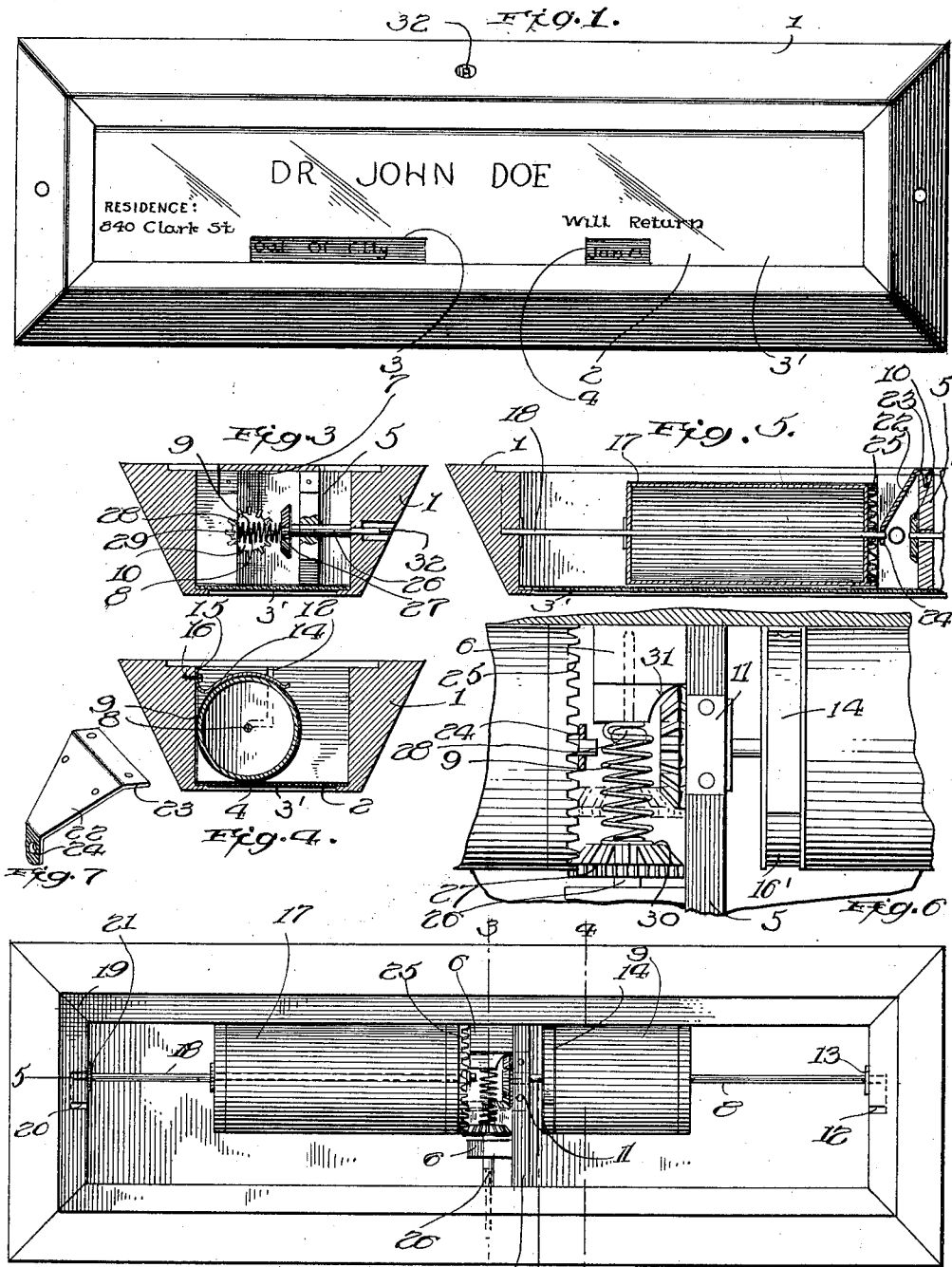


E. F. GOODWIN.
DOOR SIGN.
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1,029,497.

Patented June 11, 1912.



WITNESSES

James

Mr. L. McEathran

Fig. 2

INVENTOR

Elmer F Goodwin

By E. C. Vrooman, Attorney.

UNITED STATES PATENT OFFICE.

ELMER F. GOODWIN, OF CLARKSBURG, WEST VIRGINIA.

DOOR-SIGN.

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To all whom it may concern:

Be it known that I, ELMER F. GOODWIN, a citizen of the United States, residing at Clarksburg, in the county of Harrison and State of West Virginia, have invented certain new and useful Improvements in Door-Signs, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to door signs and has for its object the production of an efficient sign which may be attached to the ordinary door and may be efficiently operated to display certain information contained upon the rollers, within the sign casing.

Another object of this invention is the production of an efficient and durable means whereby the two rollers which are placed in alinement may be rotated through the medium of the same operating mechanism.

With these and other objects in view, this invention consists of certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a front elevation of the sign. Fig. 2 is a rear inverted elevation thereof. Fig. 3 is a transverse section taken on line 3—3 of Fig. 2. Fig. 4 is a transverse section taken on line 4—4 in Fig. 2. Fig. 5 is a fragmentary longitudinal section taken on line 5—5 of Fig. 2. Fig. 6 is an enlarged rear elevation of the clutch operating mechanism for operating the different indicating rollers. Fig. 7 is a detail, perspective of the bracket for supporting the inner end of the primary roller.

Referring to the drawings by numerals 1 designates the casing which may be made of any desired shape preferably rectangular as illustrated in Fig. 1, and this casing 1 is provided with an open face having an indicating sign 2 placed therein. Of course, this indicating sign 2 is covered by means of a glass plate 3' for protecting the same. This indicating sign 2 contains the desired printed matter, and is provided with alined indicating slots 3 and 4. The indicating slot 4 has printed thereover the words "Will return" the time on which the party owning the sign is to return appearing through the indicating opening 4.

The casing 1 is divided in a pair of compartments by means of a central partition 5

which partition carries a pair of bracket members 6 extending laterally therefrom. The partition 5 is provided with a vertically extending slot 7 in which is positioned the inner end of the shaft 8, which supports the auxiliary indicating roller 9. The inner end of the shaft 8 carries a drive gear wheel 10 which is placed upon the opposite side of the partition 5 from the indicating roller 9 as clearly illustrated in Fig. 2. The usual bushing 11 may be employed for filling the opening or slot 7 after the shaft 8 has been placed therein. The opposite end of the shaft 8 is fitted in a bayonet slot 12, and this shaft 8 is provided with a collar 13 for limiting the longitudinal movement of the shaft 8 within the casing 2. The construction of the slot 12 is clearly illustrated in Fig. 4 of the drawing.

A retaining spring 14 is carried by the casing 1, and is provided with a body engaging end 15 being fixedly secured to the body, by means of a screw 16. This spring 14 overhangs the auxiliary indicating cylinder 9 near one edge thereof, and travels in a groove or channel 16' formed upon the inner end of the indicating cylinder 9. This spring 14 is adapted to hold the drum 9 in its correct position and prevent the accidental displacement of the cylinder 9 from the casing 1.

A primary indicating cylinder 17 is supported or carried by means of a shaft 18, and this shaft has its outer end 19 fitted in a bayonet slot 20 similar to the slot 12 formed in the opposite end of the casing 1. This shaft 18 is also provided with a collar 21 for limiting the longitudinal movement of the shaft 18 in one direction. The inner end of the shaft 18 is supported by means of a bracket 22 which has its flanged portion 23 fixedly secured to the rear face of the central dividing partition 5. This bracket 22 tapers toward its forward end and is provided with a journal 24 for engaging the inner end of the shaft 18. The primary indicating cylinder 17 is provided upon its inner end with a series of gear teeth 25 formed upon the periphery of the cylinder 17. Of course, both the primary indicating cylinder 17 and the auxiliary indicating cylinder 9 have placed thereon suitable information such as appears in Fig. 1.

A driving shaft 26 is journaled through the top of the casing 1 and through one of the brackets 6 as is clearly illustrated in

Figs. 2 and 6, and carries at its inner end a beveled and flat gear 27 being adapted to respectively engage the teeth 25 formed upon the periphery of the cylinder 17, and the gear wheel 10 which is carried by the shaft 8. A pin 28 is carried by the opposite bracket 6 and to this pin is secured one end of a coil spring 29 which coil spring has its opposite end engaging the pin 30 which is also provided with an enlarged head carried by the gears 27. This spring 29 normally exerts an outward pressure upon the gear 27 so as to hold the same in engagement with the teeth 25 upon the periphery of the cylinder 17. The spring 29 is, of course, so secured to the pins 28 and 30 as to prevent the accidental removal of the spring 29 therefrom. The lower bracket 6, as is illustrated in Fig. 6 is provided with a cut-out portion 31 for allowing room for the gear 10 carried by the shaft 8. A key engaging portion 32 is carried by the shaft 26 and this key engaging portion extends through the top of the casing 1 as previously referred to and is adapted to be engaged by the key of the desired type for allowing the rotation of the indicating cylinders 7 and 9.

From the foregoing description it will be obvious that the sign, that is to say, each of the cylinders, may be independently rotated through the medium of the same operating mechanism. When the gear 27 is in its normal position or, the position as illustrated in Figs. 2 and 6, the flat gear portion of the gear 27 will engage the teeth 25 formed upon the periphery of the cylinder 17.

By rotating the shank or key engaging portion 32 it will therefore be obvious that the cylinder 17 may be so rotated as to change the indicating sign thereon, or to have the desired sign appear through the slot 3 formed in the plate 2. If it is, however, desirous of changing the sign appearing through the aperture 4, and rotating the cylinder 9, the shaft 26 may be pushed inwardly, which is made possible through the yieldable supporting spring 29 so as to have the beveled teeth of the gear 27 grip the gear 10. By rotating the shank 32 it will be obvious that the cylinder 9 may be in turn rotated. From the foregoing description it will also be readily seen that applicant has produced a very simple and efficient driving mechanism wherein the same mechanism may be employed for driving the two aligned cylinders independently of each other.

What is claimed is:—

A sign of the class described comprising a casing, a partition carried thereby, a primary indicating cylinder, a shaft supporting said primary indicating cylinder, a bracket carried by said partition and engaging the inner end of said shaft supporting said primary cylinder, an auxiliary indicating cylinder, and means for driving said primary cylinder and capable of being shifted for driving said auxiliary cylinder.

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

ELMER F. GOODWIN.

Witnesses:

HAZE MORGAN,
S. B. MORGAN.