

ELECTRIC LOCOMOTIVES OF THE PENNSYLVANIA RAILROAD.

With a view to determining the type best adapted to pass its heavy passenger trains through the New York tunnels, the Pennsylvania Railroad has in progress a series of experiments upon electric locomotives. On its West Jersey and Seashore Division and on the Long Island Railroad, two direct-current, heavy-type locomotives have been put in service. In general appearance they are quite similar, and resemble a short two-truck passenger coach, with few windows and large wheels. One of the locomotives weighs 174,100 pounds, and is equipped with four motors, aggregating 1,400 horse-power, which drive the wheels through single reduction gears. The other locomotive weighs 195,200 pounds, and is equipped with motors aggregating 1,240 horse-power, which drive the wheels directly without gearing.

By comparing the performance of the two locomotives, it will be possible to determine the relative merits of the two systems of driving. Another important question, relating to the method of supporting motors, will be settled by observing the performance of one of the locomotives. One of its trucks has motors fastened to the truck frame, and the other truck has motors which rest on springs supported by the main journals, and which are independent of the truck frame. The couplers and buffers are carried by the trucks instead of on the underframe of the car body. By this arrangement, strains of buffing and pulling are transmitted directly through the trucks, and do not enter the body of the cab at all.

Over all, the locomotives measure 37 feet 10½ inches in length, 10 feet 1¼ inches in breadth, and they are 13 feet 4 inches high. The driving wheels, which are 4 feet 8 inches in diameter, are supported by axles 8 inches in diameter at the center. The cab is of steel, and the electrical apparatus which it contains is arranged along the sides, allowing a passage through the center. Electrical connections are so arranged that if two or more locomotives are coupled together and pulling the same train, they can be controlled by the engineer of the first locomotive.

A Widespread Scientific Hoax.

BY FELIX J. ROSE.

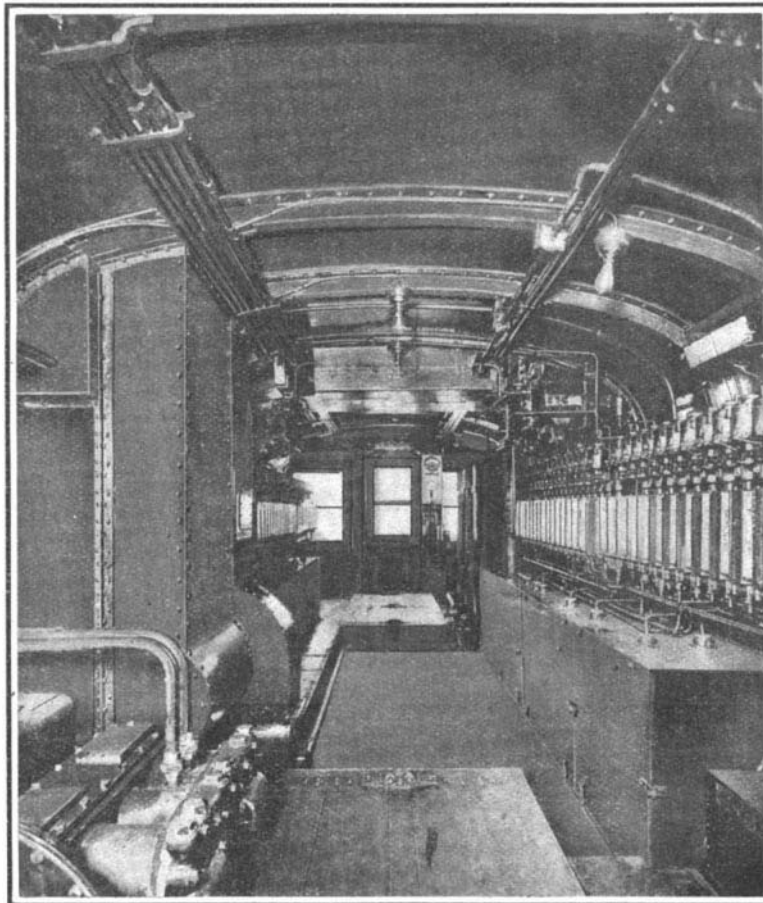
While scientific hoaxes of every sort are heard of and overthrown from time to time, there is one "fake," at least, which has managed to survive well on to a quarter century, and having crept universally into the histories, ethnologies, and anthropologies, will doubtless require many years for its complete overthrow in the minds of the public. This hoax was the plot of a simple miner in Calaveras County, California, a good many years ago, and it has been perpetuated by the most careful scientists as the famous "Calaveras skull."

Almost unknown to fame, there now lives in Los Angeles as assistant rector of the Episcopal Pro-cathedral, the Rev. Mr. Dyer, to whom belongs the credit of exposing the Calaveras imposition.

Mr. Dyer, who is now a man quite well along in years, tells his story as follows:

"I was stopping in the eighties with John C. Scribner, the Wells-Fargo agent, druggist, and keeper of the country store at Angels Camp, Calaveras County, about five hundred miles from here. This Angels Camp was a mining camp then of about three hundred population; and at the time the trick was played the population was slightly greater. I was talking with Mr. Scribner in his store, and also with an old friend of his who happened to be present, and whose name I have forgotten. Conversation led to old times, and among other incidents coming up, was the story of how they fooled everybody about the famous skull. They, however, assumed that I and every one else now knew that it was all a trick, and no longer attempted to

disguise the facts, as they were glad they had had a little laugh over the effect of it. What they had said convinced me that the trick was as stated. On my return to Los Angeles, therefore, I called on an old gentleman they had mentioned as having had a hand in it, and by recalling certain incidents to him, got him to recount the hoax.



INTERIOR OF THE NEW TEST ELECTRIC LOCOMOTIVE OF THE PENNSYLVANIA RAILROAD.

"His story was a typical one of the old mining camps. The skull, he said, had been placed by Scribner in Matson's mine at Angels Camp, to fool Matson. This man Matson was a blacksmith, who, when work was dull, would dig a bit deeper down in his shaft. Scribner, therefore, dug into the debris at the bottom of the mine, and hid the skull where Matson's pick must strike it. Matson, as per the plotter's plan, went down the shaft very shortly after, struck into the earth, and the first thing his pick brought up was the skull.

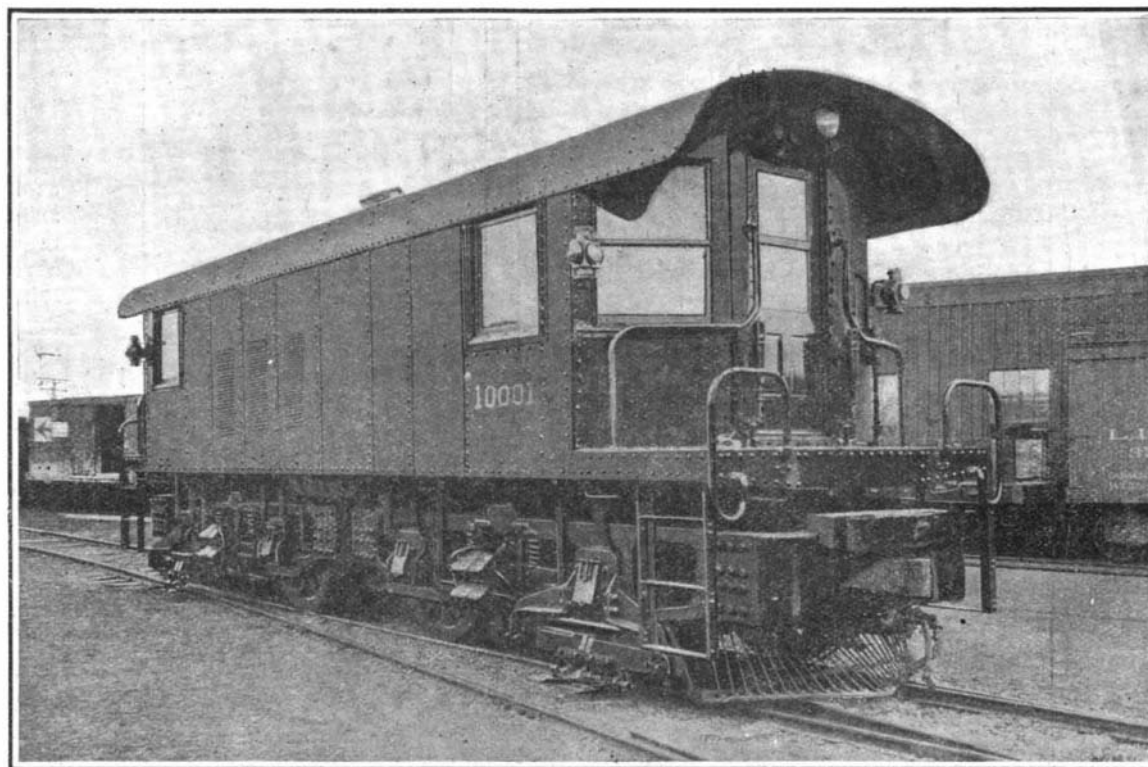
"Of course Matson was astonished. The skull, he

him of the find. The joker kept his secret, and the fame of the skull spread. Gradually both the story and the cranium came into the possession of a certain Dr. Jones, of Murphy's Camp. When State Geologist Whitney came through that part of the State, he was made acquainted with the find, and secured the valued treasure. He, after investigation of the place of finding and the nature of rock, gave credence to the tale, and proclaimed the finding of the skull of a man of the Pliocene period.

"It remained for a poet, Bret Harte, to hit at the truth—in a humorous poem suggesting that the skull was that of a Digger Indian. Scientists the world over, however, felt assured that the oldest human remain now known was that of this creature of the Pliocene era. Only Prof. Le Conte, of the State University, was dubious, and his scruples were based on a feeling that there never had been definite proof that the skull had been found where stated. He, however, described what facts were known to him, and let the question remain open. Meanwhile the Smithsonian Institution sent men to take samples of the earth from the surface at Angels Camp, and at different depths in that shaft. The wiseacres also inspected the skull, and found some earth inside it. This they took away to analyze, but no one knows what their tests proved. Possibly they learned that there was a stratum of the earth of to-day down in the bowels of the Pliocene strata, a statement so ponderous that they felt it would not do to make it public. But whatever was found, the tests were not made known.

"From time to time one has heard doubts expressed about the skull. The old men of the camp locality have long known the truth, and told it to anyone who would ask and listen. It is one thing, however, to proclaim a discovery, and have it taken up by the press, and quite another to get a denial as widely spread. When I discovered the facts, Scribner had been dead several years, and at rest back in New York State. At the time of his funeral, I was told, they pronounced quite an oration upon his career at Angels Camp, when again the story was told, and his sister has written me that she too for a long time knew the truth about the skull. I first told the facts to a reporter of the Los Angeles Times, but history seems to stick to the delusion. I visited Angels Camp for the last time in the eighties. Near the foot of the camp there was then still an Indian burial place (there having been an Indian village nearby), and skulls could readily be obtained.

"As to the skull, there are pictures of it in the reports of the Smithsonian Institution, and from these it is evident that the Indian was a Digger, and that he had died of violence, having been crashed on the head by a heavy bludgeon, in such wise as to cause him to throw the head far back, so that it is on a level with the spine, a bit of the backbone still remaining."



ONE OF THE NEW 1,400-HORSE-POWER DIRECT-CURRENT ELECTRIC LOCOMOTIVES INTENDED FOR USE IN THE EAST AND NORTH RIVER TUNNEL SERVICE.

saw at once, could not have grown there, nor could it have fallen there. Matson, by the way, was really an intelligent man, one of a great number of men who had come out here to make their 'pile,' and then quit the country as soon as possible. He recognized the possible value to science of the skull, and took it to Scribner's partner, who took it to Scribner, telling

in 1906. The movement of other grades in 1906, compared with 1905, shows an increase of 633,991 barrels.

The radium mines at Joachimsthal, in Austria, recently supplied the Vienna Academy of Science with ten tons of uranium ore, and this has yielded \$250,000 worth of radium.