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COUPLING A DYNAMO TO A CAR-AXLE.

The experiment now making on the railway between London and Brighton (London, Brighton, and South-Coast R.R.), to electrically light trains by accumulators charged by a dynamo geared to a wheel-axle, will be watched with much interest, because of the convenience and, perhaps, economy of the system. The idea is not, of course, a new one, but one which heretofore has been thought impracticable. In the system now employed on the "specials" of several of our own roads there is found to be much labor and consequently expense in removing the accumulators from the cars for recharging at the dynamo station and returning again; great care must be taken in adjusting the connections, while, in some cases, it is necessary to break the train and side-track the car containing the cells; thus calling for double supervision, for trainmen as well as electrician. There is still another plan for lighting trains electrically, which, in some quarters, is thought to offer better advantages than either of those in use because requiring far less battery power, to wit, establishing the dynamo on the engine; the batteries similarly placed, and only powerful enough to light up when the train stops, which, with "specials," is not often. The eighty lights now employed in the English experiment could readily be generated in this way, and the three tons of cells which now encumber a forward car could be greatly reduced in bulk and removed from the train proper.

ARE TOWNSMEN OR COUNTRYMEN THE HEALTHIEST?

Quite a remarkable paper on this subject was recently read at the British Association meeting at Bath, England, by Dr. G. B. Barron; remarkable because, though the doctor's experience leads him to the assertion that countrymen are the healthiest, the statistics he presents, as will be seen, do little or nothing to sustain him, and, on the broad question, authorities equally reliable have admitted that, class for class, there is no reason for the averment.

Town life, Dr. Barron says, leads to degeneracy because of bad air and bad habits. "Absence of pure air acts upon the animal economy in much the same way as withdrawal of light from plants, the result being pallor and feebleness and lack of constitutional vigor. This effect ramifies in every direction; the tissues of which the human body is composed lose their tenacity and contractile power, and even mental integrity may be more or less affected." In the interests of the Anthropometric Society, the doctor measured 300 men, city men and countrymen, and admits that he failed to discover "any satisfactory evidence to lead to the conclusion that, in actual inch measurement, the townsmen were appreciably inferior."

He says, however, that the countrymen were superior in "tone of muscular activity," but does not say if this fact is sufficient warrant for calling the townsmen "degenerate." Mr. Francis Galton measured 9,000 men at South Kensington during the health exhibition, comparing the average with the men of Cambridge University, and surely any unprejudiced person must admit, after studying these figures, that the doctor could not have done worse in his attempt to sustain his ground than to offer them; for it should be remarked that college men are always young and usually vigorous, are not more likely to come from country than city, and that the 9,000 men examined by Mr. Galton were taken haphazard, of all ages, most of them poor, perhaps unused to proper food, perhaps living under peculiarly unfavorable conditions. Here is the table:

Table with 5 columns: Height, Weight, Breathing, Pull, Squeeze. Rows for Cambridge and Kensington.

Should such a course of reasoning as this be adopted, it might be affirmed that throat trouble is more prevalent in New England than in New York City, and the proof sought by comparing the statistics of the coast people, notoriously thus afflicted, with the Columbia College boys, or that the "tone of muscular activity" was superior in city-bred men to those of the country by putting the athletic clubs against the dwellers in a country village.

Again, Dr. Barron says: "Let the town dwellers of the same height and weight go to the Grassmere sports or the Braemar gathering, and try conclusions in wrestling or games of prowess and endurance, and the issue will not long hang in doubt." But the men that take part in these sports go in for athletics, while the general public of the city, like the general public of the country, have not the time, even if they have the inclination and opportunity, for such practice. Should, however, the same class of a city engage with those of the country, and surely this is manifestly the only fair test, there is no reason or statistics to indicate that the countrymen would prove the better. In our own country, the fact was notorious during the civil war that city men have more endurance than countrymen; they stood the long marches better, were subject to less disorders, more active and wiry, and recovered more readily from gunshot wounds.

POSTAL STREET CARS.

Mr. Frank Brown, postmaster of Baltimore, Md., makes a very useful suggestion in relation to the utilization of street cars to assist in the rapid collection and delivery of city mail matter. In most of the large European cities they now have pneumatic tubes, by which the quick delivery of special messages is accomplished at a high charge. But a much quicker, cheaper, and more serviceable system for the public might be easily arranged if the street cars were employed. In New York not only might the street cars, but the elevated street railways might be brought into the work, and the city provided with a splendid system of postal delivery and collection. We have heretofore urged this matter upon the attention of the government. We wish some of our senators and representatives in Congress would take up the matter. It is simple and easy of accomplishment, and might be quickly put in operation.

The introduction of such a system, in addition to its great convenience for the public, would put an end to all those disgraceful interruptions of traffic that periodically take place when roughs obstruct the cars, abuse the drivers, and threaten the lives of honest citizens. The street car lines would then be declared mail routes, and no stoppage of travel would be tolerated.

Mr. Brown's suggestion in respect to the city of Baltimore, given in a letter to the New York Tribune, is as follows:

It is my intention, if approved by the department and the companies, to place letter boxes on the rear dash of every car in Baltimore City, and to have collectors collect mail from all sections of the city and deposit it in the first car that passes them, the collector to remain in his district and continue collecting and dispatching to the main office during the entire time he is on duty. Under this arrangement the dispatch and delivery of the mail would be greatly facilitated, as many of these letters would arrive at the office to make trains they now miss, and, in addition, the citizens of this city would have full benefit of the special delivery system, as a letter placed in a box on one of these car lines will proceed immediately to the post office (instead of remaining in a street box to be taken up by collector), and on its arrival at the main office be delivered by special messenger.

As the cars pass the nearest point to the post office they would not be called upon to stop, but only to slow up sufficiently to allow the collector to open the box, take out the mail, and close the box. No additional expense would be incurred by the department other than the cost of the boxes, which would be nominal. The city being covered with a network of railways, every section would have equal advantages so far as the rapid collection of mails is concerned, and the letter carriers would not be forced to carry immense bags of mail through rain, slush, heat, and cold to the post office. The street lamp-post boxes would remain intact, as at present. In the event of a "tie-up," or strike, these street boxes would be used as they now are, and the letter boxes on the street cars would be unused, as the cars would be packed in the sheds of the various companies. In case of a fire, which might blockade the cars, the collector on whose district the blockade occurred would be ordered to proceed to the fire immediately, empty the boxes, deliver, and report to the office.

The Tornado.

A tornado which produced disastrous effects in many places on the night of January 9 visited a large region, including portions of New York, Pennsylvania, and New Jersey, and extending up to Canada. Among the more remarkable effects were the destruction of the Reading Silk Mills, in Reading, Pa., the carrying away of the trusses and platform of the Niagara foot bridge, and the explosion of two gas holders in Brooklyn, N. Y. The silk mill fell with some loss of life, but it is believed that two circumstances did much to avert the additional horror of a conflagration. It was lighted by electricity and was heated by steam. The engineer turned off the current as the catastrophe occurred, and an employe of the mill, with great presence of mind, rushed into the engine house and shut off the steam.

The Niagara bridge began oscillating under the effects of the gale, and the last passenger, crossing it at midnight, had all he could do to make his way over. It is supposed that the suspension rods began breaking at the center of the span. The noise of their fracture could be heard sounding like the snapping of twigs, and eventually so many failed under the increasing strain that the whole floor and side trusses of the bridge were carried away and fell into the river below. The towers and suspension cables remained intact. This was late at night. The storm raged with severity in Brooklyn, and about 7:30 P. M. the two gas holders belonging to the Citizens' Gaslight Co., on the corner of Fifth and Smith Streets, exploded. One of them was known to be far from strong, and presumably the pressure was too much. It either tilted or forced in the sides, or possibly caused the coupling to fail. The escaping gas became ignited, and at once nearly half a million cubic feet of gas burst into flames, lighting