

(No Model.)

2 Sheets—Sheet 1.

A. KRAH.
LETTER FILE.

No. 515,052.

Patented Feb. 20, 1894.

Fig. 1.

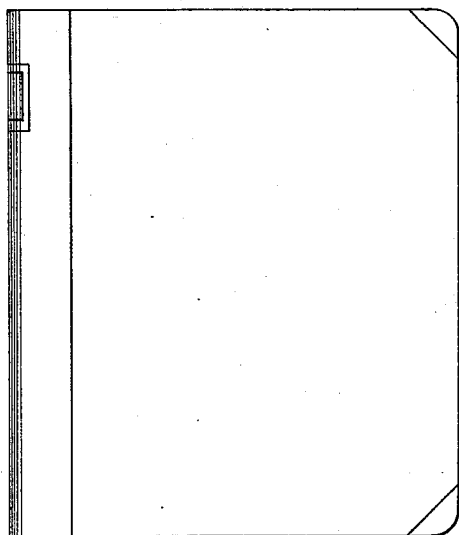


Fig. 2.

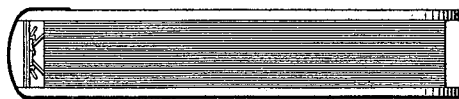
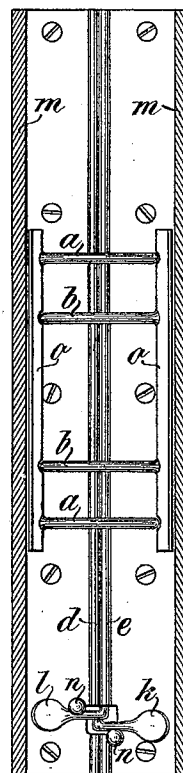


Fig. 3.



Inventor:

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Witnesses:

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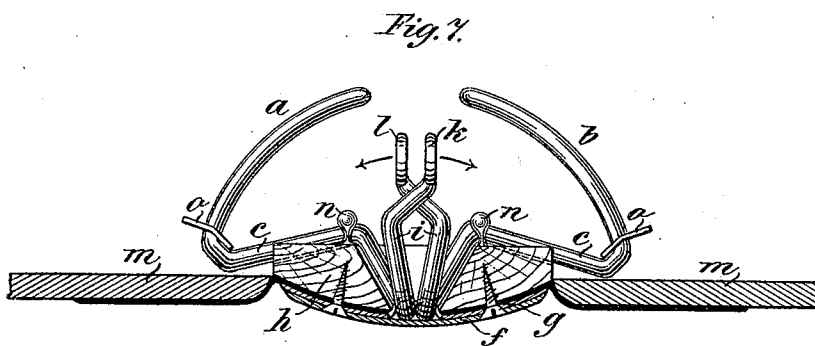
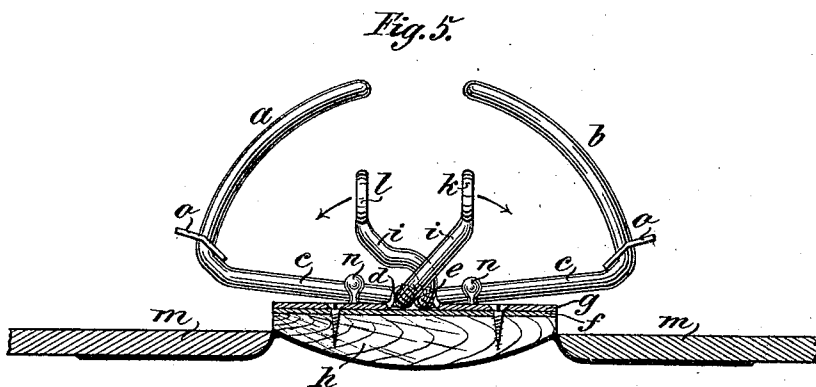
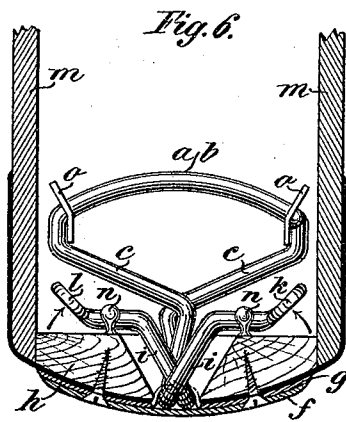
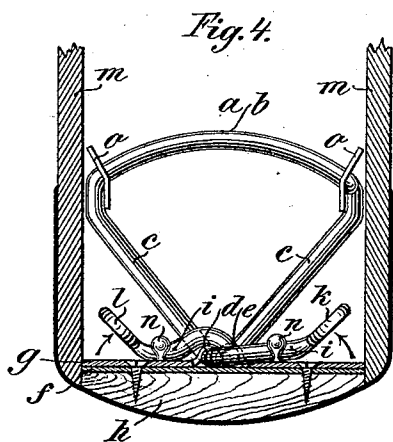
(No Model.)

2 Sheets—Sheet 2.

A. KRAH.
LETTER FILE.

No. 515,052.

Patented Feb. 20, 1894.



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UNITED STATES PATENT OFFICE.

ARMIN KRAH, OF BERLIN, GERMANY.

LETTER-FILE.

SPECIFICATION forming part of Letters Patent No. 515,052, dated February 20, 1894.

Application filed July 18, 1893 Serial No. 480,860. (No model.)

To all whom it may concern:

Be it known that I, ARMIN KRAH, a subject of the German Emperor, residing at Berlin, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Letter-Files; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

In the accompanying drawings, Figure 1 is a side elevation, and Fig. 2 is a plan showing the letter-file closed. Fig. 3 is a vertical section showing the filing mechanism. Figs. 4 and 5 are horizontal sections of the mechanism, showing the file respectively open and closed; and Figs. 6 and 7 are horizontal sections representing a modification of my improved mechanism.

My invention relates to an improved letter-file which is provided with two pairs of wires on which the letters or the like can be passed or strung. Each pair of wires is secured to a separate rod arranged along the back of the case, which is formed like a book-cover. Each rod is adapted to be readily turned by hand, so that the wires may be readily opened or closed, according as it is desired to put the letters on, or to remove them from, the file. Or the wires may be arranged to close automatically, when the case or cover is closed by the user.

In carrying my said invention into practice I provide two pairs of arc-shaped wires *a a* and *b b* (Fig. 3), adapted to receive (in the well known manner) the letters or documents to be filed, each pair of which wires with their straight extensions *c* being secured to one of the bars or rods *d* and *e*, extending along the back of the case or cover. These two rods *d* and *e* are arranged, in close proximity to each other, upon a sheet of metal *f* (Figs. 4 and 5), and are covered over by another sheet of metal *g*. The two sheets or plates *f* and *g* are secured to the inner side of the back *h* by screws or in any other suitable manner. At the part where the rods *d* and *e* are situated, the upper or cover-plate *g* is bent or raised, so as to form a hinge-groove in which the rods may turn freely. At the parts where the wire-extensions are fixed to the rods *d* and *e*,

the cover-plate is perforated or slotted. The ends of the rods *d* and *e* are bent near the lower end of the back as shown at *i i*, and provided with enlargements or finger pieces *k* and *l*. When the file is closed (Fig. 4), the bent portions *i i* closely adhere to the plate *g*, the said finger-pieces *k* and *l* alone remaining in a raised position which enables them to be turned up with the finger or thumb of the user as indicated by arrows in Fig. 4. When this is done, the position of the parts is such as illustrated in Fig. 5, the two wires *a* and *b* being open so that the letters or papers, previously perforated, may be passed on to either pair of wires. If, after filing the letters, it is desired to close the file, the wires are allowed to come together, either by depressing the finger-pieces *k l*, or (and this is the simpler method of the two) by raising the covers *m* of the case (Fig. 5), as though closing a book. The covers are thereby made to act upon the backs or angles of the arc-shaped wires *a b* and to move them into juxtaposition. To prevent the wires, when closed (Fig. 4), or as the file is opened, from moving apart of their own accord, I provide two studs or stops *n n* against which the bent portions *i i* of the rods *d e* will bear, owing to their resilient nature, until they are moved past the said stops by gentle pressure.

To afford a sufficient support to the letters or the like, the wires *a b* are fitted at the ends of their arc-shaped portions with longitudinal plates *o o* adapted to retain the letters or the like in position.

The two rods or pivots *d e* of the filing wires *a b* may, if preferred, be embedded within the back of the case or cover (as shown in Figs. 6 and 7) by which arrangement a material saving of available space may be effected. The screws for securing the two plates *f* and *g* forming the hinge are, in this case, inserted from the outside of the back (Figs. 6 and 7). The studs or stops *n n* for retaining the bent portions *i i* and finger-pieces in position however, remain on the inside of the back. The difference between the two arrangements will be readily understood by comparing Figs. 4 and 6.

What I claim is—

1. A letter-file comprising two pairs of fil-

ing wires (*a b*) each pair being secured to one
of a pair of rods or hinge pins (*d e*) extending
along the back of the outer case or cover of
the file, in close proximity to each other; each
5 rod or pin being bent (as at *i i*), and the bent
portions being adapted, when the file is closed,
to bear against stops (*n n*); the said bent por-
tions being, moreover, provided with enlarge-
ments (as at *k l*), which serve to facilitate
10 the shifting of the wires from the closed posi-
tion to the open position substantially as de-
scribed.

2. A letter file comprising the cover and
back, the two hinge pins or rods *d, e* extend-

ing side by side along the back the arc shaped 15
filing wires *a, b* connected to the rods *d, e*,
respectively by the sections *c* said arc shaped
arms operating in opposite directions when
opening and closing and the finger pieces at
the ends of the hinge pins for operating the 20
same, substantially as described.

In witness whereof I have hereunto set my
hand, at Berlin, this 23d day of June, 1893.

ARMIN KRAH.

Witnesses:

ALFRED UNGAR,
J. LEMAN.