

Congress in Field of Electricity

Gauging Speed of Electric Trains.
THAT the engineers of our modern electric locomotives will be puzzled to know how fast they are going, and that this will be a source of amazement and possible danger, is asserted by a writer in the Railway Age. This inability to estimate speed which is due to the fact that the electric motor is rotary, not reciprocating, must be present on the ordinary trolley car, but it is of little importance to the motorist compared with the former steam locomotive engineer who will pilot passenger trains on steam lines, such as the New York Central railroad, says the writer.

"The man at the throttle, with a throbbing engine under him, has a number of ways of knowing unconsciously the speed of his train, even in the dark. He can tell instinctively, from the tempo of the various rhythmic motions of the engine, almost with exactitude his rate of progress without glancing at watch or milepost. Or in daylight he knows subconsciously, from the very fact of having had under his eye for years the revolutions of his driving wheels or the movement of the rods and pistons almost precisely the speed per hour which their motion represents. It is a well known experience with engineers that when, after a long period with a particular engine, they are given a locomotive with much larger driving wheels, they are for a time somewhat at sea in their speed calculations owing to the slower movement of the drivers. One of the officials in charge of the New York Central electric engines, who has himself had experience in the steam locomotive cab, thinks that this difficulty may for a time be a source of considerable danger to steam engines with electric engines on fast trains. The electric engine has no reciprocating parts; it is rigid, moves noticeably and with very little vibration. Apparently the only way in which the speed can be judged is by careful attention to the rapidity with which the objects at given distances from the train are passed. He says that in a recent run on an electric engine which his training told him contained spurs at the rate of sixty miles per hour, he was surprised to learn from others who had closely observed the mileposts that he had traveled at the rate of about eighty-two miles an hour. In the change from steam to electricity the craft of the locomotive engineer will, in various ways, be developed in new channels."

Phones in Greater New York.
FIGURES just given out by the New York Telephone company show that that corporation had in service and under contract on September 1, 1906, 1,533,344 telephones, 4,338 telephones. This increase would seem to indicate the growing activity of New York in midsummer and appreciation of reduced rates. The value of telephone service is measured by the number of people with whom a subscriber can communicate. New York's telephone system is the largest city telephone system in the world. It has nearly two and one-half times as many telephones as London, the largest city in Europe, and more telephones than there are in Berlin, Hanover, Leipzig, Dresden, Breslau, Cologne, Frankfurt and ten other German cities, each with more than 100,000 population. Add to this fact that it has long distance connections with over 3,000 cities and towns in the United States and Canada with over 1,500,000 telephones, and an idea is gained of how comprehensive the Bell system of telephone communication has become.

Creeps by Electricity.
 By spreading currents from a static electrical machine over a plot of growing carrots, Prof. Lemstrom of Helsinki, according to B. Tolksdorf in the Leipzig Illustrirte Zeitung, has increased the yield by 33 per cent during the first year and 50 per cent in the second year, as compared with similar plots not electrically treated. On small parcels of land experiments with potatoes, the currents being generated in the earth by means of copper and zinc plates at intervals and connected by insulated wires about the growing vines, have recorded an increased yield of from 60 to 100 per cent. The large harvests of Spitzbergen and Finland—more bountiful than in districts lying much farther north than any other, are attributed by many scientists to the electrical influence of the aurora borealis. These phenomena occasioned the artificial experiments of Prof. Lemstrom, which tend conclusively to show that the action of electricity is beneficial to growing and ripening vegetation. Explanations are variously given, some referring the cause to electrolysis of nutritious salts in the ground, thus rendering them more assimilable by plant roots. Others hold that electricity increases the osmotic activity of the plants, the sap flowing more abundantly under its influence. In growing vegetables and grains experiments prevent the plants from withering under the current. Possibly the better irrigation thus provided would in itself largely explain the success of the experiments, year and year on in the second year, as compared with similar plots not electrically treated. On small parcels of land experiments with potatoes, the currents being generated in the earth by means of copper and zinc plates at intervals and connected by insulated wires about the growing vines, have recorded an increased yield of from 60 to 100 per cent. The large harvests of Spitzbergen and Finland—more bountiful than in districts lying much farther north than any other, are attributed by many scientists to the electrical influence of the aurora borealis. These phenomena occasioned the artificial experiments of Prof. Lemstrom, which tend

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Entertaining Little Stories for Little People

Tommy's Dream.
TOMMY had a curious dream one night. He had been kept in from play to help his father. But, in his loneliness, he had thought of his father and his play. He was cross about losing his play—so cross that his father quietly remarked he would not ask him to stay in again.

When he lay down to sleep that night, he dreamed that two angels were sent down to earth to make a record of all the nice, loving things the boys and girls were doing. One angel was to take notes of all the big things that were done, and the other was to write down all the little, unnoticed deeds of life. They parted as they reached the earth, and when they met again, they were to compare notes. One had scarcely filled two pages of his book.

"There are not many conspicuous things done, after all," he said, in explanation. "I have scarcely found time to write down all that I have seen," said the other angel, and he showed a little book filled from cover to cover with the record of loving little deeds.

Tommy's heart stood still, and he thought, "My name must be there, too, for it was a nice thing to do." He thought of the things he had done, and he thought of the things he had seen. He thought of the things he had done, and he thought of the things he had seen. He thought of the things he had done, and he thought of the things he had seen.

Her Portraits.
MY mamma has a watch of gold; it tells the time of day, I'm told. And in the picture there, she can see a little picture in, of me.

She has more pictures, in a book. That the photographer-man took. When I was three years old, she said. And when I'm five there'll be one more.

But you don't know how I was surprised. When I looked in my papa's eyes. To see as plain as plain could be. Two—Lydia Hall, in Good Housekeeping.

Who Took the Papers?
"Now children, who took my papers?" "I don't know," said Nellie, in a very little voice.

"Dick," said the truth now, if you know anything about it." "Did Nellie say anything about coming to play in the study?" "Yes—she did last week." "Pshaw! I mean this morning." "I think—not this morning." "Charlie, you tell me who came to play with you here." "I don't know," said poor Charlie, who was dreadfully frightened.

"Now, children, you know how hard papa works with his papers every day. They must not be taken away. Nobody has been in the house but you and mamma since I went out—stop! Did the goat get in here?" "Perhaps he did," said Nellie, looking up. "But how did he get here?" "He was playing in the yard with us," said Dick, "and—O papa! I know! Some papers blew into the yard and Billy chewed them."

Just then a little breeze sailed through the window. It picked up a leaf from papa's papers and whirled it around and round in the middle of the window again.

"Then papa laughed," said Nellie, "and was going to punish the one who stole my papers—now what shall I do with the wind?" Nellie and Dick laughed then, but little Charlie said, very soberly, "You might ask it up in the closet."

Papa laughed and said, "Let's go and find Billy and see what he says." And sure enough, there was Billy chewing—chewing, and when papa pulled a piece of paper from his mouth he found his own writing upon it—Golden Rule.

San Francisco's Little Heroes.
THERE is much work for these homeless children by the sea. Mothers find it hard to keep their families clean, and to care for babies in camp, so big sisters must help tend the little ones, and boys must find work to keep the camp fires burning. Indeed there are many children of tender years who are earning their own living in San Francisco. Down amid the ruins where heaps of bricks and rubbish are strewn about in confusion, and everybody must walk in the middle of the street, dodging the honking automobiles and the teams hauling brick and scrap iron, newsboys are selling papers as busily as ever. On the water front, hard by a camp of soldiers, I found one youngster making a good living peddling packages of chocolate. Two urchins were tending a little roll of copper wire which they were selling and they proudly informed me that they had already made 30 cents. Another boy had a stand on the street curb amid the ruins, where he was selling rolls of the fire. Down at the Ferry street two boys had started a flower stand and had thus brought a touch of brightness and cheer into the midst of the scene of desolation. Out amid the ruined houses on the slope of Russian hill, I found a party of children working away at digging up a brick

Hubby Was Comfortable.
PASSENGERS on the ocean liner Euribia, which reached New York recently, had a lively time in an Atlantic storm. A woman missed her husband and hunted in all parts of the ship, but she could not find him. She got the notion that he had fallen overboard, and eyewitnesses declared that she wanted to go overboard to see if he was there. Later she found him in the smoke room sitting up with a tall glass of Scotch and soda. One old woman got in the main saloon and knelt in prayer. One of the officers told her that there was no immediate necessity for prayer. Up got the elderly woman.

"Sir," said she, "I am taking no chances. Before I left New York a fortune teller told me that if I took an ocean voyage I would never get back alive. I must do something to counteract that prophecy—I will continue to pray."

Then there was a rather nervous man. When he was awakened early in the morning by the rolling of the vessel he got the life belt under his bunk and without waiting to put on all of his clothing ran on deck. There he was about until two stewards assured him that he would be called in time when the ship began to stop. Then he went back to his state room.

Lightning Took His Black.
ATLANCIC City physicians who have been marveling at the wonderful escape of William W. Truex, a blacksmith, who survived being struck by lightning in his boat during a storm, are still more mystified as the strange tale he has taken. The lower part of the victim's body, it is said, has turned black. The skin below the waist began to darken the day after the accident, and it is said that it has now become blacker than the flesh of an ordinary negro. It is not the color of burned flesh, such as marks the course of the bolt down the victim's neck and back. Truex suffers little

Quaint and Curious Features of Current Life

A Nebraska Breakfast.
UNCLE CLIP FAIRCHILD of Platte county, whose fame as a humorist exceeds counting, gives to the Columbus Telegram this suggestion for a breakfast menu:

"Arise about 5:30 on a cool, crisp morning, like last Sunday, after you have passed the night on the soft side of a Platte river sandbar, with the blue sky for a quilt; take a nice blue catfish, weighing about two pounds, fresh from the river; diorobe the fish of all superfluous, external and internal, roll it in cornmeal and fry to a crisp brown in hot bacon grease, having previously secured the bacon for garnishment; take three large ripe tomatoes, well covered with meal, and fry them also in the grease; take one loaf of bread, cut in slices of about one inch thick, and toast the same over the flames of the pungent campfire; take one certain coffee, better half filled with river water, dump therein the contents from a three-ounce package of a good brand of Mocha blend, and bring to a boil. If, under the circumstances, you cannot eat like a horse, your blood is too thin for a real sport."

Chinese Style.
"It is 600 years since the failure of a bank in China," said a bank examiner, "More than 500 years ago, in the reign of the Emperor, a bank failed. In 1493, the failure was investigated, and to his indignation found it had been due to reckless and shady conduct on the part of the directors and the president. He Hung at once issued an edict that the next time a bank failed, the heads of its president and directors were to be cut off. This edict, which has never been revoked, has made China's banking institutions the safest in the world."

The Land Octopus.
On the shores of Lake Nicaragua is to be found an uncanny product of the vegetable kingdom known among the natives by the expressive name of "the devil's hand." Dunstan, the naturalist, discovered it not long ago while wandering on the shores of the lake. Attracted by cries of pain and terror from his dog, he found the animal held by black, sticky bands, which had chafed the skin to bleeding pain. These bands were branches of a newly discovered carnivorous plant, which has been aptly named the "land octopus." The branches are flexible, black, polished, without leaves and secrete a viscid fluid.

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