

(Model.)

R. SOPER.
CARPET SWEEPER.

No. 255,823.

Patented Apr. 4, 1882.

Fig. 1.

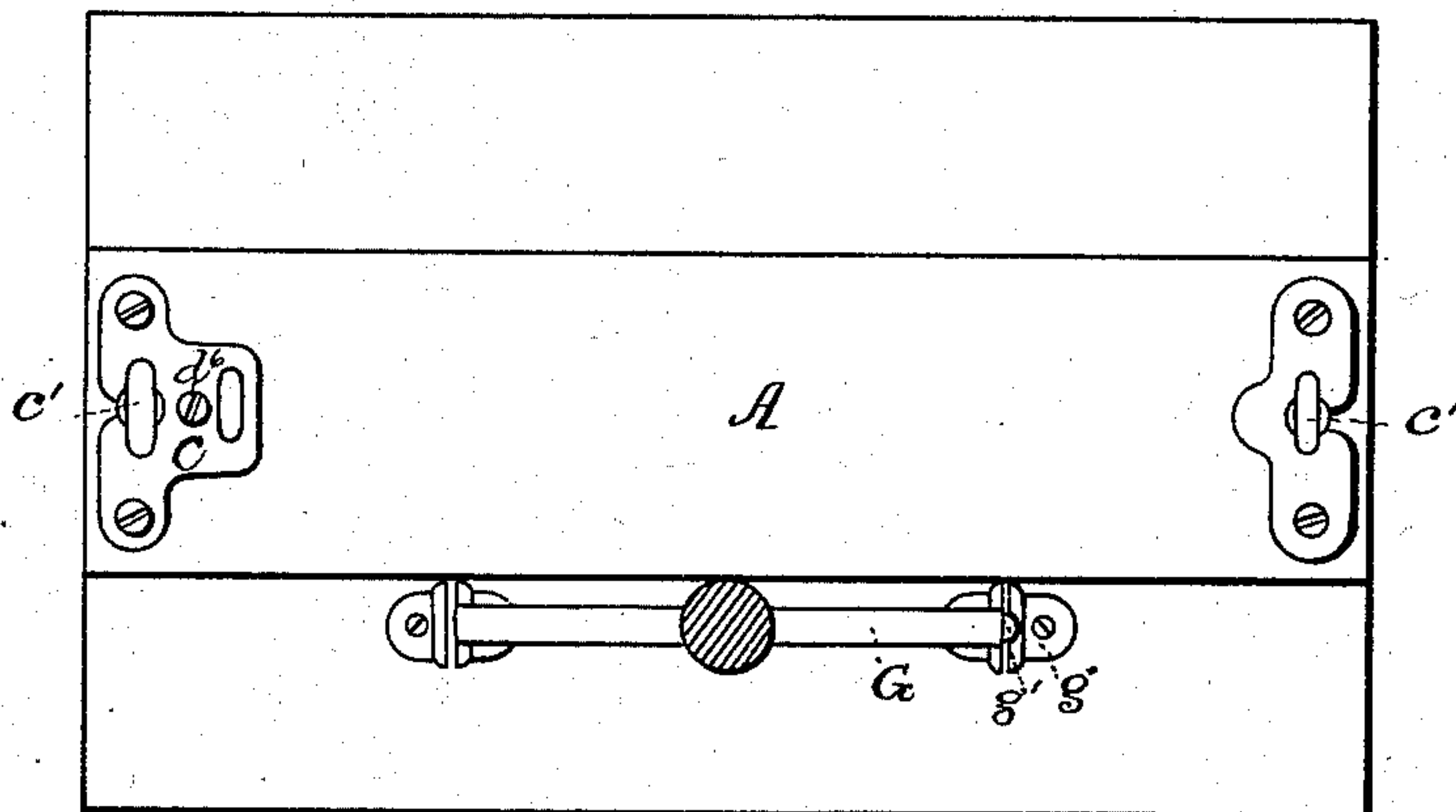


Fig. 2.

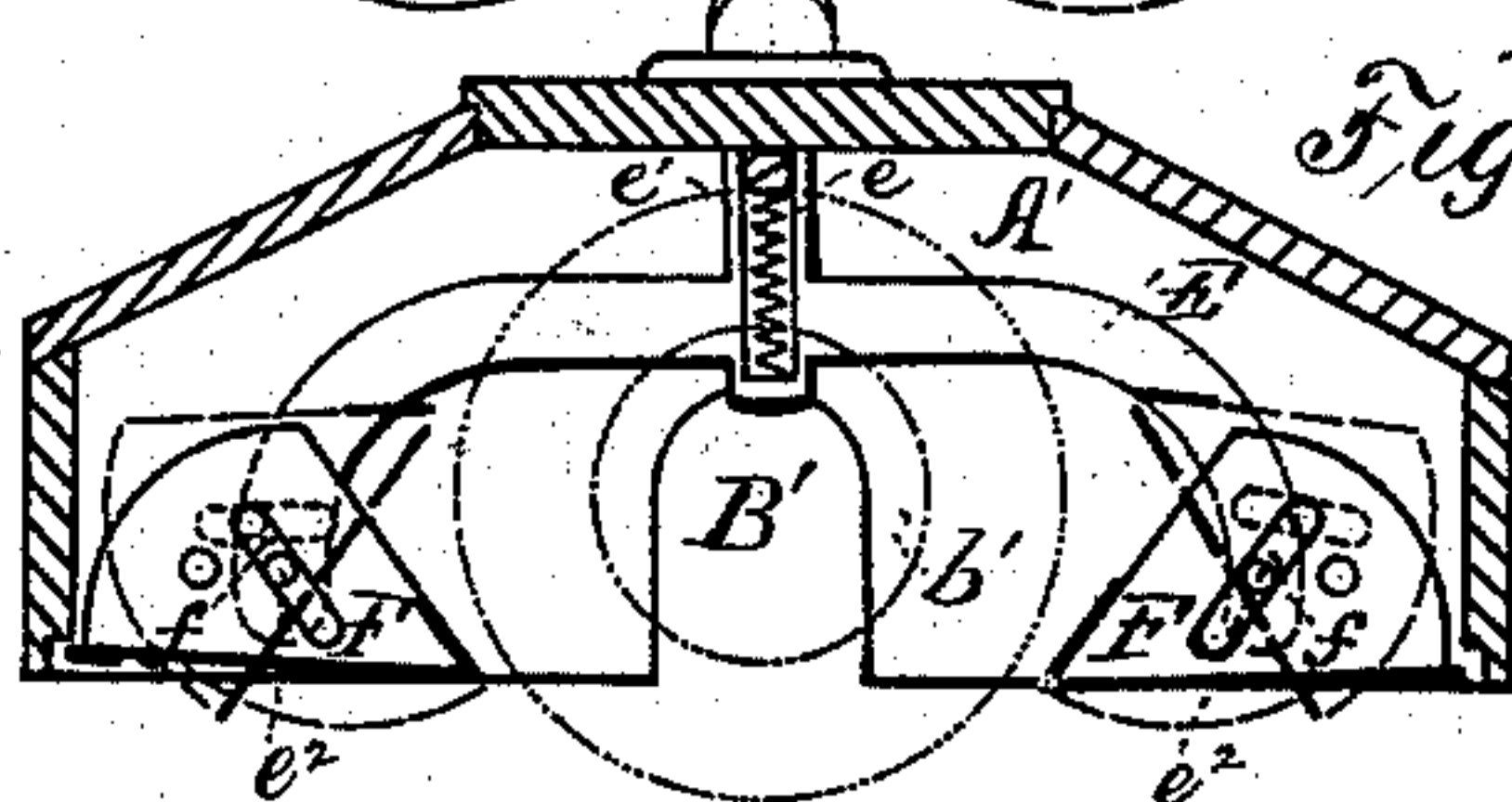
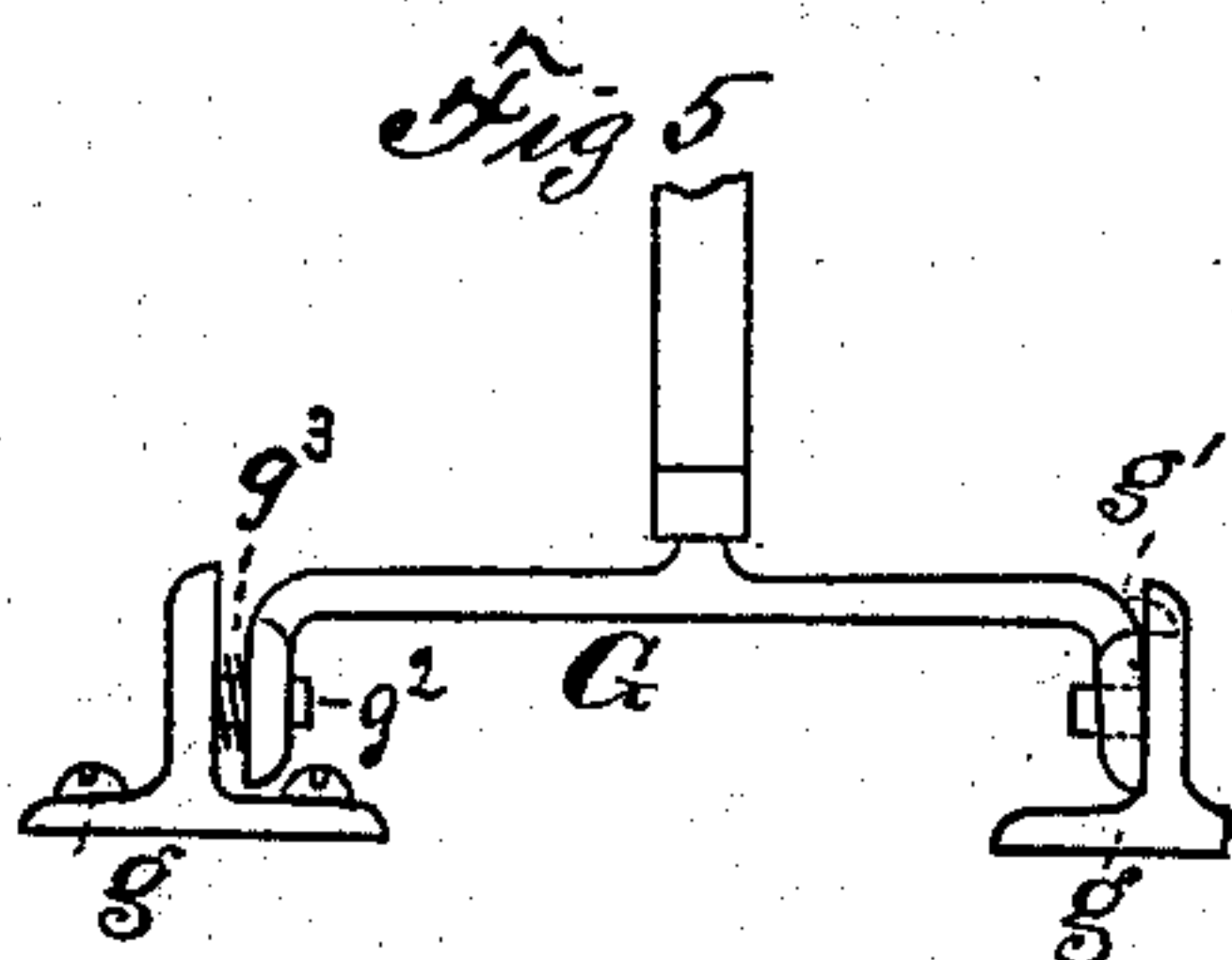
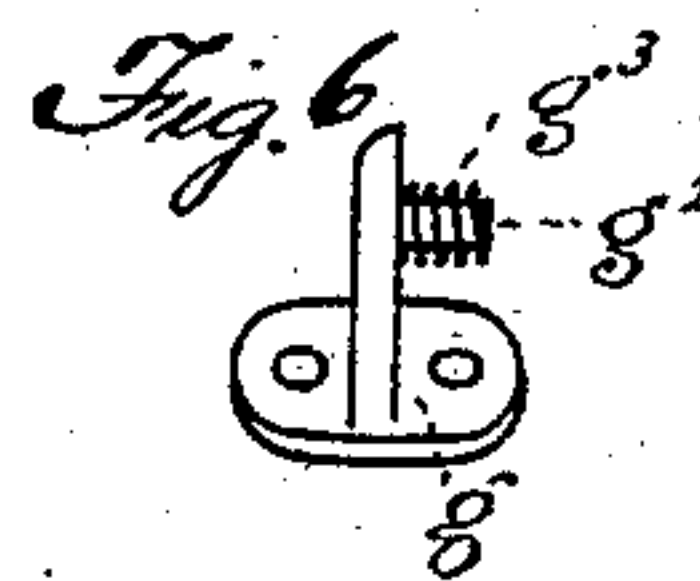
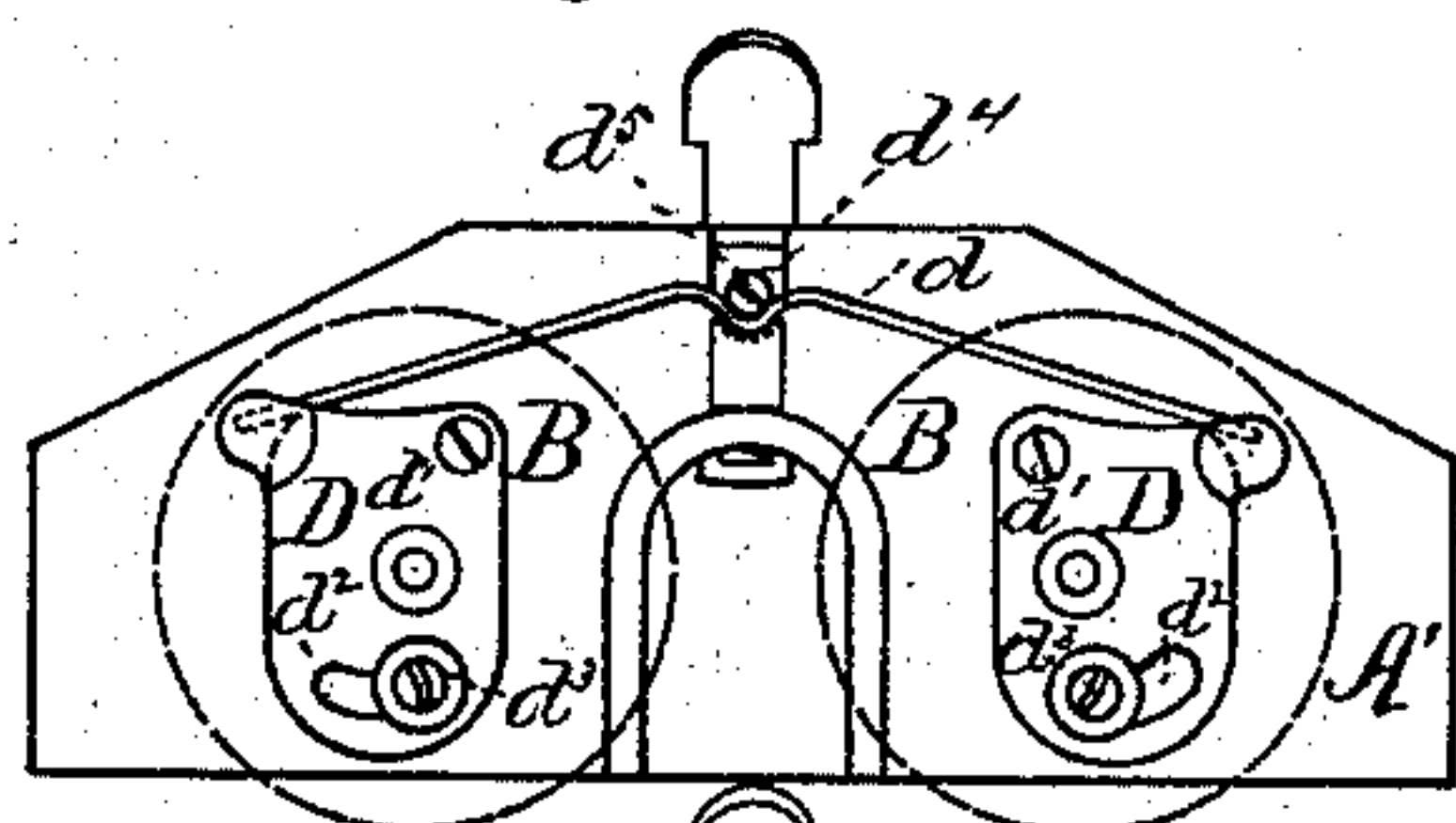
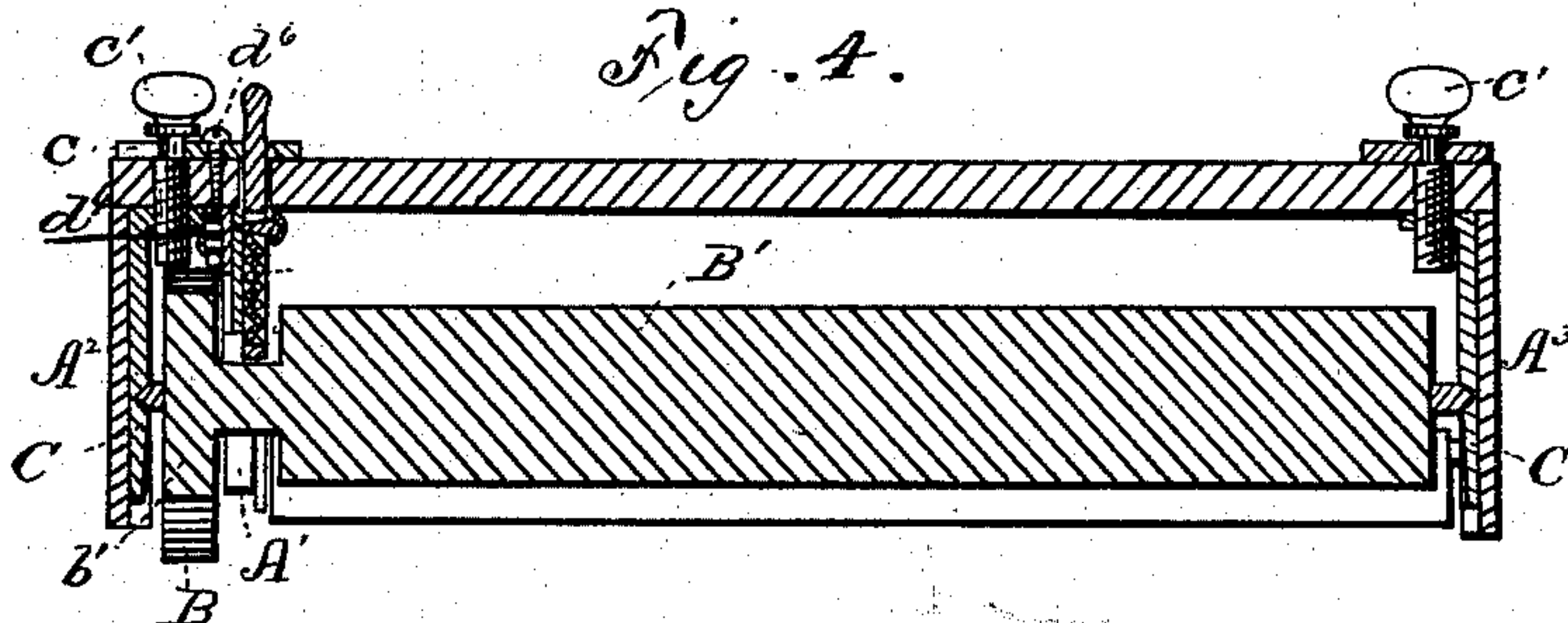


Fig. 3.

Fig. 4.



WITNESSES.

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CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 255,823, dated April 4, 1882.

Application filed May 17, 1881. (Model.)

To all whom it may concern:

Be it known that I, ROBERT SOPER, of Detroit, county of Wayne, State of Michigan, have invented a new and useful Improvement in Carpet-Sweepers; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention consists of the combinations of devices and appliances, as hereinafter described, and more fully pointed out in the claims.

In the drawings, Figure 1 is a plan view, showing the handle attachment. Fig. 2 is a view of the inner partition or friction-wheel board, showing the friction-wheels in dotted lines and their hangers in full lines. Fig. 3 is a view illustrating the device in cross-section, and showing the mechanism for dumping the pans, and also showing in dotted lines the pans as they appear when dumped. Fig. 4 is a longitudinal central section, illustrating the brush-hangers with the brush in position. Fig. 5 is a view of the devices for connecting the handle to the case. Fig. 6 is a detached view of one of the handle-engaging standards with its spring.

My invention relates more particularly to the friction device, the brush-hangers, and the peculiar method of dumping the pans, and the means for attaching the handle, and providing means for locking the handle in an upright position. To this end, A is a sweeper-case, of any suitable material. A' is the inner partition or friction-wheel board. A² A³ are the outer ends of the sweeper-case. The end A², in conjunction with the friction-wheel board A', forms, as it were, a box or case for the friction-rollers B and the wheel b' on the brush-roller B', so that there is no possibility of dust getting into the working parts and injuring them.

C is the brush-hanger, which consists of a plate formed so that it will slide into a suitable slot in the end and fit in the form of a dovetail. At the top of the sweeper-case I provide a plate, c, which is fastened by means of screws or in any other suitable manner. This plate

acts as a guide for the top of the dumping mechanism and also to receive a thumb-screw, c', which descends through the top of the sweeper-case and engages with the head of the brush-hanger C, and by means of which the brush-roller is adjusted up or down.

D represents the hangers for the friction-rolls. They each consist of a metallic plate, which is attached to the inner partition, A', by means of a wood-screw, d', in such a manner that the plate itself, by its own gravity, shall have a tendency inward toward the wheel on the end of the brush-roller. This is regulated by a slot, d², in the plate and wood-screw d³, which allows the plate to travel the length of the slot either way. At the top of the plates D, I provide a spring, d, which is rendered adjustable by means of a small slide, d⁴, which is made to dovetail into the friction-wheel board, and is provided with a small knob, d⁵, under which the center of the spring d fits, while the outer ends of the spring rest upon suitable ears of the friction-wheel hangers. The small slide d⁴ is manipulated by means of a set-screw, d⁶, (see Fig. 4,) which passes through the plate c and either forces the slide down when more friction is required or allows it to come up when the friction is too great. I would also have it understood that the small slide is not an essential feature, for the device can be made with equally as good friction by simply inserting a wood-screw or rivet in the place of the slide; but this method could not be adjusted.

E is the dumping mechanism. This dumping mechanism is composed solely of one piece of metal, having a slot, e, which is suited to receive a spring, e', so that in dumping the pans F will spring back to their normal position.

The pans F are provided with slots f, which engage with small arms e² of the dumping-bar E. At the outer ends of the pans are placed small pins, which engage with the casing and form the fulcrum when the dumping bar is raised.

The handle G is attached to the case by any suitable means, preferably by wood-screws passing through the small standards g, which are provided with a small slot, g', and journal

g^2 , which are designed to fit into suitable cavities in the handle and standard. On the journal I propose to put a small spiral spring, g^3 , for the purpose of making a tight joint. This handle is so arranged that when not in use by simply raising it into a perpendicular position the projection on the prong of the handle will fit into the small slot or indentation on the standard and hold it firmly in that position. I also provide that my handle will fold over onto the top of the sweeper-case for facilitating packing.

It will be seen that in my friction device the plates or wheel-hangers act independently one of the other, so that should undue pressure be exerted upon one of the friction-wheels and drive it out of gear the other will remain true and supply sufficient power to turn the brush-rollers.

My dumping device is direct acting. It will be seen that the top piece slides up and down in a groove made in the sweeper-case, which prevents all lateral movement, so that the pans are dumped simultaneously, and the top of the arc of the dumping device being flat, it rides up against the top of the case and causes the pans to dump evenly.

It will be seen that by my method of fixing on the handle the sweeper may be used either way—that is, it can be run backward or forward.

I would have it understood that in the dumping mechanism the spring which fits into the slot in the upper part may be dispensed with, the simple function of said spring being to carry back the pans into their normal position and hold them. This may also be accomplished by the gravity of the pans.

The handle is made with two prongs, which engage with the ears or standards g . One of the prongs is provided with the small detent or lug, which engages with a slot, g' , in the top of the adjacent standard when the handle is in a perpendicular position with respect to the case.

What I claim is—

1. In a carpet-sweeper the combination, with the pivoted dust-pans having the slots formed in their end walls, of the dumping-bar E , having the downwardly-bent ends provided with pins projecting into said slots, and said bar being also provided with an arm projecting upward through a slot in the top of the case, the pans being relatively so connected with the bar that as said bar is moved vertically the pans are both dumped outward simultaneously.

2. The combination, with the vertically-moving dumping-bar, of a spiral spring housed within its stem and acting to draw it back and lock the pans shut when in use, substantially as described.

3. In a carpet-sweeper, friction mechanism consisting of frames for supporting the friction-wheels, said frames pivoted above the wheel-axes, and each frame provided with a projection at the side of its pivotal point, and in connection therewith a spring secured at its middle point, extending across the case, with its ends bearing downward against the said projections, whereby the wheels are forced together against the brush-roller, substantially as described.

4. The handle connecting and supporting mechanism consisting of the two perforated prongs at the end of the handle, one of said prongs being provided with a detent, and the ear-pieces or standards g , provided with pins to enter the perforations of the prongs, one of said pins being provided with an encircling-spring, g^3 , and the opposite standard having in its upper end a slot, g' , to engage the detent, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

ROBERT SOPER.

Witnesses:

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HENRY F. WELCH.