

F. BODENHOFER.
LOOSE LEAF BINDER.
APPLICATION FILED FEB. 19, 1912.

1,061,897.

Patented May 13, 1913.

Fig. 1.

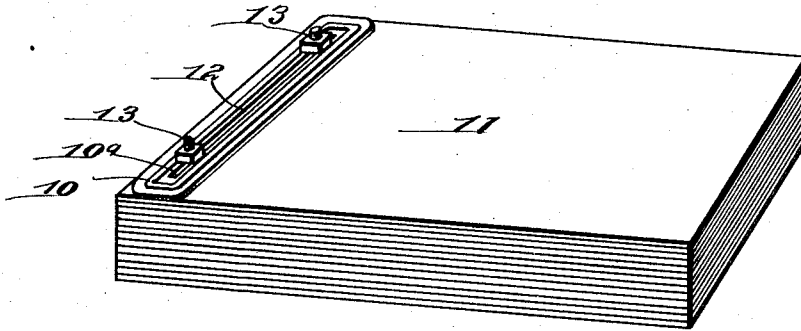


Fig. 2.

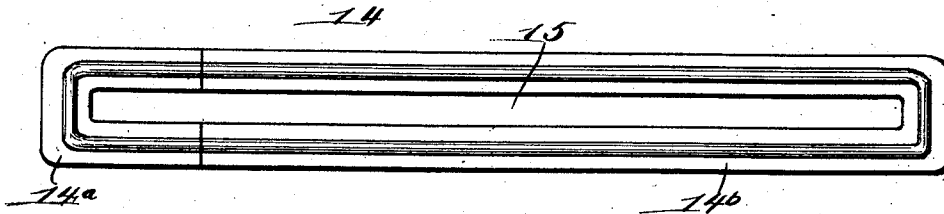


Fig. 3.

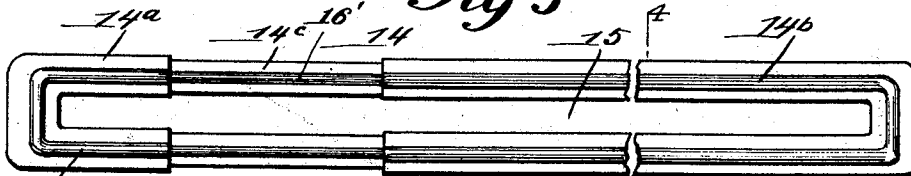
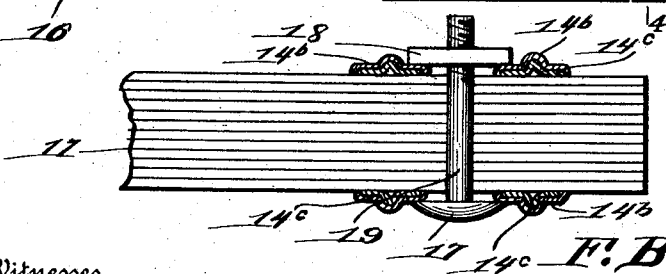


Fig. 4.



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LOOSE-LEAF BINDER.

1,061,897.

Specification of Letters Patent.

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Application filed February 19, 1912. Serial No. 678,526.

To all whom it may concern:

Be it known that I, FERDINAND BODENHOFER, a subject of the Emperor of Austria-Hungary, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Loose-Leaf Binders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in loose leaf binders, and has for its object to simplify and increase the adaptability of devices of this nature.

Heretofore, in the construction of loose leaf binders it has been customary to provide a solid structure which coöperates with only a single size of paper, thereby necessitating a plurality of binders to conform with the various sizes of paper used. The present invention eliminates this necessity and has for its object to provide a binder which will not only be adjustable to all sizes of paper, but which may be of a single structure.

The simplicity of the present invention greatly decreases the cost of manufacture thereof, and also is extremely desirable for binding loose leaf records such as sale records, shipping orders, stock sheets, transfer sheets, etc., in book form.

With the above and other objects in view, this invention consists in the construction, combination and arrangement of parts, all as hereinafter more particularly described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view of a series of leaves secured together by the binder forming the subject matter of the present invention; Fig. 2 is a top plan view of one of the adjustable binders forming the subject matter of the present invention, illustrating the same contracted; Fig. 3 is a similar view illustrating the elements extended; and Fig. 4 is transverse section taken on the plane of line 4-4 of Fig. 3, and showing the device in operative position with a bolt and nut in elevation.

The binder forming the subject matter of the present invention, as illustrated in Fig. 1, comprises rectangular elongated strips of metal placed above and below a plurality of leaves, said strips being formed with longi-

tudinal slots through which project bolts, said bolts passing through registering openings in the leaves. In the form illustrated in Figs. 2, 3 and 4, the plates are extensible, whereby permitting the same to be adjusted to various widths of paper, the bolts remaining stationary.

Referring in detail to the drawings, and particularly to Fig. 1, 10 indicates a rectangular plate superposed above a plurality of leaves 11 and co-acting with a similar plate, not shown, placed below said leaves. Each of the plates 10 is formed with a longitudinal slot 10^a, said slot being surrounded by a rib or bead 12, which bead is spaced from the edge of the slot. A plurality of bolts 13 are adapted to extend through openings formed in the leaves, the heads of said bolts engaging the lower plate, while the nuts thereof engage the upper plate 10. The heads and nuts of the bolts are positioned between the ribs 12 struck up from said plates. It will be seen that this construction securely binds the leaves together and that the number of leaves may be varied according to the length of the bolts.

In the form of invention illustrated in Figs. 2, 3 and 4, the plates are of essentially the same shape as the plates 10 previously described, but are longitudinally adjustable. The plates are generally designated 14 and comprise the U-shaped end sections 14^a and 14^b, the arms of the first mentioned section being much shorter than those of the second mentioned section. Each of these sections is longitudinally slotted, as indicated at 15, and formed with a struck up bead or rib 16, which surrounds the slots in spaced relationship to the edges thereof. Extension plates 14^c, which comprise longitudinal strips of metal essentially equal in width to the arms of the outer sections and provided with longitudinal ribs 16', are rigid with the end section 14^a and adapted to slide between the section 14^b and the leaves 11. Upon reference to Fig. 4, it will be seen that the arms of the end sections 14^a and 14^b are shaped to fit over the outer faces of the extensions 14^c. The heads 17 and the nuts 18 of the bolts 19 bear against the outer faces of the end sections 14^a and 14^b between the ribs 16 formed thereon. It will be seen that this construction permits the device to be used with various widths of paper.

Having thus fully described my invention, what I claim as new, and desire to secure by U. S. Letters Patent, is:

5 In a binder, the combination with a plurality of leaves, of a pair of adjustable elongated plates, each plate provided with a central longitudinal slot, a bead struck up in each plate surrounding said slot, said plates adapted to be disposed above and be-
10 low one extremity of the assembled leaves, bolts adjustably seated in said elongated

slots piercing said leaves and engaging the outer face of one of the plates, and nuts engaging said bolts to clamp the leaves between said plates.

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

FERDINAND BODENHOFER.

Witnesses:

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