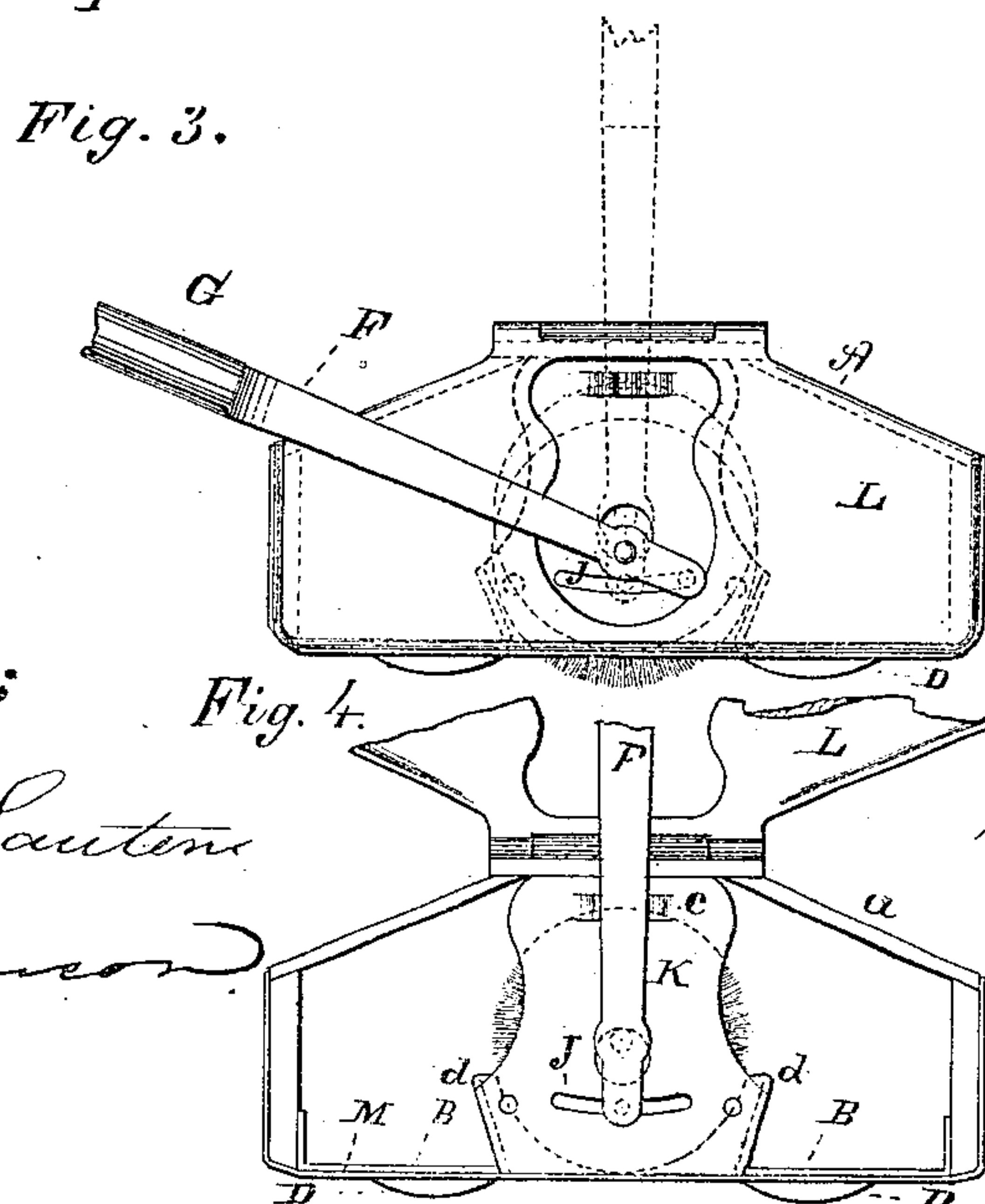
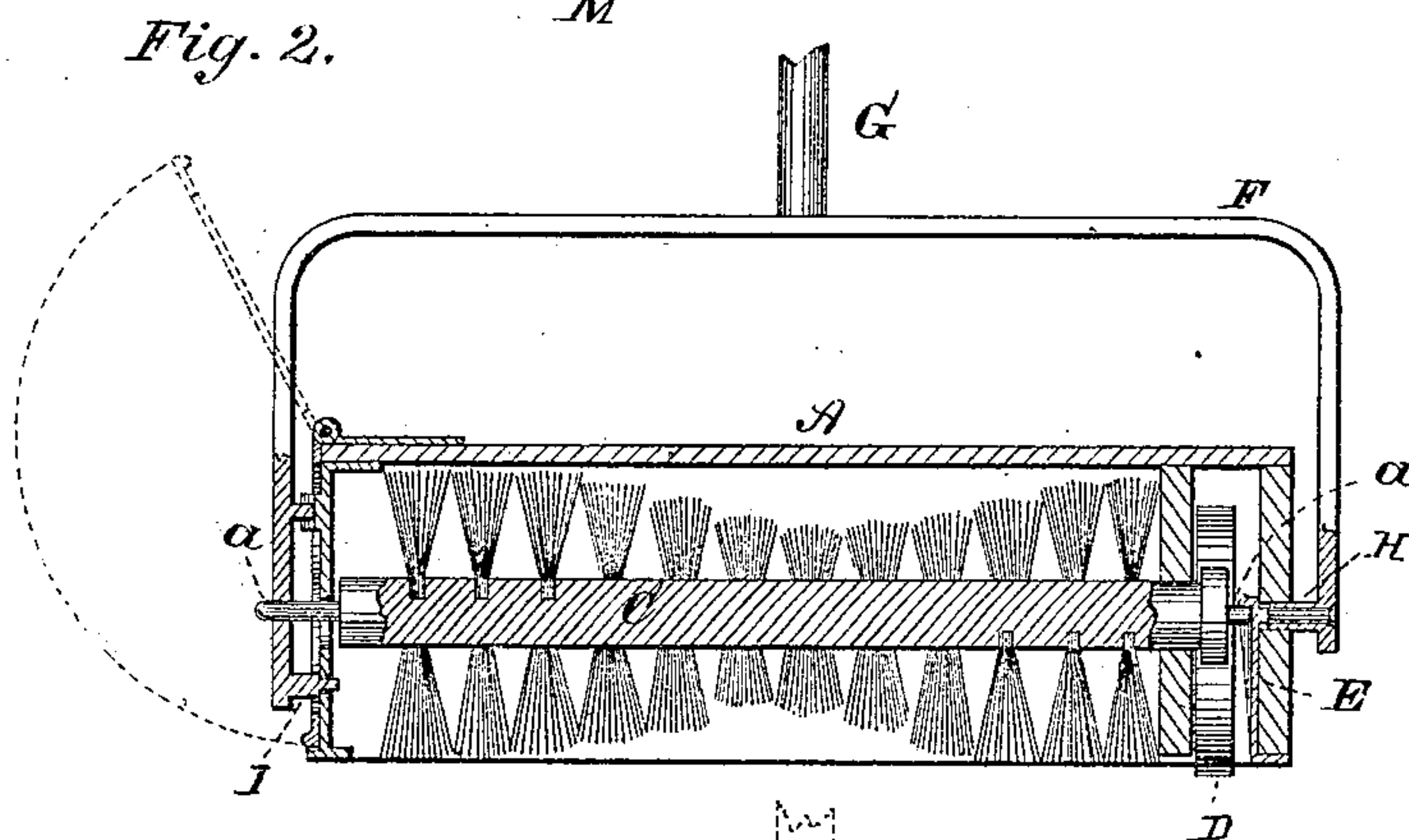
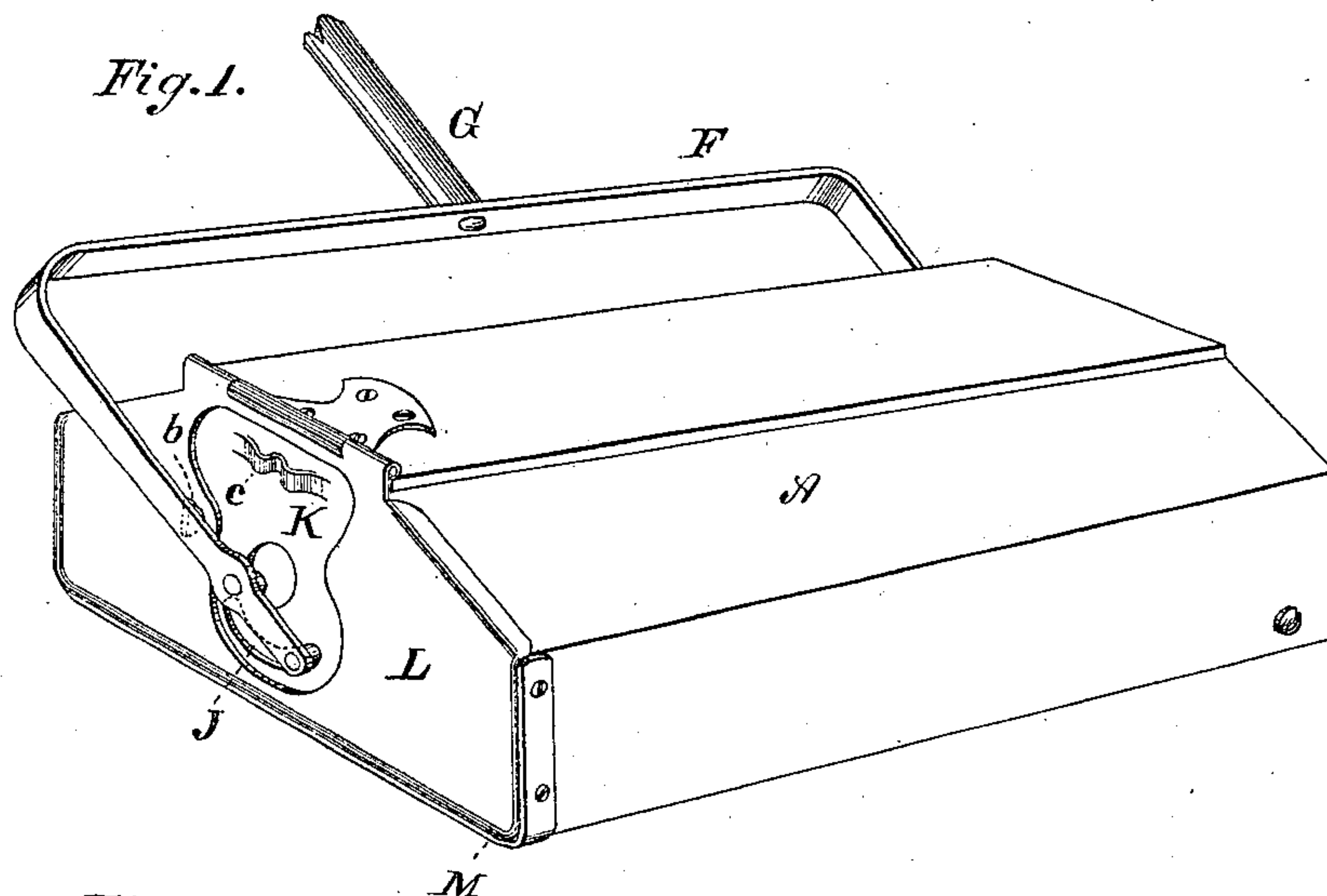


(No Model.)

G. W. GATES.
CARPET SWEEPER.

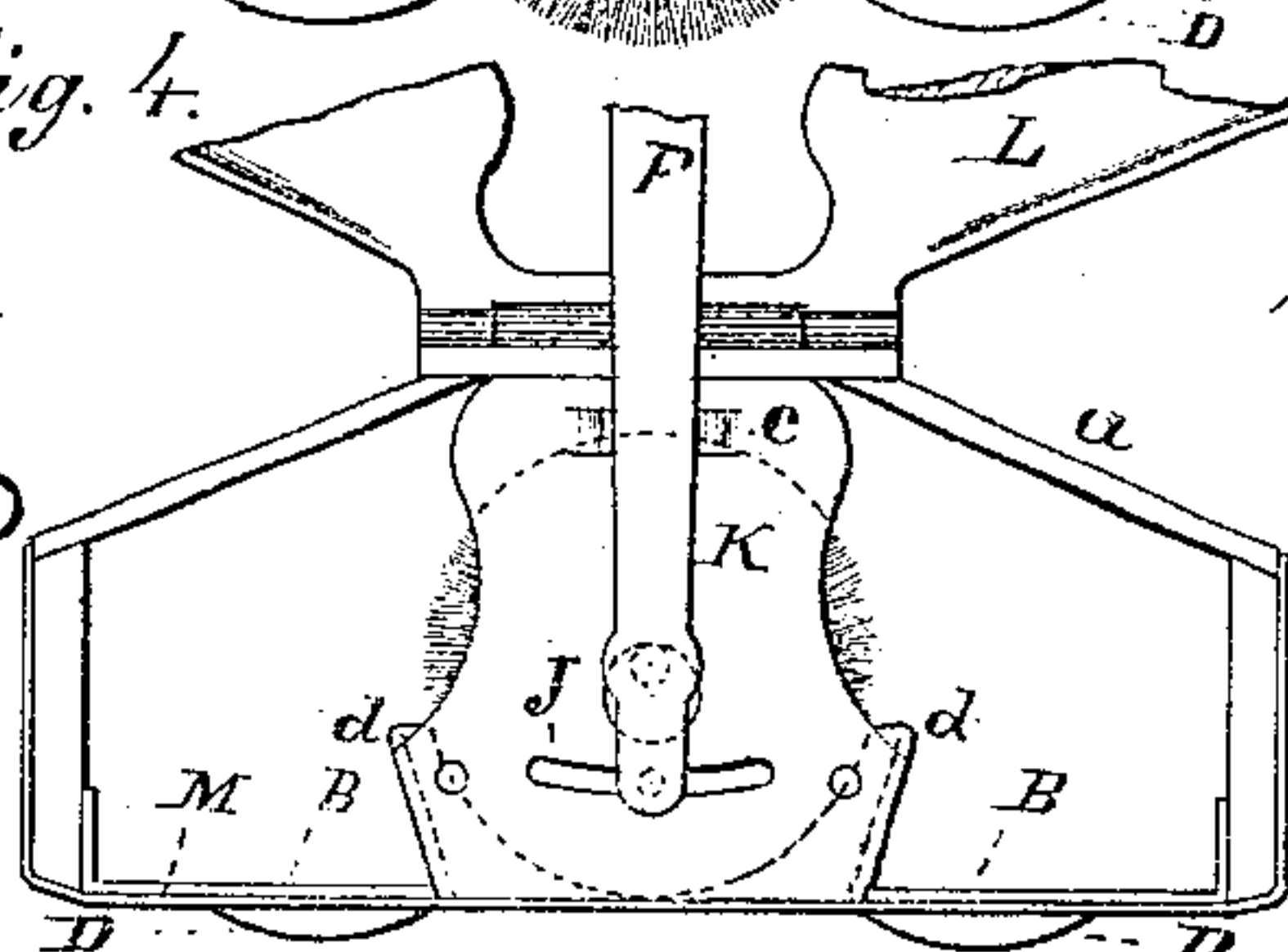
No. 246,493.

Patented Aug. 30, 1881.



Attest:
Thos. L. Luntine
Wm. G. Anderson

Fig. 4.



Inventor:
George W. Gates.
By H. A. Abbot.
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UNITED STATES PATENT OFFICE.

GEORGE W. GATES, OF GRAND RAPIDS, MICHIGAN.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 246,493, dated August 30, 1881.

Application filed November 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. GATES, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Carpet-Sweepers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to letters or figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is perspective view of the sweeper; Fig. 2, a vertical longitudinal section; Fig. 3, an end view with the flap closed; and Fig. 4, an end view with the flap raised, a portion thereof being broken away.

Our invention relates to carpet-sweepers, and has for its object, principally, the production of a sweeper in which the brush is raised or lowered at the will of the operator, and in which the flap that closes the ends of the dust-pans is kept closed by the handle when in one position, and permitted to be opened when in another position; and to the attainment of these ends it consists in the construction of parts and in the combinations hereinafter described, and then sought to be specifically defined by the claims.

In the accompanying drawings, the letter A indicates the shell of the sweeper, which is provided within its interior with the two dust-pans B, both of which are open at one end, at which end they each rest on the rigid shoe M, and are provided with flanges *d*, through which and the plate K rivets are passed, whereby those ends of the pans are held rigidly and securely in place and the plate K stiffened. Between these pans there is journaled the usual brush, C, one end of which fits between the frictional drive-wheels D, which are journaled in one end of the box or shell, and preferably in any of the well-known ways, so as to admit of lateral and vertical adjustment. The journal *a* of this end of the brush-shaft has its bearing in the socket-plate E, which is made preferably as shown—that is, with a socket at one point and an incline or bevel from it to the other end, so as to uphold the end of the brush next thereto and control its movement. The journal *a*, at the other

end of the brush-shaft, passes through a slotted plate and a slotted flap at the end of the shell, and has its bearing in one end of the bail-handle. The slot through which the journal of the brush-shaft passes is large enough to permit the shaft to be raised and lowered, so as to present more or less of the bristles of the brush below the base of the shell, and thereby increase or decrease the pressure of the brush upon the floor and regulate the amount of friction between the floor and brush. The brush in this instance is raised and lowered by the bail F and rod G, which together constitute the handle of the sweeper. One end of the bail has a pintle, H, which turns in a hole made in one end of the shell, and the other end has a pintle, I—preferably, though not so of necessity, shouldered—which passes through and has its bearing in a curved slot, J, in the plate K, and forms the fulcrum or pivotal point of the bail and brush-shaft. Through this arm of the bail the journal of the brush-shaft passes and in it has its bearing, and as the bail is raised or lowered the brush is elevated or depressed, presenting more or less of the brush-bristles below the shell. The pintle which passes through the slot J travels therein, and the slot serves as a guide for the same and a fulcrum for the brush-support. By the construction and arrangement of the handle as thus described, the same can be reversed or turned over the sweeper, so as to run the sweeper either way, and by this arrangement, also, the pressure of the brush can be better regulated and controlled than if the handle were rigidly attached to the brush-roller and its lower end did not move in a groove.

The flap L is hinged at its top to the shell, as represented, and when down closes the otherwise open ends of the dust-pans. An opening or slot is made in the flap, between its ends, about or around one arm of the bail F, so as to permit the flap to be raised when the bail is in a suitable position therefor. This flap laps the plate K, so that when closed it, together with the plate, practically closes that end of the shell and prevents the sweepings escaping from the pans. During the operation of sweeping the bail F is in an inclined position and covers the flap L, as indicated in Figs. 1 and 3, so as to keep the flap down or closed. When the sweepings are to be discharged from the pans the bail is in an up-

right position over the opening in the flap, so as to leave the flap free to be swung open either by raising it or tilting the sweeper, as illustrated in Figs. 2 and 4 of the drawings. When the bail is
 5 in an upright position the brush is elevated so that its bristles will not be below the shell, as represented in Figs. 2 and 4, and the bail is upheld in that position by a knob, *b*, on the inside of one arm of the bail, and a double incline, *c*, on
 10 the side of plate K, or their equivalents, the knob bearing against the incline, so as to hold the bail in an upright position out of the way when the sweeper is not in use.

By journaling the brush as described, the operator can at will bear heavily or lightly against
 15 the floor with the bristles, as necessity may require, by simply lowering or raising the handle of the sweeper.

Both ends of the sweeper may be constructed
 20 and the brush journaled as described, and illustrated by the end views of Figs. 1, 3, and 4, and I prefer to make them so, and when so constructed the sweepings can be discharged from either end of the dust-pans and the brush adjusted
 25 evenly from one end to the other.

Modifications of the foregoing constructions can be made and used without departing from the spirit of my invention, which is in rendering
 30 the brush adjustable by pressure upon the handle and in keeping the end flap closed by the bail or other attachment connected with the handle, so that the flap will be kept closed or

permitted to be opened by the movement of the handle or some connection therewith.

Having described my invention, what I claim is— 35

1. In a carpet-sweeper, the combination, with the slotted end flap of the shell hinged above the brush-shaft, of a handle connected with the shell below the brush-shaft and adapted, when placed
 40 in one position, to keep the flap closed, and when in another position, to permit it to be opened, substantially as set forth.

2. In a carpet-sweeper, the combination of an adjustable brush with the slotted end flap of the
 45 shell, and a handle connected to the shell and the brush-shaft for elevating or depressing the brush and for controlling the opening and closing of the flap, substantially as shown and described. 50

3. The combination of bail F, adjustable brush C, slotted plate K, and a pintle, I, connected to the bail and passed into the slotted plate, substantially as and for the purpose set forth.

4. The combination of shell A, plate K, and
 55 slotted flap L and bail F, substantially as shown and described.

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

GEORGE W. GATES.

Witnesses:

LIEVEN VANDERMEER,
 A. B. JUDD.