

(No Model.)

J. M. KEEP.
BILL AND LETTER FILE.

No. 535,622.

Patented Mar. 12, 1895.

Fig. I.

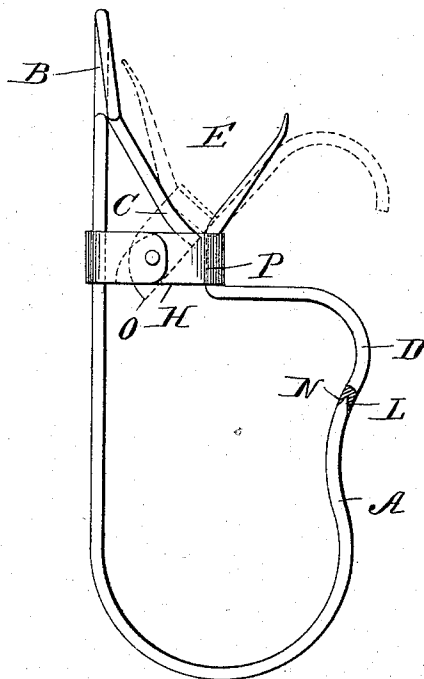


Fig. II.

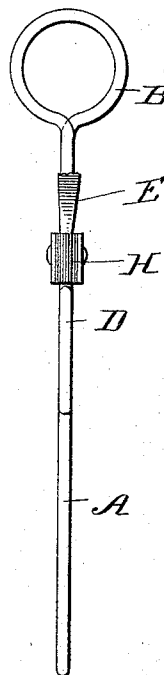
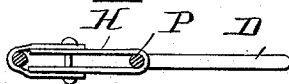


Fig. III.



Witnesses

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BILL AND LETTER FILE.

SPECIFICATION forming part of Letters Patent No. 535,622, dated March 12, 1895.

Application filed March 19, 1894. Serial No. 504,244. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. KEEP, a citizen of the United States, and a resident of New York, county and State of New York, have invented a new and useful Improvement in Bill and Letter Files, of which the following is a specification.

My invention relates to that class of paper files now in general use for temporarily filing, by impaling upon a wire hook, co-operating with a hinged transfer wire letters, bills, memoranda, &c., and known as "transfer files."

My object is to simplify, reduce the cost and to improve the quality of transfer files as hereinafter shown in the drawings and described, of which—

Figure I is a plain side view showing the file complete and the different parts as they co-operate. Fig. II is an edge view showing the lineal and relative position of the different parts and an eye for hanging up the file. Fig. III is a cross section showing the construction of the hinge and its connection with the filing and transfer wires.

Similar letters refer to similar parts throughout the several views.

A United States patent was granted to me June 12, 1883, for an improved transfer file, which is constructed with a cast iron back, into the lower end of which is riveted the hook or filing wire. Toward the upper end, lugs are cast to form a part of the hinge and to support the lever or thumb piece, which is also made of cast iron. Into this is driven the transfer wire. Then it is hinged by a rivet, between the lugs and a flat convex spring is forced between them and under the pivotal bearing of the lever. It is obvious that to construct this and similar files of cast iron and with separate filing wires, a lever and spring, much labor and skill are required to drill the castings, assemble and unite the many parts and suitably adjust them.

My present improvement is upon this kind of a transfer file and differs from it and all others, of which I have knowledge. Thus, the filing hook "A", the eye "B" and the spring "C" are made of a single piece of wire which, also forms the back or body of the file. The transfer wire "D" and the lever or thumb piece "E" are made of a single piece of one

piece of wire, the parts of the hinge "H" of sheet metal bent into "U" shape. All of the parts are made and combined to operate as follows:

The dimensions of the file having been determined, a single piece of wire of suitable size and length, is to be pointed at one end as shown at "L" and then bent to form the filing hook, the eye and spring substantially as shown in Figs. I and II. In forming the eye, the end of the wire which is to form the spring must be bent upward and over and on a perpendicular line with the body wire and its free end bent with a curve upward. The transfer wire "D" and the thumb piece E, are made of a single piece of wire which must be of the same gage as the filing wire, and of sufficient length, when formed, to make the thumb piece and the necessary curve and to meet the point "L" it must be countersunk as shown at "N" to receive the point "L". The other end should be suitably flattened to make an easy bearing for the thumb or finger. Now, this wire is to be formed into shape as shown in Fig. I.—D. The space between the transfer wire and the lever should be equal to the width of the upper part of the hinge and the intervening portion of the wire should be slightly curved on its under side to meet the pivotal bearing of the spring.

The upper part of the hinge H. is of sheet metal cut to the right width and length with the corners at each end, on one side, clipped or rounded while the other corners are left full or square as shown by dotted lines Fig. I.—O.—. Thus shaped the rivet holes are punched and the blank formed into U shape, with the space between the sides equal to the diameter of the wire. The blank for the lower part of the hinge should be about two thirds the length of the upper blank, and, preferably rounded at each end. The rivet holes being punched, the blank is formed into U shape, with the space between the two sides equal to the thickness from the outer sides of the upper part of the hinge.

The two filing wires each a single piece bent to form the parts as described and the parts of the hinge being made in proper shape, they may be joined together by soldering, or otherwise fastening the longest and thinnest loop into the seat between the thumb piece and the

curved transfer wire, as shown, Fig. I—P., the side with rounded corners toward the thumb piece. The shorter loop is fastened to the body wire with the rivet holes slightly in front of the free end of the spring, taking care to have the opening between the sides on a perpendicular line with the spring, that the spring when depressed may move freely in the opening.

The several parts being thus constructed, the file is completed by placing the upper loop over the top of the spring, then forcing it down into the under loop sufficiently to admit of a rivet or pin being inserted to unite the parts and complete the hinge.

The object of having the upper loop of the hinge longer and thinner than the lower one, is to make room for the motion of the spring and to increase the backward throw of the transfer wire. The square corners on the loop impinge the body wire, thus serving as a stop to prevent the transfer wire from being thrown too far forward, should it fail to meet the point of the hook.

The upper loop is placed inside of the lower one, to make a free passageway for the spring when being depressed. The ring forming the eye being a continuation of the spring, increases its elasticity and furnishes means by which to hang the file upon a nail or hook.

The operation and use of the file are as follows: When the ends of the filing wires are in contact as shown in Fig. I., they are held firmly together by the pressure of the up-turned point of the spring upon the outer bevel of the bearing. The transfer wire is thrown back and the file opened, as indicated by dotted lines, Fig. I., by depressing the lever or thumb piece where it is retained by the pressure of the spring upon the inner bevel of the bearing. When in this position papers may be impaled upon the hook and then the file re-closed. Should an intermediate paper be required from the file it may be easily removed by transferring the papers above it to the transfer wire. Then open the file which will admit of the paper being taken off the hook without disturbing others, close the file. Then the transferred papers may be returned to the hook.

It will be observed that the operating spring is integral. Therefore the whole body of the file is necessarily made of an elastic material, preferably wire, also, that the spring is a part of the eye from which it receives the greater part of its elasticity and that its free end terminates within the outer "U"-shaped part of the hinge and above its axis, and that the end of the spring forms a pivotal bearing directly against the under side of the movable transfer wire, within the hinge and above the center of motion, and that these results cannot be obtained when the back of the file is made of cast iron or other rigid material.

It will also be observed that a connecting hinge composed of "U"-shaped parts, as de-

scribed, is necessary in the construction and operation of the file.

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

1. In a bill and letter file, in combination, the filing hook the back or body of the file, an eye for suspending the file and an actuating spring integral and made of one piece of wire, pointed and bent at one end to form the filing hook then extending upward to form the back and the eye, then returned downward on a line with the back to form the spring which terminates within the outer portion of the hinge H, said part of the hinge being of U-shape and permanently attached astride of the transfer wire D., the inner portion of the hinge being attached to the body wire and the two parts jointed by a rivet or pin, the up-turned end of the spring presses against the under side of the movable or transfer wire above the rivet or center of motion, all substantially as shown and described.

2. In a bill and letter file, the frame or body of the file, composed of a filing hook, an eye and an actuating spring, integral and made of one piece of wire, in combination therewith the transfer wire D, attached to the body wire by the hinge H, as shown and described and permanently attached to the hook or body, the U-shaped under or inner part of a connecting hinge made of sheet metal, said spring terminating within the U-shaped part of the hinge and above the center of motion when the outer and inner parts of the hinge are united by a rivet or pin, all substantially as shown and described.

3. In a bill and letter file, having the part composed of the filing hook, the back, the eye and the extending spring made of one piece of wire, and the under or inner U-shaped part of a hinge made of sheet metal, permanently attached to the body wire as shown and described; in combination and co-operating therewith, a movable or transfer wire, countersunk at one end to impinge and receive the point of the filing wire, and bent to give it an arch shape extending upward from the impinging end and backward to form a seat into which is permanently fastened the outer U-shaped part of the connecting hinge, then extending obliquely upward to form a lever or thumb piece by which to operate the file, when the co-operating parts are united by jointing the two U-shaped parts of the hinge, the portion of the wire within the outer portion of the hinge presenting a broad bearing for the end of the spring which terminates within the hinge and above the center of motion and operates to hold the file open or closed as desired, all substantially as and for the purposes shown and described.

4. In a bill and letter file, having two co-operating parts, each part made of a single piece of wire bent or formed substantially as shown and described, in combination there-

with, a connecting hinge composed of two U-shaped parts made of sheet metal, the under or inner part of which is permanently attached to the body wire in a position that will bring the axis of the hinge at a right angle and below the up-turned end of the spring, each side of each part of the hinge being pierced near the free ends to admit of a rivet or pin being passed through to unite the two parts, the upper or outer U-shaped part of the hinge being permanently attached to the movable wire, its parallel sides extending down inside of the inner part of the hinge below the rivet or center of motion sufficiently far to impinge the body wire which is within the inner part of the hinge, thus forming an open box like space above the rivet to allow of a free motion of the spring, the end of which terminates within the opening and presses against the inner side of the movable wire thereby holding it open or closed as desired, all substantially as shown and described.

5. In a bill and letter file composed of two co-operating parts the body and transfer wire D, united by the hinge H, which is composed of the outer and inner U-shaped parts, as described, the operating spring integral with the hook, the back and the eye, from the eye extending downward to and terminating within the outer U-shaped part of the hinge, therein pressing against the inner side of the movable wire, above the center of motion, thus retaining the file open or closed as desired, all substantially as shown and described.

6. In a letter and bill file having the two co-operating parts, each part formed of a single piece of wire as described, in combination therewith, the hinge uniting said co-operating parts, composed of two U-shaped portions, one of which is attached to the body wire of the file and projects outward toward the point of the spring, the other attached to and in the seat formed therefor, in the movable wire, then extending inward inside of the part attached to the body wire, its free ends terminating with full square corners toward the hook, to impinge the body wire and serve as a stop, and rounded corners toward the eye to admit of the outer part of the hinge being thrown back, these parts of the hinge being united by a pin or rivet through holes near

their free ends, the portion of the hinge on the outer side of the rivet being sufficiently long to form an open or box like space, above the center of motion, in which terminates the operating spring which bears against the inner side of the portion of the movable wire within the hinge, all substantially as shown and described.

7. A combined bill and letter file composed of two co-operating parts respectively described as the body and the transfer or movable wire, each made of a single piece of wire, the body including the filing hook "A," the back, the eye "B" and the spring "C" which extends downward from the eye and terminates within the upper part of the hinge "H" above the axis of the hinge, and therein presses against the inner side of the seat "P" which is formed in the transfer wire, the arched transfer wire "D," extending inward, then upward to form the seat "P" and obliquely outward to form the lever or thumb piece "E" for practically operating the file, the hinge "H," to unite the body and transfer wire, made of sheet metal in two U-shaped parts, the inner part being permanently attached astride of the body wire, the upper or outer part of the hinge being astride of the movable wire and permanently fastened in the seat "P," each part of the hinge being pierced near its free ends to admit of being jointed by a rivet or pin and to unite the two parts of the file, when thus united, the spring being within the outer part of the hinge and pressing against the inner side of the transfer wire which is within the hinge and above the center of motion, thus holding the transfer wire, which impinges the point of the filing hook, the transfer wire being opened or closed as may be desired, by pressing upon the thumb piece, all constructed and combined to operate substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 15th day of March, 1894.

JAMES M. KEEP.

Witnesses:

J. N. KEEP,
SAMUEL SCOTT.