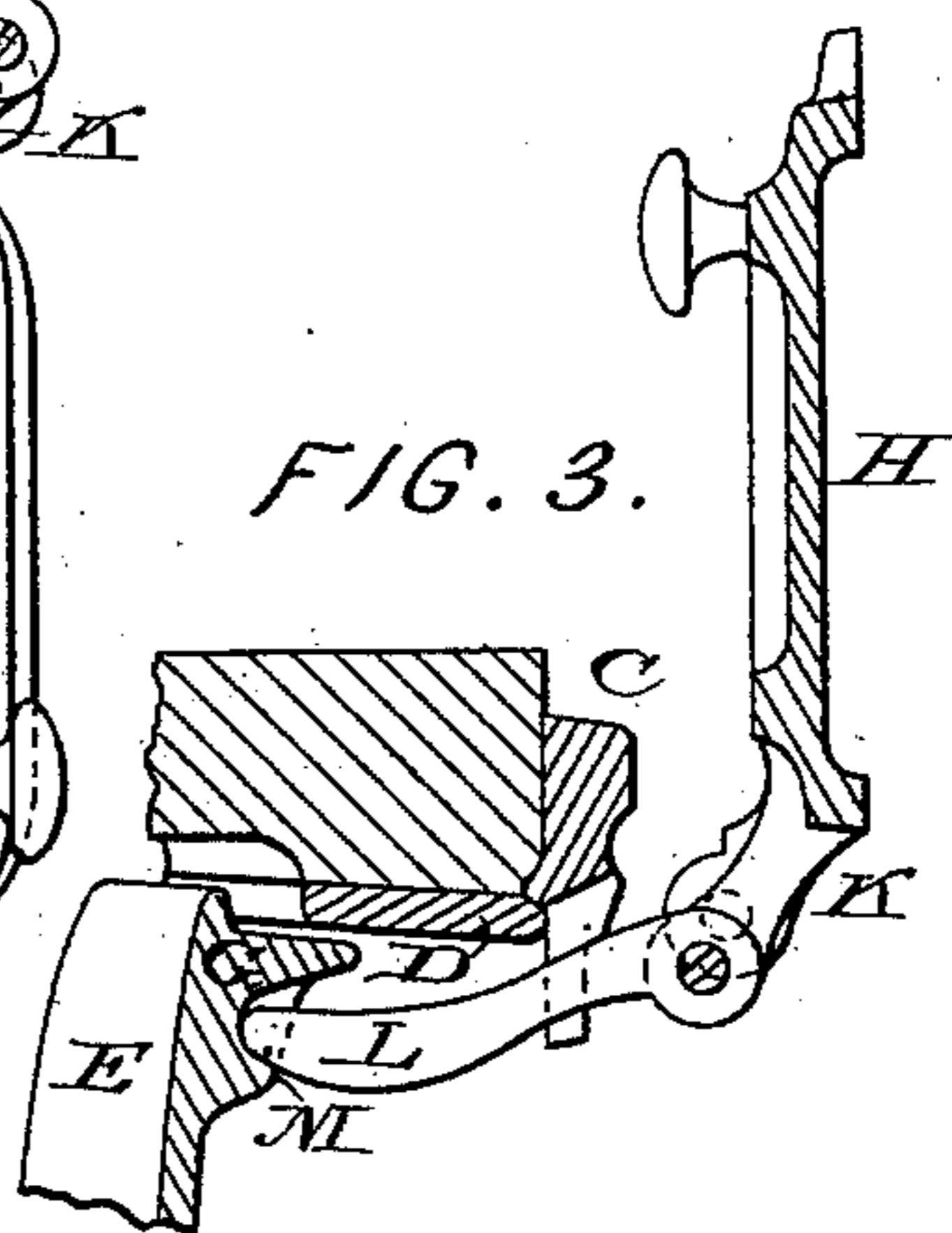
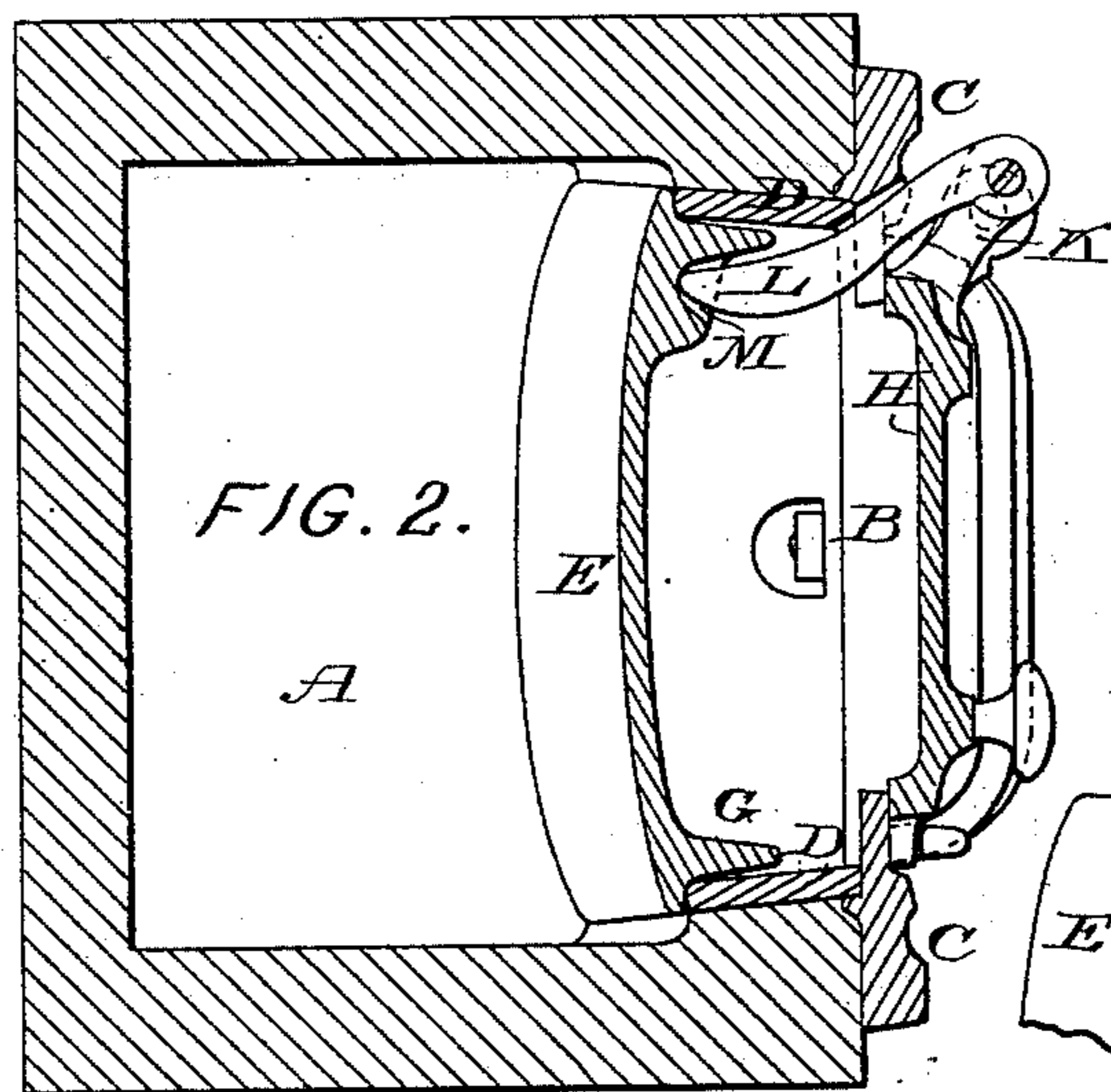
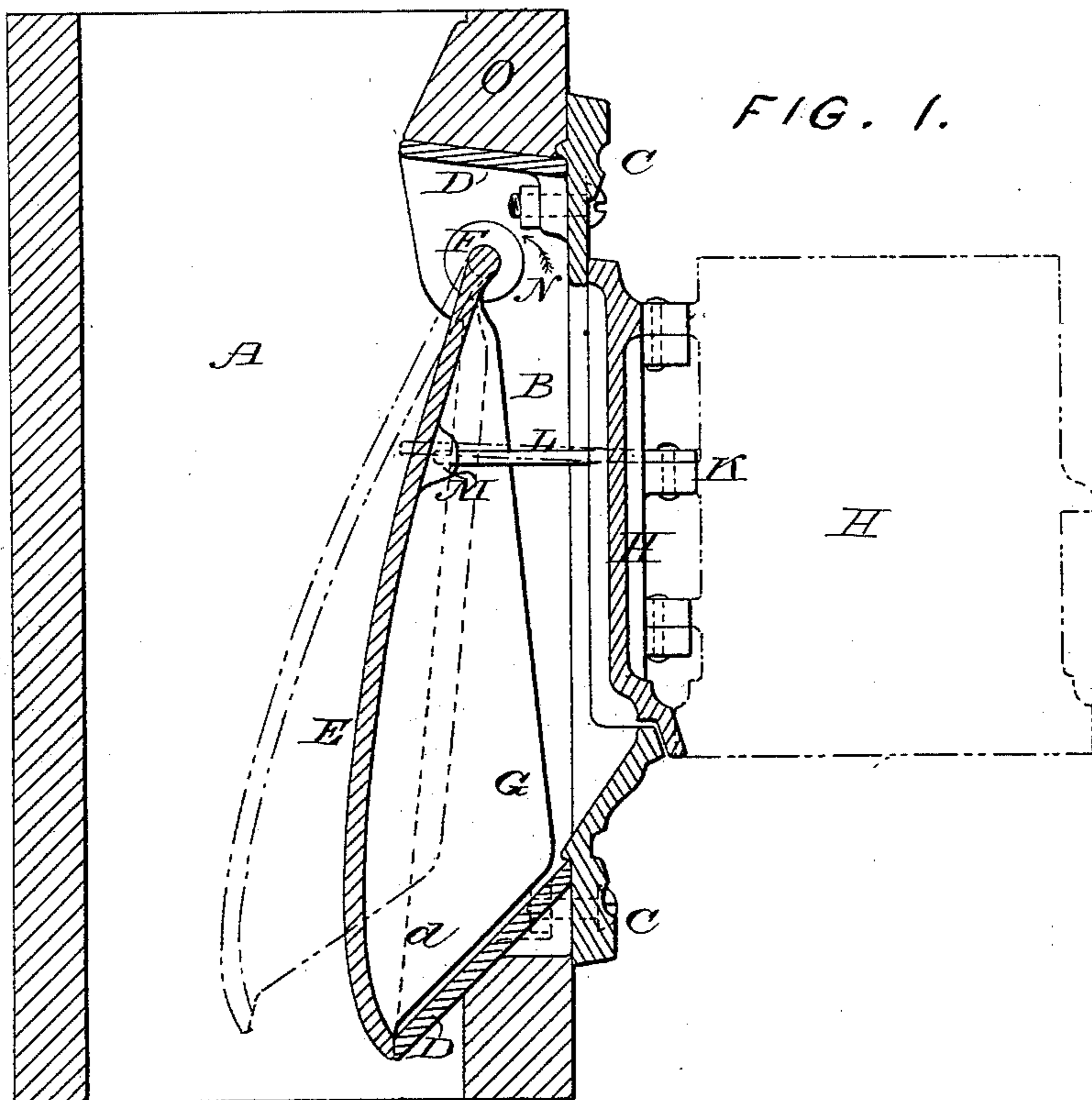


W. P. ABENDROTH & J. MERSEREAU.
Ash-Chute for Buildings.

No. 223,089.

Patented Dec. 30, 1879.



WITNESSES:
John Marshall
Joseph Tweedale

W. P. Abendroth
J. Mersereau
INVENTOR.

UNITED STATES PATENT OFFICE.

WILLIAM P. ABENDROTH AND JACOB MERSEREAU, OF PORT CHESTER,
N. Y., ASSIGNORS TO ABENDROTH BROTHERS, OF SAME PLACE.

IMPROVEMENT IN ASH-CHUTES FOR BUILDINGS.

Specification forming part of Letters Patent No. **223,089**, dated December 30, 1879; application filed September 9, 1878.

To all whom it may concern:

Be it known that we, WILLIAM P. ABENDROTH and JACOB MERSEREAU, of Port Chester, county of Westchester, State of New York, have invented a new and useful Improvement in Ash-Chutes for Buildings, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a vertical section of the apparatus and chute. Fig. 2 is a transverse section. Fig. 3 represents the hinge connecting with the door and the valve or trap.

This invention pertains to those structures or flues in buildings which are used for conveying the ashes, &c., from the various floors down to the cellar or a receptacle below; and this invention consists in providing a peculiar kind of mechanism for operating the valve by means of the shutter which closes the opening to the ash or dirt chute, as will be more fully hereinafter set forth.

At A is represented the chute, which is built like a chimney-flue in the building, and at B is made an opening, one end corresponding to the floor desired to be connected with the chute.

Upon the face of the opening there is fastened a front frame, as at C, which is fastened by screw-bolts to flaring plates placed in the opening, as at D, said plates forming a sort of hopper-shaped lining to the opening B. The lower portion of said lining is inclined downward considerably, to give an easy descent to the ashes, &c.; but the sides and top are inclined only slightly, as shown in the drawings. The inner edges of said lining extend into the interior of the chute, as indicated by the dotted line at *d*; and against said edges there is fitted a shield or sort of fan-shaped valve, as at E, pivoted at its upper end to the side plates near their top, as at F, and it has also flanges projecting from its inner face, as at G, which are wide at their lower end and taper toward the top, as shown at Fig. 1; and they extend inward and fit closely upon the inner faces of the side plates, so that when the shield or valve is projected back to form an opening at the bottom, as shown by

the dotted outline in Fig. 1, the flanges will keep the sides sufficiently closed to prevent any ashes or dirt thrown into the chute at an upper opening from rushing out into the opening below.

A door, as at H, for closing the inner face of the opening is mounted upon the face of the frame C, and it is provided with a catch to keep it closed, and also a knob to open it, in the usual manner of stove-doors.

Upon the hinged edge of the door there is a projection, as at K, to which is pivoted an arm, L, the free end of which extends back to a recess or socket on the inner face of the valve, as at M, so that as the door is opened the arm forces the shield or valve back at its lower end, and when the door is fully opened the weight of the shield against the arm serves to hold the door open as the pivoted end of said arm passes the pintles or pivots of the hinges upon which the door is supported, as shown in Fig. 3; but when the door is closed, as shown in Fig. 2, the weight of the shield or valve causes it to press against the edges of the plates, or, in other words, it closes by its own gravity.

It will be seen that there is a space, as at N, between the upper portion of the shield or valve and the upper plate. This space is to serve as the throat of a chimney, through which a draft upward, when the door is opened, will ascend, to carry up the dust that may be caused by dumping the ashes into the opening, and thereby prevent it from escaping into the room. To facilitate this operation, the upper plate extends inward into the chute, as shown in Fig. 1, some distance beyond the hinge, and the masonry is also built out over the plate, as shown at O, thus contracting the chute somewhat at its juncture with the plate, and thereby increasing the current at the upper end of the shield.

It is evident that by the use of such an apparatus attached to the side openings of such chutes they will not prevent a constant ventilation, and that two or more may be used at the same time without in any manner interfering with each other.

We therefore claim—

1. The combination of the valve E, provided with the socket M, the hinged door B, provided with the projection K, and the arm L, having one end pivoted to the outer end of said projection, and the other extending into the socket in the door, whereby, whether the door be opened or shut, the weight of the valve bearing upon the arm, and through said arm upon the projection of the door, prevents the latter from swinging except when purposely operated.

2. The combination, with flue A and its valve E, of the door H, having projection K, and the arm L, pivoted thereto, substantially as and for the purpose set forth.

WM. P. ABENDROTH.
J. MERSEREAU.

Attest:

JOHN E. MARSHALL,
JOSEPH TWEEDALE.