

length by electricity. The current is drawn at 5,000 volts from the power house fed by the wild Tönnibach. The current is led through two heavy overhead copper conductors. The track itself is the latest devised by M. Emile Striib, of Zurich, which now is adopted throughout Switzerland in connection with mountain railways, with the rack-rail disposed centrally between the two adhesion metals. The electric locomotives themselves are claimed to be the finest mountain engines in the world, and they have been fitted with every possible device to prevent running away. Whether ascending or descending, they cannot possibly exceed a speed of $5\frac{1}{2}$ miles per hour. Should an attempt be made to go beyond this velocity, there is an automatic brake, over which the engineer has no control whatever, which comes into action and stops the train. But there is the chance that the electric supply might break down, in which event the above brake

is driven differently. The motors on the train become generators to operate this brake, the current being produced by the descending weight of the locomotive. Thus it is absolutely impossible for a train to get away unless everything fails, which is a remote contingency. Neither can the train mount the track. On the front axle of each locomotive is a powerful gripper, which clutches the rack, so that the engine cannot rise. The frame of each engine rests upon two axle carriers, and each axle is fitted with a 150 horse-power motor running at 760 revolutions per minute. The current is drawn from the overhead wires through four trolleys, two per phase, while the negative current is taken up from the rails through the frame of the engine. Each train is composed of one locomotive and two carriages, each of the latter seating forty passengers. The rolling stock is of the corridor pattern, with large glazed windows, and fitted with every convenience.



THE JUNGFRAUJOCH STATION, 11,342 FEET ABOVE SEA LEVEL.
Showing lighted tunnel to the exterior of the ridge.