(No Model.)

B. LAWRENCE.

LETTER OR BILL FILE.

No. 457,562. Patented Aug. 11, 1891.

FIG. 1.

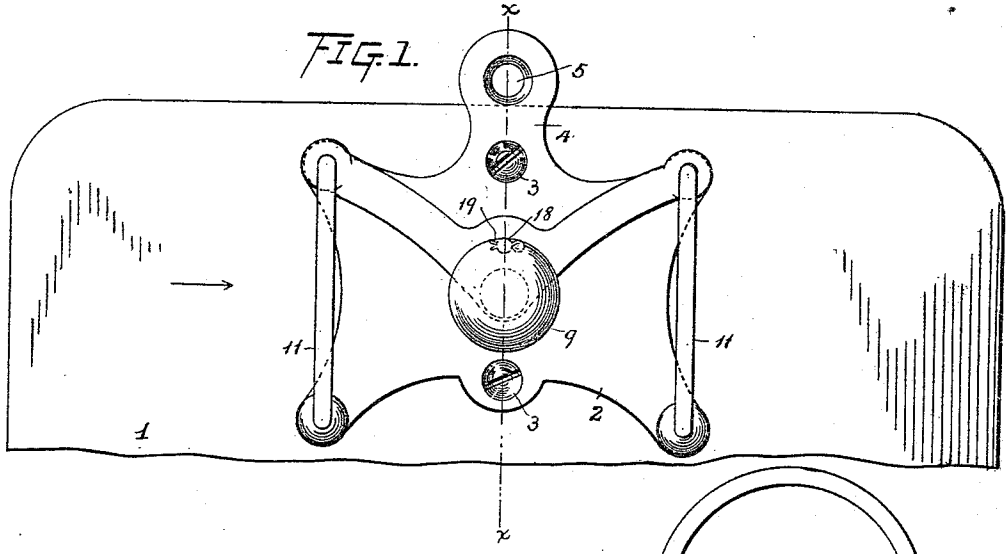


FIG. 2

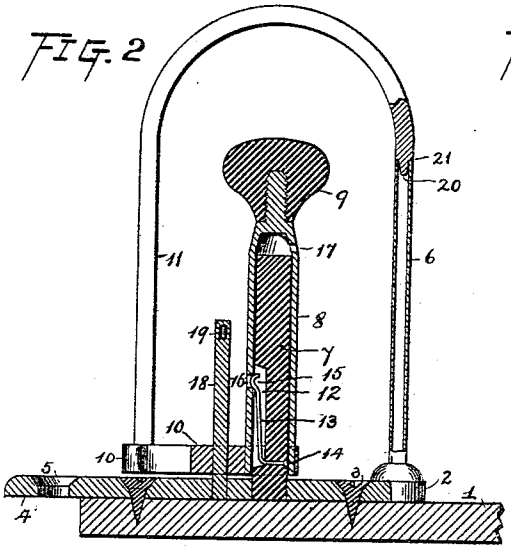


FIG. 3.

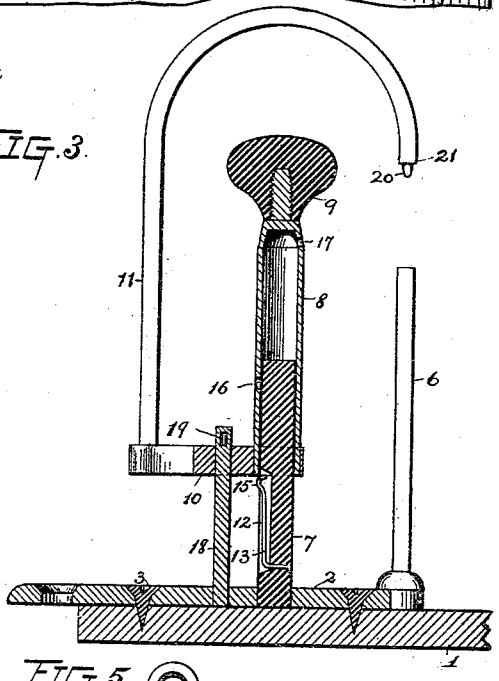


FIG 4

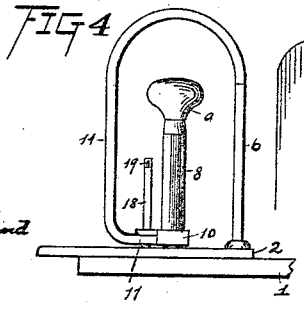
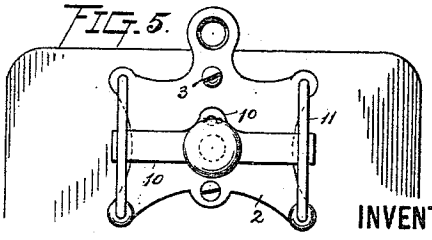


FIG. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMIN LAWRENCE, OF NEW YORK, N. Y., ASSIGNOR TO LOUISA LAWRENCE, OF SAME PLACE.

LETTER OR BILL FILE.

SPECIFICATION forming part of Letters Patent No. 457,562, dated August 11, 1891.

Application filed May 19, 1891. Serial No. 393,252. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN LAWRENCE, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Letter or Bill Files, of which the following is a specification.

My invention has for its main object to provide a simple, durable, and effective letter or bill file; and it consists in the various features of construction and combinations of devices, hereinafter more fully described, and particularly set forth in the appended claims.

In the accompanying drawings, Figure 1 is a top plan view of a letter or bill file embodying my improvements, the board or tablet being broken away to economize in space. Fig. 2 is a vertical section taken at the line x x of Fig. 1 and looking in the direction of the arrow. Fig. 3 is a similar section with the file in an open condition. Fig. 4 is a side elevation of a modification in detail construction of my improved file, and Fig. 5 is a top plan view thereof.

In the several views the same part will be found designated by the same numeral of reference.

1 is the board or tablet upon which the file is mounted.

2 is the base-plate of the file which is perforated at suitable places to enable the file, by means of screws 3, to be firmly secured upon the board or tablet, and said base-plate is provided with an extension 4, having a hole 5, by which the contrivance may be suspended. At the front of the base-plate are arranged two vertical hollow wires or tubes 6 at suitable distances apart, adapted to receive the letters or bills to be filed. Centrally of the base-plate is affixed a vertical cylindrical post or pillar 7, upon which is adapted to slide a hollow stem or sleeve 8, preferably provided at its upper end with a knob or finger-piece 9. The lower end of the said hollow stem or sleeve 8 is driven into or otherwise securely attached to a plate 10, which supports and carries the arched or transfer wires 11. The post or pillar 7 is arranged midway between the set of receiving or impaling wires and the set of transfer-wires, and is slotted or milled at one side at 12 to accommodate a wire spring 13, whose lower end is riveted to the post at 14 and whose upper end is provided with a bend 15. The said spring is adapted to sustain the arched or transfer wires and their connections when raised or when the file is open, and will also assist in locking or holding together the receiving and transferring wires when it may be desired to have the file remain in a closed condition. When the file is closed, as shown at Fig. 2, the bent upper end 15 of the spring is adapted to take into a recess or opening 16 in the sleeve 8, and by its tension or friction operate to keep the receiving-wires and the transfer-wires in close contact against accidental separation. When the file has been opened, as shown at Fig. 3, the lowermost end of the sleeve 8 is adapted to rest upon the upper bent end of the spring and be supported thereby against dropping, due to the weight of the said sleeve and the transfer-wires and their connections, as well as against the additional weight of any papers which in practice may happen to be upon the transfer-wires. When the transfer-wires have been raised to their full extent, the bent end of the spring is adapted to fly outwardly to catch under the lower end of the sleeve, as shown at Fig. 3, and when the transfer-wires are depressed to their lowermost position the said bent end of the spring, by reason of its outward tendency, is adapted to fly into the recess or opening in the sleeve 8.

In order to facilitate the opening and closing of the file, an air hole or vent is provided at 17 in the sleeve. The transfer-wires are prevented from rotating or losing their alignment with the receiving or impaling wires by means of a guide-pin 18, driven into or otherwise firmly secured to the base-plate 2 and extending up vertically through a perforation in the carrier-plate 10 to the desired height.

In order to limit the raising of the transfer-wires, a stop is provided at the upper end of said guide-pin. In this instance the said stop consists of a removable pin 19, which is passed through a transverse perforation at or near the upper extremity of the guide-pin; but instead of this form of stop the said guide-pin may be simply headed or enlarged.

I employ the removable stop or pin 19 for the purpose of enabling the transfer-wires and their appendages to be removed from the contrivance, so as to enable the letters or other papers on the receiving-wires to be all bodily removed, and, if desired, transferred to a binding-case.

In practice, when the transfer-wires have been detached from the contrivance, I prefer to employ a transfer-frame, such as patented by me August 28, 1888, No. 388,421. The legs of this frame are inserted into the tubular receiving-wires 6, and the pile of papers thereupon are then transferred to said frame, which may then be returned to the binding-case and the papers shifted onto the tubular filing-wires thereof. After transferring the papers from the receiving-wires 6, the transfer-wires are then readjusted by sliding the sleeve 8 down upon the post 7 and reinserting the stop-pin 19. The free ends of the arched transfer-wires are reduced in diameter to form short tapering studs or pins 20, capable of entering the upper ends of the tubular receiving-wires, so as to afford a perfectly flush and smooth joint at the junction of the receiving and transfer wires, and thus prevent effectually the enlargement of the holes in the papers in constantly moving them from one set of wires to the other.

The carrier or plate 10, upon which the transfer-wires are mounted in the manufacture, is preferably arranged to stand a slight distance above the base-plate 2 when the file is closed, and the upper ends of the receiving-wires abut against the shoulders 21, formed by reducing the free ends of the arched transfer-wires. By this construction provision is made for the proper interlocking of the receiving and transfer wires to obtain the smooth joint referred to in the event in the use of the file that the transfer-wires should become bent and shortened to an extent such that when the plate 10 has been brought to the position shown at Fig. 2 the shoulders 21 will not quite rest upon the ends of the receiving-wires 6. In this contingency the plate may be forced farther down and, if necessary, in contact with the base-plate 2, in order to fully close the joint between the free ends of the receiving-wires and the free ends of the transfer-wires.

In the modification shown at Figs. 4 and 5 the plate 10 is made straight or like a bar and the transfer-wires are bent horizontally at their lower ends and extended forwardly to connect with said plate. This is the only difference in construction existing between the file shown at Figs. 4 and 5 and that shown in the other views. The plate 10 of the file shown at Figs. 1, 2, and 3 is bent or shaped to extend from the center of the base-plate diagonally on opposite sides rearwardly to the points at which the lower ends of the vertical portions of the transfer-wires are to be attached, and this plate 10 is made in skeleton form or as consisting of two arms branching from the center; but it of course may be made oblong or triangular in shape. The function of this device is to support and carry the transfer-wires, and its shape is therefore immaterial. The post 7 is arranged about midway between the set of receiving-wires and the set of transfer-wires considered transversely of the file, in order that the papers may be carried over freely from the receiving-wires onto the transfer-wires in the operation of filing or removing individual papers. If desired, the knob or handle 9 may be omitted, though I prefer to employ it, and the post 7 and the sleeve 8 may be shortened and the file opened and closed by taking hold directly of the transfer-wires.

From the foregoing it will be understood that when the file is in the condition shown at Fig. 3 the papers may be readily placed upon the receiving-wires, and that when the file is in the condition shown at Fig. 2 the papers are held upon said wires against casual detachment and in a manner such that they may be readily transferred to the arched wires for the usual purposes of adding new papers or removing some of those already on file.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate adapted to move vertically up and down and provided with a set of transfer-wires, and a post arranged between the two sets of wires and adapted to guide said carrier-plate in its vertical movements, substantially as set forth.

2. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires, and a sleeve attached to said carrier-plate and adapted to slide up and down on said post, substantially as set forth.

3. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires, a sleeve attached to said carrier-plate and adapted to slide up and down on said post, and a friction or holding spring, substantially as set forth.

4. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires, a spring attached to said post, and a sleeve attached to said carrier-plate and adapted to slide up and down on said post, substantially as set forth.

5. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires, a spring attached to said post and having a bend at one end, and a sleeve attached to said carrier-plate and provided with

a depression to receive the free bent end of said spring when the file is closed, substantially as set forth.

6. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires and having a slot extending lengthwise thereof, a spring secured to said post and extending lengthwise of the same and bent at its upper free end, and a sleeve attached to said carrier-plate and adapted to slide up and down on said post and provided with a depression, the arrangement being such that when the file is closed the free end of said spring is adapted to enter said depression and when the file is open the said spring is adapted to prop or support the carrier-plate and its appendages, substantially as set forth.

7. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires for said carrier-plate, and a guide-pin to prevent rotation of said carrier-plate about said post, substantially as set forth.

8. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires, a guide-pin fastened to said base-plate, and a sleeve attached to said carrier-plate and adapted to slide up and down on said post, substantially as set forth.

9. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires, a guide-pin, a sleeve, and a spring, substantially as set forth.

10. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate provided with a set of transfer-wires, a post arranged between said two sets of wires, a sleeve adapted to slide on said post and having at one end a knob or handle and attached at the other end to said carrier-plate, and means for preventing rotation of said carrier-plate, substantially as set forth.

11. The combination of a base-plate provided with a set of receiving or impaling wires, a carrier-plate arranged to stand normally above said base-plate in the closed condition of the file and provided with a set of transfer-wires, and means, substantially as described, for guiding said carrier-plate in its up and down movements, substantially as set forth.

12. The combination of a base-plate provided with a set of hollow receiving or impaling wires, a carrier-plate arranged to stand normally above said base-plate in the closed condition of the file and provided with a set of transfer-wires, the free ends of which are reduced in diameter to enter said receiving or impaling wires, a post arranged between said two sets of wires, a sleeve attached to said carrier-plate and adapted to slide up and down on said post, a guide-pin, and a spring, substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 15th day of May, A. D. 1891.

BENJAMIN LAWRENCE.

Witnesses:

JACOB FELBEL,

LILLIE BROWNING.