P. R. THOMAS.

INDICATOR.

APPLICATION FILED AUG. 21, 1912.

1,067,079.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

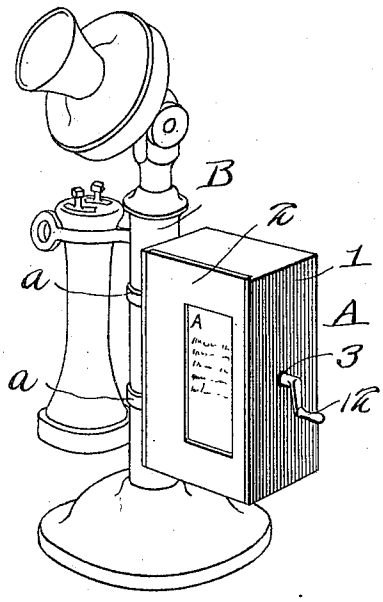
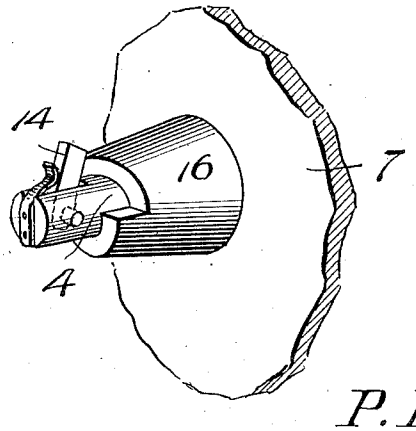


Fig. 5.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

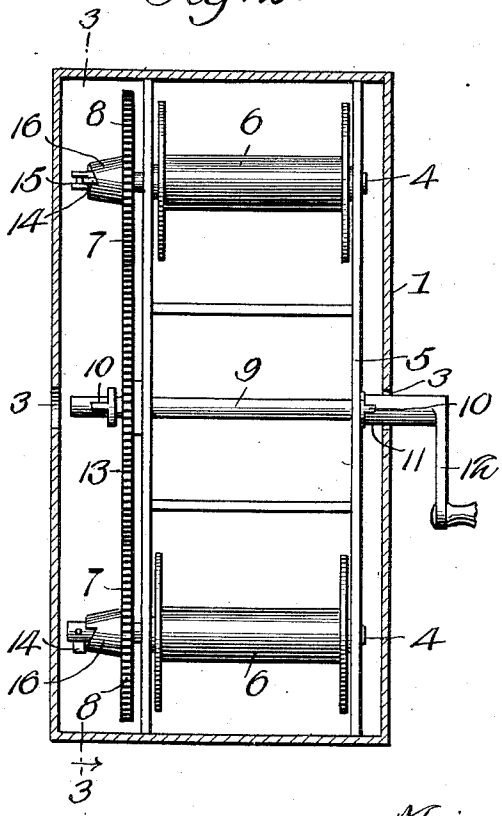


Fig. 3.

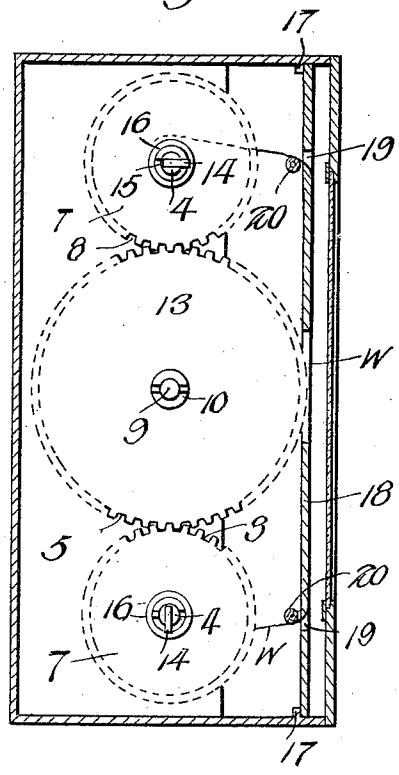
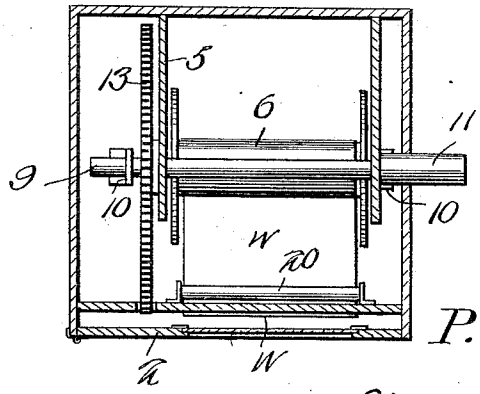


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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INDICATOR.

1,067,079. Specification of Letters Patent. Patented July 8, 1913.

Application filed August 21, 1912. Serial No. 716,291.

To all whom it may concern:

Be it known that I, PAUL R. THOMAS, a citizen of the United States of America, residing at Conway Springs, in the county of Sumner and State of Kansas, have invented new and useful Improvements in Indicators, of which the following is a specification.

This invention relates to improvements in indicators and has particular application to that class of indicators wherein a web of paper or the like bearing the indicia to be viewed is wrapped or wound about a pair of drums spaced apart and operable alternately to move the web past the viewing opening.

In carrying out the present invention, it is my purpose to provide an indicator which will be found especially useful as a telephone directory and wherein the drums carrying the indicia bearing web may be operated manually to expose the portion of the web bearing the desired information.

It is also my purpose to provide an indicator which will embody among other features a pair of drums spaced apart and carrying the indicia bearing web, a shaft for actuating the drum shafts, means being provided for placing the drum shafts automatically in and out of engagement alternately with the driving shaft in accordance with the direction of rotation of the main shaft so that the web will be maintained taut when unwinding from one drum onto the other.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claim.

In the accompanying drawings; Figure 1 is a perspective view showing my invention as applied to a telephone. Fig. 2 is a top plan view of the indicator, the cover and web being removed. Fig. 3 is a central longitudinal sectional view through the indicator. Fig. 4 is a central transverse sectional view of the same, and Fig. 5 is a detail perspective view of one of the web drums and the driving gear therefor showing the means for placing the gear in and out of driving engagement with the drum automatically.

Referring now to the accompanying drawings in detail, the letter A designates my improved indicator as an entirety which, in the present instance, is fastened by means of brackets *a* to the standard B of a telephone transmitter. In the present embodiment of my invention, I have shown the same employed as a telephone directory. It is to be understood, however, that the invention in its useful application is not limited to this particular purpose as the same is equally useful as a hotel register or other like device.

The indicator A embodies a casing 1 constructed of any suitable material and preferably, although not necessarily, of rectangular configuration. This casing 1 is provided with a hinged transparent cover 2 and has formed in the side walls approximately centrally thereof alining openings 3. Journaled in the casing at each end thereof is a drum shaft 4. These drum shafts, in the present instance, are rotatably mounted within the side walls of a frame 5 mounted within the casing and of a height and width less than the similar dimensions of the casing. Keyed to each drum shaft is a drum 6, while loosely mounted upon one end of each shaft on the outer side of one of the side walls of the frame 5 is a gear wheel 7 formed in the present instance, on its peripheral surface with gear teeth 8. Journaled in the casing 1, in the present instance, in the frame 5 and coaxial with the openings 3 in the side walls of the casing is a main shaft 9 having its opposite ends projected beyond the side walls of the frame and provided with toothed collars 10 with which is interchangeably associated a similar collar 11 carried by a crank handle 12. Thus, movement may be imparted to the main shaft from either end thereof by means of the crank handle.

Keyed upon the main shaft 9 on the outer side of one of the side walls of the frame 5 is a gear wheel 13 provided in the present instance with peripheral gear teeth meshing with the teeth 8 on the wheels 7 and adapted, when the main shaft is rotated by the crank handle, to impart movement to one or the other of the gear wheels 7 so that the respective drum may be rotated, according to the direction of rotation of the main shaft. Secured to the drums 6 in any suitable manner and adapted to be unwound from one drum and onto the other is a web *w* of paper or any other suitable material bearing suitable indicia, in the present instance, the names and telephone numbers of subscribers.

In order to place the gear wheels 7 in and out of driving engagement with the respec-

tive drum shafts alternately in accordance with the direction of rotation of the main shaft, suitable clutch means is provided which operates automatically to place the winding drum into engagement with the main shaft and disconnect the unwinding drum from the main shaft so that the web will be at all times maintained taut. This clutch means, in this instance, consists of a spring pressed dog 14 pivoted in a slot 15 at one end of each drum shaft and normally engaging a toothed collar 16 rigidly secured to the respective wheel 7. Thus, when the main shaft 9 is rotated in one direction, one of the drums will be automatically placed in driving engagement with the main shaft and rotated therefrom to wind the web thereon, while the opposite drum will be relieved of the influence of the main shaft and operated from the winding drum thereby keeping the web in a taut condition, the drums operating conversely when the direction of rotation of the main shaft is reversed, as will be readily understood.

Mounted within the casing 1 and supported upon suitable guide rails 17 immediately below the cover 2 is a web guide 18 having formed therein adjacent to the opposite ends thereof slots 19 and equipped on its under surface below such slots with guide rolls 20, the indicia bearing web being passed through the slots and over the guide rolls. From this construction, it will be seen that the desired portion of the web may be brought into the line of vision and viewed through the transparent cover.

From the foregoing description taken in connection with the accompanying drawings, the construction, mode of operation and manner of employing my invention will be readily apparent. It will be seen that I have provided an indicator or directory wherein the web having the indicia thereon is at all times held taut and capable of traveling from one drum onto the other to expose the desired portion thereof.

While I have herein shown and described one preferred form of my invention by way of illustration, I desire it to be understood that I do not limit myself to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claim and without departing from the spirit of the invention.

I claim:

A device of the class described comprising a casing having a transparent cover, a drum shaft journaled in the casing at each end thereof, a drum keyed to each drum shaft, each drum shaft being provided with a slot in one end, a gear wheel loose on each shaft, a main shaft journaled in the casing between said drum shafts, a power gear on said main shaft and meshing with the first-mentioned gears, means for turning said power shaft, means for placing said drum shafts in and out of driving engagement with said gear wheels, said means comprising a toothed collar secured to each wheel and encircling the shaft, and a spring pressed dog pivoted within the slot in the end of the shaft and normally engaging the toothed collar.

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

PAUL R. THOMAS.

Witnesses:
RETTA A. GREEN,
GLENN S. FRANTZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."