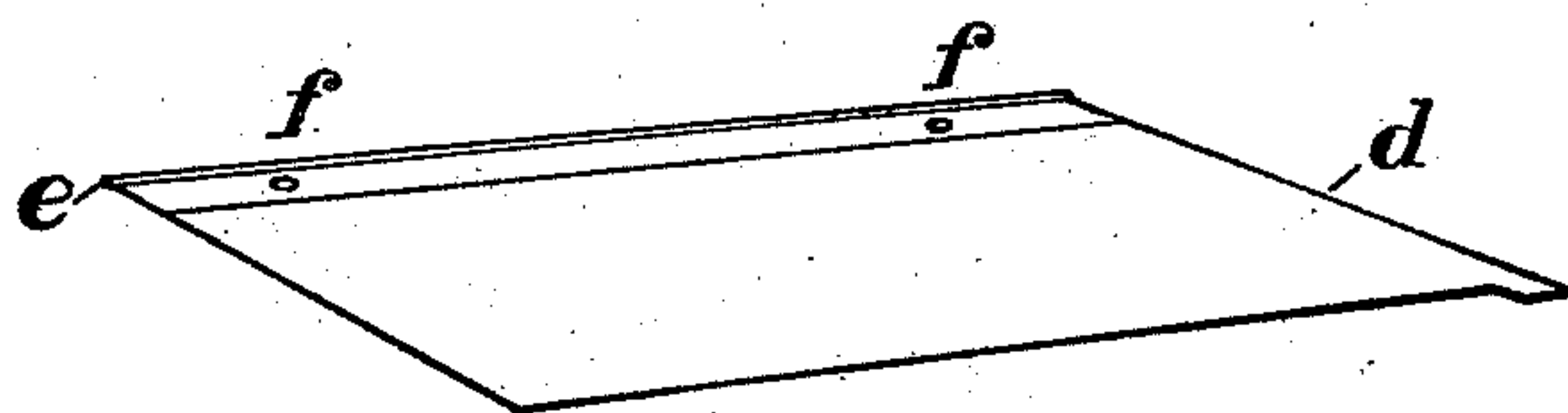
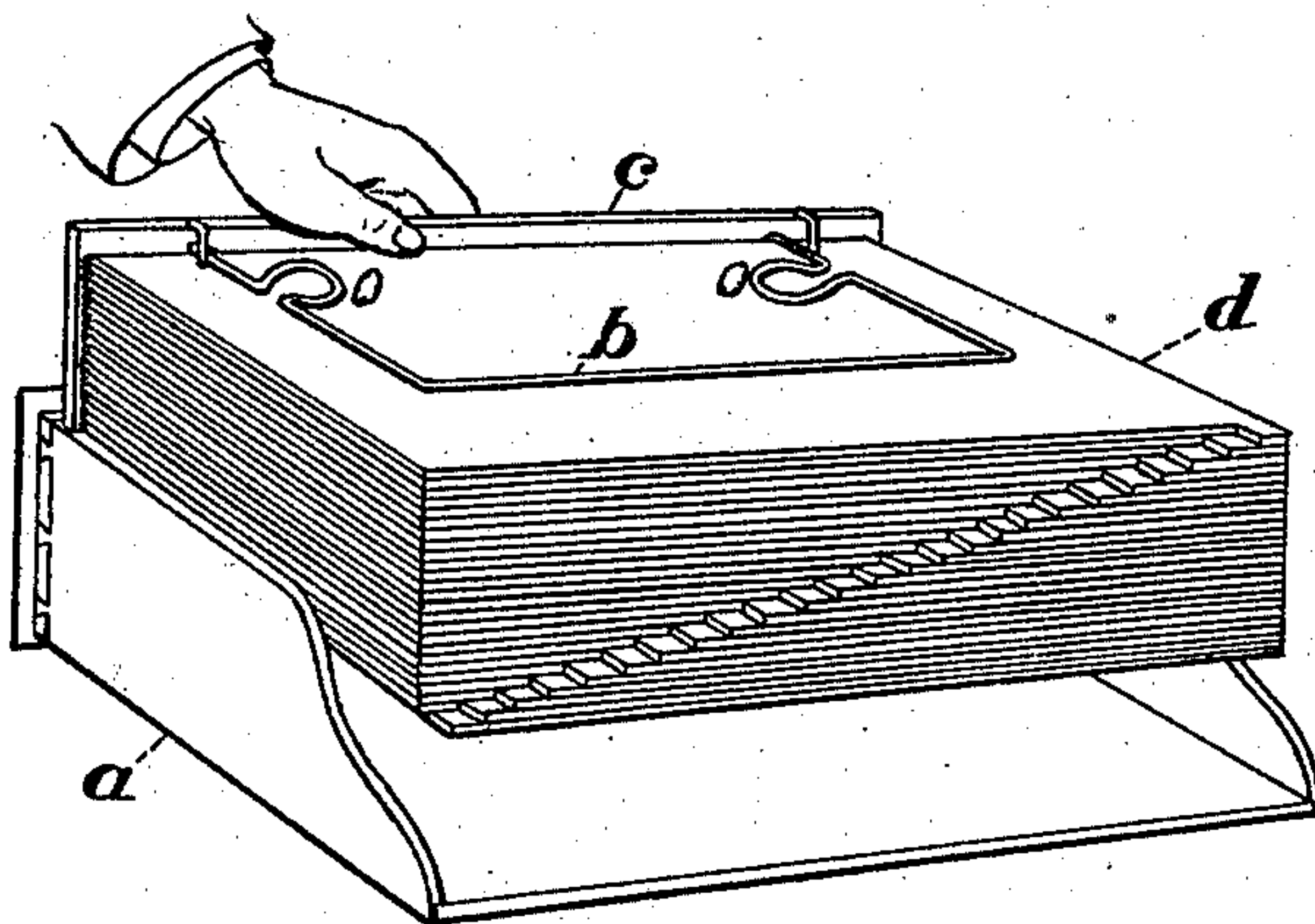
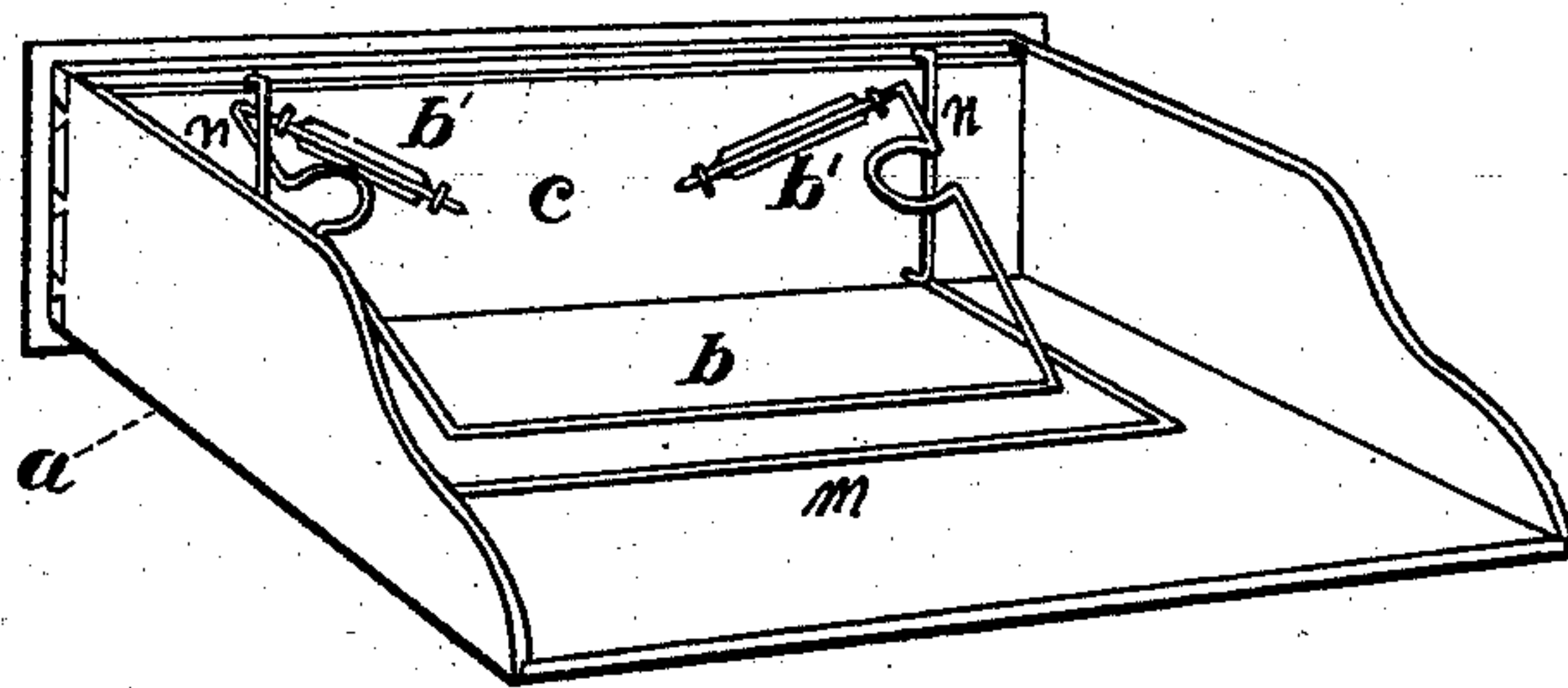


(No Model.)

E. H. STAFFORD & F. FIELD.
LETTER FILE.

No. 503,915.

Patented Aug. 22, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EZRA H. STAFFORD AND FRANK FIELD, OF GRAND RAPIDS, MICHIGAN.

LETTER-FILE.

SPECIFICATION forming part of Letters Patent No. 503,915, dated August 22, 1893.

Application filed November 8, 1892. Serial No. 451,366. (No model.)

To all whom it may concern:

Be it known that we, EZRA H. STAFFORD and FRANK FIELD, citizens of the United States, residing at the city of Grand Rapids, in the county of Kent and State of Michigan, have jointly invented certain new and useful Improvements in Letter-Files, of which the following is a specification.

Our invention relates to a new and improved letter file in which the body of letters and postal cards, together with the index leaves which retain them, may be removed bodily from the case; and the objects of the invention are, first, to furnish a letter file with a case or drawer which can readily be detached from the letters and index sheets in order to be used continuously; second, to form a backing as it were for the index sheets, so as to prevent the letters and postal cards from escaping from such sheets; third, to combine with the retaining sheets which hold the letters in place, a backing and spring or clasp which securely retains the sheets and other contents; fourth, to provide a retaining sheet which may be securely fastened within the letter file. These objects we accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a single case with the retaining sheets removed. Fig. 2 is also a perspective view with the sheets and clasp and backing partially removed, showing the method of detaching the sheets and contents from the case proper. Fig. 3 shows a perspective view of one form of a sheet which is used, or may be used, in connection with our invention.

Similar letters refer to similar parts throughout the several views.

a represents the case which may be constructed of wood or any suitable material. Within the case there is a head piece (preferably of wood) shown by *c*, which is attached to a spring *b*. The spring *b* is provided with bent portions *b'—b'*, which are bent at right angles, or substantially so, with the side pieces of the wire or spring, but not at right angles to the movement of the spring wire; that is, if we suppose the case *a* to stand in a horizontal position, the inner ends *b'* are bent down under, so that in raising the spring *b* it will be

raised against the downward pressure caused by the peculiar construction of the bent ends *b'*, and then there is a continual downward pressure upon the sheets.

In order to give greater elasticity to the spring, we provide loops shown by *o—o*. The bent ends of *b'* are attached to the head piece *c*, by means of small staples, or any other suitable means which will allow the bent ends *b'* to turn in the fastening or attachment. Another wire *m* is used for forming a bottom support to the retaining sheets; *d*, shows the retaining sheets, and *m* shows that portion of the retaining wire which forms one side of the clasp, the spring above described, forming the other side.

In the example of our invention shown in the drawings, the wire *m* is bent at each end having perpendicular parts *n—n*, and the sheets *d*, which are provided with holes *f—f*, fit upon the wires *n—n*, and are thereby secured in position.

In order to give greater stability to the sheet, a small wire *e* is used, which wire strengthens the rear edge of the sheet so that the sheet will not tear out at the openings *f—f*. Other methods, however, of attaching the sheet may be used, such as the extension of the wire *e*, so as to fit back of the portions *n—n* of the spring, or if desired, so as to fit into vertical grooves in the side of the case. The wire *e* so strengthens the sheet so that the holes *f—f* may be placed very near the edge of the sheet.

In using our invention, the retaining sheets *d* move freely upon their vertical supports, and being indexed, receive in proper place, the letter, postal or other document which is required to file in the case.

When the case is full, as shown in Fig. 2, the head piece *c*, together with the clasp, formed by the spring *b* and the wire *m*, is lifted from the case *a*, and preserved in any suitable manner, the head piece *c* preventing any letter or postal card from escaping from between the retaining sheets; and the spring clasp, not only prevents the loss of letters and postal cards, but retains the whole mass in the most compact form. We prefer to make the head piece *c* a little longer than the length of the retaining sheets *d*, the extended ends fitting into grooves in the case in such manner

that the head piece can be easily removed from the case, and readily replaced therein.

We have described the preferred form of our invention, but it is evident that changes or alterations may be made if desired without departing from the spirit of the invention.

Having thus described our invention, what we claim to have invented, and desire to secure by Letters Patent, is—

10 1. In a letter file, the combination with a case *a*, of a vertical, removable head piece *c* fitting into the case, an upper spring clasp *b* connected to said head piece, a lower spring clasp *m* also connected to said head piece,
15 and a series of retaining sheets *d* located between said upper and lower clasps and engaged with vertical supports, said head piece, clasps and sheets being all removable together, substantially as described.

20 2. In a letter file, the combination with a case *a*, of a vertical, removable head piece *c* fitting in the case against the inner side of the front wall thereof and provided with attached upper and lower spring clasps *b* and
25 *m* between which a series of retaining sheets *d* are located so that the head piece, the up-

per and lower clasps and the retaining sheets are all removable together, substantially as described.

3. In combination with a case, a head-piece 30 adapted to slip within the case, a wire or suitable support for the letter sheets beneath the same, and a wire spring, having its ends bent inward and downward and secured to the head-piece by staples or other suitable means, 35 substantially as described.

4. The combination of a case, a head-piece having suitable support as *m*, a wire spring as *b*, provided with loops, and having its ends bent obliquely downward and attached to the 40 head piece, and a series of retaining sheets as *d*, all constructed substantially as and for the purpose described.

In witness whereof we have hereunto set our hands and seals in the presence of two wit- 45 nesses.

EZRA H. STAFFORD. [L. S.]
FRANK FIELD. [L. S.]

Witnesses:

EDWARD TAGGART,
ARTHUR C. DENISON.