H. LOVELAND.

BILL FILE.

APPLICATION FILED AUG. 5, 1912.

1,052,677. Patented Feb. 11, 1913.

Fig. 1

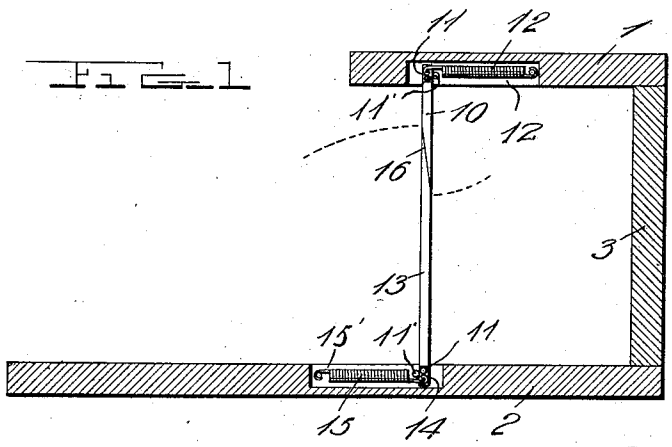


Fig. 4

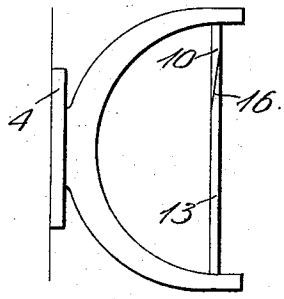


Fig. 2

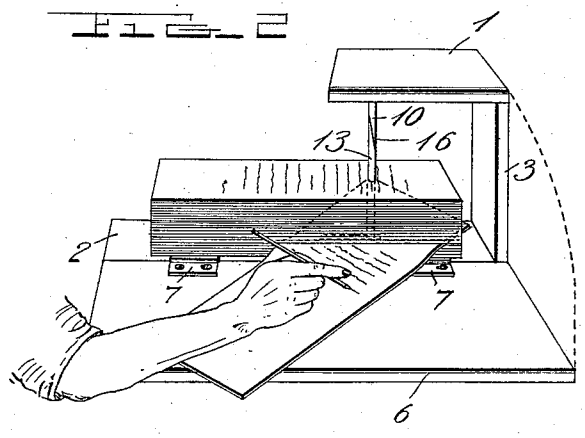


Fig. 6

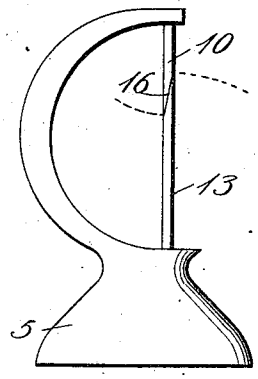


Fig. 3

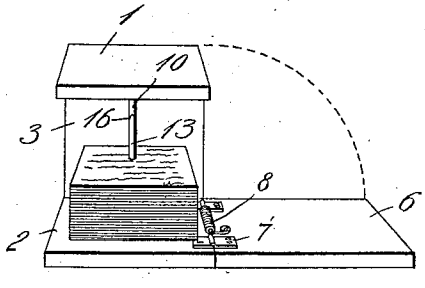


Fig. 7

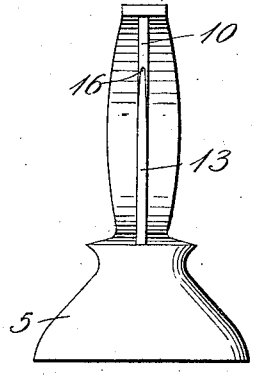
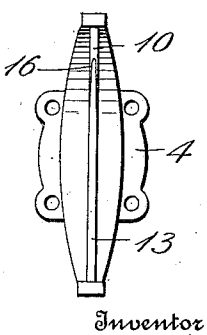


Fig. 5



Witnesses
A. Van Loock
N. L. Collamer.

Inventor
H. Loveland
By A. B. Williamson & Co
Attorneys

UNITED STATES PATENT OFFICE.

HERMAN LOVELAND, OF FREMONT, OHIO.

BILL-FILE.

1,052,677. Specification of Letters Patent. Patented Feb. 11, 1913.

Application filed August 5, 1912. Serial No. 713,354.

To all whom it may concern:

Be it known that I, HERMAN LOVELAND, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Bill-Files; and I do 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 paper files and binders, and more especially to those employing hinged pins; and the object of the same is to produce a device of this character wherein the insertion and removal of bills will be rendered extremely easy, and wherein any bill or paper in the bundle may be instantly inspected without removing those remaining. This and other objects are carried out by constructing the bill file in the manner hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is a sectional view showing the pivotal mounting of the two pins, and their direction of movement. Fig. 2 is a perspective view illustrating the preferred embodiment of my invention, and Fig. 3 is a perspective view of the bill file shown in Fig. 2 excepting that it is viewed from the front. Fig. 4 is a side elevation and Fig. 5 a front elevation of a wall file; Fig. 6 is a side elevation and Fig. 7 is a front elevation of a desk file.

In the drawings the numeral 1 designates what might be called the top and the numeral 2 the bottom of this device, which are members spaced apart to a greater degree than the thickness which the bundle of bills or papers will have at the time when it is to be removed from the pins and bound. In other words, the lowermost pin yet to be described will by preference protrude from the bottom member 2 to a slightly greater extent than the length of the bundle of bound bills, so that after the bills have accumulated on this pin to a sufficient extent they may be removed therefrom and bound as usual with bill files. However, the size and material of parts is not essential to the present invention, and therefore the top and bottom members may be spaced apart as far as necessary. They are connected by an upright 3 which in Figs. 4 and 5 takes the form of a bracket 4 for attaching them to the wall or other vertical support, and which in Figs. 6 and 7 is continued near its lower end into a base 5 adapted to rest on the desk or other horizontal support.

In what might be called the preferred form of my invention, best illustrated in Figs. 2 and 3, the upright 3 is a piece of board and the top and bottom members 1 and 2 are also of light board, the latter extended to a greater length from the upright 3 than the top so as to support the bills or papers which are impaled upon the pins. In this form of my invention another member 6 (also by preference of board) is hinged as at 7 to the right edge of the bottom board 2 and may also be connected therewith by a spring 8 adapted to hold this member 6 on edge so that it constitutes one side of a box whereof the numeral 1 designates the top, 2 the bottom, 3 the end, and the other side may be left open as shown—the entire box with its side member closed upward being stored on a shelf or in a suitable cabinet from which it may be withdrawn for use.

The pins and their peculiar hinges or pivots are best seen in Fig. 1, although it is to be understood that these pins and pivots are to be employed in any embodiment of my invention. The upper and preferably shorter pin 10 is connected with the member 1 by a knuckle pivot 11 which permits the lower end of the pin to be deflected to the rear as the dotted lines indicate and 12 is a spring normally throwing the pin into this position. The lower pin 13 is connected with the bottom 2 by a similar knuckle hinge 14 excepting that it is reversed so that the upper end of this pin may swing outward as the dotted lines indicate, and here again a spring 15 is employed for holding it in said upright position. The springs 12 and 15 are respectively housed within recesses 12′ and 15′ cut in the contiguous faces of the top 1 and bottom 2 as best seen in Fig. 1, in which event such springs can be contractile helical springs as shown. It is quite possible that with the construction shown in Figs. 4 to 7 the recesses would have to be of different shape and perhaps the springs also, but this is not contemplated. The knuckle hinges or pivots may be of any approved type, but preferably I employ simple pivot pins 11 and set stop pins 11′ across the ends of and in position to be engaged by the members 10 and 13 when they

stand vertical. The meeting ends of said members or pins are beveled as at 16 so that they may lap each other and are pointed for easily impaling the papers or bills to be mounted thereon. The pins are of large size wire or small size rods, and are polished to prevent soiling the hands and the papers, and the specific details of the hinges and the springs need not be elaborated further than as above.

In use, when the operator desires to place a paper on the file he takes it in his hand or hands and presses its upper edge against the front of the short pin 10 above the upper extremity of the long pin 13, so that said short pin is deflected to the rear slightly as its hinge and spring will permit, and then he bears downward on the paper which impales it on the point of the lower pin. As soon as he has pushed it far enough downward past the bevel 16, the upper pin springs back to the full-line position shown in Fig. 1 as will be clear. When he desires to remove a paper, he first finds it among the bundle carried on the lower pin and raises all those above this paper so that they slide upward onto the upper pin which remains vertical, then drawing the desired paper forward he causes the lower pin to incline obliquely toward him so that its beveled end 16 is drawn away from the lower beveled end of the upper pin, and he slips the paper off with a sharp upward pull, after which the lower pin will spring back into place and in alinement with the upper pin, and he may push down the bundle of papers onto the lower pin so that it will rest on the bottom 2. This use of my device prevails whatever its construction, but in the preferred embodiment of the idea best seen in Figs. 2 and 3, the rather large flat bottom 2 forms a rest or support for the bundle of papers or bills, and the member 6 turns upward to form one side of the box-shaped bill file when it rests on the shelf or in the cabinet and is not in use. When now he desires to inspect a bill filed therein, he takes the box down off the shelf and lays it on his desk, turns the member 6 downward against the tension of the spring 8 as seen in Fig. 3, finds the bill he desires to inspect, turns it aside as seen in Fig. 2 and perhaps makes an entry thereon or gathers his memorandum therefrom. This use of the device is obviously rendered possible by reason of the fact that the side member 6 when turned down into alinement with the flat bottom member 2 forms an extension leaf thereof, as it were, and the bundle of papers or any part of the same can be turned around the pins as a pivot and swung aside as seen in Fig. 2. The preferred embodiment of my idea does not alter the manner of placing a paper on file or taking it off of the same as described above. After he has used the file, he bundles the papers together over the bottom member 2, releases the side member 6 so that the same flies upward as the dotted lines in Fig. 3 will indicate, and restores the box to the shelf or cabinet. Further description of details will be unnecessary. The gist of the idea lies in the fact that the lower pin may swing forward and the upper pin may swing rearward, their meeting ends are beveled and lap each other when the pins stand in normal upright position, so that a unitary rod exists on which the various papers are supported and around which they may be turned aside when the embodiment of my idea illustrated in Figs. 2 and 3 is employed, or in fact the papers could be turned aside in the constructions elsewhere illustrated excepting that there would be no table upon which they could rest or upon which writing could be done.

Of course bill files have been made wherein one pin was hinged or could be swung aside out of the locking engagement of its point with the other pin, but I am not aware that a bill file is on the market embodying the characteristics above set forth and which are more particularly covered by the following claims:

1. The herein described bill file comprising a top and a bottom and an upright rigidly connecting them, a short pin pivoted at its upper end in said top and having its lower end beveled on its front side to a point, a long pin pivoted at its lower end in said bottom directly in line with the upper pin and having its upper end beveled on its rear side to a point and adapted to lap that of the upper pin, contractile springs housed in recesses within said top and bottom and connected with said pins beyond their pivots so as to throw their beveled ends normally into contact, and stops extending across said recesses adjacent the pivots of the pins, for the purpose set forth.

2. The herein described bill file comprising rigid top and bottom members, upper and lower pins having beveled lapping ends, a pivot connecting the upper pin to the top so that its lower end may swing away from the lower pin, a pivot connecting the lower pin to the bottom so that its upper end may swing away from the lower end of the upper pin, a spring connected to the pivoted end of each pin and throwing its beveled end normally into contact with the beveled end of the opposite pin, and a stop pin adjacent the pivot of each pin for limiting its movement, as set forth.

3. The herein described bill file comprising a top, a flat bottom, an upright rigidly connecting them, a side member hinged along one edge to the bottom and adapted to fold upward against one edge of the upright and the corresponding edge of the top, a short pin, a knuckle pivot connecting it

with said top and permitting it to swing toward said upright, a long pin, a knuckle pivot connecting it with said bottom and permitting it to swing away from said upright, and springs holding said pins normally vertical and with their tips in contact with each other.

4. The herein described bill file comprising a top, a flat bottom, an upright connecting them, a side member hinged along one edge of the bottom and adapted to fold upward against one edge of the upright and the corresponding edge of the top, an upper pin hinged in the top so as to swing rearwardly, a lower pin pivoted in the bottom so as to swing forwardly and away from said upright, the pins having beveled lapping ends, and means for holding said ends normally in contact with yielding force.

5. The herein described bill file comprising a top, a flat bottom, an upright connecting them, a side member hinged along one edge of this bottom and adapted to fold upward against one edge of the upright and the corresponding edge of the top, an upper pin pivoted in the top and adapted to swing in one direction, a lower pin pivoted in the bottom and adapted to swing in the opposite direction, the meeting ends of said pins being beveled and normally in contact, and a spring connected with each pin and throwing its beveled end into contact with the corresponding end of the opposite pin.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HERMAN LOVELAND.

Witnesses:
COLLIN MOORE,
BERTHA FISHER.