

THE ELECTRIC RAILWAY AT FRANKFORT, GERMANY.

The cities Frankfort and Offenbach are now connected by an electric railway, 6,665 meters (about 4 1/4 miles) long, of 39 inches gauge. It leads from the old "Romerbrücke" Frankfort through Sachs- enhausen, Oberrad, and through the entire town of Offenbach.

The trains run over the entire route in about 25 minutes.

The annexed cut, taken from *Über Land und Meer*, shows part of the engine and dynamo house of this railway.

Two steam engines, of 125 horse power each, drive four dynamo electric machines by means of suitable cables, from which machines the current is conducted through suitable cables and conductors over the entire line.

A switch is provided, regulating, governing, and directing the currents, as may be necessary. The conductors consist of tubes slitted along their entire length at the bottom, and secured insulated on poles in about the same manner as telegraph wires are arranged.

In the said tube a small cylinder slides or runs, from which a conductor extends down to the car and to the dynamo in the same in the usual manner.

By using this conductor the interruptions, cut-outs, etc., are avoided which are caused by frost and moisture, when the carriage running on a conductor is used, as, for instance, as on the Berlin Lichterfelde Electric Railway.

The Frankfort-Offenbach Railway was built by the well known electricians, Messrs. Siemens and Halske, of Berlin.

Stern Wheel Steamer for the Nile.

In addition to the flotilla of river craft which is being constructed by various builders, the British Government

have entered into a contract with Messrs. Yarrow and Co., for the immediate supply of a stern wheel steamer for service on the Nile, and she will be shipped in the course of a few days from Woolwich. In design she is like the Ameri-

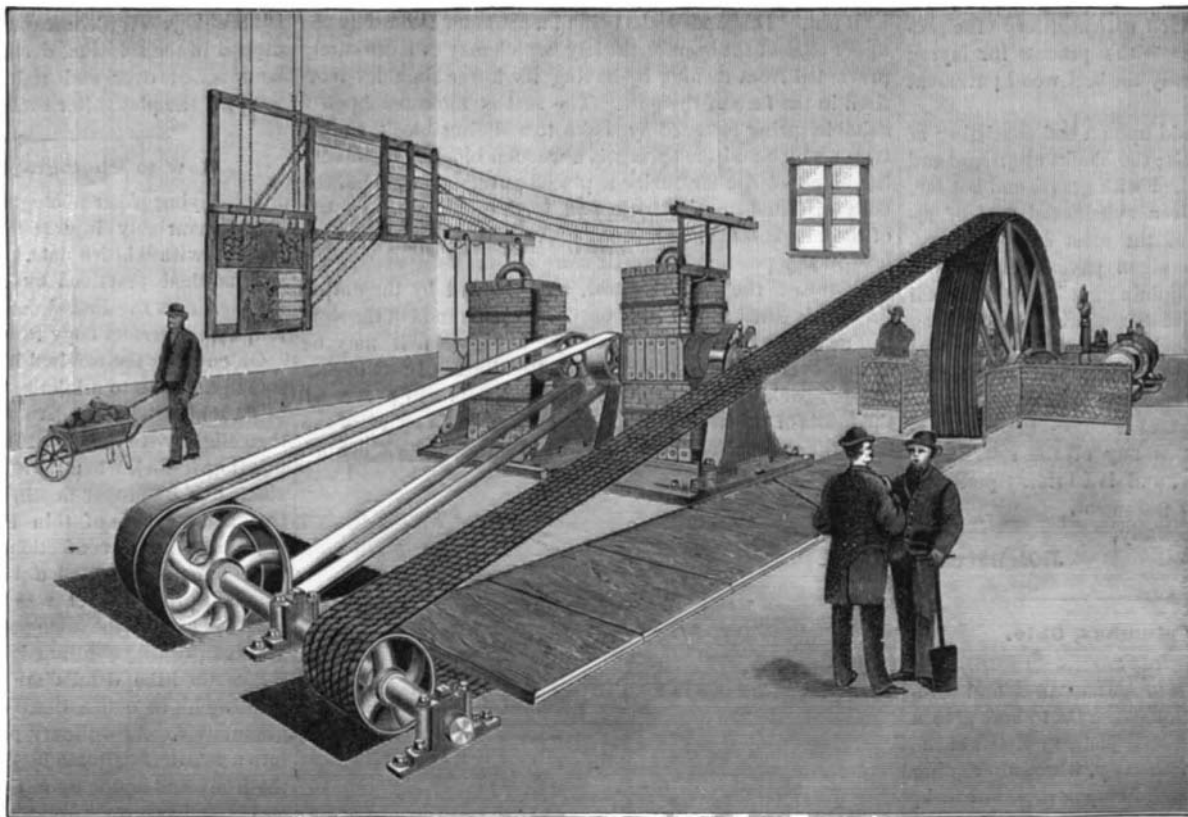
sion that the steamer is the one best suited for overcoming the difficulties incidental to the navigation of the shallow portions of the Nile, and especially for ascending the rapids. In order that there shall be the greatest possible dispatch in

riveting up and starting the vessel, a large staff of engineers and shipbuilders from the works of the firm are to accompany the expedition. The steamer will be furnished with an upper and lower deck, and it is estimated that she will be capable of conveying from 400 to 500 soldiers. She will be fitted with several machine guns mounted at a considerable elevation, so as to command an extensive range over the river banks, and, no doubt, she will be found a valuable addition to the expedition.

The Petrified Wood Industry.

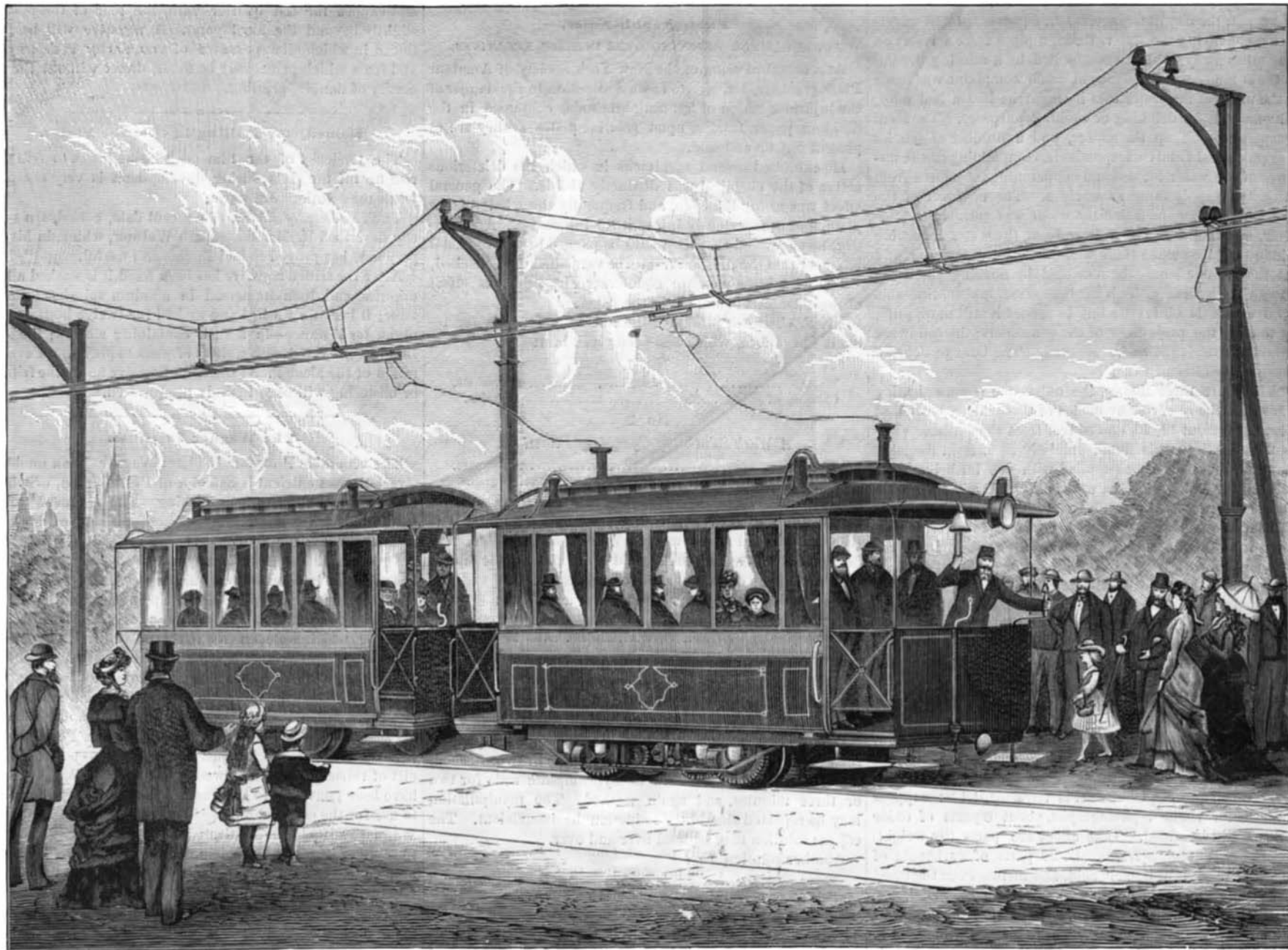
The petrified forests near Holbrook, Ari., have been purchased by a company. They have commenced the shipment and manufacture of the petrifications into tablets, tiles, and various ornamental articles in building and finishing. In this connection the Prescott *Miner* has the following: "Gov-

ernor Tritle informs us that while in San Francisco he inspected an establishment recently started for the cutting and polishing of petrified wood taken from the wonderful forest of petrifications existing along the line of the Atlantic and Pacific in this Territory. The parties engaged in this work state that the petrified wood is rapidly driving California onyx from the market as a material for mantels, etc., as it is susceptible of a much finer polish and is also more permanent and lasting than that of the onyx. Several companies have already been formed for the purpose of getting possession of portions of the forest by pre-emption," thus promising to further push the manufacture.



ELECTRIC GENERATOR FOR FRANKFORT RAILWAY.

can stern wheel boats, and resembles Le Stanley, built by the same firm for the Association Internationale for the navigation of the upper waters of the Congo, and which, it may be remembered, was tested on the Thames in the early part of this year with great success, and illustrated in our pages. The steamer just purchased was built for Central America. She is 80 ft. in length by 18 ft. beam, and will have a draught of 16 in. only. She is being shipped in pieces, all of a size suitable for hand portage, so that she can be sent on to any section of the Upper Nile that may ultimately be decided upon, and there put together and launched. Military authorities, after much consideration, have come to the conclu-



SIEMENS ELECTRIC RAILWAY AT FRANKFORT GERMANY.