

No. 630,375.

Patented Aug. 8, 1899.

E. C. MAGNUS.
LETTER FILE.

(Application filed Jan. 18, 1899.)

(No Model.)

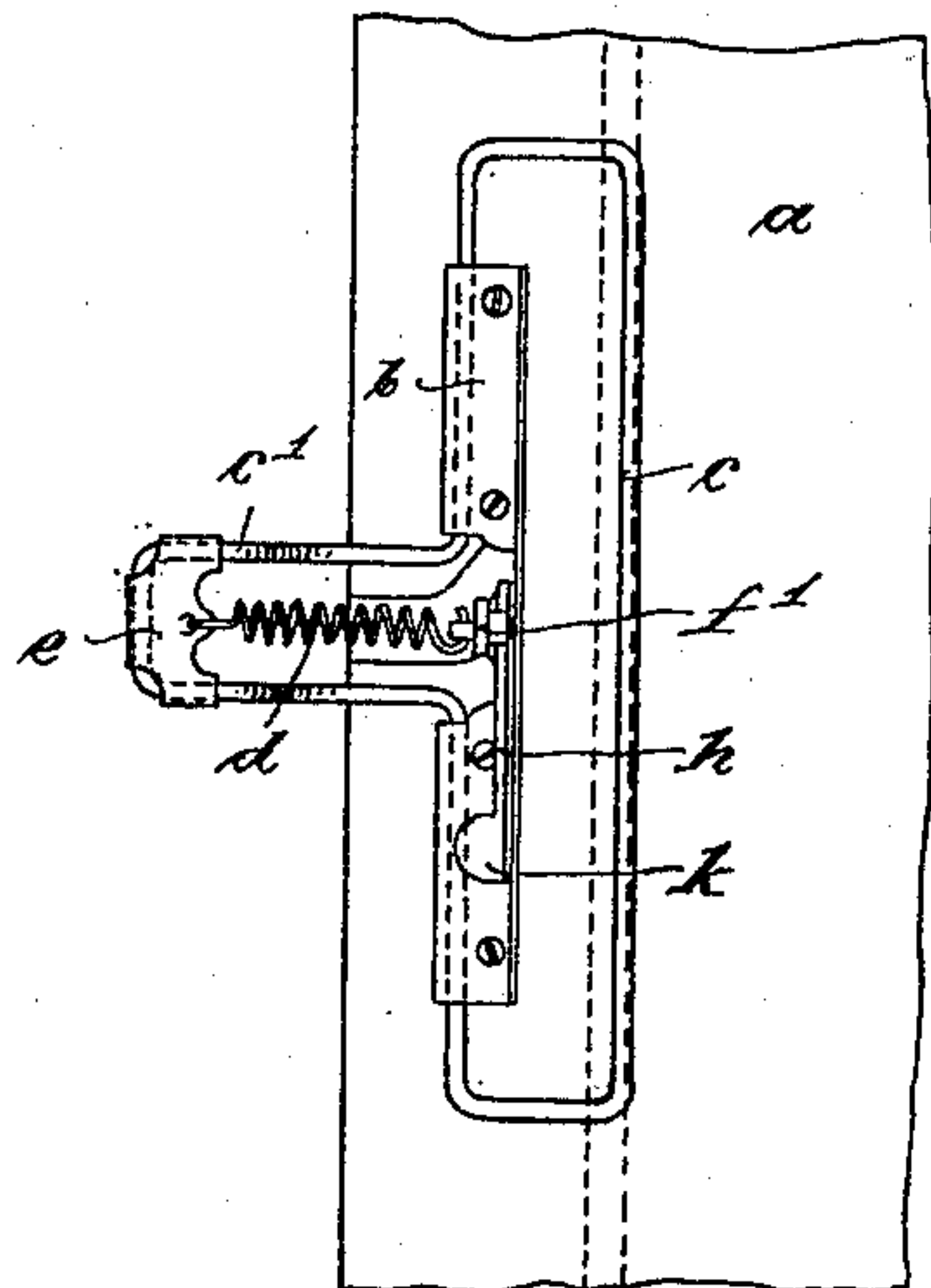
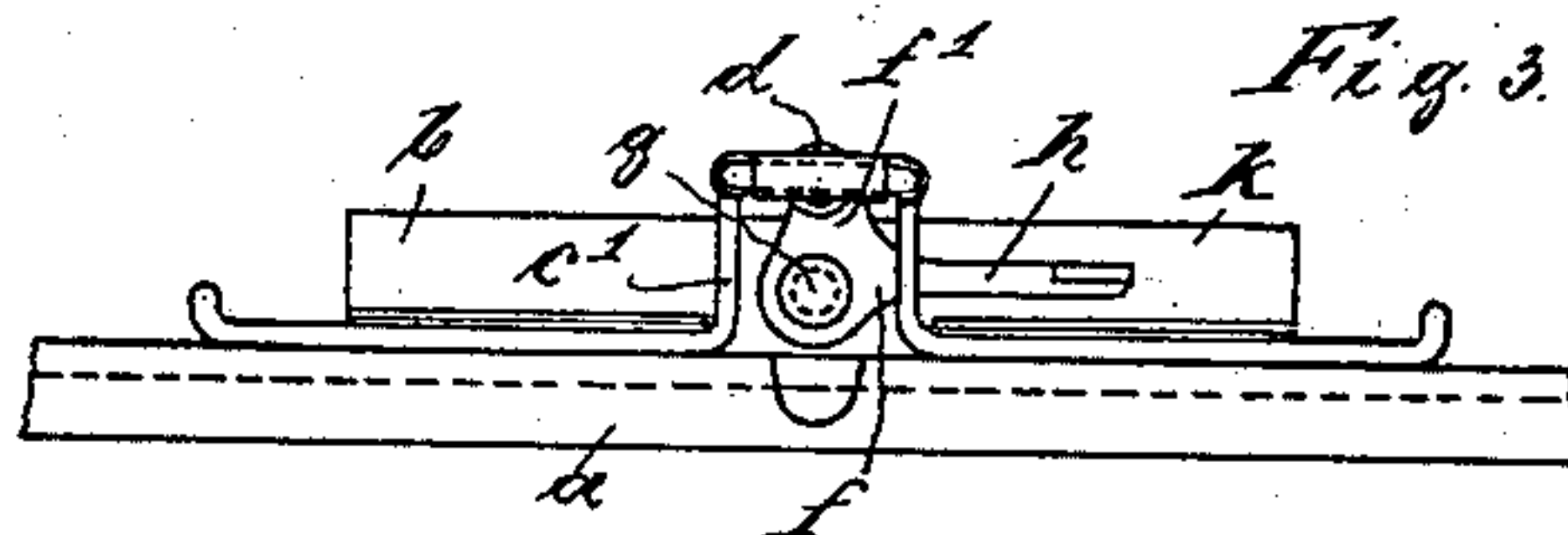
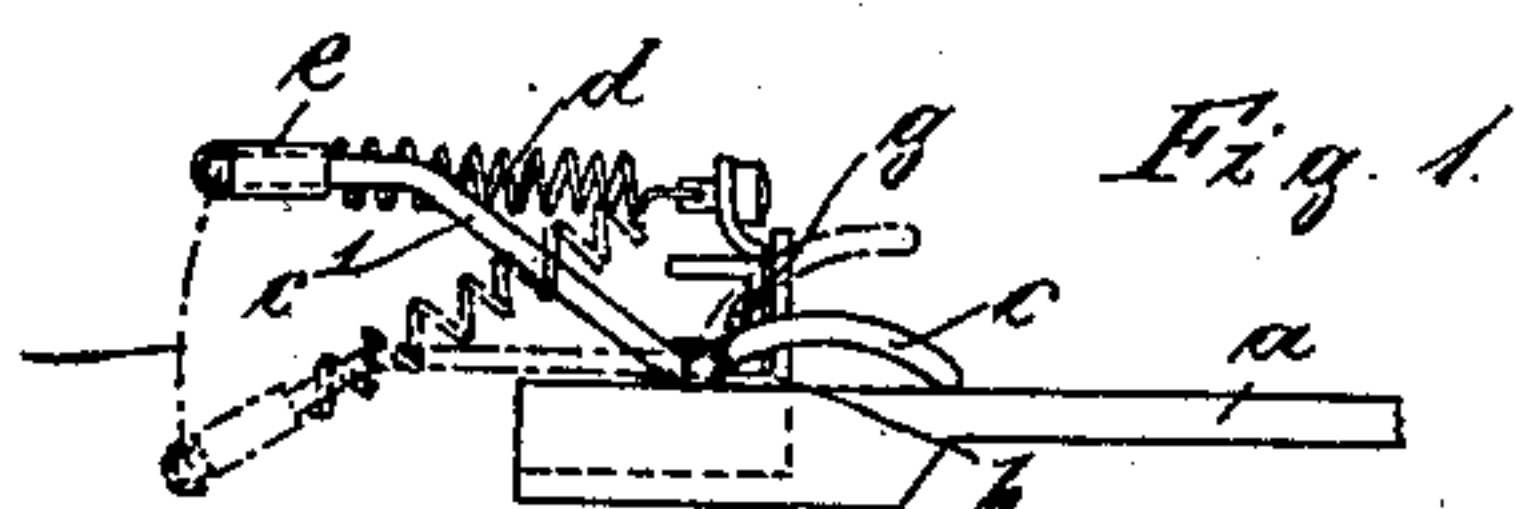


Fig. 2.

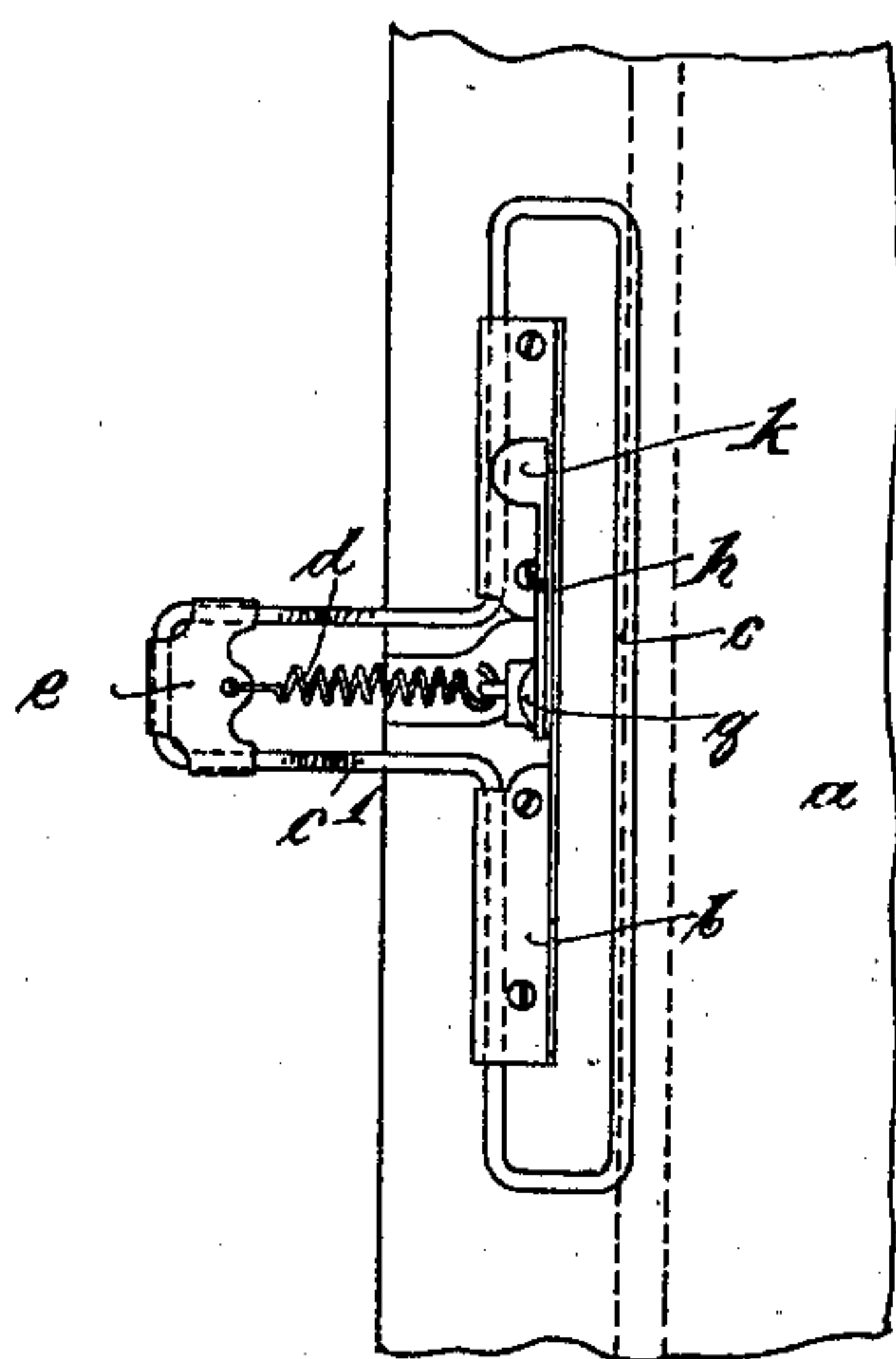
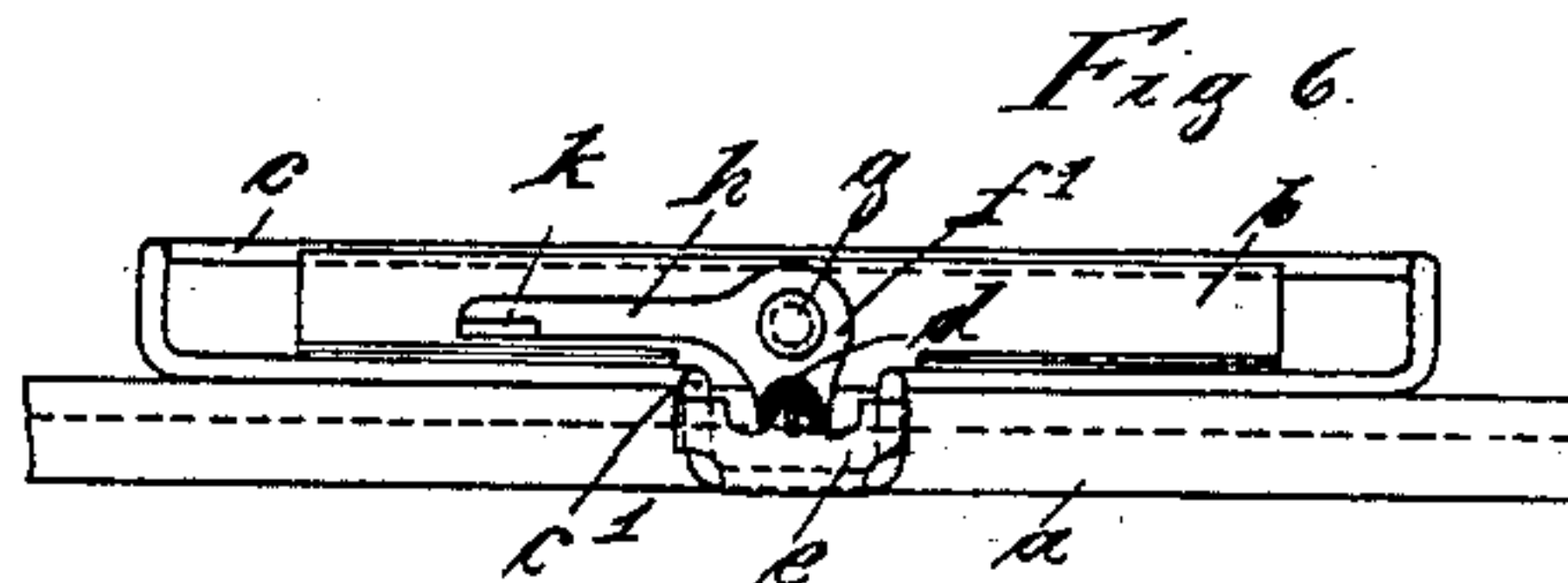
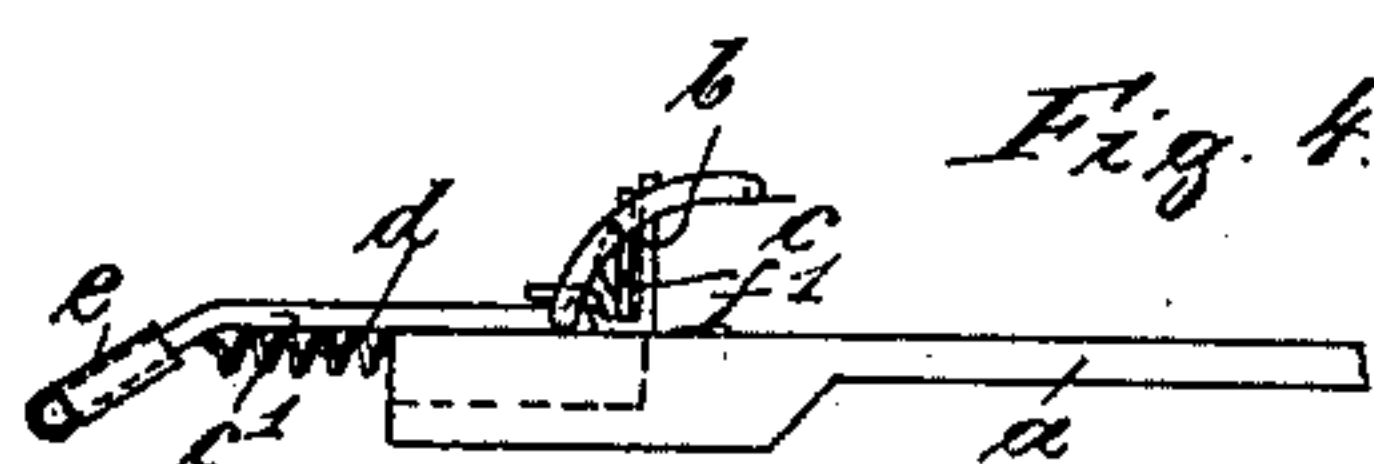


Fig. 5.

Witnesses:
Paul Wollenberg.
Emil Kayser.

Inventor
Edward Charles Magnus
by *W. M. S. S. S.*
Attorney

UNITED STATES PATENT OFFICE.

EDWARD CHARLES MAGNUS, OF POPPELSDORF-BONN, GERMANY.

LETTER-FILE.

SPECIFICATION forming part of Letters Patent No. 630,375, dated August 8, 1899.

Application filed January 18, 1899. Serial No. 702,582. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CHARLES MAGNUS, a citizen of the United States of America, and a resident of Poppelsdorf-Bonn, in the Province of the Rhine, German Empire, have invented certain new and useful Improvements in Letter-Files, (for which application for patent was filed in Germany on the 3d of December, 1898,) of which the following is an exact specification.

Certain letter-files or letter-clamps hitherto used were of such a construction that the wire clamping-frame was acted upon by a spiral spring attached to the frame at one side and to the board of the file at the other side, so that the frame was under tension in its open as well as in its closed position. In both positions the spring acted upon the frame at an acute angle and through the intermedium of a short lever-arm, its force thus never being fully utilized. In consequence of this comparatively feeble pressure the documents, when the file was hanging vertically, were apt to slip out and fall. The unfavorable action of the spiral spring was increased when a greater number of letters was under the clamping-frame, as the frame as it was raised away from the board caused the angle at which the spring acted upon the extension part or handle-piece of the frame to grow more acute, thereby decreasing the pressure of the frame against the board. In its open position the frame was held by the spring under an increased tension and when released, after having passed the dead-center, was violently thrown onto the board. Using a more powerful spring for the purpose of securing greater pressure of the frame upon the board would not be advantageous, as this would naturally enhance the drawback mentioned.

To prevent this inconvenience is the object of my invention, in which the spiral spring acting upon the frame is not attached, as usually, to the board proper, but to a revolvable disk or similar device in such a manner that, according to the two extreme positions of the disk, the spring either presses the frame down upon the documents on the board with its force increased by a long lever-arm or it tends to draw or lift the frame away from

the board. The intermediate positions of the disk allow of regulating the tension of the spiral spring within certain limits.

In order to make my invention more clear, I refer to the accompanying drawings, in which—

Figure 1 is a side view through my letter-clamp, the wire clamping-frame being pressed down upon the board, its position when lifted being shown in dotted lines. Fig. 2 is a top view of Fig. 1. Fig. 3 is a back view of Fig. 1. Fig. 4 is a side view, the frame being lifted. Fig. 5 is a top view of Fig. 4, and Fig. 6 a rear view of Fig. 4.

In all the figures the board is only partly shown, and similar letters denote similar parts throughout the various figures.

On the board *a* as usually employed is fastened a metal part *b*, provided with a bearing for the clamping-frame *c*. The shape of the frame *c* is the ordinary one. The extension-piece *c'* of the frame is covered by a cap *e*, into which is hooked the one end of the spiral spring *d*. The other end of the spring is attached to a short arm *f'*, revolvably attached to the bearing-plate *b* by means of a stud *g*. The short arm *f'* forms a bell-crank lever with an arm *h*, having at its free extremity a wing or thumb-piece *k*, the arms *f'* and *h* being adapted to rotate one hundred and eighty degrees around the stud *g*.

In the position shown in Figs. 1 to 3 the clamping-frame *c* is forcibly pressed against the board *a*.

In the position shown in Figs. 4 to 6 the bell-crank lever *f' h* is turned so that the shorter arm *f'*, to which the spring *d* is attached, points vertically downward, which position causes the spring to act from this lower point, whereby the extension-piece *c'* is drawn down and the frame proper, *c*, lifted. The accidental and forcible flying back of the frame upon the board is thereby absolutely prevented, which cannot be attained with this class of letter-files as hitherto constructed.

Having thus fully described the nature of this invention, what I desire to secure by Letters Patent of the United States is—

In a letter-file, the combination of a board-plate *a*, with a clamping-frame *c* having an extension-piece *c'* provided with a cap *e*, a

plate *b* fixed to the board-plate and forming
the bearing of the clamping-frame, a bell-
crank lever *f' h* revolubly attached to the
plate *b*, a spiral spring *d* fixed to the cap *e*
5 and to the shorter arm *f'* of the bell-crank
lever *f' h*, the whole substantially as and for
the purpose set forth.

In witness whereof I have hereunto set my
hand in presence of two witnesses.

EDWARD CHARLES MAGNUS.

Witnesses:

WILLIAM H. MADDEN,
CHAS. E. BARNES.