

THE PRENTISS ELECTRIC SYNCHRONIZER.

We illustrate herewith a system of regulating and synchronizing timepieces, which has been patented by Mr. Henry S. Prentiss, of The Prentiss Clock Improvement Company, of 49 Dey Street, New York.

A number of clocks are arranged in a single system, with the master clock provided with a circuit closer adapted to close the circuit at a predetermined period before the hour, and break it at the hour.

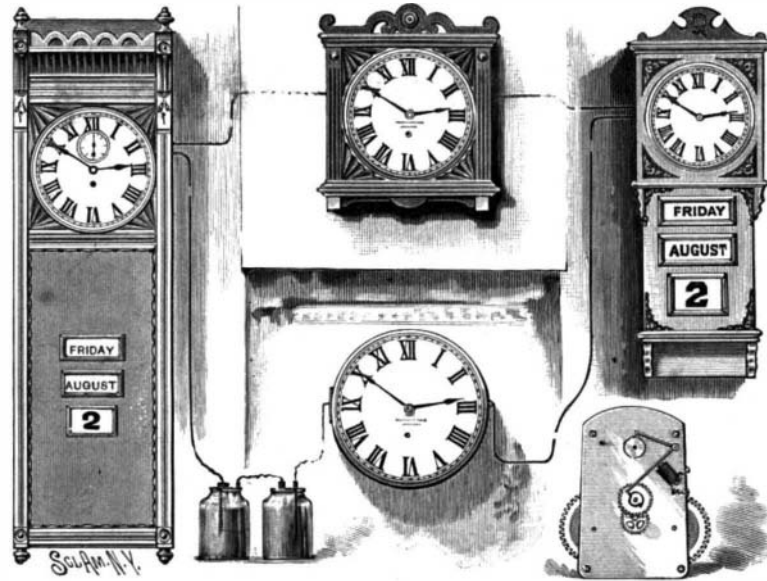
In the synchronizer system all the secondary clocks are regulated to run a trifle fast, say from one-tenth to three seconds per hour, and the circuit is closed at the master clock for ten seconds, or other predetermined period before the hour, to vitalize the magnets of the secondary clocks, the latter being held up just before the synchronizing period and then released exactly on the hour, while "slow" clocks are set up sufficiently to make them correspond with the master clock. The small figures show how this is effected by connection with an electro-magnet secured to the frame of the secondary clock and adapted to control a detent lever engaging a toothed disk on the arbor of the scape wheel, the lever being normally held out of engagement with the wheel by a spring. The minute hand of every clock on the line is thus at all times under control. If any of the secondary clocks stop, they can be set without taking special care in setting them to the exact time, since they are regulated to run fast, and therefore will ultimately be brought to correct time. This synchronizer may be applied to any clock. The company also sell the calendar and equalizer described in last week's issue in localities outside of New York City.

THE PROPOSED RAILWAY UP THE JUNGFRAU.

About fifty years ago, says the Graphic, London, when France, England and America were already covered with a network of railways, George Stephenson was invited to go to Switzerland and give the benefit of his experience in the matter of the construction of railways in a country so much cut up by mountains and rivers. Several companies then set about constructing lines of railways in places which lent themselves the more easily to such enterprise, but it was never contemplated then that a day would come when even the most insurmountable obstacles would be conquered, when the highest points would be, as it were, stormed and carried, and the deepest chasms bridged.

Since then many climbing railways have been constructed in the mountains of Switzerland—funicular railways and others of that now familiar type which ascend heights by means of cogwheels gripping a center rail, but all uniform in one respect, in that they utilized steam or hydraulic power. The railway up the Righi, with its interlocking wheels, sufficiently demon-

way is more than eight miles long, and rises to a height of 6,890 feet, the gradient varying from 1 to 26 per cent. The lift in the center of the cone of the Jungfrau has to rise 216 feet. With the exception of the station at the point of departure, all the other stations, to the number of six, are bored in the solid rock. The exits communicate with pathways, by means of which travelers alighting can finish the ascent of the peaks on foot. These stations are complete with every luxury possible, containing dining rooms and miniature bed rooms, like cabins on American liners. The lift to the summit of the Jungfrau consists of an enormous tube fitted into the vertical hole sunk in the rock. Within this iron tube the cage ascends and descends, worked by a dynamo, which in turn derives its power from a hydraulic motor utilizing the waters of Lake Luchinen in the Lauterbrunnen. Within the tube is a winding staircase, so that travelers not caring to use the lift may reach the summit of the mountain on foot. The tunnels, galleries, restaurants and lift are all lighted with the electric light, and it is even anticipated that the carriages may be warmed by the same means. It is scarcely necessary to say that the stations are all in communication by telegraph and telephone with the world below. Our illustrations are from drawings by G. Wassermann, engineer, of Bale.



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strated the superiority of this system, whether regarded from a practical point of view or in the light of such a purely personal point of view as safety, but a disadvantage has always been the smoke and dirt, and the weight of the coal and water which the engines are compelled to carry. But science now makes such rapid strides that it could not in any case have been long before a satisfactory alternative was available, and this is now found in electricity, developed either by steam or hydraulic power, and readily conveyed to any convenient distance. One of the first electrical mountain railways was constructed on Mount Saleve in Geneva. It is this railway which serves as a model for the bold project shown in the engraving.

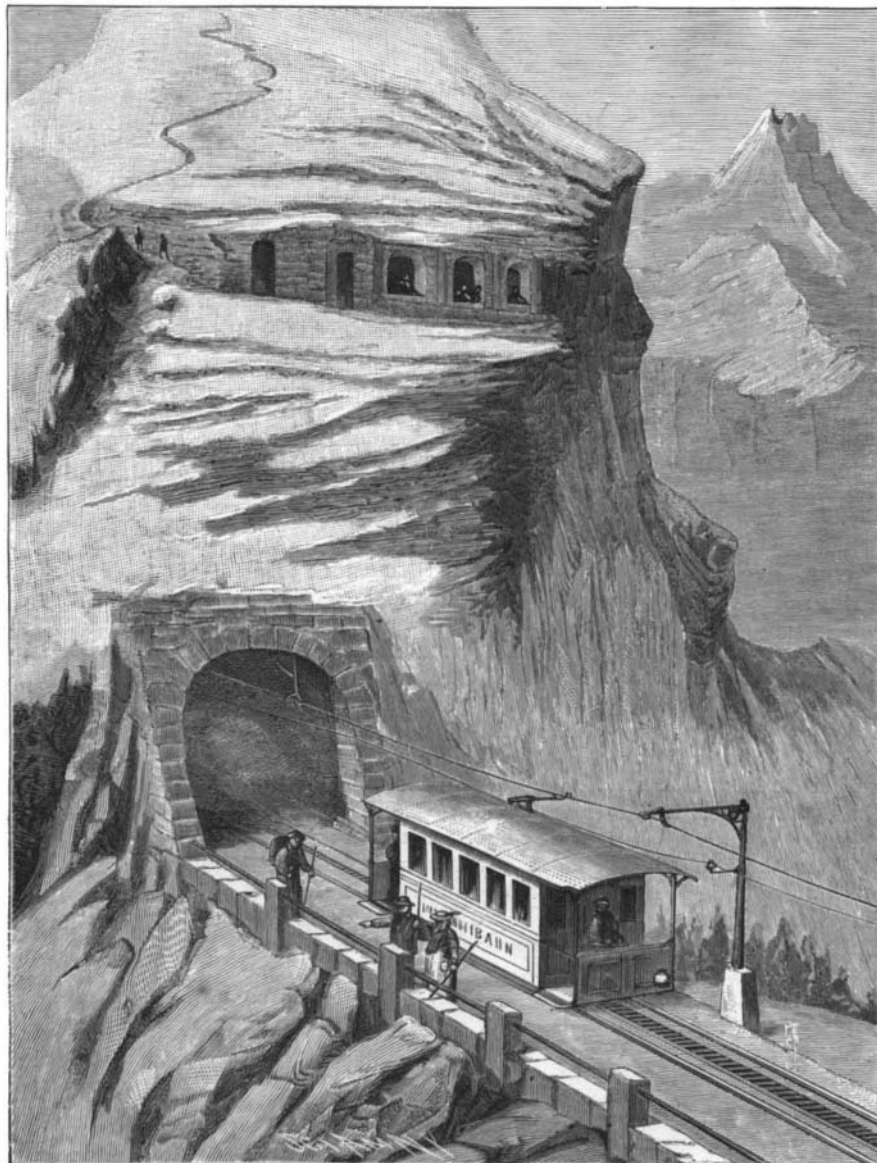
The concession for constructing a railway of this description, starting from Scheidogg and traversing the interior of the heights of the Eiger, Monch and Jungfrau, at the summit of which it emerges into daylight by means of a lift, was granted by the Swiss government, after long debate, at the end of last year. The rail-

A Novelty in Lantern Entertainments.
A novelty in the way of lantern or stereopticon entertainment has lately been brought out by Mr. Alexander Black, of Brooklyn, who has written and illustrated a picture play called "Miss Jerry."

The story, which is very sprightly and pleasing, is told as the views representing the exact scenes appear on the screen. While the story is being told, the changes in the pictures are so natural that the figures almost appear to move. Among the scenes are many out-door views in New York, many interiors, and real persons; one of the remarkable pictures is an interview of Miss Jerry with Mr. Chauncey Depew. One of the scenes shows Miss Jerry on the Brooklyn Bridge conversing with Superintendent Martin. Another view shows Fifth Avenue by moonlight.

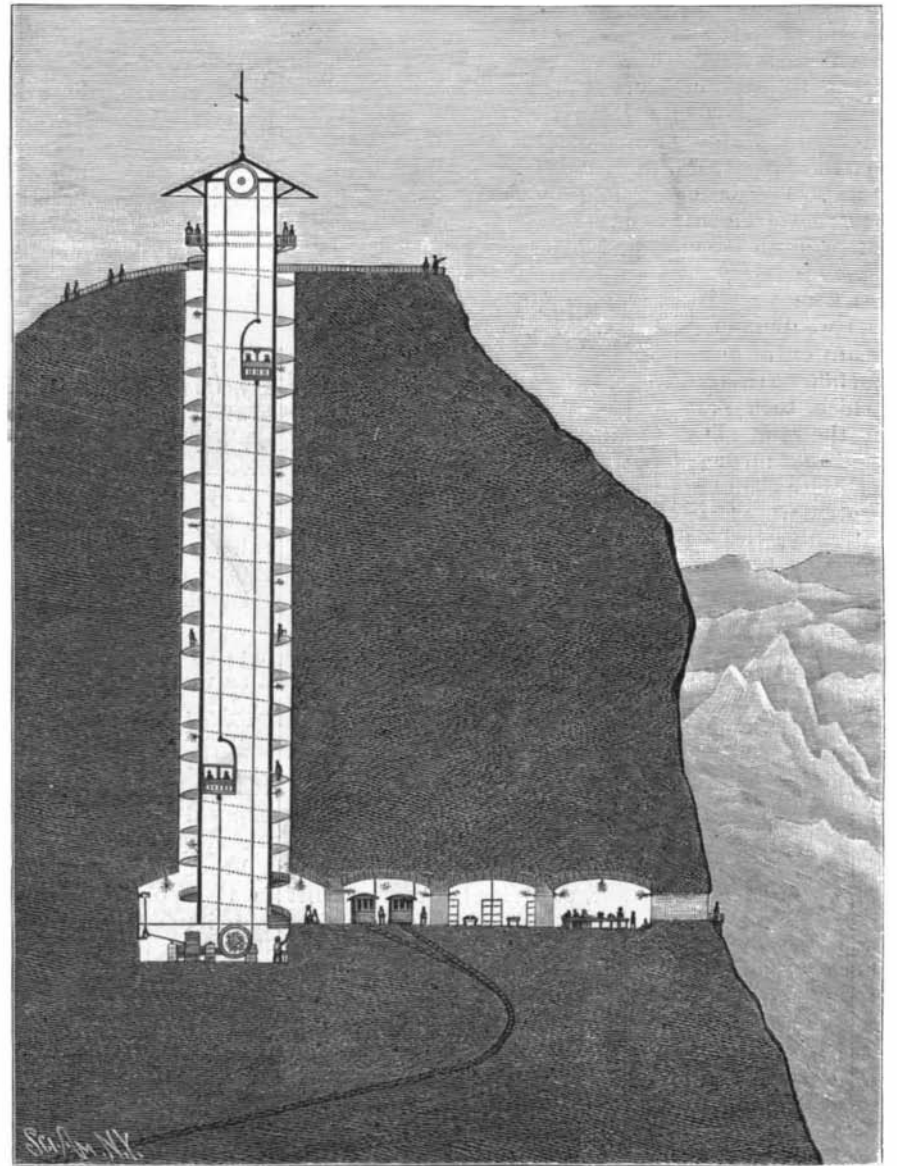
The entire entertainment is of a very pleasing character and reflects great credit on Mr. Black.

In Australia horses and cattle are now being branded by electricity from storage batteries. The brand is said to be safe and artistic.



One of the cars is here shown entering a tunnel. There is a footpath by the side of the railway. In the upper portion of the picture is shown a station overlooking one of the glaciers.

VIEW OF THE RAILWAY NEAR THE SUMMIT OF THE JUNGFRAU, SHOWING PATH FOR PEDESTRIANS.



The drawing shows the terminus of the railway, with the restaurant attached. Passengers who dislike the lift may walk up the circular footway which winds round the interior of the shaft.

SECTIONAL VIEW OF THE LIFT IN THE INTERIOR OF THE JUNGFRAU CONE.

THE PROPOSED RAILWAY UP THE JUNGFRAU.