

FIG. 1.

be adjusted so that any desired number will respond to the action of the current. The wheel on the end of the arm forces down all the raised armatures in its path, and only those adjusted to the current will rise again to the position to depress the trip lever. Every time the trip lever passes a raised armature the index is moved a point, showing that one lamp has been burning six minutes, that being the time of one rotation of the arm. Suppose, in an establishment, a number of lamps are lighted for varying intervals throughout a dark, cloudy day. Some may be lighted for an hour or two, others may be lighted and extinguished at varying times to correspond to alternate periods of cloudiness and sunshine. It is in just such conditions that the beauties of this meter shine forth. As each lamp is lighted a corresponding armature rises, and in the course of the trip lever arm there will be a corresponding number of movements of the pawl arm moving the indicator, so that the record of the aggregate quantity of current can be very closely approximated.

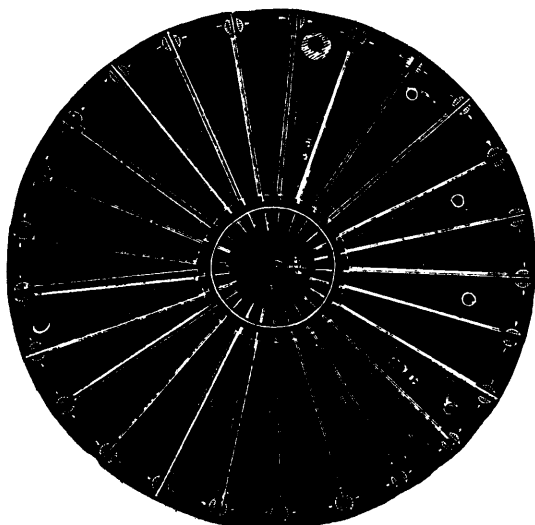


FIG. 3.

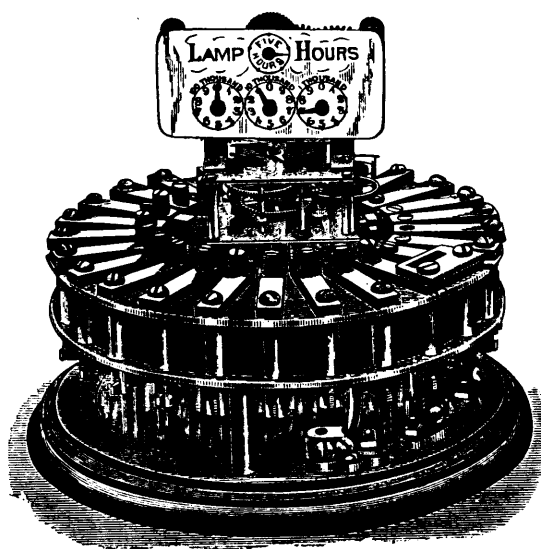


FIG. 2.

A very simple and ingenious arrangement is provided for stopping the clock movement when the current is not on. An armature is pivotally mounted and provided with a vertical stem that normally bears against the periphery of the balance wheel of the clock movement by the gravity of the weighted end. The instant the current is turned on, the armature is deflected, freeing the balance wheel and permitting the movement to proceed. By this arrangement there will be no possibility of the movement running down in the absence of an operating current.

The two coils K and K^1 , when connected in multiple arc, double the capacity of the meter, but such a change is rarely required. The cylindrical case being slipped over the meter, hook lugs enter recesses in the plate, and the cylinder is lightly turned, engaging the lugs beneath the plate, and a lock operated by a key secures the engagement. A twenty-five light meter is only 7×8 inches in dimensions, weighing complete about ten pounds. A 100 light meter is 12 inches in diameter and 10 inches in height. A 200 light meter is the same diameter and 2 inches higher. Large meters are constructed with several compound magnets, each having a set of armatures and a trip with one magnet placed above the other, and one clock works with the hollow shaft extending entirely through all the different coils used to revolve all the different

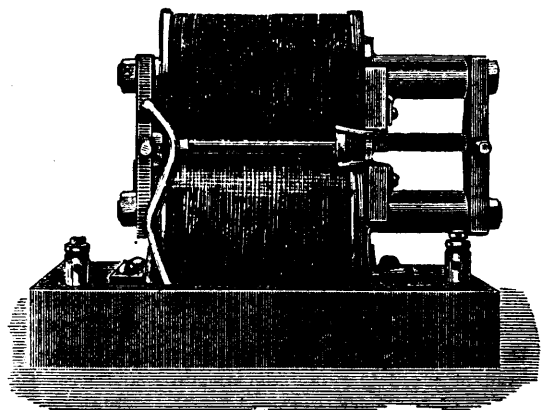


FIG. 4.