July 1, 1958 R. H. POPPER 2,841,152

ADJUSTABLE BOOK BINDER

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Fig. 1.

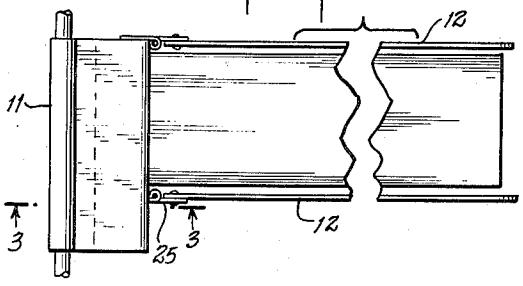


Fig. 2.

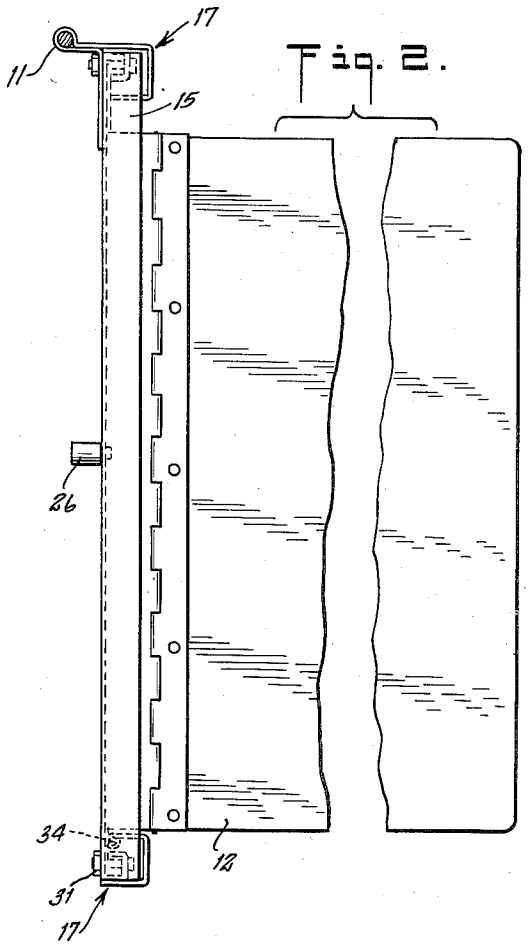


Fig. 3.

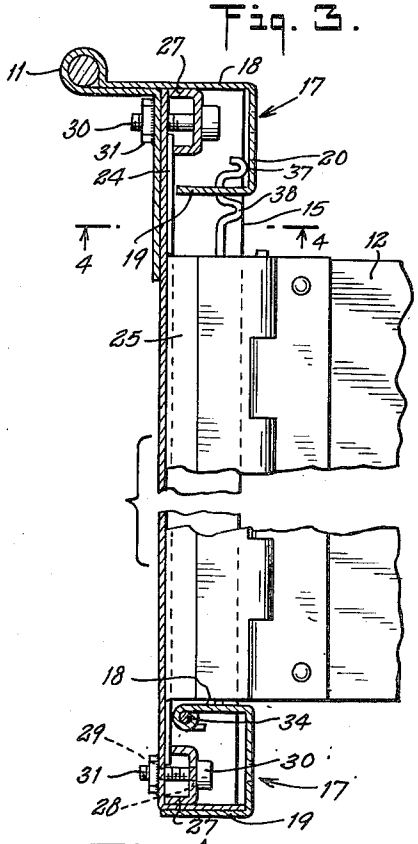
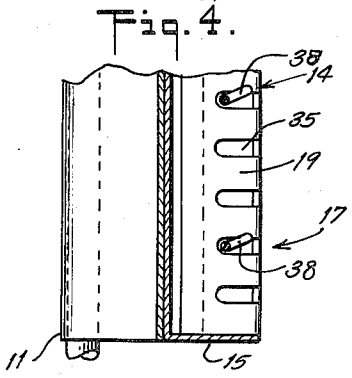


Fig. 4.



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Fig. 5.

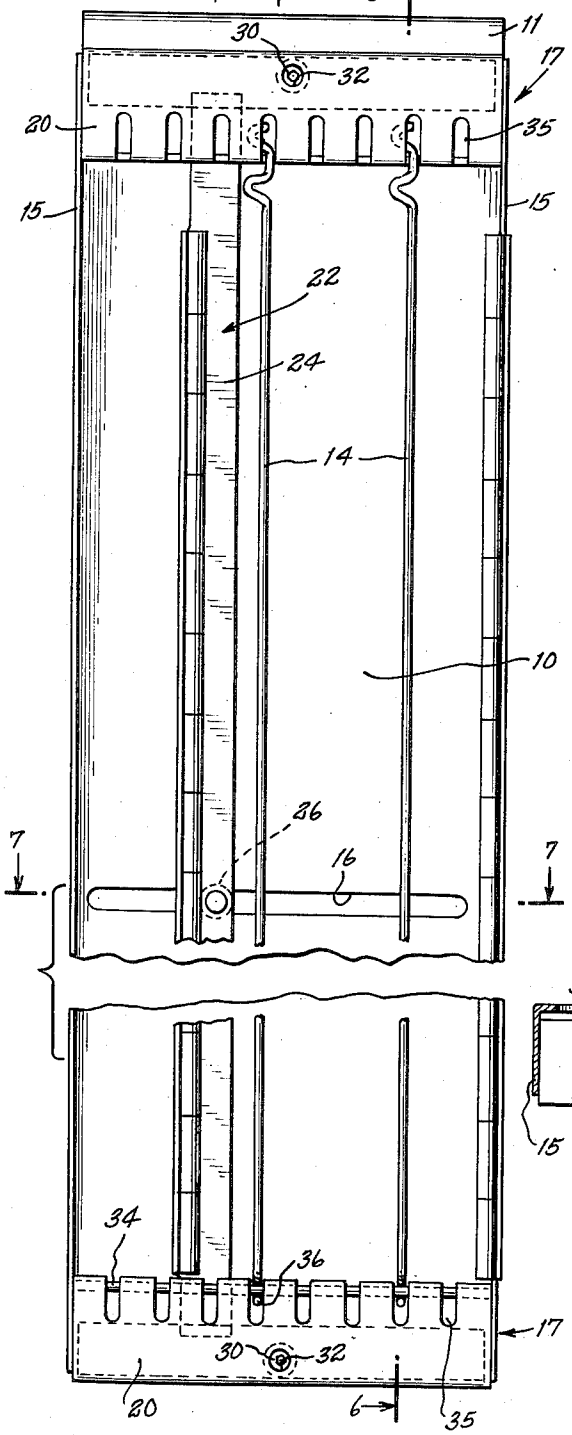


Fig. 6.

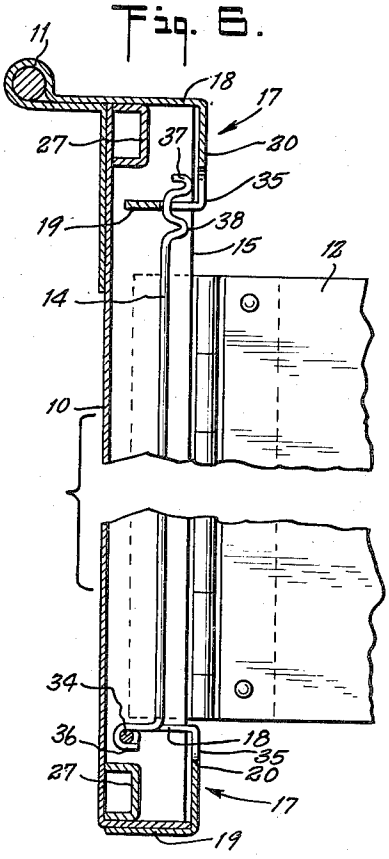
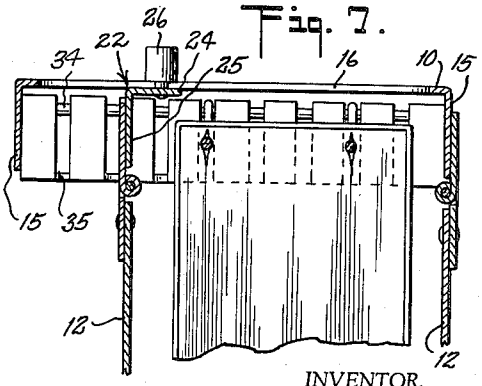


Fig. 7.



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ADJUSTABLE BOOK BINDER

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Application May 21, 1957, Serial No. 660,526

10 Claims. (Cl. 129—38)

The present invention relates to binders and, more particularly, to an improved binder for mounting telephone directories and the like on a shelf or stand in the conventional manner now employed.

It has been the policy of nationwide telephone companies to standardize equipment throughout their territory of operation, even to minute details, so that each piece of like equipment is identical. In following this procedure, all directory stands or the like and the binders for mounting the directories thereon are the same whether used in large cities or small cities or in towns, where the directories may vary considerably in thickness in proportion to the number of subscribers having listed telephone numbers. Thus, there has been a need to construct the binders in a manner which enables the same to be adjusted for holding directories varying greatly in thickness. The binders presently in use attempt to accomplish this but at considerable expense and complication.

In my copending application for United States Letters Patent, Serial No. 660,527, filed on even date herewith, one form of an improved telephone book binder is disclosed which solves the foregoing problem.

Accordingly, an object of the present invention is to provide another form of improved binder for books of the type indicated herein which is not subject to any of the prior objections and disadvantages.

Another object is to provide such a binder which is readily adjusted to accommodate books of different thicknesses.

Another object is to provide such a binder wherein the adjusting means cannot be tampered with by the public.

Another object is to provide such a binder which has improved means for coupling the books therein.

A further object is to accomplish the foregoing in an extremely simple, very practical and highly economical manner.

Other and further objects will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and description and is shown in the accompanying drawing, forming a part of the specification, wherein:

Fig. 1 is a fragmentary plan view of a binder in accordance with the present invention having a book mounted therein.

Fig. 2 is a fragmentary side view of the binder shown in Fig. 1.

Fig. 3 is an enlarged, fragmentary sectional view taken along the line 3—3 on Fig. 1.

Fig. 4 is a fragmentary sectional view taken along the line 4—4 on Fig. 3.

Fig. 5 is an enlarged fragmentary front view of the binder with the book removed.

Fig. 6 is a fragmentary sectional view taken along the line 6—6 on Fig. 5.

Fig. 7 is a fragmentary sectional view taken along the line 7—7 on Fig. 5.

Referring now to the drawings in detail, there is shown a binder for a telephone directory or the like which generally comprises a back plate **10** having a tubular portion **11** positioned rearwardly at its upper end for pivotally mounting the binder in a conventional manner, side covers **12** hinged to the back plate **10** and one or more rods **14** attached to the back plate for coupling the directory to the binder.

As shown herein, the back plate **10** has forwardly extending vertical side walls **15** and a transverse slot **16** (Figs. 5 and 7) extending thereacross, between the side walls **15** and intermediate the upper and lower ends thereof. The back plate is further provided with forwardly extending horizontal wall structure **17** at the upper and lower ends thereof, which structure includes spaced upper and lower horizontal wall sections **18** and **19**, respectively, and a vertical front wall section **20** interconnecting the upper and lower wall sections (Figs. 3 and 6).

In order to adjust the binder for books varying in thickness, an angle member **22** (Figs. 3 and 7) is provided. The angle member has a back wall **24** parallel to and in engagement with the front surface of the back plate **10** and with its upper and lower ends slidably positioned between the upper wall section **18** of the upper end structure **17** and the lower wall section **19** of the lower end structure **17**. The angle member **22** also has a forwardly extending wall **25** parallel to the back plate side walls **15** and terminating short of the upper and lower end wall structure **17**.

One of the side covers **12** is hinged to one of the back plate side walls **15** and the other of the side covers **12** is hinged to the angle member wall **25**. Thus, by sliding the angle member back and forth the space between the side covers can be adjusted to accommodate a book of any thickness not exceeding the space between the back plate side walls **15**.

In order to facilitate such sliding movement, a manually engageable member, such as a knob or handle **26**, is secured to the rear of the angle member back wall **24** and extends through the slot **16** which serves as a guide therefor.

The angle member **22** is clamped in its adjusted position, preferably at the top and bottom thereof, by means of an arrangement about to be described. As shown herein (Figs. 3 and 6), this arrangement includes structure, such as a horizontal channel member **27**, within the end structure **17** having the ends of one of its flanges engaging the angle member back wall **24** to provide a slightly yieldable clamp, an aperture **28** intermediate the ends of the channel member formed in the web thereof, apertures **29** in the back plate **10** each in registry with an aperture **28**, a screw **30** extending through each set of apertures **28—29**, and a nut **31** secured to the screw.

The screws **30** preferably have their heads disposed on the web of the channel member **27** and face the vertical wall section **20** of the end structure **17**. Access to the screw heads by means of a tool is made possible by providing an aperture **32** in each of the wall sections **20** in registry with the screw head. The screw heads are of the type adapted to receive only a special tool, and the nuts **31** are of the clamp screw type, whereby tampering with the adjusting arrangement by the public is prevented.

The coupling rods **14** are hinged to the lower end structure **17** to move in a vertical plane perpendicular to the

back plate 10 and to permit them to be twisted about their longitudinal axes (Figs. 3, 5 and 6). The upper ends of the rods are constructed and arranged to releasably attach them to the upper end structure 17, as about to be described.

This is accomplished in a simple and economical manner by using substantially identical upper and lower end structures, the difference being that the rearwardly facing portion of the upper wall section 18 of the lower end structure is curled about a rod 34. The upper and front wall sections 18 and 20, respectively, of the lower end structure are provided with connecting slot portions 35 (Figs. 4 to 7) for receiving the lower ends of the rods 14 which are curled at 36 about the rod 34 and are movable thereabout. Likewise, the lower and front wall sections 19 and 20, respectively, of the upper end structure are provided with such slot portions 35 which are disposed in a vertical plane perpendicular to the back plate and are adapted to cooperate with upper ends of the rods 14 to releasably attach the same.

In order to so attach the rods 14 (Figs. 3 to 6) the upper ends thereof are provided with an extension 37 normally disposed at an angle to the lower wall section slot portions to thereby overlie the upper surface of the wall section 19 and be locked in the slots. By twisting the rods 14 slightly about their longitudinal axes, the extensions 37 can be aligned with the slots to pass therethrough. Twisting of the rods 14 is facilitated by providing a manually engageable extension 38 just below the upper end structure 17, preferably engageable by a suitable tool to thereby further prevent tampering by unauthorized persons.

From the foregoing description, it will be seen that the present invention provides an extremely simple, very practical and highly economical binder of the adjustable type. The means providing the adjustment herein are readily operated but cannot be tampered with by the public. These binders are rugged in construction but light in weight because sheet metal stampings are employed, and can withstand such rough usage to which they may normally be subjected.

As various changes may be made in the form, construction, and arrangement of the parts herein, without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matters are to be interpreted as illustrative and not in any limiting sense.

What is claimed is:

1. A book binder comprising a rigid back plate having forwardly extending vertical side walls, forwardly extending horizontal wall structure adjacent the upper and lower ends thereof and a transverse slot extending therethrough between said side walls and intermediate said end wall structure, an angle member having a back wall parallel to said plate and having its upper and lower ends slidably positioned between said upper and lower end wall structure and having a forwardly extending wall parallel to said plate side walls, a side cover hinged to one of said plate side walls, another cover hinged to said angle member forwardly extending wall, a manually engageable element at the rear of said angle member back wall and extending through said slot for positioning the last mentioned cover with respect to said other cover whereby the space between said covers can be adjusted to accommodate a book of a given thickness, releasable clamping means for said angle member back wall, and a coupling rod cooperating with said end wall structure to position the book between said covers.

2. A book binder according to claim 1, wherein said clamping means are provided at the upper and lower ends of said angle member back wall.

3. A book binder according to claim 2, wherein said angle member forwardly extending wall terminates short of the upper and lower ends of said angle member and said clamping means includes structure extending between said back plate side walls and overlying said angle member back wall to engage the same.

4. A book binder according to claim 3, wherein said clamping means further includes a screw extending through said clamping means structure and said back plate and a nut secured to said screw.

5. A book binder according to claim 4, wherein said clamping means structure is a channel member having the end of a flange engaging said angle member back wall.

6. A book binder according to claim 4, wherein said back plate end wall structure includes a vertical wall section formed with an opening in registry with said screw.

7. A book binder according to claim 6, wherein said screw has its head facing said opening and the head is formed with a tool receiving slot and means are provided at the free end of said screw for retaining said nut thereon.

8. A book binder according to claim 7, wherein said clamping means are provided at the upper and lower ends of said angle member back wall and said screws are in vertical alignment at about the middle of said clamping means structure.

9. A book binder comprising a rigid back plate provided with forwardly extending vertical walls and having forwardly extending horizontal wall structure at the upper and lower ends thereof, a side cover hinged to each of said vertical walls, a coupling rod for positioning the book between said covers, and means at the lower end of said rod for hinging the same in a vertical plane and permitting twisting thereof about its longitudinal axis, said upper back plate end wall structure including spaced upper and lower horizontal wall sections and a vertical front wall section interconnecting said upper and lower sections, said lower and front wall sections being formed with connecting slot portions disposed in a vertical plane perpendicular to said back plate, said rod having an extension adjacent its upper end normally disposed at an angle to said lower wall section slot portion and adapted to overlie and engage the upper surface of said lower wall section and thereby releasably attach the upper end of said rod to said upper end wall structure of said back plate.

10. A book binder according to claim 9, wherein said rod has an extension beneath said lower horizontal wall section for twisting said rod to enable said first mentioned extension to pass through said slot portions.

No references cited.