J. HORWITZ.

FILING BINDER AND BINDER CLIP.

APPLICATION FILED MAR. 7, 1921.

1,431,306.

Patented Oct. 10, 1922.

Fig. 1.

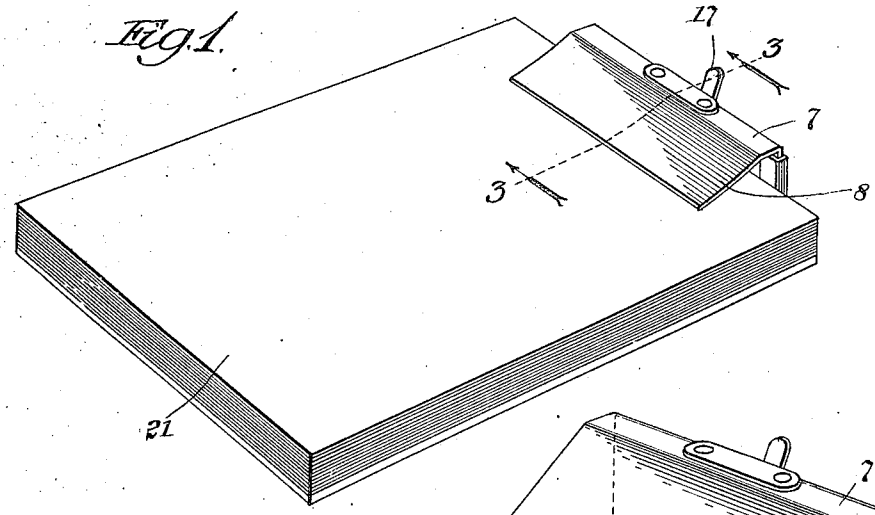


Fig. 3.

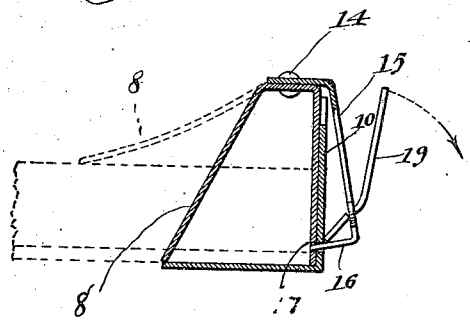


Fig. 2.

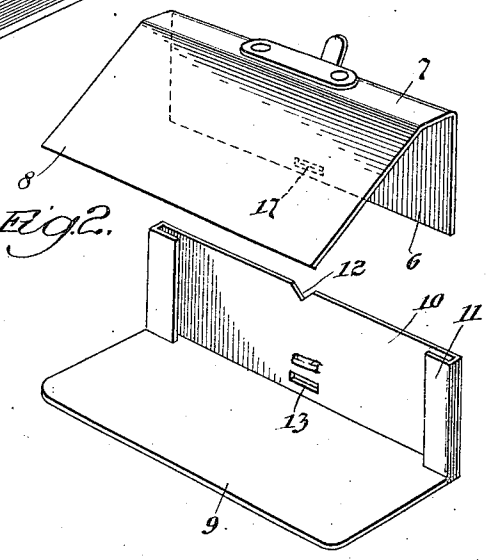


Fig. 4.

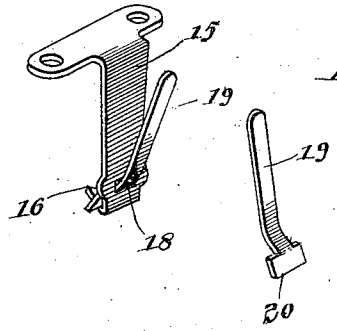


Fig. 5.

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# UNITED STATES PATENT OFFICE.

JACOB HORWITZ, OF CHICAGO, ILLINOIS.

## FILING BINDER AND BINDER CLIP.

Application filed March 7, 1921. Serial No. 450,373.

*To all whom it may concern:*

Be it known that I, JACOB HORWITZ, citizen of the United States, and resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Filing Binders and Binder Clips, of which the following is a full, clear, and exact specification.

This invention relates to combined filing binders and binding clips, heretofore consisting of clamping jaws, the shank of one of which is slidable in the shank of the other, and which are respectively provided with slots and non-flexible tongues formed therefrom, projecting through the slots and thereafter bent to lock them together in their adjusted clamping position, and at best unsatisfactory because of the multiplicity of the tongues and slots, the difficulty of registering and of bending the tongues against the compressive resistance of the piled sheets and the breaking of the tongues from bending them back and forth for disconnecting the clamping jaws for the removal and renewal of the piles of sheets compressed between them.

The object of my invention is to provide a combined filing binder and binding clip with a simple and effective means for automatically locking the clamping jaws in their adjustable compressive position and for quickly and conveniently unlocking them.

A further object of my invention is to simplify the construction and reduce the cost of production of such binders and clips as compared with that of a similar character above referred to.

With these ends in view, my invention finds embodiment in certain features of novelty in the construction, combination and arrangement of parts by which the said objects are attained, all as hereinafter fully described with reference to the accompanying drawings and more particularly pointed out in the claims.

Fig. 1 is a perspective view of a combined filing binder and binding clip in its operative position, in which my invention finds its embodiment.

Fig. 2 is a perspective view of the upper and lower jaws in their detached position.

Fig. 3 is a cross-section through the binder and clip on the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of the device of my invention for locking the opposing jaws in their operative position.

Fig. 5 is a similar view of the lever detached therefrom.

Similar characters of reference indicate the same parts in the several figures of the drawings.

6 indicates the shank of the upper and sliding jaw, which jaw is bent at a right angle thereto, as indicated at 7, and thence extends at an oblique angle with reference to its shank, as indicated at 8, the jaw itself being transversely somewhat wider than its shank 6.

The lower portion of the clip consists of a jaw 9, the shank 10 for which projects at a right angle thereto and is bent upon itself at both side edges, as indicated at 11, to provide a guideway for and in which the jaw 6 is slidable. The upper edge of the shank 10 is provided with a V-shaped recess 12 and below which, next the jaw 9, with a slot 13, the purposes of which notch and slot will presently be described.

Secured by means of a rivet 14 to the flat top 7 of the slidable jaw is a spring tongue 15 bent at a right angle, as indicated at 16, for adapting its free end to pass through the slot 13 in the fixed jaw and through slot 17 in the shank 6 of the movable jaw. Spring tongue 15 (see Fig. 4) is provided shortly above the bend 16 with a slot 18, providing a fulcrum for a lever 19 projecting therethrough and terminating in a rectangular portion 20 adapted to bear against the shank 10 of the fixed jaw and against the spring tongue 15, as clearly shown in Fig. 3.

In this connection it is to be noted that, for adjusting the opposing jaws to sheet piles of differing thickness, several slots 13 and 17 adapted to register with each other, may be made and arranged, one above the other.

For securing the binder or clip in its operative position upon a file or tablet 21, the piled sheets thereof are placed at a position of rest on the fixed jaw 9, followed by inserting the shank 6 of the movable jaw in the guideways 11, then pressing upon the top of the movable jaw until the bend 16 of the spring jaw passes through the registering slots 13 and 17, and thereby holds both jaws compressed respectively against the

upper and lower surfaces of the piled sheets and as a result of which the jaws will be held in their operative position against accidental detachment.

When, however, there are several opposing slots 13 and 17, the spring tongue may be held away from the jaw shanks with one hand, to be released as soon as slots 13 and 17 are in register and in position to receive the free end of the bend 16.

As indicated by dotted lines in Fig. 3, the jaw 8 may be flexible, like the tongue 15 for exerting a yielding compression upon the piled sheets and providing a means whereby one or more sheets may be withdrawn without disturbing the others in the pile and without unlocking the jaws.

When, for any reason it is desired to disconnect the spring tongue 15 from the jaws, the lever 19 is moved in the direction indicated by the arrow in Fig. 3, with the result that, fulcrumed, as it is, in the spring jaw and bearing against the shank 10 of the jaw 9, but little force is required to move the spring jaw outwardly to its unlocked position.

In other words, my invention provides for the use of but a single spring tongue and lever for adjustably locking the jaws in their adjusted operative position and for removing the spring tongue therefor to its inoperative position, and therefore a locking means for detachably connecting the two jaws, the members for which are of the simplest construction, cheap to manufacture and easily operated with the expenditure of a minimum degree of force on the part of the operator.

The purpose of the V-shaped recess 12 in the upper edge of the jaw 10 is to permit the spring 15 to assume in its locking position a plane, as nearly as may be, substantially parallel to that of the opposing surface of the shank 10, and in this connection it may be noted that the slot 18 and the rectangular portion 20 of the lever are so constructed that the lever may be projected through and be removable from the tongue for shipping and for assemblage.

Having described my invention, what I claim and desire to secure by Letters Patent is:

1. A device for the purposes described, comprising a pair of opposing angular jaws, the shanks of which are in contact and provided with a perforation adapted to register one with the other, and a bent tongue secured to one of said jaws, the free end of which tongue is adapted to be automatically projected through said perforations and lock the jaws in their operative position.

2. A device for the purposes described, provided with opposing detachably connected jaws, the upper jaw of which is resilient and has secured thereto a spring tongue adapted to register with and be automatically projected through opposing perforations in the shanks of said jaws.

3. A device for the purposes described, comprising opposing clamping jaws, an angular bent spring tongue, the end of which is secured to one of said jaws, the shanks of each of which jaws are provided with perforations through which the free end of said tongue is automatically projected, and a lever fulcrumed in said tongue, one end of which is opposed to said jaw shanks whereby said lever is adapted to disengage the spring tongue therefrom.

In witness whereof, I have hereunto set my hand and affixed my seal, this 5th day of March, A. D. 1921.

JACOB HORWITZ. [L. S.]

Witnesses:
JNO. G. ELLIOTT,
H. SLACK.