J. H. RAND.

ADJUSTABLE INDICATOR.

APPLICATION FILED NOV. 4, 1912.

1,149,082. Patented Aug. 3, 1915.

Fig. 1.

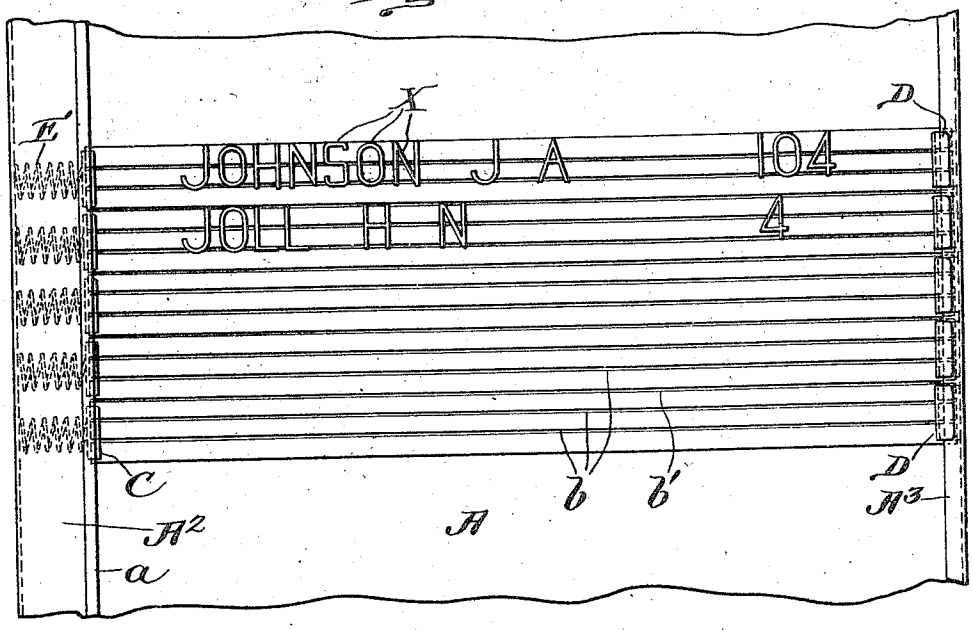


Fig. 2.

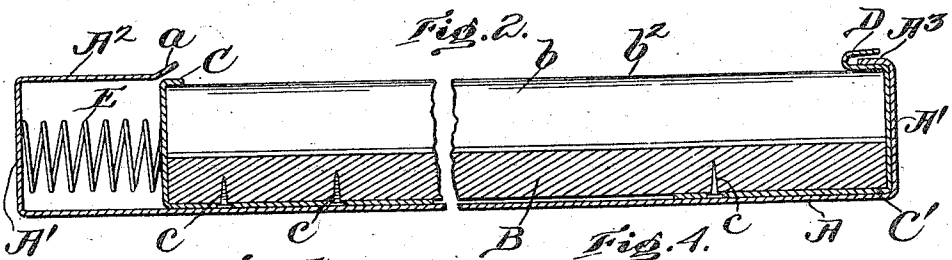


Fig. 3.

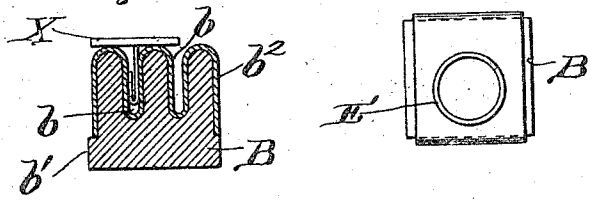


Fig. 4.

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UNITED STATES PATENT OFFICE.

JAMES H. RAND, OF NEWTON, MASSACHUSETTS.

ADJUSTABLE INDICATOR.

1,149,082. Specification of Letters Patent. Patented Aug. 3, 1915.

Application filed November 4, 1912. Serial No. 729,341.

To all whom it may concern:

Be it known that I, JAMES H. RAND, a citizen of the United States, and resident of Newton, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Adjustable Indicators, of which the following is a specification.

My invention relates to adjustable indicators of the type commonly employed for building directories and like uses, comprising a frame and a number of juxtaposed, removable and interchangeable strips or bars bearing names, numbers or other desired information.

The prinicpal object of my invention is to provide an indicator of this general class or type wherein the individual character strips or bars may be more readily removed and interchanged, without disturbing or disarranging the other strips or bars, than is possible in the use of any of the indicators of this general type with which I am familiar.

Other improvements and advantages forming part of my invention will be hereinafter referred to and pointed out.

Referring to the drawings illustrating an embodiment of my invention,—Figure 1 is a front or face view of my improved indicator, partly broken away: Fig. 2 is an enlarged sectional view of said indicator, taken lengthwise of one of the character bars; and Figs. 3 and 4 are respectively a sectional and an end view of one of the character bars.

The frame of my improved indicator is preferably made of a suitable sheet metal, such as tin, and consists of a back A having side walls A′ integral therewith. The side walls A′ are bent inwardly at their tops to form flanges, one of which, as A^2, is broader than the other, A^3, and is provided with an upturned lip *a* to facilitate the insertion of the character bars as presently to be described. The inwardly facing channels thus formed constitute marginal bar holders. Within said frame are a plurality of juxtaposed character bars of identical construction. Each of these bars consists of a block or strip B, preferably of wood, and having a plurality of grooves or slots *b* extending the entire length of said block, adapted removably to hold the tongues of letters or characters X which it is desired to display (Fig. 3). The block B is further provided upon one bottom edge thereof with a narrow flange or bead *b′* which serves as a spacer so that when two or more of said bars are juxtaposed in said frame, there is a groove or slot therebetween corresponding to the slots *b* in the bar, thus giving a uniform appearance to the face of the indicator. The face or top of the block B, the groove *b* and the sides are preferably covered with felt or other suitable yielding material b^2 as shown. Upon the bottom of the block B and near each end thereof, there is secured in any suitable manner, as by tacks *c*, a metal strip C of tin or other suitable material. These strips are bent upward and turned in over the top of the block so that the ends of the block are thus metal bound and protected against wear and fraying in rubbing against the edges of the flanges A^2, A^3, during insertion and removal from the frame. One of said metal strips, C, is bent at its top to form a lip or handle, D, and upon the other of said strips C there is mounted a spring E, preferably a coil spring as shown. In inserting one of said character bars in the frame, the end thereof having the spring E thereon, is placed under the flange A^2 its insertion being facilitated by the lip *a*. The bar is then pressed to the left as viewed in the drawings, whereupon the spring E comes in contact with the side wall A′, and continued pressure compresses said spring. When the bar has been pushed to the left far enough to permit the end provided with the lip D to clear the flange A^3, the bar is brought down against the back A and released, whereupon the spring E expands and pushes the lip carrying end of the bar against the opposite side wall A′, thus yieldingly locking the bar within the frame, the lip D projecting over the flange A^3 as clearly shown in Fig. 1. It will be understood that as all the bars are of identical construction, they are inserted in the precise manner just described, and when juxtaposed within the frame are suitably spaced apart by reason of the flanges *b′*. When, now, it is desired to remove one of said character bars, the user pushes the bar by means of lip or handle D to the left as viewed in the drawings, compressing the spring E far enough to permit the lip carrying end of the bar to clear the flange A^3. Thereupon, the bar is lifted and removed from the frame.

I am aware that adjustable indicators have heretofore been provided wherein the character bars have been yieldingly locked within the frame by a common spring or

follower; but in such constructions the removal of an individual bar of necessity relieves the compression on the spring and tends to disarrange the juxtaposed bars, particularly those located above the one removed. It will, I believe, be clear that in my invention this difficulty is wholly eliminated; for as each bar is provided with and yieldingly locked by its own individual spring, its removal cannot in any manner displace or disarrange the other bars.

I claim:

1. An indicator, comprising a frame having marginal bar holders, a plurality of removable and interchangeable character bars held at their ends by said bar holders, each bar having at its end a spring individual to such bar, said bars, springs and bar holders being relatively so proportioned that the endwise movement of any bar will compress its spring and disengage the opposite end of the bar from its bar holder, and said springs being normally adapted yieldingly to hold the opposite ends of their respective bars in engagement with their bar holder, each bar having a projection extending from its exposed front face.

2. An indicator, comprising a frame having marginal bar holders and a plurality of removable and interchangeable character bars held at their ends by said bar holders, each of said bars having a metal strip at one end provided with an integral lip and at its opposite end a metal strip having a spring mounted thereon, said spring adapted yieldingly to hold the lip carrying end of said bar in engagement with the holder.

3. An indicator, comprising a frame having side walls provided with inwardly extending flanges, and a plurality of removable and interchangeable character bars, each of said bars having a metal strip at one end provided with a lip and at its opposite end a metal strip having a spring mounted thereon, said spring adapted yieldingly to hold the lip-carrying end of said bar against a side wall of said frame and below the inwardly extending flange of said side wall.

4. An indicator, comprising a frame having side walls provided with inwardly extending flanges, and a plurality of removable and interchangeable character bars, each of said bars having a metal strip at one end provided with an integral lip, and at its opposite end a metal strip having a coil spring mounted thereon, said spring adapted yieldingly to hold the lip carrying end of said bar against a side wall of said frame and below the inwardly extending flange of said side wall.

Signed by me at Boston, Massachusetts, this first day of November, 1912.

JAMES H. RAND.

Witnesses:
CHARLES D. WOODBERRY,
JOSEPHINE H. RYAN.