

No. 633,455.

Patented Sept. 19, 1899.

C. S. HOOD.
REGISTER.

(Application filed Mar. 25, 1898.)

(No Model.)

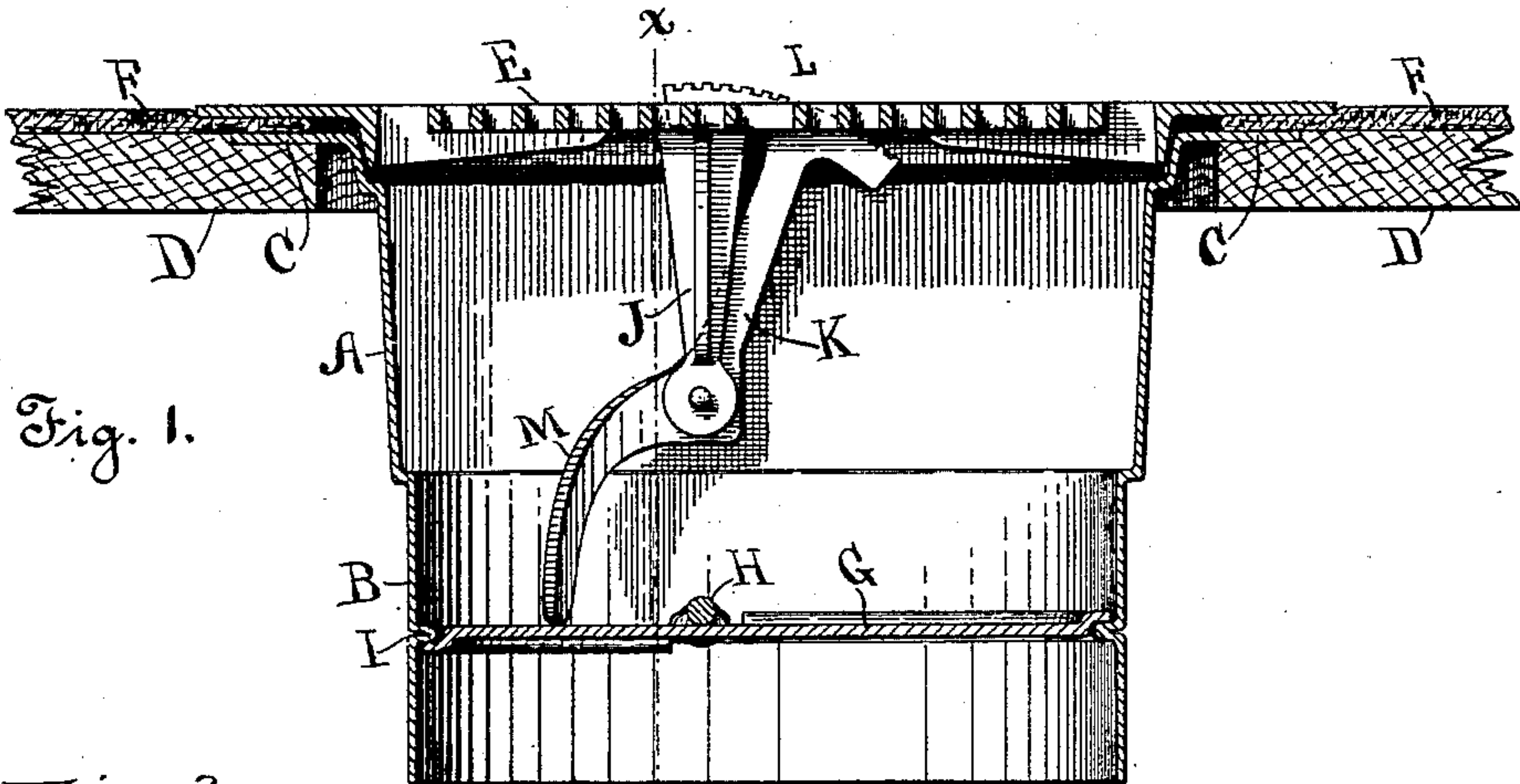


Fig. 1.

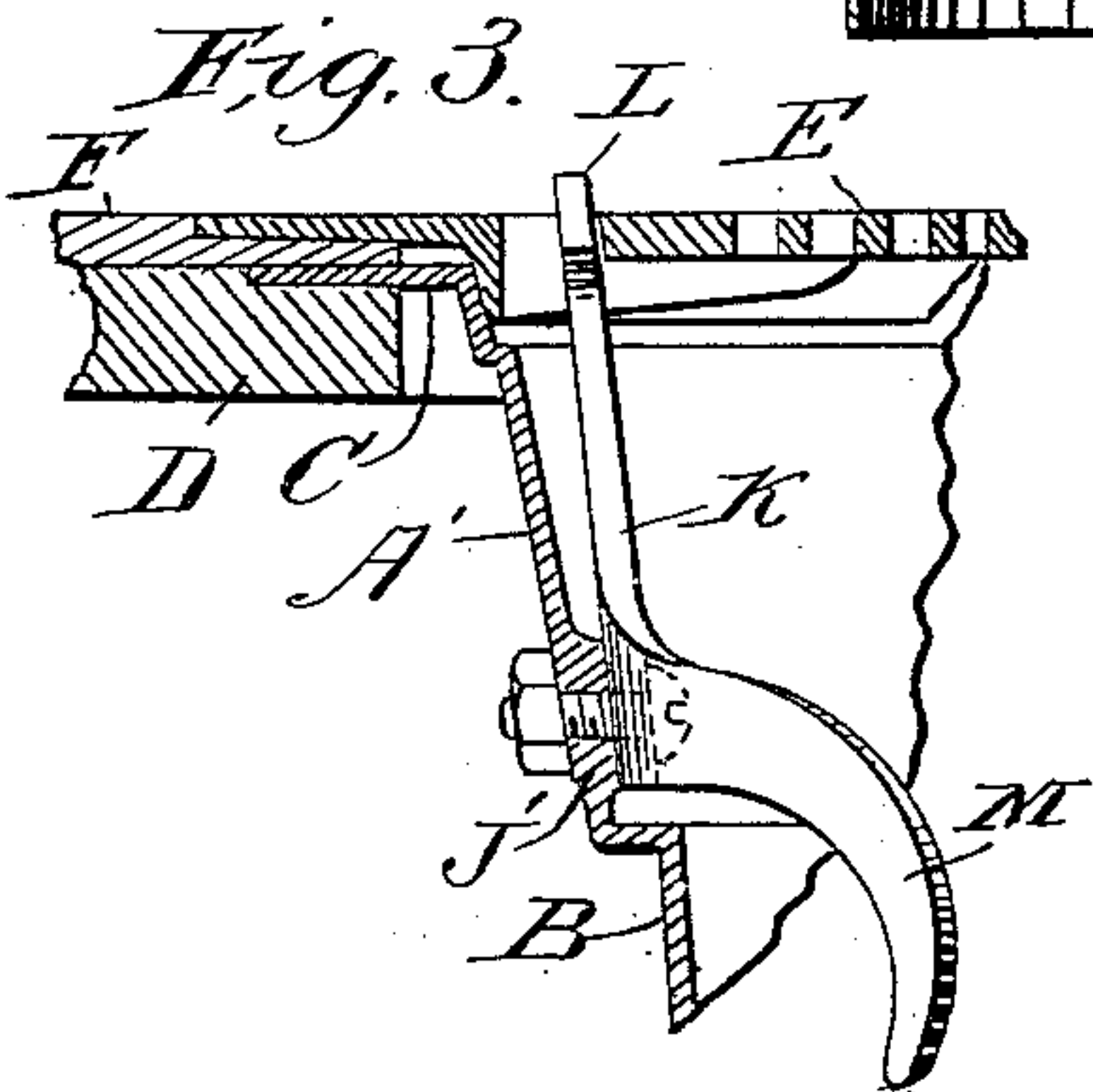


Fig. 3.

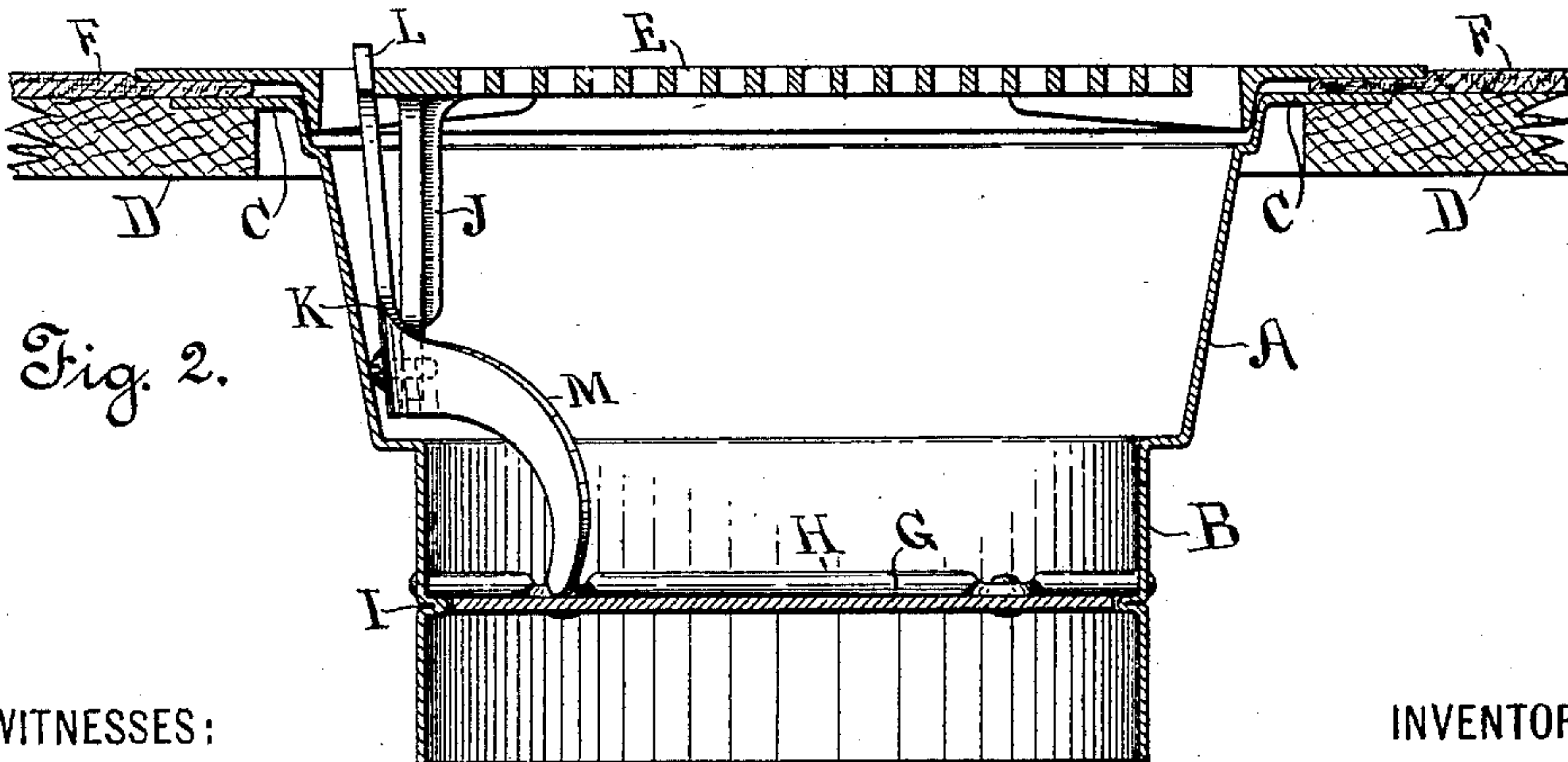


Fig. 2.

WITNESSES:
C. Tracy Stagg
Harriet Mitchell

INVENTOR
Cyrus S. Hood
BY
Eugene Dixon
ATTORNEY

UNITED STATES PATENT OFFICE.

CYRUS S. HOOD, OF CORNING, NEW YORK.

REGISTER.

SPECIFICATION forming part of Letters Patent No. 633,455, dated September 19, 1899.

Application filed March 25, 1898. Serial No. 675,185. (No model.)

To all whom it may concern:

Be it known that I, CYRUS S. HOOD, a citizen of the United States, residing at Corning, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Registers, of which the following is a specification.

My invention relates more particularly to improvements in floor-registers; and the objects of my improvements are, first, to simplify and cheapen the construction of such registers; second, to render the surface plate easily removable for the purpose of cleaning out the dust, &c., which will accumulate in the register-box; third, to provide for the ready insertion of a carpet beneath the border of the surface plate, and, fourth, to permanently attach a valved register-box to the floor and to the heater-pipe connection. I accomplish these objects by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section through the center of my improved register and register-box; Fig. 2, a similar section on the line $x x$ in Fig. 1, and Fig. 3 a modified form of the invention.

Similar letters refer to similar parts in the three views.

A represents a square or oblong box from which depends a cylindrical sleeve B, to which is connected the pipe from the heater. The box A is provided with flanges or lugs C, which are let into the floor D and permanently secured thereto. The box, however, may be secured to the flooring in other desirable ways, as by screws or nails through the sides or at the bottom of the box. The fretwork surface plate E is provided with depending flanges or lugs which fit into the opening at the top of the box A to secure it in position, or it may be removably secured thereto by means of screws. This surface plate is provided with a broad border, and the carpet F may be cut and folded so as to come up over the flanges C and underneath this border of the surface plate. By this arrangement the carpet is required to be cut to a less extent than is the ordinary practice, and by thus setting the surface plate over the edge of the carpet a much neater appearance is produced and the carpet is permanently secured in place around

the register-plate, with its edge protected from wear.

In the sleeve B, I preferably locate a butterfly valve or damper G, pivoted in the sleeve by means of the rod H, which is set at one side of the medial line of the valve in order that the valve may be heavier on one side of its axis than on the other. The rod H, however, may be centrally located and the valve G supplied with the necessary weight on one side of the rod. The valve G is provided with lips above and below on the opposite sides of its axis, which engage the bead I, which runs around the interior of the sleeve B. From the surface plate a bracket J projects downwardly, said bracket being either cast integrally with the surface plate or bolted thereto, and to the foot of this bracket is pivoted a lever K, provided with a serrated sector L, which projects above the surface plate E, and with the curved arm M, which engages the smaller segment of the valve G. Instead of pivoting this lever to the arm J, depending from the surface plate, it may be pivoted to a boss J', either cast with or otherwise fastened to the side of the box A' at the proper point, as shown in Fig. 3. The lever K is held against its pivot-point and the edge of the slot in the surface plate with sufficient friction to hold it and the valve in whatever position it may be placed. It is evident that by pushing the sector L to the left the arm M will be thrown to the right and will press the segment of the valve with which it engages downward, throwing the other segment up and producing a corresponding opening of the valve, the extreme throw of the sector L causing the valve to be opened to its fullest extent. The overbalancing of the valve causes it to close when the sector is moved to the right. By this construction the surface plate is left free for removal without the valve, and it is rendered light in weight, so that a woman can lift it for cleaning out the valve-box, the valve remaining closed and the hot air shut off during this operation. This construction also facilitates the taking up and putting down of carpets without breaking the pipe connections. In ordinary practice a register-pan containing valves or shutters is bolted to the surface plate, and this register-pan is either connected directly

to the heater-pipe or set into a box which connects with the heater-pipe. In order to remove the surface plate, the entire pan must be lifted out, which leaves the heater-pipe
5 open for the hot air to drive up while the register is so removed. Dust accumulates in these register-pans, and in order to clean them out the bolts must be removed and the pan separated from the surface plate. By
10 my arrangement this difficulty is avoided. I combine the register-pan and the register-box in one piece. I permanently secure the register-box in place and avoid any necessity of breaking the joint with the heater-pipes.

15 The register-box may be made of sheet metal stamped or otherwise bent into shape, or it may be made of cast-iron.

Having thus described my invention, what I desire to secure by Letters Patent is—

20 1. A register comprising a fretwork surface plate, a register-box provided with a sleeve to connect with the heater-pipe, a butterfly valve or damper pivoted in the sleeve, and an operating-lever pivoted in the register-box, one arm of said lever projecting
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through a slot in the surface plate, and the other arm being given a lateral bend whereby its end is brought into operative engagement with a segment of the valve and caused to travel in an arc transverse to the valve in its
30 several positions.

2. A register comprising a one-piece register-box and sleeve, a fretwork surface plate removably attached to said box, a butterfly valve or damper pivoted in said sleeve, and
35 an operating-lever pivoted at one side of the register-box, one arm of said lever projecting through a slot in the surface plate, and the other arm being given a compound lateral and inward bend whereby its end is brought
40 into operative engagement with a segment of the valve and caused to travel in an arc transverse to the valve in its several positions.

In testimony whereof I have affixed my signature in presence of two witnesses.

CYRUS S. HOOD.

Witnesses:

C. TRACEY STAGG,

HENRY S. REDFIELD.