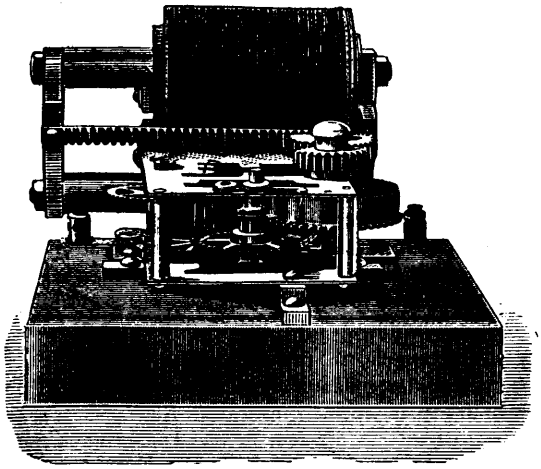

FIG. 5.

trips, which are set in rotation, one in advance of the other, so that only one trip is registering at a time. By this method, a 500 light meter, composed of five 100 light coils placed one above the other, as mentioned, is 12 inches in diameter and 15 inches high, making it compact and convenient for transportation.

There can be no question but that this meter embodies the correct principles, as the operations are practically self-sustaining, automatic, positive and very simple indeed. By the adoption of this meter a most vital problem in electric lighting will be solved, and the business can be carried on an equitable and definite basis, resulting in a vast extension of the lighting system.

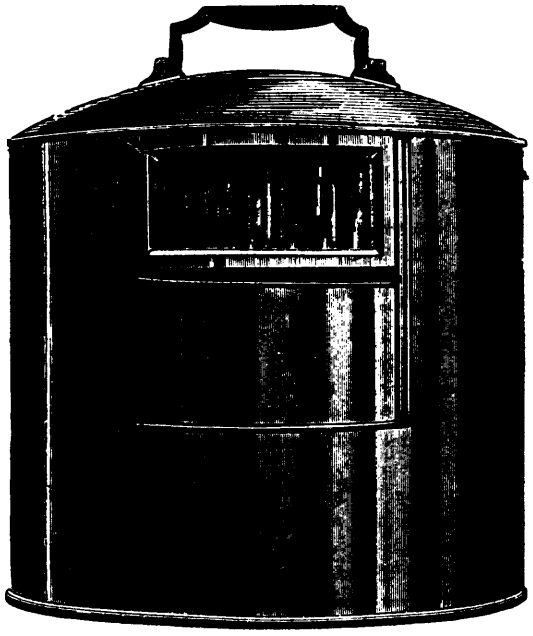

FIG. 6.

SIMPLE MODE OF ASCERTAINING THE REVOLUTIONS OF A SHAFT.

A SIMPLE MODE OF ASCERTAINING THE NUMBER OF REVOLUTIONS OF A REVOLVING SHAFT.

Several rough-and-ready methods of ascertaining the number of revolutions of a shaft are known to engineers, but the following one, suggested by M. C. Meigs, of Washington, is so simple, ingenious, and, when carefully conducted, so accurate, that we are sure its reproduction here will interest our mechanical readers.

The accompanying engraving illustrates the story so plainly that but few words need be added by way of explanation. A lead pencil is tied fast to the end of the shaft whose revolutions are to be counted, in such a manner that it shall describe a circle of convenient size for observation. If, now, a piece of paper be held lightly against the pencil, the motion of the pencil will describe a circle on it. If, however, the paper be moved forward and backward while the contact with the pencil is maintained, the pencil will describe a series of loops intersecting each other. By timing the period of contact, and then counting the number of loops recorded on the paper, the number of revolutions of the shaft will be given with close approximation to the truth.