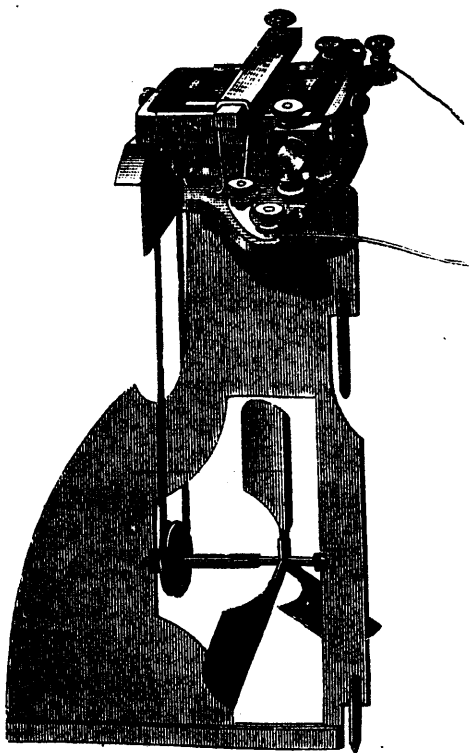


THE ELECTRIC BOAT.



THE ELECTRIC BOAT—DETAILS OF PROPELLING MACHINERY.

This motor, with all its accessories, only weighed five kilogrammes, and was placed in the rear of a little barge about five meters fifty centimeters long, by one meter two centimeters in breadth, and weighing eighty kilogrammes.

In the middle of the boat were placed two secondary batteries weighing twenty-four kilogrammes. M. Trouvé prefers two batteries, as they are more easily managed and have the advantage that they can be used either together or separately; also that in the evening one can be used for propelling and the other for lighting the boat.

The secondary piles are connected with the motor by two cords that serve both to cover the conducting wire and to work the rudder, and are furnished with handles that can be used to regulate the electric current.

This electric motor is complete in itself, and can be placed on a small boat. It is arranged in such a way that it does not interfere with the action of the boat or the use of the oars.

Besides her experimental trip, this electric boat has at six different times easily navigated the Seine for a distance of 200 meters. It was found that the boat, containing three persons, stemmed the current at the rate of one meter a second, and descended with a speed of two meters five centimeters. The current of the Seine at this place runs about twenty centimeters a second.

These trials are very interesting from an experimental point of view, and will, we hope, be an incentive to more important works.

These experiments recall those made by Jacobi in 1829 to navigate the Neva by electricity. We reproduce from the *Merveilles de la Science* the account of this interesting attempt which well deserves to be called the origin of electric navigation.

The voltaic apparatus that furnished the electricity to Jacobi's motor was composed of two Grove batteries, each containing sixty-four pairs of cells, the whole covering thirty-two square feet. This furnished so powerful a current that a piece of platinum wire, 2 m. long and as thick as a piano string, was