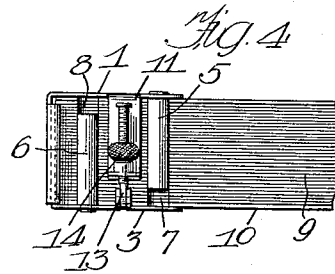
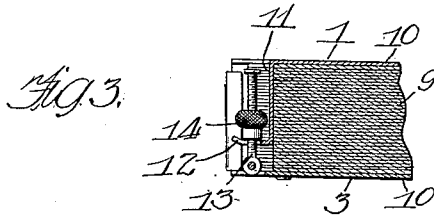
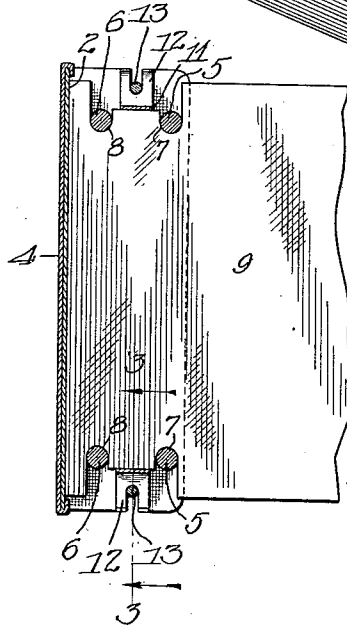
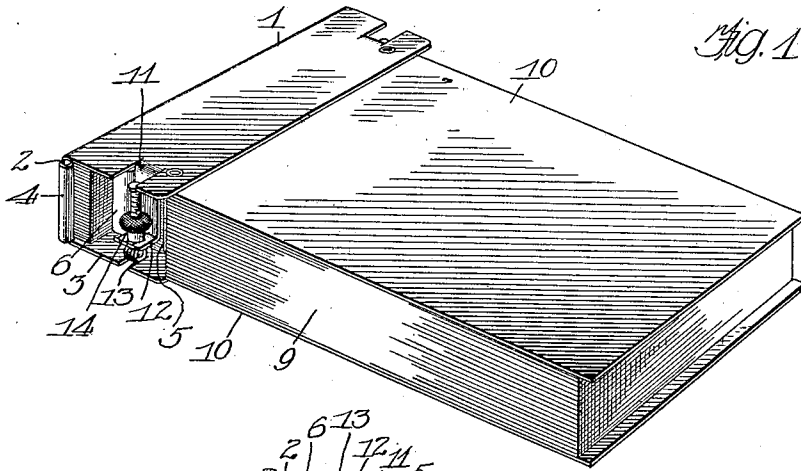


H. J. WIEGAND.
LOOSE LEAF BINDER.
APPLICATION FILED NOV. 2, 1908.

1,005,388.

Patented Oct. 10, 1911.



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UNITED STATES PATENT OFFICE.

HENRY J. WIEGAND, OF MILWAUKEE, WISCONSIN.

LOOSE-LEAF BINDER.

1,005,388.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed November 2, 1908. Serial No. 460,779.

To all whom it may concern:

Be it known that I, HENRY J. WIEGAND, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Loose-Leaf Binders, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to improvements in loose leaf binders.

One object of my invention is to provide an extensible binder, which may be quickly and easily manipulated to permit the insertion or withdrawal of the leaves.

A further object of my invention is to provide an extensible binder which will positively hold the leaves in alinement when extended.

Other objects and advantages of my invention will be hereinafter set forth.

For the purpose of more fully disclosing my invention, I shall describe the embodiment thereof, illustrated in the accompanying drawing.

The binder illustrated is one which I have worked out in practice, but it should be understood that my invention is not limited to this particular structure, as my invention is susceptible of various modifications.

The views in the accompanying drawing are as follows:

Figure 1 is a perspective view of a booklet or tablet provided with the preferred form of my binder. Fig. 2 is a horizontal sectional view through Fig. 1, portions of the leaves being cut off. Fig. 3 is a sectional view taken on line 3—3, Fig. 2, and Fig. 4 is a side view of Fig. 2.

The binder which I have shown comprises two substantially right angle plates, the top 1 and portion 2 of the back being formed by one plate, and the bottom 3 and portion 4 of the back by the other. The two portions of the back of the binder are arranged to overlap, and the portion 4 preferably has its extremities bent around the ends of the portion 3 to form guides therefor.

Adjacent to its forward edge, and at opposite ends thereof, the top 1 carries two downwardly projecting pins 5—5, which may be secured thereto in any suitable manner. Adjacent to its rear edge the bottom 3 of the binder is provided with two upwardly extending pins 6—6, preferably ar-

ranged in alinement with the pins 5—5. The pins 5 and 6 may be of any desired shape and size, and are arranged to fit into correspondingly shaped notches 7 and 8, respectively, on opposite sides of the leaves 9 and covers 10. With this arrangement it will be seen that the two members of the binder may be readily separated when it is desired to insert or remove the leaves, and that the binder may be extended to accommodate about twice as many leaves as illustrated. Owing to the arrangement of the pins 5 and 6, the leaves are all positively held in alinement when the binder is extended, as the pins 5 prevent any movement of the upper set of leaves, and the pins 6 prevent any movement of the lower set. The intermediate leaves are held by both sets of pins. Of course, my invention is not limited to the particular arrangement of the pins, as the same may be located differently to accomplish the same result.

For securing the two members of the binder together, I provide the top 1 at opposite ends with downwardly extending tongues 11, which have their ends 12 bent outwardly at right angles thereto. The tongues 11 are preferably formed integrally with the top of the binder and set in from the ends thereof. Fulcrumed to the bottom 3 at opposite ends thereof are bolts 13, adapted to fit into recesses in the ends 12 of the tongue 11. The bolts carry thumb nuts 14, which are adapted to be screwed down onto the portions 12 of the tongues 11 to prevent separation of the parts of the binder. The ends of the bolts are preferably flattened to prevent loss of the thumb nuts. With this arrangement, when it is desired to separate the members of the binder, it is only necessary to loosen the thumb nuts by a few turns and swing the bolts outwardly.

Of course, any preferred means may be employed to lock the parts of the binder together, but the arrangement just described is particularly advantageous, as it requires so few turns of the locking nuts to enable the parts to be separated.

It should be understood that the binder illustrated may be made in different sizes and may be used for various purposes. It is particularly applicable when the leaves are used in large quantities and where large leaves are used, as in ledgers.

I claim—

1. An extensible loose leaf binder, com-

- prising a pair of members, each of said members being provided at opposite ends with angularly disposed portions adapted to fit into notches on opposite sides of the leaves, the leaves being provided with separate notches for each angularly disposed portion of each member, whereby the leaves will be positively held in alinement when the binder is extended.
2. An extensible loose leaf binder, comprising a pair of right angular plates, each of said plates being provided at opposite ends with perpendicularly disposed pins adapted to fit into notches on opposite sides of the leaves, each leaf being provided with a separate notch for each of said pins whereby the leaves will be positively held in alinement when the binder is extended.
3. An extensible loose leaf binder, comprising a pair of right angular plates, said plates being arranged to overlap, one of the same being provided with guides for the other, and pins carried by each of said plates at opposite ends thereof and arranged to fit into notches on opposite sides of the leaves, a separate notch being provided for each of the pins to insure positive alinement of the leaves when the binder is extended.
4. An extensible loose leaf binder, comprising a pair of substantially parallel plates provided with means for engaging and positively holding the leaves in alinement, one of said plates being provided at opposite ends with perpendicularly disposed tongues having notched extremities bent at right angles thereto, bolts pivoted to the other of said plates and arranged to fit into the notched portions of said tongues, and thumb nuts carried by said bolts for securing said plates together.
5. An extensible loose leaf binder, comprising a pair of sheet metal plates having portions for engaging and positively holding the leaves in alinement, one of said plates having perpendicularly disposed tongues formed integrally therewith and inset from the ends thereof, said tongues having notched extremities bent at right angles thereto, bolts pivoted to the other plate and arranged to fit into the notches in said tongues, and thumb nuts carried by said bolts for securing said plates together.
6. An extensible loose leaf binder, comprising a pair of sheet metal plates perpendicularly disposed pins secured to each of said plates at opposite ends thereof, said pins being arranged to fit into notches on opposite sides of the leaves, the pins on one plate fitting into a different set of notches from the pins of the other plate to insure positive alinement of the leaves when the binder is extended.
7. An extensible loose leaf binder, comprising a pair of sheet metal plates perpendicularly disposed pins secured to each of said plates at opposite ends thereof, said pins being arranged to fit into notches on opposite sides of the leaves, the pins on one plate fitting into a different set of notches from the pins on the other plate to insure positive alinement of the leaves when the binder is extended, and means for securing said plates together.
8. In an extensible loose leaf binder, the combination with a pair of substantially parallel plates, each provided at opposite ends with pins adapted to fit into notches on opposite sides of the leaves, the pins carried by said plates being arranged to fit into different sets of notches in the leaves, of bolts fulcrumed to one of said members at opposite ends thereof, the other of said members being provided at opposite ends with angularly disposed portions having notches therein for receiving said bolts, and nuts carried by said bolts for securing said plates together.
9. An extensible loose leaf binder, comprising a pair of substantially right angle plates, each provided at opposite ends with pins adapted to fit into notches on opposite sides of the leaves, the pins carried by said plates being arranged to fit into different sets of notches to hold the leaves in alinement when the binder is extended.
10. In an extensible loose leaf binder, the combination with a pair of substantially right angle plates, each provided at opposite ends with pins adapted to fit into notches on opposite sides of the leaves, said pins being arranged to fit into different sets of notches in the leaves to hold the leaves in alinement when the binder is extended, of bolts fulcrumed to one of said plates at opposite ends thereof, the other of said plates being provided with angularly disposed portions having notches therein for receiving said bolts, and nuts carried by said bolts for securing said plates together.
- In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.
- HENRY J. WIEGAND.
- Witnesses:
WILLIAM M. HELZ,
OSCAR A. KELLER.