SUBMARINE TELEGRAPH—A NEW FRENCH TRANSATLANTIC CABLE

By Henry Hatton, in Boston Herald.

A vessel armed with the new French telegraphic apparatus was dispatched from France to the United States, and soon very fast the cables were laid from the village of Orleans, Mass., on old Cape Cod to the harbor of Jersey City, New Jersey, according to this morning's report, a report which may be relied upon as correct. The cable was laid by none other than Captain Fremin, the master of one of the most distinguished vessels that have ever plied between the shores of Newfoundland to the coast of Ireland, and his services have been sought for by several governments, including Queen Victoria.

It is reported that in this republic, or rather in French, the cable is to be controlled by two men, who are to be stationed at the ends of it, one at each end, one laid some time before from Berlin, and will be completed before the present one, and the other one, a very large cable, will be laid from London to Paris. The cable will be laid at the rate of 200 miles per day, and is expected to be completed in about six months.

Some 1,893 separate and distinct cables, aggregating altogether 2,000 miles, will be laid out over the world in less than twenty years, at a cost of at least $180,000,000. However, we hardly think of the thousands and one million miles that will be covered, as the barest, as the barest it is now being laid. It is made up with the largest conductor ever laid to the United States, and will be completed before the dead leaves finish falling. It will parallel the route on the old French cables in all respects, and the dimensions of the core conveying the currents that pass through it, that is, the core, is 200 miles in diameter. The cable is laid by the same method as the French, and the man who is in charge of it is Captain Fremin, who has been on the staff of the French government for a number of years.

The sum of this cost is about 900 or 900 miles, the largest conductor ever laid to the United States, and the cable will be laid at an average rate of 200 miles per day in six months. The cable is made up of 200 miles of wire, and the largest is 18 miles in diameter. This has been laid over about 70,000 miles of cable, including the main cable on the Atlantic, and the largest is 18 miles in diameter. This has been laid over about 70,000 miles of cable, including the main cable on the Atlantic, and the largest is 18 miles in diameter.

When carrying 8,930 tons, the diameter of the Silver Globe is 20 feet. The coal hammers are 1,300 tons, beside which 1,500 tons of coal is carried in theehler's predecessors. It has been on the same route as the direct from France for about 200 years, and the man who has been on the staff of the French government for a number of years.

The story of how a cable or a non-working one is placed in mid-ocean has been told repeatedly in newspapers and magazines, but not to the same degree as in the case of the Atlantic cable. The story is told in the following manner: A large cable is laid from France to Newfoundland, and the larger is 18 miles in diameter. This has been laid over about 70,000 miles of cable, including the main cable on the Atlantic, and the largest is 18 miles in diameter.
the Atlantic Ocean, Europe, a part of Africa, and all of Asia, together with uncommon intermediate seas and other oceans before it reached Yokohama or Melbourne. The cost per word would be as much as $2.50 to Auckland, or $6.52 to the capital of Japan.

The Massena Water Power Electrical Generating Plant.

Is our issue for August, says the American Electrician, announcement was made for the commencement of work on the canal of the St. Lawrence Power Company at Massena, N. Y., and we are now enabled to give an account of some of the more important features of this great undertaking, which involves the immediate utilization of 25,000 horse power, with a prospective output of 50,000 horse power. The turbines will be of the horizontal shaft type, two to each shaft and each developing 2,400 horse power. Fig. 3 shows the setting of the pairs and the drafts tube. A portion of the water will then be divided, part flowing through a wall separating the canal from the power house. Each shaft will have mounted on it a great ring of steel, which will carry on its circumference twenty external pole pieces, the ring and pole pieces being of solid casting of steel. The form will have an extreme diameter of 16 feet and be about 3 feet wide and supported by a massive hub having ten radial air spaces. Each of the machines will weigh 300,000 pounds, stand 22 feet high above the top of the foundations and occupy a floor space of 25 feet by 19 feet.

The stationary part of the dynamo will consist of a large ring or cylinder, the inner surface of which will be made up of plates of soft, thin steel on edge held by the massive outer ring of cast iron. The inner surface of the steel plates will have slots in which will be laid copper bars parallel with the shaft of the machines, insulated from each other with mica and held in place by three-phase currents.

The poles of the revolving portion or field of the machine will be wooden with copper ribbon. The speed will be 147 r. p. m. and the current will be generated at a frequency of 30 periods per second.

The Messina Water Power Electrical Generating Plant.

The Magnetics of an Ancient Monument.

The article on this subject contributed by the Cavaliere Giammo Boni to the Journal of the Royal Institution of British Architects, June 11, 1897, is of great importance, says the Builder. Dr. Folgheiner's experiments have proved that clay cylinders acquire, during the period of cooling after being baked a permanent magnetism, owing to induction by the earth's magnetic field. If we know in which position in which the terra-cotta vase is, the baked and deterrnined the direction of the field of its remnant magnetism, then we know the "dip" of the earth's magnetic field at the period at which the vase was baked. If we know the "dip" of the earth's magnetic field at the place and the time at which the vase was baked, we may deduce the "dip" of the period at which the vase was baked, and by means of the "dip" of the earth's magnetic field at the place and the time of the vase was baked, we may deduce the "dip" of the period at which the vase was baked. Given the "dip" of the earth's magnetic field at the place and the time of the vase was baked, we may deduce the "dip" of the period at which the vase was baked. Given the "dip" of the earth's magnetic field at the place and the time of the vase was baked, we may deduce the "dip" of the period at which the vase was baked.