NEWSPAPER REPORTS

Test trains in the underground electric railway in Budapest. – *For this purpose, the cars of two systems were put into motion. In the first system, movement is transferred from motors to axes, in the second system motors are placed directly on wheel axles. In both cases, cars moved at a speed of 20–25 km per hour, and it turned out that this speed could easily be brought to 40 km per hour. Of particular interest in these experiments was the circumstance that both stopping of cars and their starting occurred without any noticeable tremors. This should be attributed entirely to the use of a very cleverly arranged closer of Siemens and Halske, which makes it possible to automatically gradually increase the tractive force from starting of a train to the desired speed (Zeitg, V.V. D.V., 1895, No. 92).*

(Rail Business [Zheleznodorozhnoe delo]. – No. 3–4. – 1896. – p. 31)

Application for settlement of motion of cars of urban railways. – *One of Philadelphia's residents filed a curious petition with a court for settlement of motion of cars of the electric traction company. It is difficult to imagine how a court can satisfy a petitioner, without completely stopping the movement of cars. The petitioners' children usually run along the street, with different assignments and are «entertained by innocent games necessary for pleasure and for preserving health». The issue to settle the course of cars so that children can safely play on the track itself is not an easy question. The petitioner accuses the entire car service in general for the fact that the speed is too high and that there is no real type of rescue equipment, and furthermore states that «often the cars on the move swing from one side to another and the continuous ringing of bells produces such a noise that they cause, according to the petitioner, harm, both to themselves, anf especially at night to the townsfolk, preventing them from falling asleep due to noise». The applicant petitions for elimination of harm, but how to do it, it is not stated in the complaint (Str. Ry Gaz, 1895, No. 22).*

(Rail Business [Zheleznodorozhnoe delo]. – No. 8. –1896. – p. 79)

Transformation of gravitational force into electrical energy. – *An electric railway, which receives its motor power from movement of its own cars, would represent a nearly probable perpetuum mobile, and a road of this type exists in the North America, in the state of Michigan in an iron mine. Mines are located on a high mountain, the ore mined there is transported by rail to the valley, empty cars must be lifted again, to the mountain. Usually in such cases a railroad system with an endless wire rope is used, here it is impossible, since it is necessary to lift empty cars on the opposite side.*

They resorted to electricity by the following original method. Instead of losing or destroying, as is always done, the considerable living force of the descending cars by means of brakes, a dynamo was put in one of the cars, in which the electric current is generated by rotation of the axles of the cars and the exciting anchors placed on these axes, here is the force of gravity or the energy of the earth's gravitational force. Usually on electric roads the dynamo-machine gets the motor force by touching the wire, in this case, on the contrary, the machine transmits the motor force to the wire that directs it to the accumulators with which it is transmitted to the car of a train going uphill with empty cars; thus the latter rise without special, at least not expensive, adaptation. Delivery of cars to the mountain is urgent; sometimes before that they are loaded, of course, with all the necessary materials, and for the most part there is always a stock of accumulated motive power, which is also applicable for other purposes in the management of mines (Petersburger Zeitung. Industrielle Beilalage, No. 14).

(Rail Business [Zheleznodorozhnoe delo]. – No. 33–34. – 1896. – p. 284)

London fogs and railways. – «*What London fogs do to the railroad societies?*», *one of the London special magazines answers this question. These fogs have long enjoyed worldwide fame. Thanks to them, the railways must keep whole armies of so-called fogmen (people in case of fog). These watchmen are distributed at each step of the lines and must give signals of danger. These signals are not lights, as in the fog they are not visible at all, but firecrackers that fogmen lay out on the rails. When the locomotive passes on them, the firecrackers explode, and the driver knows that there is danger. The North western-Railway company had to hire 2402 such fogmen during one fog, and the company Midland-Railway – 4000 people. In addition to the daily salary, you need to take into account the cost of firecrackers, which, although they are cheap, but still due to the huge amount result for all railways in a very large amount of money: only in November and December 1890, the Southwestern-Railway company spent 118760 such firecrackers (*«*Birzhevye vedomosti*», *No. 261).*

The tropical road of the Eugen Langen project. *(See «Zheleznodorozhnoe delo», 1891, p. 124) – After Germany, thanks to its colonies, established itself in Africa, it needed to take care of culture and civilization of its possessions. The main condition for success of the mission of Germany is organization of routes not only in the proper quantity, but also those that exactly correspond to the topographical conditions of the colonies. The tropical road under the Eugen Langen patent seems to be quite consistent with its purpose: to facilitate the German pioneer service in Africa. At the Berlin industrial exhibition, the company «Continentale Gesellschaft fur electrische Unternehmungenin Nurnberg» exhibited a model of such a road. The weight of a train of this road is 4000 kg and it is sufficient for significant traffic; for colonial purposes, a lighter road is also suitable. On the lightest road, the weight of iron for each meter of the structure is 70 kg, the weight of each car is 800 kg, the capacity of a car is 1200 kg. Thus, a train, consisting of a locomotive and three cars, can carry 3600 kg of cargo.*

In the journal «Verkers-Zeitung», No. 25 it had already been reported about the successful outcome of the test trip. This small hanging road has huge advantages in front of ordinary narrow-gauge roads. If on ordinary roads with 60 cm of track width derailment is not rare, then on a hanging road it is almost impossible, even with axles or wheels broken. With this safety, it is possible to impart the cars a considerable speed. The opportunity on this road, with smooth rails, to overcome the rises, which until now was achieved only with the help of ropes or gears, is also a significant advantage. In addition, with such a road, roundings with a radius of up to 8 m are allowed, without the slightest danger for movement. But what, besides the above mentioned advantages, makes a hanging road especially suitable for tropical countries, this is that unintentional drifts, clogging of drainage pipes are impossible on it, and besides, it requires almost no excavation. These three points made construction of roads in Africa too expensive, and sometimes even impossible. Floods also can not impede traffic.

Trains will be powered by electricity. Electric stations will be located at a distance of 25–50 kilometers from each other, and will be equipped with kerosene engines connected directly to dynamo-machines. The conductor, attached near the rail, will feed the electric motor of the train, the same rail serves for the reverse current. Where water is available, it will be used to generate electric current.

The arrangement of stations and commodity stores is remarkably simple. Worthy of note is also the remarkable cheapness of the device of this road. The expense for construction of a tropical road is 25000 marks per km, including locomotives, cars, electric stations, wires and stopping points.

(Rail Business [Zheleznodorozhnoe delo]. – No. 38–39. – 1896. – p. 326)

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