Oct. 8, 1946. M. H. RHODES 2,408,997

TIMING DEVICE

Original Filed Aug. 1, 1940 2 Sheets-Sheet 1

FIG. 1.

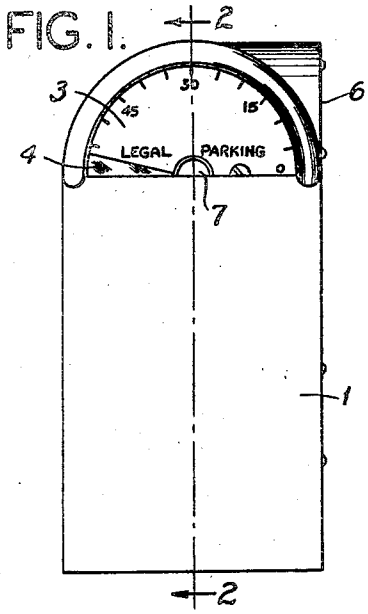


FIG. 2.

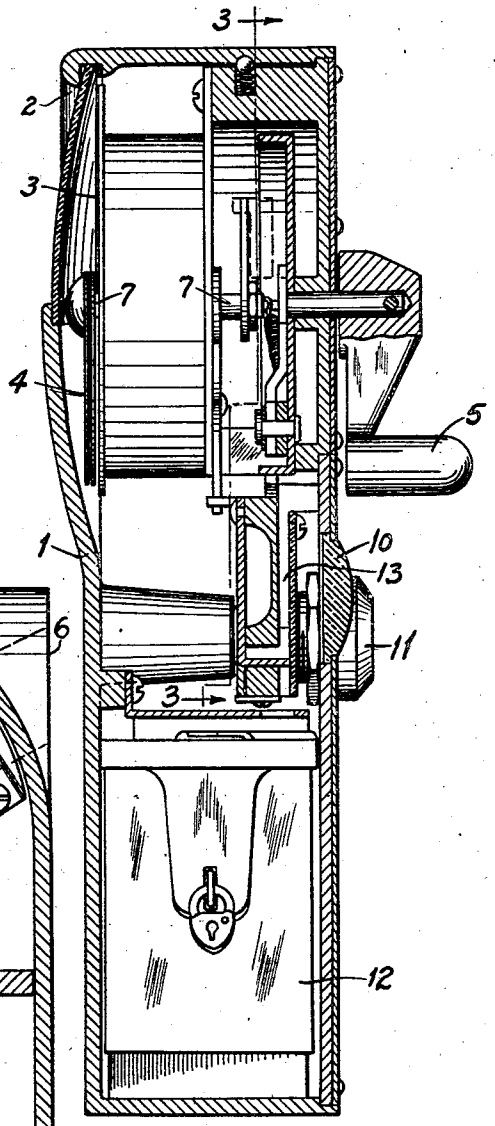
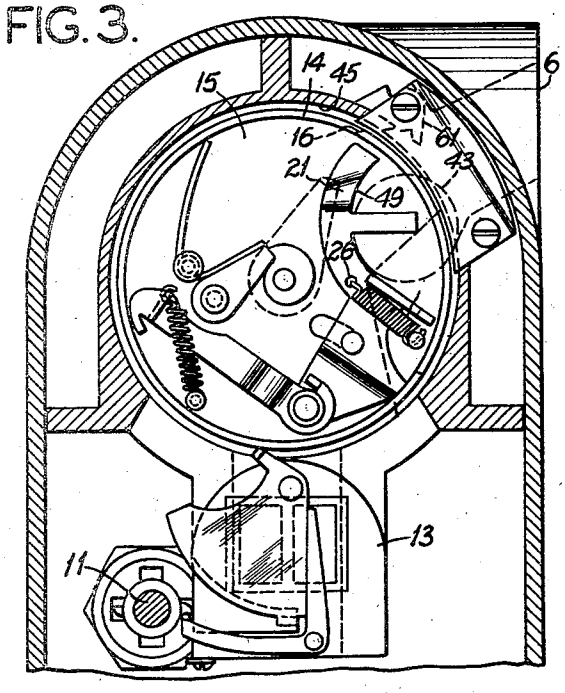


FIG. 3.



Marcus H. Rhodes
Inventor
Haynes and Koenig
Attorneys

Oct. 8, 1946. M. H. RHODES 2,408,997

TIMING DEVICE

Original Filed Aug. 1, 1940 2 Sheets-Sheet 2

FIG. 4.

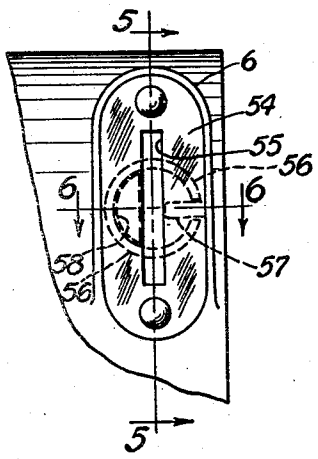


FIG. 6.

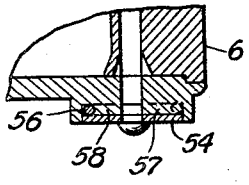


FIG. 7.

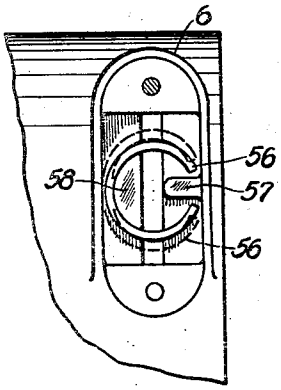


FIG. 8.

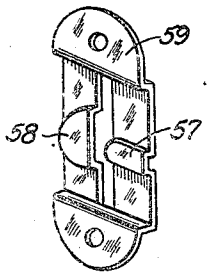


FIG. 5.

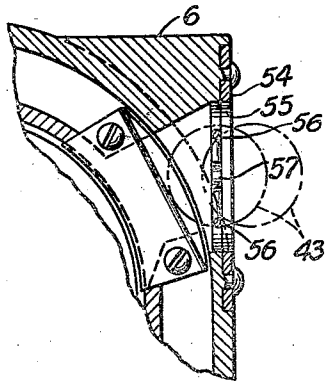
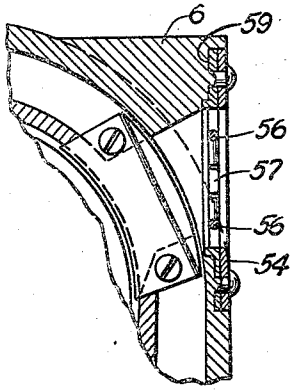


FIG. 9.



Marcus H. Rhodes
Inventor
Haynes and Koenig
Attorneys

Patented Oct. 8, 1946 2,408,997

UNITED STATES PATENT OFFICE

2,408,997

TIMING DEVICE

Marcus H. Rhodes, Hartford, Conn., assignor to M. H. Rhodes, Inc., Hartford, Conn., a corporation of Delaware

Original application August 1, 1940, Serial No. 349,119. Divided and this application October 25, 1943, Serial No. 507,641

8 Claims. (Cl. 194—1)

1

This invention relates to timing devices, and with regard to certain more specific features, to coin-controlled timing devices for indicating the passage of a purchased length of time, as for parking automobiles or the like.

This application is a division of my co-pending application Serial Number 349,119, filed August 1, 1940, Patent 2,369,688.

Among the several objects of the invention may be noted the provision of a coin controlled timing device of the class described which is adapted to indicate at all times what portion of a purchased length of time has passed; the provision of a device of the class described having an improved coin receiving member; and the provision of a device of the class described which is substantially fool-proof in operation, simple in construction, and which may be economically made. Other objects will be in part apparent and in part pointed out hereinafter.

The invention accordingly comprises the elements and combinations of elements, features of construction, and arrangements of parts which will be exemplified in the structures hereinafter described, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings in which are illustrated several of the possible embodiments of the invention,

Fig. 1 is a front elevation of a device embodying the present invention;

Fig. 2 is a section taken along the line 2—2 in Fig. 1, but on an enlarged scale;

Fig. 3 is a section taken along the line 3—3 in Fig. 2;

Fig. 4 is a front elevation of the coin slot of the present invention;

Fig. 5 is a section taken along the line 5—5 in Fig. 4;

Fig. 6 is a section taken along the line 6—6 in Fig. 4;

Fig. 7 is a view similar to Fig. 4 but with the front plate removed;

Fig. 8 is a perspective of an element which may be employed in an alternative form of the coin slot; and,

Fig. 9 is a section similar to Fig. 5, but embodying the element shown in Fig. 8.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

The device of the present invention is particularly adapted for use as a so-called "parking meter" which is usually installed in connection with designated parking spaces for automobiles

2

along the curbs of city streets. The timing device itself is usually mounted on a post on the curb in proximity to the designated parking space. The device is adapted to receive a coin from a person parking his automobile in the designated space, and has means thereon for indicating a duration or period of time corresponding to the length of time a person is entitled to park in the designated space in return for the value of a coin presented.

One of the principal features of the present invention is that it indicates progressively the gradual expiration of the purchased time interval, as determined by the value of a coin initially deposited in the device.

Referring now to the drawings, Fig. 1 shows a device in which numeral 1 indicates a rectangular casing which has a semi-circular top portion. The top part of the front of the casing 1 has a semi-circular opening 2 preferably holding a glass. Back of this is a scale 3 upon which are figures to indicate the amount of legal parking time remaining. In front of this scale and movable thereover by the clockwork mechanism is a semi-circular shield 4 which, upon initiating operation of the device, is rotated until it is substantially invisible. Initiation of the operating of the device is carried out by means of a handle 5 (see Fig. 2), which operates the setting mechanism upon the insertion of a coin into the coin slot 6. Shield 4 is attached to a shaft 7 which is rotated by the clockwork mechanism.

The back of the device is provided with a viewing disc 10, arranged opposite the place where the coin is held during legal operation of the device, and also with an appropriate lock such as a screw lock 11.

Referring now to Fig. 2, the device has an appropriate coin receptacle 12 for permanent retention of coins. The receptacle 12 is preferably removable from the device so the collector can merely replace it with an empty box and take the coin containing receptacle to a central collecting point. If the receptacle 12 is of the type which automatically locks upon removal from the device, accurate records of receipts from a specific device may be kept, and fraudulent returns by the collector are made difficult. A temporary coin receiver 13 is connected to receptacle 12 and opposite receiver 13 is located a viewing glass 19 which may preferably be constructed of magnifying glass.

Fig. 3 shows the device ready for the reception of a coin. The winding mechanism with which the coin 43 interlocks is of the type dis-

closed in my copending application Serial Number 349,119, filed August 1, 1940.

Figures 4 to 9 illustrate a preferred form of the coin receiver **6**. The coin receiver consists of a plate **54** attached to the case **1**, in which is formed a rectangular slot **55** for the reception of coins edgewise. Back of the plate **54** imprisoned in a flat pocket is located a resilient split ring **56** which is held between the plate **54** and the case **1**, or, in an alternative embodiment shown in Figures 8 and 9, between an additional plate **59** and plate **54**. The position of the ring is determined by a partially circular projection **58**, which is formed either upon plate **59** or in case **1**, and by lug, projection or finger **57** similarly formed which intersects the split portion of ring **56**. Projection **57** prevents rotation of the ring, and, together with portion **58**, maintains the ring in position without anchoring it to the case when expanded. The ring **56** is constructed so that in its position as shown in solid lines in Fig. 7, it is substantially unstressed. However, upon the insertion of a coin which is larger than the ring, it expands to the dotted line position shown in Fig. 7 in order to permit passage of the coin therethrough, but as soon as the coin is passed, ring **56** immediately contracts, through release of stress, to the solid-line position, thus effectively preventing removal of the coin, as well as assisting its passage into the proper position in the device.

An important function of the new coin receiver is that it retains the coin until properly taken up by the operating mechanism, thereby eliminating the ejection of coins through the receiving slot (onto the street) as has occurred in previous coin receiving mechanisms.

Fig. 5 shows the entrance of a coin as described, while Figures 8 and 9 illustrate an alternative embodiment in which a plate **59** is provided, instead of forming a portion of the case **1** into the proper shape. As shown in Fig. 9, this alternative embodiment may be employed with any type of coin chute, merely by attaching it thereover.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. In a coin-controlled device a coin receiver comprising a resilient split ring, the ring normally being smaller than the coin which it is to receive, the ring expanding upon insertion of a coin to receive the coin and contracting after the coin has passed through, and a projection on the receiver intersecting the split portion of the ring to prevent rotation thereof.

2. In a coin-controlled device a coin receiver comprising a case having an opening therein to receive a coin, a projection on said case, a resilient split ring, said ring being normally smaller than the coin which it is to receive, the projection on the case intersecting the split in the ring to prevent rotation thereof.

3. In a coin-controlled device a coin receiver comprising a resilient split ring to receive a coin normally smaller than the coin which it is to receive, a finger intersecting the split in the ring to prevent rotation of the ring, and a means for maintaining the finger and ring in cooperating position.

4. In a coin-controlled device a coin receiver comprising a case having a rectangular opening therein to receive a coin, a resilient split ring over said opening, a finger near the longer side of said rectangular opening, said finger intersecting the ring to prevent rotation thereof, and means for maintaining the ring and finger in cooperating position.

5. In a coin-controlled device a coin receiver comprising a case having a rectangular opening therein to receive a coin, a finger attached to said case adjacent to the longer side of said rectangle, a resilient split ring normally smaller than the coin which it is to receive over said opening and a cover over said ring and finger.

6. In a coin-controlled device a coin receiver comprising a case having a slot therein for receiving coins edgewise behind which is a substantially flat pocket the plane of which is substantially perpendicular to the plane of a coin inserted into said slot, a split spring ring imprisoned in said pocket in the plane thereof, and stationary lug means in the pocket intersecting the split portion of the ring to prevent said split portion from rotating into position behind said slot, said ring expanding upon insertion of a coin to receive the coin and contracting after the coin has passed through.

7. In a coin-controlled device a coin receiver comprising a case having a slot therein for receiving coins edgewise behind which is a substantially flat pocket the plane of which is substantially perpendicular to the plane of a coin inserted into said slot, a split spring ring imprisoned in said pocket in the plane thereof, stationary lug means in the pocket intersecting the split portion of the ring to prevent said split portion from rotating into position behind said slot, and a partially circular projection across the pocket within the ring for maintaining it when contracted in a predetermined position without anchoring it to the case when expanded, said ring expanding upon insertion of a coin to receive the coin and contracting after the coin has passed through.

8. In a coin-controlled device a coin receiver comprising a case having a slot therein for receiving coins edgewise behind which is a substantially flat pocket the plane of which is substantially perpendicular to the plane of a coin inserted into said slot, a U-shaped spring member imprisoned in said pocket in the plane thereof, stationary lug means in the pocket intersecting the open portion of the U-shaped member to prevent said open portion from rotating into position behind said slot, and a projection across the pocket within the U-shaped member for maintaining it when contracted in a predetermined position without anchoring it to the case when expanded, said U-shaped member expanding upon insertion of a coin to receive the coin and contracting after the coin has passed through.

MARCUS H. RHODES.