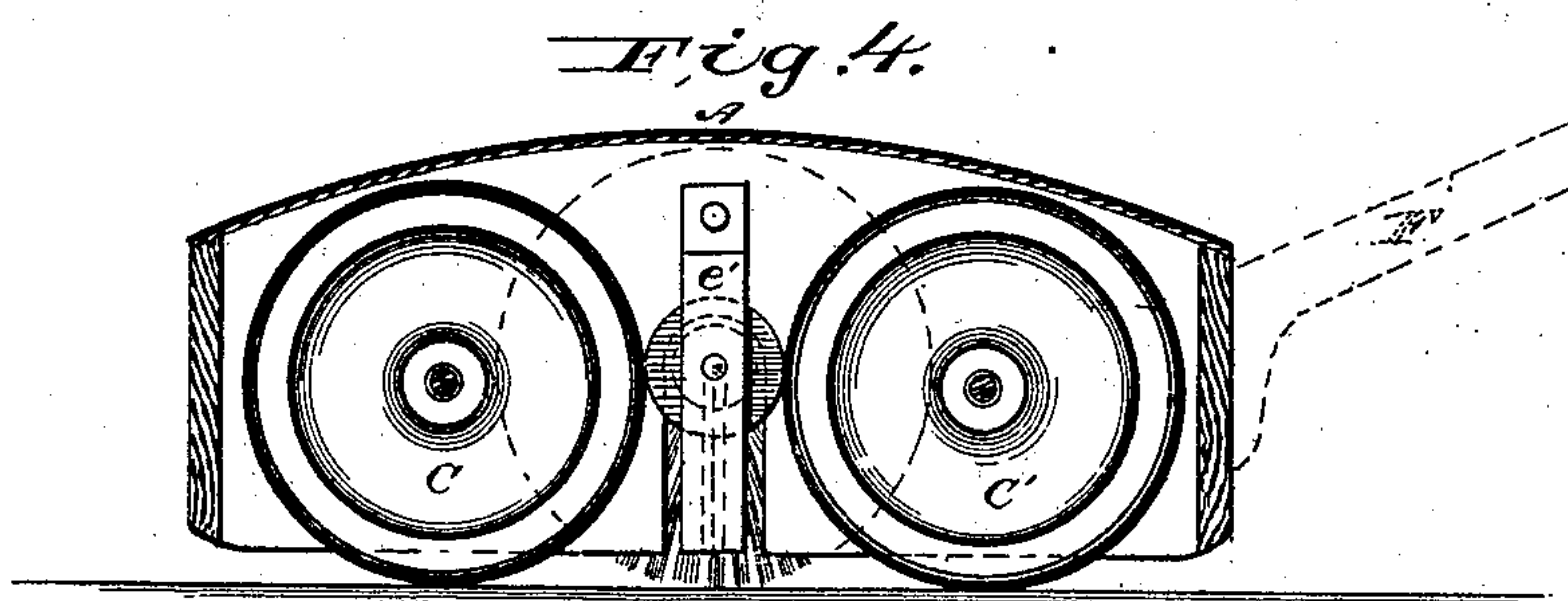
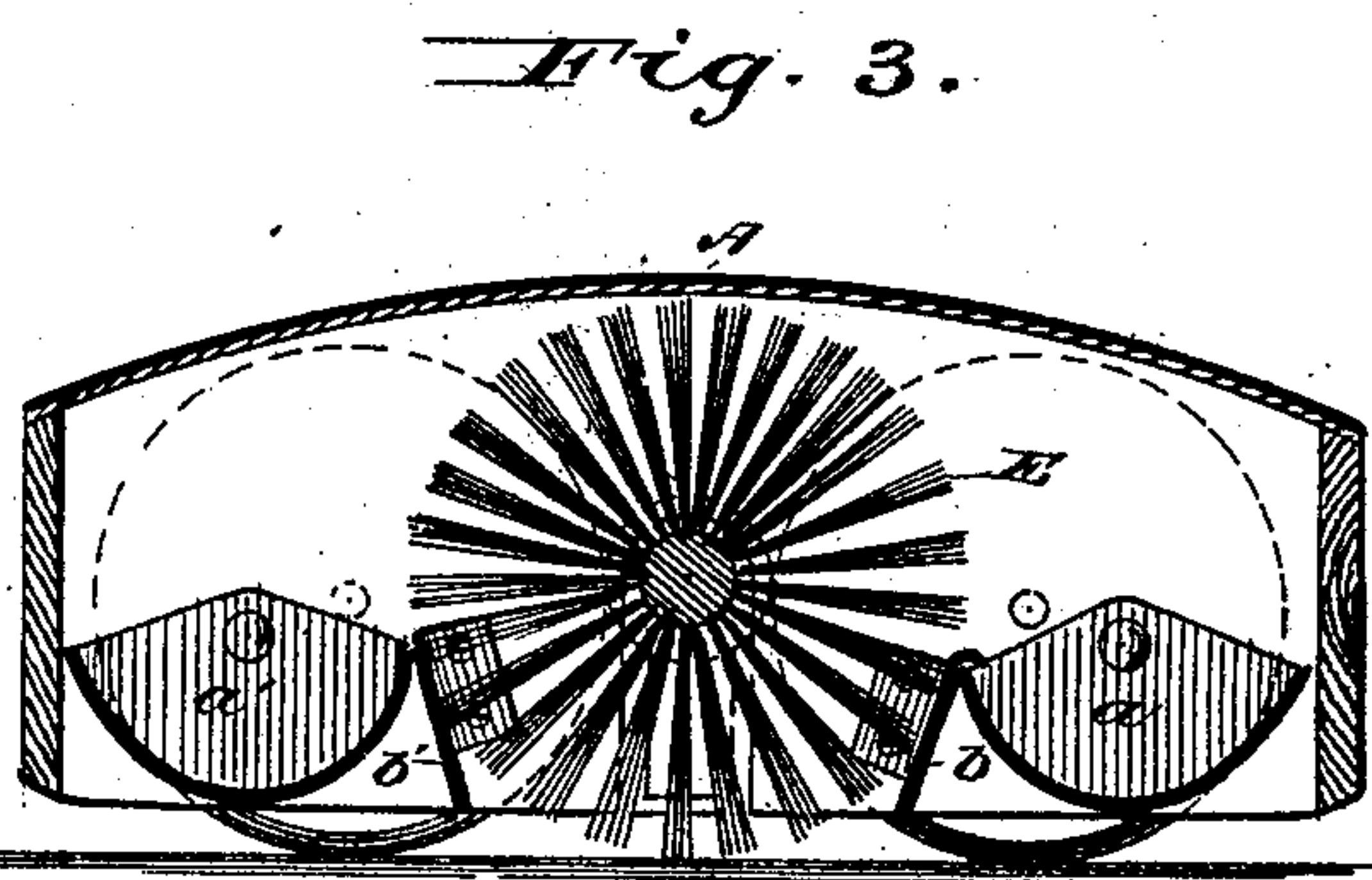
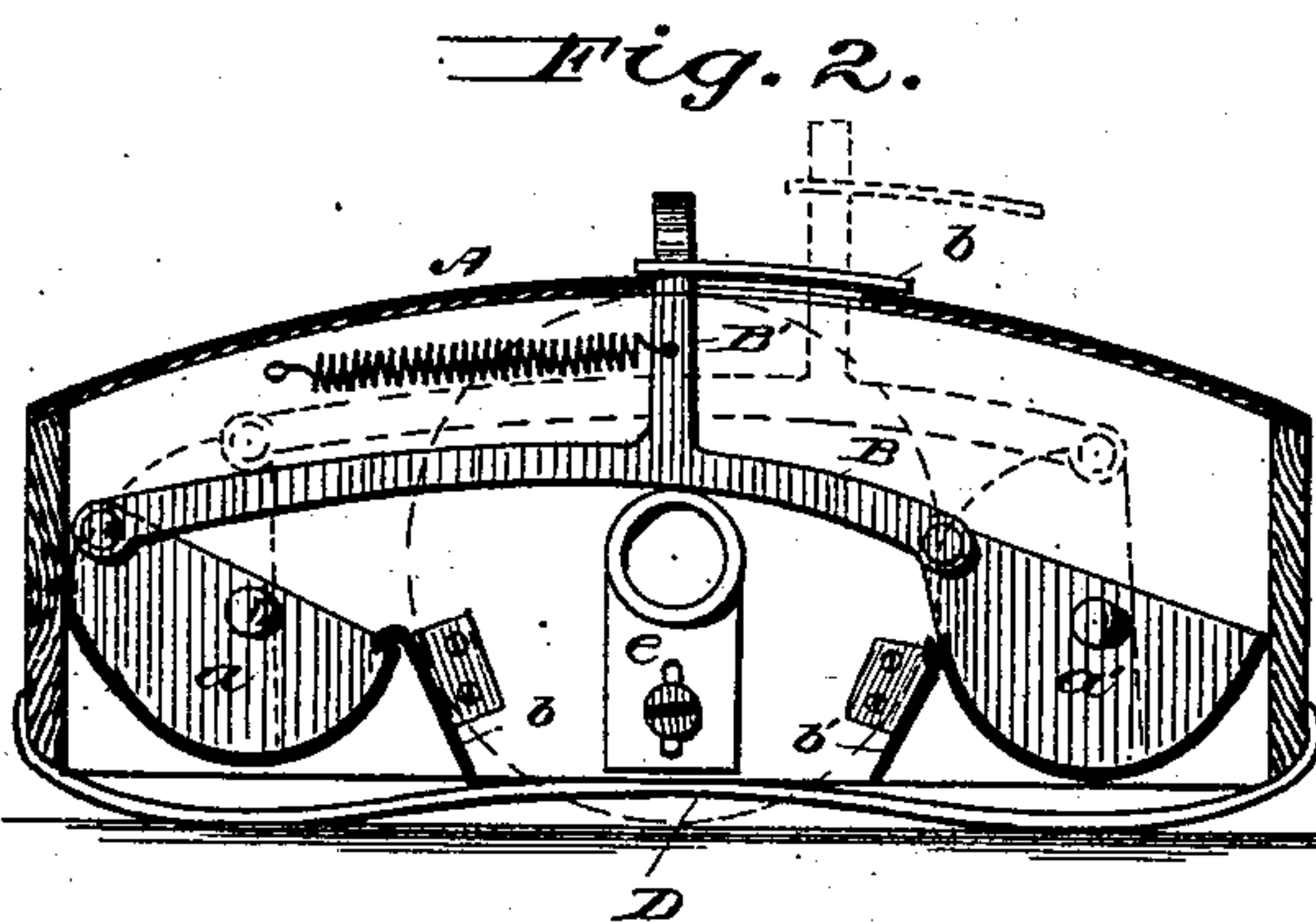
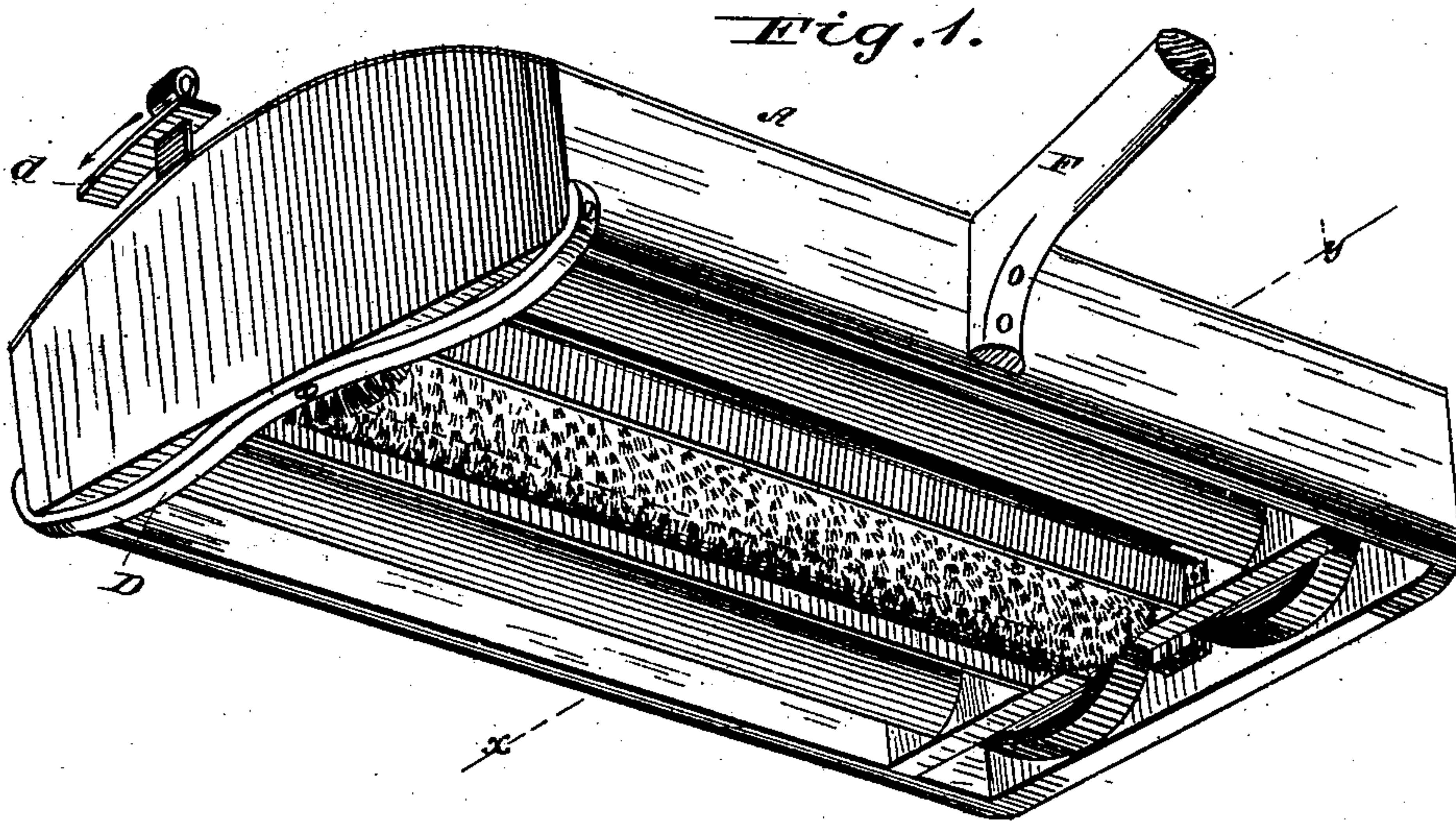


G. W. GATES & B. F. POTTER.  
Carpet-Sweeper.

No. 211,467.

Patented Jan. 21, 1879.



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# UNITED STATES PATENT OFFICE.

GEORGE W. GATES AND BENJAMIN F. POTTER, OF GRAND RAPIDS, MICH.

## IMPROVEMENT IN CARPET-SWEEPERS.

Specification forming part of Letters Patent No. **211,467**, dated January 21, 1879; application filed October 19, 1878.

*To all whom it may concern:*

Be it known that we, GEORGE W. GATES and BENJAMIN F. POTTER, of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Carpet-Sweepers; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which they appertain to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a perspective of the sweeper. Fig. 2 is a section with one end of the shell removed; Fig. 3, a transverse section through the line  $xy$ ; and Fig. 4 is a section with the other end of shell removed.

Our invention relates to devices for sweeping carpets and floors; and it consists in certain combinations of parts, which will be hereinafter specifically set forth.

In the accompanying drawing, the letter A indicates the shell of the sweeper, within which longitudinally are axled two troughs,  $a a'$ , connected to each other by a crank-lever, the arm B of which is hinged at one end to the mean side of the trough  $a'$ , and at the other end to the extreme side of the trough  $a$ . The handle B' of this lever passes through a slotted opening in the top of the shell, and is held in its normal position by a spring, (in this instance represented as within the shell and fastened to one side thereof and to the arm of the lever.) Within the shell and fastened thereto, and running parallel with the troughs, are two plates,  $b b'$ , each inclined toward its respective trough, one of which plates has along its top edge a bead or hook next to the trough, so that the edge of the latter will strike against the bead when the troughs are being returned from their abnormal to their normal position, thereby preventing the troughs from assuming any position other than that angle at which the dirt may be swept into them.

In a compartment partitioned off at one end of the shell are axled and journaled two wheels, C C', which partly extend below the shell, and

have a frictional surface of rubber, cloth, or other suitable material.

To the bottom of the other end of the shell is fastened a curved strip of metal, wood, or other suitable material, D, the extension of this strip below the shell being the same, or nearly the same, as that of the wheels C C', so that the two ends of the shell may practically be on the same level. Rollers may be substituted for this strip.

The brush or broom E is placed between the troughs  $a a'$ , its shaft being journaled in the ends of the shell, or in boxes secured to the ends of the shell. In this instance one box,  $e$ , is represented as pivoted to one end of the shell, and is capable of a lateral play, while the other box,  $e'$ , is immovably secured to the other end. The object of this is to allow the easy insertion and removal of the brush from the shell.

One end of the broom-shaft is between the wheels C C' and gears therewith, the gearing being frictional. The shell is provided with a handle, F. The plate  $d$  to the lever is to cover the slotted opening in the shell.

Operation: When the sweeper is moved over the carpet or floor the friction between the carpet and the wheels C C' causes the latter to turn, and the wheels gearing with the broom-shaft, or with a wheel thereon, cause the shaft and broom to revolve. The broom sweeps up the dirt from the carpet, and the inclined plates direct the dirt into the troughs. After the sweeping is completed the lever is drawn from one end to the other of the slot in the shell, which motion brings the troughs to the position shown by dotted lines in Fig. 2, the dirt falling therefrom.

When the hold on the lever is released the spring connected to the lever and shell pulls back the lever and troughs into their normal position, and the sweeper is ready for further use.

Having described our invention, what we claim is—

1. The combination of the shell A, the lever B B', and the troughs  $a a'$ , the lever being connected to the mean side of one trough and

to the extreme of the other, so as to operate as set forth.

2. The combination of the shell A, the troughs *a a'* and their lever, the broom E, and wheels C C', substantially as set forth.

3. The combination of the shell A, troughs *a a'* and their lever, the plates *b b'*, the broom E, and wheels C C', substantially as set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

GEORGE W. GATES.  
BENJ. F. POTTER.

Witnesses:

THOMPSON SINCLAIR,  
ELLIOTT E. JUDD.