

When the Draw is Open.

By E. Hamblen.

The most primitive drawbridge that I ever saw was on a little old single-track Southern railroad; one of those where the conductor will obligingly stop the train and run back for the careless passenger's hat. It was operated by that omnipresent Southern combination, "a nigger and a mule," and its fearful and wonderful construction made me think that either of the grizzled twain might have planned it.

A MULE-POWER DRAWBRIDGE.

Two huge cypress logs, to which the rails were spiked, formed the bridge proper; each being stiffened by a sort of rude truss. This mechanical triumph was attached to the mule by a well-frayed rope. Before making the coupling, the African was required to plant a red flag in a hole bored in a tie for that purpose, "sebenteen" telegraph poles back, each way. He then notified the mule to "g'long down de crick," while he himself kept a turn round a tree with another rope.

Being unfamiliar with mule nature, this precaution seemed superfluous to me. I learned afterwards that the mule had one day taken an unexpected notion to prolong his journey "down crick" beyond his usual stopping-place. The bridge was hauled off its unstable center, and dropped into the stream; hence this rope to the tree.

After many picturesque but vain expostulations, Scipio threw a stone at his unwilling partner. It bounded from the dusty hide with a hollow thump. The ungainly bundle of rags and bones was galvanized into life. There was a protesting shake of the head, and the lean legs straightened out. Frictional shrieks and wails startled sleeping alligators, and the bridge slowly ground upon its wooden center. When the angularity between bridge and rope had become reduced to a nearly straight line, the master-mariner who had caused the disturbance was invited to "shub it" if he wanted it open any "further."

To close the bridge, the mule was reversed and sent up creek. The African blocked our end up with stones and pieces of old ties; and when satisfied with his structure, he called out:

"Dar, I guess you-all kin git across, Mr. Engineer Man!"

The opposite extreme in drawbridges is well represented by the magnificent steel structure thrown across the Harlem river, in New York City, by the New York Central. I have no figures concerning the dimensions of this bridge, but any one can see that it is a masterpiece. A huge affair of massive steel beams, braces, and girders, it presents, even at comparatively close range, a light, graceful, and spidery appearance. It is a rare combination of strength and beauty. So accurately is the great truss balanced upon its center, and so perfect are the stiffening appliances, that when fully open and projecting many feet beyond its base of support, the deflection is almost imperceptible, even to the most severe mechanical tests. As a specimen of the perfection to which the art of bridge-building has attained, it may be mentioned that when swung entirely around it fits the approaches with equal nicety.

SIGNALS THAT MEAN "DRAW OPEN."

The well-known fact that railroad men dread discharge more than they fear death has produced signals which, while notifying the engineer of the state of the draw, also inform the management of his failure to stop before passing the signal; which, in itself, is a grave misdemeanor.

One of the simplest of these devices is a great red board, enclosed in a white box, set centrally over the track, a thousand or fifteen hundred feet back from the draw. Should the conformation of the country obscure this, it is preceded by a green distance signal. These are operated simultaneously by the bridge-tender, and are interlocked with the bridge—that is, the act of unlocking the bridge throws the signals against approaching trains, and they cannot be set back to safety until the bridge has been closed and locked.

Both are furnished with lights for

night signals. An engineer may pass the green signal, as it is only cautionary; but the red one hangs so low that his smokestack will not pass under it.

One would think that such plain signals, when the penalty for disregarding them is such a serious one, would amply secure the safety of trains; but they are far from infallible. The strenuous railroader can cope with practically anything. An engineer of my acquaintance, Tom Halloran, once came down to an open draw with sixty cars of wheat. His crew didn't hold the train, and he knocked the signal down. He got a ten days' compulsory vacation. Al Grenville, the most careful, the most cock-sure, and also the most unpopular engineer on the road, felt called upon to remark:

"I dunno how 'tis you fellers can't see that signal, big as the end of a box-car, an' right in front of yer noses! It's a wonder some o' ye don't run yer trains off the end of the dock when ye git in!"

Exactly a week later, the draw-tender got the bridge off the track and held all inward-bound morning trains. The sidings were full of passenger trains when the general superintendent came out with the wreckers. While one of the passenger engines—with the "old man" aboard—was pulling the bridge

An engineer, for whom I fired once wheeled ten coaches over a drawbridge at the rate of fifty miles an hour. It was a badly located bridge, the signal being obscured by a large factory, which had been built quite recently. We had a new engine; she had been on the train a week, and had not yet made the time. The master mechanic said she should stay on the train, and must make the time, or somebody would get into trouble. We were two minutes late, and Pete was trying to "git 'em there." Afterward, when I expostulated with him for going over a drawbridge at that gait, he said he wished the draw had been open, so that he could have gotten rid of that confounded engine.

AN OLD ENGINEER'S MISTAKE.

Joe Bailey hauled coal trains over Plum River drawbridge for twelve years. One day he came thumping along with thirty-one loaded gondolas and the caboose. It was pay-day, and it was snowing heavily. The head brakeman was looking out on the fireman's side, and Joe was riding with his body half out of the window, thinking of the mortgage on his house, and wondering if he would be in time to catch the pay-car before it started out on the road.

The fireman was in the tender. He had straightened his wet back up to the warm boiler-head for a moment, and the steam from his overclothes drifted up and mingled with the exhaust. A farmer stood with his team at a road crossing within three hundred feet of

BEN'S THRILLING MOMENT.

A fourteen-car passenger train once stopped at the open draw within ten feet of the ends of the rails and nobody was the wiser. The engineer was a thoroughly competent and reliable man, but on this one trip, in many years' service, he relaxed his vigilance for a single second. The law of the State required all trains to come to a full stop before crossing the bridge. This should give ample protection, but combinations of circumstances are endless.

Coming East, the signal is first visible from the top of a small hill; then the road dips into a curved hollow, where there is a station. It was a flag-station on Ben's train; and on this particular night, as he had had all he could do to maintain harmony between the milestones and the hands of his watch, he sincerely hoped he might get by Stonyhurst. The bridge signal was white from the top of the hill, and there was no flag out at the station; but just then the conductor signaled by bell that he wished to stop.

When Ben pulled out again, he was late enough to keep him hustling good and lively all the way in. Now this stop at Stonyhurst fulfilled the requirements of the law, and the bridge-tender had never been known to open the draw after hearing the engineer's whistle, which indicated that he was going to stop. To be sure, the tender would have been justified in opening it, for water craft have the right of way; but he wouldn't.

There was a place at the top of the next knoll where the signal could be seen again, for an instant, through a gap in the trees, just before the engine pitched over to descend to the bridge. There was a pleasant fiction current on the engines that it was the duty of every man on the train to look through that peep-hole and notify the engineer if the signal had been changed since the train entered the hollow; but Ben never relied upon others; no engineer would.

Just before he arrived at the opening in the trees, the glass water-gage at his side burst, and he was pretty busy for half a minute shutting it off. He tried to watch for the signal at the same time, but only succeeded in burning his fingers, so he attended to the broken glass first. When he got it shut off, he was by the place, and she had already commenced to pick up speed on the down grade.

A moment later his headlight shone into the mainsail of a schooner in the open draw.

A FINE EMERGENCY STOP.

He had her in the breeching and grinding sand quicker than it takes to tell it, and for a few interminable seconds his heart was in his mouth. He did what there was to do so quietly that to this day not even the fireman knows that a mighty fine emergency stop was made there that night.

It was a warm evening. Ben got off and felt around her, from force of habit. In going around the pilot, he realized how near he had come to running those fourteen crowded coaches into the river, and it made him faint. He sat on the bank and looked along the brilliantly lighted train, and when the draw was closed he was so weak that he could hardly get back on the engine. He had to lay off a trip, to "brace up," as he expressed it.

It seems that the regular bridge-tender had been taken ill, and had been relieved by one of the section men. This man was equally well informed as to the time of the trains, and the custom of holding the bridge for them, but he was not particularly interested; and, furthermore, he was in ill-humor at being set at a job which he did not consider his work. So it came about that when he heard Ben blow for the stop at Stonyhurst, he easily fell a prey to the profane eloquence of the schooner captain, who threatened all manner of dire consequences to him and the road unless the draw were promptly opened.

SLEEP AND TEMPORARY INSANITY.

Undoubtedly, many drawbridge accidents, like other railroad mishaps, are due to overworked engineers dropping asleep. One might think the company would hesitate to send a man out on the road, at the head of a train, who is completely tired out, and hardly able



A nice bit of Scenery near Banff.

on, Grenville came round the curve with his little three-car local.

Al was as neat as he was mean. He had a hose connected to the injector on his side, with which he was continually sprinkling the coal to lay the dust—and to keep the fireman's feet soggy. He was facing back in the tender and working the sprinkler, when he was recalled to earth by the crash of his stack ripping into the new signal, on which poor Tom's paint was hardly dry.

It was a beautiful object-lesson for the hundreds of passengers, some of whom commented on it in the old man's hearing. When the "super" climbed into his cab, seeking information, Al mumbled something about the brakes not holding on the wet rail, and the boss gave him thirty days for lack of fertility of invention.

TRYING TO "GIT 'EM THERE."

One prolific source of drawbridge accidents is the necessity for making time with fast trains, in connection with the very natural desire of the engineers to keep their jobs. While failure to make time would not result in their discharge, it would bar a man from the first-class train which has been his goal through many years of hard drudgery, and put an indelible smirch upon his reputation. That is why the temptation to take risks in order to save a minute, or even a few seconds, of time is so nearly irresistible. Having done it many times successfully, why not once more?

the open draw, waiting for the train to pass. He shouted a frantic warning to the men on the engine. Thinking it a mere friendly salute, the fireman answered with a smile and wave of the hand.

THAT WAS HIS LAST ACT.

With wide open throttle the engine leaped across the open draw and hit the bridge a blow that knocked it off its center and threw the men on it overboard. She left her timber bumpers sticking in the bridge, and dropped back into twenty-five feet of water. Thirty cars piled in on top of her. The space filled, one car and the caboose remained on the track.

How old Joe came to run into the draw was a question discussed in round-houses and on sidings for many days. The theory was advanced that he had lost himself in the storm, and didn't know he was so near the bridge. That was not accepted, as prominent landmarks were numerous thereabouts, and besides, he had crossed the same bridge too many times in all sorts of weather. Cases were cited of men dropping dead in the cab. In reply, one of the bridge-tenders said he saw the old engineer jump up, shut off and reverse her, as she leaped for the draw. This statement was refuted by the engine herself. When she was closed her throttle was open, and the engine leaped, then bent down upon the bridge, and was looked in the running.