

A. R. MOSLER.
TIMER.
APPLICATION FILED NOV. 19, 1908.

1,052,743.

Patented Feb. 11, 1913.

Fig. 1.

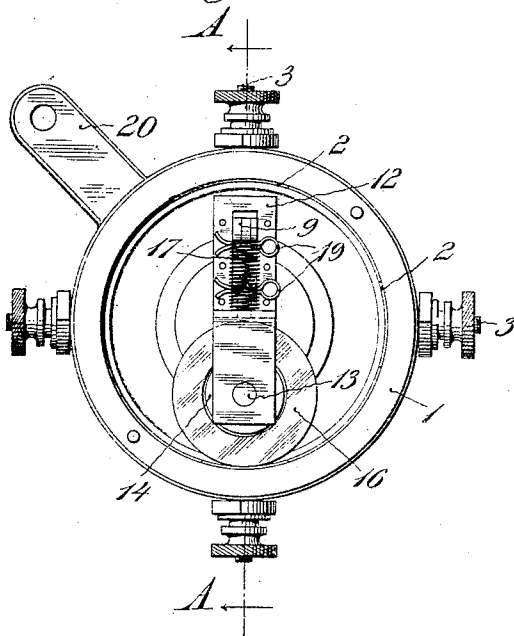


Fig. 2.

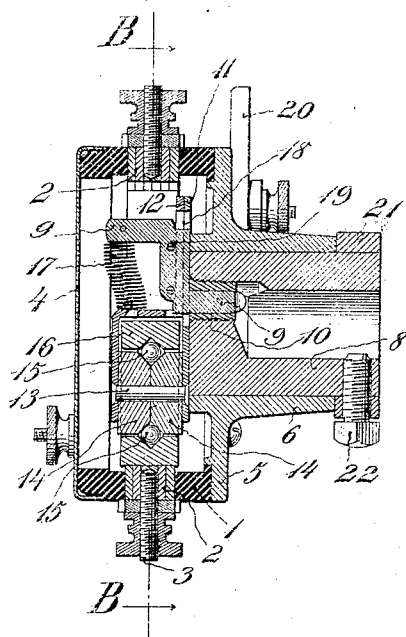


Fig. 3.

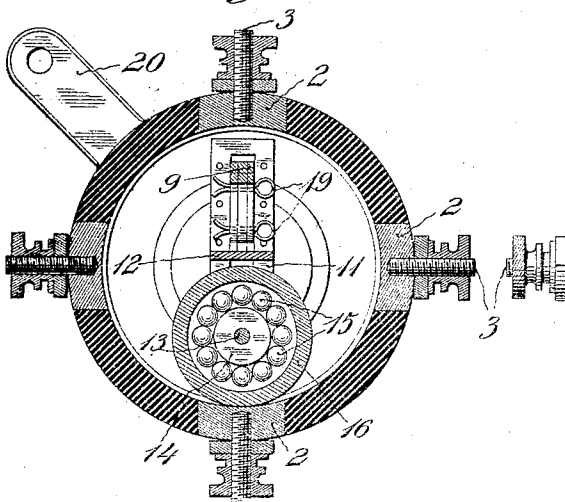
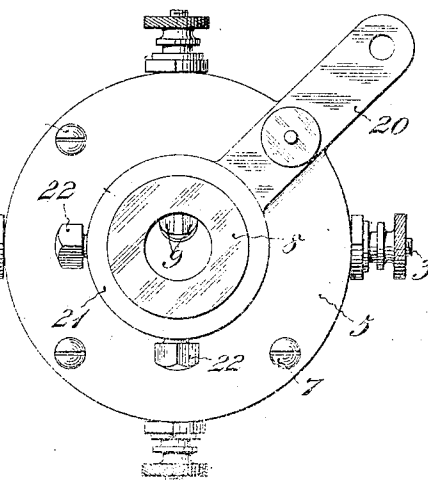


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

ARTHUR R. MOSLER, OF NEW YORK, N. Y., ASSIGNOR TO A. R. MOSLER & CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

TIMER.

1,052,743.

Specification of Letters Patent.

Patented Feb. 11, 1913.

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To all whom it may concern:

Be it known that I, ARTHUR R. MOSLER, a citizen of the United States, and resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Timers, of which the following is a specification.

My invention relates to timers and has for its objects to provide certain improvements in the form, construction and arrangement of the contacts of a timer whereby there will be insured for the contacts a longer life and a more perfect electric connection.

Another object is to provide a laminated contact composed of metals of different degrees of hardness and different degrees of conductivity.

A further object is to provide the combination of a spring pressed roller contact with the said laminated contact composed of metals of different degrees of hardness and different degrees of conductivity.

A practical embodiment of my invention is shown in the accompanying drawings in which,

Figure 1 is a front view of my improved timer with the cover removed, Fig. 2 is a section taken in the plane of the line A—A of Fig. 1, looking in the direction of the arrows, Fig. 3 is a section taken in the plane of the line B—B of Fig. 2, looking in the direction of the arrows, and Fig. 4 is a rear view of my improved timer.

The shell of the timer is denoted by 1 and is made of any effective insulating material, such as hard fiber. It carries one or more of the fixed contacts 2, in the present instance four, and their binding posts 3. The front of the shell is provided with a removable cover 4. The shell 1 is secured to the flange 5 of the sleeve 6, in the present instance by means of screws 7. The sleeve 6 is rotatably mounted on the hollow shaft 8 and has a plain bearing thereon. A guide piece 9 is secured to the inner end of the shaft 8, in the present instance by means of a screw plug 10.

The rotary contact comprises a transversely sliding arm having a flat section 11 and a bent section 12 secured face to face with one end of the bent section spaced from the corresponding end of the flat section: a pivot pintle 13 extending from one of the corresponding ends to the other; a divided ball race 14 fixedly mounted on said pintle;

balls 15 in said race; a contact roller 16 mounted on said balls; and a spring 17 placed between the bent section 12 of the arm and the guide piece 9.

The arm 11, 12, is slotted for a portion of its length, as shown at 18, to allow it a longitudinal sliding movement on the fixed sectional guide piece 9, and cotter pins 19 serve to hold it in place thereon. The contact roller 16 is normally held in engagement with the shell 1 by the spring 17, and the said spring also serves to take up any wear.

The fixed laminated contacts 2 are composed of metals of different degrees of hardness and of different degrees of conductivity. In the preferred form, there are two laminae each of steel, brass and copper. The result of this arrangement is a contact which has a high degree of electric conductivity because of the use of metals having that property and also of great durability because of the use of metals having that quality. The contact roller is preferably made of metal equal in durability to the hardest metal used in the fixed laminated contacts. The provision of the laminae of great durability, such as steel, in the fixed contacts and the provision of a contact roller of equal durability serves to reduce the wear upon the laminae of the fixed contacts which have a high degree of electric conductivity. The flange 5 carries the usual arm 20 for conveniently advancing or retarding the time of contact in practice. A collar 21 about the hollow shaft 8 is provided for holding the parts in assembled position. This collar is held in place by set screws 22 which also serve to hold the timer on a driving shaft, not shown.

It is to be understood that I do not wish to limit myself strictly to the form and arrangement of the parts herein set forth as many different arrangements may be resorted to without departing from the spirit and scope of my invention.

What I claim is:

1. In a timer, the combination of two contacts, one movable with respect to the other, one composed of laminated metals of different degrees of hardness and electrical conductivity and the other composed of metal equal in hardness to the hardest metal in the laminated contact, the laminae of the first mentioned contact lying in the plane of

movement of the one contact with respect to the other.

2. In a timer, the combination of two contacts, one movable with respect to the other
5 one composed of three laminated metals of different degrees of hardness and electric conductivity and the other composed of metal equal in hardness to the hardest metal in the laminated contact, the laminae of
10 the first mentioned contact lying in the plane of movement of the one contact with respect to the other.

3. In a timer, the combination of two contacts, movable with respect to each other,
15 one contact being composed of laminae of steel, brass and copper, and the other contact being composed of steel, the said laminae lying in the plane of movement of one contact with respect to the other.

4. A timer comprising a rotary member, 20
an angular guide piece fixedly mounted thereon with one end projecting therefrom, an arm provided with a slot fitted to surround said guide piece and be in slidable engagement therewith, a contact roller carried by said arm, and a spring interposed 25
between the arm and the projecting end of the guide piece for tending to hold the arm at the limit of its outward movement.

In testimony, that I claim the foregoing 30
as my invention, I have signed my name in presence of two witnesses, this twenty-second day of October, 1908.

ARTHUR R. MOSLER.

Witnesses:

F. GEORGE BARRY,
C. S. SUNDGREN.