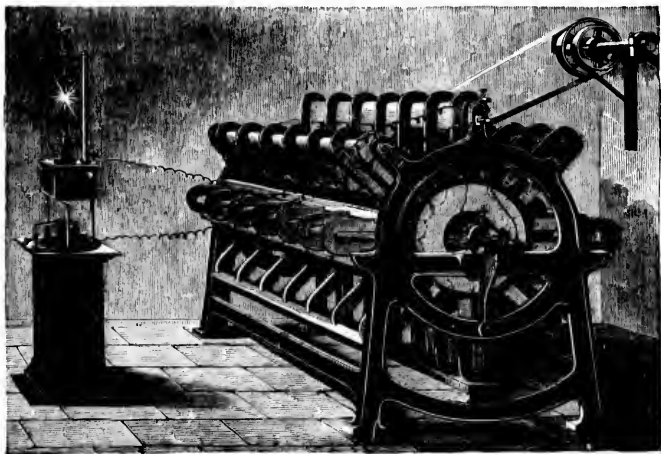


of Paris, and which at one time promised to become of very extensive application for light-house purposes.

In this machine there are eight rows of compound horseshoe magnets fixed symmetrically around a cast iron frame. They are so arranged that the opposite poles always succeed each other, both in each row and in each circular set. There are also seven of these circular sets, with six intervening spaces. Six bronze wheels, mounted on one central axis, revolve in these intervals,



*Fig. 204.*

the axis being driven by steam power, transmitted by a pulley and belt. The speed of rotation is usually 350 revolutions of the axis per minute. Each of the six bronze wheels carries, at its circumference, sixteen coils, corresponding to the number of poles in each circular set. The core of each coil is a cleft tube of soft iron, this form having been found peculiarly favorable to rapid demagnetization. Each core has its magnetism reversed sixteen times in each revolution, by the influence of the sixteen succes-