(No Model.)

W. O. GOTTWALS.

LETTER OR BILL FILE.

No. 493,024. Patented Mar. 7, 1893.

Fig. 1.

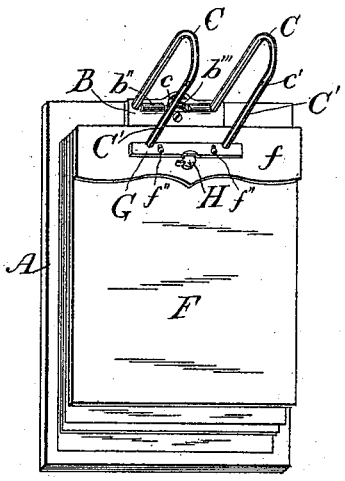


Fig. 2.

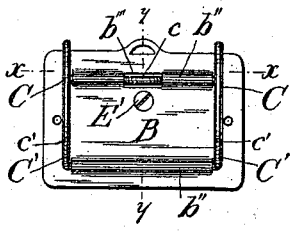


Fig. 3.

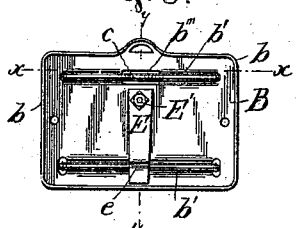


Fig. 4.

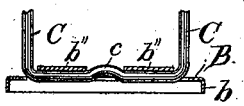


Fig. 6.

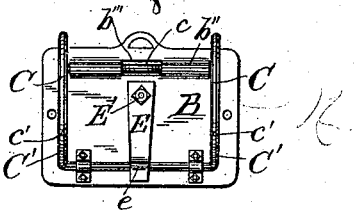


Fig. 5.

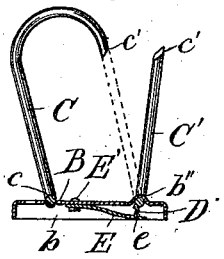
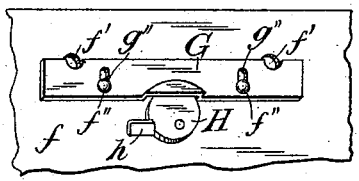


Fig. 7.



Witnesses:
Chas. Raley.
Arthur Cantin.

William O. Gottwals.
Inventor.
per A. Harvey
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM O. GOTTWALS, OF OTTAWA, CANADA.

LETTER OR BILL FILE.

SPECIFICATION forming part of Letters Patent No. 493,024, dated March 7, 1893.

Application filed June 15, 1892. Serial No. 436,760. (No model.) Patented in Canada April 9, 1892, No. 38,687.

To all whom it may concern:

Be it known that I, WILLIAM O. GOTTWALS, of Ottawa, in the county of Carleton and Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Letter or Bill Files, (for which I have obtained a patent in the Dominion of Canada, No. 38,687, dated April 9, 1892;) and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part hereof.

My invention, which will be hereinafter fully set forth and claimed, relates to devices for filing letters bills and papers.

The object of my invention is a file of simple mechanical construction that can be cheaply manufactured, that is handled with facility in placing papers on it and that holds them effectively after placing them.

Figure 1 is a perspective view of a complete file, showing papers and compressor cover in position. Fig. 2 is a top view of the base holding the fast and movable pins. Fig. 3 is a bottom view of the same. Fig. 4 is a section through the same on line *x x* Figs. 2 and 3 showing the manner of securing the arch wire. Fig. 5 is a section through the same on line *y y* Figs. 2 and 3 showing the action of the spring and the arches opened for the reception of papers. Fig. 6 shows a modification of said base and Fig. 7 is a detail view of the compressor cover.

At the upper end of a board plate or other stiff backing A is secured a metallic base B, which I prefer to stamp out of sheet metal and which is just large enough to hold two sets of wires and the operating mechanism. It is made with a downward projecting rim or flange *b*, so as to provide a hollow space between it and the backing A. Two transverse grooves *b'* are formed in said base, one near the lower or front edge and one near the upper or rear edge, preferably on the lower surface and having a perforation at each end, to form bearings for the wires, one of which is movable and the other fast or rigid, the one receiving the fast wire, usually the upper or rear one, having also a perforation *b'''* in the center. Said grooves are most conveniently formed in a stamped plate by a raised ridge *b''*.

C C are the two arched wires or transferring pins at the rear or upper end, which are formed of one continuous wire, bent into suitable shape, the transverse portion of which lies in the groove *b'* and is provided with a quirk *c* which is driven tight in the perforation *b'''* which holds the wire rigid. Said wires are made to lean rearwardly and upwardly, so as to form an obtuse angle with the lower or front part of the base.

C' C' are the two straight receiving or front wires or pins, also formed in one piece, the transverse portion lying movably in the lower or front groove *b'* and has secured to it at the center a steel bit or lever D bearing with its edge on a spring.

E is a plate spring secured at one end to the base by a bolt E' and having its free end *e* nicked or quirked and bearing on the bit D. The end *e* is so shaped as to form a sharp indentation and adjoining ridge, the edge of the bit D resting in the indentation when the wire is open, *i. e.* leaning downward or forward, as in Fig. 5, and keeping it at rest, but has slipped over the ridge and is in an inclined position when closed, so that the spring presses the wire against the arches. The joints of the pins, *i. e.* the ends *c'* of the wires are beveled and grooved and tongued so as to keep in good alignment. It will readily be seen that the transverse shank of the receiving wire C' might be journaled on the upper surface of the base, the bit D being reversed in position and the spring E being also secured to the upper surface, as shown in Fig. 6. The inclined position of the arch wires C affords opportunity for a sufficient opening between the joints *c'* without necessitating too great an angle of the receiving wires when open and leaning downward or forward. Instead of having the front or receiving wires movable and the rear or arched transfer wires stationary, the order may be reversed so that the front is stationary and the rear movable. The bit or lever D may be replaced by a bend or quirk in the wire suitably shaped.

F is the compressor cover, consisting of millboard or other stiff material, provided at its upper end with a metallic plate *f* perforated with eyes *f'* to engage the receiving wires.

G is a narrow transverse plate or bar having transverse slots *g''* which are engaged by

studs f'' secured to the plate f, so that its upper edge is adjacent to the receiving pins C' and can be made to bind on them or be withdrawn, sliding on the studs f'' by means of the slots g''. Said plate is controlled by an eccentric H pivotally secured to the plate f, provided with a handle h and bearing on the lower edge of the plate G.

I claim as my invention—

1. In a letter and bill file, the combination of a backing A, a metallic base B secured to said backing, a pair of arched transfer wires C made in one piece and secured rigidly to said base in an upwardly inclined position, a pair of straight receiving wires C' secured movably to said base, the points c of said wires meeting and being beveled and grooved and tongued, a bit D secured to the wire C', a flat spring E secured to the underside of said base and provided with quirked end bearing on said bit D, a compressor cover F having plate f eyes f' and studs f'' a plate G having transverse slots g'' adapted to engage the studs f'' and the eccentric H pivotally secured to the plate f and bearing on the plate G, substantially as set forth.

2. In a metallic base of a letter and bill file, the combination of a rim or flange b, transverse grooves b' with a perforation b''' in one of them, a wire C bent to form a central transverse portion having a quirk c and two upright inclined portions terminating in arched ends, said transverse portion fitting in one of the grooves b' and said quirk adapted to be tightly driven in the perforation b''', a wire C' having a central transverse portion adapted to fit and turn in the other groove b' and having two upright straight ends meeting the ends of the arched wire, a bit D secured to the central portion of the wire C' and a spring E secured to said base and having a quirked end bearing on the bit D, substantially as set forth.

3. In a letter and bill file, the combination with a base having a groove b' of a wire C' bent to form a central transverse portion adapted to fit and turn in said groove, a bit or lever D on said transverse portion, a spring E secured to said base and having a quirked end bearing on said bit, substantially as set forth.

4. In a letter and bill file, the combination of a compressor cover F having a metallic plate f with eyes f' and studs f'', a plate G having transverse slots g'' adapted to be slidingly engaged by said studs, and an eccentric H pivoted to the plate f and bearing on the edge of the plate G, substantially as set forth.

5. In a letter and bill file, the combination of a base having two transverse grooves some distance apart, a pair of wires each bent to form a transverse central portion adapted to fit in one of said grooves one adapted to be rigidly secured and the other to oscillate or turn, each wire having outwardly projecting portions, and the ends of one arched to meet the straight ends of the other, the transverse portion of the movable wire fitted with a bit D and a spring E secured to said base and having its free end bearing on said bit, substantially as set forth.

In testimony whereof I have signed this specification in the presence of the undersigned witnesses.

W. O. GOTTWALS.

Witnesses:
B. HARVEY,
A. TROWSE.