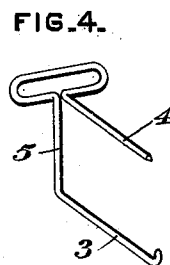
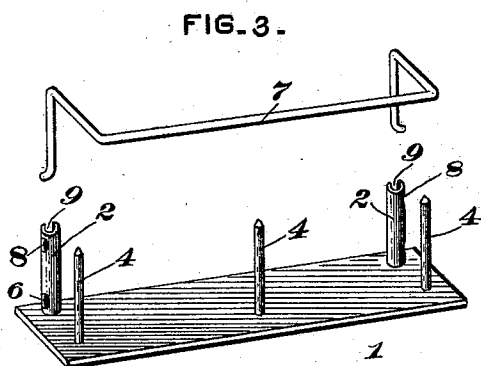
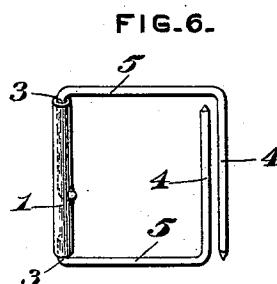
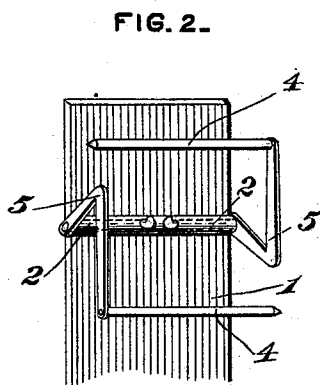
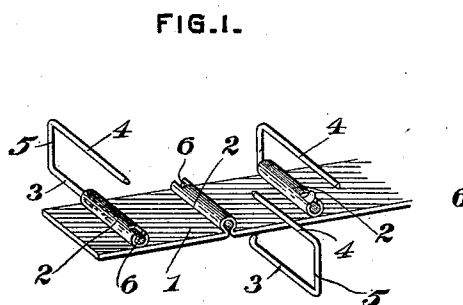
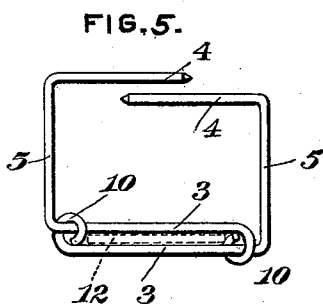


(No Model.)

G. H. WINSLOW.
BINDER FOR LEAVES.

No. 529,091.

Patented Nov. 13, 1894.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE H. WINSLOW, OF PITTSBURG, PENNSYLVANIA.

BINDER FOR LEAVES.

SPECIFICATION forming part of Letters Patent No. 529,091, dated November 13, 1894.

Application filed October 10, 1893. Serial No. 487,756. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. WINSLOW, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful improvements in Binders for Leaves, of which improvements the following is a specification.

The invention described herein relates to certain improvements in binders for leaves, and has for its object a simple and cheap construction whereby loose leaves may be easily and quickly fastened together in such manner as to preserve their order, and be removed at pleasure.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my improved binder. Figs. 2 and 3 are similar views of certain modifications thereof; and Figs. 4, 5, and 6 are detail views of certain further modifications.

In the practice of my invention, the back piece 1 is provided at suitable points along its length, with short sleeves 2, which may be formed integral therewith or soldered thereto, as shown in Fig. 1. These sleeves are arranged transversely of the back piece, and are adapted to receive the base portion 3, of the U-shaped locking pins 4. As shown in Fig. 1, the portions 3 of the pins 4 are formed integral with the pins, the whole being formed by suitably bending a piece of wire. In using this device, the pins are applied to opposite sides of the leaves alternately, and the portions 3 thereof are slipped into the sleeves 2, so that the head portions 5 of each of the pins will act as a keeper to hold the leaves on adjacent pins, as will be readily understood. In order to prevent the pins from slipping from position, the ends of the portions 3 thereof are slightly bent or enlarged, so that when the pins are slipped into position, the bent ends or enlargements will spring into the notches 6, formed in the sleeves.

As shown in Fig. 2, the sleeve 2 and the portions 3 of the pins, may be made of such relative lengths that two pins may be applied to the same sleeve. In such construction, it is preferred that the heads of the pins be so bent that the pins will lie, when applied to the leaves, in different vertical planes, and the

head of one pin will serve as a keeper to prevent the removal of leaves from the other pin.

In Fig. 3, is shown a form of binder more especially applicable for use in filing papers. In this construction, the sleeves 2 are attached at one end to the back piece 1, and are arranged with their axes at right angles thereto. The pins 4 are secured to the back piece, parallel with the sleeves, but along the opposite edge, so as to leave room for the application of the leaves to the pins. In this construction, the keeper 7 is formed independent of the sleeves, and has its ends bent at right angles to the main portion thereof, so that when the ends are pressed down into the sleeves, the main portion of the keeper will lie directly above the pins 4. The ends of the keepers are bent or enlarged in the manner hereinbefore stated, so as to prevent the accidental displacement of the keeper. In order to afford an easy access to the pins for the placing of leaves thereon, openings 8 are formed in the sleeves 2 near their upper ends for the reception of the bent or enlarged ends of the keeper when the latter is drawn up. On their rear sides the tubes are notched or cut away, as shown at 9, so that when the keeper is drawn up until the bent ends thereof spring into the holes 8, the keeper may be turned back out of the way without removal of its ends from the sleeves.

In Fig. 4, is shown a certain modification of the form of pins used in the binder shown in Figs. 1 and 2, such modification consisting in an enlargement of the head of the pin so that the latter would have a broad bearing upon the leaves, thus obviating, to a considerable extent, any liability of the latter being torn.

In Figs. 5 and 6, I have shown a construction wherein the sleeves are formed integral with the pins, that is to say, the sleeve for one pin is formed integral with the pin adapted to enter the leaves in the opposite direction, and vice versa. This construction is effected by forming eyes 10 in the ends of the portions 3, of the pins 4, the eye of one pin surrounding the portion 3 of the other pin, whereby these pins are held in proper relation to each other, and can be slid back and forth for the insertion of leaves. In Fig. 6,

is shown a certain modification of the construction shown in Fig. 5, which consists in securing a sleeve 11, to the portion 3 of one pin, said sleeve being adapted for the insertion in its opposite end of the portion 3 of another pin. Any suitable number of the binding devices shown in Figs. 5 and 6 may be applied to a bunch of leaves, and the pins held in engagement with the leaves when the device shown in Fig. 5 is employed, by a metal strip 12, which is slid in between the eyes on the portions 3, thereby effectually locking the pins against any outward movement. This strip 12 may serve as a back piece whereby the pins are secured between suitable covers.

The pins in the construction shown in Fig. 6, may be locked together by forming a head or enlargement on the end of the removable pin, so that it will enter a notch or opening in the sleeve 11, when slid into place, and if desired, a series of two or more of the sleeves 11 may be attached to the back piece 1.

In using, it will be observed that the U-shaped pins which are passed into their sleeves from one side will serve as keepers for the pins inserted into their tubes in the opposite direction.

If desired, one set of pins may be permanently attached to their sleeves, as shown in Fig. 6, or to the back piece as shown in Fig. 3. I claim herein as my invention—

1. A binder for leaves having in combina-

tion sleeves and U-shaped pins having their opposite ends open, one arm of the pins being adapted to fit within the sleeves, the pins being movable toward each other to engage the leaves substantially as set forth.

2. A binder for leaves having in combination sleeves, U-shaped pins having their opposite ends open, one arm of the pins being adapted to fit within the sleeves, the pins being movable toward each other to engage the leaves and a lock for holding the pin in position, substantially as set forth.

3. A binder for leaves having in combination a back piece, sleeves attached to the back piece, and U-shaped pins having their opposite ends open, one arm of said pins being adapted to fit within the sleeves, the pins being movable toward each other to engage the leaves substantially as set forth.

4. A binder for leaves having in combination a back piece, sleeves attached to said back piece, U-shaped pins having their opposite ends open, the arms of said pins being adapted to slide within the sleeves as the pin is moved toward the back piece, substantially as set forth.

In testimony whereof I have hereunto set my hand.

GEORGE H. WINSLOW.

Witnesses:

THOS. H. LEGGETT,
FRANK J. CURDÉ.