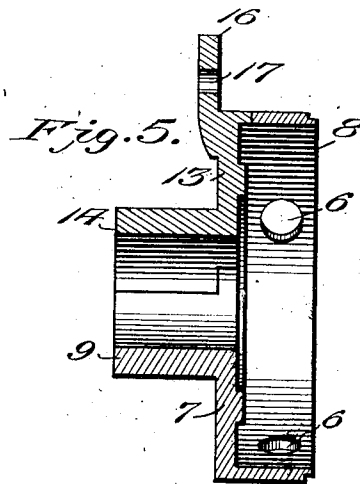
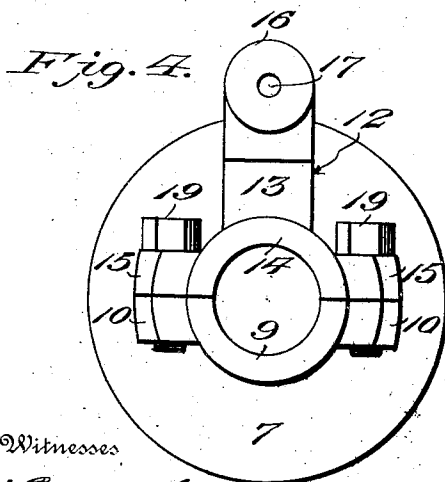
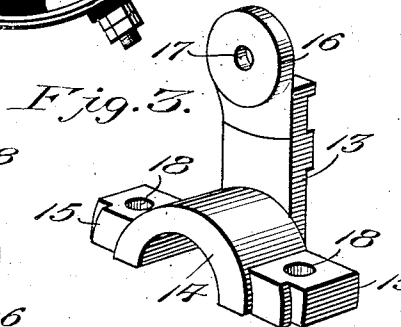
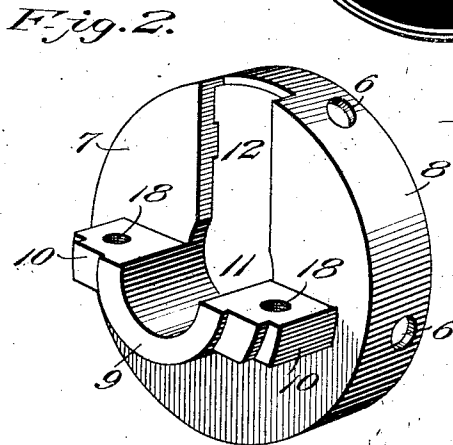
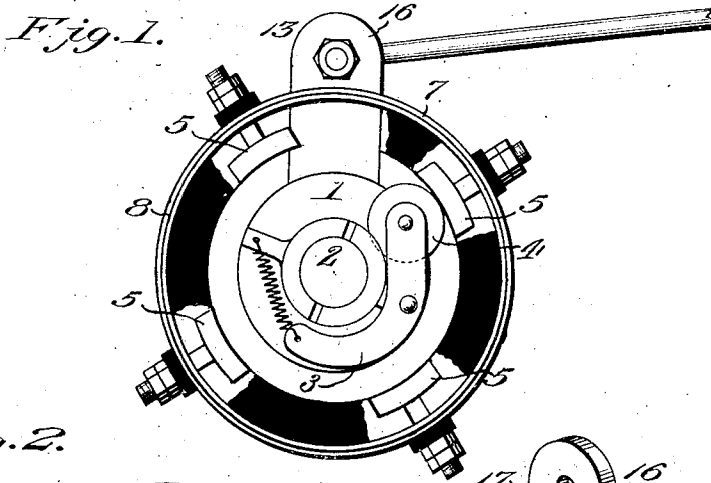


W. S. JONES.
 TIMER FOR AUTOMOBILES.
 APPLICATION FILED FEB. 25, 1910.

974,069.

Patented Oct. 25, 1910.



Witnesses

Edwin F. McKee
D. W. Gould.

Inventor
W. S. Jones

By *Victor J. Evans*
 Attorney

UNITED STATES PATENT OFFICE.

WILLIAM S. JONES, OF OSSINING, NEW YORK.

TIMER FOR AUTOMOBILES.

974,069.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed February 25, 1910. Serial No. 545,968.

To all whom it may concern:

Be it known that I, WILLIAM S. JONES, a citizen of the United States, residing at Ossining, in the county of Westchester and State of New York, have invented new and useful Improvements in Timers for Automobiles, of which the following is a specification.

The invention relates to an improvement in timers for automobiles, being more particularly directed to a timing ring constructed to permit its convenient disconnection and adjustment to take up lost motion on the cam shaft.

The main object of the present invention is the provision of a timing ring having its shaft-engaging bearing divided longitudinally with one section integral with the disk of the ring and the other section carried on an arm fitting in an opening formed in the disk of the ring and projecting beyond the contact-carrying flange to provide for the connection of the usual control rod, the independent bearing section thus provided being formed with means whereby they may be adjusted with relation to each other to take up any undue lost motion of the timer with relation to the cam shaft.

The invention in the preferred form of detail will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a view in elevation of the improved timer. Fig. 2 a perspective view of the main portion of the improved timer. Fig. 3 a perspective view of the remaining portion of the improved timer. Fig. 4 is a view in elevation of the improved timer taken from the side opposite that shown in Fig. 1. Fig. 5 is a vertical sectional view through the improved timer, the contacting element being omitted.

Referring particularly to the accompanying drawings, the improved timer includes the usual contact element 1 fixed upon the cam or timer shaft 2, and carrying a spring contact arm 3 having a roller 4. The roller 4 forms one terminal of the circuit, and the sparking points are successively energized therefrom through the medium of contact riders 5 which are secured in openings 6 formed in a contact-carrying flange of what is known as a timer.

The present invention is directed particularly to improving the timing ring, which

for the purposes of the invention is constructed to improve what I term a disk head 7 and a contact-carrying flange 8 projecting at right angles from the peripheral edge of the head.

Projecting from the disk head in opposition to the projection of the flange 8 is a half bearing 9 arranged to engage the cam shaft and having end lugs 10 extending in alinement and diametrically of the head from the opposing edges of the half bearing. The shaft engaging surface of the half bearing alines with an opening 11 formed in the head which opening is continued throughout the disk head beyond the half bearing to provide an opening 12. The opening 12 extends through the contact-carrying flange and in the flange has a dimension in line with the thickness of the disk head which is somewhat greater than the thickness of the said head. In other words there is formed in the flange an entrance to the opening 12 which has a dimension transverse the flange exceeding the thickness of the head.

Arranged for coöperation with the main section of the timer is an arm 13, which arm, or more appropriately adjusting section has a thickness and width corresponding with that of the opening 12, and is provided at its relatively inner end with a half bearing 14 and end lugs 15 to coöperate with the similar parts of the main section of the timer. The outer end of the adjusting section is formed with a laterally projecting flange to fill the additional area of the entrance opening previously noted, and beyond the end of the section and offset from the forward face thereof is an ear 16 formed with an opening 17 to provide for the connection of the usual control rod.

The lugs 10 and 15 are formed with openings 18, those in the lugs 10 being threaded, and adjusting screws 19 coöperate with said openings whereby the respective half bearings may be relatively adjusted to accurately accommodate the timer to the cam shaft.

The operation of the device in the particular detail of construction enumerated will be readily apparent from the above description taken in connection with the drawings, it being obvious that through the ease with which the adjusting section may be disconnected to permit ready separation of the timer from the cam shaft, and the means

whereby the half bearings may be adjusted with relation to each other to compensate for lost motion, the improved timer is of particular importance in securing that ease
5 of repair and certainty of contact.

I claim:

1. An automobile timer timing ring including a main section formed with a half bearing and with an opening extending
10 from the bearing, and an adjusting section fitting in said opening and carrying a half bearing to coöperate with the half bearing of the main section.

2. An automobile timer timing ring including a main section formed with a half bearing and with an opening extending
15 from the bearing, an adjusting section fitting in said opening and carrying a half

bearing to coöperate with the half bearing of the main section, and a control rod engaging ear carried by the adjusting section. 20

3. An automobile timer timing ring including a main section formed with a half bearing and with an opening extending
25 from the bearing, an adjusting section fitting in said opening and carrying a half bearing to coöperate with the half bearing of the main section, and means for removably connecting said main and adjusting sections. 30

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM S. JONES.

Witnesses:

GAYLORD B. HUBBELL,
SAM SMALLEY.