May 30, 1939. F. S. SCHADE 2,160,392

RING BINDER PENCIL CLIP

Filed March 3, 1938

Fig. 1.

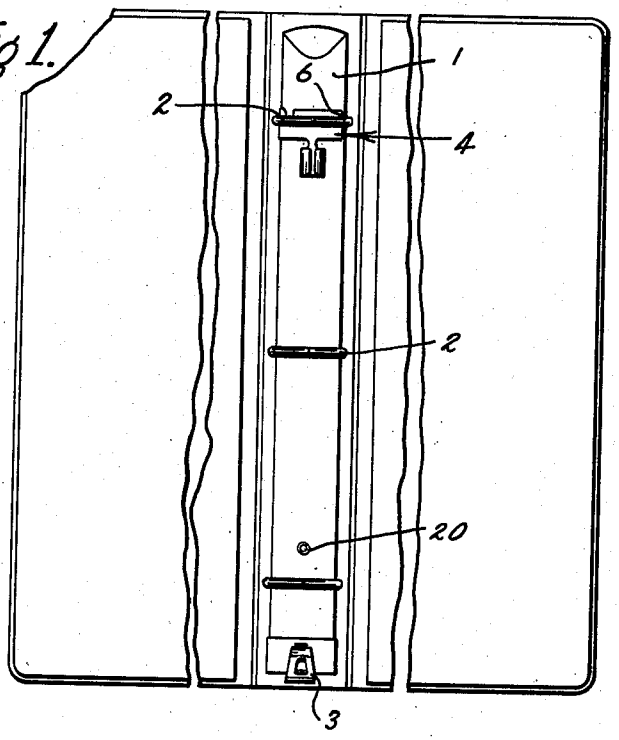


Fig. 2.

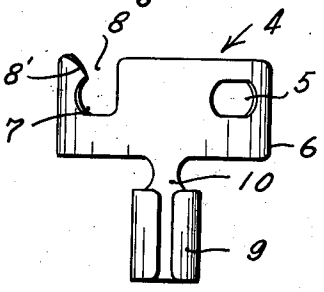


Fig. 3.

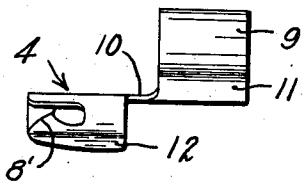


Fig. 4.

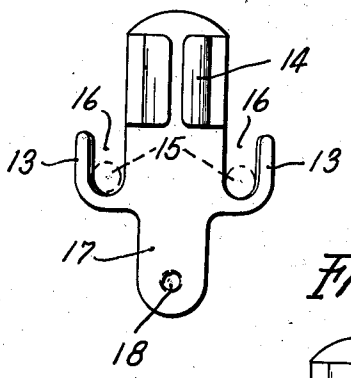


Fig. 5.

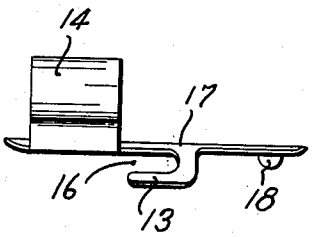
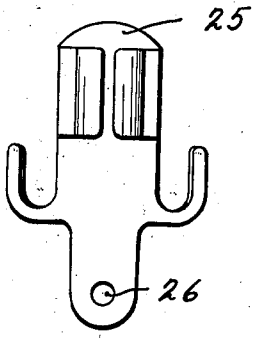


Fig. 6.



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RING BINDER PENCIL CLIP

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Application March 3, 1938, Serial No. 193,746

7 Claims. (Cl. 129—1)

This invention relates to an improved pencil clip for fastening onto a ring binder. I am aware of the prior art as illustrated by the Trussell Patent 1,904,572. The improved and useful features of my disclosure can be understood best from a specific description.

In the drawing—

Fig. 1 is a plan view of a ring binder partially broken away, with my pencil clip attached;

Figs. 2 and 3 are plan and side views of the pencil clip alone; and

Figs. 4 and 5 are plan and side views of a modified form of clip; and

Fig. 6 is a plan view of a second modification.

A ring book of customary kind has a cover or spring plate 1 and in the book shown the rings 2 may be opened and closed by an operating lever 3 at one end. This is all known construction except the pencil clip 4, the preferred form of which is shown in Figs. 1 to 3.

The clip 4 is made of thin, stiff, but springy sheet metal with an arch-shaped form to lie against and correspond to the arch form of plate 1. At one side of the clip there is an opening 5 to thread on the ring half at that side. The edge 6 of the clip on the side of opening 5 preferably stops to coincide with the edge of plate 1 and is not turned under at that edge.

The clip 4 on the other side is made with an opening 7 to receive the ring half on that side. This opening 7, however, has an entrance 8 to it from the long or front edge of the clip. The end on this side of the clip is turned under slightly as shown at 12 in Fig. 3, so as to snap over the corresponding edge of plate 1. The pencil is held by the cylinder 9 made when the sheet metal clip is made by bending up two ears of metal from the sides of extension 10. These ears are preferably made for cylinder 9 to be located with its axis elevated closer to the axis of the rings than it would be except for portions 11 underlying and supporting the cylinder. It is preferably all of one piece.

To place the clip on the metal of an ordinary ring book, one proceeds as follows: The rings are opened. The opening 5 of the clip is threaded on its ring half with the clip extending diagonally across plate 1. Then the rings may be closed. The clip can be swung sidewise, the engagement of opening 5 with one ring half acting as a pivot, so as to force the clip to receive the other ring half into opening 7 through entrance 8 to that opening. This movement is resisted somewhat by the fact that as the ring half goes into opening 7 through entrance 8, the down-turned clip edge at 12 must be snapped over and under the in-turned edge of plate 1. The entrance 8 is beveled off at the outer side as at 8' to help the movement. And the clip at that side will be pressed down against plate 1 both by the hand and by the curved edge of the ring half. The turned-under edge of the clip at 12 is preferably shaped with a rising lower edge from back to front, as indicated in Fig. 3. Thus, as the ring half contacts bevel 8', the spring clip can be forced into position and as it rides on the plate to take the ring half in opening 7, its turned-down edge is forced over the edge of plate 1 and snaps down over that edge.

The clip being of spring metal is thus clamped on the plate 1. It is fairly simple to place it on the binder as described; any one can do it without tools. But it is a very difficult matter to get it off, once it is applied. A tool is then necessary to pry up the very small down and in-turned edge of the clip at 12 until it releases its spring hold and the clip can be swung around sidewise for removal. It is so hard to do that one will not ordinarily do it. Consequently the clip can be placed easily on the customary ring binder without making any special provisions in the binder construction to hold it. And when it is once properly on the binder it is as if it had been built on at the factory with tools—both tools and knowledge being necessary to get it off.

One advantage is that pencil clips can be carried by the stationery store for customary ring binders, and used as desired without stocking special binders made specially to combine with a pencil clip. Many other specific advantages are in the specific construction of the clip as disclosed.

The modified form of Figs. 4 and 5 is preferably made of one piece. The general form is arched in cross-section and made for a rather long bearing on plate 1. At the side edges there are two ears 13. The cylinder 14 for holding the pencil is turned up as shown and in this respect may be like the other modifications. The single piece clip is made to be pushed into position with the ears 13, each embracing a ring half, and the two ring halves 15 are positioned in the bottom of the slots 16 formed by the ears 13 and the body of the clip. The extension 17 has a downwardly extending protuberance 18 pressed out of the metal. It is of a size to fit within the bore of the tubular rivet 20, see Fig. 1, customarily used to fasten the loose leaf metal to the binder back panel.

The assembly of this modification with the

binder is made by pushing it to slide on plate 1 until rings 15 lie at the bottom of slots 16. At that time protuberance 18 snaps into the top of cylindrical rivet head 20, the dimensions being such as to secure the parts in the relative positions for such action. The clip is of spring metal and the extension 17 acting as a leaf spring snaps part 18 into part 20, after which the clip lies against plate 1 to conform to its shape. The assembly is conveniently put together and is securely held in place. By prying up extension 17 the clip can be removed.

The modification of Fig. 6 is much like that of Figs. 4 and 5. In this instance the clip 25 is assembled with the binder before rivet 20 is headed over, the hole 26 in the clip fitting the rivet. The latter is made enough longer so that in making up the binder, the clip 25 is merely placed in position and the rivet 20 headed over to finally fasten the clip on.

The form of the invention shown in Figs. 1 to 3 is the one I prefer as it has some advantages the others do not have. The preferred form would operate in the manner described if both openings had entrance slots thereto, as the modifications have.

Upon this disclosure of my invention, I claim:

1. A pencil clip for a ring binder, comprising an arch-shaped piece of spring metal having two openings for the ring halves to pass through, one of said openings have an entrance slot thereto from an edge of the metal, said entrance slot having a cam edge to guide a ring to its opening, means on the clip adapted to coact with a binder part and hold the clip in place when in position with the rings passing through said openings, and spring fingers carried by said spring metal to engage and hold a pencil or the like.

2. A pencil clip for the purpose described comprising a saddle-shaped piece of spring metal to mount on a binder, said metal having an opening near each side edge for the passage of one ring half of a binder ring, one of said side edges having a turned-under flange adapted to snap under the binder metal when the ring halves are in said openings, the opening adjacent said flange having an entrance slot from its transverse edge.

3. A pencil clip for the purpose described comprising an arch-shaped piece of spring metal to fit transversely and lie on the spring plate of a ring binder between one pair of ring halves, an opening at each side of the clip for passage through it of the ring half on its side, the opening at one side having an entrance slot with an outer edge beveled off to engage the ring half for assembly, the side edge of the clip adjacent said beveled entrance slot being formed with a down-turned flange adapted when the clip is being assembled with the binder to snap over the adjacent side edge of the binder plate and hug said edge, and means on said clip to removably engage a pencil lying substantially in the axis line of said rings.

4. The structure of foregoing claim 3 in which said down-turned flange is wedge-shaped in side elevation, the point of the wedge being adjacent said entrance slot for one of the ring halves.

5. A pencil clip for a ring binder comprising a single piece of sheet metal having bent-up ears to embrace a pencil and sidewise extending ears for mounting the clip between one pair of ring halves in a binder, openings one in each side ear for engagement with an adjacent ring half of a binder, said openings being spaced for their outer edges to hug the outer edges of the ring halves and make a tight fit and at least one of said openings being provided with an entrance slot for assembly of the clip with a binder substantially as described.

6. A pencil clip for the purpose described comprising a single piece of sheet metal having two side ears with slots to engage the ring halves of a ring binder, a third ear with turned-up parts to embrace a pencil or the like, and a fourth ear having a downwardly extending protuberance for engaging with a rivet head hole in a binder, said clip being of spring metal and dimensioned so as to snap into assembled position on a ring binder with the protuberance in the rivet head hole and the ring halves in the bottoms of the slots of the side ears.

7. In combination with a ring binder of the type having its loose leaf metal parts secured to the back panel by rivets, a pencil clip made from a single piece of sheet metal and having an ear riveted to the binder by one of said rivets, two side ears, each of which is engaged with an adjacent half of a binder ring, and a fourth ear with side extensions bent into spring clip cylindrical form to hold a pencil or the like.

FRANK STANLEY SCHADE.