would stretch around the earth, and to every fortieth car there would be a locomotive, for the railroads have 55,000 in service.

"You could carry every man, woman, and child in America in this train, allowing only forty passengers to a car. It's the business of the third of a million shopmen to keep these two and a quarter million cars and locomotives in running order.

Armies of Toilers.

"A bigger army still is that on the track—430,000 men, made up of 45,000 section-foremen—the bosses—and 385,000 humble workers, the lowest paid men in the service, averaging $8 a week. But they take $6 out of every $100 of railroad revenue, or $150,000,000 a year, and no small part of this money finds its way back to the old country.

"Many a good American citizen of to-day earned his first money in this country as a member of a track-gang."

"How about the expenditure for operation?" I asked.

"The railroads spent for operation last year," continued my informant, "the enormous sum of $1,750,000,000. Of this sum, $970,000,000 was spent in running trains, and over $7,000,000 in maintaining road-bed and equipment."

This official gave me the following facts:

"Included in this billion and three-quarters is the billion-dollar pay-roll. The other three-quarters is spent on various materials, coal and steel being the principal items. The coal bill for the locomotives is the largest single item—$185,000,000.

Besides the Coal Bill.

"Besides the coal bill, there is spent for locomotives $10,000,000 on water, $6,000,000 on oil, tallow, and waste, and $4,000,000 on other supplies—more than $200,000,000 in all. The tie bill is big—$40,000,000; bigger than the rail bill—$25,000,000. Stationery and printing costs $14,000,000; advertising, $7,000,000; wrecks and other damages, $22,000,000; clearing away wrecks, $5,000,000; killing and injuring people, $18,000,000; insurance, $7,500,000—and so on through a score of items, all in the millions.

"How much the railroads spend on steel products can only be guessed, but considerably more than half the products of the steel mills are bought by the railroads. The steel industry is prince or pauper, according as the railroads are buying freely or not of their products.

"When the railroads give out orders for rails, cars, locomotives, bridges, structural

steel, and other products of the steel industry, there is a boom, and when they stop buying there's depression, railroading, steel-making, and coal-mining going hand in hand. They are the three great businesses that make Pittsburgh the greatest industrial town in the world.

The Bondholder's Share.

"The railroads pay out of their revenues forty per cent for wages, twenty-five per cent for materials, etc., and three per cent for taxes, and then there is still left thirty-two per cent of the revenues. The creditors—that is, the bondholders, spread all over the earth—owning $9,000,000,000 of American railroad securities, get thirteen per cent of the revenues. This nets them only 3.7 per cent on the par value of their bonds. There is still nineteen per cent left. Of this, twelve per cent goes to the shareholders—the half million owners.

"They receive $300,000,000 a year out of the $2,600,000,000 earnings, which nets them only 3.6 per cent on their $8,000,000,000 of stock. The other seven per cent of the earnings goes into surplus.

"The train-crews, with 320,000 enginemen, firemen, conductors, and trainmen, make up the third largest railroad army; but they head the wage list with $285,000,000 a year. They get more than a dollar out of every ten received by the railroads.

"The railroads earned last year, gross, $2,600,000,000. The small end of the railroad business is the passenger traffic. The receipts from 900,000 passengers were $570,000,000. The average rate paid was a trifle over two cents a mile.

Dealing with Passengers.

"When a person pays for a thing, he expects to get full value for his money. That is just the way members of the traveling public feel, who pay to ride, and for what the company advertises to give them—namely, courtesy and attention from employees, with *good service*, so it is 'up to us' to live up to this agreement.

"We should live up to the rules regarding making up trains, and see that everything is in good order; that the air is tested properly; that vestibule curtains are hooked up; and that a gate or chain is at the rear end of the last car, to keep the passengers from falling off; and also that the cars are *properly ventilated*.

"We should regulate the steam-heat—shut off or put on, as may be required; be sure the floor-valves are closed; put cups at the drinking-tanks, and see that they are *clean*. The traveling public will appreciate it if, when we do this work, we do it right.

"When passengers get on or off your train, assist them—especially elderly people, or women with small children; if they have suit-cases, or folding go-carts, put these on the train. If any passenger asks you a question, *answer* it *pleasantly*—always speak as you would like to have *them* speak to *you*.

"If working on a through train, be sure that people getting on are getting the *right* train. After yours leaves its terminal, close all the doors and vestibule traps, and unlock the toilets; be sure your aisles are clear of suit-cases and packages, so that passengers getting on or off the train will not fall over them.

"When your train is running between stations, go through the cars and see that they are ventilated and heated properly, and if any of the passengers want anything, such as a seat turned, or a chair lowered, or *any* little favor, do it as if you were *glad* to do it.

This Is What Pays.

"Before going into a station, on a through train, go through the cars, pulling the checks, telling the passengers when the next station is theirs; and if they are asleep, wake them up, always giving them plenty of time to get ready before arriving at their destination.

"On arrival at the station, go into each car and announce the station *so as to be understood;* repeat your call from each end of the car, and assist the passengers getting on or off the train. When you get through loading, go along the outside of the train, looking out for hot boxes and see that your brake-rigging is all right.

"Remember in conversations with passengers, answering questions, or when a passenger is angry about something which does not concern you, but he still tries to 'take it out' on you, or says something which you do not like, do not lose *your* head; don't get excited—keep cool—and you will win out *every time*.

"If you are in the wrong, you know what the rules are, and what the consequences will be. We all make mistakes—the best of men do—but if you make one once, try *not* to make the *same* one *again*. Be generous and kind-hearted, and remember courtesy wins friends, for yourself as well as for the company."

BUTCH POTEET'S BRIDE.

BY EMMET F. HARTE.

Honk Invents a Panoramoscope, and, with the Aid of Horace, Proves That Love Will Have Its Way.

HONK threw down his newspaper and sighed like a November wind in a weeping willow. I waited with a card poised for almost a minute, expecting him to voice his mood in appropriate words—but he didn't. "Well," I said, "what's eating you?"

He snorted equinely, and awoke from his reverie.

"Heigh-ho!" he yawned. "Valhalla's too serene. It's as still as a vacuum all over. Everything's jogging along so slick and noiseless it makes a fellow lonesome. If something'd just go wrong, so I could fix it, I believe I'd feel better; but there's not even a dog-fight to stir your pulse. What my soul craves is excitement, action, clamor—"

"Try the solace of solitaire," I suggested. "There's another deck over there on the window-sill. The flower-garden is a thriller. Or, let me play you that stirring melody entitled 'I'm Afraid to Come Home in the Dark.'"

He shook his head.

"I guess I'll finish up my panoramoscope," he mourned. "I don't seem to take no interest in anything you mention. Gimme a little nip off that plug."

He filled his face with the weed that soothes but does not inebriate, and got out his junk collection.

The thing he was concocting, and which he referred to as the panoramoscope, was a black box about the size of a cracker-case, filled with lenses, mirrors, and clockwork mechanism. When finished, he expected it to do marvels, and it was all completed, with the exception of a couple of lenses for which he had sent East.

The lenses had arrived that day, and he was ready to put the finishing touches on his contraption.

"This little contrivance," he remarked presently, while at his tinkering—"this little contrivance, now, is quite full of possibilities, don't you know. I'll fix up a lookout on the roof of the car, where the view is extended, and the surrounding country within a radius of thirty or forty miles will be brought under our surveillance.

"It will enable us to keep in touch with local happenings, conditions, and affairs to their minutest details. I will be the general directing his troops. I install this machine in my conning-tower, seat myself comfortably, gaze upon the polished face of this screen, and what do I see?"

"You see a stately fleet of ships flying your pennant, at anchor in the bay," I ventured, "or a Nautch girl doing a cheap imitation of Salome, or a dark-browed man coming with an armload of bombs to wreck the city. A-ha! The scene changes. Note the swirling unrest! The luminous haze! The transformation! Now the picture is materializing. It is the moment of fate—"

"Stuff something in your mouth!" said Honk. "This is no fortune-teller's trick-box! This is a scientific instrument built to catch and register light rays. It is a powerful telescope, refracting mirrors, reflectors and projectors, assembled and focused to bring distant objects to your elbow. For example:

"You are forty-three miles away, over there toward the east, we'll say. You are slouching along in your usual way. I am watching your motions on this screen. I see your shoe is untied; you stoop to tie it. I note your bored expression. The string is in a hard knot. I watch you jerk it. I see your lips move. A fly alights on your coat-sleeve and preens his wings—"

"Have I got my bicycle with me? I'm not away over there on foot, am I?"

"I'm explaining this instrument," said

Honk. "You set it up where the view is unobstructed, wind the clock, and lean back. Every minute detail of the surrounding country is revealed to you in a slowly moving panorama on this screen. It is a telescope and periscope combined—only better, much better. A bird pecking at a cherry twenty miles away; a man plowing in a field thirty miles distant. You can tell whether his eyes are brown or blue; you can even see the freckles on his nose."

"It's great!" I said, with admiration. "It's the one thing that's been lacking in rural communities. Every Mattie in the country, from Augusta, Maine, to Los Angeles, will have one regardless of cost. It beats listening over a party-line to a thin batter. How much will it sell for? I'll take the agency for Ohio, Indiana, Kentucky, Illinois, Missouri, Iowa, Kansas, Nebraska—"

"It won't be for sale," Honk said shortly. "No invention of mine will ever be subverted to base uses."

"Oh, that's all right," I reassured him. "I knew you would not sell it. You're afraid somebody might have some fun out of the thing." I shuffled the cards again.

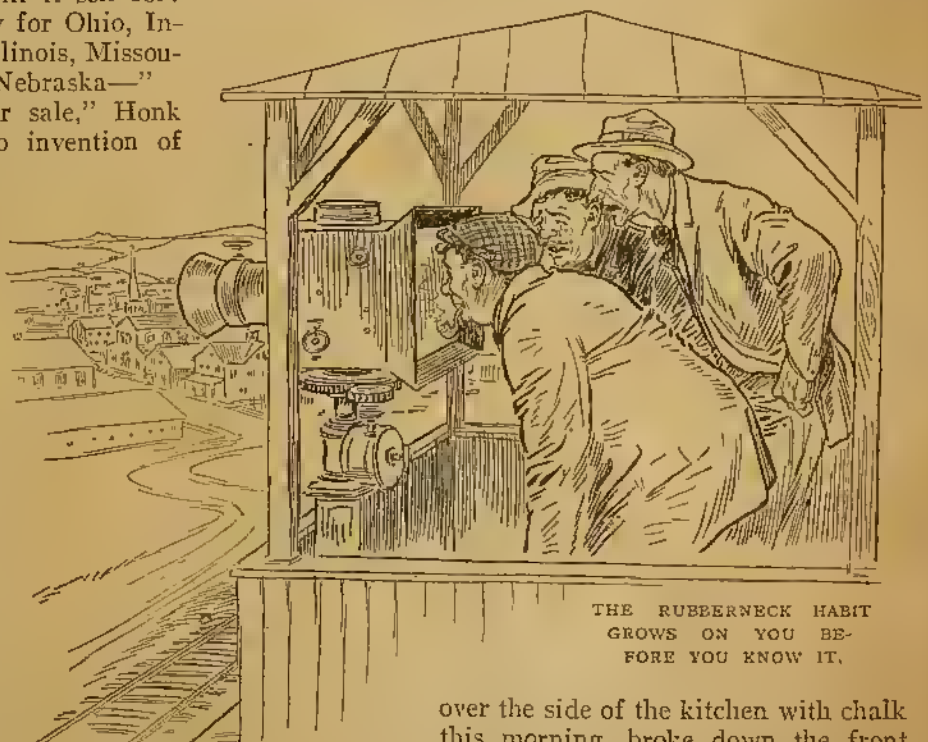
Honk had a sort of bird-cage rigged up, next morning, and hoisted to the roof of the Medicine House. In this aerie he set up his panoramoscope and a chair, and, as the siding in which the car sat was on reasonably high ground, we had a fair sweep at a section of the map about the size of New England.

The fruit-farms, the beet fields, the highways in all directions, the inhabitants of Valhalla and its suburbs to the second and third generations, all came under his espionage. If a careless housewife threw a tin can in the alley, or dumped soapsuds where they would run athwart her neighbor's back yard, Honk saw it.

If a workman paused to light his pipe and enjoy the scenery during the brief absence of his foreman, there was Honk taking it all in, even to the number of missing buttons from the loiterer's shirt. One mile or forty didn't cut any figure.

If a peach-grower pruned a tree that didn't suit Honk, although away beyond his horizon, he set up a howl about it. He took the burden of all the little dirty-faced kids in that section upon his shoulders.

"That woman in the drab-colored house across the road from What-his-name's has got four of the worst young 'uns I ever did see," he remarked at noon. "They wrote all over the side of the kitchen with chalk this morning, broke down the front gate swinging on it, hung a cat to the clothesline, pulled every flower she had blooming, and made mud pies on the front porch.



THE RUBBERNECK HABIT GROWS ON YOU BEFORE YOU KNOW IT.

"Say, but she walloped 'em, though. If it'd been twenty miles closer, I could have heard 'em yelp. One got under the house before she got to him. He's under there yet."

"If I had your taste for household worries," I said, "I'd get ma set of knitting-needles and go visiting. Why don't you take out a membership in a sewing circle?"

"Come up and take a look around," he invited. "You're getting in a rut down here with your snoot on the oilstone all the time,

Horace, my boy. Come up and see the busy world about you."

I piled the dinner dishes in the sink, and did so. The panoramoscope was all he had claimed for it. In ten minutes I had become engrossed in the graceful movements of a couple of girls, who looked to be about the age of eighteen, and who were picking cherries some fifteen miles to the southeastward. One of them fell out of a tree.

There was also considerable excitement when a woman and a small boy tried to chase a pig out of a corn-field eight miles to the north of us. The rubberneck habit grows on you before you know it. I eagerly swept the surrounding country with the unselfish interest of the lady across the street when you move into your new house.

Honk descried a man loafing in the shade of his shack at four o'clock, who, he said, had been idling away the whole day. He'd been doing that same sort of heavy sitting since ten o'clock, Honk said, and anybody could see that the weeds were taking his strawberry-patch.

At length Honk called the fellow up over the telephone and inquired solicitously about his health. Wasn't he feeling well? He said he was. He was feeling finer than imported silk. He explained that it was a boy, and weighed twelve pounds.

But life is not all girls wading in irrigation ditches or chickens scratching up the neighbor's gardens. Even while we are admiring the gentle shower that makes the little posies smile from ear to ear, the thunderbolt crashes with a rip and a roar, sets fire to your haystack, and kills your best cow.

The tragic so closely presses on the heels of the trivial, that ofttimes you open your mouth to guffaw and end by yelling "ouch."

So, in this connection, and proving that the foregoing hypothesis is no mere figure of speech, Butch Poteet fell in love with a farmer's daughter who lived three miles from the power-house.

Butch was riddled in the southern exposure of a new pair of five-dollar trousers, with mustard-seed shot. The girl's father did it when argument failed to convince Butch that he was *persona non grata* besides being superfluous around that immediate vicinity.

"I PROMISED HER THE OLD GENT WOULD SEE A SPOOK, ALL RIGHT."

The wounds inflicted, while scattering and of small moment, lacerated Butch's feelings frightfully; but he had no symptoms of an inclination to give up the girl—not him.

He limped up to the Medicine House after Doc. Pillsbury got through with him—by the way, isn't that a gruesome name for a physician to have? I've mentioned it to Doc. once or twice, but he says he can't see anything wrong with it.

Butch came up to tell Honk and me all about his troubles. He used to be a hind brakeman on the Peavine division—no, that has no connection with the shooting.

"We're made for each other, Ernestine and me," he said. "Never was two people any more pals than us. But that old man! Rats in the cab-

bage-patch! That old man o' hers is a savage! What's he got ag'in' me? Nothin'! Ain't I white and free-born, and smart enough and good-lookin' enough and got money saved in the bank, and all my bills square to date?

"No; he's sore because, if Ernestine and me was to up and get married, he'd lose the best worker he's got on his place, that's it! She knows it, too, and it's a wonder to me she'll stand for it!"

"The mental malady known to science as acute sentimentalis, or, in its earlier stages, as puppus affectionitis," quoth Honk learnedly, "is a queer manifestation of the erratic human mind. I speak from no intimate knowledge of the subject—"

"Haw, haw!" I said.

"I dare you to deny it," he flared, fixing me with a baleful eye and reaching for a monkey-wrench. I maintained a hurt silence.

"Yes," he continued. "Love is a disease. It is caused by germs, like croup and colic and *la grippe*. It has a remedy, however; sharp medicine, but a sound cure, as Sir Walter Raleigh said of something else, once upon a time. The remedy is to marry the girl," he concluded sonorously.

"Or have her take off her wig," I added. When order was again restored, we resumed the discussion of Butch and his prospects.

"You say you are in love with this Miss Ernestine?" said Honk. "What's her last name? How old is she? Why haven't you reported the matter before this?"

"Yes, I love her something fierce," said Butch, answering the questions in order. "Her name's Barker. She's twenty. I haven't had no chance to tell you fellers about it because I've been too busy. You know I work nights at the power-plant—"

"Yes," said Honk. "We'll let that pass. You want the girl; and you have money in the bank. How much?"

"Thirty-five dollars," said Butch proudly. "And, what's more, it's drawing interest, too."

"Did you get that, Horace? He has thirty-five wagon-wheels, each drawing interest. Make a note of that. This young man is a financier. He'll have a corner in money before you save enough to get a new suit."

"Let's go up and find out if we can see Butch's girl in the panoramoscope," I said. "Maybe we can figure out a scheme to bring old man Barker around, while we're resting."

We clattered up the ladder, trained the muzzle of the machine in the direction Butch indicated, and found her.

She was sitting out under a lilac-bush in the yard, sniffling to herself. Wasn't a bad-looking girl, either, though a bit red-nosed and blear-eyed under the circumstances. I felt sorry for her—oh, this is a tragic story, all right—and if I, a cynic and a scoffer, felt sorry, picture the frenzied madness of Butch when he saw those scalding tears; and the wrenched heart of Honk, who is as motherly and sympathetic an old ruffian as ever cuddled a kitten—although he won't admit it.

"Now, wouldn't that jolt you?" said Honk, after Butch quieted down. "Look at that poor, forlorn young woman out there heart-broken, Horace. Ain't that a shame? Crying, Horace, crying her pretty eyes out."

"Well," I said, "why don't you do something? You are all the time blowing about what you can do—"

"We'll go out with him instantly and get her," he said decisively. But Butch declared that that move would buy us nothing.

"I've been trying to persuade her to run away with me for weeks," he said; "but she won't fall for no elopement. If her dad don't come through with his O.K., why, it's all off, that's all."

"Wonder what she'd do if we could flash Butch's picture there in front of her, life-size?" I said.

"Hold it! Hold it!" Honk shouted. "I've got an idea! Help me down with this machine to where I can work it out. I'll have to take the panoramoscope to pieces! Great! Ha! Why not? Of course it'll work!"

Keeping up a patter of unintelligible comment, he led the way into the car, which was also our workshop and scientific experiment station.

I am much addicted to levity and persiflage, both in and out of season, but I always give Honk credit for the spasms of genius by which he is overtaken every now and then—and this was one of those occasions.

"Don't speak!" he cautioned us. "Don't even breathe! Let me do all the talking. I am pursuing an elusive and impalpable figment of thought across the boundless wastes of science"—he was dismantling the panoramoscope as he prattled. "What goes up must come down. It's a poor rule that won't work at least two ways. A powerful light behind it, thus. The reflected image projected outward instead of inward. Stand over there just a trifle, please. Horace, connect me this wire to the light-socket. Ha! Now, what do you think, eh? How's that?"

The fact was, we had two Butch Poteets in the Medicine House at that moment. The real Butch, with hanging jaw, stood where I

SHADES OF ALL THE FOOTBALL HEROES, WHAT A KICK.

could almost touch him; and the bogus Butch, the reflection, mirage, specter, or conjured image, of the same size and identical expression, stood down toward the door, with his jaw hanging in the same manner. It took steady nerves to tell which was which.

"Great!" said Honk. "Stupendous! Lift your arms, old scout!" Both Butches executed the movement in perfect unison.

"All right. Cut her out, Horace!" The figure nearest the door melted into nothingness. For once in my mad career, I was overcome with emotion. I was actually in a perspiration.

"The thing is as good as done," I heard Honk saying. "We'll have you commit suicide in the reservoir after writing this old man Barkuss of your terrible resolution, and then we'll haunt him until he'll wish it had been him instead."

"But—but—" said Butch, "I don't really want to commit no suicide, you know—"

"Certainly not," returned Honk. "Certainly not. Your mania runs more to the homicidal. But you're only supposed to, you understand." Butch looked greatly relieved. "Get him a pencil and some paper, Horace. Now, write this old man as I dictate."

He reeled off a message wherein the morose and despondent Butch heaped reproach and invective upon the instigator of his woes, swore a dreadful *post-mortem* vengeance by promising to haunt the irascible old gent to his lasting sorrow, and ended with an almost audible splash in the lake. This was sealed, stamped, and dropped in a letter-box so that it would be delivered that day.

"Now," directed the master of ceremonies, "it will devolve on Horace here to wheel out and get a word with Ernestine. We don't want to worry her unnecessarily. We are not hungering for any real suicides."

"You go," I said. "Or let Butch. I wouldn't know what to say after I got out there."

"I'll tell you what to say," said Honk curtly. "You take this bike and skiddoo. See her on the quiet, if possible; if not, go boldly up to the front door and call her out. Tell her she's been elected treasurer of the Sunday-school or something, and whisper your real message.

"Tell her we're going to conjure spooks after her dad until he repents, and whenever he does—wait a minute, I've got another idea. We'll have Butch talk into the phonograph—where's that box of blank records, Horace? We'll have him tell the old man that the only terms under which he can lay the specter will be to consent to a marriage between his daughter and the astral shape of her lover.

"You can take the phonograph out with you and set it off at the psychological moment."

"Yes," I said, "and get what Butch got, maybe. I'm not shot-proof, or even fond of being shot at."

"Use your wits," said Honk. "Forewarned is forearmed, and all that sort of thing. Duck. He'll not be shooting at you. Horace, you act like a nervous child. Brace up, and get in the game. I never knew you to show the white feather before."

"All right," I said. "I'll be the goat. If anything happens, send my watch to my married sister in St. Louis; you can have my new patent-leathers."

Laden with the phonograph, a case containing ten sensational graveyard records, and a fresh plug of chewing, I trundled my hoop out to the Barker homestead just after twilight thickened into the gloom of night.

Honk had focused and adjusted his spook-box, strung his wires, and installed his apparatus during the afternoon. He had computed and chalked the exact spots where Butch was to stand, so that his figure would be projected to the Barkers' front gate, walk up the path, ramble around the yard, peer in the windows, and everything, just like a *bona fide* ghost.

I hid my part of the manifestation under a burdock-bush down the road and pedaled boldly up to the front fence. There was no moon, but the starlight made a sort of a hazy glow. Fortune smiled on me. Ernestine was hanging on the front gate all by her lonesome, grieving for her lost lover. The rest of the Barker family were eating supper in the house.

I never talked so fast in my life. I did an hour's explaining in ten minutes. I had to. She was a big help, though—she had quick wits. It didn't take me one minute to find out that she was away yonder too good for that lunk-head of a Butch Poteet; but, of course, as I had enlisted in his cause, I had to boost for him.

She said the old man had received Butch's letter with hoots and jeers. He said he'd make any ghost that lit around that place hard to catch. I outlined the plan of campaign, and told her to keep calm whatever happened.

I promised her that the old gent would see a spook all right and more, and that his shotgun would not harm anything except the lawn and the shrubbery. I further pledged her my word that she and Butch Poteet would be married in the parlor, with old man Barker's hearty consent, before the week was out. I said I'd bet on it.

Her nose was swollen and shiny with weeping, but she was smiling when I mounted my wheel to glide away. I made up my mind that the first chance I got I'd make some pearly-toothed young damsel cry about me. It's very poetic.

The old lion stamped out on the porch and brayed—does a lion bray?—just as I got safely away, unobserved.

"Ernestine!" he yawped raucously. "You come in this here house! Standin' out there snifflin' in the dark by yourself. If that feller's drowned hisself, like he said he was

THE SPOOK EVEN GAVE THE COWS SUDDEN DELIRIUM.

going to do, it's a good riddance. A consarned good riddance! He never amounted to nothin', an' he never would have amounted to nothin'—do you hear?"

"Yes, pa," she replied meekly. "I'm coming in."

"You better," he said, "an' eat your supper like a girl with sense. An' help your ma with the dish-washin'."

He sat himself heavily on the porch and got his pipe to going. Meanwhile the katydids started up their rattling zig-a-zig.

Luckily the Barkers didn't have any dogs. Dogs would have interfered seriously with my part of the work. I sneaked through the fence, crawled on my stomach behind bushes, and set the talking-machine up in a dark clump. I muffled its horn with my coat to enhance the sepulchral effect, and I had a wire cut-off arranged so I could start it or stop it at my pleasure behind an adjacent tree.

It wasn't a very big tree. It didn't shield me entirely, not even when I hid edgewise. I wished it might have been one of California's famous redwoods, but it wasn't. However, it was better than no tree at all.

I had everything in readiness, and was comfortably squatted, when Butch appeared at the front fence. I thought he flickered a little at first, but the light was uncertain. He melted through the front gate and walked boldly up the path toward the smoker on the porch without a crunch or a bobble.

Could you see him? I should say! He was as real as flesh and blood. Every feature was distinct, from his slouch-hat to the sag of his trousers at the knees.

He stopped, raised his finger, and pointed it toward the old man. I pulled my wire, and a weird, hollow voice, sounding like it came from under the ground, said: "Barker, I have come!"

The old man was game—gamer than I'd be under the same circumstances. He made two steps and a kick—shades of all the football heroes, what a kick! It went entirely through Butch and jerked the old fellow off the porch. He alighted on his shoulder-blades.

I pulled the string, and a peal of mocking, shivery laughter burst forth. It was a triumph for science. The ghost walked a few steps sidewise. The old man gathered himself up and made a bee-line for the house. Slam! bang! went the screen-door. Then out he came, with his gun in his hand and murder in his eye.

Butch stood ten feet away, grinning airily. The old man took aim and let fly both barrels. It made an awful din. I worked my wire, and the graveyard voice said: "Barker, you are a fool! Ha! Ha! Ha!"

Butch came right up to the step and pointed his finger again in the old man's face. "No rest will you get," he said hollowly, at my direction. "I will make your life a burden to you!"

The remainder of the Barker household had rushed to the door when the artillery went off—the old lady and two or three kids of various ages; also Ernestine. They all took a look at Butch's spook and set up a scream. Work in enough screams on the side, and it takes a dandy to keep his calmness unruffled. Old man Barker was rattled completely.

"You git out of my yard!" he roared. "I'll—I'll—"

The voice said: "Barker, you are a fool! Ha! Ha! Ha!"

Butch's girl rose to the occasion and ran out to embrace him like they do in the moving-pictures of "Daisy, the Village Belle." He made mighty thin hugging.

When they saw her go through him, miss him, and grab all over where he was, and never touch him, the rest of the family made one of the rowdiest retreats I ever saw. They retired in a rout, the old gentleman with them, thoroughly awed. Ernestine followed, after heartrending appeals from the younger members, and went in, trying to wring her hands, and saying:

"It's Fred! It's Fred!"

"Fred" being Butch Poteet's nom de apron-string.

The shade of the aforesaid Fred stood around rather aimlessly for ten minutes or so after the haunted folks had gone inside, barricaded the door, and wouldn't look out. I seized the opportunity to move the phonograph nearer to a window, and put in a new record. When I started it off that time there were moans, gurglings, and chokings that made even my blood curdle.

Just then Butch came wafting up and peered in at the same window. Down went the blind! Then I sneaked up and ticked on the glass with a penknife, at the imminent risk of getting shot. You have to take some chances, however, to make a good showing at a séance. Every now and then you read about a medium getting acid squirted on him or something.

I found where a pane was broken out after a while, and gave them my full repertoire of ghost talk. I told the old man that his only salvation was to consent to the wedding of Ernestine and the spirit of Butch, inter-

spersed with groanings and gnashings; told him he'd waken in the night and find icy fingers choking him, and all kinds of grisly things. We concluded the performance about eleven-thirty, with the enemy well bottled up and quaking in their beds, and I pulled my freight back to town.

It was no trick to put Butch over on Barker's front porch in the daytime, and it was simply a matter of adjustment to send him right alongside the old man when he went out to milk. The spook even scared the cows.

The starch was certainly all out of that militant old man by nightfall, you can reckon, and when I started out after supper to get in some more body blows with a new set of nerve-paralyzing records, I took along a blue rocket to send up whenever the old gentleman found that he had enough.

"THIS AINT NO GHOST!

Ever see anybody have a nervous chill? Well, that's what Daddy Barker had when the specter oozed through the gate and came up to stand on the porch a while and point his finger after supper. They gave the old fellow smelling-salts and whisky, and wrapped him in a blanket, and you ought to have heard him chattering foolish stuff.

Whenever he'd show symptoms of warming up, I'd pass him a few chokes and gurgles through the broken window, and, at a quarter-past eight, he began to squeal for them to get a preacher and get it over.

"Yes—yes—yes! Let 'em marry!"

The blue rocket sailed heavenward a moment later, and the ghost disappeared so suddenly that I feared Butch had fallen off the car roof and broken his neck.

They came out in Doc. Pillsbury's automobile. Brought Doc. and a minister along.

Ernestine had faded away long enough to put on her best pinafore and roach up her hair a little, and she looked cute enough for any ghost to marry when the bridegroom arrived. If he hadn't arrived I would have seriously considered taking his place.

Doc. tinkered the old man up somewhat—gave him first aids, calmed down his hysterics, and all that—so he could wobble out and give the bride away. Honk acted as best man, and we pressed one of the little sisters in as bridesmaid, and had a bang-up, swell wedding—as fine as anybody's.

When the handshaking-time came, the old man didn't rush up like the rest of us. Doc. Pillsbury called his attention to it.

"Go on," Doc. said. "Show the boy you've got no grudge against him. Give 'em the glad paw of congratulation and wish 'em all kinds of good luck."

The old fellow tottered up, with his blanket around him like the big chief of the Wasatch, and reached for Butch's talon like it was painted on the wall. It was warm and human and alive, he found.

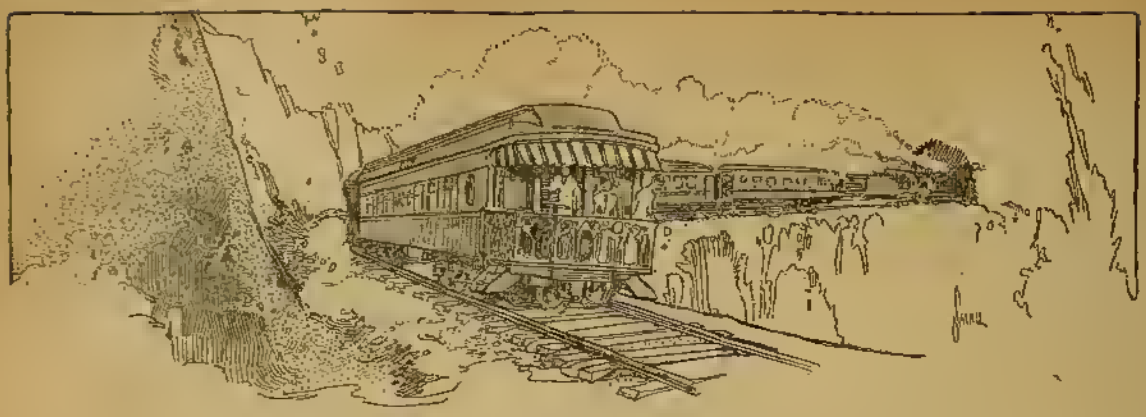
"This ain't no ghost!" he brayed.

"You bet not!" said Doc. "I want you to understand I'm that boy's physician, and he's a long ways from being a ghost!"

"I'll jest be consarned!" ejaculated the old man. "An' you didn't drowned yourself? That's too bad—I mean, I'm glad you didn't. All right, Poteet, she's yours. Take her."

Honk and I were sitting quietly in the Medicine House, an hour later, the stir and clamor gone, the shaded electrolier shedding its mellow glow on our slippered feet, and our high-strung nerves relaxed and purring.

"Thirty-five dollars," he mused. "Thirty-five dollars! And then you beef about the high cost of living."



On the Inspection Special.

BY CY WARMAN.

Observations of an Official Tour Across the Dominion of Canada, Which Shows the Wonderful Workings of the Machinery That Operates a Modern Railway.

I HEAR the whistle sounding,
The moving air I feel,
The train goes by me, bounding,
O'er throbbing threads of steel:
My mind, it doth bewilder,
These wondrous things to scan,
Awed, not by man, the builder,
But God, who made the man.

AT the rear end was the "Bonaventure," the official car of the chairman of the board. In front of the "Bonaventure" was the "Canada," the president's private-car. Next to it was the "Ontario," the wheeling workshop of the vice-president; then the "Algonquin," the traveling headquarters of the general transportation manager, noted for its long runs and short stops; then the "Carrizo," a compartment-car for the heads of the various departments, and for the guests of the chairman and the president; and last, near the engine, was the special commissary-car, ingeniously arranged, with a large kitchen in front, a dining-table in the center, and space for baggage and sleeping-berths.

This, in addition to carrying the stores, made a home for the crew, which was leaving Montreal on August 9 and returning September 22, on a forty-four-day tour of the Grand Trunk Railroad.

The man in the field, gazing at the flying train, says, "There go the 'Sons of Mary'," but he does not know. Scarcely have we cleared the switches, when the bright young men—secretaries and stenographers—begin to busy themselves with their baggage. They unstrap the great accordion-pleated bags, in the various pockets of which are to be found the voluminous correspondence on some subject or problem which had to wait over until they were out on the road.

A Conference on Wheels.

The heads of all departments are here on this special train. At several points along the road we pick up division superintendents and master mechanics. These travel to the end of their respective divisions, and are replaced by others all along the length of the entire system.

Within an hour after leaving, everybody is busy. Instead of making it a pleasure trip, the heads of the departments seize this opportunity to clean up. The train, for the time being, becomes the "Oyster Bay," the "Beverly," or the "Downing Street" of the

administration of the whole railway system. Now the freight-traffic manager confers with the general transportation manager as to the best method for handling the harvest that will soon be coming down from the Northwest.

The passenger-traffic manager discusses the new equipment for the International Limited, while the head of the motive-power department talks over with a division master mechanic the new methods of paying by the piece for work in order that each man may have something to strive for, and, incidentally, to enable an expert in any line to earn more money. The superintendent of the car department—the man who bosses the building of the equipment—comes along to show the official party through the various shops on the system. Then there is the chief engineer, into whose work comes the question of policy, and sometimes politics. Meantime, the president confers with the chairman as to new lines, extensions, etc., conversing in millions.

Car-Window Sketches.

It was a typical Canadian morning. Up to our windows came the smell of clover as the magnificent train swept up the twin-tracked highway. For six or seven hours our trail lay along the banks of the St. Lawrence and the shore of Lake Ontario. It was harvest-time. Men were busy in the fields, and carters were hauling in the hay.

> Reapers reaping in the shocks
> Of gold, and girls in purple frocks.

To the right were the rolling uplands, where larks were lifting from the mown meadows. To the left, beyond the wide St. Lawrence, lay the peaceful shore of a foreign country, watching with growing interest the evolution of a colony to a nation.

We had pulled out at 8.15, and now it was noon. Presently, while this peerless panorama slipped past, we lunched, loafing along at a mile a minute. Our special was timed to reach Toronto, the provincial capital of Ontario, at 4 P.M., and when we stopped in the station the big clock in the depot tower was striking four.

We were now three hundred and thirty-three miles west, and had changed engines but once. An item of interest is the fact that these locomotives were designed by the head of the motive-power department, and made in Canada.

From Toronto we dropped south along the west shore of Lake Ontario for forty miles, through a corner of "the garden of Canada," to Hamilton, and swung westward along the beautiful valley of Dundas, tying up at twilight at Stratford, where the big shops are located.

A kind Providence had arranged that the Avon should flow by Stratford, and the master mechanic had provided a brass band—and a very listenable band it was—composed of mechanics from the shops.

The Stop-Over at Stratford.

After dinner our cars were cut and shuffled and set in on the shop-yard tracks, near the band stand, which stood by the Railway Y. M. C. A., amid beds of flowers. A gentle rain drove us early to our twelve-wheeled homes, but far into the evening the air was full of melody and the odor of sweet peas.

Next morning the whistle blew in a whisper, and we woke to see the sunshine drying the eyes of the daisies.

After breakfast the master mechanic introduced us to the shops and the mayor of Stratford. They are wonderful—the shops at Stratford. We saw a car of coal stop by the power-house. One man pulled a lever and let the coal drop into a bin, whence it was scooped by half a hundred buckets, traveling on an endless belt, and dumped into a great hopper, from which it flowed through iron pipes to the traveling grates below the boilers, and burned, the ashes falling into an ash-pit as the endless grates rolled round and round.

We saw immense traveling cranes pick up a one-hundred-ton locomotive and carry it away, hundreds of feet over the tops of other engines, as an eagle would carry away a chicken, and set it down at the other end of the shop. We saw nippers nipping off the ends of seven-eighths steel bolts and spitting the bites onto the floor. Powerful steam-hammers were hammering great bars of iron, and in the lathes wheels were being turned down, the steel shavings from which were purple with heat.

A Split-Up at Sarnia.

At noon of the second day we were at Sarnia, where the line dives through an electric-lighted tunnel to the shores of the United States.

Here, on the American side, we inspected the big power-plant, whose machinery does all things but think. At Stratford the load

was uniform during working-hours, the demand on the machinery being the same throughout the day. But here it is different; at times the machinery is idle, then, in thirty seconds, the plant is called upon to move a thousand tons of traffic.

By an ingenious arrangement, working automatically, the fans start, the mechanical stokers stoke faster, the draft is furious, and in sixty seconds the fires are burning fiercely beneath the great boilers. Then, when the demand ceases, the machinery slows down, the blowers stop, and the fire cools to a steady glow, ready for the next call.

This machine seems almost human, each force or factor depending upon another. If one part failed to work, the entire plant would go out of business.

The Parting of the Ways.

Sarnia proved to be the parting of the ways. Here the chairman and the president, and the heads of all the departments whose jurisdiction extended over the Grand Trunk Pacific, as well as over the Grand Trunk proper, boarded the beautiful lake liner Hamonic, and sailed away up the lakes to Fort William, where they would pick up the steel trail again, travel across the prairie provinces, cross the Rockies, and sail up Puget Sound, on the new steamship Prince Rupert, to the new city by that name on the north coast of British Columbia, the Western outpost of the British Empire.

As the Hamonic steamed out of the beautiful river, our special sped on westward, to be ferried across Lake Michigan to Milwaukee, and then on to Chicago, the great railway center of America and the western terminus of the system in the United States.

As our special sped over the west-bound track, with long manifest-freights and limited trains brushing by us, bound east, I stopped marveling at the mechanical devices and their interdependence, and began to muse upon the wonderful human machine that runs a railroad, built on a sure foundation of faith in each individual, interdependent but not interchangeable; for each man must be a master in his own line—bound together by a spirit of loyalty that is loftier than friendship, a fidelity to duty that is stouter than steel.

It is indeed wonderful, the modern machine that operates a railway.

MONEY IN LOCOMOTIVES.

Recent Earnings of Engine-Building Plant Show Heavy Increase Over Those of the Years Previous.

THIS year the American Locomotive Company's gross earnings of $32,203,392 were $13,194,758 larger than the previous year, and the net earnings of $2,597,949 were $1,255,277 heavier. This left a surplus of $334,758 after paying interest on bonds and preferred dividends, whereas the meeting of these obligations resulted in a deficit of $762,861 in 1909. The report shows that the balance of surplus for the year over and above 7 per cent preferred stock dividends was equal to 1.34 per cent on the $25,000,000 common stock, as compared with nothing earned on that issue in the year previous.

W. H. Marshall, the company's president, says that during the first half of the fiscal year there was but slight increase in the monthly output, as compared with that of the preceding year of depression, the revival of plant activities being confined to the six months ended June 30, 1910.

About the time of this resumption in activity the agitation throughout the country for increased wages spread to the company's plant, and this company, in common with other industrial and railroad companies, made substantial increases in wages of shop employees. As a large part of the output for the year had been sold at prices which did not anticipate the extent of such labor increases, there was a resultant decrease in the margin of profit.

President Marshall says that, to meet the constantly increasing demand for an economical commercial vehicle and, in view of the possibilities of this line of industry, the automobile department has devoted considerable study to perfect the design of commercial trucks. He also states that the company now has a most successful three-ton truck, and a five-ton truck has been developed and will be put on the market during the present year.

At the beginning of the fiscal year the company had unfilled orders on its books amounting to $6,150,000, and on July 1, 1910, the amount was $17,550,000.—*Railroad Reporter.*

DIRK JOHNSON'S BANK ROBBERY.

BY AUGUSTUS WITTFELD.

An Amateur Detective Gets a Hot Clue but Fails to Reap the Reward.

DUGAN and Curran were watching with interest the work on the new iron bridge at Tacony. As the great iron crane swung a massive upright into place, Dugan voiced his approval of modern methods of construction.

"I tell you, Curran, it takes American ingenuity and American push to get things done quickly. Do you remember, back in 1901, when the American bridge-builders invaded Africa to finish up the construction of the bridges in Uganda, on the Cape-to-Cairo railway?"

"Can't say as I ever heard of it," replied Curran.

"What kind of hibernating animal are you, anyway?" asked Dugan. "Don't you ever absorb any of the history of your glorious country that is constantly in the making? When a handful of your countrymen leave home and mother, to take up temporary quarters and grow American garden-truck and American bridges in darkest Africa, I should presume that you would experience a few thrills of patriotism."

"What you talking about, anyway?" growled Curran. "I'm no erudite college professor."

"I'm talking about the country, where considerably less than fifty years ago there was only one white man registered, and he was mislaid. His name was Livingston. There was another man, named Stanley, of whom, I suppose, you never heard, who went out and found him and returned him to his anxious country. In less than fifty years the home of the ancestors of burnt-cork minstrelsy has blossomed into a metropolis, and the natives, instead of dodging Tippoo Tib and other slave dealers, are busily engaged in dodging American locomotives that run along American rails."

"Hear, hear!" interrupted Curran.

"The railroad," continued Dugan, "was built by our British cousins, but in 1901 they found it necessary to call on American brains to complete some unfinished bridges.

"Just open the portals of that vacuous mind of yours and try to absorb these facts:

"A handful of American workmen, assisted by unskilled native labor, erected twenty-seven bridges in fifty-three weeks, and they did it at a cost lower than the competing British firm bid for placing the bridge material on board ship; and while you are assimilating this information, try and remember that the work was under the supervision of a twenty-four-year-old kid from Pennsylvania, named Leuder."

"Say," queried Curran, "are you chief statistician of the railroad world or just an ordinary bum fireman?"

"I'm a fireman by vocation and a student by avocation," replied Dugan. "Get a hunch on you, Curran, and take an interest in vital statistics. Get the study habit, and it won't be long before you are promoted from your post of suffix speed-suppressor."

"Say, you encyclopedic coal-tosser," replied Curran, "I don't see you graduating from the ranks of the industrial army on the strength of your learning. You ain't no blooming captain of industry."

"No," replied Dugan, "and I'm not dead yet. Did you ever hear of Dirk Johnson?"

"And who might he have been?" asked Curran. "Another one of those makers of history you're dippy on?"

"No," replied Dugan. "He was just an humble bridge-worker. Perhaps he went to Africa with that record-breaking outfit, and perhaps he didn't. Looking at those fellows rushing that bridge reminds me of him and of a howling mix-up of which he formed one of the component parts.

"Some years ago I made his acquaintance in New York City, whither he had drifted with a roll the size of an auto-tire. When he got through showing the natives 'how,' he had to look around for work. There was nothing doing in his line, so he connected with a job in a retail safe store.

"His duties consisted of assisting in the delivery of those little toy security-boxes that weigh about as much as an ordinary box-car.

"Delivering such goods to the inhabitants of metropolitan sky-scrapers is about as exciting as were the duties of the palaeozoic expressman in the time of the cliff-dwellers.

"Well, one day, they loaded up one of those Harveyized cash-boxes, in which the average New York business man stores his reputation over night, and started to deliver the goods. They stopped in front of one of those tall temples of Mammon, and soon had their hoisting apparatus in position.

"When everything was in readiness to start the burglar-proof security sideboard on its upward journey, the foreman of the gang instructed Dirk to go on top of the safe and keep things in order on the way up. That was just in Dirk's line, and he considered the assignment in the light of a sinecure.

"The massive money-box ascended slowly, and Dirk had lots of leisure to observe the customs and habits of sky-scraperdom through the windows of the building.

"As the safe rose to the level of the fourth-floor window, Dirk glanced at the gold-lettering on the pane. It read:

> CATCHEM & JAILEM,
>
> Detective Agency.

"Inside, he noted two men engaged in earnest conversation. As the safe rose higher, Dirk noticed that the upper sash was pulled down for ventilation, and as his head came opposite the opening he heard one of the men say:

"'I tell you, Bill, Vandyke Red is in New York. I'm on to his methods, and I know that this is the burg he'd make for, after pulling off a successful job like he did at the Seventh National at St. Louis. If we can only land him, it will mean a large reward.'

"The reply was lost to Dirk, for the safe had carried him above the open window.

"Dirk recalled the hold-up the men were discussing. He had read, a few days previous, how a lone robber, with a red Vandyke and a brace of blued steel barkers, had held up the paying-teller of a bank in St. Louis and gotten away scot-free with his booty.

"'Gee!' he soliloquized, 'if I could only land that pink-whiskered Piute, I'd resign my job on the high and heavy section.'

"The next two floors were passed without incident, but when Dirk's eyes rose above the level of the window on the seventh floor he was astonished to see a large room fitted up like a bank. He wondered why a bank should be located on the seventh floor of a sky-scraper, but concluded it was for the convenience of the occupants of the building. Facing him, at the far end of the room, were the paying and receiving tellers' windows, at which several people were transacting business.

"The place presented the activity of such institutions, and Dirk cogitated on the time when he used to deposit his savings in his home-town saving fund, and he wished he was in position to cash a check for a couple of hundred. Then it would be *adios* to the giddy 'Garden of Allah' and back to the home of smoke and stogies.

"There was a lull in the activity of the bank, then Dirk nearly fell off the safe as a man entered with red Vandyke face-trimmings and an alligator grip. He made his way directly to the paying-teller's window and deposited the grip on the ledge, after handing the teller a check.

"'That fellow certainly looks some like that fellow those fly-cops were discussing,' cogitated Dirk.

"The safe had stopped on a level with the open window, and Dirk was suddenly astounded to see the man draw a pair of revolvers from the grip and point them at the man behind the glass partition. He saw the paying-teller throw up his hands, and then, at a command from the robber, reach for the grip and commence stuffing it with packages of bank-notes.

"'This is where I get off,' chuckled Dirk. 'Vandyke Red's my meat.'

"A few swift strides brought him directly behind the man with the guns. Dirk went

into executive session without waiting for roll-call, and soaked the hold-up artist one in the vertebræ. Then, throwing his arms around him, he swung him around facing the front windows so his shots could do no damage. The robber struggled to free himself, but Dirk held on tightly.

"Suddenly he heard the pistols clatter on the floor, and then he felt a strong arm secure a fancy wrestling-grip, and then he found himself sailing through the air over the other's head. He landed in a sitting posture with sufficient force to loosen his teeth and knock the breath out of him.

"Before he had time to recover his wits or his breath, his antagonist had grabbed him under the arms and was propelling him, feet foremost, over the highly polished floor toward the door. Suddenly, he was raised to his feet and was conscious of a violent rear-end collision which threw him into the corridor.

"'Well, that fellow's a hot sock, all right,' mused Dirk, addressing the door which had been slammed after him. 'I guess I butted into the wrong combination, but he won't get away with the goods if I can help it.'

"He ran swiftly to the elevator and entered the car.

"'Let me off at the fourth floor, quick,' he told the operator.

"'Aw, get wise,' retorted the boy. 'This car's going up.'

"'See here, son,' said Dirk, taking him gently by the back of the neck and swinging him to one side, 'this car is going *down*.'

"He seized the wheel and started the car downward. At the fourth floor he stopped.

"'Now, you young Indian,' he commanded, 'chase that car down to the first floor and tell somebody in authority to let no one out of the building. There's a desperate robber up on the seventh floor, and he's got to be captured.'

"'All right, Old Cap Collier,' answered the youth; 'me for a share in the glory. Elevator Henry, the hero of the hour. I'm off.'

"Dirk scudded down the corridor until he came to a door bearing the sign of Catchem & Jailem. Pushing the door open he rushed in.

"'Say,' he shouted, 'do you want to catch Vandyke Red?'

"Catchem & Jailem sprang to their feet as one man.

"'Where is he?' they sang in an anxious duet.

"'Up-stairs,' replied Dirk. 'I just had a go with him. Come on, I'll show you the way.'

"Into the hall they raced, Dirk leading by a neck.

"'What floor is he on?' called Catchem.

"'Seventh,' chirped Dirk.

"'Take the stairs,' commanded Jailem. 'We'll lose time if we wait for the elevator.'

"'All right,' assented Dirk. 'You take the lead. I don't know where they are.'

"Along the hall the trio sped. They reached the stairs and commenced the race upward. At the fifth floor Dirk was puffing. By the time they reached the sixth Dirk was panting, and when they reached the seventh Dirk's pants were short.

"'This way,' called Dirk, pounding along like a slow freight. The sleuths followed, and Dirk, who was getting his second wind, suddenly turned into another corridor. He noted the elevator-shaft some distance ahead, with the bank-entrance facing it. As a descending car stopped, he saw the man with the red Vandyke hurry from the bank and board the car. The door clanged shut, and when they reached the shaft the car was going down rapidly.

"While they were standing there, undecided as to the next move, a car stopped at the adjoining shaft, and the operator called, 'Down!'

"They made a rush for it and got aboard. Dirk recognized the operator as the one he had impressed into service a few minutes before. 'Is the entrance guarded?' he asked.

"'Yes, cap,' replied the youth. 'You can depend upon Elevator Henry to do your bidding. It's not every kid can corrolobate with the king of detectives.'

"Catchem & Jailem looked on in amazement. This was a new one to them.

"'First floor,' shouted the operator. 'Elevator Henry'll be in at the death.'

"Dirk and the two sleuths stepped from the car. The man with the red Vandyke was in earnest conversation with two men who barred his passage. Catchem pressed forward, and, standing in front of the man, eyed him critically.

"'It's all up, Red,' he said. 'Don't make any attempt at a getaway as I have you covered with my gun in my coat-pocket. Take him along, boys,' he said, as Dirk and Jailem seized the prisoner on either side.

"'Where to?' asked Dirk.

"'Back to the bank,' replied Catchem.

"Back to the elevator they led their captive, and Elevator Henry carried them up to the seventh floor in express time.

As they entered the bank, the paying-teller glanced up and looked at the quartet in amazement.

Then he hurried forward:

"'What is the meaning of this, Van?' he asked, addressing the prisoner.

"'Harry,' said the prisoner, 'allow me to present my friends to you. This,' indicating Dirk, 'is the gentleman who took the lesson in wrestling a few minutes ago. These two gentlemen,' indicating Catchem & Jailem, 'are real live detectives.'

"'Say,' questioned Dirk, addressing the receiving-teller, 'didn't this fellow hold you up a little while ago?'

"'I believe he did,' replied the paying-teller, 'but it was with a brace of his patent pistol-pattern cologne atomizers.'

"'And there was no robbery?' asked Jailem.

"'No,' replied the paying-teller. 'Van was simply cashing a check.'

"'Well, sir,' said Jailem, 'I hope you will excuse us. This amateur broke in on our privacy and told us Vandyke Red was up here. The laugh is on us. Good-day.'

"'Say, pardner,' said Dirk, addressing the Vandyke individual, 'you don't happen to have a ticket to Pittsburgh in your clothes? I'm beginning to think New York is too strenuous for an humble bridge-worker.'

"'Well,' replied that individual; 'as the laugh is on you, I don't see any objection to staking you back to your native heath. The temptations of a great city are too much for a man of your heroic mold.'

"Dirk got the ticket, all right, and took the next train home. I haven't seen him since."

"I suppose," said Curran, "that is another of that 'Makers of History' series of yours. What is the lesson I'm to learn from it?"

"The moral," said Dugan, "is, 'Don't jump into a seventh-story window to catch a highwayman. Stick to terry-firma.'"

THE SMALLEST ENGINE IN THE WORLD.

From the Philadelphia Times, 1876.

AN incident happened in machinery hall yesterday afternoon which is well worth recording, as it exhibits the unparalleled advancement of American genius in small as well as in great things.

While a large throng of visitors from all countries were standing silently around the mighty Corliss engine, watching its gigantic movements with feelings partly of delight and partly of awe, a tall, gentlemanly looking personage, who afterward gave his name and address as Levi Taylor, of Indianola, Iowa, joined the crowd, and with the others paid unspoken yet eloquent homage to the wondrous monster before him.

After watching the motions for a few moments the gentleman passed around to one side, and, extracting from his pocket a small tin case, took from it what looked like a diminutive alcohol lamp, and, striking a match, started a miniature flame and placed the contrivance on a corner of the platform which surrounds the mighty steam giant from Rhode Island.

At first glance nothing could be discerned over this lamp but a small excrescence, which looked more like a very juvenile humming-bird than anything else, but a close inspection showed that what was mistaken for liliputian wings was the fly-wheel of a perfect steam-engine, and persons with extra good eyes could, after a close examination, discover some of the other parts of the curious piece of mechanism.

This engine has for its foundation a twenty-five-cent gold-piece, and many of its parts are so tiny that they cannot be seen without a magnifying-glass. It has the regular steam-gage, and, though complete in every particular, the entire apparatus weighs only seven grains, while the engine proper weighs but three grains.

It is made of gold, steel, and platinum. The fly-wheel is only three-fourths of an inch in diameter, the stroke is one-twenty-fourth of an inch, and the cut-off one-sixty-fourth of an inch.

The machinery, which can all be taken apart, was packed in films of silk. It is to be hoped that this wonderful piece of work is to be placed on exhibition alongside of its grand antithesis, but it is now probably too late to make an entry.

A RECORD IN TRACK LAYING.

WITHOUT delaying the schedule and in just 21 minutes and 2 seconds, 3,720 feet of 56-pound rails, weighing 69,440 pounds, were replaced by 86,800 pounds of 70-pound rails. This was on the Lake Shore and Northern Railroad, in Syracuse, New York, near the Syracuse railroad junction bridge, where the interurban also uses the tracks. The rails to be put in place were bonded together and placed beside the rails to be removed.

The crew began work at 9:13:10 A.M., and finished at 9:34:12 A.M., during which time 78 tons of steel rails were handled and a remarkable record established in track laying.—*Popular Electricity.*

Daughters of the Rail.

BY SALINA MAGOON.

THE Ladies' Society of the Brotherhood of Locomotive Firemen and Engineers now comprises 288 lodges, scattered throughout the United States and Canada. It is a flourishing order, too, and it adds greatly to the gaiety of the many social functions of the Brotherhood. However, these daughters of the rail are not mere social butterflies waiting only for the summer picnics and the winter dances. They are—first of all—the wives, mothers, and sweethearts of our boys. They are as well versed in railroad technique as any man; they are readers of this magazine, as we know, and there isn't one who can't tell the difference between a Gooch valve gear and Janney coupler in a jiffy.

Knowlton and the Cow—When the Brotherhood Ladies Went Broke—Dora Jasper's Ride to Save the Limited—Such a Sacrifice as Only a Railroader Can Make!

ENGINEER JACK KNOWLTON, of the Vandalia lines, left his house in Decatur, Illinois, in company with his wife and elder daughter, and started to the home of Sister Cowles, the president of the local Ladies' Auxiliary of the Engineers' Brotherhood.

At the Cowles home the engineer and his family joined a party given in honor of the birthday of Sister Cowles's little daughter. This party was given merely as an excuse for getting Engineer Knowlton away from his home for an hour or two.

Hardly had the Knowltons walked out of sight of their house than men and women rose as if out of the earth all round the house, entered it by the front, the rear, and the side doors, and at once proceeded to turn that home topsy-turvy.

Were they looting the place? Hardly. They were bringing things in, not taking things out. The invaders numbered exactly fifty—twenty-five being sisters of the auxiliary and twenty-five being brothers of the Decatur division of the brotherhood.

Thus there was one sister and one brother for each year of the married life of Engineer Jack Knowlton; and those who had thus taken possession of the house were working like bees to show that they remembered that the date was the twenty-fifth anniversary of the wedding of the Knowltons.

Every one of those sisters and brothers, when they stole into the engineer's home that evening, carried something emblematic of or contributing to the celebration of a silver wedding.

Ready for the Fray.

The mistress of ceremonies was Sister Cowles, president, as already stated, of the local ladies' lodge. She had planned the whole thing; but, as it fell to her lot also to get the Knowltons out of their house during the early part of the evening by inviting them to a children's birthday party at her own house, she had to leave the actual work of turning the house upside down to be supervised by an able-bodied representative in the person of Brother Law, road-foreman of engines of the Vandalia lines.

Mr. Law issued orders right and left, like a general directing a battle.

"Put the strands of smilax here," he or-

dered. "Distribute the ferns there, and spraddle those flowers all over the place wherever you like."

Then the road-foreman of engines showed the sisters and brothers where to hang the silver bells, choosing the largest bell of all to hang over the table in the dining-room, on which table stood a mammoth wedding-cake. Streamers of silver ribbons were criss-crossed from side to side of the dining-room, with a wedding present at the end of each ribbon.

At nine o'clock Engineer Jack Knowlton and Sister Knowlton, and their daughter, mounted the porch and let themselves into their domicile. The place was dark and still, just as a home should be at nine o'clock at night in Decatur, Illinois. But the moment the Knowltons closed the front door electricity illumined every room in the house, from kitchen to guest-chamber.

A Complete Surprise.

In their parlor, Brother and Sister Knowlton beheld half a hundred friends sitting at tables, playing cards. Everywhere were silver-ribbon streamers, and silver bells, while in one corner stood a table filled with silver articles that looked mighty like wedding presents.

The special official present from the sisters, as a lodge, was a silver candelabra of great beauty. When Sister Spence, in a felicitous speech, presented Jack Knowlton personally with the candelabra, Jack tried his best to answer.

He began speaking, then choked back something that got in his throat; then began again, stopped short again, and then — he beat it for dear life out of the house to the back porch, where he spent some time making astronomical observations.

While Jack Knowlton was star-gazing, Brother Law, road-foreman of engines, standing in the doorway of the dining-room, spoke up so all the guests could hear him:

"It takes a whole lot to down Jack Knowlton—and this whole lot has done it. He's sure downed."

The Bryan of the Rails.

Jack Knowlton, however, presently returned to the banquet-hall with determination written on his countenance. Manifestly, he had resolved to make a speech, thanking the donors for the candelabra.

Taking his place at the table, and with his eyes roving from the candelabra to the big wedding-cake, he began as he had begun before:

"My friends, I—"

Silence reigned intense, for all the guests now felt sure that Jack was going to orate with a vehemence of steam escaping from an engine.

To Jack, however, that silence was terrible.

"My friends, I—" he began again, then stopped short with his eyes fixed upon the wedding-cake, till suddenly he cried:

"My friends, I—well, where's the *cow?*"

His question, so unexpectedly asked, was greeted by tremendous laughter and applause, which lasted so long that Jack sat down, letting it be known that he had finished his speech, having said all there was to say, namely, "Where's the *cow?*"

Thereon hangs a tale.

One night, some months previous to the silver wedding, Engineer Knowlton's wife went down-town to attend a regular meeting of her order. She left behind her the following: First, a husband fast asleep after an extra run; second, a daughter wide-awake in anticipation of the coming of a nice young engineer who always called on Wednesday evening; third, a cow in the back yard.

Saw the Cow Jump.

Presently the wide-awake daughter saw the cow jump the front fence and run down the road. Out of the house the daughter tore, bent upon capturing that bovine and bringing it home.

To accomplish her purpose, she screamed at the top of her voice till the whole neighborhood responded, and a terrible hullabaloo ensued, during which that nice young engineer turned the corner and, supposing that at least one whole block of houses was in flames, promptly turned in an alarm.

Through that neighborhood, with clang of bells and thunder of hoofs and shriek of whistles, swooped the fire department. The fireman, having nothing else to do, proceeded to capture the cow and return her to Jack Knowlton's front yard.

Just then, Jack Knowlton, awakened from profound slumber by the racket outside, thrust his head out of the window and inquired of the fire department:

"What's all the fuss about?"

"Your cow, Mr. Knowlton. Some one forgot to do the milking to-night, and she sneaked out and told the whole population

of Decatur all about it, that's all. You better come down right now with your milk-maid's stool, Mr. Knowlton, and show that cow how sorry you are that folks neglected her."

"Where's your mother?" thundered Knowlton, addressing his daughter.

"She's at the lodge, father."

"She is, is she? Well, confound it! I'll get that lodge to excuse her from attending meetings till further notice."

At the Meeting.

When the sisters' lodge again found themselves "in congress assembled," up rose the secretary and read a letter from Brother John Knowlton, in which he asserted that the peace of his domicile had been greatly disturbed by the absence of his wife at the lodge, and asked that she be excused from further attendance at the meetings, especially meetings held at night.

"All in favor of excusing Sister Knowlton as requested say 'Aye!'" cried the president of the lodge, Sister Cowles. "Contrary, 'No!' There being no 'Ayes,' and all 'Noes,' Sister Knowlton is not excused, and the secretary is directed to answer Brother Knowlton's communication accordingly."

"We'll fix him," said Sister Cowles, after the meeting had adjourned. "Next Monday is his birthday. We'll fix him."

The following Monday evening Jack Knowlton and a number of other brothers were invited to come to the lodge and meet the sisters, to pass a few social hours.

When all were assembled, Knowlton was lured to a place in the middle of the room. A door leading into the kitchen was opened, and out walked four sisters, bearing a huge birthday-cake, set around with nearly fifty lighted candles.

They set the cake on the table by Jack Knowlton, and then, suddenly, one of the sisters produced a toy cow, nearly as big as a small calf, stood it on the frosted cake, and cried:

"It's milking-time, Mr. Knowlton!"

"Wake up!" cried the president, Sister Cowles. "The cow's jumped the fence."

"Fire!" called another sister. "The fire department's coming, and you better jump for your life."

"Where's my wife?" shouted still another sister.

"At the lodge!" answered a number of sisters in chorus.

"Then expel her, and let her stay home and milk the cow and maintain peace in my house while I sleep!" cried the secretary.

These remarks were hurled at Jack Knowlton amid the most hilarious doings on the part of the auxiliary sisters—with moo-ing in imitation of the voice of the cud-chewing kine, mingled with cries of "Scotland's burning! Fire! Fire!" and "It's your birthday, Jack Knowlton! Don't look so glum!" till finally the poor, defeated engineer cried:

"Stung!"

"Then he turned to his wife to say: "Attend all the lodge meetings you like, little girl; I won't say another word."

That's why, on the night of his silver wedding, when he tried to make a speech, Jack Knowlton stared at the big wedding-cake and cried reminiscently, "Where's the *cow?*"

Going Broke.

"Let me tell you how all the railroad girls of Hannibal, Missouri, went broke through laying wagers on the wrong fat man in a Marathon race."

So said an old engineer and Brotherhood man, while he and I were crossing the Mississippi River on the ferry-boat running between East St. Louis and real St. Louis.

"The race was run up here at Canton, Missouri," the veteran railroader continued, "where the Mark Twain Division of the Brotherhood of Locomotive Engineers of Hannibal was holding a picnic.

"The boys were treating themselves to a day's outing, having chartered the steam packet W. W. to carry them the thirty-five miles up the Mississippi River from Hannibal to Canton.

"With the boys, of course, were their wives and sisters and sweethearts and a mother or two—these ladies, you understand, being mostly members of the auxiliary, or what you might call the female annex of the local lodge of the B. L. E.

"In general charge of the day's ceremonies was an engineer named Tankard. Well, sir, what does Tankard do, when they reach the picnic-grounds, but whisper a word in the ear of several of the sisters, who immediately show that they catch on by opening up on all and sundry with a proposition for a bit of fun.

"'We suggest,' one of the ladies said, speaking for all the sisters, 'that the fat men of the party run a Marathon race.'

"'Good thing!' shouted all the living skeletons in the crowd. 'Here, you, Brother

Dowd! and you, Brother Houser! the ladies want to know which of you can run the fastest.'

Two of the Heaviest.

"Dowd and Houser were two of the heaviest engineers in the bunch. There were other fat men, of course, but Dowd and Houser were the limit.

"Well, Dowd and Houser consented to enter the race along with the lesser obese ones. They shouted:

"'What's the matter with letting Conductor Dooley into this Marathon?'

"The conductor referred to was an O. R. C. man, and a bully good fellow. He weighs about as much as President Taft, however, and was many pounds heavier than any engineer on the premises.

"Everybody laughed, especially the ladies, at the idea of Conductor Dooley running a Marathon, but Dooley didn't seem to mind any of the remarks derisive or miscellaneous.

"What he did was just to keep mum till the ladies had urged him good and hard to enter the race and then, seemingly with reluctance, he allowed he'd take a try at the running.

"Alongside of the fat conductor the two fattest engineers looked positively emaciated, the consequence being that every blamed bet made in that camp, by both brothers and sisters, was placed on one or the other of the engineers.

"At the same time, conductor Dooley went quietly through the crowd laying bets with each and every gent who would listen to him, betting every cent he possessed on his own fleet-footedness.

"They're Off!"

"When all was ready, Engineer Tankard gave the word.

"Away the fatties started on a run. Did the fat conductor make any showing at all? Well, say! alongside of the engineers he looked like a catamaran alongside a lot of canoes—but, all the same, he pulled ahead of the engineers from the very start, left them way behind and finished the Marathon in a walk.

"You never heard such howling in all your life. Every man and woman present had lost money, all having bet, as I have said, on the engineers.

"Conductor Dooley boarded the steam packet, for the return trip to Hannibal, with about all the money there was in that crowd.

"On the way down the Mississippi, Dooley mounted a bench and addressed those who had gone dead broke on the fat man's race, saying:

"'Ladies and gentlemen: Never judge a fat man's running-gear by his weight. I happen to be the champion runner of the Fat Men's Club of the O. R. C. The trouble with you-all is that you didn't know what I've just told you. Therefore, friends, I've got the money and you-all are broke.

"'Now, I see some of you are looking sore, some of the ladies in particular. But next time you make bets on a fat man's race, ladies, you lay your dough on the fattest man in the running and you will win money instead of losing it.'

"'But, Mr. Dooley,' called out one of the auxiliaries, 'you haven't hit the nail on the head. We're not hurt at losing our money. What makes us feel so bad is that a lot of able-bodied engineers should be beaten so ignominiously by a conductor.'"

Dave Jasper's Run.

Engineer David Jasper had been running the Fast Mail on the Missouri and North Arkansas Railroad for years and had never met with an accident. Proud of his good luck, he often spoke of it.

"Knock on wood, Dave," cautioned a fellow-engineman one morning after Jasper had referred to his splendid record.

Dave, to oblige his superstitious friend, knocked on the brier bowl of his pipe, after which he climbed into his engine to take the Fast Mail out of Joplin, Missouri, and down as far as Leslie, Arkansas, a run of one hundred and ninety miles.

At about the half-way point of his run Dave Jasper would pull through Eureka Springs, an Arkansas health resort, just over the Missouri line. At Eureka Springs were the general offices of the railroad company and just a little north of the resort lived—Miss Dora Jasper.

Yes, I am obliged right here to change the scene of action to Dora's territory, in order that the meeting of Dora Jasper and David Jasper may be understood.

Trouble in the Distance.

It was that same morning when Dave Jesper knocked wood and then pulled out of Joplin. Dora, a farmer's daughter, up early, and having finished her chores, went for a stroll along the right-of-way of the Missouri

and North Arkansas Railroad, near the tracks of which she lived.

A freight-train rumbled by and Dora watched it as it rolled over the long trestle a little way down the line.

Sparks were flying from the locomotive. Dora thought she saw smoke coming up from the trestle. In curiosity, she ran down the track and, arriving at the northern end of the trestle, she found not only smoke, but flames, too, shooting up from the wooden structure.

The trestle was on fire.

So swiftly did the timbers burn that Dora became appalled.

"The mail train will be here in less than half an hour," she murmured in alarm. "What shall I do?"

She thought a moment, then started on a run toward her father's barn. The only horse in the barn was a half-broken colt, all the other horses having been taken by her father and the hired men that morning to work in a distant field.

The only thing for Dora to do, was to use the half-broken colt. She untied him and vaulted to his back. Riding bareback, and with only a rope for a bridle, she kicked the horse in the ribs and made him dash out of the yard and down the railroad.

Then up the right-of-way she rushed onward. Thinking that if she rode about one mile up the track, it would be far enough from the burning trestle to warn the engineer of the fast mail and enable him to stop his train in time, she urged the horse on and on.

On a Runaway.

When she thought she had ridden something over a mile, she pulled on her rope bridle, trying to stop the colt. The animal, however, plunged forward at a terrible pace.

"He's running away," she said to herself, quite calmly.

She decided, however, that if only she could keep him on or near the right-of-way, all would be well. On the other hand, if the runaway swerved and dashed off over the adjacent hills, her attempt to warn the mail train would have been all in vain.

Trusting to luck, she clung to the colt's back, till she had covered a second mile, when she heard a locomotive whistle.

"That's the train coming now!" she told herself. "Oh, Dick! good Dick!" was her prayer to the horse. "Please don't leave the track!"

On and on the beast tore, till nearly the third mile was covered and she came within sight of the station at Gaskins—three miles from Eureka Springs.

The fast mail was now in sight! One moment more and the train would shoot past her! Would the engineer heed her warning!

What could she do to make sure that the man in the engine would pay attention when she waved her hand to him!

Her hand! That was all she had to wave! Most heroines who save trains possess red tablecloths or red sweaters or red petticoats. But Dora Jasper had only her hand for a signal.

Her Only Signal.

Up the track sped the colt, and down the track rushed the train. Dora raised one hand frantically, while with the other she clung to the mane of the horse.

The engineer saw her. He heeded, too, not because he thought she was trying to stop his train, but because he supposed she was waving for help, as it was obvious that her mount was running away.

Engineer David Jasper, for it was he, brought his train to a standstill, then began backing. He backed faster and faster, till finally he overtook the girl on the horse.

After shooting by her, he slowed down, then jumped from his engine, ran back, met the flying colt, seized the rope halter, and—stopped the runaway.

"Oh!" cried Dora. "I'm so glad!"

"There, little gal!" cried Dave Jasper. "You're all safe now. Good-by. I mustn't stop another minute."

"No, no! Come back!" screamed Dora.

"That's all right, little gal. You can thank me some time when I ain't in a hurry." The engineer hastened on toward his engine.

"No, no! Wait!" cried Dora. "The runaway was nothing at all! I didn't mind that! The trestle down near Eureka is burning!"

Her Best Reward.

"What's that?" yelled Dave Jasper, turning in his tracks to look back at the girl, as she jumped from the colt's back.

In two minutes Dora had explained the situation to the amazed engineer. Meantime, the passengers and crew had gathered round.

"What's your name, little gal?" asked the engineer.

"Dora Jasper."

"Jasper! Why, then, we're of the same family, Dora. I'm a Jasper, too. Shake!"

"Hats off to the Jasper family!" cried the railway mail clerk who had suggested passing the hat.

"But you should accept some sort of reward, little gal," insisted Dave. "Tell you what," he added. "I'll see that you're made an auxiliary lady, do you see? I'll get the ladies of our auxiliary at Eureka Springs to make you an honorary member."

Dora listened to this with open mouth and expressionless face. She was not overwhelmed by the "reward."

"Why, what's the matter, gal?" asked Dave. "Ain't it enough?. You want something more?"

"Tell you what," replied Dora. "I'd like you to carry me back to Eureka on your engine, Mr. Jasper. Will you?"

"Hop up there!" promptly answered Dave.

Thus Dora Jasper got the greatest wish of her life—a ride on an engine. When the train arrived at the gorge, where early that morning the freight had crossed on a trestle, there was now no trestle at all. Only a blackened mass of smoking timbers.

As Dave Jasper walked back to the fast mail, which Dora Jasper's bareback ride had saved from a plunge into the gorge, he said thoughtfully:

"It's good I knocked on wood this morning."

Dora, walking by the engineer's side, now said:

"Mr. Jasper, what-all was that honorable thing I'm going to be made into by the engineer ladies at Eureka Springs?"

"An auxiliary."

"And what-all happens to me when I'm that, Mr. Jasper?"

"Why, girl, you'll be invited to parties, and the ladies will pass you the lemonade and cake and ice-cream. You'll be invited to picnics daytimes, and you can attend lodge meetings, and take part in the dance afterward, and none of these things will cost you a cent; being an *honorary* auxiliary lady, won't be assessed at all."

Two Railroad Men.

The story involves two firemen of Little Rock, Arkansas.

One of the men was "Long" Kowle, bachelor, with a hundred in the bank.

The other was Jerry Jenhower, husband and father, with almost nothing at all saved up and stowed in an ancient oil-can away at the back of the shelf in the kitchen pantry.

One day both firemen were notified that the road was cutting down the force out of Little Rock, and that one or the other would have to go. Thus, neither of them was directly laid off; simply it was put up to them to decide which should be the one to quit.

"Long" Kowle, the bachelor with cash in bank, met a woman on his way home that evening, to whom he said pleasantly:

"Good evening."

She was the wife of Jerry Jenhower, Kowle's comrade.

"Long" looked at her sharply, and noted traces of tears in her face.

When he moved on, that tear-stained face was still right in front of "Long's" eyes. All night, the sad face of Jenhower's wife haunted "Long," and, when morning came, he made a resolution. He scribbled a note, hurried with it to the roundhouse, handed it to the foreman, then went straight over to Jenhower's house.

He found Jerry just sitting down to the breakfast which his wife had prepared. Their little daughter sat at the table, too, absorbed in a dish of oatmeal.

"How do, everybody," said "Long" Kowle cheerily.

"How do, Kowle," replied Jerry gravely. "Well, this is the day. Either you or I must go to-day, Long! Suppose we draw lots? I'll take two straws from that whisk-broom over there, one long and one short, and the one that draws the shortest must—"

"Hold up, Jerry!" interrupted "Long." "You're a few minutes late. I've already resigned. I reckon I'm in better shape to go job-hunting than you are, my boy, so you put on your sleeve-guards and go to it."

The two men shook hands in silence; and, in silence, "Long" Kowle left the house.

Jerry Jenhower, benedict and father, found that he couldn't finish his breakfast. Something in his throat gave him a choking sensation, and he seized his sleeve-guards and his cap and left the place.

Meantime, the wife, the member of the ladies' auxiliary of the firemen's brotherhood of Little Rock, stood in her doorway and looked down the street at her disappearing husband, with a smile on her lips and a singularly bright look in her eyes.

Then she looked up street at the retreating figure of "Long" Kowle, and said:

"Long," you're the best railroad man in Arkansas."

Getting Ben Kilpatrick.

BY CHAUNCEY THOMAS.

THE TRUE STORY SERIES. In the following story is related the dramatic capture of one of the most picturesque and daring characters that ever practised the grim pastime of train-robbery. Kilpatrick was one of the class of men who took desperate chances—and any man who suddenly finds himself in the possession of thousands of dollars' worth of new and unsigned national bank bills is taking the most desperate chance of all when he tries to pass them. The gang with which Kilpatrick worked was one of the most daring that ever operated in the West, and many a railroader will remember them.

TRUE STORY, NUMBER FIFTY.

An Innocent Pawnbroker Took One of the Unsigned Bank Bills in Payment for a Watch, Then an Eagle-Eyed Bank Clerk and the St. Louis Police Did the Rest.

ONE November night, something over ten years ago, a Great Northern passenger-train was held up by five or six men, and, among other plunder from the express safe, the robbers took thirty-two thousand dollars in unsigned bills of the Helena National Bank. By daylight next morning the sheriff, with a strong posse and a number of railroad and express detectives, were on the ground. Large rewards were at once posted, and the chase began.

The trail led south across the frozen prairie, but was lost near the State-line. Just who the robbers were was not known at first, but good work in locating all possible suspects centered suspicion almost to a certainty on what was then known as "Black Jack's" gang of frontier desperadoes, among whom was Black Jack himself, Harry Longbaugh, Bill Carver, Ben Kilpatrick, and several others.

The Pinkertons, also, had the case, and sent out hundreds of circulars giving a description of the suspected men. Unfortunately, only one photograph could be obtained—that of Harry Longbaugh. The circulars read in large type:

"Dangerous! These men are desperate criminals. They go heavily armed at all times, and are crack shots. Take no chances with them, as they will shoot to kill."

The Teller Is Surprised.

One of these circulars was posted in police headquarters at St. Louis a year after the robbery.

The affair was almost forgotten when suddenly four of the unsigned bills appeared at

EDITOR'S NOTE: All the stories published in this TRUE STORY SERIES have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

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the receiving-teller's cage of one of the St. Louis banks.

As the receiving-teller checked up the deposit-slip of a certain pawnbroker, he gave a low whistle. Hurriedly he left his cage and went to the cashier's office.

"Here are four of those Helena National bills, stolen from the Great Northern a year ago. They just came in," he told the cashier.

The cashier glanced at the bills. They were apparently colored by use and signed, all right; but a moment's investigation showed that the coloring was due to the bills being dipped in cold black tea, and that the names signed were not the same as the officials of the Helena National Bank. At once he called up the United States Marshal's office.

"Hallo! We have just taken in four of those Helena National unsigned bills—the ones stolen in the Great Northern hold-up!"

"Do you know who passed them?" interrupted the marshal.

"Yes. We got them from a certain pawnbroker. Just came in ten minutes ago."

"I'll be right over," answered the United States officer. In five minutes he had the bills. In another ten minutes, with several deputies, he stood in the pawnbroker's shop.

"Where did you get these bills?" he asked the frightened pawnbroker.

"A large dark man, six foot tall, came in here about an hour ago and bought a lady's solid gold watch for one hundred dollars. He gave me five twenties for it, and those bills were four of them, I guess. I didn't look at them especially, because all money looks alike to me. Aren't they good?" he asked anxiously, as he realized that he stood to lose eighty dollars if the bills were bad.

Picking Up a Clue.

Rapid questioning soon convinced the officers that the pawnbroker was innocent. He was well known in St. Louis, and bore an excellent reputation. Then the hunt began for the "large dark man."

The St. Louis police were at once notified, and in another hour every available officer in St. Louis was "on duty till relieved." All were alive to catch the man who had bought the watch, and, possibly, the five thousand dollars reward for one of the gang that held up the Great Northern train.

The pawnbroker was shown the circulars, and picked out the picture of Harry Longbaugh as that of the man who had bought the watch.

"We'll have Mr. Longbaugh if he's in town yet," said Chief of Detectives Desmond—"Big Bill" Desmond, he was called—to the marshal.

"Now, you men scatter all over the tenderloin, and keep your eyes peeled. Don't take any chances of arresting him single-handed. No grand-stand business, remember. If you try it some of you will get killed, and we don't want him to get away. If you see anything of him, notify headquarters at once, and call as many men together as you can before taking him. Now, get busy!"

And they did!

Al Guion, one of the detectives, was standing on a street corner about nine o'clock when a carriage went by in which was one man. He could not see him very well, but from a glance he thought the man was large and dark. He followed the carriage on foot till it stopped a block up the street at a certain resort.

The man left the carriage and entered the place.

Chasing the Carriage.

Before Guion could get to the carriage the man came out of the resort and was driven rapidly another block to a corner saloon, which he and the driver entered. Guion followed them inside. Standing at the bar, playfully feeding the free lunch to a stray dog, stood Harry Longbaugh.

Guion was unarmed, so he left the place quietly and looked around to locate some of the other men. One was in sight a block down the street, but was not looking Guion's way, and Guion dared not make any suspicious motions or Longbaugh would get suspicious and make his escape; probably shooting as he went, if necessary. Just then Guion heard the bartender inside say:

"You'd better be careful how you flash that roll of twenties down here, friend. You are liable to be held up."

"They won't hold me up." Longbaugh laughed quietly, as he left the saloon for the carriage. He was driven to another resort, which he entered, leaving the driver outside.

Meanwhile, Guion had caught the eye of the other detective, and had sent him on a hurry call to gather in some of their colleagues. In a few minutes five officers stood on the sidewalk before the resort.

They looked at each other, for in another minute some of them would probably be dead. Then they entered the front door. In the hall they asked for the man who had just come in. Not wanting any trouble, the

proprietor tried to bluff the officers. He laughingly said:

"Oh, he's all right, gentlemen. I know him," he assured the officers.

Guion Was Game.

Guion stumbled against the door of a gambling-room and threw it open. He staggered half-across the room as if falling, then leaped into the air and landed with his knees in the pit of Harry Longbaugh's stomach.

Longbaugh was seated in a chair, and before he was aware, Guion dived into his breast-pocket, whipped out a hammerless revolver, and stuck it in Longbaugh's face.

"Don't move, or I'll kill you," he said quietly. In the next instant the other officers had Longbaugh handcuffed.

"G-r-r-r-r-r—" came in a hoarse guttural from Longbaugh's set teeth, while his eyes fairly glowed green. He did not attempt to move. From his hip-pocket the officers took another gun, a .45 single-action, that may be seen to-day in the historic collection of noted arms in St. Louis police headquarters.

Then the prisoner, like a chained grizzly, was led to the patrol-wagon, which had been summoned with more police. No one knew what minute others of the desperate gang might appear and begin to shoot, so no chances were taken.

A quick dash put the patrol-wagon and its load of jubilant officers, with their silent, dangerous prisoner, before the door of Chief Desmond's office in the Four Courts Building.

With a pair of nippers on each wrist, and with two officers behind holding drawn guns, the hold-up was escorted to the office. He was as gentle as a lamb now, but his eyes were like a hawk's. Large, gray, with great black pupils, they took in everything, from the doors to the windows, back to the men around him, then suddenly blazed as they glanced for a fleeting instant toward a corner of the room.

A Forgotten Gun.

That glance was so vivid that the officers turned instinctively. On a small table in the corner was a large revolver which some officer had carelessly laid down and forgotten. Three officers made a jump for the gun, while the others stepped between it and the prisoner.

"Well, Longbaugh, the game's up. Any one else here with you?" asked Desmond pleasantly. The prisoner did not reply. He did not even look at his questioner. He appeared to be very disinterested.

"He'll get over that when he's had time to cool off and think it over," said Desmond. "Put him in 'the holdover,' and allow no one to see him or speak to him—not even any of the police, remember," the chief added. So they led him down-stairs and placed him in a dark cell.

Then began ten days of as hard a game of "sweating" the truth out of a prisoner as Desmond ever knew. At the end of that time the chief had learned nothing whatever. He did not even know if the man he had was Harry Longbaugh or one of the Kilpatrick brothers.

Among the articles found on the prisoner was a small note-book on one page of which was written certain letters that corresponded with the initials of various members of the gang. The note-book contained some figures, too, that seemed to be the amount of money each of the gang had received from the hold-up. A brass key that looked like a hotel key, was also found on the prisoner. Desmond took it in his hand and studied it for a moment.

Fitting the Key.

"Here, take this and see if you can find a lock in St. Louis to fit it. He hasn't that lady's gold watch on him, so there is probably a woman in the case somewhere, and we want her before she has a chance to get away. She doesn't know he is arrested yet, so she is still here and will probably stay all night; but when the papers come out in the morning, she'll know all about the arrest. Now get busy."

Two of the men began a tour of the hotels and rooming houses for the lock that that key fitted.

"He has less than three hundred dollars of the stolen money on him, and you'll probably find it with that key," said Desmond.

About ten o'clock next morning the day clerk of the Wandull hotel recalled something he had forgotten.

"Yes, come to think of it, there is a large dark man stopping here. Came two days ago. Acted rather queer, too, come to think of it. Kept to his room and had all his meals sent up to him. There is a friend of his, a woman, who also has a room here.

"Here she comes now," said the clerk, suddenly.

"I want to pay my bill. Call a carriage, please, immediately. I want to catch the ten-

twenty-five train, and have barely time. Please have my trunk brought down immediately," she said to the clerk, while the officers loafed within ear-shot.

"Shall we take her?" whispered one of them.

The Woman Who Knew.

"Don't like to without knowing more about her. She may be all right, and that wouldn't do. Desmond would find fault, I'm afraid. You watch her and I'll slip up to her room and try this key. If it fits she's our meat."

While the woman sat in the waiting-room for her trunk and carriage, one of the officers ran up to the third floor and tried the key in the lock. It fitted.

"Take her," he muttered to his mate as he reached the ground floor. "She's the one."

The officer touched her on the arm.

"Madam. I am sorry to trouble you, but duty forces me to put you under arrest!"

"Sir! How dare you! What do you mean?" she blazed, but her bluff did not work.

The officers then and there opened her hand valise. It contained several bundles of Helena National Bank bills, all unsigned.

"Come with us," they said. She broke down and cried, but would say nothing.

"Ah, sit down," beamed Desmond when the officers led her into the chief's private office.

The woman remained silent to all questions.

"Put her in the 'holdover,'" ordered Desmond, and he turned to examine the contents of the trunk and the handbags now being taken from the patrol wagon.

Recovering the Coin.

The trunk contained nothing out of the ordinary, but the handbag rolled out many of the long missing bills from the Great Northern robbery. After counting, it was discovered that only $18,000 of the missing $32,000 was accounted for. The balance of the plunder, some $14,000, was with the rest of the gang, and, it is understood, has never been recovered, with the exception of a few stray bills that the gang managed to pass here and there.

It was a tiresome job to get Longbaugh and the woman to talk, and nothing came of it. All that was learned after ten days was this:

"Chief, if you'll let up on me I'll tell you who I am," said the man prisoner, worn out by a steady stream of questions—often for twenty-three hours a day—from one man, Desmond.

"All right. Who are you?" agreed Desmond, and he never broke his word, once it was given to a prisoner.

"I am Ben Kilpatrick!" That is all any one ever did get from either of them.

Ben Kilpatrick he was, and not Harry Longbaugh. After he was asleep on the hard bench in his narrow dismal cell, Desmond wiped his weary forehead and said:

"Ben Kilpatrick is the most remarkable prisoner arrested in St. Louis in the past eighteen years. He is a man of iron. I never saw such a man. He is too dangerous a man to be at large."

A Legal Problem.

Then came up a new problem. What were the prisoners to be charged with before the United States Court. It was openly said that a good lawyer could easily get both clear. There was practically no evidence to prove that Kilpatrick had helped to hold up the train. He could not be charged with passing counterfeit money, as the money had been made by the United States government, nor could it be legally proven that this money had come into Kilpatrick's possession otherwise than as the woman declared, through gambling.

Here was a pretty mess of fish. Every one knew to a dead certainty that Ben Kilpatrick was one of the Great Northern train robbers, but knowing a thing and legally proving it are two widely different things.

However, Kilpatrick had nothing except the stolen money, and at the very last moment his lawyers withdrew from the case because they could not get the fee they asked.

Kilpatrick was charged with enough crimes to send him up for life if convicted, so he pleaded guilty to one charge and was sentenced to eighteen years in the Federal prison.

The woman got five years. The rest of the gang were either killed off in the West or escaped to the Argentine Republic, where some of them are said to be to-day. Bill Carver, one of the gang, was shot; and "Black Jack," the leader of the gang, was hanged in New Mexico a few years later.

By an odd coincidence, Ben Kilpatrick and Harry Longbaugh looked enough alike to be twins.

BELLERIN' SAM'S SUNDAY SUIT.

BY W. H. WILCOX.

Fate Handed Bellows a Bunch of Trouble, Starting an Undress Parade and Breaking Up a Love Affair.

THE time was a broiling-hot mid-afternoon in early August. The place was the coolest in all the sun-baked, blistered town of East Hartford, namely, in the shadow cast by the old water-tank that reared a spidery-girded and riveted structure close by the river side of the Midland roundhouse.

The man was old Sam Bellows, better known among the other men on the division as Bellerin' Sam. Not because of any propensity on his part for vocal gymnastics of extraordinary magnitude, as the sobriquet would seem to imply, but because, as Windy Anderson, its originator, stated, "Sam Bellers, Bellerin' Sam—what better do yuh want, huh?"

So Bellerin' Sam he became, and Bellerin' Sam he remains, though the author of the misfitted nickname has long since vanished from the ken of the Midland; gone to pastures new, where the rails stretch their shining lengths over alkali prairies and cactus-studded deserts, and where the scarcity of men causes the master mechanics to welcome the "boomer" and railroad outcast with open arms, regardless of past records.

But to return to Sam and the shade of the water-tank.

"By gee, sir," he remarked, "I'm glad it's my day off. Running an engine, especially on a way-freight, a day like this, is the nearest approach to purgatory we're liable to butt up against before we make an acquaintance with the real article."

After voicing this opinion, Sam relapsed into a deep meditation that I took pains not to disturb for some time. Sooner or later I knew that it would be productive of speech, providing always that no extraneous event occurred to mar the thread of his thoughts. In the meantime the cigars were good, the shade exceedingly grateful after the dust and heat of the town proper, and his reminiscences were decidedly worth

"ALONG COMES DOGGIE A GALLOPING ON THREE LEGS—WITH HIS MOUTH WIDE OPEN."

waiting for. This day, however, they seemed to take longer than usual to crystallize into speech, and I finally became impatient.

"Some say," I remarked by way of a starter, "that purgatory is cold instead of hot."

"Anyway, cold or hot, we get a good imitation here on this road," he retorted.

"Why, I shouldn't think the cold would bother you fellows in the cab any. You look," said I, surveying his huge figure, "as though you had fat enough to keep you warm through a Greenland winter without bothering with any clothes."

"I do, huh? Well, just you try running around a strange town with the thermometer at fifteen below, and nothin' on but your skin and a union suit and see how you like it."

"Tell me about it," I requested, passing over another two-for-a-quarter.

"It happened back in ninety-five," he began between puffs. "Fourteen years makes a lot of difference in a man, and I was a hot sport in them days. I'd been running about eight months then.

"That was when the compounds first made their appearance, and I had one for a regular engine. The 358 she was. She's the 244, and a simple engine now. They changed her over after Terry Bain's father had the mix-up with her in Milton sag.

"A cross-compound she was when I had her, and a dandy piece of machinery. As far as actual use goes now, she's a cross between a rubber boot and an ash-barrel, and can't run as fast as I can. Won't make steam enough to blow the whistle louder than the ones they have on these peanut machines, and you couldn't keep water in her with a nineteen-inch injector. But she was a regular ball of fire when I had her on the fast freight.

"We cut off three and four hours every day from the regular running-time; and, instead of arriving in Huntsville at 9.30 P.M., we kept getting in at five-thirty and six o'clock every day. Great engine she was, but she was the means of losing me a corkin' good run with her fast going.

"Yes, sir. That getting into Huntsville at six o'clock queered me proper. That and my being such a hot sport, and so keen after the women folks.

"When I first took the job they had an old simple mogul on there. She was heavy enough to make the time had she been in any kind of shape; but between a valve motion that caused her to limp like a man with a wooden leg and a knack she had of going along like a hop-toad, one minute on her springs and the next down hard on her frames with a jolt that would fairly loosen your eye-teeth and put crooks in your backbone, she was a tough proposition, and I hollered for another hog every time I reached the roundhouse.

"But my kickin' didn't do me any good till I began to drop a minute here and there in the rough spots, owing to easing off on her so I could keep my insides in their proper place.

"Then they gave me the 358, and, man, how we used to burn up the rails getting over the road! It wasn't long before the despatcher got wise to what kind of an engine he was issuing orders for, and to help us out he'd run us extra from Branchville; and, instead of going to bed when I got in, I began to look for adventures.

"Well, it wasn't long before I became acquainted; and I took in the dances, one after another, and the occasional vaudeville shows that hit the town for one-night stands. I think it was the third dance that I went to that I became acquainted with the girl in the case.

"She was the one that helped the 358 out in losing me that fly run, but I don't want you to think that she was the only girl I became acquainted with—not by a jugful. You see, I was a red-hot sport in them days, and I had women tagging around after me like tabby-cats after a bit of salmon.

"But Rose Audette was the one I cottoned to most, and I reckon if it hadn't been for my undress parade through the burg I'd been foolish enough to have married her.

"I even got so bad, I used to let the fireman take the hog to the roundhouse, and I'd drop off in the freight-yard and have a bath and change my clothes in the hack. Had it all fixed up with the flagman to have a roaring hot fire and a big pail of boiling water in the caboose every time we struck Huntsville. The train-crew all lived there, and I usually had the buggy all to myself.

"That particular night I had an engagement to take Marie to the show. I remember the name of it, all right. It was 'A Hot-Foot Through Huntsville,' and that was just what I did with a darn sight more realism than those actor folks could ever stack up.

"We were rather later than usual getting in, owing to a hot-box on the caboose that bothered us considerably; and, of course, as it was the hack, we couldn't set it out on a siding, but had to monkey around, putting in a new brass and packing it with dope till it ran cool enough to hit up a forty-mile clip again.

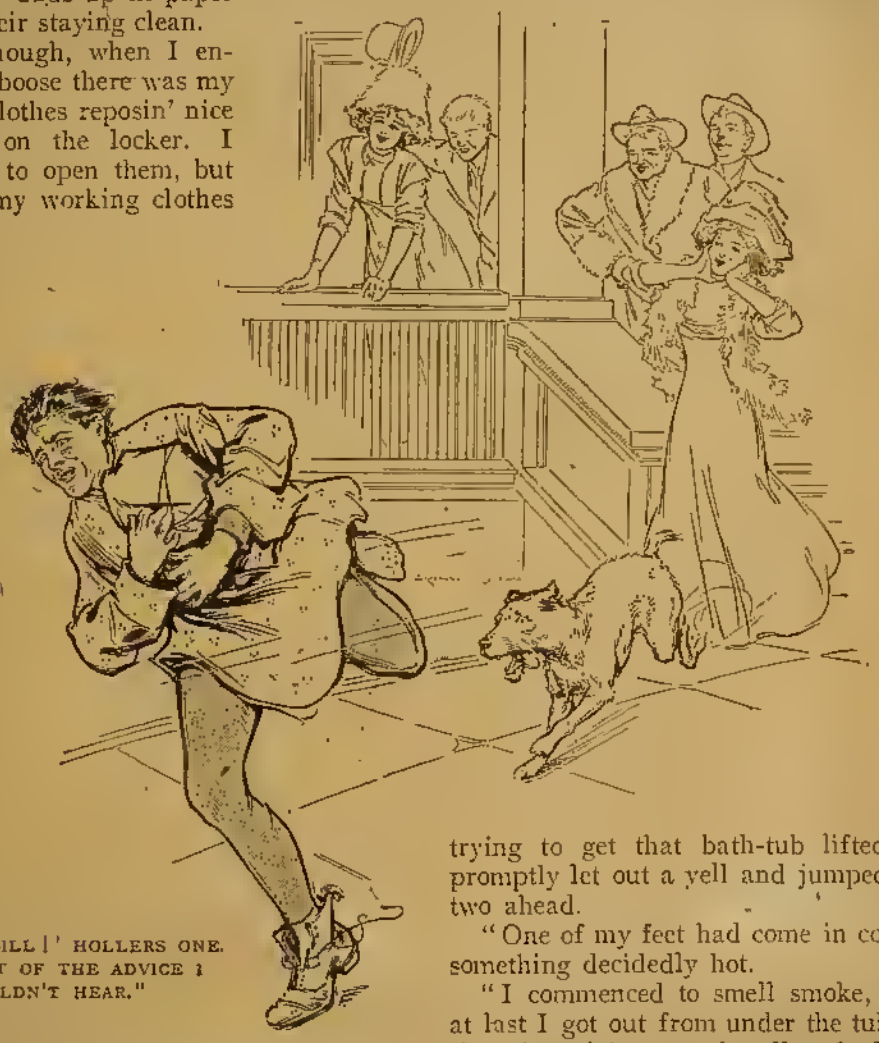
"I met the conductor coming along with a bundle under his arm, as I was on my way back to the rear end.

"'Hey, Bingham,' says I, 'where you goin' with my clothes?'

"'Ain't your clothes,' said he; 'it's some grub for to-morrow's dinner. Jack laid your clothes out on the locker.'

"'All right,' said I, 'but that bundle looks a whole lot like mine.' You see, I used to wrap my duds up in paper to insure their staying clean.

"Sure enough, when I entered the caboose there was my bundle of clothes reposin' nice and quiet on the locker. I didn't stop to open them, but peeled off my working clothes in a hurry, leaving on nothin' but my union suit till I got the water ready, because it was rather chilly in that hack.



"'GO IT, BILL!' HOLLERS ONE. THE REST OF THE ADVICE I COULDN'T HEAR."

"I poured the pail of water into a small bath-tub I had purchased a couple of trips before, and was sitting on the edge of the locker, dabbling one toe into the water and yanking it out again, and swearing because there wasn't any more cold water in the plaguy hack to cool it off with, when a switch-engine suddenly got under that caboose like a ton of dynamite.

"Gee, what a crash! She simply lifted that van up on one end, walloped the center-pins till they broke off, and finally let it down nice and gentle, after a week or so, crossways of the track.

"When I came out of my daze, there I sat, astraddle a signal oil-can, with the bath-tub turned over my head like a Manila hat and the bundle containing my Sunday suit between my knees. I moved around a little, trying to get that bath-tub lifted off, and promptly let out a yell and jumped a foot or two ahead.

"One of my feet had come in contact with something decidedly hot.

"I commenced to smell smoke, and when at last I got out from under the tub I lost no time in seizing my bundle of clothes and crawling through the wreck of the doorway. You see, the stove had been ripped loose from its lashings and upset, and inside of two minutes that hack was a roaring furnace, so there was I with my bundle, a working shirt, and one shoe that I picked up on the platform, where they had fallen when the hack up-ended, turned loose in the gentle December breezes with the thermometer registering fifteen.

"That was the starter. The finish—well, the finish was sure a hot one."

"THE ENTIRE POLICE-FORCE, WITH THEIR GUNS DRAWN, COMMANDING ME TO COME OUT PEACEABLE."

Sam paused in his narrative to throw the butt of his cigar away and look at his watch.

"Have another smoke, Sam," said I, alive to the tentative suggestion conveyed by this proceeding, and also a graduate of numerous former experiences. To keep Bellows talking, one has got to supply the tobacco. As a general rule, the quality of his reminiscences depends upon the grade of the cigars, but the number of smokes given at a time should never exceed one, else will he immediately have a pressing engagement.

"Well," he resumed, when he had once more begun to puff contentedly on the weed, "did I ever tell you about how I was bitten by a dog when I was a kid, and how I've always been scared at the sight of one since?"

"No," said I, "but what has that got to do with your promenading through Huntsville in your union suit?"

"Why, simply this: Right alongside that track there was a switchman's shanty, and the switchman stationed there had the homeliest, bow-legged, cross-eyed mongrel I ever saw. Every one said he was harmless, but he certainly looked ugly enough, and I had just started to dress behind a box car—had the one shoe on, and one arm and my head through the shirt—when along comes doggie, a galloping on three legs—he lost the fourth one under a freight-car—with his mouth wide open, lookin' as red and hungry as a shipwrecked sailor.

"Did I wait to make his acquaintance? Not so's you'd notice it. I grabbed my bundle, and ran along between a string of cars, with that beauty dog a tagging a few yards in the rear. I was as thin as you are in them days, and I could sprint along right lively; and, though I was handicapped some by reason of only having one shoe on and the other foot bare, the pup only had one hind leg to push him ahead with, so that it was a pretty evenly matched race.

"Up the yard we went; around the end of a box car, where I lost a good lead, owing to doggie's going underneath, where I had to go around, we sprinted. We would have had that end of the yard all to ourselves had I followed my first idea of trying to play hide-and-seek with that distorted animal, owing to the yard-crews all being down to the wrecked caboose; but he got so big after gaining those three or four feet that I cut across lots, through a back yard, and down the main street.

"I was mortally afraid I'd run into some woman every minute; but the dog at my heels fairly scared all sense out of me, and

sufficed to keep me going at the same lively clip.

"The first block I met no one. Down to the end of the second I spied a lonely female, plodding along, hanging her head, all unconscious of the shocking spectacle that was coming down on her like a runaway locomotive. I didn't want to meet her, so I dodged around a corner and down a side street.

"How was I to know the Belmont Hotel was on that branch, or that I'd butt into a bunch of actors and actresses comin' out? I did, though, and it startled me so I lost the shoe, which wasn't laced up, anyway. You could have heard them hollering and shrieking half-way to East Hartford when they took in the spectacle.

"'Go it, Bill!' hollers one. The rest of the advice I couldn't hear.

"'Go to blazes!' I hollers back. I did have wind enough for that, though I was getting pretty well winded, and that starched shirt was near cutting my head off, while the bundle weighed a ton.

"The next thing, there pops up a bevy of young fellows and girls. Mostly girls, I guess. They scattered right proper with a whole bunch of feminine giggles and squeals, taking to the front lawns like ducks to water.

"I was pretty tired by that time, and looking around everywhere for a friendly hole to dodge into. Of course, I wasn't embarrassed. Oh, no!

"Well, I was about ready to give up and let that hopping pup get a good feed of my shins, when I spied a small door slightly opened in the side of a big brick building on the corner. In my rattled condition I didn't notice that the building was a church, and if I had it wouldn't have made any difference. I made one mad leap and went through that door like a cyclone.

"I went through the door, all right; but if I'd struck a brick wall I couldn't have stopped any quicker. Why? Because I landed plumb onto the platform in front of a whole gathering of women. Y. W. C. A. meeting, I guess.

"For a minute there was a horrified silence. I can see the leader now; a tall, angular woman, with spectacles, as she turned her shocked and outraged countenance in my direction.

"Then pandemonium broke loose, but I can't describe it. You see, I heard the forefeet of that persistent cur strike the steps back of me, and I dropped my bundle and dove head first into a small cubby-hole under the organ, pulling the door to behind me.

"For a while I could hear a smothered commotion in the church proper. Then all was still. Pretty soon some one yanks the door open, and there stood the three constables comprising the entire police-force of the town, with their guns drawn, and each and every one of them commanding me to come out peaceable. They all had some sort of garment on their arm, enough cloth to cover an elephant.

"I came out, all right; but what got me—Sam shook his head and pulled meditatively on his cigar.

"'Yes?' I interrogated. 'What got you, Sam?'

"Why, that pesky dog lay over in a corner with his sides stuffed out ready to bu'st, and his head laying over nice and peaceable on the remains of a hunk of beef. You see, I'd been lugging Bingham's Sunday dinner around under the mistaken impression that it was my clothes, when they were really in the bundle he carried home with him."

"What happened next, Sam?"

"Aw, what's the use? I couldn't describe the rest of it if I had the dictionary on my tongue, any more than I had face enough to go back and see Rose after it was all settled up. Darn a dog and a compound, anyway!"

A BOOMER GIRL.

BY BESSIE BARDSLEY.

Written for "The Railroad Man's Magazine."

I'VE hashed on every railroad from Mex. up to B. C.;
The waitresses in swell hotels ain't got anything on me.
I travel o'er the country; I don't have to pay my fare;
If I take a notion to cross the ocean, I'll bet I get shipped there.

It's pretty hard work, hashing on any railroad line;
The hours are long, but there's lots of fun when the bunch comes in to dine.
When the tourists come they swarm the "ring" like bees around a hive;
But it's worth the bustle, the hurry and hustle, just to know that you're alive.

With seven sauce-dishes in one hand and orders stacked to your chin,
With hot plates burning your good left arm—it's sometimes hard to grin;
But if you are game you can sling the hash and pass on a little jest.
"Arm work" is our way, we can't carry a tray—there's no class to that out West.

I've fallen in love with cowboys—once I had an Indian beau;
I didn't leave any trail for him when I felt it was time to go.
And I used to be sweet on a hog-head—he's been hard to forget—
It was "Heart be still!" ev'ry time I saw Bill, but there's been no tie-up yet.

Oh, I'm a regular railroad boomer! I'm running myself a race,
For my feet get awfully painful when I stay a month in one place.
The only thing that brings relief is to hike for a town that's new;
It's "Hello!" "Farewell!" If they don't like it—well, "My check, if you please—I'm through!"

Told in the Smoker.

BY RICHARD MAXWELL WINANS.

More Rapid-Fire Yarns of Clever Maneuvers, Repartee, and Shrewd Road Generalship, That Won Big Orders and Much Merriment for the Ever-Jovial Knights of the Grip.

THE OFFICE-SEEKERS' SPECIAL.

IT was shortly after the inauguration of President Taft that Harry Lewis, who carries a line of stocks through the West, together with two other traveling-men and myself, were gathered in the smoking-compartment, late one night, on a sleeper bound for Washington, D. C.

Every berth in the car was taken to the last upper, and, as one of us remarked, it was strictly a stag-party affair, for there was not a woman in the car to break the monotony. The make-up of this particular carload of human freight attracted my attention, for most of them looked to me like a line of samples all cut from the same piece of cloth.

After sizing them up pretty carefully and listening to a few bits of conversation, which, in the main, they seemed to be trying to divert to commonplace channels, I came to the conclusion that they belonged to a class of citizens much in evidence on Washington-bound trains at this season every four years.

After Langdon had finished what we had agreed was to be the last yarn for the night before retiring, I ventured my guess as to the specific classification of our fellow passengers.

Merkel, who carries hose—the kind with a hole in only one end—offered to bet me the breakfasts in the diner next morning for the four of us that I was on the wrong line, and he put it up to me to produce evidence to the contrary. I took him on, and agreed to make good on my conclusions before the porter should finish making up the berths in the morning.

It was late and, all being shy on sleep, we soon turned in; but I didn't yet quite see my way out on the bet, and so I lay awake for an hour or so thinking it over. Finally I connected with an idea. I got up and went over to Lewis's berth, which was just opposite mine, and posted him on the lines I wanted him to play.

I had the porter give me an early call, and was up before the others were awake. At the first stop I bought a morning paper. I then

came in and woke Lewis and the other two, and, in doing so, managed to create enough commotion to get the whole car awake.

For a few minutes I made enough noise rattling and crackling that paper to set every man's nerves on edge, and then, in a tone of surprised discovery, I called loudly across the aisle to my friends:

"Hey! I say, Lewis! Wake up! Here is the greatest piece of news ever, red-hot from the new administration!"

"What's that?" answered Lewis, following the cue I had given him.

"Why," said I, in a tone loud enough to reach either end of the car; "it's the report of an order that was issued yesterday by President Taft."

"What's the gist of it?" asked Lewis in a high key of keen interest.

"Why," I continued, giving full voice to my reply, "it goes on to say here that President Taft has issued orders that all incoming office-seekers should be impartially rounded up at the railroad station as fast as they arrive in Washington, and sent home forthwith!"

Well, sir, the curtains on nearly every berth on that car were instantly yanked aside, when a tousled head appeared in the opening and an excited chorus of strident voices were shouting wildly at me just these two words:

"What's that?"

I had won the bet.

Those fellows had unwittingly proclaimed their mission to the capital; ambassadors extraordinary on public business relating exclusively to the private interests and benefits of the perpendicular pronoun "I."

At Merkel's invitation—and expense—we filed into the diner. We let it be known, incidentally, that we were hungry to the limit, and the breakfast we ordered on Merkel would have made a veteran chopper in a logging camp envy our four-ply appetite.

We kept stoking away until we began to feel that the supply of fried chicken, waffles, and maple sirup must be about exhausted, and then, with that "peace-on-earth-good-will-to-men" sort of feeling that comes from a third cup of steaming coffee, we hit the trail back to the smoking-compartment.

THE RETURNED OVERALLS.

"THAT breakfast," said Langdon, as he leaned back in his chair with a smile of happy recollection, "reminds me of a dinner on Ed Hanford, in Chicago, last season. Hanford carries a high-grade line of overalls out of Chicago. He'd been assigned a new territory in the Northwest, and just before starting out he received a letter from a would-be customer in a small town up in Minnesota.

"The letter was to say that the writer had been informed that Hanford was to cover that section, and that it was desired to place an order for three hundred pairs of overalls to be shipped at an early date, and asking Ed to make that town as soon as it was possibly convenient. The letter was signed C. M. Oldfield.

"Hanford was so elated by this advance order as a promise of a good run of sales in the new territory that he had a special pair of fancy overalls made that would have done credit to a Broadway tailor, and sent out as a good-will present to the prospective customer. Then he wrote a very chatty letter some yards long in which he made mention of some choice cigars and a little something wet he carried in his grip, and closed by referring to the overalls, of which he said: 'I pray you accept these as a personal matter and wear them with my compliments.'

"I was with him, a few days later, in his hotel when he was handed a telegram from the writer of the letter. His face turned red as he ran his eye over it, and he said something not very ladylike as he handed it to me to read. This is what it said:

"'Gift received and appreciated. Cannot wear them, however, until the styles change. (Signed) Caroline Margaret Oldfield.'

"But Ed wasn't a fellow to go down for the count for a jolt like that. He intimated that if Miss Caroline should measure up to his esthetic ideas as she did in a business way, why, he'd make her more to him than an overall customer. And he did. I received an invite about a week ago to attend the wedding. Ed was not the kind to let a good thing get by him."

THEY DIDN'T GET BY.

"WELL, he didn't have much on a fellow I knew," chirped in Merkel, apparently pleased to know he was not the only mistaken-identity victim.

"His name was Harry Swift, too, at that. Carried a line of boys' clothing in the South. He was a wide-awake chap of the never-let-any-one-get-the-better-of-you class. He was on one of them little jerk-water roads, making a run from one main line over to another.

"The train stopped at a little wayside tank to take water, and the conductor failed to send back a flagman. Presently there came along the road's crack limited, running at the rate of seven or eight miles an hour, and bumped bang into the rear of the first train.

"Swift was riding in the smoker with his back to the engine, playing pitch with three others. He was lifted bodily from his seat and thrown clear across the back of the seat facing him. His hat was smashed down over his ears, and his meerschaum pipe cracked into bits. He scrambled back into his seat, a little bruised but not badly injured.

"Then he pried off his lid, straightened up, drew a long breath, looked around defiantly, and said: 'Hully gee! They made a big bluff at it; but they didn't get by us, anyhow!'"

GAVE HIM HIS MONEY'S WORTH.

"THERE was Frank Haskell," put in Lewis. "He carries a line of patent belting, and his success is largely due to not letting anything get by him without showing cause.

"When he came fresh from college, where he'd played on the football team, his sole asset in the business world was nerve and sticktoitiveness, for he'd never earned a red copper in his life.

"When he started after a job he went to old man Brigham, the general manager of the company, and nonchalantly told him he would like to have the exclusive right to a certain very choice piece of territory. Old Brigham gasped, caught his breath, and gave Haskell what he asked for almost before he'd looked him over, taken clear off his feet by the very boldness of the proposition.

"After Brigham had given him his final instructions next day, he shook hands in a perfunctory sort of way and smiled sarcastically as he went out, as much as to say: 'You'll make good; I don't think!'

"But he did, and here is one illustration of how he did it: He located one of the first prospective customers he'd 'lined up' for a sale, in his exclusive and palatial private office one morning. He gave his card to the office-boy, and buried himself in a big leather chair to await the lad's return. From where he sat, he could see the manager through the plain beveled edge of the ground-glass partition, and he saw him give the card a casual glance, tear it in bits, and drop it in the waste-basket.

"That got on Haskell's nerves, and so, when the office-boy came back with the old story that the manager was very sorry, but could not see Mr. Haskell that morning, he promptly sent the boy back with the request that the manager return the card to him which he had seen torn up.

"The youngster returned in a jiffy and handed Haskell a nickel, with the remark that the manager had mislaid the card, but that if it was so valuable perhaps the nickel would cover the damages.

"But Haskell wasn't done yet. Taking another card from his case, he scratched a line on it, slipped the boy a quarter, and had his card again laid on the manager's desk. Beside the name, he now read thereon these words:

"'These cards are two for a nickel.'

"Haskell got that interview, and he sold that man enough belting to last him two seasons. There isn't any least flicker of sarcasm in old Brigham's smile now when he meets Haskell."

IT BROUGHT RESULTS.

"THE partiug injunction that I received from my boss when I started out on my first trip," said Langdon, as he dropped the sugar into his second cup of coffee, "was: 'Work hard and keep your nerve.'

"My first point was Cleveland, where I landed bright and early next day. I pounded the streets that day until the lamps were lit, and succeeded in getting just one order on my book as the result of that long day's work. Toward the close of the second day I hadn't added anything to it, and the next firm on the list was one of the largest in the city.

"When I reached the reception-room there was no one in sight, and I stood around on one foot and then the other like a chicken on ice. I dreaded that interview. Nearly every traveling man was afraid of those people. Finally an office door opened and a man about six feet three walked over and took my card. After which he seemed to try to look a hole through me.

"'I should like to see Mr. Blank, or his manager, if he is not in,' I said in a businesslike tone.

"'They are too busy to see you,' said this near-giant, turning on his heel toward the door from which he had come.

"'How about his chief clerk? Is he busy, too?' I asked as a desperate chance.

"'Yes!' he jerked out in a voice that

would freeze you. 'They are all too busy to see you. We don't want anything.'

"'Sir,' said I, in a tone that equaled his own in severity, 'I don't know who you may be, or what position you may hold in this company; but I believe, sir, that, if Mr. Blank realized he had a man of your caliber in his employ, he would discharge you, for I believe him to be too good a business man not to listen to any business proposition which might present itself.'

"I looked him square in the eye as I finished, and saw a faint smile hovering around the corners of his mouth as he answered: 'Come in. I am Mr. Blank.'

"Right there I sold him a bill of goods that amounted to more than I had expected my whole trip to net me. I kept right on selling him as long as I was in his line, and many a time Blank and I laughed over the calling-down I gave him that evening."

THIS DOG CLIMBED A TREE.

"WELL," said Merkel, beckoning to the waiter for another cup of cocoa, "I think I had some rougher knocks than you on my first trip, and nothing quite so soft to bump against, either. I had been sent into the Mississippi Valley, and I made my début there in one of the smaller cities, eleven hundred miles from home, a stranger among a strange people, out with a heavy sample-case, starting out to call on my first customer. My goods were new to me, I'd never sold a bill before, and I was conscious of being about as green as they make 'em.

"I called on every jobber in the town, and was turned down with such regularity the novelty of it had worn off by noon. Then I went back to my hotel to hold a council of war in committee of one. There I was, with not a soul I knew, a failure so far for a new house and 'frozen' in my first town. Worse than that, it was my first day.

"As I sat there in my room with gloom and dejection wrapped around me in a perfect fog, I suddenly recalled an old story that I remembered my mother was fond of telling me when I was a boy. It run about as follows:

"An old Southern darky of antebellum days appeared before his master in a most wretched and dilapidated condition.

"'What's the matter, 'Rastus? Where have you been? What's happened to you?' inquired his master.

"'Oh, Mars Henry, I's done had a orful time. I done took a shot at a big bear an' he jist kim right along aftah me, took my gun away, an' broke it up to nuffin'! Den I clumb a tree, an' de dog he done clumb a tree, an'—'

"'Why, you old liar!' broke in the master. 'Now, 'Rastus, you know no dog could climb a tree!'

"'Well, Mars Henry,' responded 'Rastus in all seriousness, 'you see, dis yere dog he done hab to climb a tree.'

"Right then and there I concluded that in my case it was up to the dog to climb the tree.

"After getting a bite to eat, I went back to the largest jobber I had called on in the morning and asked him what price he was accustomed to get from the retail trade for such goods as I carried. He told me, and then he wanted to know why I had asked. I replied that I was going out to sell some.

"'But they won't sell, I tell you,' was his snappy answer.

"During that afternoon I tramped those dusty streets, sweating, swearing, and making sales right and left. By evening I had gathered in a mighty good bunch of orders, and it was a decidedly different lad who again presented himself to that jobber.

"'Well,' said he cheerfully, 'I'll just fill those orders for you, young man.'

"'Oh, no; not much,' I replied with an air of independence, for you see the dog had 'climbed his tree,' and I was safe. 'If you want those orders,' I continued, 'you will have to multiply the amount of my sales by at least ten.'

"But when I closed with him next day it was for twenty times the amount of my sales. While I have never been in the same fix or the same place since, I have never forgotten that every dog can climb his tree when he has to."

WHEN LEWIS GAVE THE GRIP.

"THERE was a trip I made last season," said Lewis, biting the top off a big, black dollar cigar, "on which I sold some goods that I really hadn't expected to, and by a trick that wasn't altogether of my own turning, either.

"Just before starting out on the trip I tore the palm of my right hand on a nail that stuck out on the side of my sample-trunk. It didn't amount to more than a scratch, but it was in a very awkward place. I washed it thoroughly with an antiseptic,

and then thought no more about it until I reached St. Louis, my first stop. In that city it seemed to me that I had never before met so many friends of the handshaking variety. When I finally landed in my room at the hotel that scratch began to look like a full-sized saber-cut, and my whole hand was quite inflamed and sore.

"Of course, it was a mere trifle, but you know how sensitive a man can be over such little things. I didn't want to poke out my left paw to every one I met and explain that I had scratched my right hand on a pesky nail, so I kept right on handing out the sore mitt to every customer I met, wincing every time they squeezed it.

"During the course of the day I discovered that by holding my hand in a certain position I could protect the wound and at the same time give no opportunity for complaint because of a lack of warmth in my greeting. Shortly after I had made this discovery, I chanced to meet on the street a man by the name of Bascom, the buyer for one of the biggest houses in my line. He was the very man I wanted to corral, for none of our men had ever been able to land him for a decent order.

"When I met him we shook hands, and I curled up my palm to protect the scratch and at the same time give him a good, hearty shake. As I took his hand I noticed a peculiar look on Bascom's face, and he squeezed my hand with renewed vigor. To break the pressure without giving offense I made a sort of lever of my thumb, bearing down on the back of his hand to try to ease his grip.

"I was not a little surprised when Bascom began to talk good, hard business right there and then, and finished by asking me to come around with my samples that afternoon. You may be sure I was Johnny-on-the-spot with him, and he greeted me with a great show of cordiality. Within no time at all I had sold him a bill of goods that put in the shade all my other orders combined, with his signature snugly at the bottom of it all.

"Highly elated with my good day's work, I was about to leave, when Bascom put his hand on my shoulder and said in a low, confidential tone:

"'Of course, brother, you know this is the night for the general election. Under the by-laws, you, as a traveling member, are entitled to a vote in any city you may happen to be in at the time. If you have not already made a choice, I would like to urge the fitness of Brother Smith for the office of the grand exalted gazook.' I withhold the actual name of the office for fear it might get me into hot water.

"'Smith is a most worthy man,' Bascom continued, 'and we purpose giving him the biggest vote from this city that was ever known in the history of the order. Now, as I said, if you have not already made your choice of a candidate, I shall consider it a very great personal favor if you will come to the lodge rooms to-night with your credentials and take part in the election.'

"'Why, Bascom,' said I, with a puzzled expression, 'this is all Greek to me. I don't belong to any order, and know nothing about any election. Still, if there is anything I can do, why—'

"'But,' he exclaimed with some heat, 'you are a member of the Knights of the Royal Gazooks!'

"'On the other hand, I never even heard of them,' I replied cheerfully.

"'Then how in thunder did you come to know the grip?' he demanded with rising temper. 'And you gave me the answering grip, too, when I tested you. By the eternal, there is a traitor somewhere!' and by this time he was almost shouting. 'See here,' he continued in the same high key, 'will you answer me this?' And then he gave a peculiar flourish with his left hand.

"I stood there like a fool, wondering if I had suddenly gone clean dippy; but with the best manner I could assume I said: 'Bascom, you've got me guessing; I don't connect at all.'

"'Believe me, sir, there has been a mistake,' he said with frost in his voice. 'I trust that you are gentleman enough not to take advantage of anything you may have learned. Good day, sir!' And with that he turned on his heel without shaking hands, flounced into his office, and slammed the door after him.

"Not until I got back to my hotel did I form any connection between my scratched hand and Bascom's behavior. It seems that in twisting around to protect my sore hand I had unconsciously stumbled upon the grip of a secret oder. However, it was the means of my selling a whopping big bill of goods to a man I had not counted on, and of getting a letter of special commendation from the house.

"Looking at it from his point of view, however, I don't think that I will ever be able to sell Bascom any more goods."

"I once sold a bill of goods," said Langdon reminiscently, "to an old codger down

in Missouri after I had given him up as a hopeless case. That was back in my salad days, and I was carrying a line of dress-goods.

HE SAW THE JOKE.

"WHEN I landed in the town and laid out my samples, the first customer I had on my list happened to be this old fellow. I didn't know then that he was noted for his dilly-dallying tactics with all drummers, or I would have let him go until last and made short work of him.

"He came in and began looking over my line. He handled them and rehandled them until they were all mussed up and topsy-turvey, and still he hadn't made a noise like an order for a single yard.

"At first I did what I could to help him get a line on what he might buy to best advantage; and then I gave up and sat down to watch the performance, my patience getting closer and closer to the rough edge all the time. Finally he looked over toward me, and said:

"'Young man, do you reckon that these here goods are fashionable?'

"'Well,' I replied, when I could recover my breath, 'I do reckon they were when I first begun to show them to you; but I'll be hanged if I can tell you whether they are now or not.'

"Well, sir, that pert reply tickled the old man so that he broke out into a hearty laugh; and the best of it was that he turned to and gave me a whaling big order, and he was a steady customer of mine as long as I was in that territory."

JUDGING THE SPEED OF A TRAIN.

BY E. A. SPEARS.

It Is Not So Easy as It Looks, and Frequently, When You Are Going at What Seems to Be a Sixty-Mile Gait, You Are Running Only Thirty Miles.

"IT'S a pretty hard matter to judge the speed at which your train is going, unless you take out your watch and observe the mile-posts," said an engineer.

"Often, in case of accidents, the attorneys will try to pin you down to the rate you were running when you ran into Uncle Josh at the crossing. You can never tell, with accuracy, and I can conceive of conditions where you may be thirty miles an hour off in your estimate.

"You may think you are hiking along at sixty miles an hour, when, in fact, you are going but thirty miles. On the other hand, you may be moving along at sixty miles an hour and think you are traveling at no more than thirty miles.

"For instance, the engine makes all the difference in the world. Take one of those big-class fellows with wheels more than six feet in diameter, and, like as not, you will be sailing along at a sixty-mile clip and not half realize it.

"One reason is that there are four exhausts to every revolution of the wheels. These being large, the sounds of the exhausts occur at less frequent intervals than they do on smaller wheeled engines. The more rapid the exhausts, the faster you think you are going.

"Why, on some of those little old engines the exhausts are so rapid that, by the sound, you judge you are eating the miles at a tremendous rate. Like as not, however, when you get to the end of your run, a message from the superintendent will be waiting for you to ask why you are late. That is what is liable to happen if you don't keep your eye on your watch.

"Engines are curiously deceiving that way. Some of those rickety old machines will swing you back and forth, toss you into the air, and jolt you until you think you are knocking off the miles like minutes.

"Here's another rule that leads you astray. The more you are tossed the faster you think you are going. For that matter, you can observe this while riding in the coaches. A wabbly coach lends the sense of speed to a train. A Pullman is just the opposite—it skims along and you wouldn't know you were traveling.

"You may notice, too, that the condition of a road-bed makes a lot of difference on your opinion of train speed. The first thing in spring, when the frost gets out of the ground and the tracks are heaved and warped, you will wonder why you are dragging behind the schedule when you seem to be going so fast. It's the road-bed.

"The more you are shaken the swifter you think

you are going. It's a good rule, all right, for you have learned it from experience. The trouble is that you must consider whether you are being shaken up in an old engine and on a rotten road-bed, or on a good road-bed and in a modern locomotive. If you are being tossed about in a big engine on a smooth road, then your senses are not fooling you—you are going some.

"This merely goes to show that you must consider the circumstances.

"Another condition which affects your estimate is whether the cab is high from the ground. If it is comparatively low, as some of the older locomotives are, you seem to go faster than you do, because out of the corner of your eye the ground apparently speeds by swifter. It is the opposite in higher cabs. The rate of the passing ground, so to speak, does not seem so rapid. The farther you are from a moving object, the slower it seems to go. This enters in the mental calculation you make on the engine, although you may not know it.

"The direction of the wind and its velocity is another important feature which you don't think about in your calculations. If the wind is going your way, leaves and other objects blown through the air parallel with you sort of make it look as if your train wasn't much more than standing still.

"As you stick your head out of the window you don't find much of a current of air against you. It tends to make you feel that you are getting through the element pretty slowly. Nevertheless, you may be swimming smoothly on at a sixty-mile gait.

"Every railroad man knows that a strong head wind cuts down the speed of a train, sometimes to a very material extent. The fireman knows that a strong wind requires a heap more coal to keep up steam, for the engineer must draw on his power liberally, that his train may hug the schedule.

"Yet, when you are fighting and actually creeping against a strong wind, you get the impression from it that you are driving on at a terrific rate. Poke your head out of the window where the wind jams your face and claws at your hair. The dust sweeps by at a smashing velocity; trees, grass, and weather-cocks all point in the opposite direction from which you are headed. That's the way things look when you are going by them rapidly. It all makes you think you are annihilating distance—until you look at your watch.

"When a man has used a certain engine for some length of time he gets used to its exhaust and its swing, and, consequently, these are less apt to lead him astray in his estimates.

"I suppose if one were to estimate the speed of a train without a timepiece, the best way would be to stand off at a distance of about two miles. Then you get a perspective. You could measure a mile with the eye, and the train would not seem to be going so fast but that you could get a fair estimate. Of course, this method depends entirely on one's eyesight.

DOG WITH A RAILROAD PASS.

THERE is a dog on the Long Island Railroad that nobody owns and that does not want any one to own him. At the same time he probably has more friends than any other dog in the United States, and he is believed to be the only dog in the world that owns a railroad pass.

His name is Roxie, and upon his collar is a brass plate with an inscription which sets forth that he is an employee of the Long Island Railroad, and which commands all conductors to pass Roxie between stations.

It is said that this pass was issued to Roxie by order of the president of the road because a brakeman had tried three times to kick Roxie off the president's private-car. When the president and his party inquired into the cause of the trouble between the dog and the brakeman they soon learned the dog's history, and not only was the dog made welcome to a seat in the private-car at once, but the pass was issued to prevent any further interference with Roxie's peregrinations.

Roxie's occupation in life is railroad traveling. How he came to take his first ride and whom he belonged to before that time are both disputed points. Roxie himself is silent on the subject, although he can express his opinion of men and things clearly, and can make his wants known.

Curiously enough, Roxie will never make a return journey with the same train crew. After he has spent a day or so with one of his acquaintances along the road, perhaps a station-master or a signal-tower operator or a switchman or the postmaster or the hotel-keeper, he will take a notion to go down to the station and meet a certain train.

As soon as his train comes along Roxie jumps on board and appropriates any vacant seat he can find. If he cannot find a vacant seat he will curl himself up on the floor and doze quietly until he arrives at his destination. The moment his station is called he will jump up and get to the front platform ready to make off.

After a visit of what he considers the proper length he quietly boards another train and proceeds to some other station. It is considered lucky to have a visit from Roxie.

Sometimes he goes back in the direction from which he came; sometimes he goes further along the road. He has been at every stop on the road from Montauk Point to Flatbush Avenue hundreds of times during the last ten years, but he has never been known to go the entire length of the road in one journey.

As a passenger Roxie's tastes are very democratic. He does not seem to care much whether he rides in the cab with the engineer, in the baggage-car, in the smoker, or in the day coaches, but he seems to have some doubt about the validity of his pass for the parlor-cars, and seldom ventures into them, although he will enter the president's private-car with the utmost assurance that he will be welcome wherever an officer of the road is to be found.—*New York Sun.*

PETER THE GREAT.

BY S. O. CONLEY.

He Thought His Time to Reform Had Come, but He Met a Bitter Opposition.

PETER McNULTY, known to the police and Cherry Hill as "Peter the Great," was not good to look upon — sprawling on a seat in Central Park, blinking with bleary eyes at nothing in particular, and hiccuping beerily at intervals. Under normal conditions Peter's claims to beauty were of a nebulous sort. Life that begins with frequent famines, punctuated by constant fist-fighting, and develops along the lines of the gutter, is not conducive to the development of attractive features.

Pete was squat and broad, with heavy jaws and huge hands. His eyes were small and penetrating. His ears were fleshy flaps with serrated edges—the result of East Side combats.

The Sons of Mulligan's Rest had been giving their annual ball and chowder at Schweitzermann's Wood. Pete was not only a "son," but had been appointed an assistant sergeant-at-arms of the affair. The position gave him innumerable chances to get square with his enemies. Consequently, the night and much of the morning had been given over to a glorious series of fights.

Finally, when Mr. Schweitzermann, with the aid of the reserves from a near-by police station, succeeded in regaining possession of his "wood," Pete, for reasons which he could not explain, steered unsteadily toward Central Park, the tawdry silk-and-tinsel badge which proclaimed him a son still glittering on his breast.

There on the bench he sat, drowsing, and dreaming of the joys of the preceding hours, and his face, battered by many fists and bloated by many libations, was not a pleasant sight.

Yet Freddie, pursuing an errant ball, was by no means frightened when, on turning the sudden curve of the path, he came upon Peter. The ball was rolling under the bench close by Pete's feet. Freddie paused but an instant, then dived, secured his treasure, and took a critical survey of the huddled, frowsy man in front of him.

The badge caught his childish eye, and he came to the conclusion that the assistant sergeant-at-arms was worth cultivating. So he said "Hallo," and put out his small hand in confidential fashion.

Pete slowly opened his bleary eyes.

"Hallo, kid," he replied, taking the child's hand in his own big, grimy paw.

The man with his brutalized face, the boy with his unsullied innocence of feature, eyed each other in silence for a short time. Peter, under the influence of a sort of dull shame, tried to sit up straighter, and removed his hat from over his eyebrows. Freddie made a closer survey of his new acquaintance.

"Wot's yer name, kid?" asked Peter, with an effort.

"Frederick Wade Hilton, and I'se five years old," was the reply. "What's yours?"

"Peter de Gr— I mean, Pete McNulty. Wot yer doin' here all by yer lonesome?"

"Not alone. Nurse is just 'round the corner wiv Sister Beatrice. Sister Beatrice's only a baby. She can't walk. She has to be pushed in a baby-tarridge. Did you ever ride in a tarridge?"

"You bet. Why, I drives one." Peter quieted his fragment of a conscience by reminding it that once or twice a year he really did hold a brief job as truck-driver.

"Wiv real horses?" asked Freddie anxiously.

"Sure, Mike—"

"My name isn't Mike—it's Freddie."

"Dat goes—" began Pete.

"What goes?" queried the child, looking round in order to see what object in motion Pete was apparently indicating.

Pete was perplexed. His muddled brain

was incapable of reshaping the phrase. He made no answer. Freddie, awaiting the explanation, again indulged in a scrutiny of Peter, and then it was that his eyes rested admiringly on the badge.

Pete caught the look, and divined its meaning. His unsteady fingers began to fumble at the safety-pin. Finally he managed to disengage the affair, and handed it to the child.

"Here, kid, here's sumpin' fer yez."

"Are you sure you don't want it?" he asked politely.

"Sure—it's all fer youse."

The boy took the badge with his left hand, and once more extended his right. Pete, with a hoarse chuckle of amusement, shook the small palm heartily.

"Thank you," said Freddie, examining his prize with shining eyes. Then, to the utter amazement and consternation of the man, Freddie, lifting up a trustful face, went on:

"I'd like to give you a kiss for this."

The pure lips of the little one touched the sin-seared cheek of the rum-soused thug.

Just then Freddie's nurse appeared on the scene, and forcibly hustled him off.

"How dare you kiss that dirty bum?" was what Pete heard as nurse and child started up the path.

Pete did not doze again. With wide-open, red-rimmed eyes, he looked speculatively at the squirrels. Once he began, "Well, I'll be—" but checked himself, and finished the sentence with his usual ejaculation of surprise: "If it don't beat three goats!"

Then he softly and surreptitiously rubbed his cheek where Freddie's kiss had rested. Soon he fell to gazing at the squirrels again. At length, hungry and thirsty, and bewildered at certain feelings in the region of his heart to which he was a stranger, he betook himself to the rear room of a near-by saloon, where, between gulps of lager and spoonfuls of free soup, he tried to wonder what had come over him.

That which rang most forcibly in his ears was the remark of Freddie's nurse, "Why did you kiss that dirty bum?"

For the next few days Pete was to be found in his old-haunts on the "hill" and at the "point," consorting with his cronies and swallowing the accustomed vileness called by the courtesy title of whisky. At rare intervals he would momentarily withdraw into himself, only to emerge muttering, "If it don't lay out three goats!" One day he induced "String" Murphy, who could read and write, to accompany him to a Bowery drug-store, where, with the assistance of a city directory, they ascertained that one Frederick W. Hilton, broker, lived on Madison Avenue, not far from Eighty-Fifth Street.

"De kid's fadder, I lays me uppers," muttered Pete to himself.

String pricked up his ears. "Am I on in de graft?" he asked.

"Aw, wot's eatin' yez?" inquired Pete. "Dere's nuttin' doin'."

"Who's de kid, den?" inquired Murphy sarcastically. A life membership in an East Side gang somehow stimulates one's power of inductive reasoning.

Pete's eyes blazed. "If ever you slips me dat agen," he replied slowly, "I'll make youse t'ink you was—"

He drew himself up with a jerk. So, with a scowl, and a significant glance at String's jaw-point, he turned on his heel and departed. That night String bruited it abroad that Pete was either going to "turn a big trick" or was out of his mind.

Meeting Freddie in the park had curiously impressed the Cherry Hill man. The child had brought into being emotions to which he had been a stranger, and which were all the more bewildering because they seemed to run counter to the habits and thoughts of his life.

Somehow, they seemed to make him uncomfortable when he drank or cursed. In his dumb, darkened way, he felt the contagion that existed between them, and the purity of the lad who had kissed his rough cheek.

Half angry with himself, he cut short a string of blasphemy, and refrained from "touching" a half-drunken sailor—notwithstanding his needs and those of the gang.

Four days after his meeting with the child Peter didn't show up until noon. Then, in answer to several invitations to "beer his face," he explained that his insides had gone back on him, and he was "off de booze."

Later he strolled around to Lee Fong's laundry on Madison Street. Lee had decorated his window with some fly-specked prayer-papers, a sample collar, some cuffs, a shirt, an anemic lily that apparently derived its sustenance from superimposed pebbles, some cheap oriental vases, and a couple of goggled-eyed Chinese dolls.

Pete fixed a thoughtful eye on the dolls, and, after some hesitation, entered the store.

Now, Lee, having had much experience with the gangs of his neighborhood, and knowing that they visited him less for laundry than for loot, came forward cautiously, holding a flat-iron in his hand.

"How muchee, John?" asked Pete, indicating the dolls.

Lee understood, or thought he did. It was evident to him that his visitor intended a ruse. While the dolls were being taken from the window there would be a descent on the cash-drawer and the incidental lifting of stray linen.

Therefore, Lee replied: "No sellee."

"Yez won't!" returned the disappointed Pete. "Bet yez t'ree goats yez will."

"No want sellee," returned Lee, keeping a wary eye on Pete, and waving the flat-iron gently but ominously.

Pete took a peep over the red chintz curtain at the rear of the window, made an appraisement of the dolls, dived into his pocket, pulled out a mixed handful of cigarette-papers, matches, tobacco, and small change, and, picking out fifteen cents, placed it on the counter. Then his hand flashed over the curtain and drew up a doll.

"S'-long," said McNulty as he opened the door to exit. "an' de nex' time a gent asks yez de price uv yer chink kids, yez had best be civil—see? T'ank yer josh, yer yellow, split-eyed wash-tub, dat I ain't sent de gang down to clean yer place out."

With the doll carefully snuggled in his capacious inside pocket, Pete walked toward Third Avenue, where he squandered five cents on a shave and ten cents on a hair-cut; then he boarded a north-bound car.

Pete, on reaching Central Park, wandered toward the point where he had first met Freddie; but Freddie was not visible, and Pete began little tours over the lawns and in the neighborhood of the menagerie.

After two or three hours had been spent fruitlessly in this work, he sought and found a shady seat, confessing to himself his disappointment, and wondering if, after all, the boy's acquaintance was worth the price of abstinence from his usual quota of booze and cigarettes, to say nothing of shaking the gang and the incidental disadvantages to himself.

Meditating on these things, Pete began to doze, and finally dropped off into dreamland. From that region he was brought back to earth by a shrill and familiar "Hallo!"

Opening his eyes, he saw Freddie in front of him, and Freddie's face plainly showed that he felt genuine pleasure in again meeting his friend of the badge.

"Morning, Freddie," said Pete.

"Good morning," replied Freddie, with an accent on the first word.

"How's de baby sister?" went on Pete, after an awkward pause.

"She's all right," replied the boy. "Have you any little sisters?"

"Naw," said Pete.

"Any brothers?" pursued Freddie.

"Naw."

Freddie looked puzzled, and a trifle sorry, but continued: "Where does your father and mother live?"

"Ain't got none."

The boy gazed thoughtfully at the man in front of him, and asked: "Who puts you to bed and hears you say your prayers?"

Peter the Great shifted uneasily in his seat. "I puts myself to bed," he asserted. "You see, I'se bigger and older than youse."

"Do you say your prayers all by yourself?" went on his small inquisitor.

Peter did not reply. Instead, he reached into his pocket and produced the doll.

Freddie took it with a grave "Thank you," and, after examining it closely, he said: "You won't mind if I give this to Beatrice, will you? I am a boy, and I don't play with dolls."

"Dat's dead right," assented Pete. "I never t'ought of dat."

"But," added Freddie earnestly, "I am much obliged to you."

At this moment there was an interruption. A French maid, wheeling the perambulator in which was baby Beatrice, appeared on the scene.

She looked suspiciously at Pete, caught hold of Freddie's hand, and led him away, threatening to tell his mother about his "talking to these brutal men." She also insisted that Freddie should throw away the doll, but on this point the little chap was obdurate, sticking to the toy manfully, while Pete grinned approvingly at his action.

From that time on for two or three weeks Pete, pretty nearly every fine day, was to be found in the park trying to speak to his small friend. Occasionally he brought with him some bizarre gift, such as a carved coconut-shell which he had managed to persuade a sailor friend to yield, a dried star-fish, bananas, and, in one instance, a highly colored lithograph of the Jeffries-Johnson fight.

Freddie's parents, acting on the reports of the French maid, naturally objected to the acquaintance that existed between the child and his queer friend. They harbored thoughts of kidnapers and other equally unpleasant individuals.

So it came about one day that Peter, clean, and sporting an immaculate collar and a breath devoid of the odor of tobacco and whisky, was warned by a park policeman that the park squad was "onto him," and that he had a good mind to take him to the arsenal on general principles.

This followed hard on a statement made to him by Freddie, while the latter's lips quivered regretfully, that he had been forbidden to speak to or to even look at his Cherry Hill friend.

Peter turned away from the park. That night, in the society of the gang, in an unavailing attempt to forget the boy and his affection for him, he imbibed more than his quota of whisky, only to awake the following morning feeling disgusted with himself and his surroundings.

He was not accustomed to take his rules of life from the police, and, in spite of the warning that he had received, he still continued to haunt those portions of the park where he knew his little favorite was usually to be found.

Sometimes he caught sight of the child, and felt himself rewarded for his trip uptown. On his endeavor to speak to Freddie, however, the boy, with tears starting to his eyes, would always answer: "I can't talk; mother says I am not to."

With a little sob, he would pass on, leaving Pete to wander gloomily down-town, feeling a distaste for the "hill" by contrast with his late happiness up-town.

One day Pete, in spite of himself, had again journeyed to the park, and late in the afternoon was leaving it at the Sixty-Sixth Street entrance, sullen, weary, and disappointed. As he ascended the steps he saw, to his delight, in front of him Freddie and Beatrice, accompanied by their white-capped guardian.

Not daring to show himself, and yet eager to look once more upon the face of the boy, he followed them cautiously up the avenue to Seventieth Street.

There the nurse and her charge started to cross the street. The avenue was crowded with moving vehicles. Between them the nurse thought she saw an opening, but an automobile suddenly bore down upon her, and simultaneously from the other direction more carriages began to shut her in.

The automobile did its best to slack up. But—a tire snapped. The report started two spirited horses just behind. Instantly the animals began to rear and tug furiously.

With a shriek, the panic-stricken woman abandoned the children, and sought safety in flight.

Peter had seen it all. He dashed in under the heads of the crowding horses, and, in one instant, over the driver's seat. He reached the children just as one of the frightened team struck the baby-carriage.

The next moment he had swung Freddie onto his shoulder and rescued baby Beatrice from the entangling folds of her lap-robe, handing her to a scared coachman behind him. Then, in some miraculous fashion, he managed to make his way to the sidewalk, being grazed on the forehead by a glancing shaft.

Freddie was in a state of childish panic. Indeed, Pete had a good deal of difficulty in holding the terror-frenzied child in his arms until the sidewalk was reached.

There the little fellow's fear-befogged brain somehow or other identified Pete with the incidents of the moments before, and he shrieked to his rescuer to put him down.

"Dat's all right, Freddie," began Pete soothingly.

"Let me go! Let me go—you dirty bum!" shouted the child. And he struck at Pete's face with his tiny fist.

The Cherry Hill tough put the child on his feet without another word. Freddie was at once taken possession of by the nurse.

Pete turned on his heel, his cheeks an unpleasant yellow.

"I wouldn't have t'ought it of the kid," he muttered, with a curse. "His going back on me like dat."

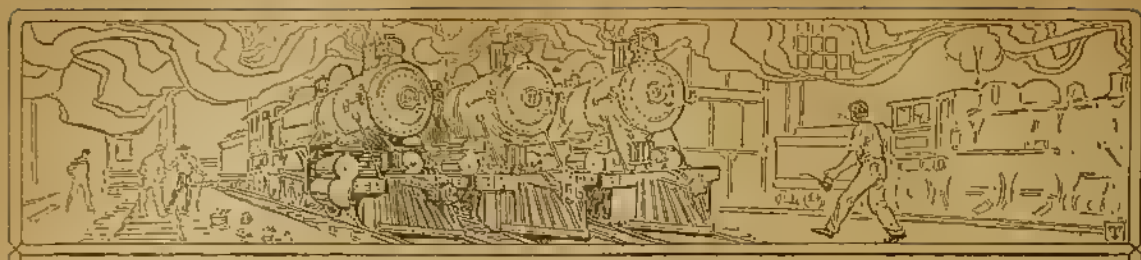
"I saw you rescue those children," said a well-dressed man. "It was a courageous act. Will you take this?" He held out a bill.

Pete laughed bitterly. "Nix," he said, and walked away.

That night Peter the Great was his old, tough self again. To fitly celebrate his return to his old life, he "did up" a cop "good and plenty."

About a year later, when he fell into the clutches of the law, owing to a difficulty with the leader of a rival gang, during which the latter had three conical pieces of lead distributed through his person, the judge, in sending Pete "up the river" for a term of years, took occasion to say that men of his type seemed to be outside of all influence for good and that their reformation seemed to be impossible.

Hot journals make no steam. Keep your enthusiasm where it will drive pistons.—Admonitions of an Old Hog Head.



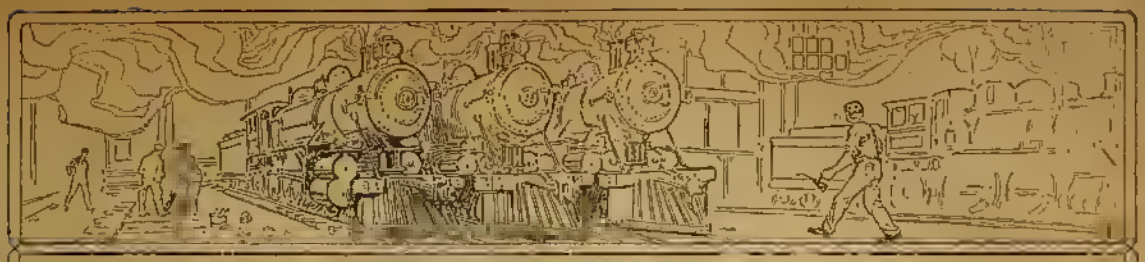
WHEN THE ENGINE'S IN THE ROUNDHOUSE.

BY J. EDWARD HUNGERFORD.

Written for "The Railroad Man's Magazine."

WHEN the engine's in the roundhouse and the weary day is done,
Hi, old pardner, ain't you thankful that the trip is safely run?
Ain't you glad to shed your jumper and to wash away the grime?
Ain't you glad you're feelin' hungry and it's close to supper-time?
Ain't you proud you've done your level and you've earned an honest rest?
Don't that feelin' of achievement make you kind o' swell your chest?

Ain't you glad the kids are waitin' for you, swingin' on the gate?
Don't you kind o' hustle homeward so they won't have long to wait?
Ain't you pleased to see wife standin' in the doorway with a smile?
Don't the greeting that she gives you make your struggle worth the while?
Ain't you glad that supper's ready and the grub is piping hot?
Don't you fairly love the perfume of the steamin' coffee-pot?



Ain't it solid comfort, pardner, when you've settled down to eat?
Don't the way wife serves the victuals make each morsel seem a treat?
Like as not it ain't a banquet — just plain spuds and beef and bread,
But you've got a bank-roll started and you're gettin' some ahead.
Oh, it's good and appetizin' if it is a little plain,
And it builds up pounds of muscle and it stimulates the brain.

Ah, but when the meal is finished and you're smoking in the yard,
And the youngsters romp around you—ain't you glad you're livin', pard?
Don't you love to tell 'em stories, just to hear 'em shout with joy?
Don't you like to tease the girlie 'bout some little neighbor boy?
Don't you like to play at choo-choo with the children on your knee?
Honest, pardner, ain't you proud of them as mortal man can be?

Then's the time you plan with wifie on the good day drawin' near,
When you'll quit the job of fireman for the job of engineer;
You have served your time at stokin'—it's been hard old goin', too;
But it won't be very long now till some chap'll stoke for you.
Hi, old pardner, ain't that plannin' in the future heaps of fun—
When the engine's in the roundhouse and the weary day is done?

THE MAN WHO WASN'T GAME.

BY WILLIAM S. WRIGHT.

Some Men are Won by the Lure of Gold—Others by the Lure of Love.

CHAPTER XII.

My New Acquaintance.

THE stranger's cottage was a small affair. It consisted of just two rooms, and they were as devoid of any of the comforts of home as any place I had ever seen. One dilapidated chair, a table that had lost two of its legs in a scrimmage of some sort, and was propped against the wall for support; a shelf on which rested the occupant's toilet appliances, and the inevitable sleeping-mat on the floor—that was all.

The cottage was thatched with coconut-leaves, the walls were of rude undressed planks—but the view from the window was a fascination.

The stranger, as I have said, was a squat, middle-aged man. His hair was long and white, and his face was covered with an unkempt beard.

His tiny black eyes were popping nervously in their sockets as if he were fearing some dire calamity at any moment. He seemed to be the allegory of fright. There was something on his mind that was troubling him.

He offered me the lone chair and sat himself on the floor with the easy manner of the natives, who, as I have said in previous chapters, adopt the "tailor-fashion" attitude with peculiar ease and grace.

Akipo entered soon after and took his seat carelessly in the middle of the floor. I wondered why the stranger made no objection to the native's presence if he had something secret to tell me, and I was not a little surprised that he did not order Akipo out.

I learned afterward that the native idea of personal privilege is vastly different from our own. The fact of the matter is this: All things being equal to him, he feels that his presence is ever welcome, no matter where he may be, and he takes everything in such a gentle, philosophical manner that there is little or no objection when he comes around. At any rate, Akipo could not understand English beyond the veriest "yes" and "no," and the stranger knew that.

When Akipo had seated himself the stranger turned to me and told his story. It was a rambling matter at first, for his tears flowed faster than his words, and he frequently choked with such terrific emotion that he could not speak.

"My name is John Pennzer," said he. "What I am going to tell you is the gospel truth. Oh, my friend, I have been waiting so long to tell it to some one! I have cried it out to the stars, but they could not hear; I have hurled it to the sun and the great ocean, but they go on and on as if they did not care!"

He wrung his hands in anguish. It was evident that my stranger who—to give him every benefit of the doubt—was really John Pennzer, was a poet, too.

"I am glad that I can understand you," I said. "Let me know how I can help you."

"You can help me by listening," he continued. "This awful secret has been a weight on my breast for years. Let me tell it to you. Some human being must know it. Some one who *can* understand."

"Go on," I said.

John Pennzer looked at Akipo for a moment, and Akipo was in the position of a mute at a Greek tragedy—he could only understand by the gestures that something unusual was going on.

Pennzer was satisfied with Akipo evidently; then he looked me straight and steadfast in the eye for fully a moment, and said:

"I am a bank-robber."

Fearing that this admission would deprive me of either breath or reason, or both, he stopped for a moment to await the effect.

But I was prepared for that, and even more. My intuition told me that John Pennzer was either a bank-robber, a murderer, or some other sort of escaped criminal. I imagine now that his surprise was even greater than mine when I looked at him in bland calmness and simply replied:

"Yes."

"I am a bank-robber," he repeated. "I have been on this island, an escaped criminal, for over ten years. I dare not write to my family for fear that the police will intercept the letter and come for me. For years, every time that a boat of any sort approached the shore, I scanned every face aboard, fearing that a detective had come for me; and when you drove up just now I thought that my time had come.

"Oh, I would not care much! It has been like prison here all these years. The strain on the mind has been worse than purgatory.

"If I had only given myself up and gone to jail—if I had only given myself up and gone to jail—the judge might have had mercy on me, and I would have been a free man now—a free man instead of a prisoner here."

I knew all this was coming, and I suppose that I looked at him somewhat disinterestedly. However, he gave me a sudden, startled, piercing look, and said:

"Are you sure you're not a detective?"

"Most certainly not," I answered. "I am, as I have told you, a wanderer—a wanderer on the face of the earth. I just dropped onto this beautiful island as a meteor drops from the sky, and I like it so very much that I think I will stay here always."

"You will like it and will live happily, for you have your conscience," he went on. "No man can live happily without his conscience—clear and clean. He may have riches and luxury, and all else that the world can give, but conscience is his best companion.

"This paradise, with all its natural wonders—even with that view which you can see through the door—has been to me nothing more than a prison."

He stopped short in his preachment, and said:

"Oh, I promised you some refreshment."

Then, turning to Akipo, he rattled in the latter's tongue an order for coconuts.

Akipo was on his feet in a moment. Taking a stout piece of rolled twine from the folds of his *pareu*, he deftly knotted it to each big toe. I was more interested in his immediate undertaking than I was in Pennzer's confession, and unto the native I fastened my attention.

The twine which Akipo had fastened to his big toes was about fourteen inches in length, just sufficient to give him leeway to hobble into the yard. He maneuvered to a tall cocoanut-tree some hundred yards away, and, using the string as a means of locomotion, he scrambled to the top, and soon we heard the welcome thud of young green cocoanuts as they struck the ground.

The cocoanut-tree, I may add to this tale, as a means of information, is very tall and of the palm variety. All of its foliage grows at the very top. The leaves are long and tough, and the fruit grows in mighty clusters in their cooling shade.

A cocoanut in its green stage—and in its green stage its milk is one of the most satisfying, wholesome beverages known—is about as large as a man's head. Every part of the tree is useful.

As one famous South Sea writer has truthfully said, to the native it is meat, drink, fuel, fire, and wearing apparel.

When the natives climb the trees for the fruit, they look something like a monstrous cat leaping up a pole. The hands work in the same manner as a feline's paws, and the legs are drawn up in unison—the string attached to the toes catching in the bark and acting as a support.

Akipo soon returned with cocoanuts, opened them, and placed them within easy reach. John Pennzer picked one up and, raising it to his lips to drink, proffered my very good health. Out of courtesy, I did likewise. We quaffed the wonderfully cooling milk, and then he proceeded:

"Do you remember the robbery of the old Eighth Ward Bank in New York—some ten years ago?"

He peered at me inquisitively, and then continued:

"No, you are too young."

"I have never been in New York," I ventured.

"Even so," said John Pennzer, "had you been old enough, you would have heard of it. Of all the bank-robberies of the past quarter of a century, that was the most sensational. Why, there were columns written about it, my boy; columns, mind you."

He stretched his arms in seeming pride, and the basso tremolo of his voice indicated

that it was something to have been the central figure of a bank-robbery.

"But I escaped. They never found me. They are wondering to this day where I am. You are the first white man—indeed, my friend, you are the only man in all this world to whom I have spoken about this affair. You have never heard the story?"

I shook my head.

CHAPTER XIII.

The Pennzer Proposition.

LISTEN then, and I will tell you.

"I robbed the old Eighth Ward Bank on the ight of June 11, just ten years ago come next month. Oh, I have kept most careful count, and I know.

"There was a bundle containing just one hundred thousand dollars in ten, twenty, fifty, and thousand-dollar notes in the vault. It was a sort of reserve fund, and it rested in a steel drawer, untouched for years. I was the security clerk, and frequently I was obliged to go to the vault to examine some security or to make an inventory of those on hand.

"One day I saw this bundle of notes—a fortune. I saw it again and again, always the same smiling welcome friend of the vault. I seemed to grow to like it—and I use the word in its emotional sense," he said with a long-arm gesture, as if priding himself on his rhetorical finesse.

"Yes, I began to feel a certain liking for that bundle of bills," he continued. "At first, when I would open carelessly the steel drawer, it seemed to smile at me, and I distinctly remember saying one day: 'Hallo, there you are again!'

"Then I began to discover that I could not go into the vault without a look at the bundle, and I soon found myself opening the drawer and actually speaking to it, whether I had to go to that particular drawer or not.

"The bundle seemed so lonesome, and when I would shut it up in that dark abode it seemed to just want to come out.

"One morning, it must have been three months or more after the day that I first saw that attractive bundle, I was obliged to change its position in the drawer to make room for some very valuable securities. Up to that time I had never touched it.

"To me it was like a living thing, and I remember that I placed my hand on it as if it were a little child whose position in its cradle was uncomfortable. But the moment my hand touched it!

"Then it was a different thing to me! Then it became more than a mere bundle of printed paper, calling for so much metal! It became a—a beautiful woman, begging pleading, demanding that I take her from her prison.

"I placed the notes most carefully in their new corner which was nearer the outer edge of the drawer, and, as I closed it, I took one lingering look and *I know* that they beckoned to me.

"That night, I lay awake for hours. Those notes were within my grasp. They called for one hundred thousand dollars in the coin of the United States. They could bring me all the happiness that a man could ask. They were within my grasp.

"I only had to take them! I only had to take them!

"I actually found myself lost in the contemplation of a theft!

"Here I was actually planning the theft of one hundred thousand dollars with as much unconcern as if I were planning a journey to Coney Island.

"I hastily pulled myself together. Great God! What had come over me! I tried then and there to upbraid myself for letting myself think such a thought! I, John Pennzer, who was the soul of honor and unto whom had been entrusted the wealth of trusting employers—I who was looked upon as a model for young men—the father of a family—the pillar of a church—letting myself think such thoughts!

"I remember that I upbraided myself and then went to sleep. The next day, while walking to the bank, my heart sank within me because I had been such a weak fool. I resolved to never again let my mind rest on a dishonest idea and if that bundle of notes had the power to make such a fool of me, then I would put it where I would not be obliged to see it and dismiss it from my mind.

"But when I opened the drawer that morning, a more welcome smile than usual greeted me.

"I shut the drawer with a slam. But, I thought, I was cruel. I opened it again. Curse me for a jackass, but I really seemed to feel that that bundle of bills needed fresh air and chance to look round."

Pennzer actually laughed at the peculiar ridiculosity of his statement.

"So I left the drawer open while I was examining some securities, and, now and then, I would let my eyes turn in the direction of the bundle.

"Finally, the time came to go. I turned to the drawer to close it. Something stayed my hand. It was impossible to do other than to pick up that precious bundle.

"I did so. I spoke to it. I caressed it. I toyed with it. God help me! At length I opened it!

"I laid the bills one by one on the little shelf above the drawer and my eyes feasted in jealousy that they should belong to some one else and not to me. Then, lest some one enter the vault and become suspicious of my innocent escapade, I made up the bundle just as I had found it and put it back in its proper place in the steel drawer.

"What I say may be either grewsome or insane to you, my friend, but that bundle again assumed the—oh, I do not know what to call it, but to me it was a living, breathing thing.

"It seemed broken-hearted—there, there don't laugh! It actually seemed broken-hearted and it began crying to me—yes, crying aloud:

"'Take me! Take me!' it seemed to say. 'Don't leave me here to suffer alone! You need me. Take me! Take me!'

"I petted it tenderly. I went on with my work and went home that night only to suffer worse than I had suffered the night previous.

"I managed to get myself out of the spell of hypnotic influence of the thing and to look at my position calmly. I reasoned that there was the enormous sum of one hundred thousand dollars within my grasp. That sum was a princely fortune. With it I could flee to some foreign country, hide myself for a while, and then my future would be secure, for with such a sum a man of my tastes would be satisfied.

"Then I tried to throw it off, go to sleep, and return to my natural state of mind. I resolved that I would ask the cashier of the bank to remove that bundle in the morning. I could tell him that it was in my way, or invent some other flimsy excuse, and he would gladly do it.

"But all this good resolving vanished like the mists on yonder sea. The spell of the coin, the call of the cash, the lure of the lucre, or whatever your mind chooses to call it, had me in its grip.

"In a little while it was all over. I had resolved to steal that money. That was all there was to it.

"Something impelling was working against my better self. I had lost all reason for anything else. There was only one thing to do now, that was to plan the robbery so that no one would intercept me—and make good my escape.

"The most feasible plan—after I thought of a dozen and discarded them all as worthless—was to lock myself in the vault or, to be more exact, remain hidden in the vault until the automatic machinery, operated by the giant timepiece in the bank, closed it for the night.

"I would have a candle and matches. The getting of the money proper meant nothing. I had only to open the drawer and extract it.

"Then, with a small screwdriver, I would unfasten the lock from the inside just as I had seen a mechanic do one day when fixing it. I knew the principle that operated the door and I was certain that I would succeed.

"Once outside the vault, it would be an easy matter for me to make the street. The only opposition that I might encounter was the night watchman, but as he kept his vigil near the front door, and as I intended to make my exit by the rear, I anticipated no trouble from him.

"That day, I worked in my customary mechanical style as if there was nothing out of the ordinary on my mind. We clerks get into a rut and there we stay. Just so long as we do the work and our honesty and trustworthiness are never questioned, nothing is said to us.

"About twelve minutes to three o'clock I took a farewell look at all my bank companions. Some of us had worked together for over ten years. Then I gathered up all my papers, slipped them into my desk, and taking what securities I had before me, I started for the vault.

"One of the bookkeepers was just ahead of me. He was putting away some private papers belonging to the president of the concern. He chatted pleasantly, for we practically entered the vault together.

"I breathed a sigh of relief when he hastened out, saying that he was leaving early to catch a train. The moment he left, I peered out and into the bank. It lacked three minutes of three o'clock. At first I realized that not a person knew that I was in the vault, but the moment that I hid myself in the rear behind a patent cabinet used for storing railroad securities, it seemed that a million eyes were on me.

"Those three moments went like so many years. I crouched down, for some belated clerk might possibly rush in at the last mo-

ment to leave something for safety—and if I were seen—great shivers!

"I began to tremble and a cold perspiration poured from my face. I looked at my watch. It was just three—the minute hand was just touching the tiny mark of the hour.

"I peered around the corner of my hiding place.

"Suddenly there was a muffled click. Quicker than it takes to tell, the huge steel door of the vault swung to and, with the ease and wonder that marks the method of improved machinery, it closed.

"It closed and the daylight vanished. I crouched lower in the darkness, waited with bated breath for a moment, and then came another muffled click.

"The vault was locked. No human hand, no key, no power save destruction could open that door now—not until ten o'clock the next morning when the giant clock that had closed it would point to the hour of ten.

"That, at least, was the principle on which it worked and on which its makers built it. But I was in its vitals now—and my skill had to prevail.

"The darkness was cloying. I struck a match. As it flared up, I looked about my prison to see if there wasn't a chair. Nobody had thought to put such a commodity there. How careless are inventors regarding bank robbers!

"Just as the match went out, I looked at my watch. Only four minutes past three! The clerks were still working. They would not leave until five o'clock. Then the charwomen would come in and clean the place for the morrow. It would take them an hour or so and then the watchman would go his rounds and take his comfortable chair to his place near the front door. The weather was warm, and the board of directors let him keep a window open.

"I figured that I would want to make my escape at night. The best hour would be about midnight, but when I thought of waiting in that awful blackness for nearly nine hours, I felt that my reason would leave me.

"I was standing up and my legs began to cramp. I walked to and fro, but I encountered all manner of obstacles. It was impossible to move with any degree of comfort. Then I tried standing still again. I remained perfectly restful for some fifteen minutes and, in sheer desperation, I sat on the floor.

"I soon regretted the absence of drinking water and again I spoke most unkindly of the neglect of safety-vault manufacturers regarding thieving bank clerks. Indeed, they might have given me a chance to go outside and walk around until I was ready to steal their money.

"I sat there staring into the darkness which soon began to blur my eyes in such a manner that it soon seemed to me that I could even see every corner of the vault. I even put my hand on the steel drawer which contained my hundred thousand dollars, and I could see the bills all piled up in order awaiting the possession of him whom they had tempted to crime.

"But that terrible darkness became too awful for words. I shut my eyes to keep it out—that is the only way in which I can express myself. With my eyes closed, my mind seemed more at ease. I stretched out on the floor. I began to dream of the morrow when I would be the possessor of one hundred thousand dollars—think, my boy, one hundred thousand dollars!

"I planned and planned. I went into a reverie of rarest delight. It was important that I should do so, too, for my mind had to be distracted and my eyes kept from dwelling on that terrible darkness.

"At length, I could feel myself falling asleep. Oh, it was welcome. Better asleep dreaming of the glorious future in store for me than awake in that narrow confine with no sound save my watch ticking, ticking, the moments that never seemed to run into hours.

CHAPTER XIV.

The Hundred Thousand.

SUDDENLY, I remember, I awoke with a start. The mind quickly knows its surroundings even though the sleeping body may be in strange quarters.

"I sat up quickly, struck a match and looked at my watch. It was ten minutes to eleven. Why wait until midnight, I thought? Why not begin now? It was night. The breaking of the lock might take some time. This was the appointed hour.

"I rose to my feet, lit the candle, and placed it on the shelf above the drawer. Then I opened he drawer and took therefrom the bundle of bills. I quickly deposited these in the big valise that I had brought for the purpose, and the heft was not more than I could master when I had made my freedom.

"Then I turned to the door of the vault. With my screw-driver I began to unfasten the plate that covered the mechanism. It

was unusually difficult, I thought. The number of screws seemed endless. Finally I had them all out, and the plate fell to the floor with more noise than I had anticipated.

"Gingerly I began to prod the various springs and wires that held the lock fast. I was working blindly but more successfully than I knew.

"I touched some vital part. There was a sickening sort of a thud, a short succession of clicks, and the door swung open with a bang!

"I had just time to extinguish the candle and dart behind the cabinet. I listened with my heart going against my breast like a trip-hammer. Bang! bang! bang! it went with the regularity of a pendulum.

"I feared the worst. The watchman had only to touch a button and the entire building would be thrown into a flood of light. But—he was asleep. I plainly heard him snoring.

"There was a dim light burning in the outer offices near the door. This was sufficient to guide me.

"I made my way to the rear of the building where I was well acquainted with a small door used only for the transfer of specie. It opened on a small alley that connected with the main street. This door opened only from the inside. It was held locked by a series of bolts similar to those used on a safe, and was operated by a combination which was known only to three members of the bank, including myself.

"The combination was '34 left, 72 right, 48 left.' My nervous fingers could hardly turn the knob. They seemed powerless to work properly.

"I struck a match. I scarcely cared if I aroused the watchman, for I might as well be caught one way as another. In the dim light I saw the knob turn from left to right to the different numbers. I could hear the gentle roll of the ball-bearings, and then the welcome clicking sound that told me that the lock was in my power.

"I pulled the handle and the door opened. I picked up the bag containing my treasure and darted down the alley to the street.

"My next problem was where to go. An old detective has told me since—not knowing, of course, who I was—that the cleverest thieves will plan a robbery to the minutest detail, and then, having come into possession of the plunder, will fall into the clutches of the law by not knowing what to do with it.

"I was in this very quandary. The streets were deserted and dark. Everything was propitious for a deed of the kind I had just committed. I had the spoils in my hand.

"*But where could I go?*

"Nowhere! In the morning the theft would be discovered. The escape by the rear door would fasten the crime on the three men who knew its combination, and I would be the only one who could not prove an alibi! I was the only one of the three who knew that the notes were kept in the drawer!

"Well, my friend, I would have given twice the sum to have been able to return those notes. I would have given years of my life to have been able to go back just twenty-four hours. But it was too late.

"I went to the railroad station and took an early train for Chicago. That afternoon the newspapers contained full accounts of the great bank robbery in New York and my disappearance.

"Descriptions of me were being telegraphed to every city in the world. I hid in the back room of a saloon, and now and then emerged to get the extras as they came out. All night I walked the streets with my hundred thousand dollars, and every time I saw a policeman I dodged down a side thoroughfare.

"The morning papers proved that I was the most talked of man in the country. Everything connected with the robbery had been sent broadcast, and a reward of five thousand dollars was offered for my capture. I did resent, however, the statement made to the press by the sleeping watchman. He told, in the most graphic atmosphere of the fiction-writer, how I had overpowered him, gagged him, and bound him to a chair, from which he had freed himself only after the most difficult struggle.

"I saw that I had only one thing to do, and that was to leave the country. I made my way by a circuitous route into Canada and then down into Mexico, and finally to a Chilian port.

"There I found a schooner bound for this island. I was a traveling naturalist, and the bag containing my hundred thousand dollars was filled with valuable and perishable specimens, which was my reason for keeping it locked and handling it so carefully.

"Oh, the world is full of fools! We are all gullible! It doesn't take much to make us believe that the motto of wise *Puck* deserves a prominent place on our escutcheons.

"I landed here. The years have passed, and I am still unmolested. You are the first man whom I have taken into my confidence. I can't stand this isolation much longer, so I am going to make you a proposition."

He stopped talking for a moment, then turned to Akipo, to whom he spoke. He evidently asked the native to leave the room under some promise or other, for Akipo smiled and went out to the small porch, where he dropped on his haunches, took a long piece of coconut fiber and some native tobacco from his *pareu*, and began rolling himself a cigarette.

Pennzer arose and closed the door, being careful to bolt it.

"Is it necessary to do that?" I asked.

"Yes," he replied. "I want to be alone with you. I want to show you."

He looked furtively around him, and then disappeared into the other room. I heard a key turn in a lock, and presently he returned with a good-sized traveling-bag. This he placed at my feet. He opened it, and brought forth bundle after bundle of United States bank-bills.

"This is what I have left of the loot," he continued. "I really do not know how much it amounts to now. I should say that I have not spent more than two or three thousand dollars. At any rate, if you will agree to return to the United States and offer the bank from which I stole this money seventy thousand dollars in cash, I will give you ten thousand dollars for your trouble.

"The proposition must be closed in this way: I am to return through you seventy thousand dollars of the stolen money provided the bank will give a written agreement that I am to have my freedom."

I thought it over as he packed up the notes and returned to the adjoining room with the bag. There was more money than I had ever seen before. I might make my demand for my share of it in advance. Then, if I cared to vamose with it, he would be none the wiser.

With ten thousand dollars I could—I found myself in the same lure that had trapped this unfortunate man and wrecked his whole life. Great grief! but it is a mesmeric power.

In the short time that elapsed while he was transferring that bag of stolen money to its place in the outer room, such thoughts flashed through my mind that I would blush to record here.

I even thought of murdering him and making away with the entire sum. What is this awful money lust? Why is it the most poignant and damnable of all powers? I now understood why he could not resist the temptress.

When he had finished his story I despised him; now I sympathized with him from the bottom of my heart.

He returned to the room, and said:

"You need not give me your answer now. There is plenty of time. I can wait a little while longer. Go home and think it over; but I will ask one thing."

He was looking at me with steady eyes.

"What is that?" I asked.

He reached for my hand. Just why I gave him no resistance I do not know. At any rate, he clasped it warmly, and, looking me straight in the eyes, said:

"I have told you a great secret. I trust in you—man to man. If you should deny me the acceptance of my offer, promise me that you will never, never breathe a word of it to a living soul."

I promised him.

CHAPTER XV.

The Lure That Won.

I LEFT him, and aroused Akipo, who was now enjoying one of those siestas into which the south sea islander falls so easily. He was stretched out, fast asleep. Even the antiquated horse of our conveyance was so sound asleep that his nostrils almost touched the ground.

I ordered Akipo to drive home, meaning, of course, to the place where Tati lived. He lashed the poor beast unmercifully to wake him from his slumbers, and off we started through the idle town to the rose-embowered palace of the woman whom I loved.

Everywhere the idle breeze wafted the fragrance of the spices that grew in the valley lands; everywhere the sunlight shone, bringing every color that nature had endowed on this fairy-land to its fullest and best tint.

I saw the idle people sleeping in their undisturbed peace, and even the plants seemed too lazy to waft with the recurring motion of the breeze. It was the perfect place. It was the place to live.

And when we finally reached home, Tati, too, was asleep. In a hammock swung under the climbing flowers that bordered her porch she reposed. Her wonderful face seemed wreathed in the smile of a beautiful dream, and I approached and kissed her as a mother would kiss her sleeping child.

She awoke with a little start, and looked at me. Then she held out her arms.

"Would you do me a favor?" I asked.

"I would do anything for you, my *Merita*," she replied.

"Ask Akipo to return to the village and tell the stranger at whose cottage I stopped that I cannot accept his proposition."

"What do you mean?" she asked, a little startled. Her eyes seemed to say that she feared something had come into our lives that might part us.

"I will tell you," I said. "Only, please send Akipo. Just say this to him: 'Tell the old man who lives in the cottage where you stopped this morning that the American cannot accept his proposition.'"

She called to the native, and, in the beautiful language of her land, gave my wish. Akipo, evidently thinking that he could make faster progress than the horse, started off afoot.

I told Tati all that had happened. I admitted frankly that I was committing the nasty, underhanded crime of breaking my word after I had given my promise not to do so, but I admonished her that I only did so because I loved her better than all else in this world, and that if she loved me as she said she did she would keep the old man's secret with me.

She told me that it did not interest her sufficiently to give it another thought. We changed the subject, and set about preparing for the trip to her father's, where I was to be formally presented as his future son-in-law.

It was our intention to start early the next day. Tati and I were to ride horseback as far as Poora, a native settlement near the sea. Then we would embark in a rowboat with six lusty men at the oars. In this boat we were to live for three days—the length of time needed for the journey.

While we were packing what few belongings we required for the trip, Akipo returned. He told Tati, who acted as translator, that Pennzer wanted to see me at once. I tried to gather from Akipo some inside idea of the nature of the old man's demand, but Akipo only seemed to be aware of the one request—that the old man had to see me that moment.

I felt that I at least owed him the courtesy of a decent reply, so I went to his cottage, with Akipo to guide my footsteps. I found him seated on the little porch. He bade me enter, and ordered Akipo to stay outside.

Once inside, he locked the door as before, and said to me:

"The native brought me your answer, but I want it direct from you."

He didn't seem angry so much as hurt.

"I simply can't do what you ask," I said.

"Why?" he ventured.

"I really don't care to mix in your case," I replied. "In the first place, I do not think that I could do you any good service."

"And, in the second?"

There was no particular reason why I should beat around the bush.

"I have decided to stay here. I like Moona. I am going to make it my home," I said.

He was visibly disappointed. He raised his hand to his forehead and wiped away the perspiration gathered there in great drops. I saw the tears come into his eyes. He seemed to be unable to speak.

"Caught in the spell," he said, his voice choking with emotion. "My boy, how many have been caught in this wonderful island spell? But you will regret it. You will live to see the day when you will regret it with all your heart. You will long for your own country and the advantages it will give you. All this sunshine, this laziness, these women—"

He stopped, and looked at me sharply.

"These women," he went on, "will grow old, and their beauty will pall you. Then you will long for your own kind. And they are false; they are wicked; there isn't one of them whom you would want to make your wife."

"Hush," I said, interrupting him; "there is!"

"Give her up!" he shrieked. "Give her up! You will regret it. Come! I will do more than I said. I will give you twenty thousand dollars if you will go back to America and convince the bank to do as I say. All that I want is my freedom. I will give you the money now."

Ere I was aware, he had run into the adjoining room. Before I could say aught, he was dragging the bag of notes from its hiding-place.

Now he was before me, his nervous fingers opening the lock.

"Put it back!" I shouted. "I want none of it!"

"You must take it!" he shouted in answer. "You must help me get my freedom."

He took up a roll of the bills nervously.

"No," I said, and made for the door.

Just as I was putting my hand on the crude lock, there was a tapping on the outside.

I stopped short.

The tapping came again.

I turned to Pennzer. He was returning the bills to the bag.

A voice—gentle and soft—was heard outside. It was very indistinct.

Then the rapping again, and then the voice, now louder. It was Tati's voice.

Pennzer heard her. A sarcastic smile played over his face.

"So there is the reason why you are going to stay! Ha, ha!" he laughed derisively. "So there is the reason why you are going to stay—the Princess Tati!"

Regardless of what he might think, setting aside the decorum that prevents a man from opening the door of his host, I drew the latch, and Tati entered.

There was fire in her black eyes, and anger was beaming in her face. She looked at me, and then she approached Pennzer and began to upbraid him. Akipo heard the angry words of his mistress, and entered, and a few passing natives added to the audience.

Tati and Pennzer hurled abuse at each other. Never did I want to understand a foreign language so badly. Pennzer showed the bad taste to give the girl two words for her one, and, whatever else the row was about, I was certain that I was the center of attraction and that Tati was abusing the absconder for wanting to take me away from her. When I thought that it had gone far enough, I walked up to Tati and took her hand.

She came along willingly, but she hurled some verbal shot at Pennzer as a climax.

When we were on our way to her house I asked what she had said.

"I told him that he was a meddlesome old man," she answered, "and that he had no right to take you from me. I told him, also, that it might be interesting to know just who he was, anyhow, and I dared him to show what he had in his bag. I said, too, that he might not care to tell why he was always afraid to speak to people—but, oh, I didn't even hint that there was anything wrong with him."

Oh, gentle woman, how alike you are the world over! What is your secret, anyhow? Where in your heart of hearts is a corner where man can hide one little word from all the world?

I didn't care. I only smiled. Who on earth could find anger in his heart for Tati? One had only to see her to love her; one had only to know her to believe in her.

I met her father in due time. After the three days' journey in the open boat—the six oarsmen taking their turns as watchers and rowers, now and then offering prayers for our safety—we arrived at the paternal home.

The father was glad to know me, glad to welcome me, and glad to add me to his family—and all because Tati loved me. He gave me a plantation worth a fortune in his land. He gave me cattle and horses, and he gave me from his bag of coins—but he gave me happier days than I believed it possible for man to know, because he gave me his beautiful daughter—the Princess Tati, my wife.

Many years have passed since the incidents here recorded occurred. As I write, I am sitting on the broad veranda of my home in that garden of the gods—Moona, the fairest of the islands that dot that sunlit ocean of the western hemisphere, whose name is peace.

I look over the green tops of the coconut-trees across the vistas of my plantation, through a valley adown whose mountainside flow dozens of tiny waterfalls, and I see that ocean, so wonderfully blue and calm, kissing the long, white sandy shore of my island home. Was there ever water more beautifully at peace with the world?

Up from the valley comes the coolest, gentlest breeze, filled with a hundred odors of rare spices. Far to my right tall mountain-peaks rise in commanding power to the skies, and their topmost points are hidden in a veil of fleecy clouds. And just before me, on my own plantation, the ever-blooming flowers and the ever-growing fruits that the Almighty gives to the islander vouchsafe me the grandest sense of contentment that life can afford.

At my side, watching my pen glide over the paper, devouring my words as I write, sits the most glorious creature ever born—my little wife. Day by day her beauty grows more serene; day by day her love grows stronger; day by day I thank the fates that guided my erring feet to this haven of bliss—this wonderland of glory and happiness, of peace, love, plenty, and human kindness.

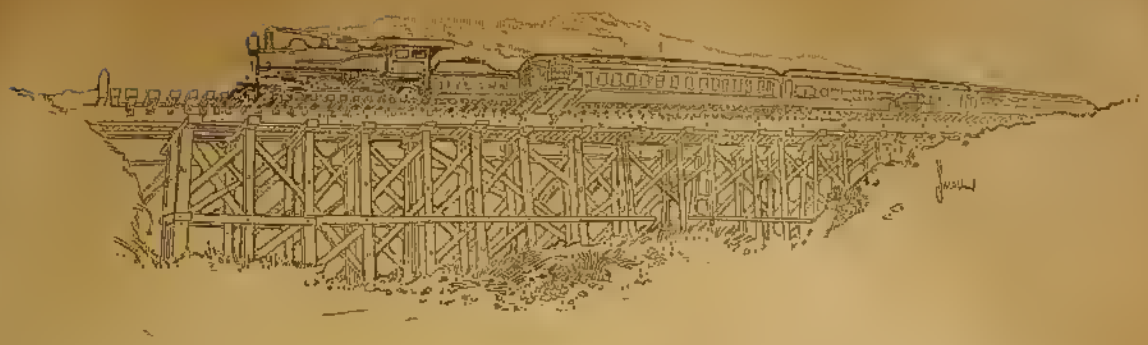
All ambition gone, except to live and love! All hope of the future banished for this paradise of the Pacific! All wishes to return to my native land—to see my home again, to take up my abode anew, to work for a great name and fame—

Bah! Not for worlds! Not for glory! Even had I the desire, I could not. I was caught in this spell. I am not game to battle against it. No, I am not game.

No, not for all of poor Pennzer's wealth would I give one thought to anything but my life, my love, and my happiness. In parting, just one word about that misguided man.

They found him one morning lying prone on his floor with a bullet in his heart. His unspent, stolen fortune—the lure that got him—was scattered all over the room.

(The end.)



A Remarkable Record for Safety.

BY BERTRAM ADLER.

EVERY little while the statement is made that American railroads are far behind those of Europe in regard to the protection of the traveling public, and figures are often quoted to throw discredit on the great systems of this country, many of whose records have stood for years unmarred by a single fatality.

The facts published in this article have been obtained from government reports and other sources of a most trustworthy character, and give the lie direct to those who attempt to prove that railroad travel in this country is more perilous to life and limb than it is abroad. In fact, few foreign safety records compare with those made during the past few years by our own railroads, whose up-to-date methods of train-despatching and signaling have brought about a condition bordering on immunity from serious catastrophes that is almost phenomenal.

Figures Which Free Travelers' Minds of the Horror of Railroad Accidents, and Cause Them to Pin Their Faith to the Con, the Shack, and the Eagle-Eye.

RAILROADS with terminals in New York have recently been calling attention to their records in maintaining greater safety of travel by rail. Since the first of the year the Lackawanna, the Erie, and the Pennsylvania have issued statements of this kind.

The Lackawanna's figures showed that it had not killed a passenger in ten years, though during that time it transported 193,787,224 persons. The Erie, with 2,171 miles of line and a trackage of 4,581 miles, showed a record of five years without a single fatality to one of its 125,000,000 passengers, while the Pennsylvania's statement showed a clean bill of health for 1908, and the latest annual report of the Lehigh Valley proves that 4,876,801 of its passengers were transported without a fatality.

During three years, from 1906 to 1908 inclusive, 316 companies, operating 124,150 miles of road, did not kill a passenger. In 1909, 340 roads operating 153,000 miles of road also kept their records clean. In gathering figures concerning railroad accidents in this country, statisticians are accustomed, argue the railroad men, to include tramps, trespassers, and other persons who are killed while not actually traveling by rail. Often they compare this list of total fatalities with the fatalities occurring only to passengers on European roads. From such a comparison,

the American record does not appear nearly so good as it really is.

As an illustration of the confusion that may result from this method, more than 5,000 trespassers lost their lives on railroads in the United States last year. A great proportion of these were tramps who were stealing rides on the trucks or roofs of the cars. On one line about 9,000 trespassers were arrested in that time, and convictions were obtained in seventy-five per cent of the cases.

The Interstate Commerce Commission gives the following figures on the increased safety of railroad operation:

"From 1888 to 1897, the fatalities were 1 in 45,900,000; from 1897 to the pesent time the fatalities were 1 in 54,900,000; a gain in the safety ratio of over twenty per cent."

The annual report of the Bureau of American Railway News and Statistics says:

A Record-Breaking Year.

"Never before in the history of railways has such a record for comparative safety been made as that recorded of American railways during the year ended June 30, 1909. Of the 368 companies reporting to this bureau no less than 347, operating 150,657 miles of line and carrying 570,617,563 passengers, went through the year without a single fatality to a passenger in a train accident.

"Of the remaining twenty-one companies no less than ten, operating 27,681 miles and carrying 185,447,507 passengers, only missed such perfect immunity by a single fatality each. This leaves eleven roads whose misfortune it was to bear the burden of fatal accidents to passengers during the year."

The roll of immunity includes roads in every section of the union, from Maine to California, several great systems operating over 7,000 miles of line each, as well as numbers of little branch lines with less than ten miles of single track; lines operated with all the safety appliances known to twentieth-century progress, and lines working under as primitive conditions as prevailed on this continent more than half a century ago.

This record of complete immunity holds good over a total of 159,657 miles of track, which represents a mileage nearly seven times that of all British railroads, and equals the aggregate of all Europe, excluding Russia, but including the British Isles.

What immunity to fatalities to passengers over such a vast mileage means, may be partly realized from the fact that only twice in half a century has such a condition occurred on the 23,000 miles of British railways, and never, to the writer's knowledge, so far as statistics reveal, on the railways of any of the great nations of Europe.

Fewer Passengers Injured.

It would take seven consecutive years of immunity from fatalities to passengers in train accidents on British railways to equal this phenomenal record of American roads.

In presenting similar returns for 1908 at that time it was said that considering the myriad units of risk involved, the record for immunity from fatal accidents to passengers is without parallel in the history of railway operation.

How that record has been not only equalled but surpassed is shown in the following statement for the last two years:

	1909.	1908.
Number of companies	347	316
Mileage.	159,657	124,050
Passengers carried one mile.	18,935,025,000	14,776,468,000
Passengers killed in train accidents . . .	None	None
Passengers injured in train accidents . . .	2,585	2,695

The figures given above, enumerating passengers injured in train accidents, are equally illuminating as to the safety of American railways, for they demonstrate that with the multiplication of risks in 1909 the number of injured was less by 4 per cent. The fact that no passenger is killed in train accidents is more or less adventitious, but a reduction in the number injured testifies to a reduction in the opportunities for fatalities.

Poorer Records Abroad.

During the last ten years the average of passengers injured in train accidents on British railroads has been 580, which considering the difference in the units of risk is 100 per cent higher than the above record for 159,657 miles of American railway in 1909. The following table, which includes no less than six great systems of over 2,000 miles each, presents similar data in respect to the ten roads whose record for safety to passengers in train accidents is marred only by a single fatality:

Number of companies.	10
Mileage.	27,681
Passengers carried one mile.	5,778,621,000
Passengers killed in train accidents..	10
Passengers injured in train accidents.	778

These figures show a trackage of 4,481 miles greater than all the railways of the United Kingdom, approximately one-half the passenger mileage, and over three times the ton mileage, with only ten passengers killed in train accidents, to an average of twenty on British railways during the last ten years.

Further analysis of the returns to the bureau, since data along this line have been compiled, affords the following statement of the number of roads and their mileage that have records of entire immunity from fatalities to passengers in train accidents of from one up to six years:

	Number of Companies.	Miles of Line.
Six years, 1904 to 1909.....	17	9,641
Five years, 1905 to 1909....	95	44,894
Four years, 1906 to 1909....	177	57,331
Three years, 1907 to 1909....	228	69,713
Two years, 1908 to 1909....	287	108,710
One year, 1909.....	347	159,657

Long Periods of Immunity.

Gratifying and remarkable as was the immunity from fatalities of the class under consideration in 1902, the fact that for a period of five years ninety-five American roads, with a mileage practically double that of all British railways, have carried hundreds of millions of passengers without a fatality to one of them, is so at variauce with the popular impression regarding the dangers of American railway travel as to seem little short of marvelous.

The impressive character of this showing will be better appreciated when it is understood that the immunity from fatalities in train accidents represents a number of consecutive years, counting back from 1909. No road has been admitted to the list where immunity has been interrupted by a single accident. With this fact in mind, the clean slate of the seventeen roads for six yars challenges admiration, especially as the bureau's reports in 1904 covered less than two-fifths of the operated mileage of the United States.

It is estimated that the railroads of the United States carried an average of 750,000,000 people per year for the last ten years, and in a single year they hauled one and one-half billion tons of freight within the limits of this country. If these figures can be taken as an index to the commercial importance of our country, we can helieve that we are truly an industrial people.

While traffic has been growing during the last ten years, so have the railroads' equipments. Thousands of miles of track have been added, and there is no comparison in the growth of the block-signal system and the telephone service on the roads during this period with that of the preceding decade.

The size and power of the locomotives have practically doubled since 1900, and the capacity of the rolling-stock has also shown a remarkahle growth. It is estimated that the roads now employ one and one-half million men and women, to whom they pay annually about one billion dollars in salaries.

As to the other features of our industrial body, the manufacturing interests have shown about the same proportionate growth in the same time, and the agricultural science has made as great progress, but with not as great an increase in the volume of products grown. No doubt the latter fact is one of the causes of high prices. Many other industries in the country, however, have expanded in the same proportion during the past ten years that transportation systems have.

Figures just compiled by the Pennsylvania Railroad system show that in 1908 and 1909 its various lines carried a total of 299,762,658 passengers on its 24,000 miles of track, and only one passenger was killed as a result of a train-wreck. In other words, the chance of a passenger losing in an accident on the Pennsylvania Railroad system was one out of about 300,000,000.

The Pennsylvania's Safety Records.

In 1909 the number of passengers carried by the Pennsylvania Railroad system was 158,067,115. This was an increase of 11.55 per cent over the 141,695,543 carried in 1908. The number of passengers carried one mile on the Pennsylvania system in 1908 and 1909 was 7,170,568,517, so that for each mile traveled over that system the chance of a traveler being killed was one in more than seven billion.

One passenger was killed as a result of a train-wreck in 1909, while none was killed in 1908. In the two years 370 passengers were injured in train-wrecks. There were two less passenger collisions and fifteen fewer freight collisions in 1909 than in 1908, while the number of freight derailments was smaller by sixty-nine.

The passenger-trains on the Pennsylvania system in the past two years have traveled 118,407,318 miles. In other words, if one train had gone this distance, it would have made about 5,000,000 trips around the world,

and with but one death resulting from a train accident. The freight-trains operated by the Pennsylvania system in the two years traveled approximately 125,000,000 miles.

The Pennsylvania lines west of Pittsburgh have carried 52,518,808 passengers in 1908 and 1909. These passengers have traveled a total of 30,307,365 miles, and not a single one killed in a train accident. The Grand Rapids and Indiana Railway has a record equally as good, as in the two years it carried 5,104,585 passengers a distance of 2,966,870 miles, and none were killed.

Other Roads that Fared Well.

The Cumberland Valley Railroad, another subsidiary of the Pennsylvania, had a train mileage of 1,344,940 miles in 1908 and 1909, carrying 3,395,266 passengers. The number of passengers carried one mile was 61,492,767. This road enjoys the distinction of having no passengers either killed or injured on account of train accidents. No employees were killed, and only one was injured in a wreck during these two years.

Passenger traffic on the Long Island Railroad is exceedingly heavy, owing to its large suburban traffic out of New York City. This road carried 50,709,597 passengers in 1908 and 1909, but no passenger or employee was killed in a train wreck.

The Vandalia Railroad operated its passenger-trains 5,017,415 miles in 1908 and 1909. The number of passengers carried one mile was 213,720,972, and not one was killed in an accident.

The Maryland, Delaware and Virginia Railway, and the Baltimore, Chesapeake and Atlantic Railway, two of the Pennsylvania's subsidiaries operating steamboats on Chesapeake Bay and railways on the Delaware-Maryland Peninsula, in the two years hauled 819,987 passengers, and not one was killed as a result of a train accident. No employees have been killed in this way, and no passengers have been injured. Only one employee was injured as a result of a train accident.

MOVING RAILS WITH MAGNETS.

New Methods of Loading and Unloading Iron and Steel Cargoes That Is Fast Becoming Popular.

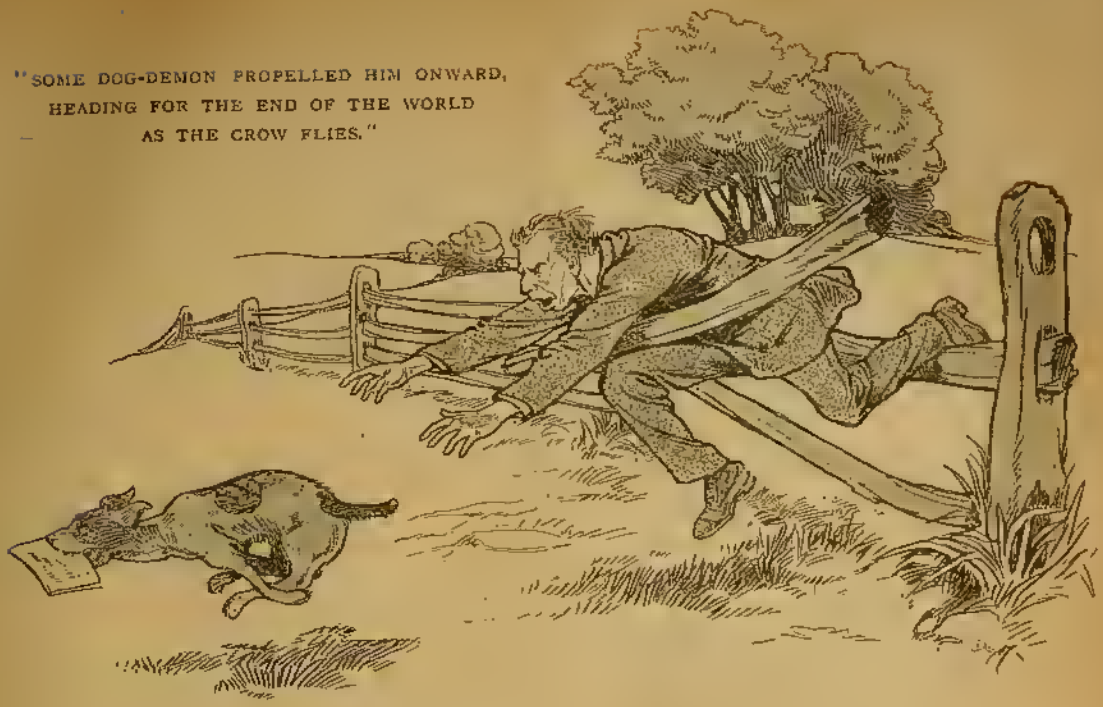
THE noteworthy results attained by the use of lifting-magnets wherever large masses of iron must be handled quickly and readily are described in an article by H. G. Barrington in *The American Exporter*. It shows how greatly this use has extended of late and gives an idea of the enormous size of the masses handled by these great electro-magnets. Says the writer:

"For loading and unloading rails, tubes, and large plates, it has been found an advantage to operate the magnets in pairs. In this manner twenty to twenty-five rails at a time may be lifted while nested together and dropped in the exact location desired without disturbing their arrangement, enabling a whole car of rails to be loaded neatly in a few minutes.

"It is in such special uses of the lifting-magnet that the saving of time and labor is most marked. The grip by simple magnetic force, by saving space occupied by the old hooks and chains, enables the magnet to do work which is impossible to the old method, as, for example, the close and accurate piling of rails and structural steel without rehandling.

"The magnet may be used advantageously in loading and unloading large quantities of loose scrap, matted masses of scrap-iron, lathe chips, and the like at a profit in the handling, whereas the labor cost under the old method would be prohibitive. The cost of handling iron and steel is from five to fifty cents per ton, according to the nature of the material. The use of lifting-magnets cuts down this cost about ninety per cent.

"Other interesting special uses are in handling iron and steel goods packed in cases and barrels—such as kegs of nails—notwithstanding the wood between the magnet and the metal to be lifted, an extra margin of electric power being provided to make up for the absence of direct contact between the magnet-poles and the load; in handling finished machinery, where injury would result from the contact of hooks and chains; in shipbuilding as a support for drills, riveters, and the like on the plates being machined, the magnet being made part of the tool and serving to hold the latter firmly against the plate during the operation; in salvage work, where the cargo in the wreck consists of machinery or other goods of iron or steel, and the current is too strong or the depth of water too great for divers to work on the bottom; in the work of breaking up old castings for remelting; for handling magnetic iron ore at the mines, and for extracting scrap-iron from gold ore before the latter goes into the crusher."



"SOME DOG-DEMON PROPELLED HIM ONWARD, HEADING FOR THE END OF THE WORLD AS THE CROW FLIES."

HOOP AND HIS HOBBIES.

BY B. A. KOBELT.

The Siamese Twins, Fun and Frolic, Have Some "Pulls" That Do Not Materialize.

IF high aim and low luck were ever etched on a fair face, that face belonged to Luke Lomas, ex-signalman and prospective key-wizard. His bally bent to be with you in a frolic had made gaps in his career, balked his ambition, and left him the endless material with which to widen your smile and dash your credulity.

When I tracked up with him he still aspired to the presidency of the road, but he had taken this for his motto:

"Every excess is a defect, and don't you forget it."

As we mulled on a truck at Jefferson Junction, with Old Sol doing business like an oven, he delivered that pill for the nineteenth time. It didn't cheer me. We were both due at new jobs in Sheboygan that evening, but we couldn't make it—not by the finest calculation nor the swiftest air-ship.

So we fought disgust and ennui with cigars and newspapers—which wouldn't work. Time hung round our necks like eternal millstones, and I longed for something to murder the tedium.

Some extra puckers in Luke's fair phiz set me wondering whether you could hit him for one of his personal Shezerades, or get hit by his edgewise crazy bone for disturbing his mock siesta.

"Beautiful kibosh, all right! Soul-aviating sentiments for them as don't know otherwise!" he grumped behind a Sunday supplement. With a sudden, ripping noise it flopped on the breeze and sailed down the platform.

"Now, what's biffing you?" I asked, passing the cheer canteen with the open nozzle. "Is it the variegated past, or the blooming future?"

"Oh, these papers make me sick—plumb

weary of the paleozoic thoughts in the aviating era," he graveled. "Hobbies—what do they know about hobbies? Hobbies that lift the mind above the sordid groove of workaday worries. Oh, piffle! I've seen hobbies lift men out of their jobs pretty close to the booby hatch. My salad days were soused with such. For instance, there—"

He viewed the wicked flagon and rinsed down some of the blue that was due to our endless lay-over, and I patted his dorsal expanse to loosen up his vocabulary.

"For instance, there—" I reminded him.

"For instance, there were heines and hooligans who hobbied up the trouble tram to the blue terminus of dippy regret." Luke scraped his throat. "They hobbied until fate handled 'em. They hoped to hobby to the upper seats of the temple, but they hobbied into a hole. And Lomas says they were ambitious, and Luke Lomas is a fun-tolerable man. 'Every excess is a defect,' but let the dead past, and so forth. - Am I getting plain?"

"Not yet, but soon." I said.

"Very well, then." Luke huffed some genial. "Now hold your whistle while I steam down the corridors of time to the epoch of wild oats and green hobbies and a sunny sock called Hoop. Imagine the same and yours spielfully going the slow rural pace on the G. N., near the village of Bock, yanking levers in a high-glass observatory, hoisting orders on a hoop to the flying moguls, and banking up nothing or less.

"We were both ambitious, and our dinkey tower was the *château d'If*. During idle hours, gazing wishfully over an acre of cattails, we considered the niceness of the presidency, and the heftiness of getting there.

"We had notes on the rail-presidents from Vanderbilt to Early, and we could match the success-keys right and left. Talk about your talents buried in the wildwood! Why, for fancy gifts, Hoop had your gay Lotharios and Admirable Crichton poked back into shadowland. He could do a Merry Widow on a three-string and some Lar Neuveau with a kodak; took to the mesmer like a horse to oats; could train a beagle for the acting zoo, etcetera, and then some.

"So, when trout-brooks play out in the autumn, he took a casual shine to a hobby—the plain, ordinary sort of keeping a diary and developing films, and he rid it so darn hard it left hoofprints on the sand of time and blue notes on my shoulder hock.

"How? How did this admirable harem-scarem do it? How did a camera film and a page of mental deposits bear on my figured career and make me wait on a siding of nix-prosperity?

"Right there's the nut on which the fates swiveled. The nut was hobbies, and the mutt was Hoop, and 'every excess is a defect,' and don't you forget it when you're hit by ambition. Now, am I getting plain?"

"Plain as plunks at the English Derby. But keep up the pressure," I said.

"Yon see," Luke went on, "while Hoop had hobbies, he also had theories. One of them concerned how you can never reach the summit in the railroad game without a pull from the super. That's why he two-stepped over the landscape to that nine-piece town called Bock some more than was good for him, the objective-points being Jim O'Rouke, Sally Hames, Eddie Graney, and other lights of the rural rampage.

"Jimmy O'Rouke being the gay chinner, and first cousin to the superintendent of the division, Hoop discoursed loud and long on the possibility of his influence till we plum forgot that we be such stuff as dreams are made of, and realize that our little lives are yanked around by foolish bubbles.

"Hoop had a genius for drawing unto himself a lot of friends, near-friends, and nix-friends; and, speaking in epitome, he was the hub of the world at Bock. I was the axis of the job and the prop of the folly.

"'Back with the big blarney, but a little rose for Jimmy O'Rouke, and it's us for a chance with the big super,' he used to yoddle to himself, coming back from the gay doings where he was the only aeroplane in sight.

"Being always there with the prize wag and the brown kodak, he got the come-again sign from every corner, and, by and by, Jimmy had him booked to meet the super at a Cream Town stag-party. I figured that when the super had pulled Hoop, Hoop would pull me; but hang the fatal error and the hoodoo of the hobbies which, in a single night, humbled us to the brown earth that clings to the farm-trolleys. 'Every excess is a defect, and don't you forget it.' Am I getting plainer?"

"Sure," I said.

"You see, one night, as I stuck by the phone and the semaphore, Hoop came home from a quilting bee that had turned into a cider fête, and the funny fit got into his gizzard so bad that I thought he'd keel over in the trap-hole. He particularized on the funny side of a Frenchy event; and, by and by, I do mirth-jigs myself, and wind up with the fatal remark, 'Fine, superfine stuff for your diary!'

"Prompt as rockets, Hoop anchors up with his day-book and hen-tracks the following: Deacon White and Widow Bule have ascended from the vale of years to enjoy some spoony moments behind the rope portières. None of the nectar escapes. Love is an instinct that elevates the mind above the mundane. Miss Minnie Binnie, drawn by a smile from the only pebble, she proceeds in a blind hurry and leaves white kid pumps in the mundane fish salad. Eddie Graney, esquire, with Mamie Mingle's hair-puffs tangled on his cuff-links, gives similar signs of reciprocating love; after which the dear, good wife is the storm center, the sirens vamose, and the fête is over for the rest of the day.

"'Fine and dandy! You've got the literary lights squeezed into a tomb,' I said to Hoop, who was moist in his eye. Then he showed me a film containing two heads of opposite gender in ambrosial embrace and tender lip-meetings.

"'Jimmy O'Rouke and Ella Braney!' I whistles. 'And Jimmy soon a happy benedict! By George and Janus!'

"'The same,' laughs Hoop. 'They were sitting on a rock when I snapped the shutter; but not for a farm would I let Jim know it.

"He dropped the film between the leaves of his diary, which he always carried in his outer coat-pocket.

"Now, Jimmy was booked to marry Sally Hames come Friday next, and we were both on the gala go-list. The rice was ready, and our toofins sharp for the spice-cake.

"But nix! Hobbies stalled the hymenial special. Fate rung the curtain down on the wedding and up on a biffing-match — and here's how the hobbies did it.

"The day before the ceremony Hoop hastened over to Bock as right-hand-help for Jimmy. In Pop Hames's parlor he leans back in a chair, and the diary dips out of his pocket. Sally gets her finger on it and hustles up to the boudoir. The film drops out, and Sally drops down.

"'A outrage! A black outrage!' she raged at the film when Hoop was gone, and then she tore up her trousseau, scandalized

"SHE RAGED AT THE FILM AND THEN TORE UP HER TROUSSEAU."

the minister, who, in turn, was scandalized by his name in the diary, and the whole town riz up and had a banshee musicale with spitfire interludes.

"Worse, and still worse. From all points of the compass they turned the sass-hose on Jimmy's character; and, when he saw the film and gets on to the ruction, he steams over to us to obliterate our nerve-force.

"What happens? Everything happens. The universe does a buck-and-wing, and Jimmy O'Rouke does the prize punt on our plexus.

"Hoop worked at night, and long about twelve a sudden skitter of glass and a high G squeal made my hair curl sideways. I swing out of bed and up the ladder, but a cowhide got ahead of me, and I took a dive through the ether. My shoulder-hock lit on a nice, five-cornered nigger-head, and the rest was green stars and catherine wheels.

"When I came to, Hoop groaned because he couldn't get at the levers, and I groaned back that I couldn't, being dead as a door nail. So the milk-van special went crashing to her near-doom, and our luck was spoiled forever. Talk about the hard blow to my amiable, animated alter ego, who figured on a pull from Jimmy's cousin! And talk about my mad! Was I to blame for the hoodoo of the hobbies? I was only a pal in wholesome fun. But, you see, 'every excess is a defect' in everything.

"Later on, Jimmy salvaged Hoop's teeth for fifty dollars, so nothing was lost save jobs and honor and the right-of-path to the pay-car. The wayfaring license came the very next day, and it was us for the convalescent-ward, where the future seems grim like a lava stream on a buckeye landscape—and all due to the girlish habit of snapping pictures and taking notes on humanity.

"If Hoop had let hobbies alone, I might now be a G. N. train-shuffler. No, sir; none of them genteel disturbers of lazy equilibrium for mine! I could stand the laze in the kiosk of the Khedive without lighting a pipe. That is, if I wasn't ambitious."

"So that was the end of the hobbies?" I yawned.

"Not on your silverine smoke-holder," said Luke, gathering speed. "That was the beginning of the end. When we left the sick-house we stuck together like the Siamese twins; kicked baggage for a year at Janesville, and learned to manage the Morse. We were extras a month, and then carded up for Rockfield, on the C. and N. W., and vowed on our very first tissue we'd step firm every day and get to the top. But did we? Ask Hoop by long-distance.

"You see, with only three day-and-night regulars, four water-takes, and a switch to handle, De Gustibus wasn't in it, and we weren't ringing down the grooves of change with adequate eclaw. Life grows as flat as a bottle of hock in the desert of Gobi. No field for ambition or superfluous ideas. We had no friends to dally with.

"Why? Chiefly because the fancy fringe of local habitations wasn't with us a bit. Rockfield was bounded on the west by a church, on the east by a graveyard, on the south by a crowd of snobs, who made you feel like the stub-end of a burnt-out stogie, and we didn't choose to get in on the north via the boozeries.

"Consequence: For a weary while we was the solemn fossils in the telegraphic cave, with our mettle in a state of coma. But you can't be a mull-head all the time, so the temperamental germs get busy again, and, once more, it's Hoop for the hobbies. I didn't second the motion, but I was always the jolly twin. This time, he idled away the cantankerous leisure with a mail-course from Professor Zarbray-Zinzi.

"'Oh, chuck it! That mesmer dope's too deep for you,' I kept kidding him. 'Devote yourself to the Encyclopedia Britannia and the universal problem of transportation, and don't go looking for troubles,' was part of my advice.

"But Hoop keeps right on with the patience of a nag at a lamp-post in the market quadrangle. By the fixed squint in his right-hand googoo, I knew he was wisening fast and certain.

"Now, when he wasn't reading the mystic dope, he was training a lop-eared, attenuated cross between a rat-cur and a blood-beagle. It was another of his hobbies. The dog was docile, and before long he would catch the papers that were flipped from the mail-cars and skip playfully away with our Sunday chapeau.

"One evening, a mysterious nob, with a rose in his lapel and a cane on his cuff, drops off a varnished special. He makes friends with the dog by twirling his cane. As we beam from the window he starts to chin.

"'Boys,' he says, 'I'm billed for a rest in the rural regions. It's me for the simple life in the lap of mother nature. "Laugh and grow fat," the M.D. tells me, but how the battling Nels this wart of a town can furnish humor after you've mirthed in little old New York, is a nut to me.'

"'Why, fellows, you wouldn't believe it,' he rattles on easy, with a twirl of his cane, 'but last week I scattered three thousand red ruddocks to a few old comedians who made me laugh as never before. I'm a crank on fun and wholesome folly. Laughter is my elixir.'

"We humored the nob, and watched him swing through the dusk with his cane. I also watched new ideas crawl around on Hoop's countenance. He said never a word, but smiled a plenty. I reckoned he forgot the Zarbray-Zinzi, but I reckoned wrong — all wrong.

"'What the busy bust-valves!' I exclaimed, one evening, seeing Carlie, the extra from Jackson, high up on a tip-tilted lawn-bench with a big chew of toilet-soap.

"Hoop feeds the frolic with occult passes, and Carlie is wax to the will of the mystic. He acrobats out on top of a box car, where he goes through a clog-dance, and winds up with an airy Adelaide Genee that gives you the marvels.

"'See here, I won't be your free-show spinning-top,' he blubs, coming back to normal. But Hoop only chuckles, and with one snap of his finger laid him out in dreamy psychosis again. This time he was the daring Carrie Nation, in a trail-skirt, brewing trouble in the boozeries. As he chopped the beer-stained air with the dream-hatchet, my vitals went up and down like a corn-hopper, and, while Hoop kept up the séance and I the tomfool convulsions of the mirth-organs, the temperamental bee got busy again.

"'Say, let's over and humor the nabob,' Hoop whoops all at once. 'He's a big It on the Pennsy. Rub him right, and it's us for a boost. Say, we'll give this little snob-nest a joy-fest to insert in the village annals,' he squeaked, with joy and waving arms. Carlie was game in two flips of the occult. Yours ambitiously follows suit with presentiments.

"'Now, Carlie,' says Hoop, with the downward passes, 'you're a nice, nifty feminine in a hobble-skirt. You're inspired to uplift humanity in the high cause of equal suffrage, and rally this dead community to that live and up-to-date game. There's the Widow Duncan's *peau de soie* what-yer-call-it airing on the line, and, as soon as you have donned those intricate habiliments of the intricate sex, you can do a lingual marathon that will irrigate humanity with new emotions. Now scat, and distinguish yourself on the village plaza.'

"Did Carlie do it? You bet your last ducat. He streaked down the street like a collie off his chain. When we caught up with him he was half in and half out of a gray umpire creation of the Renaissance patteru, his fists punctuating powerful speech before a little group that was bursting with joy and drawing others like a store-fire. Then Hoop urged him on to the garden of the nabob. We stopped beneath the evergreens near the nabob's open-air bedroom.

"'Yes, siree, don't you be doubting,' Carlie yells. 'Women are the headlight of progress guiding man on safe tracks! They are the drive-wheels of civilization! They are everything that counts on the track to success and universal enlightment. I say unto you non-believers that without the electrical impetus of woman, man would be like a battered empty on a crooked tram!

"'Woman,' the nob bumps up with sudden thunder, 'is an engine of mischief—a baggage of whims—a air-valve of gossip!'

"We wonder and whisper. I tootled up to him that Carlie was in a deep psychological state superinduced by suggestion.

"'Superinduced by gin-swigs,' I heard him snort.

"'If woman can do all this, what can't she do in the realm of politics?' Carlie spills on in the moonlight. 'What can't she do for the gubernatorial festers?'

"'Tie it up. Tie it up and skedaddle,' the nob yells out in anger. 'Get out of my yard, you double darn hayseeds! Let a sick man sleep and follow prescriptions!' He rises with purple passion and whacks the air with a hickory stick.

"'By gash! Don't I know the feminine gender. Haven't I seen? Don't I know! Hike, I say! Hike!'

"The same instant, there's a gap in the crowd, a scared holler, and the widow in a faint on the flower-bed. Next, the crowd on the rampage and the air blue with words. Hoop threw off the influence quick as scat, and wheeled round with a helping hand. 'Never mind, Mrs. Duncan,' he mollifies, 'we'll salvage your dress for fifteen dollars. Better be calm and forget.'

"'Fifteen dollars!' the widow gasps. 'Fifteen dollars for a *haute monde* creation fresh from Paris! Oh, dear! oh, my!' and then gives a nervous exhibition that calls for the padded gig and the gifted pill-mongers.

"The hoodoo of the hobbies was on us again. The nob was mercury and the widow was worse. The whole town rose up like one man, rallied to the widow's gown and the nob's dyspepsia, and heaped coals of fire on us men of mystery. Hoop couldn't see why

the Captain Jinks he wasn't wiser. He might have known the widow would miss her dress.

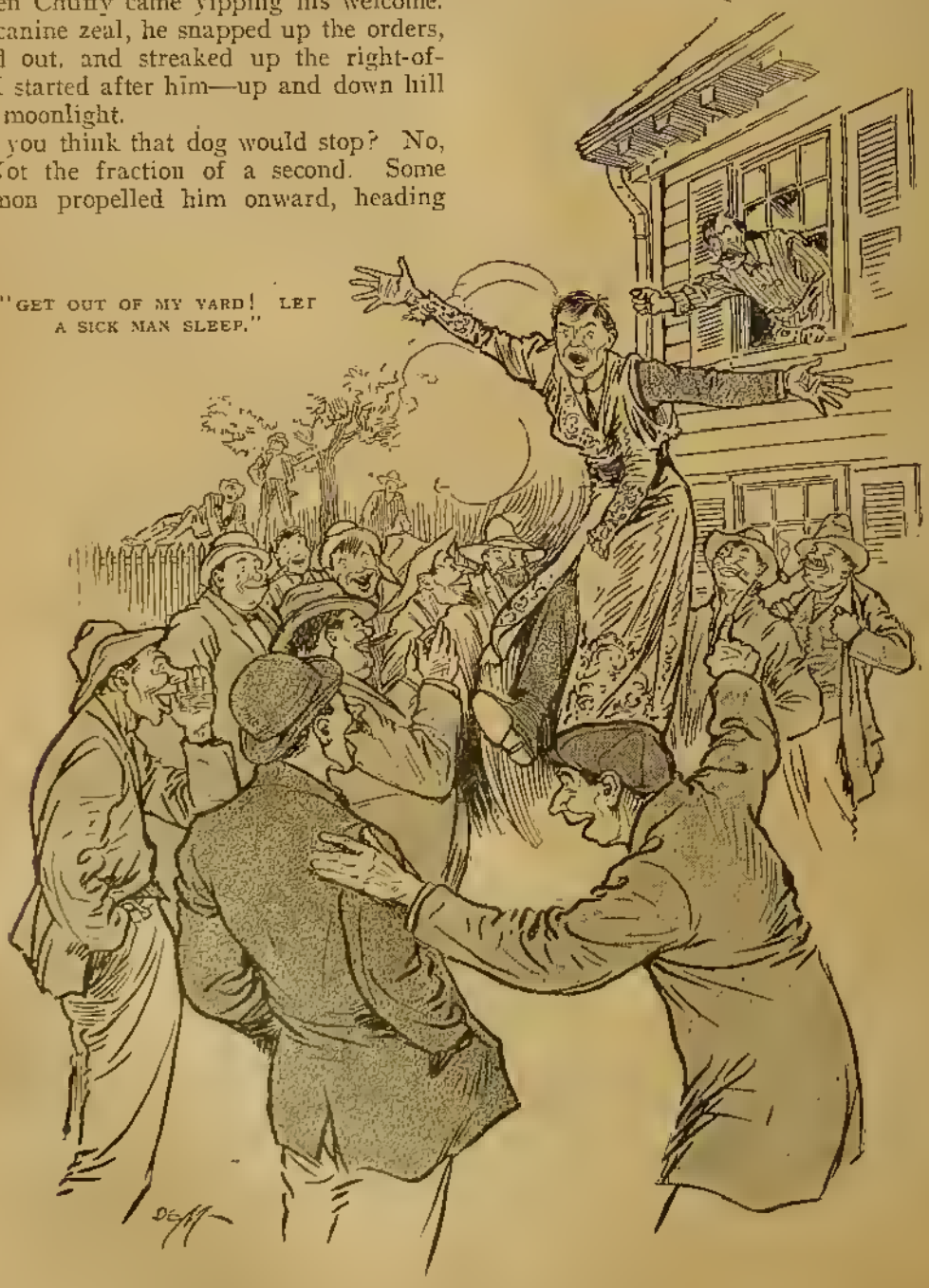
"Well, the dumfounded Carlie took off his hobble-skirt, and that was the end of the séance, but not the end of our woes. We stubbed home some crestfallen, and viewed the situation from the dark-blue angle. Hoop himself began to cuss the hobbies. 'Pulls' are nit unless you earn them. 'Excess is defect' in everything.

"When we reached the office, the sounder was giving the hurry-up signal. Hoop stooped to the key, and I picked up the orders for 24. Just then Chuffy came yipping his welcome. In his canine zeal, he snapped up the orders, bounced out, and streaked up the right-of-way. I started after him—up and down hill in the moonlight.

"Do you think that dog would stop? No, sir! Not the fraction of a second. Some dog-demon propelled him onward, heading for the end of the world as the crow flies. I quit heading when I reached a fence, and footed back—cussing hobbies all the way.

"As neither recalled the orders exact, and 24 was tooting, Hoop signaled the chief and mentioned the quandary. To keep our honor right side up, he blamed the dog pretty often, but the chief cut in with a slam that frizzled our hair. Having sent the duplicates, he said no more, but we knew we were double-headed by crazy luck—the chief on one side, the nob and the widow on the other.

"Sure enough, next day it was us for the



"GET OUT OF MY YARD! LET A SICK MAN SLEEP."

long trail and the old hardships. When I packed my grip, my boiler was busting, and I blew off steam on hobbies and theories. I proved to Hoop how hobbies are Jonahs, and charged him to remember that 'every excess is a defect,' and the only pull worth while is the pull of energy.

"'Correct you be,' Hoop says at the end of the homily, 'so we better sever our connection for a year at least, and be the Siamese twins no longer.'

"That's how Hoop is Professor Zirla, the mystic wonder, and yours spielfully a rolling-stone on the C. and N. W.

"Ah, there's our train at last. Yep, we will roll into jobs without fail to-morrow morning."

"Luke, we shall roll up-grade to the high hummocks of power and pay," I cheerfully said. And then I patted his back for having murdered the ledium, and swung my grip near the slowing train."

FROM THE BOOK OF RULES.

A Railroad Man's Catechism with Answers to Questions Based on the Cruel Unembellished Truth for the Edification of the Unsophisticated Acolytes of the Rail.

Q. What is a book of rules? A. A book preserved in the trainmaster's office under lock and key.

Q. What is standard time? A. The time that always comes in the middle of a train order.

Q. What is a wire chief? A. The man who waits until the despatcher is busy and then takes the wire.

Q. What is a trainmaster's clerk? A. The man who collects cigars from the boomer brakeman and hands out the examination books.

Q. What is a railway commission? A. A body of men appointed by the State to instruct railway officials as to the proper method of conducting their business, how to make reports, etc.

Q. How much railway experience are they required to have? A. None.

Q. What is a grievance committee? A. A body of worthy and well qualified technologists whose duty it is to interpret ambiguous reports of agreement for the edification of the general manager and the benefit of the service.

Q. What is a car inspector? A. The bane of the yard-master's existence. He tests the air and is guaranteed under the pure food law never to move fast enough to raise a sweat.

Q. Do train and enginemen assist the despatcher in getting trains over the road when close to the sixteen-hour limit? A. They did once, but the despatcher dropped dead. Since then the practise has been discontinued.

Q. What is an operator? A. A graduate from a ham foundry plucked before he is ripe.

Q. How does he improve? A. None; he gets worse.

Q. What is a switchman? A. A man employed for the purpose of switching cars and providing steady employment for the car inspectors, and such other duties as may be assigned to him. He eats coil springs and bar iron for luncheon.

Q. Does he permit cars to strike each other violently? A. Yes, excepting in investigations to fix blame for breakage, when they strike only hard enough to tell it; just enough to crack a flea.

Q. What is a switch shanty? A. A room or place representing the general manager's office, a place where switchmen meet for work and to get out time-tables, to change the management, rearrange train schedules, and such other business as may regularly come before them.

Q. Why do enginemen receive copies of train orders? A. So they will know what engines they have.

Q. What is a brakeman? A. A hot-box cooler and a draw-bar lugger, and a Jo Dandy among the ladies.

Q. What is a wreck? A. Mentally, a man who has tried to follow the book of rules. Physically, a man who has been in constant service for twenty years.

Q. What is a signal? A. The act of drawing your right hand across the throat and pointing your thumb backward over your right shoulder, which signifies that the superintendent or trainmaster is on the rear end or on a train following.

Q. What are the duties of an engineer? A. To look wise, even if he isn't; to tantalize his fireman and save valve oil.

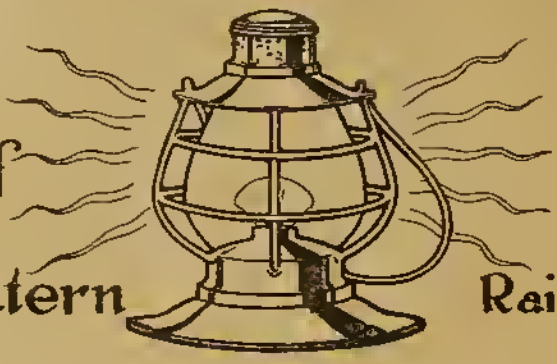
Q. What is a fireman? A. A man of backbone and sinew, which he has acquired by permitting brakemen to do his work. A man who is an expert at flirting at long distance, but who is harmless otherwise.

Q. What is a fixed signal? A. A student brakeman three cars from the engine, lamp out, and a cinder in his eye.

Q. What is a yard? A. A heterogeneous conglomeration of tracks within defined limits, inhabited by a bunch of savages called "snakes," whose duty is to leisurely perambulate through the yards and set out "bad orders" as fast as they make them.—*Northwestern Bulletin.*

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. It is limited to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

IN setting the valves on an outside admission, indirect engine, the marks on the valve-stem showed 1-8-inch lead on the front end, and line and line on the back end. This blade needs to be shortened, and, supposing the rocker arms to be the same length, if we shortened the blade 1-16-inch would not this change equalize the travel at both ends?

(2) In the above illustration, I do not understand why you would shorten the blade just one half the amount to affect the valve. Suppose, for instance, you wanted to push the valve ahead 1-16-inch, why is the blade changed only one half this, or 1-32-inch? If you push the lower arm ahead 1-16-inch, does not this pull the valve back the same amount?

(3) Explain the laying off of a new reverse lever quadrant.

(4) How is angularity of eccentric-rods and main-rods overcome with the Stephenson link motion and the Walschaert valve-gear?

(5) How are driving-axles quartered; how much larger are they turned than the wheel, and what are the pressures to force them in?

(6) How are smoke-stacks laid off to have them in perfect line with the exhaust tip?—T. J. M., Havre, Montana.

(1) Provided that the throw of the eccentric is equal to the travel of the valve; in other words, that the top and bottom rocker arms are of equal length, the alteration of the eccentric-blade wants always to be one-half the dimension shown on the stem. To make it simpler: in the case which you quote you have 1-8-inch in front, and nothing, or line and line, in the back. Hence, if you shorten the blade 1-16-inch you move the valve ahead that distance, reducing the front lead to one half 1-8-inch, or 1-16-inch, and from line and line, in the back, to an opening of 1-16-inch; thus equalizing the lead at each end.

(2) As above explained, in all cases where the two rocker arms are the same length the valve is affected equally with whatever change is made to the eccentric-blade. In cases where the rocker arms are of different lengths, which is not uncommon, a calculation in which simple proportion, or the "rule of three," may be employed to arrive at the exact amount of the change. If such a design existed where the top arm was twice as long as the lower the valve would move twice what the blade was shortened, and *vice versa*. When they are of unequal lengths, however, the difference is slight, and experienced valve-setters have little difficulty in reckoning with it, in making readjustments of the blades.

(3) The prevailing practise years ago was to arrange the notches so that the steam would cut off at some full number of inches of the stroke with the reverse lever in each one of the notches. They were then located so that the cut-off would occur at 6, 9, 12, 15, 18, and 21 inches, or at 6, 8, 10, 12, 15, 18, and 21 inches of the stroke.

All recent practise—in fact, for the past twenty years—provides for as many notches as there is room for in the quadrant. This is much the best plan, as it gives more graduations in which the valve-gear can be worked, and it is a matter of no consequence in the working of an engine whether the steam is cut off at some full or fractional number of inches.

In a new engine the quadrant is generally placed at the point designated for it, with the reverse lever temporarily attached; and by means of a temporary reach-rod, or a blank end on the reach-rod, which may be clamped to the lever, the middle notch and the extreme end notches are located and laid off. The remainder of the work is simply to add the remaining notches, and the first quadrant can then serve as a template for all subsequent quadrants embodied in the order for the locomotives, provided that they are of exactly similar class.

(4) If we would attempt the consideration of this particular question in the detail which it deserves, its ramifications would absorb the entire space allotted to the Lantern Department. All we can say at this writing, and in this space, is that whatever distortion of the motion is produced by the angularity of either the main connecting-rod or the eccentric-rods is compensated for by offsetting the saddle-pin of the link from the true center line of the link radius. It is fully appreciated in this writing that if you do not know what the above is intended to imply the answer is negative, but the reasons for the brevity have been given. It is a matter of great interest. In this number of THE RAILROAD MAN'S MAGAZINE, Robert H. Rogers explains the details of the Stephenson link as the Walschaert gear fully, completely, and simply.

(5) This is usually done in what is called a quartering machine. It is merely the solution of a right angle, and could be as readily performed through the instrumentality of a spirit level on one side and a plumb-bob on the other. The turning is practically the same size as the fit, and the pressure is determined by the diameter and material of the wheel.

(6) The majority of smokestacks, if not all of them, are attached to a smokestack base or saddle, and it merely remains to fit this latter in its proper position on the smoke-arch. This can be done either by running a plumb-bob to the center of the exhaust orifice and chipping the saddle to coincide with the plumb line thereof; or, as is done in many of the locomotive works, by using an adjustable gage which fits into the blast orifice and from which a perpendicular is erected from which the interior diameter of the stack and saddle can be calipered and set.

J. R. R., Jennings, Louisiana.—We would be greatly pleased if you would submit the interesting questions embodied in your letter in a more lucid form, free from contradictory or impossible situations. There are few problems, that is, from an engineering standpoint, that mathematics or the formulas emanating from mechanical engineering cannot solve, but in order to arrive at such results a tangible basis must be given on which to work.

J. R. G., Mesa, Arizona.—Please note replies to "H. E.," in the July number, and "B. M.," in the October number. These curves are all arcs of circles, and their actual laying out can be much better explained to you by some engineer in your own territory than in labored and lengthy explanation through this medium.

IS there such a thing as a standard thread for bolts and screws? If so, what is it and when did it become standard?—M. A. Y., Boston.

Until about 1885, the most common form of thread was what is called the "V" thread. It was made sharp at both the top and bottom. The shape of the thread was almost identical with that of the capital letter which we have offered in illustration. It is evident that if such a thread for one screw is made pointed, and that for another is blunt, that the nut for the one will not fit the other accurately, and also that if a nut have eight threads to the inch it will not fit a bolt with nine threads.

Owing to the fact that for a long time no common standard had been agreed upon for the form, proportions, or pitch of screws, there was a very great diversity in these respects in the screws which had been used in the construction of locomotives and other machinery. In 1864, the inconvenience and confusion from this cause became so great that it attracted the attention of the Franklin Institute, of Philadelphia, and a committee was appointed by that association to investigate and report on the subject. That committee recommended the adoption of the Sellers system of screw-threads and bolts, which was devised by William Sellers, of Philadelphia.

This same system was subsequently adopted by both the Army and Navy Departments of the United States, as standard, and then by the master mechanics' and master car builders' associations, so that it may now be regarded, and, in fact, is known as the United States standard, but the design is due to Mr. Sellers and the system should be designated by his name.

C. G. E., San Francisco.—(1) Such a book as you mention—dealing with the respective duties of men composing a freight-train crew—has never come under our observation. In all probability it is yet unpublished. The work of conductors, flagmen, and brakemen is defined in the general book of rules issued by each railroad. The subject is scarcely of sufficient extent to warrant presentation in separate book form.

(2) Since you have located the poem wanted in a past number of the *Brotherhood of Locomotive Firemen and Enginemen's Magazine*, your shortest cut to it would be by addressing that publication at

Indianapolis, Indiana. It might be possible that they can supply you with the number containing this poem, although, as a rule, it is difficult to secure past issues after such a long time as five years.

C. E. O., New Jersey.—*The Railroad Age-Gazette*, New York or Chicago, would be the best medium to address in regard to new roads or new construction in general. We are in doubt whether your letter means main or trunk line electrification, at present operated under steam, or simply new trolley lines. We have no statistics whatever in regard to the latter, and, with the exception of the Pennsylvania's new terminal arrangements in New York, do not believe that any electrification on a large scale is contemplated.

A. E. A., Farmington, Maine.—The form in which you submit the two train orders are not in accordance with the standard code. We do not think that any despatcher would issue them. From the form quoted, however, it would appear that "B" is right in both contentions, but the proper procedure would be to go to some train-despatcher on the Boston and Maine Railroad, which is in your territory, and ask his opinion of such orders. You will generally find these gentlemen quite willing to oblige as they are always interested in problems which pertain to their business.

A. O., Akron, Ohio.—The complete history of the locomotive as you would like to have it, and as we would like to read it, seems to remain unpublished as yet, although there have been isolated cases where an attempt has been made at such portrayal within the covers of a single volume. Past numbers of THE RAILROAD MAN'S MAGAZINE have pretty fully described progressive locomotive development in this country, and sufficiently, it may be said, to fully meet your requirements. In addition to this, you might secure further information by addressing *Railway and Locomotive Engineering*, New York City, New York. This latter journal has gone deeply into locomotive evolution, but we cannot say that they have this information in compiled form.

WHAT causes the falling of the crown-sheet of a locomotive while under steam?—F. G. T.

The usual cause for the dropping of a crown-sheet with the boiler under steam, is low water arising from inattention on the part of the engineer or operator. The crown-sheet is supported from the top shell of the boiler by means of several hundred crown stays or crown bolts. These are protected from the action of the heat by the water in the boiler, which should be at least five inches deep on the crown-sheet.

Should the water level be allowed to drop or to leave the sheet altogether, the crown-bolt heads and crown-bolt bodies no longer have this protection. They become softened by the intense heat of the fire. Should conditions be sufficiently extreme the pressure in the boiler is sufficient to force the crown-sheet down and away from the softened bolts mentioned.

At rare intervals, other causes than low water are indicated for a crown-sheet failure, for instance, unsuspected defective boiler conditions through the crown stays or braces being broken. This, are indicated for a crown-sheet failure, for instance, and is not likely to materialize. Low water is the usual cause.

T. W. L., New York.—About the best medium through which the information which you desire can be secured is the Railway Equipment and Publication Company, 24 Park Place, New York City, New York. Enclose one dollar for the current number of their "pocket list." Except in the State of New York, where all railroads must report to the Public Service Commission, statistics are not available concerning trains late or on time, hence we have no reliable figures.

Y. P. V., Soledad, California.—The principal transcontinental lines are the Union Pacific; Southern Pacific; Atchison, Topeka, and Santa Fe; Northern Pacific; Great Northern, and Canadian Pacific. It is impossible to give here the date of completion, when opened for traffic, etc., which your letter requests. If you will consult past numbers of THE RAILROAD MAN'S MAGAZINE, the history of all of these gigantic enterprises will be found related at length. Any or all of these may be secured by addressing the Frank A. Munsey Company, 175 Fifth Avenue, New York City, New York.

H. N. C., U. S. S. Iowa.—(1) The main line of the Atchison, Topeka, and Santa Fe extends from Chicago to San Francisco, 2,576 miles. The Los Angeles, California, service diverges at Barstow, California, 2,123 miles from Chicago, and the total distance from Chicago to Los Angeles, *via* Barstow, is 2,265 miles. This, of course, is merely the straight main line, about which you desired information.

It is far from representing the total mileage of the Santa Fe, which, with its controlled lines, amounts to, approximately, 9,112 miles.

(2) Engine changes on the main line of this road, from whatever information we can secure, are at Fort Madison, Iowa; Marceline, Missouri; Kansas City, Missouri; Topeka, Kansas; Newton, Kansas; Dodge City, Kansas; La Junta, Colorado; Trinidad, Colorado; Las Vegas, New Mexico; Albuquerque, New Mexico; Gallup, New Mexico; Winslow, Arizona; Seligman, Arizona; and at the following places in California: Needles, Barstow, Bakersfield, Fresno, and Stockton. This is not offered with the claim of absolute accuracy, but at least it represents the principal engine changes, and should be practically correct.

(3) W. F. Buck is superintendent of motive power. Address Railway Exchange Building, Chicago, Illinois.

(4) Oil is used extensively for fuel on the lines west of Albuquerque, New Mexico.

(5) We cannot quote the exact wage schedule paid engineers on this road as we have never had access to the agreement. This would also vary with the character of the service, and without definite information it would be foolish to hazard a guess, and unfair, possibly, as well.

T. R., Canton, Ohio.—There is no regular business in this country of photographing locomotives, although several firms in England do prosecute it, and over there it is quite easy to secure at small expense a picture of almost any type of engine running in the British Isles. In this country, the large locomotive works, such as Baldwin's and the American Locomotive Company, usually have this work done by contract with some local photographer. While a picture is always made of one of an order of locomotives, these are only furnished to the owners or to those directly interested. All other applicants for photos are usually charged an amount sufficient to cover the cost of the picture. These locomotive building firms can place you in the way of getting photos, but a moment's reflection will convince that it would be scarcely consistent for them to furnish them free of cost.

R. H., Waukegan, Illinois.—The deformation of track, ascribed to the effect of the sun's rays, is the most extreme case of which we have ever heard. It does not seem that this could have been the true cause. The effect of heat on rails, especially in this country, is scarcely sufficient, even under practically abnormal conditions, to cause any appreciable change in the true alinement of the gage. It could not have been the cause of the peculiar curvature which is described in your letter.

WHAT is the standard pay for engineers, firemen, and conductors on railroads in England?—J. W., Jacksonville, Texas.

The writer is almost ashamed to answer this question, in view of his intimate personal knowledge and high regard for the ability and qualifications of the British railroad man. But the truth may as well be said, and probably can be better made manifest through reference to a representative run in the British Isles. We will select, for instance, the celebrated 10 A.M. London train out of Glasgow (central), which service is maintained jointly by the Caledonian and the London and Northwestern railways.

The section operated by the Caledonian extends from Glasgow, Scotland, to Carlisle, about 103 miles, after which the train is operated by the other road mentioned. There are no stops between Glasgow and Carlisle, with the possible exception of Motherwell on flag. The train consists of some eleven carriages, a total weight behind the engine of some 375 tons. On arrival at Carlisle, this engine and crew returns to Glasgow on a similar nonstop run, arriving about 10 P.M., or twelve hours from the time of departure.

Now, you want to know how much the engine crew will receive for this 206 miles round trip, and, while we blush to tell you, all the engineer receives is eight shillings, or $1.92 for the round trip, and the magnificent compensation of his fireman is four shillings and sixpence, or $1.08!

When it is remembered that a similar run of 206 miles in the United States would mean about $8 for the engineer and $5 for the fireman, it can be well appreciated how undervalued the services of these men are in the old country. It is wrong, too, because it is just as hard to haul or fire a train there as it is here. The same conditions must be confronted and there is the same liability of the unexpected.

Generally speaking, on English railways the wages of the locomotive engineers fluctuate from $7.30 to $14.60 per week, the average wage being $9.73. The firemen receive less than $7.30, the lowest sum given to engineers. Seven-eighths of the passenger conductors, or guards, draw from $4.84 to $7.30 per week.

It is from an intimate knowledge of all these matters that the Lantern Department has steadfastly discouraged any and all aspirations which its readers may have had to embark in railroading in foreign lands. In no country on which the sun shines is a railroad man better treated than in the United States. From what has been said above, it is far better to make hay at home than to haul a fast train abroad for a fireman's pay, and merely for the sake of novelty.

H. A. C., New York.—The principal division points where superintendents are located on the Union Pacific in Colorado and Nebraska, are Denver and Omaha, respectively.

(2) On the Chicago, Burlington, and Quincy division superintendents are located at Lincoln, Omaha, McCook, and Wymore, Nebraska, and at Sterling, Colorado.

(3) The Atchison, Topeka, and Santa Fe has superintendents located at Pueblo and La Junta, Colorado.

L. G. R., Pineville, Louisiana.—You need not wipe engines on any railroad before you start in firing. This has been explained many times in this and other departments of the magazine. It was suggested some three years ago in an article which appeared in the Self-Help Department, that in the instance of an applicant being somewhat under age it would be advisable to work around the roundhouse in the capacity of a wiper or helper until the proper time arrived to go on the road.

This, of course, was simply with the end in view to secure familiarity with the business through its atmosphere, and was not by any means intended to imply that such a course is mandatory. After

an extensive review, we can't find any road where previous service in some other capacity must prevail, although it is a fact that many master mechanics are in favor of such procedure.

We cannot tell you where a rule book of the Chicago, Rock Island, and Pacific Railroad can be procured, because these must be receipted for by the employee to whom issued, and must be returned to the company at the expiration of the term of service. There is no master mechanic at Eunice, Louisiana, on the above road.

AT what speed and distance would an engine have to be run to fill the tank?

(2) How and where is the dipper placed which fills the tank?

(3) Does the fireman or the engineer operate the dipper?—S. A. M., Eachville, Arkansas.

(1) The speed is usually reduced to about thirty-five miles an hour over the track troughs, otherwise the impact of the water in the scoop would cause the water to rush violently out of the tender-tank manhole and over the roof of the cars. The tank should be filled in one-quarter of a mile, if proper and common sense precautions are observed.

(2) What you term the "dipper" is technically known as the water scoop, and may be defined as a device for putting water in a locomotive tender, while in motion, from a trough laid between the rails, sometimes called a track-tank. It consists of a cast iron or steel-plate conduit of rectangular cross section, about 8 x 12 inches, passing up through the tender-tank and turned over at the top so as to discharge the water downward. The lower end, underneath the tender frame, is fitted with a scoop or dipper, which can be lowered into the track trough by a lever worked by hand or by compressed air applied in a cylinder whose piston-rod is connected to the mechanism for raising and lowering the scoop. Owing to its inertia, the water is forced up through the siphon-pipe into the tender tank when the scoop moves through the trough, at a speed of from twenty-five to forty miles an hour.

(3) By the fireman, who lowers and raises the scoop on receipt of some prearranged signal from the engineer.

WHAT do you consider the biggest railroad in the world, and on what do you base your claim?—F. B., Cumberland, Maryland.

It is generally claimed that the Pennsylvania system of railroads constitutes the largest railroad in the world. For that reason, the following statistics, issued under date December 31, 1909, will be of interest. The records show that the length of the railroad is 11,234.36 miles, of which 6,294.32 miles are east of Pittsburgh and Erie, Pennsylvania, and the remainder, 4,940.04 miles, is west of Pittsburgh. The lines run through fourteen States, in which live more than one-half of the ninety million people in the United States. The system has 11,234.36 miles of first track; 3,348.39 miles of second track; 760.10 miles of third track, and 570.20 miles of fourth track. It also has the enormous trackage of 8,184.89 miles of sidings, bringing the total track mileage for the system to 24,097.94 miles. The Pennsylvania Railroad is essentially an institution of the State of Pennsylvania. In that State are located 4,101.03 of the 11,234.36 miles of line.

J. R., Virginia City, Nevada.—It is difficult to venture an explanation for a derailment, at this long range, because the majority of these accidents are quite puzzling, and require a thorough study on the ground of both the engine and the track. From your description of the engine at fault, in which you mention excessive flange wear or cutting of the right back driving-tire, it would appear that the preliminary move in looking toward a solution would be to measure the spacing of the tires on each pair of wheels in relation to one another. That is, to measure across the engine between the inside faces of the tires on each pair of wheels. On a 4-6-0 engine, such as referred to, this dimension should be 53¼ inches for numbers 1 and 3 pair of drivers, and 53⅜ inches for number 2 pair, or the main wheels. If these measurements are approximated to, and the engine is properly squared across the various pedestal jaws, there remains nothing else to do but make thorough inquiry into the condition of the track, particularly so far as regards the elevation of the outside rail and the spread of the gage on the curve. From this distance, the matter looks like a case of improper tire-setting, but a close scrutiny of local conditions will be found of far more value than mere conjecture.

C. E. B., Emporium, Pennsylvania.—Your scheme for revolutionizing the present method of supplying locomotive boilers with water does not carry any particular appeal. The fact should always be borne prominently in mind, in connection with American locomotive practise at least, that the complication of already adequate devices for the sake of some visionary benefit has never received much encouragement. There is nothing new in the idea of having the air-pump exhaust heat the water in the tank, but it would be very new indeed if some one would arise to point out any good which resulted from the practise. The addition of a pump on the tender to the existing appliances would be unnecessary, and the substitution of the pump for one of the injectors would entail a much greater steam drain on the locomotive boiler than that now imposed by both injectors, even though both were working at the same time. We gather quite clearly the idea on which you are working, but the plan impresses us as being too cumbersome and with no certainty of better results than under the present arrangement.

J. O. A., Sparks, Nevada.—In order to secure the desired information relative to the railroads of South America, we can suggest no better procedure than that you address the Bureau of South American Republics, Washington, District of Columbia.

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

WHEN our traveling correspondent sailed down the broad, placid bosom of the Mississippi River aboard a steamer laden with Brotherhood men and their wives and sweethearts—the days bright and sunny and the nights warm and starry, and everything making for peace and happiness—well, he wafted into that atmosphere that made Omar Khayyam and other literary gents of the glad old days write for a living. In such a crowd and under such conditions, little wonder that the stories came thick and fast.

No. 6.—WITH THE BROTHERHOOD BOYS.

The Frisco's Hall of Fame—A Male Delilah—Saved by a Thumb—The Vanishing Thousand—Getting Even with the Super—How "Fatty" McBride Appeared in the Role of an Actor.

A SOUTHERNER, in the regulation frock coat, black slouch-hat, black string-tie, white plaited shirt-bosom, and speckled-gray goatee, strode into the newly opened offices of the Frisco System, in New Orleans, and stepped up to the man behind the counter. He said:

"At the solicitation of the soliciting agent of this railroad, a gentleman named Napoleon Bonaparte Hoskins, sir, I shipped a car of goods over your line to this city. It has been delayed in transit, sir, and I've come yere to ask about it."

"You gave the business to the right person," replied the man behind the counter. "Napoleon Bonaparte Hoskins is all right. But at this end, sir, I am not the man you want to see. I'm the city passenger-agent here. My name is Marc Antony."

The colonel viewed Marc Antony sharply. "Oh, so your name is Marc Antony, is it? Well, Mr. Marc Antony, as you're not the man I want to see, will you be kind enough to direct me to the right person?"

"Yes, sir. You want to see our freight-agent at the Terminal Station. His name is George Washington."

This time the Southerner swept Marc Antony's face with a startled look.

"Ah, his name is George Washington, is it? And he's the freight-agent at the Terminal Station? Might I ask you, sir, to tell me how I am to get to that station?"

Marc Antony knocked on the counter, and a colored porter came forward.

"Cæsar," said Antony, "go to the corner with the gentleman and put him on the right car for the Terminal Station."

"Pardon me, sir," said the colonel. "Did I hear you call this black man Cæsar?"

"Yes, sir. His name is Julius Cæsar."

"Well, then, sir, look here. This thing has reached the limit. I perceive that the Frisco System employs only men from the Hall of Fame."

"That's true, sir," responded the city passenger-agent with a twinkle in his eye. He expected now to hear the colonel protest against the "freshness" of Frisco employees in general, and to assert the belief that the

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names given were not the right names of the men in question, and that he did not purpose to be joshed or jollied. Instead of a tirade of this sort, however, the visitor surprised City Passenger Agent Marc Antony and Porter Julius Cæsar by saying:

"I repeat, this thing has reached the limit. I give my business to an agent of your road whose first names are Napoleon Bonaparte. I come to your New Orleans office to ask about the delay of my car-load of goods, and I meet a passenger-agent named Marc Antony. I am then told by Marc Antony that he is not the person to answer questions about freight, and that I must go to a terminal station and see a freight-agent named George Washington. I then hear Antony command a porter to put me on a car for the terminal station, and the porter's name is Julius Cæsar. Therefore, sir, I repeat, this thing has reached the limit. I shall ship no more goods by this line. Hereafter I shall ship by some other line."

"Why, sir, what's the matter with the Frisco?"

"What's the matter? Well, with all your Bonapartes, and Antonys, and Washingtons, and Cæsars, I allow, sir, that you're all *dead* ones. I'm going to give my business hereafter to a line that employs *live* ones!"

The Mississippi River steam-packet, on which I heard the above story, was the John Spreckus. She pulled out from the levee, at the foot of Canal Street, New Orleans, one Sunday evening, carrying seven railway-clerks—two from the Illinois Central, two from the Yazoo and Mississippi Valley, one from the Southern Pacific, one from the Texas and Pacific, and one from the Frisco System. Among themselves they were known as men from the Eye-See, the Yazoo, the Espee, the Tepee, and the Frisco.

I had boarded the steamboat with three of them for an evening sail up the Father of Waters. The other four joined us soon after the boat pulled away from the levee.

"We've chartered this boat for a special night excursion," one of the clerks said to me. "You'd better come along. There'll be about five hundred railway-clerks on board that night."

"PARDON ME,—THIS MAN

The boat had been chartered by the Illinois Central division of the Brotherhood of Railway Clerks of the Crescent City.

"We're about seven hundred strong, just on the Eye-See in this city," they said. "We've got a splendid organization, and the Eye-See is very good to us. Chips in and helps us royally."

His Name Was Delilah.

"Tell him that Samson story, Frisco, about that section foreman up at Crowley," said one of the clerks. Here it is:

Ferguson Todd, section foreman, Frisco System, Crowley, Louisiana, had muscles that stood out on his arms like Sandow's, and hair that fell over his collar like Buffalo Bill's. His men stared in admiration at his muscular development, but upon his overgrown mane they heaped contumely. But Todd absolutely refused to get a hair-cut, entertaining the belief that, somehow, the mane had something to do with the muscle.

It came to pass, however, that Todd was invited to a dance to be given by a division of one of the railroad brotherhoods in Crowley.

"You shore will have to clip about a yard off those locks, Ferg," said one of his friends, "or no gal will trip the light fantastic with you. Gals won't do no 'Merry Widow' steps with a freak."

"But," protested Todd, "supposin' the hair-cut should rob me of my strength, like it did to that man we learned about in Sunday-school? Only yesterday, down the track on the Maxie ranch, I took up a seven-hundred-pound rail and stood it on end.

—SUH! DID YOU CALL CAESAR?"

D'you suppose I could do that after gettin' a hair-cut?"

"Sure, Ferg. You'll be our Samson just the same."

"But supposin' the barber should prove to be my Delilah?"

"Ferg, we all know that the hair of your head ain't got no more to do with your strength than the hair of your face. You shave every other day, don't you? Well, shaving the hair off'n your face doesn't reduce your liftin' powers, does it?"

The dance was to take place on Saturday night. Ferg Todd, with fearful misgivings and with a look suggestive of terror, entered a barber-shop. A little later he came out with hair no longer than that of any other man on the section. Gone were his Buffalo Bill locks, and Todd felt like blubbering. What if he had lost his strength? He resolved to test the effect of that hair-cut at once.

With hope for the best surging in his breast, he walked down the track till he came to where that seven-hundred-pound rail lay.

"I stood this rail on end yesterday with long hair," he told himself. "Can I do it now with short hair? Here goes."

He seized hold of the rail. Up it came, free of the ground. He smiled happily. The muscles stood out on his arms. Up still further went the rail, till he had the end of it on a level with his thigh.

"It's dead easy," he muttered. "Hair ain't got nothin' to do with it at all."

But just then, alas! his strength gave out as suddenly as if he had been stricken with paralysis. Collapsing in his tracks, the rail fell across him, breaking his leg.

That evening at the dance all the brotherhood men, and the ladies, too, asked what had become of Ferg Todd, the section foreman. The friend who had induced Todd to get his hair cut assured everybody that Ferg would show up, adding that the section foreman had had his hair clipped purposely to come to the dance in presentable shape.

When the dance broke up, at dawn on Sunday morning, Ferg Todd had not put in an appearance.

About eight o'clock that Sunday morning, two sons of one of Ferg's section-hands were walking up the Frisco track, when suddenly they heard a voice shouting for help. Seeing a man lying helpless on the ground, with a rail across his legs, they rushed to him.

"Why, Mr. Todd!" the boys exclaimed. "What's happened?"

"Pry this rail off me and ask questions afterward," replied the foreman. He told the boys to go to a near-by tool-box and fetch a couple of claw-bars. He then showed them how to ease up the rail with the bar. Presently he was free from the terrible weight.

"How long have you been lying here, Mr. Tood?" the boys asked.

"Since five o'clock last night—fifteen hours of fierce sufferin'. Get some help, 'cause your Uncle Todd can't move by his lonesome."

One evening, six weeks later, Todd came limping out of the hospital, no longer the strong man of the Frisco System. Limping from the hospital direct to the barber-ship where he had his hair cut, he stepped up to the tonsorial artist and, shaking his fist, cried:

"Hang you! I ought to wring your neck! Your name's Delilah. S'help me! I'm going to let my hair grow now right down to my feet. Then I'm going to come to this here boudoir and tear your barber-chairs up by the roots with one hand and wipe up the floor with you with the other! Your name's Delilah!"

Saved by a Thumb.

The Tepee man obligingly entertained us with this:

"Only the other day," he said, "I met a lot of Espee clerks in a lunch-room on Canal Street. One of them said:

"'What's an alligator? A fish or an animal or a vegetable or what?'

"'What do you want to know for?' I asked, looking as if I knew all about alligators and didn't want to tell.

"'Why,' he replied, 'we've one entire carload of alligators going out on our road to Los Angeles. What puzzles us is how to apply the rate. Now, if alligators are fish or shell-fish, the charge for the car-load will be about five hundred dollars. Well, are they fish?'

"'Fish nothin',' put in another Espee man. 'Alligators are live stock. You just apply the rate for live stock and you'll be all right.'

"'We've thought of that,' returned the first Espee man. "But somehow it doesn't seem to apply with exactitude. However, if the alligators are rated as live stock, then the freight

will be over six hundred dollars. What do you say, Eye-See?' he added, turning to me.

"I looked exceeding wise and, making a wild guess, said, with the supreme conviction of the accuracy of my statement:

"'You're both wrong. Alligators are neither fish nor live stock. Alligators are "animals not otherwise specified," and the rate should be applied to them as such.'

"'Hanged if he isn't right,' said the first Espee clerk. 'I'll just spring that on our rate-man as the product of my own big head.'

"Next day at luncheon, I again met the same Espee men in the same lunch-room. One said to me:

"'Hanged if our rate-man didn't bill that car of alligators as "animals not otherwise specified." He liked that classification because the freight under that head amounted to about nine hundred dollars, thus raising fish four hundred and live stock three hundred. Whenever we get in a muddle like that again, Eye-See, we'll come to you.'"

A parson was hurt in an Eye-See wreck and was given five thousand dollars in settlement of his claim. A year later, the Eye-See claim-agent at New Orleans received a letter from the parson, enclosing a check for four hundred dollars. The letter stated that the writer had been laid up for one year, hence losing his pulpit salary of two thousand dollars. His medical expenses amounted to seven hundred and fifty dollars. His board at a sanatorium, eight hundred and fifty. Incidental expenses incurred as the result of the injury, one thousand dollars. Balance on hand, four hundred dollars, which he now returned.

Whereupon, the Eye-See rewarded the minister for his honesty by returning the check and asking him to keep it as a present.

By return mail came another letter from the parson saying: "Thanks for your check for four hundred dollars. Have donated it to the disability funds of the local divisions of the railway brotherhoods."

By the time the Eye-See claim-clerk finished telling this story of the conscientious parson, our steamboat was passing the great Stuyvesant docks, so named in honor of Stuyvesant Fish, then president of the I. C., through whose enterprise the docks were built.

YOU WILL HAVE TO CLIP ABOUT A YARD OFF THOSE LOCKS.

"Reminds me of a story of Mr. Fish which I know to be true," said the same Eye-See claim-clerk. "Just before Mr. Fish resigned the presidency of the Illinois Central, a great number of claims had been presented by people along our line in Kentucky, who said that our trains had killed their horses. Every one of the claimants stated that his horse was, positively, the bluest blood in Kentucky, regardless of the kind of scarecrow it might have been.

"Mr. Fish heard of these claims from time to time, and finally he uttered this sage remark:

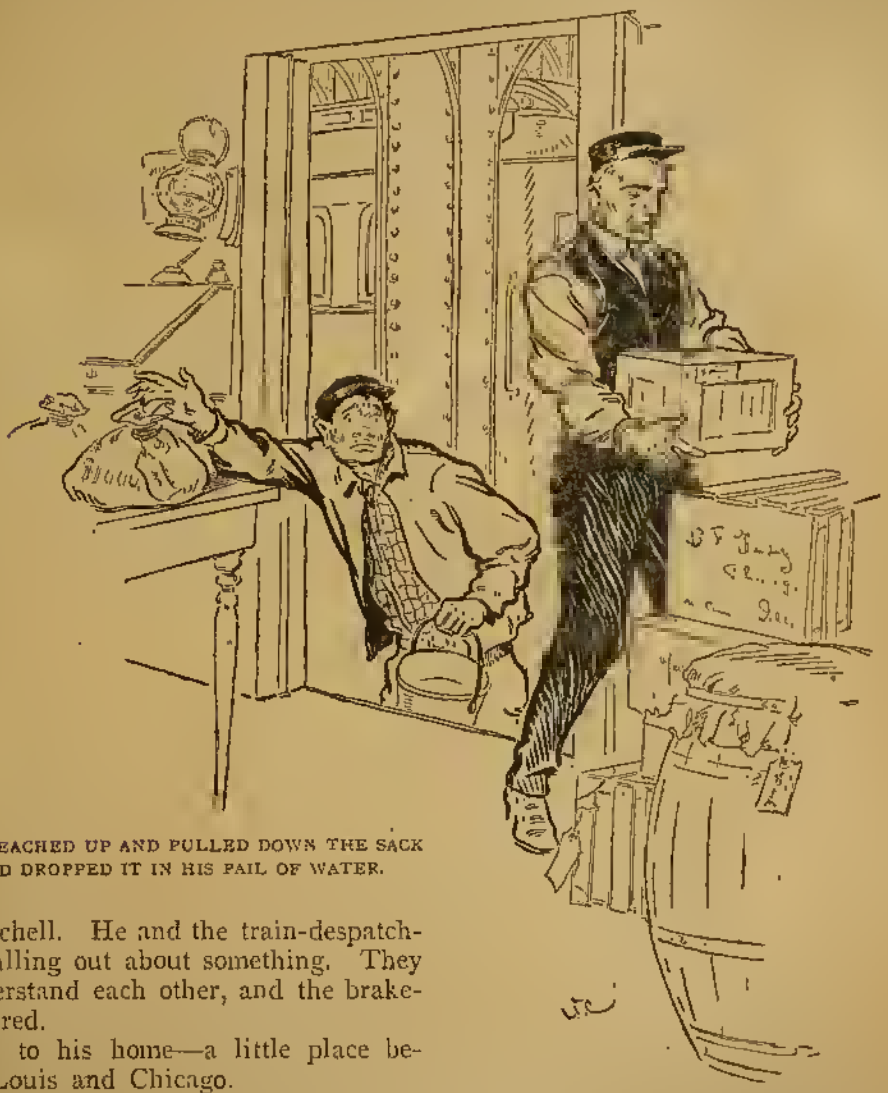
"'By George! I've lived long enough to learn that absolutely nothing so improves the breed of horse-flesh in Kentucky as to cross a horse with a locomotive. For Heaven's sake, let's cease crossing Kentucky horses with locomotives!'

"That reminds me," said another clerk. "Mr. Fish was himself a brakeman once. Did you fellows know that?"

"Sure."

"And any man who swung a lantern could get his ear any old time. He believed in the square deal, and always took a personal interest in the men, and once he showed his interest this way:

Up St. Louis way, there was a brakeman



SAM REACHED UP AND PULLED DOWN THE SACK AND DROPPED IT IN HIS PAIL OF WATER.

named Mitchell. He and the train-despatcher had a falling out about something. They didn't understand each other, and the brakeman was fired.

He went to his home—a little place between St. Louis and Chicago.

A few days later a passenger-train, with a private car attached, pulled into that little place. Mitchell recognized the car as the one always used by Mr. Fish. Straightway he walked down to the car, and found a number of men sitting on the rear platform. Mitchell didn't know the Eye-See president when he saw him. He said, simply:

"Is Mr. Stuyvesant Fish up there?"

"Yes," replied a tall man.

"I would like to speak to him."

"All right. Come aboard."

Mitchell climbed over the rail, and the tall man said:

"I am Mr. Fish. You want to speak with me? You are a brakeman. I know it by the way you got over that rail. Come inside."

Mr. Fish led the way into the car, and there Mitchell quickly told his story.

"I see," Mr. Fish said. "What you want is fair play. You shall have it. Go back to St. Louis and report for duty. It will be all right by the time you get there."

Mr. Fish penned a telegram to the despatcher, ordering him to reinstate Mitchell. Mr. Fish then gave Mitchell a cigar, saying:

"I suppose you know that I have swung a lantern myself?"

"Yes, sir. I understand," Mitchell answered.

The Vanishing Coin.

"Speaking of fifty cents reminds me," said another Eye-See clerk, "of that long-un-

solved mystery of the disappearance of a sack of money from the Pacific Express car. It contained a thousand dollars in fifty-cent pieces, and the mystery of its disappearance was cleared up only the other day—through the cleverness of an Eye-See railway clerk.

"An Eye-See train, with a Pacific Express car attached, stood in the Union Station, New Orleans, ready to pull out. In the express-car were several sacks of silver coins, among which was one containing one thousand dollars in fifty-cent pieces. These bags of money had been shipped by a local bank, and were consigned to banks in the northern part of Louisiana.

"The express messenger in charge of the car was making things shipshape for the journey when, suddenly, he missed that thousand-dollar sack of half-dollars.

"'It's gone!' he gasped.

"Calling to the station-men, the express clerk communicated the horrifying news.

"Somebody had stolen a thousand dollars from under his nose!

"'I handled it—right on that table—only a moment ago!' he declared. 'How could it vanish like that? I haven't been out of the car a minute since we've been here!'

"The superintendent of the Pacific Express at New Orleans, Mr. Maunch, was told what had happened, and he immediately put a number of Eye-See special officers on the case. Months passed and not a single clue was found.

"In February, however, a certain Eye-See railway clerk happened to hear that a negro named George Johnson was riding around New Orleans in a new buggy. The clerk was further told that the negro had paid cash for the buggy, and for the horse, too, in half-dollars.

"'Let me see,' said the clerk to the liveryman who gave him this information. 'George Johnson was a car-cleaner on the Eye-See some months ago. He was discharged, was he not?'

"'Yes. His father died just then, however, and George received some money for a life-insurance policy. That's where he got the money for the horse and buggy.'

"The Eye-See clerk went home and wrote an anonymous note to Mr. Maunch, saying that a certain colored man named George Johnson, living in Fourth Street, would bear investigation regarding the missing sack of half-dollars.

"Within two hours after receiving that note, Mr. Maunch had Johnson lodged in jail, after having secured a full confession.

"Johnson, while on his car-cleaning job, had passed the open door of the express-car. He saw a sack tagged '$1,000.' Seeing also that the express clerk's back was turned, he reached up, pulled down the sack, and dropped it into his pail of water, then sauntered on.

"'Got any of the money left?' asked Mr. Maunch.

"'No, boss,' replied Sam, with a gleeful chuckle. 'Ah done spend the last one of them half-dollars last night, feedin' po'k-chops and tamales to members of that there colored burlesque troupe!'"

A Real Boss.

Two weeks after my sail up the Mississippi I arrived in St. Louis. There I met "Pop" Orrison, of Iowa, an ex-engineer of the Minneapolis and St. Louis Railway, who told how certain divisions of his brotherhood had chartered a Mississippi steam-packet for an excursion up the river. On that trip "Pop" Orrison told this old-timer story, which I repeat here.

The old Louisville Railroad—the L., M. and B., dubbed "The Lame, Mangy and Blind"—had for master mechanic James Vintin, commonly known as Uncle Jim. Uncle Jim was really the railroad. He ran it. He bossed it. What he said went. He accomplished this feat through sheer force of right backed by might.

A just man was Uncle Jim, big and strong, always ready to give the men a square deal. He was a fighter who enforced his rulings for a square deal with formidable fists.

When excited, Uncle Jim had a habit of closing his thumbs tight to his fists and then spitting on them.

Under Uncle Jim was an engineer who had red hair, and was generally called "Redhead." He was the most reliable, the very best engineer on the road.

One day Uncle Jim received an order from the superintendent, Dick Carron, to dismiss the red-haired throttle-handler, whereupon Uncle Jim, in great wrath, called "Redhead" into his office and said:

"Look here, you flame-headed imp, you're not fired yet; but you're going to be, unless you tell me the truth about the matter mentioned in this writing." He handed the engineer the superintendent's letter.

"Red-head" told his side of the story, satisfying Uncle Jim that a square deal was not being handed out by the superintendent.

Grasping "Red-head's" arm in a vise-like grip, Uncle Jim hauled him over to the superintendent's office.

"Look here!" said Uncle Jim, addressing the superintendent and spitting vociferously upon his two thumbs. "I'm going to show you that you ain't runnin' this road to suit yourself. I'm going to convince you that you can't fire my men when there's no justice in it."

During this speech Uncle Jim had advanced across the room toward the super, who had retired with terror-stricken face into a far corner.

"Yes, sir; I'm going to pitch you head-first out of that window," announced Uncle Jim, as he spat some more on each thumb. "I say, you're going to meet your hereafter right now through that there window."

With that, he picked up the terrified super in his two brawny arms and carried him to the window.

Just then the entire office force, hearing the scrimmage, fell upon Uncle Jim, and begged him to spare the super's life.

"I will listen to you," said Uncle Jim, "if this clam called a man will order my red-headed engineer reinstated this minute. Otherwise—" And he shoved the super half out of the window.

"Yes, yes!" gasped the super. "Your engineer may remain at work."

Uncle Jim pulled the super back into the room and dropped him in a heap on the floor. Then, turning to "Red-head," he said.

"Go back to work, you half-witted bumblebee! How dare you put the superintendent of this railroad to all this bother? Get on your engine and pull out of here, quick!"

"What I've just told you of the Uncle Jim story," said Pop, "was as far as I told it to the Io-way boys, that day of the excursion. Now, you'd think railroad men would want to know how it happened that the master mechanic of a road could run the whole shooting match, even to threatening the life of the super for discharging one of the men. But, no; these Io-way boys didn't ask me a single why.

"We're in Missouri now, however, and I suppose you want to be shown. Well, sir, the road hadn't any money. That explains Uncle Jim's cinch. The company owed Uncle Jim a whole lot of salary, and didn't dare try to fire him without first paying him.

"As the result of this shortage of cash, something interesting happened not long after that day when Uncle Jim bullied the super into reinstating the red-headed engineer.

"'Red-head,' said Uncle Jim, one morning as the engineer was about to pull out, 'maybe a man will board you to-day somewhere down the line. He will show you a bit of paper, and affirm in the name of the State of Kentucky that your machine is seized for taxes. This is a warning to you not to come back here without your engine—understand? You bring this machine back!'

"Here Uncle Jim paused and spat on his thumbs. Then he added:

"'If you come back without this engine, I'll thrash you to a pulp, after which I'll fire you without a cent of all the wages due you.'

"HE PICKED UP THE TERRIFIED HELPER AND CARRIED HIM TO THE WINDOW."

"All day the master mechanic waited anxiously for 'Red-head's' return. About dark, sure enough, the red-headed engineer returned in his cab, all hunky.

"'Did you-all have any trouble?' asked Uncle Jim.

"'Should say I did,' replied the engineer. 'I'm a "delinquency."'

"'You're a what?' thundered the master mechanic.

"'I'm a "delinquency." A one-legged man says I am. He said that, therefore, I am also a "misdemeanor" and a "writ of attachment."'

"'A one-legged man? Who was he?'

"'He's the man you said would board me with papers, and would seize the machine for taxes. Well, Mr. Vinfin, he did it just as you said. He held me up for about ten minutes. When I'd been seized, and learned that I was a "delinquency" and all those other things, the conductor sudden gave me the signal to pull on. Did I pull on? Bet you!

"'I forgot to tell you, Mr. Vintin,' 'Red-head' continued, 'that there were four other men assistin' the one-legged man in the seizure. When I got the signal to move on I pulled the lever before any of those five men could stop me. Then I motions to my fireman to kick out the water-glass. He does it, quick as a wink—and there was the worst racket in the way of an explosion you ever heard of. That scared the one-legged man and the others so they didn't tarry a moment to maintain the seizure. They just called me a "delinquency" some more, and also a "resister of the law," and then they abandoned me any old way they could.

"'The one-legged man left his crutches behind, which I now have the honor to present to you as a trophy. And here's your engine. You can get some one else to run her. I'm resignin' without pay.'

"'You're going to resign, are you?' bellowed Uncle Jim. 'After I nearly committed homicide on the super to keep you on the job, you're now going to quit me, are you? Well, then, I'm going to prepare you for the obsequies.'

"'Mr. Vintin,' cried the engineer, as he hurriedly sprang into his cab and prepared to take his engine to the roundhouse, 'this road hasn't paid me any money in so long a time that I haven't a cent for my funeral expenses. Therefore, I'll have to ask you to postpone the obsequies, and I'll withdraw my resignation.'"

I had received a letter from a railroad man living in Burlington, Iowa, in which I was told that "Pop" Orrison would be in St. Louis, at the Terminal Hotel in the Union Station, on Good Friday.

At five in the afternoon on the day mentioned I was there. There was an immense crowd in the depot. It was as big as the one that had greeted President Taft upon his arrival there a few months before—perhaps ten thousand strong.

Suddenly the throng broke into wild, tumultuous shouts as a remarkably pretty young woman appeared at the gate marked "Track Eight," on which a Pennsylvania Railroad train had just arrived.

The crowd surged toward her like a wave, and for a moment it looked as if the young woman would be drowned in the human sea. Policemen and station-men plunged to the rescue of Miss Florence Lawrence, moving-picture actress, who had been photographed five million times, and was known as "The Girl of a Thousand Faces."

As an opening was made for her, I saw a man with white hair and beard.

Hastening to him, I said:

"Isn't this Mr. Orrison?"

"Sure thing, son. I'm called 'Pop' Orrison.

"Son," he said presently, "I'm some busy with a veteran association till Sunday afternoon. I'll be free then, and I'm goin' to walk across that big Eads Bridge for the first time in my life. Will you join me?"

I said I would—and that's how I came to be on the Eads Bridge with the ex-engineer of "Io-way."

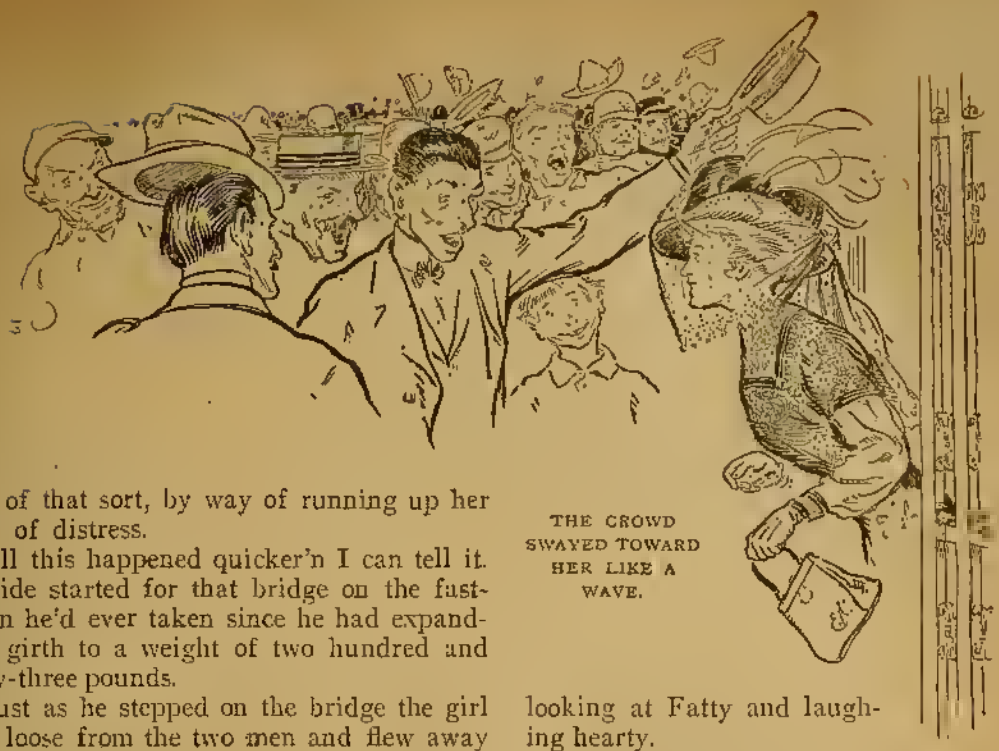
On that occasion the old railroader related the following:

Actor in Spite of Himself.

"Seein' the moving-picture actress received by that crowd o' greeters, the other day at the Union Station, reminds me of a racing experience of one of the fat men of our brotherhood—an engineer out of Chicago, called 'Fatty' McBride.

"One awful hot day McBride was taking a Sunday afternoon stroll in the Windy City suburbs. As he approached a bridge across the Chicago River, he suddenly saw a young woman start over the bridge, stealthily followed by two men. In the middle of the bridge the men pounced upon the damsel, and lifted her up to the rail as if to throw her into the river.

"The girl struggled like a demon, but she didn't open her mouth to scream, nor any-



THE CROWD SWAYED TOWARD HER LIKE A WAVE.

thing of that sort, by way of running up her signal of distress.

"All this happened quicker'n I can tell it. McBride started for that bridge on the fastest run he'd ever taken since he had expanded in girth to a weight of two hundred and twenty-three pounds.

"Just as he stepped on the bridge the girl broke loose from the two men and flew away at a marathon gait, with the thugs pursuing her.

"'By George!' exclaimed Fatty McBride. 'That damsel is in terrible distress, and it's up to me to save her.'

"So he rushed to the rescue, feelin' thrills runnin' down his spine like they say heroes do when about to perform a medal-winning deed.

"Down to the railroad tracks flew the damsel. The thugs overtook her, seized her, threw her down on a rail, and proceeded to lash her fast with the ends of a long black sash that she wore around her waist. Having tied the girl, the two men ran away.

"All this time Fatty McBride kept running, and just as the thugs got the damsel tied fast to the rail, and just as a locomotive was seen coming toward her down the track, Fatty rushed up, puffing like a mogul on a grade.

"As the locomotive came toward them, Fatty knelt over the girl and began to untie her. What does the damsel do but begin laughing so hard that tears stream down her face.

"'You're sure a brave gal,' says Fatty, between his blowing and puffing, 'to laugh like that in the very face of death. But I'll save you, gal, don't worry.'

"Just as he untied the last knot the girl jumped up and off the track, still shouting with laughter. The train rolled slowly by, with the engineer leaning out of his cab looking at Fatty and laughing hearty.

"Then Fatty heard a man yelling:

"'You're all right, Fat! You're a born actor! Bully for you!'

"'This is a moving-picture outfit. When we saw you fly to the rescue of the girl on the bridge, we decided it would be a good stunt to let you go as far as you liked. The original plan was for the girl to untie herself from the rail with her teeth, but you got her to laughing so hard, Fat, she couldn't play her part, and so she let you set her free. The engine was to stop on the safe side of her, of course.'

"'Well, I'm hanged!' exclaimed Fat.

Had Holes in It.

Frank Roden, the commercial agent of the Chicago Great Western Railroad, was in St. Louis. One morning, while making my daily round of the station, one of the boys said:

"Frank Roden showed up here a few days ago, and warned every railroad man under these roofs to look out for a stuttering boy.

"One morning, Frank Roden received the following letter:

"'Dear Sir: As you are an old friend of my father, I venture to inform you that I have lost my pocketbook and transportation to Chicago, and to ask you kindly to telegraph this news to my father, as I have no money myself for the message. My father, as you probably know, is at present the station-agent of the Chicago Great Western at

"I'LL SAVE YOU, GAL, DON'T WORRY."

Dubuque, Iowa. Will you please ask him to wire me the money for car fare and expenses to Chicago?'

"Good-hearted Frank Roden at once wired his old friend at Dubuque. Hardly had the despatch gone forth than a young man entered the commercial agent's office and tiptoed toward Mr. Roden's desk, his cap in his hand and timidity written legibly in his countenance.

"'Well, young man,' said Roden, 'what can I do for you? Don't look so scared. I'm only a human. You looking for a job?'

"'I'm the au-au-au-au-author of that let-let-letter asking you to tel-tel-tel-telegraph my fa-fa-fa-father,' replied the young man.

"'That so? Shake hands! Glad to see you! Glad to see any son or daughter or any person who's related to my old friend.'

"'I need fun-fun-fun-fun-funds,' stammered the young man. 'Will you ple-ple-ple-please lend me a dol-dol-dol-dollar while waiting f-f-f-for my fa-fa-fa-fa-father to an-an-an-an-answer your tel-tel-telegram?'

"'Oh! You're as dead broke as that?'

"'Ye-ye-ye-yes, sir. I'm com-com-com-completely bus-bus-bus-busted.'

"'Oh, well, since you're a son of my old friend at Dubuque. I'm mighty glad to be of service to you. Here!' He peeled off an ace from the stack and handed it to the young man.

"'Tha-tha-tha-thank you, sir. When shall I ca-ca-ca-call for the mon-mon-money?'

"'The answer should be here in about two hours, my boy. He'll probably telegraph the money. You come back here about ten o'clock, and I have no doubt but that you'll then be on Easy Street.'

"Ten o'clock came, but the stuttering lad failed to put in an appearance. Eleven o'clock tolled, and still the stammerer came not. Just then, however, came the answering wire from Frank Roden's friend in Dubuque, reading: 'Have no son, never did have, and never expect to have.'

"'Stung!' cried Frank Roden.

"It was just after receiving that telegram that Frank Roden hop-skipped-jumped among the railroad men at the Union Station, warning them against a stuttering boy.

"'So you were stung for a dollar, were you?' asked the clerk at Charlie Gilpin's cigar-stand when Roden told his story.

"'A dollar!' the commercial agent exclaimed. 'Say, you just multiply that by two and then add some, and you'll come nearer the real sum. Didn't I send a telegram for him? And didn't it cost me fifty-five cents? But even that isn't all! What gets most on my nerves is the fact that my dear old friend, our station-agent at Dubuque, wired his answer *collect!* That cost me fifty-five cents more. Sum it up for yourself, and you'll see that I've been stung for exactly two dollars and one dime by a hu-hu-hu-hu-human hornet with a brand of con-con-con - con - conver - con - conver - conver-conversation that had an aw-aw-aw-awful lot of ho-ho-ho-hoho-hohoho-holes in it.'"

LEGS BROWN HAS A ROUND-UP.

BY ROBERT T. CREEL.

It Was a Battle Royal While It Lasted, but Bully Hackett's Yellow Streak Ended the Fight.

HOW he came to be braking on the C. I. W., it would be impossible to say. It is doubtful if Legs Brown himself knew. He was a boomer brakeman, and, as such, he traveled by no schedule whatever. To ordinarily find him at any given time, you might inquire on any railway division in America with an equal chance of success.

He reminded you of that insect whose amiable disposition and attenuated appearance have won for it the sobriquet of "grand-daddy-longlegs." Hence, Brown's own nickname. Notwithstanding his fragile proportions, however, when occasion arose he could wield his huge fists with force sufficient to fracture a jaw-bone, or drive a man's ear into the side of his head—a fact that had been demonstrated to the sorrow of more than one belligerent hobo.

As the long train of flat cars writhed in and out among the sand-hills, Brown, stationed a short distance ahead of the caboose, was the only person visible. According to his habit when unusually elated, he stood perfectly erect, with hands clasped before him and his soft hat pulled down over his bullet-head, in the manner of a Hebrew comedian.

At intervals he wailed forth the words of a song to the effect that the life of a sailor is fraught with hardship, inasmuch as a certain youth, Johnny by name, had been drowned in the deep, blue sea. Many verses he sang, and each one varied from its predecessor only in the name of the victim. From which symptoms, it was plain that something conducive to his happiness had occurred, or might soon be expected to occur.

His joy, in this instance, was that of anticipation, and its source may be told in the one word—trouble. Although he never voluntarily sought a conflict, Brown was not one to leave the scene of a fight while there remained a chance of participating therein.

At the last stop, Murphy, the conductor, had received a telegram warning him to be prepared for an attack when they entered Sandville. A large number of hoboes were gathered there, and had taken possession of the town, explaining to the unhappy citizens the necessity of majority-rule, if the republican form of government was to be maintained in the land.

Previous experience similar to this had detracted from the novelty of the situation for the few inhabitants of Sandville; but the hoboes were becoming bolder, and spoke of capturing the next train that came thither, for the purpose of making their escape. Whereupon, the station-agent had grown alarmed and sent the telegram.

Among his other characteristics, Brown was intensely loyal to the road that chanced to employ him. Any action such as that contemplated by the hoboes was resented as a personal affront. Furthermore, at this particular time he knew that the president of the road was but a few hours behind in his special, and Brown deemed it his duty to do all in his power to prevent any unpleasantness when the great man should arrive.

Therefore, as they drew near the little

hamlet he returned to the caboose and conferred with the conductor.

"They's no use runnin' clear in, Jim. You better stop on the edge of this here metropolis, while I go in an' reconsider the force of the enemy, as they say in the army."

"I wouldn't advise you to go alone, Legs. You can't tell what those boes'll do if they're drunk."

"Why, Jim, you know them fellers're like sheep. The only reason I can see for 'em actin' like this is because they got a leader. If that's the case, all I got to do is to sling him around like he didn't cost much, an' that'll take the fight right out of 'em. Besides, if a bunch of us go in, they'll git ready for trouble."

"All right, you can go while we stop for water. That'll give you time to see what they're up to."

So it was that, on foot and unaccompanied, Legs Brown ambled into the captured town. He had no doubt as to the location of the triumphant hoboes, for, though it was now almost dark, the only place that showed a light was the saloon, and to this he directed his steps.

Within, a motley gathering of vagrants, in various attitudes of repose, shouted their orders to the bartender, evidently bent on making the most of their unwonted authority. Supposing Brown to be a farm laborer, they hailed him with delight, anticipating an evening's sport, and sport there was, albeit of a character slightly different from what they had expected.

At the bar stood a swarthy, well-set fellow, whose curly hair and high cheek-bones, together with the peculiar conformation of his head, marked him as a native of Poland. This worthy was the most boisterous of the lot, but Brown thought it hardly likely that he was the leader, giving him scant attention, therefore, as he strode forward and ordered a drink.

"Here, ye rube, ye better ask me fer what ye want, 'r I'll break ye in two," said the tramp aggressively, pausing in the act of raising a glass to his lips.

Brown, reaching for his own drink, seemed not to hear the words, but his prodigious foot, as if released from a spring, suddenly swept up, and, striking the other's hand, threw the glass, with its contents, into his scowling face.

A storm of laughter arose from the onlookers, who swore, with mighty oaths, that it was the funniest thing they had ever seen. The victim, however, laughed not at all, but bellowed with rage and pain as the fiery liquid seared his eyes, and repeatedly yelled for Brown to come near, that he might be chewed up.

Not desirous of being masticated, nor yet willing to move out of the way of the Pole, who was blindly groping for him, Brown chose the only alternative, and smote him squarely between the eyes, so that he crumpled up on the floor. Then, turning to the man's comrades, he broached the business of the evening.

"I want to tell you dirty bums that I'm going to take charge of this here city government from now till I leave. If any of you've got anything to say, why, you can step up and say it. You might be able to bluff these pore devils that live here, but I've seen too many boes not to know what you're made of. You're all under arrest, an' the first man that moves'll git plugged." The brakeman placed a hand on his hip-pocket, which, by the way, held nothing but his red bandanna handkerchief.

"Now, I want to see the man that's at the head of this outfit. Who put you up to this job?"

One of the men shrugged his shoulders contemptuously. "You better wait till you hear from Bully Hackett before you pinch this gang. Guess that's him now."

Following a sound of shuffling footsteps, the illustrious leader himself appeared in the doorway. Bully Hackett's visage was one of those of which the worst dreams are made. While it was rendered somewhat vacant by the absence of his nose, one of his eyes, and the major portion of his upper lip—unwilling sacrifices to the god of war—his expression lost none of its ferocity on that account, and his shaggy hair and beard gave him a look that was scarcely human.

Mr. Hackett had been engaged on a private foraging expedition, and knew nothing of the happenings within the saloon, nor saw the brakeman, as he came toward the bar.

"Wot's the matter?" he inquired savagely. "Didn't ye see that freight pull in?"

By way of attracting his attention, Brown struck him smartly on the part of his face formerly occupied by his nose.

"Yes, an' she'll lay there till she rots, if she waits fer you to take her out. By the time I git through with you, you'll be ready to crawl in your hole," said the brakeman. He had seen the train-crew gathered in the shadows outside the door, and now had little to fear from the other hoboes.

Possessed of keen perceptions, as are all

great leaders, Hackett at once suspected that the brakeman had struck him intentionally, and his one eye gleamed redly.

"Yah-h-h!" he snarled, too angry for more intelligible speech.

"Better take off your coat, because I'm not a goin' to knock you out. I'll make you quit like a dog, so the rest of these gents'll see what you are," stated Brown, removing his own outer garment.

Hackett waited not for further advice, but lashed out so viciously with his right arm that Brown was taken unawares, and, had it not been for the bar at his back, he would have gone down ignominiously. Even so, he was in an evil plight, for the tramp, seeing his opportunity, rushed in, raining blows on the face and body of his opponent.

Then, indeed, did it seem that the brakeman had been overconfident in his boasting. The other hoboes shouted encouragement to their champion, and the train-crew were only restrained from joining in the fight by the conductor, who continued to voice his belief in Brown's prowess.

Veteran of a hundred battles, Brown's first move was to stop the flailing arms. This he did by the simple expedient of twining his own about them. Gradually, with the apparent sinuosity of a boa-constrictor, he wrapped his limbs about those of the other, and, for a moment, lifted his own feet clear of the floor, making Hackett support the weight of both their bodies. Then, unmindful of his struggles, Brown as carefully freed himself, sending the hobo backward with a solid jolt on the spot where his first blow had landed.

Brown was intent on proving a theory that he had long held, namely, that a man, though inwardly a coward, may fight with seeming bravery so long as the blows of his adversary have not the appearance of being well-judged or aimed with accuracy; but that a succession of blows, however light, on a sensitive spot, will make him quit if he has the least vestige of a yellow streak.

During the next few minutes, so fiercely did Hackett assail him that the brakeman was almost entirely on the defensive. More than once he felt the impact of the tramp's horny fist on his face, but he still held to his purpose. When the opening offered, his hand flashed out, striking with invariable precision the spot he had selected for his attack.

Hackett manifested his displeasure at this mode of warfare, evidently thinking that Brown acted dishonorably in profiting by the absence of his nasal feature. At each offense the tramp rushed in with the avowed intention of demolishing the whole of Brown's material body; and, to avoid these rushes, the brakeman executed a series of jumps that would have done credit to a grasshopper. Finding no obstruction in his course, Hackett went on until his head struck the wall, which so diminished his speed that he was enabled to make a short turn and again face his opponent.

For a long time they fought, neither gaining the advantage. Brown was bleeding freely from the mouth, and one eye was fast swelling shut; but his antagonist was also badly bruised, the remnant of his nose being quite raw. Of the two, Hackett seemed the more fatigued. Excessive drinking had made him short-winded, and he breathed heavily. The brakeman now began to force the fighting, striking more often and with greater force, but ever in the same spot. Hackett gave ground, and once he glanced back, as if seeking a way of escape.

"Stand up an' fight, why don't you?" panted Brown. "You claim to be the champeen bo. Well, I ain't no kind of a champeen, an' here you're tryin' to quit before I git warmed up. What kind of fightin' do you call that? Come on an' mix it a little."

But Hackett had had enough. His spirit was gone, and he slunk back into the crowd, whimpering.

"Stop 'im, boys; stop 'im," he pleaded. "My Heavens, my mug's broke in! I can't fight no more."

"You don't need to be scared. I'm satisfied," answered Brown. "I knew you was a quitter the minute I seen you, an' I wanted to show you up, so you couldn't lead these dubs into no more deviltry. What'll we do with 'em, Jim?" he asked, turning to the conductor.

"The best thing will be to lock 'em in a box car, an' hand 'em over to the sheriff at Rennington," replied Murphy, who was guarding the door.

From the dark recesses of the caboose he had brought forth an old revolver. With it to uphold his authority, the erstwhile conquerors were placed in line and marched to the waiting train, escorted by the crew.

To Brown, this closed the incident. He marveled greatly, therefore, when there came a commendatory letter from the company's chief executive, together with a small package, which, on examination, was found to contain a gold watch.

"That business must've leaked out some way or other," he remarked thoughtfully.

THE PENNSYLVANIA IN NEW YORK.

The New York Station of the P. R. R., Now Completed, Covers More Territory Than Any Other Building Ever Constructed in the World Within a Certain Time.

THE New York Station of the Pennsylvania Railroad, at Seventh Avenue and Thirty-Second Street, now completed, covers more territory than any other building ever constructed at one time in the history of the world.

THE CASSATT STATUE IN THE NEW PENNSYLVANIA STATION.

Alexander Johnston Cassatt, President, Pennsylvania Railroad Company 1899—1906, whose Foresight, Courage, and Ability Achieved the Extension of the Pennsylvania Railroad System into New York City.

The Vatican and the St. Petersburg Winter Palace are larger buildings, but they have been centuries in their construction. The Pennsylvania Station is unique, covering as it does eight acres of ground, with exterior walls extending approximately one half of a mile, all told, and having been erected in less than six years' time.

This station is not only the largest structure of its kind in the world, but it epitomizes and embodies the highest development of the art of transportation. Every practicable convenience, the most ingenious of mechanical and electrical inventions, every safeguard against danger—all, in fact, that has so far been learned in railway transportation and station perfection, has been availed of for the benefit of every passenger, no matter whether he is to take a short ride to Long Island or a two-thousand-mile trip to the West.

While the cost of the improvement represents a greater expenditure than was ever before incurred by a private corporation for a single undertaking, nevertheless it was required to unite the principal parts of the thickly populated area in and around New York City, and to provide unsurpassed facilities, in the very heart of the city, for reaching the entire country.

In 1901 the Pennsylvania Railroad was employing ferries to land its passengers in New York City, just as it did in 1871, when it first leased the United Railroads of New Jersey.

Railroads on the western bank of the Hudson River opposite New York City carried in 1886 nearly 59,000,000 people. In 1890 they carried over 72,000,000, in 1896 more than 94,000,000, and in 1906 about 140,000,000 people.

In 1890 the population gathered within a circle of nineteen miles radius, with City Hall, Manhattan, as the center, was 3,326,998; in 1900 it was 4,612,153, and five years later it was 5,404,638, an increase in ten years of 38 per cent. In 1913 it is estimated that the population of this territory will approximate six million people, and in 1920, eight million.

These startling figures, and what they meant in transportation needs, in addition to the serious problem of providing corresponding freight facilities, were considered when the Pennsylvania Railroad was contemplating entering New York City.

A description of this vast improvement is incomplete without figures showing just how enormous it really is. The area of the station and yard is twenty-eight acres, and in this there are sixteen miles of track. The storage tracks alone

CONDENSED INFORMATION ABOUT THE NEW PENNSY TERMINAL IN NEW YORK CITY.

Area of terminal (Tenth Avenue to normal tunnel section east of Seventh Avenue,) 28 acres.

Length of trackage, 16 miles.

Number of standing tracks at station, 21.

Length of platforms adjacent to passenger-trains, 21,500 feet.

Number of passenger platforms, 11.

Highest point of tracks—below sea-level (M. H. W.), 9 feet.

Number of baggage and express lifts, 25.

Length of baggage express trucking and pipe subways, 5,200 feet.

Weight of street bridging steel, 23,500 tons.

Weight of station building steel, 27,000 tons.

Weight of steel in service building, 2,437 tons.

Total excavation required, 3,000,000 cubic yards.

Length of retaining walls, 7,800 feet.

Number linear feet of streets and avenues carried on bridging, 4,400, or an area of about 8 acres.

Dimensions of passenger station building: 784 feet long, 430 feet wide; average height above street, 69 feet; maximum height above street, 153 feet.

Dimensions of main waiting-room, 277 feet long, 103 feet wide, 150 feet high.

Dimensions of concourse, 340 feet long, 210 feet wide.

Concrete required for retaining walls, foundations, street bridging, and substructures, 160,000 cubic yards.

Loading per square foot on avenue bridging, 1¾ tons.

Maximum loading per square foot on bridging east of Seventh Avenue, 5 tons.

Number of columns supporting station building, 650.

Greatest weight on one column, 1,658 tons.

Number of buildings removed on terminal area, about 500.

Number of electric lights, in terms of 16 candle-power lamps and enclosed arc lamps in passenger-station building—arc, 532; incandescent, 21,951—about 30,000.

Maximum capacity of all tunnels in trains per hour, 144.

Storage capacity of station yard tracks, 386 cars.

Proposed initial daily service of Pennsylvania Railroad trains, 400.

Proposed initial daily service of Long Island Railroad trains, 600.

Length of river (tube) tunnels (single-track miles), 6.8 miles.

Length of land tunnels (single-track miles), 6.8 miles.

Total length of track in tunnels, exclusive of yard tracks in station, 16.5 miles.

will hold 386 cars. The length of the twenty-one standing tracks at the station is 21,500 feet. There are eleven passenger platforms, with twenty-five baggage and express elevators. The highest point of the tracks in the station is nine feet below sea-level.

The station building is 784 feet long and 430 feet wide. The average height above the street is 69 feet, while the maximum is 153 feet. To light the building it will take about 500 electric arcs and 20,000 incandescents.

More than 150,000 cubic yards of concrete were required for the retaining walls, foundations, street bridging, and the substructure. There are 650 columns supporting the station building, and the greatest weight on any one of these is 1,658 tons.

The river tunnels leading to the station are, all told, 6.8 miles long, and the land tunnels have the same length. From the Bergen Hill portal in New Jersey to the Long Island entrance of the tunnels it is 5.3 miles. It is 8.6 miles from Harrison, New Jersey, to the station in New York, while from the latter point to Jamaica the distance is 11.85 miles.

The maximum capacity in trains per hour of all of the Pennsylvania tunnels is 144, and the proposed initial daily service will consist of about 600 Long Island Railroad trains and 400 Pennsylvania trains.

The stone work of the station, covering some eight acres of ground, was completed on July 31, 1909. To inclose this vast area has necessitated the building of exterior walls aggregating 2,458 feet—nearly half a mile—in length, and has required 490,000 cubic feet of pink granite.

In addition, there have been utilized inside the concourse 60,000 cubic feet of stone. A total of 550,000 cubic feet of "Milford pink granite" have thus been utilized in the construction and ornamentation of this building. It took 1,140 freight-cars to transport these 47,000 tons of stone from Milford, Massachusetts.

In addition to the granite, the construction of this building has called for the use of 27,000 tons of steel. There have also been set in place some 15,000,000 bricks, weighing a total of 48,000 tons. The first stone of the masonry work on the building was laid June 15, 1908; the entire masonry was thus completed in approximately thirteen months after the work was begun.

ON SHORT TIME.

BY HORACE H. HERR,

Author of "Being a Boomer Brakeman," and "The Evolution of 'Almost.'"

Bartholomew E. Goldsworthy Holds the Mail Contract in One Hand and Cupid in the Other.

CHAPTER VI.

Through the Cañon.

BART GOLDIE remained in San Francisco long enough to have hatched out a whole incubator full of railroads. He had been absent from the adobe hotel for almost three weeks, when Shorty Thomas, who was anxious to go down to Phoenix and help run the government, had to lay off from the west local to mend a section of his political fence, which had been rudely knocked down by some of the Mormons over near Snowflake, and they called me to take out the pedlers.

If Shorty Thomas had had as much of a cinch running for office as he did running that west-end local, he would have been President of the United States by now.

Shorty was about the only fellow who could run the local and get over the road without losing his rights. He was so small he could slip in where another fellow couldn't put his feet.

He had a way of jumping across the division ahead of a passenger, running as second section to the limited and several other little things, which, while they were not according to the standard book of rules, got him over the road in a space of time that made a big hit with the old man, and made some of the rest of us who claimed to be speedy look like a train-load of funerals.

On that local a fellow had to do everything from rebuilding a box car to digging rock out of the Sunshine quarry.

There were half a dozen water-cars to be filled at Angell, coal to be put on the chute at Winona, three cars of steel to unload near Cliffs, a quarter of beef for "Pap" Volz at Cañon Diablo, five cents' worth of pepper, and a can of corn for the female mayor at Moqui, the blind-siding report to be made out, and the switching at the lumber-mills.

When I got to the other end of the division I tied up for six hours' rest, and when I got back to Winslow there were gray hairs in my head; and Bennett was in the hospital, suffering from old age.

They said it was typhoid-fever, but I couldn't make myself believe it. The fact is, I always had my doubts about his being sick at all, for every time I went over that way I found him sitting up in bed, talking a blue streak to Miss Fowler.

At any rate, when I returned from the trip on the local Bart had returned from San Francisco. I found him packing his belongings when I entered the adobe, and I felt sure that it was all off. He had received his walking-papers, or had asked for his time.

"Now, what's up?" I asked as soon as I realized that he was packing his trunk.

"I'm going to the mountains for my health," he replied.

"Quit or get canned?"

"Neither," he answered.

He seemed as willing to talk as a man with the lockjaw. As I had been twenty-two hours on the road, I didn't feel like coaxing him very much.

"Well, you might tell a fellow what's in the air," I remarked rather peevishly.

"Nothing particularly. The management of the road has decided that it must have that mail contract at any cost, and I'm going to fix it so they can get it."

"But it's too late now," I volunteered.

"The present contract is only for a year. Sort of a probation affair. It will be open to competition again next year, and by that time—"

Bart found difficulty in getting the lid down on the trunk, and forgot to finish.

"By that time, what?" I asked.

"By that time we will have rebuilt enough of the road to make it possible to make better time from Albuquerque west than any other road."

"So you convinced Mr. Ellington Wallerheit Smartley, advisory engineer, of San Francisco, U. S. A., that he didn't know much about track-building, did you?"

Now, I'm a perfect lady, and I refuse to repeat what Bart said about Mr. Smartley.

After touching briefly but firmly on Mr. Smartley's personal appearance and his lack of brain-matter, Bart inadvertently remarked:

"I suppose it's a fight to the finish between he and I. Old man Martin probably figures that he will have to take care of him some day, anyhow, so he keeps him on the pay-roll. Martin had better watch out, or he will rob him of something else besides his daughter."

Then Bart rather regretted his words and went to kicking the varnish off the trunk-lid, until he finally forced it down in place and locked it.

"But where are you going now?" I asked.

"Over to the Forks. I am going to meet Mr. Martin there to-morrow. He is bringing several experts out from San Francisco, and we are going over the route along Johnson's Cañon.

"If they are convinced that I know what I'm talking about when I say we can cut off fifty-three miles by building the road along the left side of the cañon, I'll make my headquarters at Supai and start to work at once."

Of course, I didn't say much to Bart about the proposition. I needed sleep, and the few remarks which Bart made about Smartley convinced me that, while Bart may have convinced every one that Smartley didn't know much about railroad building, he had not been able to stop the San Francisco man's campaign for Lois Martin's hand.

I knew that if it came to a choice between winning Lois Martin and building a piece of railroad among the eagles' nests, that Bart would have taken the girl.

Bart wasn't blue. I could hardly call it that. He was a bilious black. I sure would like to know what really happened in San Francisco while he was in there.

Did he ask the girl to marry him and get an order to run on, light? Did he see Smartley breaking into the family?

It must have been something pretty strong, for when he came back he wasn't the same Bart exactly; and the feeling which had taken possession of me the first time I met him returned.

He would say "No," or "Yes," and it would sting more than all the abusive language a drunken sailor could hand out in an hour's time. Every one under him found him a slave-driver. I don't know just what it was, but it seemed to me that he had locked every one out of his life.

He had determined to build that fool piece of track down Johnson's Cañon, and he was going to build it. He became reckless in his work; not that he neglected a single detail in a job, but when there was a chance of any one being hurt in doing some of the work, Bart was always right at the side of the man in danger, whether it was an Indian laborer or a white man.

He went over to the Forks, and I would only see him once in a while when he happened to be about the station when I went through, or when he would climb onto my train and ride over to Supai. I couldn't get much of an idea of what was going on.

The agent over at the Forks told me that the general manager, the superintendent, and two other fellows had left the Forks one day with Bart. They had been gone two days before they returned.

He didn't know what the deal was, but he said he heard the general manager tell old man Arnold the morning the former returned to San Francisco that "Mr. Goldsworthy knows what he is doing, and we will just put him in charge of this work, and get another roadmaster."

About one week after that I saw a bulletin on the board down at the despatcher's office which said that Erick Andersen had been appointed acting roadmaster vice "Bartholomew E. Goldsworthy, assigned to other duties."

I began to wonder if every one along the pike had gone crazy: To think that sane men of business would allow Bart to convince them that he could build a railroad down Johnson's Cañon.

It got to be a joke on our road, and it was such a good joke that it spread to other roads. I understand several experts from the S. S. and T. went over and took a look at Johnson's Cañon, and went home to laugh the rest of the year.

I understand that old man Arnold said it couldn't be done, General Manager Martin said he hoped it could, Smartley said it was

the evidence of an unbalanced mind, and Bart was the only man on the whole road who said it could be done, and be done within a year.

I don't know how he convinced them, but he did: and when I pulled three cars of hydraulic drills and other machinery out of Winslow one night, billed to Supai, and caught a car of blasting powder in the same train, I couldn't help but recall the fact that Bart Goldie had said: "We will build that piece of road some day."

I had to admit that the Hon. Charles Flynn was pretty near correct when he remarked that "it hain't safe to say nothing can't be done any more, for nine times out of ten a fellow don't get the words out of his mouth until some fellow comes along and makes him out a liar by doing it."

Reports kept coming down from Supai Mountain regarding the work, and some of them concerned Bart directly. It was said that they had let Bart down over the precipice of the cañon on a rope to start out with, and that he had worked a half-day there, hanging between heaven and earth, trying to dig a hole in that ledge of rock with a cold-chisel and a hammer.

In another week I heard that he really had dug the hole, and it was now so big that several men could stand in it. Then I heard that a Mexican had slipped from that shelf of rock, and that when he hit the bottom of the cañon there wasn't enough left of him to bury.

All the time, however, more machinery went by billed to Supai, and there was enough blasting powder set out there to have blown the Rocky Mountain range into the sea.

I heard it said that Goldsworthy never went to sleep; that he was on the job all the time, as cross as a bear with a sore ear; that he would fire men for the most trivial violation of orders—and I heard enough other stuff to make me sit up nights trying to solve the puzzle of one Bart Goldie.

Then I had other troubles, too. That grinning face of Bennett's kept hanging round the hospital. He stayed there for six weeks, and never showed a sign of leaving. He got to the point where he could wabble about the veranda, and a couple of times I caught him talking to Miss Fowler. I just made up my mind to tell Miss Fowler what a good-for-nothing, mean-dispositioned fellow he was.

I went over there one evening, and found them sitting out in the moonlight. That showed that Bennett wasn't sick, for moonlight is dangerous to a sick man. I walked right up to them, and with all the dignity I could command I began:

"Miss Fowler, I have an important matter of business to talk over with you."

I said it that way because I wanted Bennett to know that Miss Fowler and I were associated in certain affairs.

"Indeed! How unusual," she says. Then she turned to that grinning, freckled-faced fake, and asked: "Would you excuse me for a few minutes?"

The idea of Miss Fowler having to ask him to excuse her!

We walked around to the other side of the hospital, and I got out a search-warrant for something which resembled "an important matter" to talk about.

"Is Bennett running this hospital, or just living here?" was the best I could do.

"What a foolish question," she replied.

"Well, he's been hanging around here for almost two months now—"

"He has been a very sick man," she interrupted. "There was a time when I was afraid he wasn't going to get well."

"You seem to worry a good deal about him. Now, that hospital is no place for you, and—er—that is, you—see—" I didn't know just what to say next, so I shut up.

"Yes, I see," she volunteered. "It's a beautiful night, isn't it?"

Not knowing just what to say, I admitted that it was.

"But the important business, Mr Murray."

"Oh, yes! I had almost forgotten about that," I answered, just to let her know that I wasn't tongue-tied.

"I'm going to be called about midnight, and I understand that I'm going to be cut out at Supai for a work-train on the cut-off. I may be out there for several weeks, and before I go I just want to tell you that I—er—that is, I don't like this work-train job. It is—"

"Why don't you tell the trainmaster?"

"I'm going to, Miss Fowler. That's just what I am going to do. I'm going over and quit the road and leave the country."

"Oh, you're not going to do that, Mr Murray. It wouldn't seem like home without you here."

"Honest?" I said, feeling like an aeroplane just two minutes before it leaves the ground.

"Yes, indeed. I should miss you a great deal."

"All right. I won't go."

"Oh, that's a dear!" she exclaimed, and just then the aeroplane left the earth and went skipping from cloud to cloud. I was so busy holding on that I can't recall much of the conversation from that time on, but there were several remarks regarding double-heading for life, and I asked her to be one of the engines.

Then I felt a sinking sensation; the flying-machine started down, and it's a wonder I wasn't killed by the fall.

When I left the hospital that evening I swore that just so soon as Bennett got well enough, I was going to call him out. I'd fight him with guns or brickbats at half a block, and ask no quarter.

I think I knew just how Bart felt when he came back from San Francisco, after having seen that fellow Smartley forcing himself on a poor, unsuspecting woman.

I wanted to be alone. I didn't have much conversation for any one. I went out and did my own switching, and let the brakemen sit around and swap stories. I rode the pilot-beam between stations, hoping that we would hit something; and when they cut me out at Supai, and put me on the work-train at Bart's new cut-off, I was glad of it.

There was danger there. I wanted to hang around it, flirt with it; and I didn't care if some one went right back to Winslow and told Miss Fowler what she had caused me to do.

If I could have been present, to see her look down on my mangled form and faint with remorse, I would have been willing to have been shoved off the shelf of rock where the men were working.

As I couldn't have the satisfaction of standing with her by my corpse, telling her that I had been a victim of her heartlessness, I decided to keep just as far away from the edge of that precipice as I could and live long enough to even the score with Bennett.

When I got down the mile of new track from Supai to Johnson's Cañon, I saw a sight that made me forget the sorrows of my miserable life.

I saw men hanging to the face of that cañon by their eyebrows, drilling into the rock. I saw a shelf cut out of the ledge wide enough for two tracks, if necessary, and a half-mile long. I saw reenforced concrete abutments built at either side of the cañon, all ready for the steel for a bridge which would carry the track over to that shelf of rock.

While that wasn't more than half that I saw, it was enough to show me that building a railroad down Johnson's Cañon was a joke; but the funny end of the joke wasn't pointed toward Bart Goldie, who, by the way, was swinging out over a three-hundred-foot hole in the ground, riding the first steel girder to its place on the abutment on the far side of the big crack.

It made me dizzy to look at him. I couldn't help but think what would happen if that thread of cable, which held over a thousand pounds of weight, should break. It made me feel like putting my tail between my legs and crawling away back under the barn.

I never worked so hard in my life as I did on that one mile line. The crew helped a little in the unloading at the cañon. I lived in mortal fear that a percussion-cap or a few sticks of dynamite would blow us all over into the next county; but these little things kept my mind off Bart during the day, and, in their way, were a blessing.

Bart and I were together every evening again. It was a case of misery loving company, I guess; for we got along fine, he never mentioning his troubles and I never intimating how my young life had been blighted by a fickle woman.

I don't know that it was the similarity of our hidden grief, but, for some reason or other, I began to really understand Bart Goldie. It is a fact that he was a slave-driver and all that, but he had to be.

I heard him state his case to Superintendent Arnold one day, when Arnold came down to look over the job, and ordered a Mexican to knock out a prop which seemed to be in the way of one of the little tram-cars operated on the shelf of rock.

The Mexican started to obey, and Bart fired him on the spot. Arnold explained that he had ordered it, and Bart told Arnold the following very plain story:

"Mr. Arnold, I'm in charge of this work. If I fail, my reputation is ruined—that to me is a great deal. If I fail, your company will have wasted over 'ten millions of dollars—that should be a great deal to you. No man gives orders on this job but me. It's a case where it must be so for the protection of the men. One false move like that might cost a dozen lives. All the men have their orders. This Mexican had his, and there is no excuse for his having violated them. If you want to give him work on a section some place, that's your affair."

The old man chewed that over for a few minutes and swallowed hard.

"You're right, Goldsworthy. Your right," he said, and from that day on if there was an order to be made, Bart made it.

Any one could make suggestions to Bart, but no one could order a man to do so much as pick up a shovel. Superintendents, trainmasters, master-mechanics, and even General Manager Martin, looked like common folk to Bart; and every one of them was willing to have it that way, except Ellington Wallerheit Smartley. I have an idea that Martin kept Smartley locked up in his San Francisco office until the work was so far advanced that he could cause no consequential delay.

Rome wasn't built in a day, nor did Bart build his railroad down Johnson's Cañon in a month. Fortunately for the A. and P., the trial for the mail contract was delayed for some cause or other, and it was eighteen months before the A. and P. received notice that the government was ready to have them show what could be done. The management of the road conferred with Bart to find out when the cut-off would be completed, and he said four months more, if he had plenty of men and good luck. The road furnished the men and Providence the luck, and every one did his part except Smartley.

After Bart had the work well under way on the east end of the cañon, he started another gang in at the west, and they worked toward the center, where he had planned to tunnel for a half-mile.

The work had been going on for almost a year, the tunnel had been started from the east side, the big steel bridge across the cañon at the east had been put in, and when Bart received notice that the speed trial for the mail contract would be made in four months, his men had several hundred yards of the tunnel completed.

With the cut-off, the situation was this: The main line from Supai had wandered away to the south, and wound about the bluffs and cañons, working west at every opportunity to the Forks. It followed just such a course as a stream might follow—the line of least resistance.

The cut-off left the old main line at Supai and went directly west for a mile to where it encountered Johnson's Cañon, which came down from the north and turned sharply to the west for four miles; then it went south for a mile and doubled back to the north, leaving a spear-head of rock between the southern and northern course which was about one-half mile wide at the base.

Fortunately, the cañon resumed its way to the west in a direct line with its course before it ran off to the south. Five miles beyond, the left side of the cañon fell away so that the right-of-way came out on the surface again, and continued due west into the Forks.

By the cut-off, the distance was just twelve and a half miles from Supai to the Forks, where, before, it had been sixty-five.

The rails had been put in from Ash Fork as fast as the road-bed was cut out. The same was done from Supai; and, with two months more to go on, Bart finally had both gangs working on the tunnel.

I was the first conductor to run over the new track, and Denny Reagan, with his half-moon grin, was the first engineer to open a throttle on the big shelf. It looked as if we were going to beat Bart's time by thirty days, until Smartley appeared on the scene.

It was an evening late in August. The Mexican and Indian laborers had just cut off work, and were piling onto the work-train to ride back to Supai to their bunk-houses and beans.

Bart and I were standing near the engine, talking, when I looked up the track. About two hundred yards away was the bunch of clothes and a walking-stick, close in against the face of the precipice, coming toward us.

"A friend of yours, I believe," I said to Bart.

He looked up. When his eyes fell on Smartley they narrowed to mere slits, the muscles over his jaws came up in lumps, and that undershot jaw of his set with a click like a bolt slipping into place in a burglar-proof vault.

I just had time enough to bet myself a box of clear Havanas against an omelet pie that there was going to be trouble when the big noise from San Francisco came up juggling that one eye-glass of his. He said:

"Ah, Mr. Goldsworthy, I've been looking for you for several hours, y'know. Deucedly dangerous piece of track this. I should think you would let your sub-foremen look after the details, y'know."

CHAPTER VII.

In My Little Crib Again.

BY consulting the hieroglyphics in my train-book, I find that on August 25, I had in twenty-five days on the work-train and sixty-two hours overtime, which, I

think, goes to show that, if Miss Fowler thought I was going to mope around grieving over the way she shoved me onto a blind siding, she didn't fully understand the nature of the brute.

If she had known that I was just hoping that she would marry Bennett—but then it wouldn't be quite right to say that, so I won't.

But, getting back to the main line, my train-book shows that it was August 25 when Smartley made his appearance on the scene of action. But thirty days remained until the speed trails for the transcontinental mail would start from Chicago.

A blind man could see that it was going to be a close shave; and, although Bart insisted that the mail-train would run over the cut-off, there were many who expressed more than a doubt about it.

One night I dreamed that I had just fallen off the ledge. I had a great trip going down, bouncing from pebble to pebble, and finally landing in a sitting posture on a bed of cacti. The tickling sensation on alighting woke me, and I found Bart sitting at the old dry-goods box, studying a blue-print.

I looked at my watch, which was under the pillow, and it was three o'clock. I don't know if Bart was up again or yet. Regardless of the sleep question, Bart told me that he would be in the clear for the big mail special, barring accidents—but he didn't figure on Smartley.

General Manager Martin must have grown a little nervous, for on August 25 his car was set out at Supai; and when Bart and I got in that night, bringing Smartley in with us, there was a conference in the private car.

When Bart returned to the bunk-house, he told me that Martin was going to remain right at Supai until the work was finished. He didn't tell me that the entire Martin family was in the car; but I found that out the next day, when I saw Smartley piloting Miss Martin over the new piece of track down to where the work was going on at the tunnel.

I couldn't help but notice that the walking-stick and the eye-glass was on the inside next the precipice, with Miss Martin on the side nearest the edge of the cañon; and I couldn't help but think that that would be about the same way that freckled-faced Bennett would protect a lady in a dangerous place.

Of course, I had more to do than stand around and watch Smartley as he showed Miss Martin what a wonderful piece of track he was building. Bart was putting heavy steel arches in the tunnel just as rapidly as possible. When the couple arrived on the scene, I was just starting back to Supai with the work-train to bring down a load of this steel.

I don't believe I was gone more than an hour, but I got back just in time to see enough of the show to lead me to believe that it would have been worth the money to have seen it all.

Bart was coming out of the mouth of the tunnel. He had Fido by the collar. Fido's one glass eye was out of place, and his silk stack was running off toward Jones. He was sure walking Turkey. About twenty feet from the tunnel Bart let him go. I didn't need an ear-trumpet to hear what he told him, although I was a good three car-lengths to the windward.

"Now, Mr. Smartley," Bart remarked in a voice as soft as the rough side of a coarse file, "if you have any further doubts as to who is running this job, you might take the matter up direct with Mr. Martin. I have no time to argue the question. If you follow the track it will take you to Supai, and if you come below the trestle again without a guardian I'll not be responsible for what happens to you."

Smartley took off up the track like a yellow cur with a tin-can running mate on a fast schedule for the dark spots under the back porch.

Miss Martin had followed the two men from the tunnel, and I rather thought she enjoyed the show as much as I did. Bart was mightily embarrassed, though. He turned to her and raised that greasy lid of his from his head. As I had made it a point to get a little closer to the scene of action, I heard him say:

"Miss Martin, I can't tell you how I regret this little episode. You will not understand I am afraid, because you are not familiar with the class of men I have to deal with. I have to rule here."

"No apology is necessary, Mr. Goldsworthy," replied the young lady in a way that was noncommittal.

You couldn't tell whether she was angry or pleased.

"Indeed, an apology is necessary, but it would take a great deal more time to explain than I can take right now. If you would permit it, I should be glad to make my apologies this evening after I get back to the camp. In the meantime, I must in-

sist that this is entirely too dangerous a place for you."

"And you?"

Aeroplanes and balloons again. It made me think of the time that Miss—but, then, that was all past, so what's the use to bring it up again.

"Oh, it's part of my work, Miss Martin," and with that Bart dismissed the subject. He called me over, and it was then that I was formally introduced to Miss Martin. After the introduction, Bart continued:

"Mr. Murray, I want you to help Miss Martin onto the engine, and see her safely back to Supai."

"But I want to see what you are doing in that tunnel, Mr. Goldsworthy. Really I do."

"I'm sorry that it is impossible," he replied.

"Please take me in. It would be safe if you were with me."

"If a woman like Miss Martin talked that way to me, I would give her anything she wanted. Why, when Miss Fowler asked me—but what's the use?"

Bart wouldn't stand for it. The best Miss Martin got was his promise to take her over the entire piece of track just so soon as he considered it entirely safe. With that, he walked over to the engine with us, helped the lady up into the cab, and for once Denny Reagan started off like a gentleman.

I was much obliged to Denny for running so slow. It gave me a chance to talk to the general manager's daughter. I wish Miss Fowler could have seen us two setting up there on the fireman's seat.

Miss Martin asked me why Bart would not allow any one in the tunnel except the workmen, and I felt called upon to paint for her a graphic picture of cave-ins, premature explosions, and a few other little things which hadn't happened up to date. I also dwelt on the number of victims who had been sacrificed in the building of the road. I let her know that Mr. Bartholomew E. Goldsworthy was the man who conceived the idea of building the cut-off, that he was the man who had built it, and that in more ways than one he was a greater man than he looked.

By the time we got up to Supai, Miss Martin wasn't talking very much, and there was that day-after-to-morrow look in her eyes. She wasn't seeing much of the landscape.

She didn't see Smartley when we 'most frightened the life out of him, as we passed him. He edged up against the rocks so tight that I wouldn't be surprised if you could find his imprint there yet.

A week went by, and Smartley did not appear in the vicinity of the tunnel. Bart saw him every evening at the conferences in the private car, which had become a daily occurrence; and one morning, when I was loading a flat with steel beams, I saw Smartley, Miss Martin, and her mother starting out for a little stroll up the mountain. That night the private car went over to Williams, and it was almost a week before it was brought back and set in on the spur again. When it did return, General Manager Martin sent a messenger for Bart. After the conference an extra gang of laborers were ordered down to the tunnel from the section just above Supai.

We were on short time, sure enough. Everybody was predicting that the tunnel would not be through within a month. Of course, I listened to all the straight tips I heard, and then I went to Bart with them and asked him to give me his best guess on it.

Bart got out a blue-print. By standing on my head and looking cross-eyed, I was almost able to make out what it represented. However, Bart knew just what it was, and he demonstrated to me that there was only one more week's work for a few able-bodied men, and the tunnel would be in shape so that it could be used.

There would be a few little things to be done after that—putting on the final coat of varnish, hanging the mottoes at the entrances, and the like; but when Bart got through explaining, although I didn't quite understand some of the figures carried out to the sixth decimal place, plus "X" over "Y," I just went out and added up how much I had bet on the game so far, and doubled it.

I was betting a hundred dollars to a bean. I couldn't help but feel sorry for the Mexican inhabitants; for if I won, and demanded quick payment, I would have had the bean crop of the United States and Mexico sewed up in a sack and a call on the futures for five years to come. Then the bears got busy, and I came near going broke.

When they brought that extra gang down from Supai and put them on the job, Bart made a mistake. There was one fellow who had a large scar on his head. Bart should never have allowed him on the premises. It was the same gentleman with whom Bart was having the little argument that evening at the Cinder Pit when I first met the new

roadmaster. If Bart had forgotten him, the Mexican had a better memory.

I suppose the court would rule that my testimony, being based on hearsay, should not be put on record, but my source of information was the Mexican saved from drowning in Cosnino Creek by Bart Goldie; and though what I say now might not influence the court, what he told me direct certainly made a strong case in my mind.

When Bart and I went to work that Friday morning, Bart was in great spirits.

"I'll show you an imitation of a real day's work," he remarked, just as if getting up in the morning so early that he met himself going to bed the night before wasn't enough evidence that he was doing a real job of work.

When he got down to the tunnel he made things fly. It was about ten o'clock. Bart was in the tunnel. The extra gang was doing some minor work at the east entrance of the long hole, and as we had all the steel —even the rails which were to go into the tunnel as fast as it was cleaned out—down to the spot, I had little to do.

I had never watched the operations at the head of the excavating, and I wandered down into it until I found Bart. I thought I would get a few dollars' worth of sightseeing, provided Bart didn't take me by the collar and march me out, as he had Smartley.

I must have been in there about an hour, when we heard a yell. It wasn't much of a yell at that. Sounded as if some one had stepped on a setter pup's tail. With the tunnel walls to hold the sound in, the effect wasn't just exactly pleasant.

Bart and I were down at the head of the drive, more than a quarter of a mile from the east entrance. We both heard the yell, and Bart started to go back and investigate. Then came another yell. It sounded to me like some one calling: "Goldsworthy!"

The floor of the tunnel came up and hit me in the face. I felt an awful pain in my ears, and, being badly in need of rest, I went off to sleep.

I don't know how long I slept there on that rock floor—quite a while, I guess; for when I came to, Bart was kneeling over me, a torch was burning near on the tunnel floor, and if the yell I had heard before I went to sleep was creepy, the chorus of vocal noises that greeted me when I came to would have been a credit to a train-load of snakes.

"How do you feel?" asked Bart.

"All right," I replied. "What's happened?"

"Cave-in about a hundred yards inside the mouth of the tunnel. Can you walk?"

"Walk! Well, say, show me the way out, and you won't be able to catch me with a race-horse."

Bart helped me to my feet, and as he stooped over to pick up the torch, he remarked:

"That's where the rub comes in. There is no way out until we dig one."

There was Bart, there I was, there was a dozen Mexicans and Jimmy Dugan and his boys who had been working the drills, and—there we all were.

To the west, the tunnel ended in a solid wall of native stone, which, according to Bart's figures, could hardly be tunneled through by the men working from the west inside of four days; and back toward the entrance we were blocked by the cave-in—tons and tons of rock, just how much I wouldn't venture a guess.

We took the torches and went back to the cave-in. Bart inspected it as if he was looking for a diamond, and I sat down on a generous chunk of stone and hoped that some one would tell Miss Fowler that she had driven me to this miserable fate.

The Mexicans put in their time in a marathon race from the cave-in down to the head of the drive and back, and then over the same route again.

It would have been a great race if half of them hadn't collided with the other half in making the turn. As it was, I can't imagine anything that would produce the same effect up and down a man's spine as did their wailing and yelling, unless it is a curry-comb.

Bart endeavored to quiet them, but one of them refused to be quieted. Bart grabbed one of them by the collar and shook him, and then pushed him aside. He stumbled over a stone and sank down in the tunnel, to lie there sniveling and talking Mexican to a certain saint. I tried to repeat it after him, but before I had it learned Bart called to me, and I had to join the boys at the cave-in.

"Baldy," began Bart in the same reliable tone of voice, "guess we will have to dig our way through this. They will be working from the other side, and what we do from this end will just help that much."

"Yes, Bart," I replied; "but what can we do?"

"Pull these rocks back! Break up the big ones! Dig out! Come, Dugan, let's get the sledges and the shovels!"

He and Dugan started back to the head of the tunnel, and I went along, because I didn't care to be left alone with that Mexican who was still moaning.

We got the sledges and the shovels, and started to work. It was slow and nerve-racking. Bart didn't have much to say; Dugan said less; and I couldn't have made a vocal noise if I had to. We just worked.

Finally a few of the Mexicans grew calm enough to join us, and after we had been working a couple of weeks you could almost tell where we had been digging. In about a month we had made a little headway. I began to feel quite cheerful, for it looked as if it would only be a few months more until we should clear a way out.

Of course, I am used to eating once or twice a week, whether I'm hungry or not; and after we had been in there for some time I began to feel mighty weak.

I guess we had been in there a year—leap year, at that—when I saw the grinning, freckled, green-eyed face of Bennett looking at me from behind a rock, which wasn't there when I hit at it with my sledge-hammer.

Just the same, when I hit at the rock, Bennett ran, and I threw the hammer at him. Then I sat down and began to wonder who would take care of Miss Fowler. The torches began to dance about, the blaze seemed dying down. I wondered what had become of the Mexican and his saint, and then Bart Goldie took me by the shoulder, shook me until my bones rattled, and held the torch down so close to my face that I almost took a bite out of the flame.

Bart looked awful big right then. I couldn't see up as far as his head, and his voice sounded as if it was coming from the top of Bill Williams Mountain and I was down a well at the bottom.

"Baldy! Baldy!" he began; and about seven hundred devils in the dark tunnel began to bark, "Baldy! Baldy!" at me.

"Brace up, Baldy; I can hear them pounding on the rock!"

"That's just Bennett knocking me down at the hospital," I replied.

Bart went away, and left me to think of the big supper Miss Fowler and I had that evening at the Harvey House. Once I looked up, and there was Bart still swinging that sledge; his torch was sitting up on a boulder at his side. Dugan had gone. I suppose he ran off with Bennett.

Finally, I remembered I wanted to tell Bart about the pay-checks which were deposited in the Winslow Bank. Of course, they wouldn't be of any use to me; and as Miss Fowler was born in Kansas, and I passed through that State once, she was about the closest kin I had. I wanted Bart to see that she got them, but I didn't want her to spend them on Bennett. I staggered over to where he was, and I made him stop work long enough to hear my story.

"Bart Goldie," I began, "I've got a few thousand dollars down in the Winslow Bank, and I must have about seven billion dollars bet that you will finish this tunnel in time for the mail special. When I win that money; you just collect it and—" and then I quit.

Rather, I was brought to a full stop. I didn't know that I had been punctuated with a period for about twelve hours later. I woke up to find myself in the little crib with the fussy covers, looking straight into the eyes of Miss Fowler. I knew that I was still playing groundhog after having seen my shadow. I was wondering if I would hit a cloudy day the next time I heard her voice.

"Mr. Murray, are you awake?"

You know, I didn't dare tell her I was, because I wasn't sure.

"I don't know. Am I?" I said.

Then I heard her laugh, and I opened my eyes again, and, durn me, I was awake. Right back there in that good old hospital, with Miss Fowler waiting on me again. Then I began to remember things.

"Where's Bart Goldie?" I almost shouted.

"He is over at Supai tunnel."

"And where is Dugan?"

"He is over at the tunnel, too."

"Both of them all right?" I asked, wondering how such a thing could be possible.

"Both of them all right," she replied.

"And what's the matter with me?"

"You," replied Miss Fowler. The prettiest red I ever saw came creeping into her face, the merriest twinkle I ever want to see came into her eyes, and the sweetest smile I ever expect to see came onto her lips. "You, Mr. Murray, have been affected with a chronic case of talking in your sleep."

Just then the aeroplane started up again. Its gentle motion made me dizzy, and I went back to sleep.

CHAPTER VIII.

Wedding-Bells.

THERE are people who just stand around waiting for a chance to join the anvil chorus or sing the "I-told-you-so" solo.

These people never do anything worth mentioning except criticize a fellow who tries to do something worth while. When the news of the cave-in spread over the division, there were those who were ready to tell you that Bart Goldie was an imbecile, that he didn't know the first principles of tunnel-building, that any one with so much as a cinder of brains should have known that the top of that tunnel would fall in.

To a man up a tree—or, more properly speaking, to a man in a little white crib—there were certain things about the accident that had a smoky color to them.

I can't remember Bart saying anything about there being a possibility of a cave-in. He told me that the only thing he wanted to be careful about was premature explosion of the dynamite used in blasting. While I didn't have a chance to look over the ground until after the tunnel had been completed, I had a source of information which placed me in possession of a few facts. While they were never made public, they finally reached the right party, and put an entirely different face on the whole affair.

That Mexican whom Bart pulled out of Cosnino Creek, a short time after he was made roadmaster, proved to have been the owner of that warning screech which Bart and I had heard just before the cave-in. It seems that while I was sitting there in the tunnel, trying to make an inventory of my good deeds so that I might have them indexed for ready reference should I be called upon to show my credentials, Bart had taken a body from beneath the rock which had fallen in.

That body and myself found ourselves occupying the same ward in the hospital; and while I, according to Miss Fowler, had only been troubled with a tendency to talk in my sleep, the Mexican was really in bad shape.

His head was battered in, one arm was broken, a few of his slats were cracked, and he was almost beyond the need of the rip-track; but Miss Fowler's nursing, assisted by the doctor's pills, brought him far enough back to life to enable him to talk. Before I came out of the hospital I had a story that made me sit up and take a little notice.

The Mexican's name was Juan something or other. He told me that he had been carrying powder from the little powder-house to the tunnel for over a month. On the day of the accident he had passed Smartley talking to Romero Garcia, who will be remembered as the man with whom Bart once had quite a tobasco-sauce argument over at the Cinder Pit.

About two hours later, Juan Bean-eater, or Chili-chaser, saw Garcia lighting a fuse which ran up the side of the tunnel about a hundred yards from the entrance. When Juan saw this his intellect, which had never shown signs of working faster than a slow walk, became wildly active, and it was his noise factory working at full capacity which had disturbed the dark quietude down toward the head of the tunnel where Bart and I were talking when the explosion came.

It seems that Juan, after going into the tunnel about a hundred yards beyond where he saw Garcia light the fuse, decided that he would be unable to reach the men in time to warn them and get back to the sunlight, and he turned back.

He told me that he made just as fast time going out as he did coming in, but he didn't get by the charge of blasting powder. When the big works came off, some of the scattering rock caught up with him, and he came within an ace of being transformed into an imported porous plaster.

This little piece of gossip interested me; but there was another trifling item of news for which I yearned.

A friend loaned me a novel once, entitled "Mabel's Other Husband; or, Who Drew a Lemon?" I started to read it by the light of my lantern one night when I had a drag of black marbles over the third division. I got so interested in that classic that I forgot to put up coal at Winona and failed to pick up my water-car at Angell. When the hog-head began to yell, I sent the brakeman over the tops to find out what silly question was on his mind.

When the rear shack came back and said we would have to run for water, I was just at the place where Mabel's other husband had arrived in South Dakota and was about ready to prove his final decree, and I wasn't going to delay the game, so I just sent word over for the eagle eye to run for water just as far as he liked.

By the time the engine came back to the train and the rear brakeman had been called in with the flag, I had reached the chapter in which the detective with the sandy beard had found the proofs and was about to show who drew the lemon. When I turned the page, I found that some one had torn out the last few chapters, and, so far as I know, Mabel still has her other husband and the other one too, and the other husband and the other one both have the lemon.

It was the most unsatisfactory book I ever read.

I and my headache had been keeping company for about a week, when Miss Fowler came in, one afternoon, all excited.

"The tunnel's finished," she whistled, as she came alongside my little cradle, "and the mail special leaves Albuquerque to-morrow night. Your friend Mr. Goldsworthy is coming into Winslow to-night."

"Anybody coming with him?" I asked.

"Every one—that is, all the other officials, Mr. Arnold and Mr. Martin and the rest of the party."

"And Fido, the one-eyed poodle?" I asked.

"And what?" she answered.

"Excuse me, I refer to Mr. Ellington Wallerheit Smartley, advisory engineer for the Western lines, once of San Francisco, now of Supai. He is the gentleman with the half-grown crutch and the lone window-glass."

"Oh, hadn't you heard about him?"

"Haven't heard anything to speak of since the explosion."

"Well, Mr. Murray, there is something mighty queer in that man's actions. He left for San Francisco the evening after the accident at the tunnel. He didn't wait to see if they reached you poor men. He went right back to Supai and caught the evening passenger."

This evidence was being considered by the detective with the red whiskers and the bald head when a step like a lame elephant sounded in the hall, and a voice like a steam calliope drifted into the ward.

If I was color blind, I would be able to tell that voice as far as I could hear it. Denny Reagan was in town, and for once I was sure glad to see him, for I felt certain that he had the missing chapter of my book.

Denny came into the room, bringing that Irish grin and his danger-signal nose with him. Denny was a mighty good engineer, but he wasn't much on grammar. He would say "hain't got" for "don't got," but after you knew him as well as I did, you didn't mind such little mistakes.

"Well," says Denny, when he got inside the room without cornering the door, "how's the biy?"

As Miss Fowler had left the room, I just talked as I felt. I wanted to know, once for all, whether I was a billionaire or a pauper.

"It's none of your business how I am, Denny. About all I want out of you is the exact story of what happened on the outside of that tunnel during the four hundred and twenty-seven years Bart and I and the other animals were on the inside."

"Foirst down," said Denny, "come auld man Arnold, makin' a mile a minute, and about two train-lengths beninst him was Ginirel Manager Martin; an' whin they saw the lay-out, Arnold stays on the job and Martin and me goes back to Supai to tiligraf fer the doctor and the nurse ter have thim on th' scene of garbage. Well, whin we got up to Supai, Martin rushes over to the varnished wagon an' tells the womin folks, and say—"

Denny had to stop and wipe his forehead with his handkerchief and shake his head. Then he popped off suddenly:

"What th' divil do you'se think? Th' ginirel manager's daughter—the wan with th' eyes like a fawn—well, you'se won't believe it, but she let out a scream that you could have heard clean down to Fairmount. Carry on? Well, I niver saw th' like. The only way the auld man could quiet her was to take her down to the tunnel."

It was real nice of Denny to tell me just the part of the story I wanted. Right there, I decided that Denny was a better engineer than I had give him credit.

"And thin—the waitin'. Be me soul, I've lived some long days mesilf, but none of them was as long as them two days while we was a tryin' to push half a mountain away wid a toothpick. The doctor got there, an' that woman wid th' stripes on—ah-ha! Th' wan what made a grab fer yes th' minit your dirty face come through th' hole in the ground."

"Now, Denny," I interrupted, "Miss Fowler is a perfect lady, and you must not associate her name with a common, misguided, rough-neck work-train conductor like myself."

"Ah, that's all right, me biy. That's all right. It's a priest you'll be needin' worse than a doctor."

"But return to the story, Denny," I said, endeavoring to guide him gently back to the real subject.

"Yis," resumed Denny, "gitting away from the vicinity iv matrimony an' back to th' accident. After Miss Fowler had glombed onto you, thin out comes the Mexican what, I understand, was almost punctured be th' fallin' rocks, and thin—"

"And then—" but Denny had to wipe his forehead again.

"Thin th' rest of th' greasers come out and that man Dugan what Goldie says is a

hero, and thin comes Goldie, with his hands bleeding an' lookin' like he'd bin run through a wringer."

"And where was Miss Martin, the general manager's daughter?" I asked.

"Well, Baldy Murray," said Denny, "I don't know where she was before Goldie came out, but after Goldie came out she was right where Goldie was."

Denny's amazement was the most natural thing in the world, for Denny has had no experience with women; but, to me, the announcement was just what I expected.

I would have liked to have heard more of the details, but Miss Fowler came back to the room just then, and informed Denny that the doctor had instructed that I should not be allowed to talk much for a few days.

"Sure," says Denny, "that's right. That man talked enough, after they brought him out of the well up there, to last both ye for a time."

While he laughed one of those gentle chuckles which sound like a boiler-maker tickling a flue-sheet with a sledge-hammer, Miss Fowler got awful red in the face, and I—well, I began to figure.

"You see, ever since the day Bart Goldie said he would build that tunnel, I had been betting with myself that he would; ever since he showed that he wanted that girl, I had been plunging that he would get her; and when I get to plunging, I play to the limit.

I was almost through figuring at ten o'clock that night when Miss Fowler came into the room to see if I was asleep. I didn't have the exact amount of my winnings, but I was sure that it was enough to keep two people in moderate comfort for the rest of their natural lives, provided one of them kept working regular — and I told her so.

"Are you asleep?" she asked, after I had finished.

"No, I'm not asleep," I replied; "and, what's more, I'm not out of my head. I just want you to know that—"

But what's the use. I never did feel so good in all my life.

The next morning, about eleven o'clock, I had callers. One of them was Bart Goldie, and the other was the best-looking woman in the world, barring one—Miss Martin.

Mr. Martin and Mrs. Martin were in the party, but they didn't count much, and left early; but Bart and Lois—that's just what he called her right to her face—remained, and talked to me for almost an hour.

None of us said very much; but, say, that room was so full of "looks" that you just couldn't keep in the clear for them. They were just ready to go when Bart stepped over to the bed and stuck out his hand.

"They tell me that when you fell to the ground from the force of the explosion, you came so near cracking your head that you weren't responsible for what you said, and my advice to you, young fellow, is to just repeat it all—now that you know what you are doing."

"I've got my fingers crossed," I replied, feeling like a sheep. "I've already said it, and it took."

"Then, while I'm congratulating you, Baldy, allow me to say that Lois and I are going to San Francisco on the mail-train tomorrow. It's to be a sort of honeymoon, you know, only it's to be before the wedding. We are going to put off the wedding until you are able to be the best man."

I got well so fast after that I was able to sit on the veranda the next morning and watch the mail-train pull out.

On the rear was Martin's private car, and the Martin family, including Bart. The mail-train had made a great record over the first and second division, for all the men had caught the spirit which had built that Supai cut-off and the big tunnel. At Bart's suggestion, Denny Reagan was given the job of pulling the mail-train over the third.

You don't need to take my word for it, but just go and look at the train-sheet. He put that mail-train over the third in four hours less time than it was ever run before.

Then we waited. The reports came in along the line. The mail special was holding up to the schedule this time, and it went into San Francisco right on the dot, with the fastest time ever made between Chicago and the coast to its credit. More waiting, and then, one day, there came this telegram:

> BALDY MURRAY, CARE OF MISS FOWLER'S HOME FOR BACHELORS, WINSLOW, ARIZONA:
>
> We built that track, we got that mail contract, we won the ladies. Come on in, let's take a vacation.

We went. Just before we went I dropped over to the Hon. Charles Flynn's office. By stuttering for an hour and making a few signs, I was able to make him understand that I wanted a marriage license.

Then I got even with Bennett. I asked him to go over and witness the ceremony, and I'm a goat if he didn't go.

(The End.)

The Railroad Man's Brain Teasers.

Rigorous Riddles to Revivify the Reckoning of Rusticating Railroaders.

HERE is a nifty little nerve-racker from C. T. Fleming, Wells, Nevada:

(10) Trains Nos. 1 and 2 are limited trains running between Chicago and San Francisco. No. 1 is west-bound and No. 2 is east-bound. The running time is the same. Now, supposing you were on No. 2, leaving San Francisco going to Chicago, and it took seven days to make the trip, how many No. 1's would you meet, provided there was only one section a day, and that you meet No. 1 the day you leave and the day you arrive?

Paul Laur, Cincinnati, Ohio, kindly sent us this one:

(11) How many square feet can be grazed by an animal which is tied to a rope having 100 feet swing or radius? The end of the rope is fastened to one corner of a building which is 25 feet square in plan?

Dan M. Powell, Black River, Washington, sends two more good ones:

(12) A towerman on a foggy night can just hear an engine whistle 2 miles away. How many times louder must it sound to be heard 3 miles away?

(13) A railway has 2 road engines and a big pusher. The first engine will pull 1,200 tons. If the pusher is coupled with the first engine, they will pull just twice as much as the second engine can pull. If coupled with the second engine, they will pull three times as much as the first engine can pull. How much can the second engine and pusher pull, respectively?

ANSWERS TO THE OCTOBER TEASERS.

(7) Forty-seven cars.

(8) A took off a strip 2.76 inches deep; B, 3.58 inches; and C had a stone 17.32 inches in diameter. When A gave the stone to B, it was 24.48 inches in diameter; when B gave it to C, it was 17.32 inches in diameter.

(9) The purchasing agent bought 25 cabs, 10 coaches, 4 Pullmans. He should have bought 15 cabs, 6 coaches, 2 Pullmans. He forfeited $160. For computing we use the abstract numbers 12, 30, 75, and 90. Taking the least common multiple of the prices he bought at 12, 30, and 75, we have 300, which allows 25 cabs, 10 coaches, and 4 Pullmans. At the other prices, 12, 30, and 90, we have for the least common multiple, 180, which allows 15 cabs, 6 coaches, and 2 Pullmans. He bought in excess, 10 cabs, 4 coaches, 2 Pullmans; total, 16 cars, which at $10 each amounts to $160, his forfeit.

The Sunny Side of the Track.

What the Busy Joke-Smiths of Our Esteemed Contemporaries Have Manufactured Lately in the Hope of Making Us Laugh.

A RARE EXPERIENCE.

"NO doubt you recall the most enjoyable railroad trip you ever made?"

"Oh, yes. It was a short trip of only half a day, but because his private car had been derailed, the president of the road was traveling with the common herd in an ordinary Pullman car."

"And you enjoyed the novelty of traveling in close proximity to the president of the road?"

"No; it wasn't that particularly. I enjoyed seeing the porter look humble."—*Birmingham Age-Herald.*

LOGICAL.

MOTHER—Now, Bobbie, you mustn't take your train of cars to bed with you.

Bobbie—But, mama, these are sleeping-cars.—*Boston Transcript.*

A CONSCIENTIOUS DECLARATION.

DRUMMER—Will you be mine? All my life I will worship you from February until April, and from August until December. The rest of the time I am on the road—*Fliegende Blaetter.*

HOPKINSON SMITH'S EXPERIENCE.

"DON'T use too long words," said F. Hopkinson Smith, the author.

"I was once on the way to Reading by train, and, at a town nestling beside the river, I came out on the platform and drew in deep breaths of the pure, delicious air.

"'Isn't this invigorating?' I said to the brakeman.

"'No, sir; it's Conshohocken,' said he."—*Philadelphia Bulletin.*

HE DIDN'T WORRY.

DURING the log-train days on the Erie, the local was switching Midland yard. One member of the crew was a green brakeman on his first trip. The experienced man handled the switch list and was cutting the cars at the switch.

The green man was told to catch two cars that would be kicked down the river track and ride them to the end of the track. He failed to do it, and with increased speed the cars went off the end of the iron, over the embankment into the river.

Just as if nothing unusual had happened, the new man called back, "send down two more, them got away."—*Erie Railroad Employees' Magazine.*

THE WAY THE MONEY GOES.

WE were crowding against the gate the other evening, waiting for the Montreal Express, when one of the red-capped porters succeeded in getting a lady to give him charge of her suit-case. She apparently regretted it a moment later, for she remarked to her companion:

"Now, I suppose I'll have to give him ten cents. Dear me, that's the worst thing about these trips, they do *cost* so. It don't seem so much by itself, but it all counts up. I haven't a thing smaller, though, have you?."

Number Two came to the rescue in the nick of time.

"Why, yes," said she, "I think I have a nickel. Let me see—No, I haven't, but I have five pennies."

"Give me that, then," said Philanthropist Number One. "Five pennies 'll go just as far with him as a nickel."

And yet we wonder at the rapid increase of wealth among the colored people.—*Railroad Men.*

HE OBEYED THE SIGN.

AN old darky was suing the railroad company for damages. He contended that, not being warned by the whistle or engine-bell, he had started to drive his rig across the company's tracks, when a shunted box car of said company crashed into his outfit, causing the death of the horse, loss of the wagon, and minor injuries to himself. After the prosecution had closed its side of the case, the company's lawyer called the old darky to the stand and went at him.

"Mr. Lamson," he began, "your rig was struck by the box car in full daylight, was it not?"

"I fink dar was some clouds ovahead, suh."

"Never mind the clouds! And only a few days

before this accident the railroad company had put a new sign at that crossing?"

"Dar was a sign dar, ya-as, suh!"

"And didn't that sign say, 'Stop! Look! Listen?'"

"Now, dar am de whol' accusation ub de trouble! If dat 'stop' sign hadn't caught dis chile's eye jes' 's Ah war squar' on dat track, dar wouldn't 'a' been no smash-up!"

STRATEGY ATTEMPTED.

IN the interest of a much-needed reform we would state that careful observation has developed the fact that

NO REALLY YOUNG AND ATTRACTIVE WOMAN EVER GETS OFF A STREET-CAR BACKWARD.

(Maybe this will make an impression on them in time to prevent the wreckage of a large number of Christmas bundles. It is a desperate effort, but it is the last resort.)—*Indianapolis News.*

LADIES FIRST.

"WHAT is the reason," began the irritated traveler from the North, "that the trains in this part of the country are always behind time? I have never seen one yet that ran according to its schedule?"

"That, suh," replied the dignified Georgian, "is a mattah that is easily explained. It is due to Southern chivalry, suh."

"Southern chivalry! Where does that come in?"

"You see, suh, the trains are always late in this country because they wait for the ladies, God bless them!"—*Chicago Record-Herald.*

SOMEWHAT MISINFORMED.

FIRST DRUMMER—I saw a sign on a car this morning saying the car was equipped with Blank's draft rigging. What's a draft rigging, anyway?

Second Drummer—Oh, that's a contrivance to regulate the drafts in the cars, of course. Any one ought to know that.—*Santa Fe Employees' Magazine.*

STILL ON THE JOB.

HE—What ever became of your brother, the one who was a switchman?

She—Oh, he is now a preacher.

He—A preacher? Well, there's not much change in his occupation then.

She—Why, how is that?

He—Well, he still does the coupling up, doesn't he?—*Exchange.*

SUPPLIED.

PASSENGER-AGENT—Here are some postcard views along our line of railroad. Would you like them?

Patron—No, thank you, I rode over the line one day last week, and I have views of my own.—*Chicago News.*

IMPOSING ON A PASSENGER.

J. ADAM BEDE, of Minnesota, the humorist of the House, while he was in it, and whose humor still bubbles, despite the fact that he was elected to stay at home, tells the following on a friend of his who travels for a carpet firm:

"My friend," said Bede, "is of a saving disposition, and he recently had to make a longish jaunt with two trunks. Arriving at the station he approached a stranger standing on the platform and said:

"'Are you going to Chicago on this train?'

"'I am.'

"'Have you any baggage?'

"'No.'

"'Well, friend, you can do me a favor, and it won't cost you a cent. I've got two good-sized trunks here and they always make me pay excess for one. You can get one checked on your ticket and save me some money.'

"'Yes, but I haven't any ticket.'

"'But you said just now that you were going on this train.'

"'So I am. I'm the conductor.'"—*San Francisco Examiner.*

THE KINDLY KIND OF PORTER.

"WHAT numbah, lady?" asked the pleasant-looking porter, addressing the woman who came on board his Pullman an hour before train time.

"Upper 16," answered the mild passenger.

"Upper 16!" The porter's exclamation was almost a shriek, and his face screwed itself into wrinkles of concern.

"I know it's hard," sighed the woman, as, with a softening of her heart, she felt that this menial was expressing for her the indignation she would have liked to voice herself.

"I don't b'lieve this ca-a'h's all sold out like that!" he scolded. "You just have a seat theah, lady, while I goes into the office; I kin suah git you somethin' bettah!"

The world was not so bad after all. There was a goodness in human nature which exceeded her most optimistic dreams. For here was this man, belonging to a department of service not noted for its eagerness to coddle patrons, taking such a kindly interest in her comfort.

The porter returned, with a lag in his step and a discouraged shake of his head.

"Best we kin do, lady; got an awful crowd comin' on heah to-night."

"Well, it's too bad; but thank you just the same, for your trouble," beamed the recipient of this unusual attention.

"Ya-as'm, suah it's too bad!" muttered the porter, as he started for the linen cupboard. "I was goin' to sleep in uppah 16 myself."—*Puck.*

ON THE EDITORIAL CARPET.

Here's Hoping Every Railroad Man in America Has a Big Fat Thanksgiving Turkey and Time to Eat It.

THE request that we made in our October number for an indication of the features in THE RAILROAD MAN'S MAGAZINE that our readers liked best has brought forth so many varied replies that we are repeating it again this month. At the end of The Carpet, you will find a coupon. If you have not already cast your vote, we trust you will turn to it and follow the instructions, letting us know where you stand.

This is only a gentle reminder, for we want to hear from you. It is good to get your views on anything pertaining to the magazine. We sit up day and night scratching our sand dome for ideas that will interest and entertain. If we are successful, it is good to know we are on the right track.

Now that we are on this subject, we would like to say a few words regarding those who write us.

There is nothing so annoying or insulting as an anonymous (or unsigned) letter.

If a man has anything to say, he should have the courage to let the editor know who he is and where he lives.

The printing of his name rests with him. If he does not wish to have it published, he need only say so and sign his initials or a *nom de guerre*, which, in plain railway English, is a fictitious monacher.

When we receive a letter—although it may be filled to the markers with perishable matter—which bears no name, or is signed with the ignominious and frazzled cognomen of such well-known back numbers as "Vox Populi," "Constant Reader," "In Hoc Signo," "John Doe," and other hoary has-beens, we at once throw it into the waste-basket as fodder for the goat.

If you intend to write us—and we welcome your letters—don't be afraid to sign your name. We want to know with whom we are talking. Suppose while conversing on an important subject with another man there was a screen placed between you and him, and you could not see each other. What would you think of that?

To get back on the main track.

We will begin two new serials in the December number. They are fresh from the shop, painted red all over and have an action that is similar to the fast mail crossing the prairie.

Then there is a bunch of short stories in which we take particular pride. We are congratulating ourselves that our short fiction has some class.

C. W. Beels contributes a side-splitter entitled "Kennedy's Store Clothes"; Richard Duffy, a dramatic episode of a towerman; George H. Fellowes will be aboard with a gripping yarn about a telegraph operator; Robert Fulkerson Hoffman has written a story of a Christmas type—it is entitled, "That Night With Mitzler," and is one of the best stories that this well-known fiction writer has sent us. That is some praise, for Mr. Hoffman has contributed to this magazine several short stories that take front rank in this class of literature.

Charles W. Sanders, who has not been in our columns for some months, will contribute a startling narrative of a railroad domestic trouble, and "Honk and Horace," through their esteemed chronicler, Emmet F. Harte, tell what befell them when they returned to Uncle's farm.

And then there will be some others.

Among the special articles will be Thomas A. Edison's days as a news-butcher, telling how this wizard of the century during his idle moments in the baggage-car, conceived some of the ideas that have revolutionized the world. It is written by Frank Marshall White.

Robert H. Rogers, in "The Nerve of the Engineer," describes graphically some incidents of true heroism. In "The Observations of a Country Station-Agent," Mr. J. E. Smith will tell why railroads figure in politics and how easy it isn't to get railroad men to vote.

Train-despatching by telephone is now causing a great amount of comment these days. We have had the matter fully investigated by one of our best writers, and will publish the article in November.

There is a bunch of good stories about the electric railway men, some gripping "Tales of the Tallow-pots," and a plum-pudding with brandy sauce in the shape of a true story.

We will say no more at present.

Christmas Special! All aboard!

DRINKING CUPS IN RAILWAY TRAINS.

WISCONSIN recently passed a law which prohibits railway trains from carrying public drinking cups, and the Wisconsin State Board of Health has issued an order instructing trainmen on all roads crossing the State to put the cups away when the State line is crossed and not to produce them again until the trains are out of the State. Medical men, health boards and all people who take more than an ordinary interest in their own health will commend this action.

Public drinking-cups, public hair-brushes, and all things of the sort are looked upon as conveyers and purveyors of not merely ordinary diseases, but diseases of the most malignant character. The health of a nation is one of the strongest pillars of its success.

The new law in Wisconsin, by some people and by some railroads, may seem a rather high-handed interference with public comfort, but we fully believe, so far as railroads are concerned, that if they have any doubt as to the hardship caused by such interference, such doubts will not long endure.

Public education in sanitary methods is making rapid progress, and we believe that the people only need some little help to aid them in giving their quota toward a general trend to ultimate perfection. If every railroad in the United States will accept the new Wisconsin law as an inspiration, and voluntarily remove drinking-cups from their trains, they will do the country a service that cannot be measured in words.

It is a simple matter to insist that each and every passenger bring his own tankard. Drinking-glasses and tin cups are so inexpensive that they could easily be brought on a journey and discarded when the passenger reaches his destination. There is now being manufactured a drinking-cup of waxed paper for individual service which can easily be crumpled up and thrown away when once used.

We suggest that the railroads have the courage to order all public drinking-cups from their trains and to supply the news-butchers with a stock of these individual cups, to be sold at a nominal cost.

THE RECENT FOREST FIRES.

RECENT forest fires in the Western States cause many to speculate on their origin. Perhaps no more foolish reason is advanced than that the railroads should be held responsible. We want to know when a spark from a locomotive set fire to a tree of any size! Such a combustion would be worth looking at from many scientific view-points.

The newspapers have opened their columns to all manner of queer theorists, hoping to prevent a catastrophe similar to that of last summer. One of these nimble-minded gentry has stated that all locomotives running through the forest lands should be changed to oil-burners in summer and to coal-burners in winter.

We move that he be sentenced to pay the cost of the change each year.

Forest fires are due to many things. They seldom start at the base of the trees. One of the most frequent causes is due to the igniting of dry leaves on the topmost branches by the rays of the sun. The smouldering fires of tramps, fanned by the wind, is another menace and, perhaps, the most prevalent.

Another cause, and one that should be fully investigated by the government, is laid at the door of the hired forest fighters. It has been charged that these fighters, who receive thirty cents an hour, start a blaze so that their work may last longer. Mr. Cecil, the assistant district forester, notified Washington on August 22 that there was no doubt that the fires in the Crater National Forest and at Medford resulted from incendiarism, and that new fires were being set constantly. He started twenty-five scouts to catch the culprits.

This is a serious charge, and should be investigated to the very last scrap of evidence, and, it is stated, there is positive evidence in Washington that it is true.

ANOTHER BY CY WARMAN.

ALONG with the other old-time railroad poems which appear in The Carpet this month, we want to print the appended little classic by Cy Warman, as able an engineer as ever handled a pen, and as human a poet as ever handled a throttle. "Will the Lights Be White?" for beauty and imagery and pure poetic feeling, is just as good as you will find in any volume by Longfellow, Tennyson, or any other of the high-brow bards. It's the sort of stuff that gets under your collar.

WILL THE LIGHTS BE WHITE?

BY CY WARMAN.

Oft when I feel my engine swerve,
As o'er strange rails we fare,
I strain my eyes around the curve
For what awaits us there.

When swift and free she carries me
Through yards unknown, at night,
I look along the line to see
That all the lamps are white.

A blue light! (rep track) crippled car;
The green light signals "slow,"
The red light is a danger light,
The white light "Let her go."

Again the open fields we roam,
And when the night is fair,
I gaze up in the starry dome,
And wonder what is there.

For who can speak for those who dwell
Behind the curving sky?
No man has ever lived to tell
Just what it means to die.

Swift toward life's terminal I trend,
The run seems short to-night.
God only knows what's at the end;
I hope the lamps are white.

WALSCHAERT'S VALVE-GEAR.

PEOPLE interested in railroads, who chance to live near the great trunk lines, have noticed the remarkable change in locomotive design which has taken place in the last three or four years, and

which is due to the increasing use of the Walschaert valve-gear. The locomotives equipped with this gear present a distinctly different appearance from those operating with the old-style Stephenson link-motion. The first is mounted on the outside of the locomotive; the latter, out of sight between the frames.

The difference is particularly noticeable when running at high speed—the lines of flashing light made by the flying steelwork of the Walschaert rods and links give a locomotive the appearance of a gigantic insect fleeing on mighty legs.

In this issue of THE RAILROAD MAN'S MAGAZINE we publish a complete description of this wonder mechanism, by Robert H. Rogers. It is valuable to railroad men and all mechanics, for it is the last word on this all-important phase of locomotive practise.

Egide Walschaert, the inventor, was born in the little Belgian town of Mechlin, ninety years ago. He made application for a patent on his gear when he was only twenty-four years old. He died in 1901—just as the great railroads were making tardy recognition of his genius. To the memory of this modest, patient inventor the world owes a deep debt of gratitude.

TEST FOR CONCRETE TIES.

THE American Concrete and Steel Railroad Tie Company has received an order from the Terminal Railroad Association, of St. Louis, for a section of their concrete ties to be placed under the tracks in the yards at St. Louis. As all the railroads entering St. Louis use the terminal tracks, this will be a test for steel ties worth noticing.

A section of these ties was placed, several weeks ago, under the rails of the main line of the Alabama Great Southern Railroad. They have been passed over by the passenger and freight trains of this company, and, according to statements from officials of the road, have measured up to every requirement.

Concrete cross-ties have been made before this, but on being tested, have exhibited a lack of elasticity, making them impracticable, as a rigid roadbed is injurious to rolling stock. However, this tie is said to overcome this objection. It is made in two sections, being disjoined in the middle, thus giving elasticity. A cross-section extends out on each side, slightly beveled from the center bearing to each end of this cross-section, which allows the rail the necessary spring. A steel bar, countersunk, is placed on top of the tie sections which joins the rail, extending under the rail, and clamped on the outside of the rail, while a steel clamp on the inside of the rail, resting against a boss on the steel bar, and inside of the rail, is secured to the cement tie by a bolt running through the tie. This arrangement makes it impossible for the rails to spread or turn over.

The problem of securing a cross tie to substitute wood has long been a subject of deep concern to all railroads. The life of the present wood tie is from five to seven years, while that of the concrete tie is practically indefinite.

YOU MAY—AND WE THANK YOU!

EDITOR, THE RAILROAD MAN'S MAGAZINE.

MAY I take the liberty of sending you a railroad poem which I happened to come across? I have never seen this one printed in The Carpet, and I thought some of the readers might like it.

I am only a girl, but I am very fond of your magazine, and always read it through every month. I have two brothers who are railroad men and that, perhaps, accounts for my interest in the road.

Anyway, here's to the long life and success of THE RAILROAD MAN'S MAGAZINE!

IDA M.,
Salt Lake City, Utah.

THE FAST FREIGHT.

BY ELLIS B. HARRIS.

A SHORT "Toot! toot!" from the engine flute
And a "high-ball" from the year,
The switch is set by an old-time "vet,"
And the block for the main line clear.
There's a bird-like trill from the triple's bill,
As the shoes from tread drop free,
A creak and a clank from the draw-bar shank,
In the crunch of the coil to the key.

A short, quick bark, a flash in the dark,
From the door where the hot flames play,
A trembling slip—a sand-bound grip,
And the flier's under way.
Through the bustling yard where the earth is jarred
By the dip of the giant's carcen,
And the switch-lights wink to the clinkity-clink,
As they flash from red to green.

From the pop-valve twined, in the cutting wind,
Fly streamers of hissing white,
Like ribbons of pearl, in the swish and whirl,
Or a ghost, in a frolic of night.
A mile ahead there's a twinkling red,
And the distant echoes mock
The long clear note from the whistle's throat,
As it calls for the interlock.

Then—presto-click, like a magic trick,
And the crimson flashes white,
In the wizard's power, from the signal-tower,
As it snaps the de-rail tight.
There's a swish and sway through the right of way
And the jar of the wheel-truck's leap,
As the red caboose tears the gravel loose,
In the draft of its swing and sweep.

While the grass bends low in the undertow,
And its tendrils twist and strain
To join the crowd of the atomic cloud,
In pursuit of the speeding train.
A crash and roar—in the tunnel's more—
The dart of a cannon-ball—
While the cinders hail through the stifling gale
That recoils from the rocky wall.

Then out from the mouth and away to the south,
Where the Mississippi flows,
And a queenly craft, with her wheel abaft,
The softest signal blows—

Coo-oo! coo-oo! as if to woo
Swift Mercury from his rout.
But his winged heels mock her appeals
With a roar of a scornful flout.

A click-clack-a click-clark-clack,
On, on to the busy mart.
With roll and pitch o'er frog and switch,
Up close to its throbbing heart—
Then a grinding sound where the wheels turn round,
And the brakes are tightly pressed,
While the bell's loud chime rings in on time
The run of the "Manifest."

Youth's Companion.

WHAT HAPPENED TO BILL.

ONE of our readers, at present residing in Guantanamo, Cuba, sends us the following letter from a friend. It adds another chapter to the long story of railroad men in South America:

We found a nice bunch of fellows on the Panama Railway, and the train-master passed us to Panama without a question. There I left Dodson and took the boat for Lima, or rather Callao, which is the seaport. I found a tremendous difference in the rates charged for passage on this steamer. First-class fare was more money than I had, but deck passage was surprisingly cheap. I invested in that and fixed the rest of it with a steward as soon as they cleared the yard, without any trouble at all. Most of the passengers were customers of his, as that seemed to be the usual method of procedure.

Arrived in Lima O. K., and, on reporting, found that my job was at the front, and I had to cross the top of the hill to get to it. Many people are made very sick by the rarefied air at the summit, and they set a car off up toward the top for those who wish to go back.

I remembered your theory about equalizing the pressure of air on the ear-drums by frequent swallowing during the ascent, and, whether that had anything to do with it or not, I suffered no inconvenience except from the cold. I found use for all the clothes I could comfortably carry, and was not any too warm at that. The Indians who live in those mountains seem utterly indifferent to the cold. You often see them standing barefooted in the snow to watch the train go by.

I drew a freight run, bought a lot of clothes, and talked myself into a good tight caboose with a good stove in it. Had pulled down a couple of pays, learned the road, and was beginning to figure on how long it was going to take me to save that two thousand, when—it happened.

We were running down the hill, on the inside of the mountains, with five flats loaded with "cholo" laborers and their families, moving camp, ahead of the engine.

I did not like the make-up, but there was no help for it, as there was no siding where we picked them up. The line was nearly all sharp curves, with the country straight up on one side of the track and straight down on the other. Just a rooked scratch on the hillside.'

I took the head-end myself, put a "cholo" brakeman on the third car back to pass signals, and we started. We were dropping down at about fifteen miles an hour, when I sighted a big boulder that had rolled from up-country somewhere right onto the middle of the track.

I signaled, and *yelled*, but that brakeman was talking to a woman, and the engine cab was out of sight behind the curve. Of course, a woman was the cause of my trouble, as usual, though I didn't even know her.

I sprung the air, side-stepped, and some few of the people fell off, but three cars were pushed over the edge and fell, rolling down an almost perpendicular slope for about three hundred feet.

Something like two hundred men, women, and children went with them and were, all of them who could not fly, more or less hurt. Twenty-one were found dead up to the time I left. I had a main line sounder in the caboose, and cut in on the wire to report and order the ambulance.

Then I consulted with the engineer as to the best thing for us to do. You know the law there holds the "captain" and "maquinista" responsible for any injuries caused by their train. The engineer said that he was afraid to take to the country, with its ice, snow, and Indians in the mountains, with dwellings few and far apart, and preferred to stay and take his chances with the authorities. I don't think that he was really afraid of the country. He was too bull-headed to run.

I rubbered into the jail at Lima once, and preferred to die some other way. I stayed by the wreck as long as I could do anything to help the situation, but when the relief train was reported, I packed my grip. Taking the "cholo" brakeman who had caused the trouble, with me, I faded away. The brakeman did not want to go at first, but as I needed him for guide, interpreter, and pack animal, I talked the fear of the law into him until he was soon as anxious as I was to escape.

I don't like to think about that trip. I have been told since that I could have gotten out through Brazil, *via* the Amazon River, with less hardship, but the only trail I knew was the Pacific Ocean, so I headed west. That is the roof of the world, all right, and it isn't a flat roof, either. It is clear up above civilization. Nothing can live long up there except those Indians and the llamas. The mule line is just above the snow line, and they use llamas for packing freight in the high hills.

A llama is a slightly overgrown goat who spits at you instead of butting. They can live and thrive on snow and mighty thin air—and there is nothing else up there. There are mighty few towns and roads in the country, but I had to keep away from the few there were, for I did not want to meet the ruralies.

I had to sacrifice speed to safety all the way, and it was forty-two days after the wreck when I finally sneaked into Santa and put up at a sailors' boarding-house down on the water-front.

I was a wreck. I didn't know myself when I looked in a glass. I got a suit of clothes from the boarding-house slop-chest, and when the Panama boat came along, I managed to get aboard and stow away. I was afraid to book a passage, and did not have enough money left, anyway. Gave a steward all I had, except five dollars, to fix me up for Panama, and kept out of sight until we had passed the last town on the coast of Peru.

When I went up on deck I found two mining engineers from some mines just beyond where I had the wreck, and they gave me the first news I had heard of it. They said that the engineer of the wrecked train was in jail, and the best they could expect for him was a five-year sentence.

That made me glad I had taken a chance. I would go through it again rather than spend five years in one of their jails.

They also told me that the whole Peruvian army had my description and orders to bring me in dead or alive. They could hardly believe that I had actually made a getaway, and it certainly was a miracle, for an American traveling alone and on foot in that country is bound to attract considerable attention, and a gringo isn't very well liked, anyway. That road owes me three days' pay, but, under the circumstances, I don't think I will go back after it. —BILL.

"CASEY" JONES.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

FOR the general information of railroad men, through the circulation of your valuable magazine, I would like to say a word or two in regard to one particular engineer, who has been instrumental in immortalizing the locomotive, as Mark Twain immortalized the steamboat.

That man was John Luther Jones, better known from coast to coast as "Casey Jones."

He was born at Cayce, Kentucky, in 1863, and he spent his boyhood days on a Kentucky farm. When he was nineteen years of age he fired a locomotive on the Mobile and Ohio Railroad, and later occupied a position of a similar nature on the Illinois Central.

In 1890, he was promoted to the position of engineer, which he held with honor until his death.

He was transferred from Water Valley, Mississippi, and ran a freight engine there until he was eligible to the Chicago and New Orleans Limited, and it was on this midnight run on March 18, 1900, that he lost his life in a rear-end collision with a freight-train at Vaughans, Mississippi.

By his amiable disposition and smiling face he had friends by the hundreds. The song bearing his name, was written and sung by an old round-house darky by the name of Wallace Sanders. By the merry jingle of the song it is evident that the author never knew trouble or sorrow, for he turns a house of sorrow into a gay carnival.

I can call to mind many kindnesses performed by Jones. It is no more than right that such men should not be forgotten so easily.

GEORGE L. GARNETT,
Birmingham, Alabama.

THE LONGEST BRIDGE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

YOUR September number states that the longest bridge in the world is the Lion Bridge at Sangong, China, which is five and a quarter miles in length. What about the Norfolk and Southern Railroad bridge across Albemarle Sound, eastern North Carolina, from Edenton to Mackay's Ferry, which is about six miles long?

This bridge was just completed at a cost of one million dollars, and is said to be the longest bridge across navigable water in the world. There is a bridge also, on the L. and N., in Louisiana, across Lake Pontchartrain, about twelve miles long.

I am an old reader of THE RAILROAD MAN'S MAGAZINE, but this is the first time I have had an opportunity to write you.

PERCY B. PERRY,
Raleigh, North Carolina.

ANOTHER OLD POEM.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

HERE is an old railroad poem which I found in an old scrap-book in a tower on the Erie Railroad.

J. H. ROY,
Rochester, New York.

"THE HAM AT CB TOWER."

INTO the chief despatcher's office,
One day there walked a man;
The chief he looked him over,
And decided he was a ham.

"Mr. Chief, I am an operator,
A job I want, and quick,
If you have any vacancies,
I think I could work third trick."

Now, it happened there was an opening
At a little place called Birr.
The despatcher sent him down there
At fifty dollars per.

The ham went to work at midnight,
It nearly made him weep.
He got so very sleepy,
That soon he dropped asleep.

At two A.M. the ham awoke—
It made him have a pain,
For he looked out through the window
And espied a coming train.

The ham gave a start, and jumping up
He pulled over the wrong switch.
And right in front of his station
The train ran in the ditch.

The ham was much excited,
And he looked around with fright.
He could see the big electric chair—
To him 'twas an awful sight.

He could stand the strain no longer,
So with an awful bound,
He jumped right through the window,
And landed on the ground.

This ham is now a-working
For a ham factory—please don't weep—
He is the manager's assistant
At thirteen bones per week.

WE APOLOGIZE TO MISS HERZOG.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN your last issue a writer, speaking of Miss Sophie Herzog, the lady surgeon of the St. L., B., and M. Ry., gives certain erroneous impressions of that grand old lady. Miss Herzog, at the time of the building of the Brownsville road, was

between fifty-five and sixty years old, and weighed but a little short of two hundred pounds, probably more. The reporter gives the impression of a small, young woman, who rode broncos willy-nilly.

Miss Herzog is not ashamed of her age and weight, and will doubtless sustain my contentions if questioned. She is living at Kingsville, Texas.

Somebody let his imagination have full swing and didn't make use of his eyes.

A CONSTANT READER.

MISSISSIPPI CAR FERRY.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

ON page 683 of the September number of THE RAILROAD MAN'S MAGAZINE you state, in answer to F. W. T., Ogden, Utah, that there is no ferry for cars over the Mississippi River at Memphis, Tennessee. This is an error. The Rock Island Railway has a transfer boat, the "General Pierson," capacity ten cars a trip, which is used in transfering freight-cars from Hopefield, Arkansas, to Memphis, Tennessee. The average time of the trip is about one hour.

K. G. WILLIAMS,
Little Rock, Arkansas.

TUNNELING THE SIERRAS.

FOR many years past the railway officials of the Southern Pacific have been seriously considering the feasibility of boring an immensely long tunnel through a part of the Sierra Nevadas.

This was one of the pet schemes of the late Mr. Harriman. Surveys were completed several years ago and also the drawings, etc. The project has been pronounced entirely practicable by the engineers of the company. But, for various reasons, work on the beginning of this gigantic bore has been deferred from time to time.

It is reported now on good authority that the contractors who have charge of the work on the Southern Pacific cut-off near Auburn, California, have secured an additional contract that will extend this cut-off from Colfax to Goldrun. In the opinion of the general railroad public such an extension can mean only one thing—that this long-talked-of tunnel is to be bored at last, and that actual operations will be commenced in the near future.

The projected tunnel will he on the main line between Blue Cañon and Donner Lake. This immense hore will be about six miles long. will cost between five million dollars and six million dollars, and several years will be required to complete it. It will be the longest tunnel in the United States, and one of the longest in the entire world. It will obviate twenty miles of heavy grades and snow-sheds.

THE STEEPEST BROAD-GAGE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN reply to G. N. G., Fulton, Illinois, you state that the steepest broad-gage is over Raton Mountain in New Mexico. In my belief the steepest is the El Paso and Southwestern Railroad, which runs from Alamogordo to Cloudcroft, New Mexico. Some of it is four per cent, and one part is five per cent. It is also one of the shortest curved roads of which I know.

G. F. MACOMBER,
El Paso, Texas.

"BIBLEBACK" SMITH.

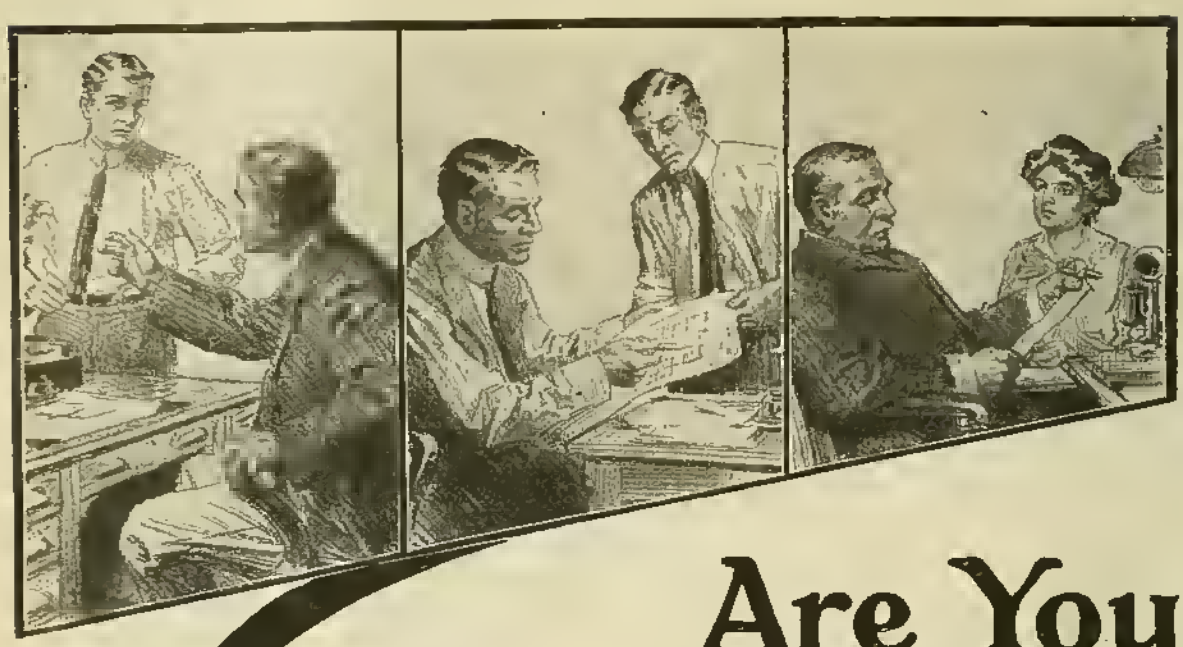
H. M. SCHOONMAKER, R. R. No. 1, Box 69, Peru, Kansas, writes us asking for the address of William Smith, better known as "Bibleback" Smith, who was employed as an engineer on the Western division of the Erie Railroad a few years ago. Can any one come to Mr. Schoonmaker's assistance?

WHAT DO YOU LIKE BEST IN THE RAILROAD MAN'S MAGAZINE?

HERE'S your chance, boys, to cast your ballots and do a little voting on what YOU consider the most interesting feature in THE RAILROAD MAN'S MAGAZINE. If there is any particular department or line of stories or articles that you particularly like or consider better than some of the other matter we publish, just make a check after the subject in the list printed below. Cut this out, paste it on the back of a postal card, and mail it to us. It will help us to get more of the sort of stuff you like best.

Serials	Honk and Horace Stories
Short Stories	Told in the Smoker
By the Light of the Lantern	Gilson Willets's Tours
The Railroad Man's Brain Teasers	Special Railroad Articles
Observations of a Country Station-Agent	True Stories Series
Told in the Roundhouse	On the Editorial Carpet

Address: Editor, THE RAILROAD MAN'S MAGAZINE,
175 Fifth Avenue, New York, N. Y.



Are You A Time Improver

Mark well the group of pictures on the left and the group on the right. One shows men who have utilized their spare time and gained positions of influence and worth. The other shows the class of men who are ever struggling along in poor "jobs." They have just as much spare time as the time improver, but they waste it. Some waste it on the corner, in the pool room, at the theater, or otherwise.

Every man is entitled to some pleasure and recreation, but as time is an asset more valuable even than money, every man owes it to himself to utilize a certain portion of his spare time for self improvement.

If you have two hours a day unoccupied, we guarantee that one hour of that time properly applied under I. C. S. direction will qualify you for a good position at double, triple or quadruple your wages.

This is not a mere statement for you to believe or not believe as you choose; it is backed up by a world of proof that no one can deny. We can send you the names and addresses of thousands of men who have advanced from lowly positions to some of the most prominent places in business, science and art.

For instance, Ernest Murphy, who used his spare time under I. C. S. direction, was advanced from carpenter to Assistant Consulting Engineer; J. J. Loud jumped from laborer to Assistant Electrician; Joseph Worden, telegraph operator to draftsman; Wilson P. Hunt from apprentice to President of a large manufacturing concern; S. G. Brinton from janitor to the position of Assistant Postmaster.

These are only a few of thousands, the names and addresses of whom you can have on application, so you can ask them for yourself. You will find they had no more brains than you; that they had no greater ability; that they had no more spare time; that they had no more spare cash; but they did have the ambition and common sense to use their time to advantage instead of wasting it.

It is easy to find out how this can be done. It is simply up to you.

Or A Time Waster

There is not a poorly-paid but ambitious man in the world that the I. C. S. cannot help, provided he can read and write. Have *you* enough *real* ambition to mark the attached coupon and learn of the I. C. S. way that fits *your* case? It makes no difference *who* you are, *what* you do, *where* you live, *what* you earn, or *what* your age,—if you are ambitious, the way is open. Do you want to? Then mark the attached coupon *to-day* opposite the occupation you like best. The I. C. S. will then tell you how you can be helped *at home—in your spare time*—without encroaching on your working time—and on such easy terms that you will be able to meet them easily.

Do You Want To?

Here, then, is the opportunity that proves whether your ambition is real or not. Mark the coupon. This, at least, costs you nothing. Mark it and learn how you can join the host of successful I. C. S. men who, at the rate of 300 every month, VOLUNTARILY report advancement in salary and position *as the direct* result of I. C. S. help. 307 were heard from during August.

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Of Course You Want To.
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Air-Brake Inspector	Chemist
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Amberol 4-minute Records

Records for October

Edison Amberol Records stand today as the greatest triumph in record-making.

They have brought to Phonograph owners songs and music never before offered in record form.

Prior to the perfection of Amberol Records much of the world's best music was too long to be put upon a record. If offered at all, it was spoiled by cutting or hurrying.

The Amberol Records, playing four and a half minutes, offer such music, executed as the composer intended, and each selection is complete.

Before you buy a sound-reproducing instrument, hear an Edison Phonograph play an Amberol Record. Look over the Edison Record list and see the songs and selections offered exclusively on Amberol Records and remember that it's the Edison Phonograph that plays both Amberol (4½-minute) and Standard (2-minute) Records.

There is an Edison Phonograph at whatever price you wish to pay, from the Gem, at $12.50, to the Amberola, at $200.00.

The owner of an Edison Phonograph has the advantage each month of two long lists of Records from which to choose. Here is offered the real song hits of the moment, musical selections by famous soloists, bands and orchestras, tuneful bits from musical attractions and arias from grand opera—each on a Record of the right playing length to faithfully and completely reproduce it.

Run over this list of Edison Amberol and Edison Standard Records. Then go to an Edison dealer on September 21th and hear an Edison Phonograph play those to your liking.

There are Edison dealers everywhere. Go to the nearest and hear the Edison Phonograph play both Edison Standard and Amberol Records. Get complete catalogs from your dealer or from us.

Edison Amberol Records

U. S., 50c; Canada, 65c.

520 Medley Overture—Haviland's Song Hits
Edison Concert Band
521 Boy o' Mine ..... Frank C. Stanley
522 When the Daisies Bloom
Miss Barbour and Mr. Anthony
523 Jere Sanford's Yodling and Whistling Specialty
Jere Sanford
524 Cupid's Appeal ..... Charles Daab
525 Auld Lang Syne ..... Marie Narelle
526 Failing, Still Fading ..... Knickerbocker Quartet
527 Humorous Transcriptions on a German Folk-Song
Victor Herbert and his Orchestra
528 Gee! But There's Class to a Girl Like You
Manuel Romain
529 "Mamma's Boy"—Descriptive
Len Spencer and Company
530 Kerry Mills' Nantucket . New York Military Band
531 Come, Be My Sunshine, Dearie
Billy Murray and Chorus
532 Hope Beyond ..... Anthony and Harrison
533 Just for a Girl ..... Edward M. Favor
534 You Are the Ideal of My Dreams . W. H. Thompson
535 Mandy, How Do You Do?
Ada Jones and Billy Murray and Chorus
536 The Premier Polka ..... Arthur S. Witcomb
537 When the Robins Nest Again
Will Oakland and Chorus
538 Trip to the County Fair ..... Premier Quartet
539 Temptation Rag ..... New York Military Band

Edison Standard Records

U. S., 35c; Canada, 40c.

10426 Strenuous Life March ..... U. S. Marine Band
10427 Sweet Italian Love ..... Billy Murray
10428 The Bright Forever ..... Edison Mixed Quartet
10429 I've Got the Time, I've Got the Place
Byron G. Harlan
10430 Cameo Polka ..... Charles Daab
10431 I'll Await My Love ..... Will Oakland
10432 Yucatana Man ..... Collins and Harlan
10433 Play That Barber Shop Chord. . Edward Meeker
10434 The Mocking Bird ..... Rnxy P. La Rocca
10435 Oft in the Stilly Night .... Knickerbocker Quartet

Edison Grand Opera Amberol Records

40027 Andrea Chenier—La mamma morta (Giordano)
(Sung in Italian) Orchestra Accompaniment
U. S., $2.00., Canada, $2.50 Carmen Melis
40028 Faust—Cavatina, Salut! demeure (Gounod)
(Sung in French) Orchestra Accompaniment
U. S., $2.00. Canada, $2.50 Karl Jorn
40029 Gioconda—Voce di donna (Ponchielli)
(Sung in Italian) Orchestra Accompaniment
U. S., $2.00. Canada, $2.50 Marie Delna
40030 Pescatori di Perle—Aria (Romanza) (Bizet)
(Sung in Italian) Orchestra Accompaniment
U. S., $2.00. Canada, $2.50 Giovanni Polese
30029 Favorita—Una vergine (Donizetti)
(Sung in Italian) Orchestra Accompaniment
U. S., $1.00. Canada, $1.25 Florencie Constantino

Amberol Record by Sarah Bernhardt

85007 L'Aiglon—La Plainte de Wagram
(Edward Rostand) (In French)
U. S., $1.50. Canada, $2.00 Sarah Bernhardt

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Note the condition of these three months old pullets. These pullets and their ancestors for seven generations have never been allowed to run outside the coops.

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and in many respects just the reverse, accomplishing things in poultry work that have always been considered impossible, and getting unheard-of results that are hard to believe without seeing.

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are raised in a space of less than a square foot to the broiler, and the broilers are of the very best quality, bringing here 3 cents a pound above the highest market price.

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in a space of two square feet for each bird. No green cut bone of any description is fed, and the food used is inexpensive as compared with food others are using.

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One of the secrets of success is to save all the chickens that are fully developed at hatching time, whether they can crack the shell or not. It is a simple trick, and believed to be the secret of the ancient Egyptians and Chinese which enabled them to sell the chicks at 10 cents a dozen.

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Our book tells how to make the best green food with but little trouble and have a good supply any day in the year, winter or summer. It is just as impossible to get a large egg yield without green food as it is to keep a cow without hay or fodder.

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TESTIMONIAL

South Britain, Conn., April 19, 1909

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Yours truly, A. E. Nelson.

Photograph Showing a Portion of the Philo National Poultry Institute Poultry Plant, Where There Are Now Over 5,000 Pedigree White Orpingtons on Less Than a Half Acre of Land.

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FOURTH ANNUAL

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This cartoon was drawn by "Zim" the world's most famous cartoonist of "Judge." Can you make a copy of it? Try and see how easy it can be done. Draw this cartoon NOW, with either pen and ink or pencil, making it twice the size shown and send it today, stating your age, occupation and if you ever won a prize in our Contests.

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Our Board of Art Directors will carefully examine your sketch and if it is 60 per cent. as good as the original you will receive as a prize "The Home Educator" for 3 months. If you do not hear from us in ten days your drawing was rejected.

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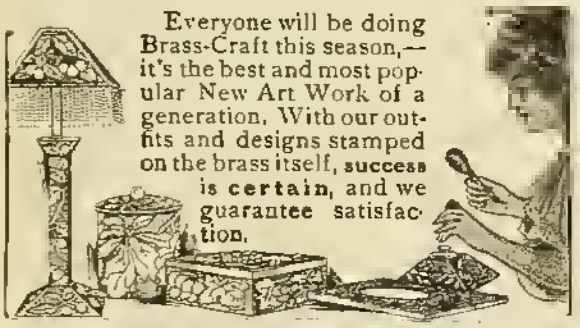

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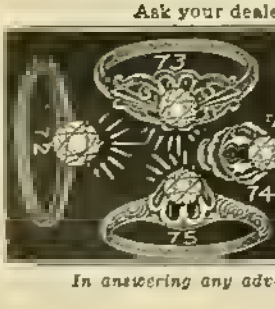

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73—Fancy Engraved Ring	35
74—Belcher Earrings, pair	50
75—Ring, Tiffany Belcher Ring	25
76—Ring, Belcher Ring	45
77—Belcher Dia. Stud	35
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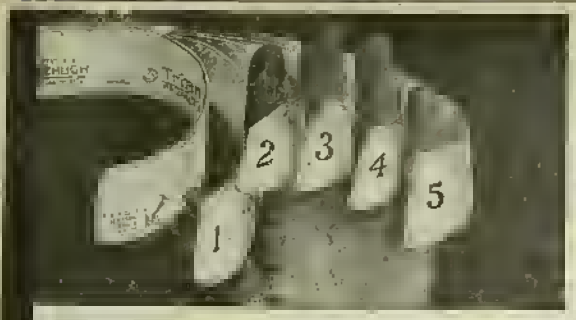

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If you are tired of the annoyance and expense of collars which go into the discard after three or four launderings, switch to TRIANGLE—"The Collar of Quality."

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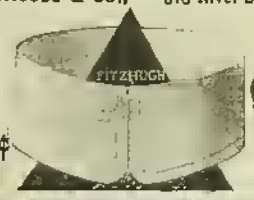

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These Gems are chemical white sapphires. Can't be told from diamonds except by an expert. Stand acid and fire diamond tests. So hard they can't be filed and will cut glass. Brilliancy guaranteed 25 years. All mounted in 14K solid gold diamond mountings. Will send you any style ring, pin or stud on approval—all charges prepaid—no money in advance.

☞ Write for Free Illustrated booklet, special prices and ring measure.

WHITE VALLEY GEM CO., 704 Saks Bldg., Indianapolis, Ind.

SPECIAL

Discount on Diamonds

MARSHALL'S "F" GRADE

The Discounts from Our Regular Catalog Prices—Gems of Highest Quality!

WRITE for our **special** offer on the **choicest** quality of diamonds. Special Discount Sheet and price list, together with the **complete Geo. E. Marshall Catalog,** sent to you on request.

Marshall's "F" Grade

"F" first and finest grade are the very **choicest** qualities of the best African importations. For twenty years this superb quality has been recognized among the trade as the highest possible standard. No one who has ever seen the matchless brilliancy and luster, the wonderful depth and purity of these "F" grade diamonds could ever be satisfied with ordinary "commercial white" stone.

For Instance

This exquisite diamond—absolutely perfect in cut and color—a gem of the rarest scintillating beauty, mounted on a beautiful Tiffany setting, **$69.00,** $13.80 down and $6.90 a month, or **8 per cent discount** for all cash.

On Approval We will be pleased to ship these or any other diamonds from our catalog, **prepaid on approval.** Nothing to risk—nothing to pay—unless you want to keep the diamonds **after the free examination.** You are not placed under the slightest obligation in accepting this offer. We consider it a **privilege** to extend this offer to responsible persons.

Write for Catalog and Special Discount Sheet

The careful buyer will not think of buying a diamond or other jewelry until he has studied the Marshall Catalog and Special Discount Sheet. No letter needed—just send coupon, postal or letter. Send coupon **Today.**

Geo. E. Marshall, (Inc.)
103 State St. Dept. 1108 Chicago, Ill.

GEO. E. MARSHALL (Inc.)
103 State St.
Dept. 1108
Chicago, Ill.

Without any obligation on me, please send me at once, free, your Marshall Catalog and Special Discount Sheet, together with full explanation of your no-money-down Approval Offer. No letter necessary, the coupon alone will do.

Name.....

Address.....

$50 TO $100 A WEEK

THEY'RE MAKING IT AND TELL YOU HOW.
HARD FACTS THAT MAKE YOU THINK.
A NEW THING THAT'S MAKING PEOPLE RICH.

W. H. Morgan, Pa., says: "Sold 75 in 9 days," (profit, $318.75). T. A. White, Ill.: "Sold 15 in 4 hours," (profit, $63.75). F. E. Poole, Mass.: "Sold 6 first day," (profit, $25.50). C. E. Goff, Mo.: "Sold 5 first day," (profit, $21.25). The writer was in the office of this new, successful, big money-making business. He saw hundreds of letters like these. People are making more money in a day than they did before in a month.

Enormous sale of the **New Home Vacuum Cleaner** smashes all records. **Newest, Easiest, Surest Seller.** Make $4.25 on every sale. New, powerful, double action vacuum cleaning machine. Sells for $8.50. Weighs 9 lbs. Easy to carry. Nothing else like it. Does same work as the $100 kind. **No motors, no electricity.** One person operates.

$8.50

Constant terrific suction gets all dirt and dust from carpets, rugs, etc. **No more sweeping or dusting. No more house cleaning. Costs nothing for repairs.** Saves time, labor, money. Saves health. Saves taking up and beating carpets. The New Home Vacuum Cleaner is truly a wonder. Astonishes everybody. **Customers all delighted and praise it.** They wonder how they ever did without it. Mrs. F. Goodell, Ind., writes: "Home Vacuum Cleaner is certainly a wonder. Does away with the drudgery of sweeping and dusting. I am so pleased that I can't give it justice." F. B. Sears, Ohio, "Home Vacuum Cleaner is a little giant. My next door neighbor has one that cost $25. They say they would rather have the Home." Chandler & Rich, N. Y., "Find you did not overestimate Home Vacuum Cleaner. Did not praise them enough." Henry Rubin, N. Y., "Home Vacuum Cleaner brightens the carpets. It's the grandest machine ever invented for the home." To try the Home Vacuum Cleaner means to want it, then to keep it. Takes every family by storm. Women have wished, wished, longed for it. No wonder it's a live wire. **A powerful double suction Sweeping Cleaner for $8.50.** Not sold in stores. Sell 1 out of 10 families. Send postal today for agency. Full description. Free sample. Address,

H. ARMSTRONG MFG. CO.,
1401 Alms Bldg., Cincinnati, Ohio.

SEND NOW $1.00 FOR 12 ISSUES

A Chance to Make $100.00.

For $1.00 you will get 12 issues of

THE STUDENTS ART MAGAZINE

and a chance to work on over $100 worth of cash art assignments. The magazine publishes and criticises students' work, gives lessons in Cartooning, Designing, Illustrating, Lettering and Chalk-talking. Especially valuable to correspondence art students. It stands for a clean life, a clean art and a square deal. If not satisfied your money refunded. Address the editor,

C. H. Lockwood
Dept. 87 Kalamazoo, Michigan

YOUNG MEN WANTED

For Chauffeurs
AUTOMOBILE
Salesmen, Demonstrators, and Repairmen

EARN $25 TO $50 WEEKLY

Demand for these trained men can't be supplied. The work is pleasant and instructive, out-of-doors, and the hours short. You can prepare yourself for one of these positions in 10 weeks by a few hours' study each week. We teach you the entire subject by our simple course of instruction by mail. It is very interesting, practical and thoroughly efficient because it's personal. Ask our graduates who are earning $25 weekly or more in positions we obtained for them.

First Lesson Is Free

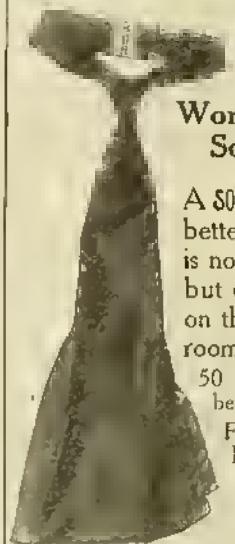
Write for it to-day. Let us prove our claims.

Empire Auto. Institute, 181 Empire Bldg.
The Original Automobile School Rochester, N. Y.

Chauffeurs and competent men furnished owners and garages.

SOLIDSILK SCARVES

Medal Awarded for Quality, Style and Workmanship at the Paris Exposition



Worn by the Best Dressers
Sold in the Best Shops

A SOLIDSILK SCARF will tie better, look better, wear better, than any that is not SOLIDSILK. It is worth more, but costs you no more. "SOLIDSILK" on the label (look for it) leaves no room for doubt.

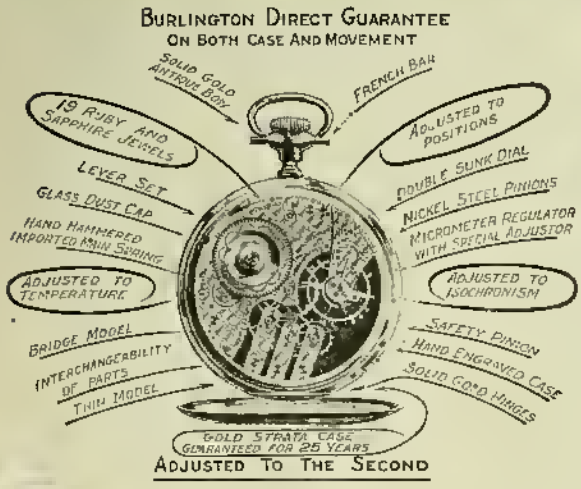
50 plain shades, black, white, and a beautiful assortment of fancy silks.

Four-in-Hands, 50 cents and $1.00. Bat Ties, 50 cents.

If you can't get Auerbach's SOLIDSILK SCARVES in your town, send price and write description of the scarf you want, and we will send it postpaid, to be returned for your money if you don't like it.

LOUIS AUERBACH
842–844–846 Broadway New York

Fighting the Trust



READ! A Watch Offer Without Parallel

Write for our FREE book on watches; a book that posts you on "selling systems," and explains the reasons for our most remarkable rock-bottom-price offer DIRECT TO YOU on the highest grade Burlington.

IF YOU WANT a highest grade watch (ladies' or gentlemen's), or if you ever expect to own such a watch, write NOW for the free Burlington book. See coupon below.

We won't "knuckle down" to selling systems among dealers, so we have decided to make such a tremendous and wonderful offer direct to the public on a first-class time piece, that no trust, no dealers under contract will or can stop us. **You too** will seize this opportunity to get the "Burlington Special" direct on this wonderful offer.

You should not buy a worthless watch just because it is cheap. Nor need you pay trust prices now for a top-notch watch. The free Burlington book explains.

$2.50 A Month At An Anti-Trust Price

$2.50 a month for the world's most superb time piece! The easiest payments at the rock-bottom—the **Anti-Trust** price. *To assure us that* **everybody** *will quickly accept this introductory direct offer, we allow cash or easy payments just as you prefer.*

No Money Down

We ship the watch on approval, prepaid (your choice of lady's or gentleman's open face or hunting case). You risk absolutely nothing—you pay nothing—not one cent—unless you **want** the great offer after seeing and thoroughly inspecting the watch.

Get the FREE Burlington Book

THIS BOOKLET will quickly convince you too that you DO want an Anti-Trust watch—made in the independent factory that is fighting the trust as best it can by giving better quality and superior workmanship throughout; we will quickly convince you that the Burlington watch, on which there is only **one** rock-bottom price (the same rock-bottom price everywhere) is THE watch for the discriminating buyer; that it is THE watch for the man or woman who wants, not the largest selling brand which everybody has, but the **best** watch, the watch bought by experts, THE watch that is absolutely perfect in its many points of superiority—the **Burlington Watch.**

You will be posted on **inside facts** and prices when you send for the Burlington Company's free book on watches.

Now Write for the free book. It will tell you what you ought to know before you even examine a watch. It will tell you the inside facts about watch prices, and will explain the many superior points of the Burlington over the double priced trust products. Just send your name and address.

No Letter Is Necessary—COUPON Will Do

BURLINGTON WATCH COMPANY
Dept. 1108, 19th and Marshall Blvd., Chicago, Ill.

CUT OR TEAR ALONG THIS LINE

BURLINGTON WATCH CO
Dept. 1108 19th and Marshall Blvd.
CHICAGO • • ILLINOIS

Please send me (without obligations and prepaid) your free book on watches and copy of your $1,000 challenge, with full explanations of your cash or $2.50 a month offer on the Burlington Watch.

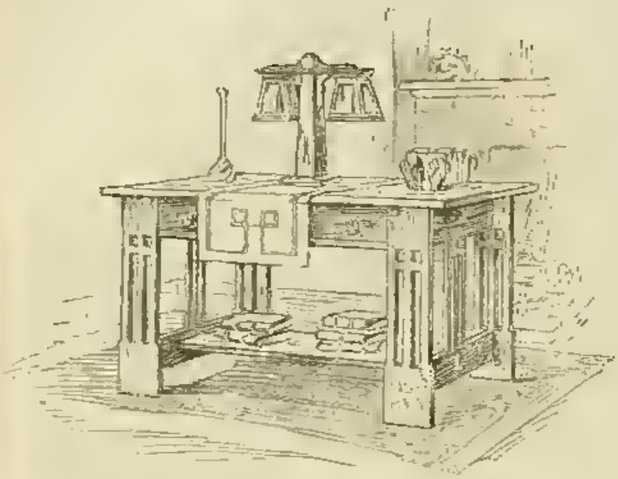
Name.....

Address.....

.....

BUY CORRECT FURNITURE AT CORRECT PRICES

MAKE ONE DOLLAR DO EXACTLY THE WORK OF TWO



$16.00

We have furniture for every room in the home, club or office. This library table with table lamp. Combination price $25.25. Only one of the 75 remarkable bargains offered in our

CATALOGUE NO. 11

You owe it to yourself—to your family—to investigate this proposition. You take no risk. Satisfaction is guaranteed.

SEND FOR CATALOGUE NO. 11 TO-DAY

IT explains how, by putting the assembled pieces together—just a little effort on your part, a pleasant form of recreation—you can place high grade, solid oak furniture right in your home for less than half the price your local dealer would charge you. We *guarantee* to do this.

THREE REASONS WHY YOU SHOULD NOT HESITATE:

FIRST: If we misrepresented one thing the standard magazines would not accept this advertisement.

SECOND: Our guarantee of satisfaction or your money returned protects you in every way. You have absolutely nothing to lose.

THIRD: We have been in business for ten years — doubling our output each year. This alone proves our reliability.

BROOKS MANUFACTURING COMPANY, 6711 Rust Ave., SAGINAW, MICH.

BUSTER BROWN'S

DARN! Why Darn?

If you buy *Buster Brown's Guaranteed Hosiery* for the whole family there'll be *NO DARNING TO DO.*

[illegible] Lisle Half Hose for MEN; black, tan, navy, gray, wine and purple.
Lisle Hose for LADIES; medium and gauze weight; black or tan.
[illegible] Hose for BOYS: light and heavy weight; black or tan.
Lisle Fine [illegible] Hose for MISSES; medium or light weight, black or tan.
MISSES [illegible] Lisle Fine Gauze. [illegible] black or tan.

25c a Pair, Four Pairs to the Box, $1.00

LADIES' Silk Lisle Hose, black or tan; three pairs to a box, $1.00.

GUARANTEED FOR FOUR MONTHS

[illegible]

Write for Buster's Latest Funny Book, FREE.

Buster Brown's Hosiery Mills,
[illegible] Sherman Ave., Chattanooga, Tenn.

This Suit, Tailored to Your Measure $15

Express Prepaid

Other suits and overcoats in a wide selection of exclusive weaves and latest New York styles, $12.50 to $30.00.

I am a custom tailor—a maker of guaranteed clothes to special order. I will make a stylish suit or overcoat to your measure—with **true quality** tailored into every stitch and seam—and charge you less than you have to pay for clumsy-looking, ready-made garments.

I Take All Risk

I save you the dealers' big profits and give you the kind of clothes turned out by the high-priced tailors of the big cities.

Send today for my handsome free book of styles and cloth samples. Measure yourself by my extremely simple home system, pick out the style and material you like best and send me your order. I'll make up the clothes **exactly to your measure**—and ship them **express prepaid.** You examine them carefully to see that they fit perfectly and come up to my claims in every particular. If you don't find everything **entirely satisfactory,** send back the clothes and I'll return every penny of your money.

That's my guarantee. And my Bankers, The Wisconsin National Bank of Milwaukee, (*Resources, Twenty Million Dollars*) **will tell you that I always keep my word.—KING**

My Style Book is FREE. Send for it today.

King Tailoring Company
204 West Water St., Milwaukee, Wis.

CLOSING DAYS OF A GREAT PIANO OFFER

January first this year we perfected certain plans for a twelve months' campaign.

These plans involved the placing of at least one Schmoller & Mueller Piano in each new community in the United States.

Up to that time many neighborhoods—many communities—knew about this Sweet Toned Piano.

But where there was one such community—we realized there was doubtless a hundred which knew nothing of the merits of this superior instrument.

Of this piano—which had satisfied music lovers in all walks of life—the humble cottager and family—

As well as those who enjoy more largely of this world's goods.

Thus our problem for this year of grace, 1910—was to make better known the superior qualities of the Schmoller & Mueller Piano.

To bring about its successful introduction into new neighborhoods—new communities everywhere.

We realized at the outset that the task was a large one—one which only a well-organized business institution could successfully bring to a happy conclusion.

Our estimated output for the year was 5,000 Schmoller & Mueller Pianos. Five thousand homes must be found into which we could place a

Schmoller & Mueller Sweet Toned Piano

Five thousand neighborhoods and communities to find—five thousand sales to be made. Had we other than a high grade—a sweet toned—a well-built—a fully guaranteed piano to offer—the task we set ourselves to thus accomplish would have been insurmountable.

But with a piano like the Sweet and Mellow Toned Schmoller & Mueller—with years' record back of it—giving the greatest of pleasure in the homes of thousands of satisfied music lovers—and with a well-organized company to handle the business—this problem was lessened to the question embodying the plan of selling.

We evolved a selling plan which has been most enthusiastically received.

A plan when explained is easily understood by every intending buyer.

Briefly, here is our plan.

To give the first buyer in each new community or neighborhood this year a Close Wholesale First Buyer's Price.

A Schmoller & Mueller Piano in each community and neighborhood is the best advertisement we desire for our Piano.

One Schmoller & Mueller Piano sold in a new neighborhood has time and again brought about the sale of 3, 4, 5, 6 and more Schmoller & Mueller Pianos—within a short time thereafter.

Giving the First Buyer a Close First Buyer's Price would work to the more surely and quickly accomplish the desired end—the placing of 5,000 Schmoller & Mueller Pianos in that many new communities.

To date the result has been gratifying.

faster and faster orders have come to us this year.

New communities have been quickly supplied.

Prospective buyers have seen the manifold advantages of our plan and coupled with that the high and guaranteed quality of the Piano offered—they have not held back in accepting our proposition.

This year is rapidly passing. Soon the twelve months will have gone. Soon our plans made the first of the year will have been perfected.

Soon the 5,000 Schmoller & Mueller Pianos set aside for that many new communities and neighborhoods will have been sold.

Perhaps your community has not as yet welcomed into its midst the First Schmoller & Mueller Piano—

If so—the opportunity is put before you to buy the best Piano at a price never before heard of as being made on a fully guaranteed instrument.

The least you can do—interested music lover—is to hasten back to us the coupon inquiring for Catalogue and Full Details concerning the First Buyer Introductory Offer.

It is a simple matter to fill that coupon and mail it today.

Remember, we positively guarantee the Schmoller & Mueller Piano for 25 years—we back this up with our entire Capital Stock and Surplus of Half a Million Dollars.

We save you the most money on the Schmoller & Mueller Piano you buy under our present offer and under our plan of payments.

Placing within the reach of all intending piano buyers this Schmoller & Mueller Piano—

No home need longer be deprived of the harmonizing, the educational influences of music.

For Fifteen Cents a Day will take care of the small monthly payments we require.

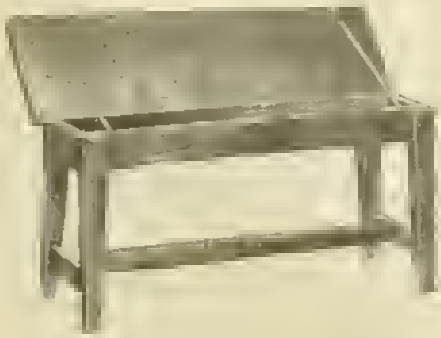
Send the Coupon to us today—don't permit some other music lover in your community to be the First Buyer of a Schmoller & Mueller Piano.

Secure our proposition on a Schmoller & Mueller Piano—delivered to your nearest station.

Send the coupon—if you please—now.

Dept. A G 011

Schmoller & Mueller Piano Co. Capital and Surplus, Half a Million Dollars **Omaha, Neb.**



This Handsome Bench Free

With every Schmoller & Mueller Piano we regularly supply—free—a stool—a Duplicate Scarf—a Complete Instruction Book. All orders received from R. R. Man's Mag. readers this month will include—if desired in place of the stool, the above Handsome Duet Bench. This has a complete music compartment in the top—where sheet music can be kept free from dust or soiling. Bench will be selected to match your Schmoller & Mueller Piano in Circassian Walnut, San Domingo Mahogany, or Quarter Sawed Golden Oak. No charge for the bench—if you order this month.

Schmoller & Mueller Piano Co.,
Dept. A G 011, Omaha, Neb.

You will please send to me immediately all information about the Schmoller & Mueller Piano—your First Buyer Proposition and your Complete Catalogue. This involves no obligation on my part to purchase.

Name.....

Address.....

(C)

(A)

(B)

(D)

Thank Your Poor Memory

For This Rare Picture Offer

N. B. Even if "your poor memory" happens to be a fine one you may still accept this offer! Please clip the coupon.

These 1911 "Pompeian Beauties" in colors have proven to be perhaps the most popular set ever offered, and at times we have been fairly overwhelmed. Yet where one person has sent in a coupon, a hundred have reasoned:—

"Too good to be true; they'll have to show me how they can afford to practically give away a 'Pompeian Beauty' for which they claim an Art Store value of at least $1.50."

It is your poor memory which forces us to make this rare picture offer! Although "Pompeian" is the most widely used face cream, still you—and millions of other busy brain-fagged Americans—either forget entirely the necessity of a completely cleansing and delightfully refreshing product like "Pompeian," or else you can't recall its name when you try.

How to fix the name "Pompeian" in your overworked memory? That is the question. It is solved, we believe, by resorting to expensive pictures.

Our "Pompeian Beauties" are so fine that people become enthusiastic over them; they are so valuable that people frame them and keep them for years. As one man wrote us—"The 'Pompeian Beauties' are great; the cream fine. You always do what you promise. I shall *never forget* Pompeian."

Well might the President of this Company say, "Let me win for Pompeian the *enthusiasm* of America's millions and let me thereby clinch their *memory*, and I care not what the pictures cost." Since our pictures *do* make people enthusiastic and *do* make them remember, then haven't you "been shown" *why* we can afford to offer expensive pictures for a few cents? The 15c. is charged to protect ourselves from being overwhelmed. We get our reward through years to come. You get your reward at once. Please clip the coupon.

MEN—DON'T—WOMEN

"*Don't envy a good complexion; use Pompeian and have one.*" This is the advice of men and women (in a million homes) that use Pompeian Massage Cream. At all dealers; trial jar sent for 6 cents (stamps or coin). You may order pictures, trial jar, or both.

Our 1911 Pictures. Each "Pompeian Beauty" is in colors and by a high-priced artist, and represents a type of woman whom Pompeian helps to make more beautiful by imparting a natural, clear, healthy complexion.

OUR GUARANTEE. If you are not satisfied that each copy of any "Pompeian Beauty" has an actual art store value of $1.50 to $2.50, or if for any reason you are disappointed, we will return your money.

NOTE—The handsome frames are only printed (but in colors) on pictures A and B. All four have hangers for use if pictures are not to be framed. Only artist's name-plate on front as above.

Pompeian Beauty (A) size 17"x12"; (B) size 19"x12"; (C) size 32"x8"; (D) size 35"x7".

NOTE—Pompeian Beauty D went into a quarter of a million homes last year and the demand for it is still heavy.

Final Instructions: Don't expect picture and trial jar to come together; don't expect reply by "return mail" (we have 20,000 orders on some days). But after making due allowance for distance, congestion of mails, and our being overwhelmed at times, if you then get no reply, write us, for mails will miscarry and we *do* replace all goods lost or stolen. Write plainly on the coupon only. You may order as many pictures as you wish for yourself or friends.

POMPEIAN Massage Cream

All Dealers
50c. 75c. and $1

Read this coupon carefully before filling out your order.

THE POMPEIAN MFG. CO., 171 Prospect Street, Cleveland, O.

Gentlemen:—Under the letters (or a letter) in the spaces below I have placed figures (or a figure) to show the quantity I wish of one or more of the four "Pompeian Beauties." I am enclosing 15c. (stamps or money) for each picture ordered.

Pictures	A	B	C	D
Quantity				

P. S.—I shall place a mark (x) in the square below if I enclose 6c. extra (stamps or coin) for a trial jar of Pompeian. ☐

Write very carefully, fully and plainly on coupon only.

Name.....

Street Address.....

City.....State.....

There is Beauty in every Jar

MILKWEED CREAM

Keeps the skin soft, smooth and velvety, so that healthy Summer tan only adds to the natural attractiveness of a Milkweed Cream Complexion. The peculiar properties of Milkweed Cream keep freckles away, relieve soreness and smarting due to sunburn.

The first requisite for beauty is a healthy skin. Spots and blemishes, no matter how small, disfigure and mar the complexion. Loose skin, crow's feet and wrinkles (due to unnecessary rubbing) are also serious complexion faults. A sallow or colorless skin, as well as undue redness, are Nature's danger signals.

MILKWEED CREAM

gives relief from these and all other complexion ills. For a decade it has been recognized as the best face cream and skin tonic that skill and science can produce.

Milkweed Cream is a smooth emollient, possessing decided and distinct therapeutic properties. Therefore, excessive rubbing and kneading are unnecessary. Just apply a little, night and morning, with the finger tips, rubbing it gently until it is absorbed by the skin In a short time blemishes yield to such treatment, and the skin becomes clear and healthy; the result—a fresh and brilliant complexion.

To prove to you the advisability of always having Milkweed Cream on your dressing-table, we shall be glad to send a sample free, if you write us.

F. F. INGRAM CO., 82 Tenth Street, Detroit, Mich.

IMPROVES BAD COMPLEXIONS—PRESERVES GOOD COMPLEXIONS

FAIRY FAIRY FAIRY

Fairy Soap is White to Stay White

Other soaps are white in name—stay white for a time—but turn yellow as saffron with age, because of the cheap ingredients and refuse greases used in their making. Fairy Soap is *always* white, first, last and all the time. It needs no coloring matter or high perfumes to disguise the quality of the edible products from which it is made. This handy, floating, oval cake of skin comfort costs but 5c.

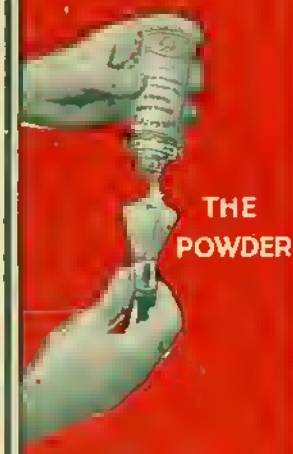
FAIRY

THE N. K. FAIRBANK COMPANY
CHICAGO

"Have You a little 'Fairy' in Your Home?"

COLGATE'S SHAVING LATHER

THE STICK



THE POWDER

THE CREAM

Stick—Powder—Cream

Your choice of three methods with the certainty of one result—a perfect lather.

Colgate's Shaving Lather—whichever way you make it—is softening, soothing, sanitary. It is best in its lasting abundance. Best in its antiseptic qualities and in freedom from uncombined alkali. (See chemist's report below.) And best in its skin-refreshing effect that leaves your face so delightfully cool and comfortable. Do not ill-treat your face and handicap your razor by using an inferior lather.

"I have made careful examinations of Colgate's Shaving Stick, Rapid-Shave Powder and Shaving Cream. I find that all of these Shaving Preparations are notably free from uncombined alkali and in the form of shaving lather, all are germicidal."

(Signed) FRANK B. GALLIVAN, Ph.D.
August 25, 1910. Hathaway Bldg., Boston, Mass.

THREE METHODS—ONE RESULT

Colgate's Shaving Stick: In the original nickeled box.
Colgate's Rapid-Shave Powder: The powder that shortens the shave.
Colgate's Shaving Cream: The perfected cream.

Trial Size of Stick, Powder or Cream sent for 4c.

COLGATE & CO., Dept. 55, 55 John St., New York (Estab. 1806)
Makers of the famous Cashmere Bouquet Toilet Soap, Talc Powder and Perfume

3 KINDS OF BEST