

### A RAILROAD COLLISION AS A FORM OF AMUSEMENT.

The search for sensational spectacles wherewith to attract the attention and open the purse strings of the amusement-seeking public has led to some curious and fantastic results. Some years ago it was reported through the West that an enterprising promoter had organized a railroad wreck in which a pair of engines approaching each other at a rapid rate of speed upon a section of temporary track collided with tremendous realism. A similar spectacle was recently planned and brought to a successful termination on the Fourth of July at Brighton Beach, where it was viewed by nearly 30,000 excited visitors. Unfortunately, the arrangements for the great show were very poor, to say the least; for not only was the actual collision delayed until nearly six o'clock, but the locomotives themselves, as can be imagined, were not of the largest and most expensive kind, nor were they able to attain even a respectable speed.

Nevertheless, the sight was a thrilling one. A temporary track about half a mile long had been laid within the oval of the Brighton Beach race-track. Here, too, a mistake was made, as this length was hardly adequate to permit the locomotives to approach any degree of speed before they came in contact. All the afternoon they had chortled up and down this bit of track, simulating youthful energy under the bright coat of new paint which disguised their ancient plates and members. At last, after the great crowd had almost lost hope of seeing the much-advertised collision, the signal was given, and the two locomotives started toward each other from opposite ends of the track, the rails of which had been generously sanded to insure good traction. After the engines had advanced some 50 feet and had started to pick up speed, the engine drivers jumped from their respective cabs and landed safely—in about a foot and a half of water which covered the grassy inclosure. With whistles shrieking and clouds of black smoke mounting from the stacks the locomotives lumbered toward each other, gradually gathering speed as they neared the point of collision. It was intended that this take place near the middle point of the temporary roadway, but as one of the locomotives managed to move at a somewhat higher speed than the other, the point of contact was somewhat to one side of the originally intended position. It made little difference, however, as the entire track was visible to the spectators. Those in charge of the show had declared that the engines weighed 80 tons apiece, but we must ascribe this statement to the heated imagination of an ambitious press agent, for it is doubtful if either piece of mechanism exceeded 50 tons in weight. Notwithstanding, the spectacle as the locomotives crashed into

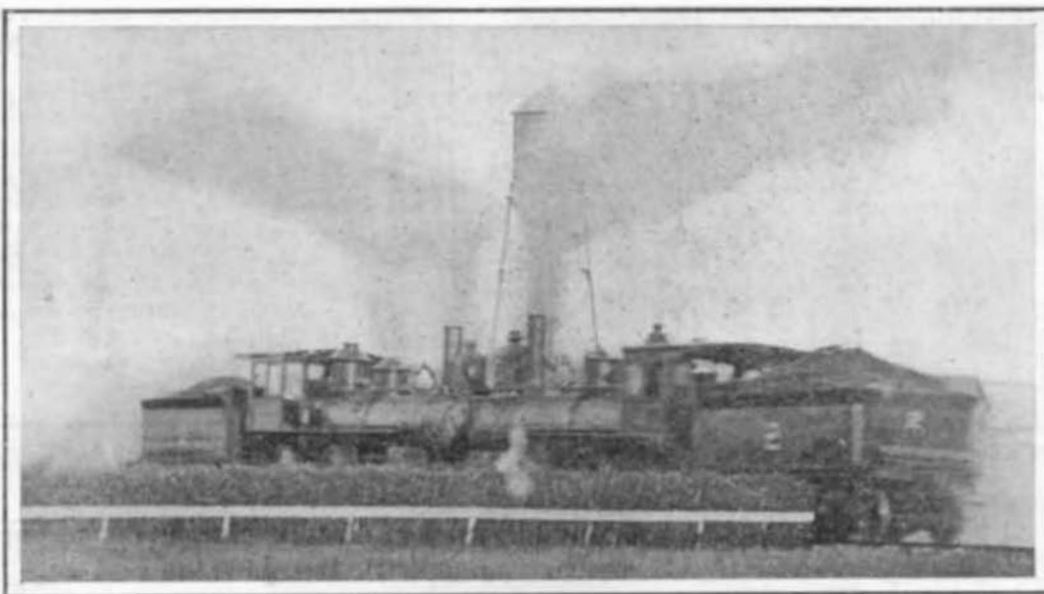
one another was sufficiently impressive. As they struck it was seen that the force of the impact lifted the interlocked forward ends high in the air, while the rear ends of the tenders were likewise raised by the force of the concussion. This phenomenon, which

actual collision, as shown in the above-mentioned photograph. Nevertheless, the damage was such that both engines are, of course, useless for anything but the scrap heap. One engine suffered more severely than the other, though it is difficult to estimate to what this fact is due. The forward ends of the boilers telescoped almost exactly and rather neatly, the upper rim of the shell of engine No. 1 shearing off the smokestack of engine No. 2. The steam dome of engine No. 2 is also badly battered. The greatest apparent damage is that to the forward trucks and the cylinders, with their valves and other gearing, particularly in the case of locomotive No. 2. In both engines the forward trucks were torn loose from the body and smashed backward into the mechanism of the driving gear, tearing, bending, and crumpling everything underneath the boiler. The cylinders of locomotive No. 2 were torn from the yoke and forced outward and downward, while the cylinders of locomotive No. 1 suffered less severely. The tenders and cabs were also badly bent and shattered. It was unfortunate that the speed of the engines was not greater—it is doubtful if either attained a velocity of 20 miles an hour—though as far as the sight for the curious spectators was concerned, it could hardly have been more impressive.

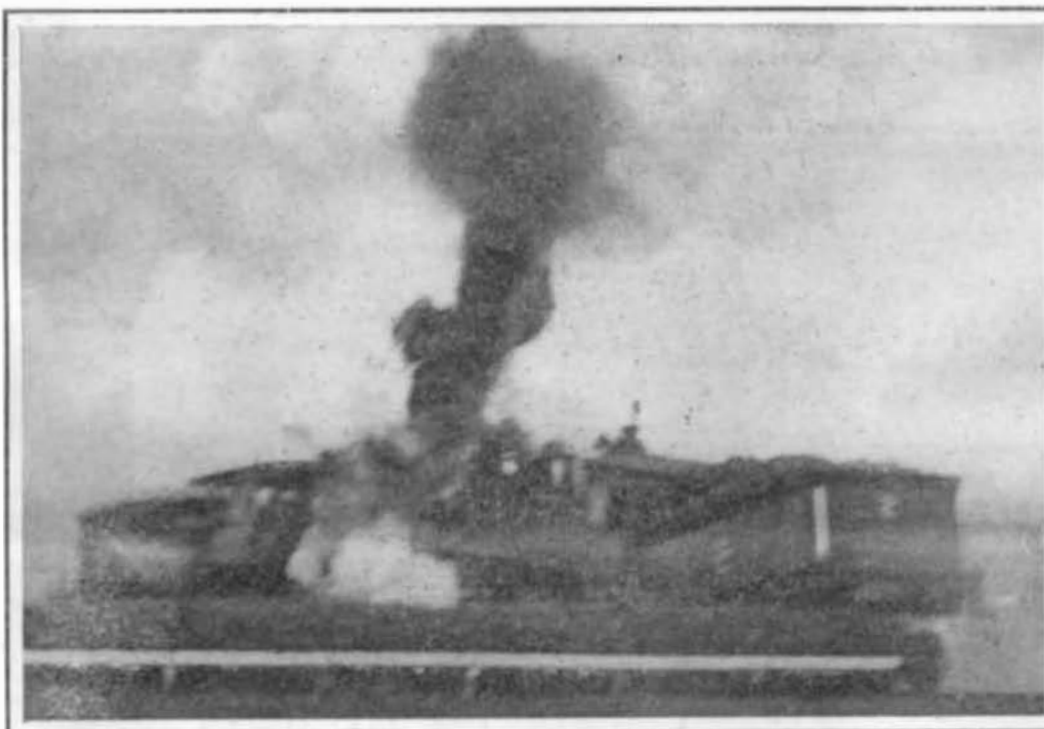
In another of the accompanying photographs, the engines are shown just at the moment of collision but before the effect of the blow had affected either machine. But a puff of steam from the boiler of No. 2 indicates that the force of the blow had already started an outlet for the contents. Had the picture been taken a fractional part of a second later, the view would have approximated the second photograph, showing the great masses of

iron reeling and buckling under the impact of the collision. Before the steam and smoke cleared away thousands of people swarmed across the water-sodden inclosure, and proceeded to snatch mementos in the shape of bits of iron, splintered woodwork, or anything which was not too hot to handle, from the engines, and so enthusiastic were these relic hunters that it was with the greatest difficulty that the attendant police guard prevented the carrying away of the major part of the twisted metal, and thereby saved the promoters an additional profit to add to their already huge receipts.

Attention has been drawn by Prof. Thurston to the effect of water dropping on the wheel from the casing. The energy absorbed by a single drop of water falling on the periphery of a turbine wheel, 10 feet diameter, running at 500 revolutions a minute, amounts to 67.7 foot-pounds. When it is considered that of the steam passing through the turbine some 20 per cent is condensed, we see that the loss from this cause may be important.



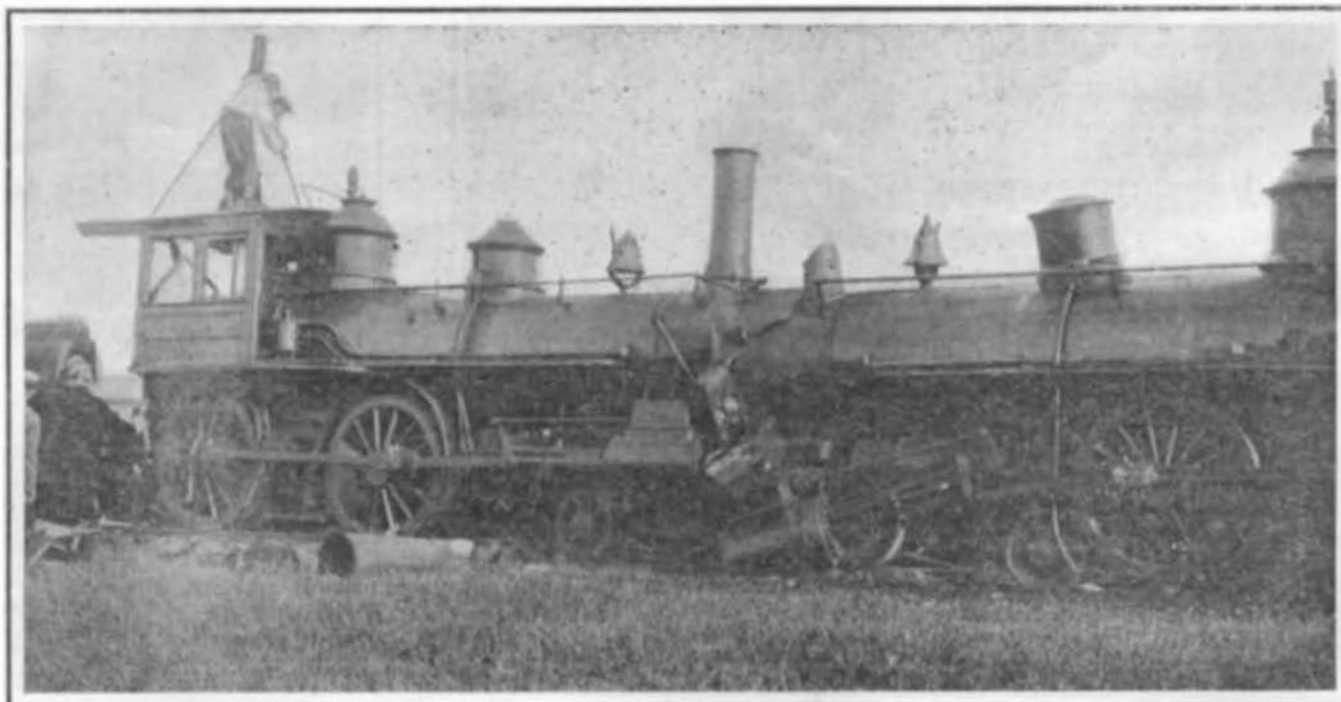
Just Before the Locomotives Crashed Together.



The Moment of Collision.

has been noted in prior collisions, both accidental and premeditated, is clearly visible in one of the accompanying photographs. It could be seen, however, for but an instant, as great volumes of steam and smoke at once burst forth from the riven shells and hid everything from sight. Fragments of metal, coal from the tenders, and water from the tanks were scattered for yards around the wreckage.

After the shattered boilers had emptied themselves of their scalding contents, it was seen that the damage was apparently not as great as indicated from the



After the Impact.

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