

Nov. 6, 1934.

P. O. UNGER

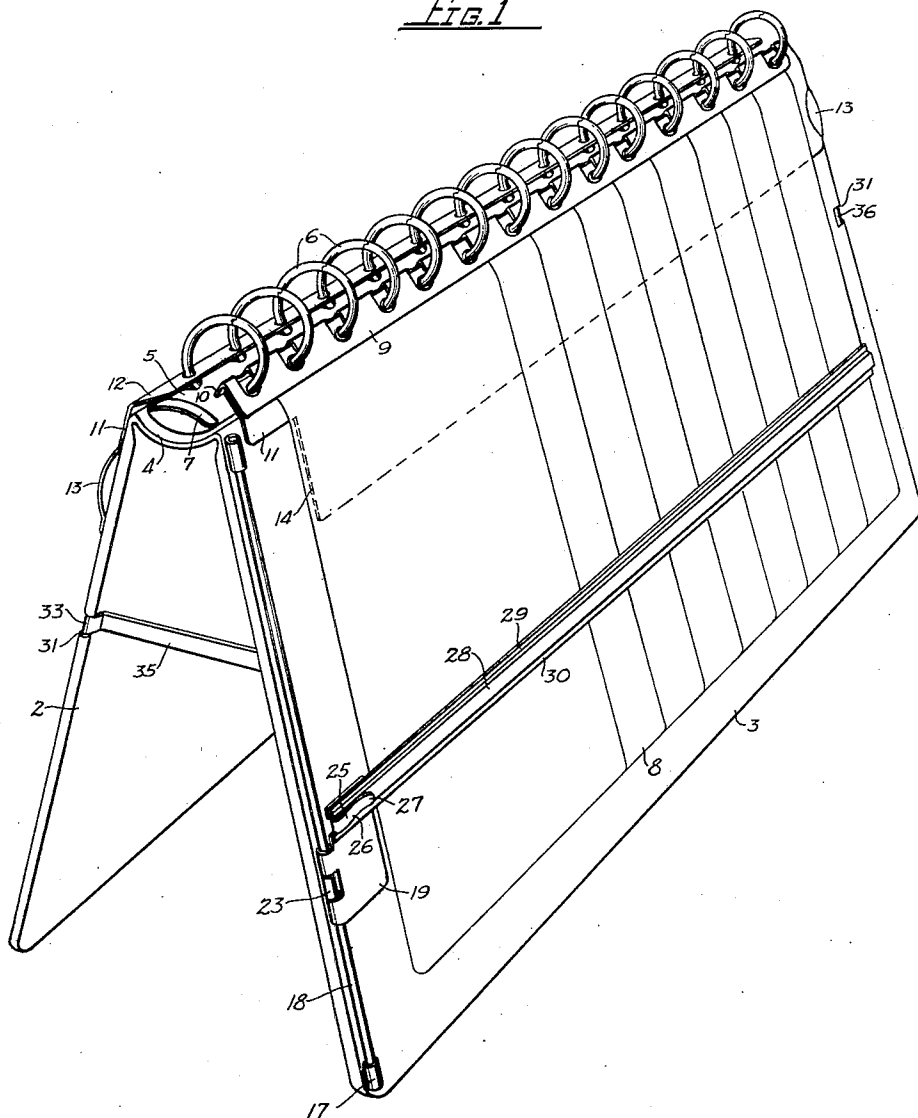
1,979,814

COMBINED LOOSE LEAF BINDER AND READING STAND

Filed Jan. 3, 1933

3 Sheets-Sheet 1

Fig. 1



INVENTOR.

PAUL O. UNGER

BY

Benjamin Schlosser

ATTORNEY.

Nov. 6, 1934.

P. O. UNGER

1,979,814

COMBINED LOOSE LEAF BINDER AND READING STAND

Filed Jan. 3, 1933

3 Sheets-Sheet 2

FIG. 2

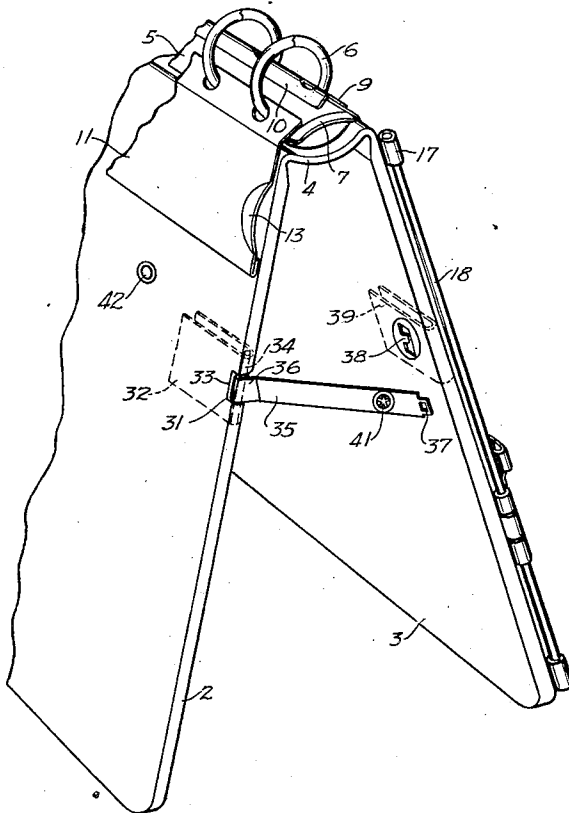


FIG. 3

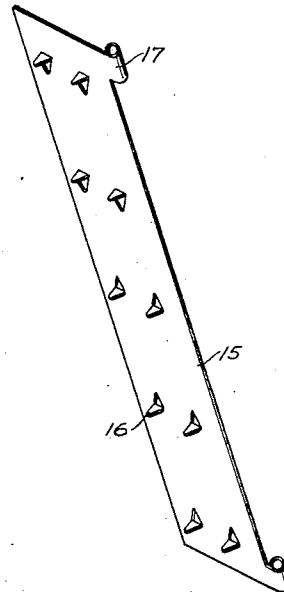


FIG. 5

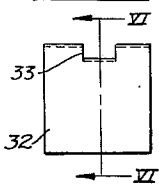


FIG. 6

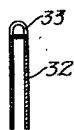


FIG. 4

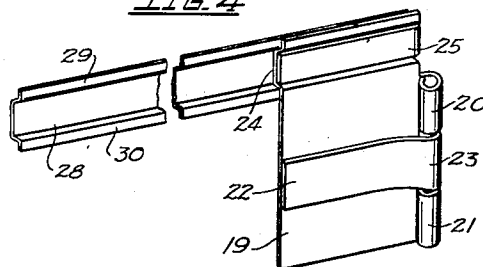


FIG. 7

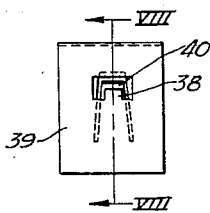
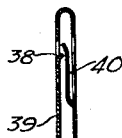


FIG. 8



INVENTOR.

PAUL O. UNGER

BY

Benjamin Schlosser
ATTORNEY.

Nov. 6, 1934.

P. O. UNGER

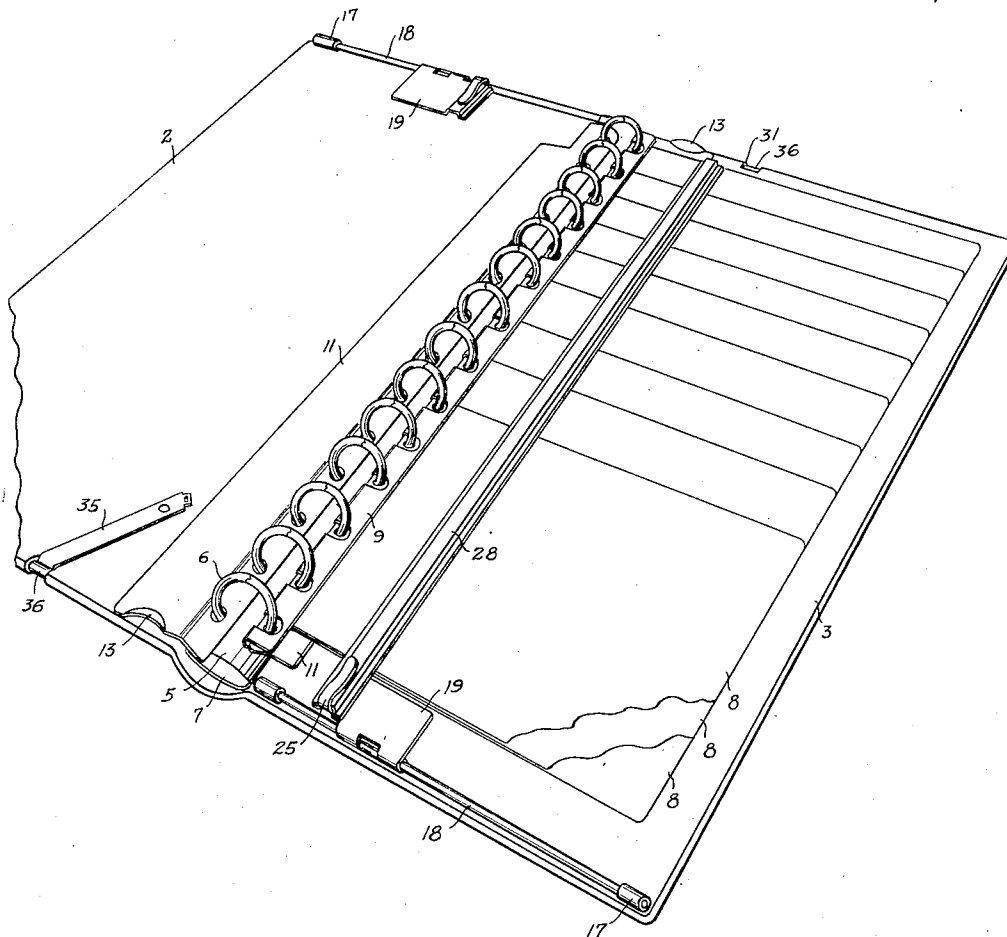
1,979,814

COMBINED LOOSE LEAF BINDER AND READING STAND

Filed Jan. 3, 1933

3 Sheets-Sheet 3

FIG. 9



INVENTOR.

PAUL O. UNGER

BY

Benjamin Schlosser

ATTORNEY.

UNITED STATES PATENT OFFICE

1,979,814

COMBINED LOOSE LEAF BINDER AND
READING STAND

Paul O. Unger, Glen Ellyn, Ill., assignor to Wilson-Jones Company, Chicago, Ill., a corporation of Massachusetts

Application January 3, 1933, Serial No. 649,900

13 Claims. (Cl. 129—1)

This invention relates to a loose leaf binder adapted to facilitate comparison or computation of various data noted on a plurality of sheets mounted in the binder.

5 It is an object of this invention to provide a loose leaf binder with means to hold a plurality of sheets of paper in predetermined overlapped relationship. It is a further object of this invention to provide means for turning a plurality
10 of overlapped sheets from one side of the binder to the other. It is a further object of this invention to provide reversible means for aligning the sheets on either side of the binder. It is a further object of this invention to provide means
15 for supporting the covers of the binder in easel formation. It is a further object of this invention to provide means for supporting a line guide on either cover of the binder so that the reading of desired data on either side of any
20 bank of sheets contained in the binder is facilitated. Other objects of this invention will become apparent upon reading the following description taken in conjunction with the accompanying drawings in which:—

25 Figure 1 is a perspective view of the binder in open or reading position;

Figure 2 is a fragmentary perspective of the binder in reading position.

30 Figure 3 is a perspective view of the rod-supporting plate;

Figure 4 is a detail perspective of the line guide supporting clip;

Figure 5 is a detail of the supporting plate to which the brace is hinged;

35 Figure 6 is a cross-section on the line VI—VI of Figure 5;

Figure 7 is a detail of the clip for engaging the free end of the brace to support the binder in easel formation;

40 Figure 8 is a cross-section on the line VIII—VIII of Figure 7; and

Figure 9 is a perspective view of the binder in flat opened position.

In the drawings the reference numerals 2 and
45 3 indicate a pair of cover members hingedly connected to opposite edges of a back section 4. A conventional ring metal 5 carrying a plurality of divided rings 6 is secured to the back section 4 by any suitable means. The ring metal 5 is
50 provided with a ring-opening trigger 7 at each end.

A plurality of sheets 8, each shorter than the binder, is arranged on the rings 6 in overlapping relationship. As shown in Figure 9, several
55 banks of overlapped sheets may be retained on

the rings at one time. The lower cut-away part of Fig. 9 shows only the uppermost sheet 8 in each of the three banks. An angular metal bar 9 is carried by the rings 6 on top of the sheets 8. The bar 9 is reversible so that it can be placed
60 on either side of the binder with its short edge 10 pointing down. Although the bar need not necessarily be formed of metal, it must possess sufficient weight to hold the upper edges of the
65 sheets 8 in position. The edge 10 of the bar 9 acts as an aligning member and keeps the sheets 8 in orderly arrangement so that each sheet is parallel to every other sheet.

A metal or vulcanized fibre plate 11 is mounted on the rings 6 adjacent each cover member
70 to facilitate movement of the sheets from one side of the binder to the other. The inner edge of the plate 11 is bent, as indicated at 12, so that the plate will fit closely against the binder when the binder stands in easel formation. One end
75 of the plate 11 is bulged outwardly, as indicated at 13, so that the plate may be readily turned on the rings by means of the operator's finger. The opposite end of the plate 11 is cut
80 away, as indicated at 14, for a purpose herein- after disclosed.

As shown in Figure 9, the cover members 2 and 3 are duplicates of each other except that they are reversed. That is, the structure on one cover member at one end of the binder is du-
85 plicated at the opposite end of the binder on the other cover member. Accordingly, only one end of the binder will be described in detail.

A plate member 15 (Figure 3) is bound in one end of each cover member. The plate 15 is
90 shown provided with a plurality of spur members 16 to secure it to the cover member, but any suitable attaching means may be used. The plate 15 is of sufficient length to extend from a point adjacent the hinge to the outer edge of
95 the cover. Each end of the plate 15 is provided with an extension 17 curled to receive the end of a rod 18. The rod may be spot welded to the extensions 17 to secure the rod permanently in position. If desired, individual supports,
100 bearing the members 17, could be secured to the cover as a substitute for the integral plate 15.

A plate 19 is slidably mounted on the rod 18. The sliding plate 19 has two curled extensions 20 and 21 to retain it on the rod. A flat spring
105 member 22 (Figure 4) welded to the back of the plate 19 has one end 23 extending between the curled extensions 20 and 21. The end 23 of the flat spring member 22 is curled in the direction
110 opposite to the curl of the extensions 20 and

21. The end 23 of the spring 22 contacts with the rod 18 with sufficient friction to retain the sliding plate 19 in any position on the rod 18 in which it is placed. The frictional contact of the spring 22 against the rod 18 also retains the sliding plate 19 at any angular position with respect to the rod 18 in which it may be placed. This enables the operator to swing the plate 19 out of the way with one hand and then to turn any desired number of sheets from one side of the binder to the other without the necessity of holding the sliding plate 19 out of the way. The frictional force of the spring 22 against the rod 18 is not sufficient, however, to interfere to any appreciable extent with the sliding movement of the plate 19 on the rod 18.

One edge of the plate 19 is embossed, as indicated at 24, Figure 4. A resilient U-shaped clip member 25 straddles the embossed portion 24 of the plate 19 and has one leg welded to the back of the embossed portion 24. The other leg of the resilient clip 25 is curved slightly, as shown at 26, Figure 1, and terminates in an outwardly curved end portion 27.

A line guide 28 is held at one end to the sliding plate 19 by means of the resilient clip 25. The curvature of the end portion 27 of the clip 25 facilitates interengagement of the clip and line guide, and the curved portion 26 increases the frictional contact between the clip and line guide to prevent accidental separation of the two members. The line guide 28 is embossed to conform in cross-section to the embossed portion 24 of the plate 19. The embossing of the line guide increases its rigidity and enables the edges 29 and 30 to fit snugly against the sheets 8 to facilitate reading of data from the exposed areas of the overlapped sheets. The line guide 28 is detachable and may be used interchangeably on the supporting plate 19 of either cover member. It is not necessary to exercise any great degree of care in securing the line guide 28 on the supporting plate 19 because either end of the line guide will fit between the embossed portion 24 of the plate 19 and the free leg of the clip 25, and both edges 29 and 30 fit snugly against the sheets so that either may be used as a reading edge. The shaping of the line guide 28 to conform to the embossed portion 24 of the sliding plate 19 enhances the stability of the connection between the line guide and plate, and eliminates practically all vertical movement of the line guide relative to the supporting plate.

The sliding plate 19 is sufficiently small so that when it is moved as near as possible to the rings of the binder it will fit within the margins of the cut-away portion 14 of the sheet-turning plate 11. This allows the line guide to rest flat against the upper portion of the sheets. The interfitting relationship of the parts 14 and 19 has the additional advantage of minimizing the space occupied by the binder when the covers 2 and 3 are closed.

Each cover of the binder is cut away at one end, as indicated at 31, Figure 2. A U-shaped metal plate 32 is secured to the cover adjacent the cut-away portion 31 in any suitable manner. The center portion of the plate 32 is provided with a recess 33 in juxtaposition with the cut-away portion 31 of the cover. A short wire rod 34 is secured between the legs of the U-shaped metal plate 32 by welding or any other suitable means. The rod 34 traverses the recess 33 and serves as a hinge pintle for a brace 35 which has one end 36 curled around the rod 34.

The free end of the brace 35 is provided with a slot 37 which is adapted to be interengaged with a tongue 38, secured to the opposite cover member, to support the cover members in easel formation. The tongue 38 is preferably formed integral with a U-shaped plate 39 which is secured to the cover member in any suitable manner. The cover and the binding material are cut away adjacent the tongue 38 to permit engagement of the slot 37 and tongue 38. The tongue is bent inwardly slightly (Figure 8) to hold the brace more securely and to aid in preventing accidental separation of the members. A spring member 40 is formed by cutting out portions of the opposite wall of the U-shaped plate 39. This spring member 40 bears against the end of the brace interengaged with tongue 38 to reduce the possibility of accidental separation of the tongue 38 and slot 37 to a minimum.

When it is desired to close the binder, each of the braces 35 may be held securely against the cover member to which it is hinged by a separable fastener consisting of a male member 41 and a cooperating female member 42 (Figure 2). In this way the braces 35 are kept out of the way and are protected from injury when not in use.

The operation of my combined loose leaf binder and reading stand may be summarized as follows:—

When the binder is to be used as a reading stand the covers 2 and 3 are opened and the sheets 8 are arranged on the divided rings 6 in the desired relationship so that the particular data to be read lies exposed. The sheet-aligning bar 9 is also placed on the rings 6. The covers are then opened to the position shown in Figure 1 and the braces 35 are engaged with the tongues 38. The line guide 28 is then slipped in position between the sliding plate 19 and the clip 25. When the desired data has been read from the first bank of sheets, the entire bank of sheets may be turned over to the other side of the binder, leaving the plate 11 in its original position, and the second bank of sheets will be exposed for reading. Preferably the sheet-aligning bar 9 is removed from its original position and placed on top of the second bank of sheets to facilitate the alignment thereof.

If any data has to be read from the reverse side of the sheets, the sheets are turned over to the other side of the binder and the line guide is removed from its original position and secured to the sliding plate 19 on the opposite side of the binder. In this case the bar 9 should also be reversed on the rings 6 so that its edge 10 points downwardly to facilitate alignment of the sheets from which the data is to be read.

It will be seen from the foregoing description that I have invented a new and useful loose leaf binder that may be used in a conventional manner as an ordinary loose leaf binder or may be held in easel formation and used to facilitate reading of data from the various sheets contained therein. When used as a reading stand, my binder is preferable to boards of the type disclosed in my prior Patent No. 1,883,255, issued October 18, 1932, because in my present construction it is possible to turn a bank of sheets, from which the desired data has been read, to the other side of the binder and to continue reading from a second bank of sheets without difficulty. It is also possible to read data from the reverse side of the sheets without removing the sheets from the sheet-retaining means or

removing the sheet-retaining means from the binder.

While I have described a preferred embodiment of my invention in considerable detail, it will be understood that the description thereof is illustrative rather than restrictive, as many details may be modified or changed without departing from the spirit or scope of my invention. Accordingly, I do not desire to be restricted to the exact construction described except as limited by the appended claims.

I claim:

1. A loose leaf binder including a cover, a rod secured adjacent one end of said cover by means of a plate bound in said cover, and a line guide support mounted on said rod.

2. In a loose leaf binder, a back section, a plurality of sheet retaining rings on said back section, a pair of covers secured to opposite edges of said back section, a pair of rods extending at right angles to said back section in opposite directions at opposite ends of the binder, and a sliding plate mounted on each of said rods, each of said plates being adapted to detachably support a line guide.

3. In a loose leaf binder, a back section, a plurality of rings on said back section adapted to support a plurality of sheets in overlapped relationship, a pair of covers secured to opposite edges of said back section, a rod mounted on one of said covers, a line guide support mounted on said rod, a line guide secured to said support, and means carried by said rings adapted to maintain the alignment of sheets mounted on said rings to facilitate reading of data from a series of said overlapped sheets.

4. In a loose leaf binder, a back section, a plurality of sheet-retaining rings on said back section, a plurality of sheets mounted on said rings in overlapped relationship, and means carried by said rings to facilitate reading of data from said sheets by maintaining said sheets in accurate alignment.

5. In a loose leaf binder, a back section, a plurality of rings on said back section adapted to support a plurality of banks of sheets in overlapped relationship means for turning said sheets from one side of the binder to the other, and separate means reversible on said rings to align the sheets on either side of the binder.

6. In a combined loose leaf binder and reading guide, a back section, a plurality of rings on said back section, a plurality of sheets carried by said rings in overlapped relationship, a pair of covers secured to opposite edges of said back section, and means on each of said covers to support a line guide, whereby exposed data may be read from either side of said sheets without removing said sheets from said rings.

7. In a combined loose leaf binder and reading

guide, a back section, a plurality of rings on said back section, a plurality of sheets carried by said rings in overlapped relationship, a pair of covers secured to opposite edges of said back section, means on each of said covers to support a line guide, whereby exposed data may be read from either side of said sheets without removing said sheets from said rings, and means carried by said rings adapted to facilitate alignment of said sheets on either side of said binder.

8. In a combined loose leaf binder and reading guide, a back section, a plurality of sheet retaining rings on said back section, a pair of covers secured to opposite edges of said back member, means on each cover to slidably support a line guide, a brace pivotally mounted on each cover and adapted to engage the opposite cover to hold said covers in easel formation, and means on said covers to retain the free ends of said braces when the binder is closed.

9. In a loose leaf binder, a back section, rings mounted on said back section, a plurality of banks of sheets retained on said rings, the sheets of each bank being arranged in overlapped relationship, a cover, means for slidably securing a line guide at one end of said cover, and means for keeping the bank of overlapped sheets being read separated from the preceding banks of sheets.

10. In a combined loose leaf binder and reading guide, a back section, a plurality of sheet retaining rings on said back section, a pair of covers secured to opposite edges of said back section, a rod secured to one end of each cover, a plate slidably mounted on each rod, and a detachable line guide adapted to fit either plate.

11. In a loose leaf binder, a back section, a pair of covers secured to said back section, means for supporting said covers in easel formation, a plurality of rings on said back section, sheets carried by said rings, and a plate carried by said rings adapted to move said sheets from one side of the binder to the other, said plate being so shaped that its free end lies snugly against one of said covers when said covers are supported in easel formation.

12. In a loose leaf binder, a back section, a plurality of rings on said back section adapted to support a plurality of sheets in overlapped relationship, and means reversible on said rings to align sheets mounted on said rings on either side of the binder.

13. Means to support a plurality of sheets in overlapped relationship including a plurality of sheet retaining rings, said rings being secured to suitable supporting means, and means reversible on said rings to align the sheets on either side of said rings.

PAUL O. UNGER.