

No. 724,111.

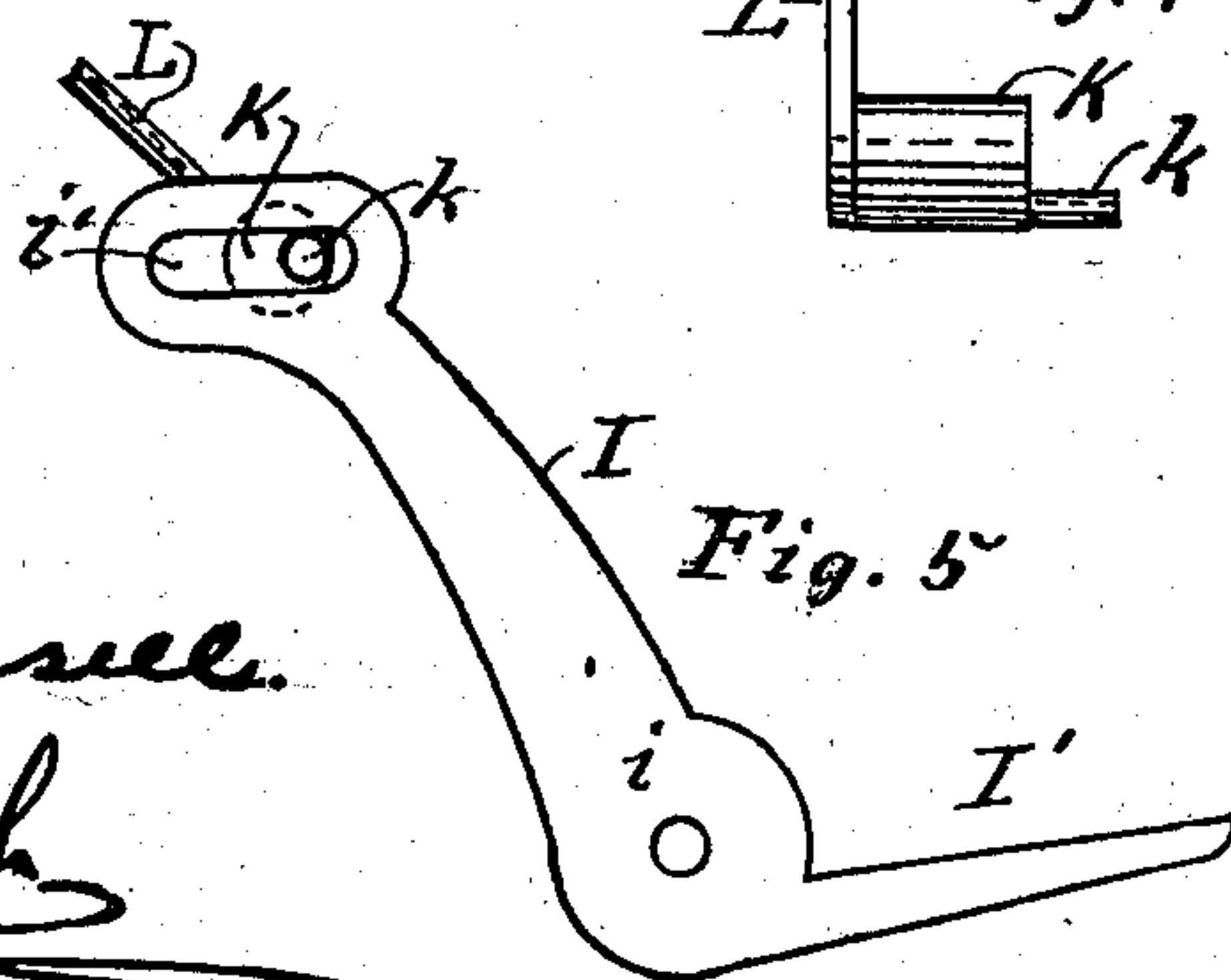
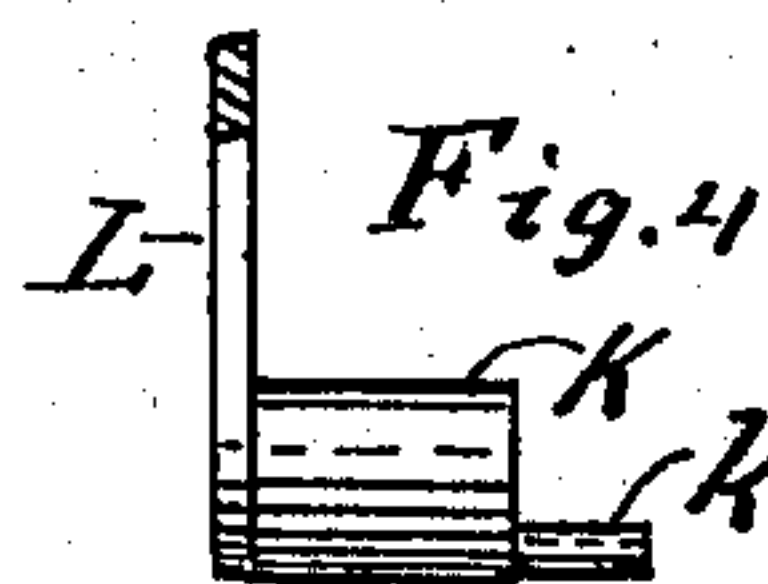
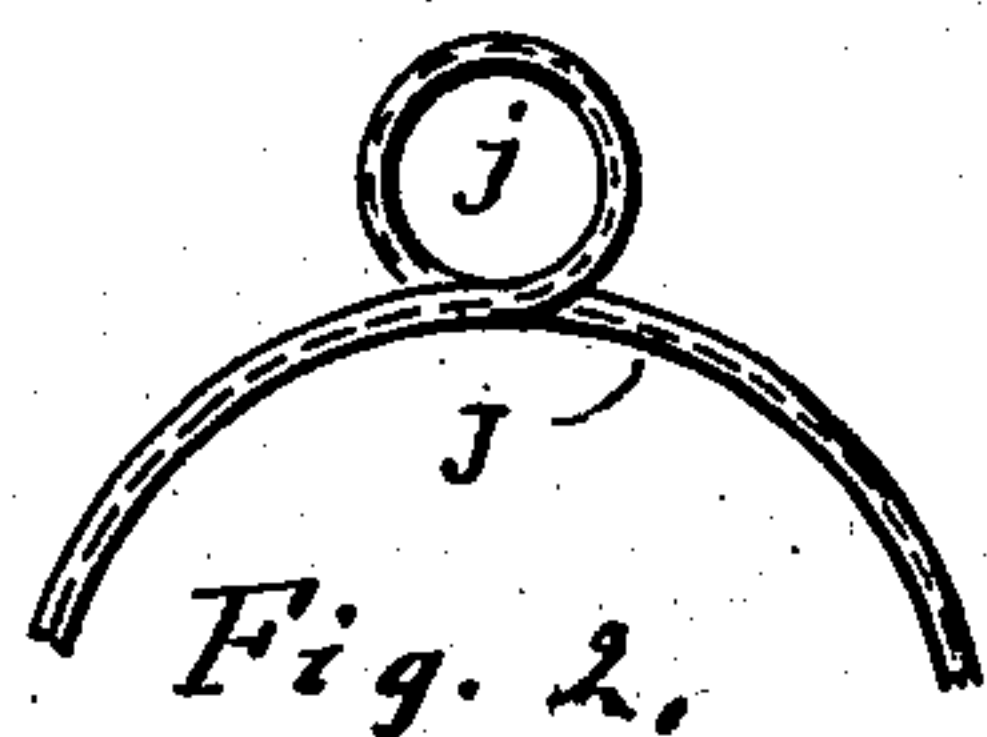
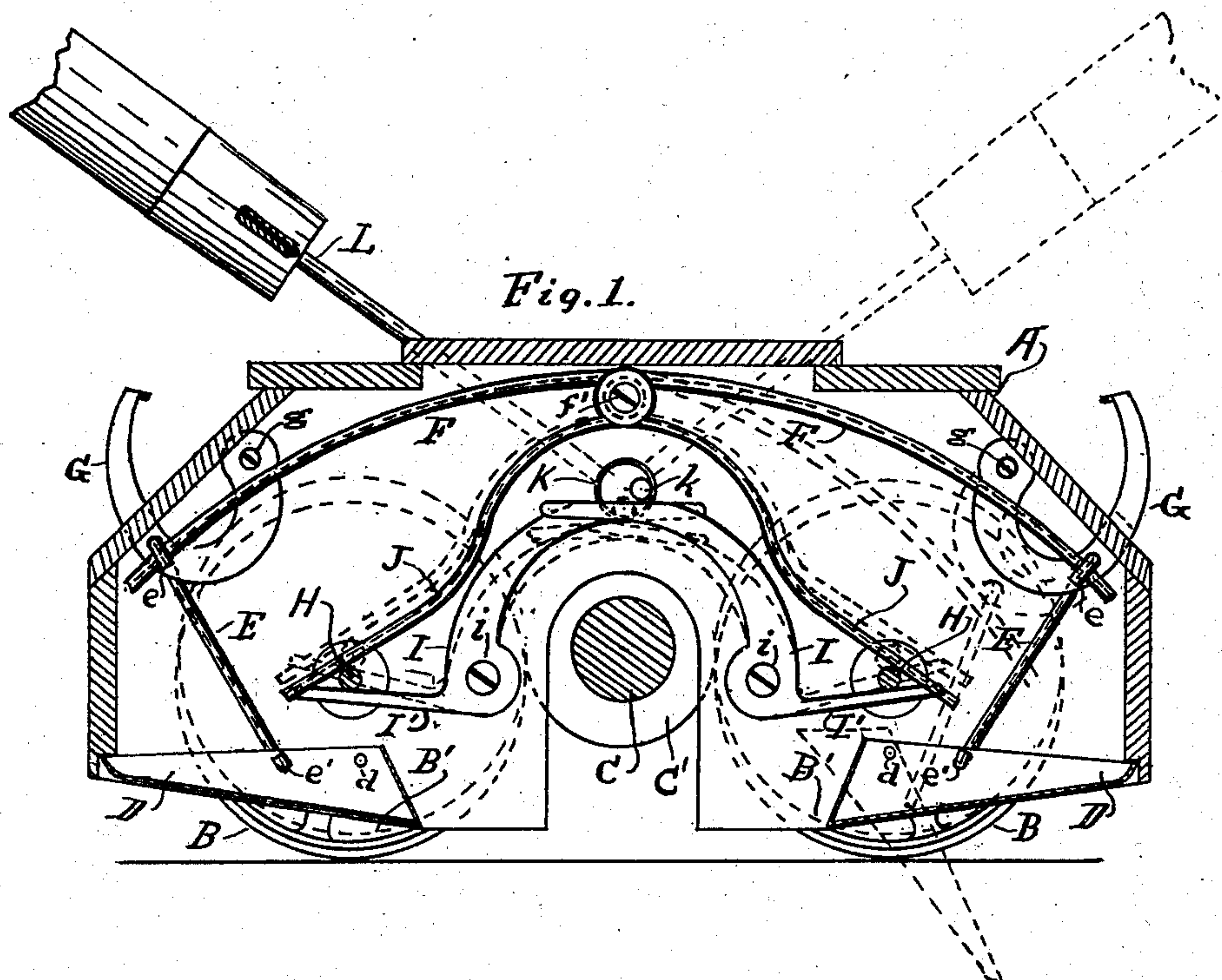
PATENTED MAR. 31, 1903.

C. KING.
CARPET SWEEPER.

APPLICATION FILED JUNE 9, 1902.

NO MODEL.

2 SHEETS--SHEET 1.



Witnesses

7. P Russell.

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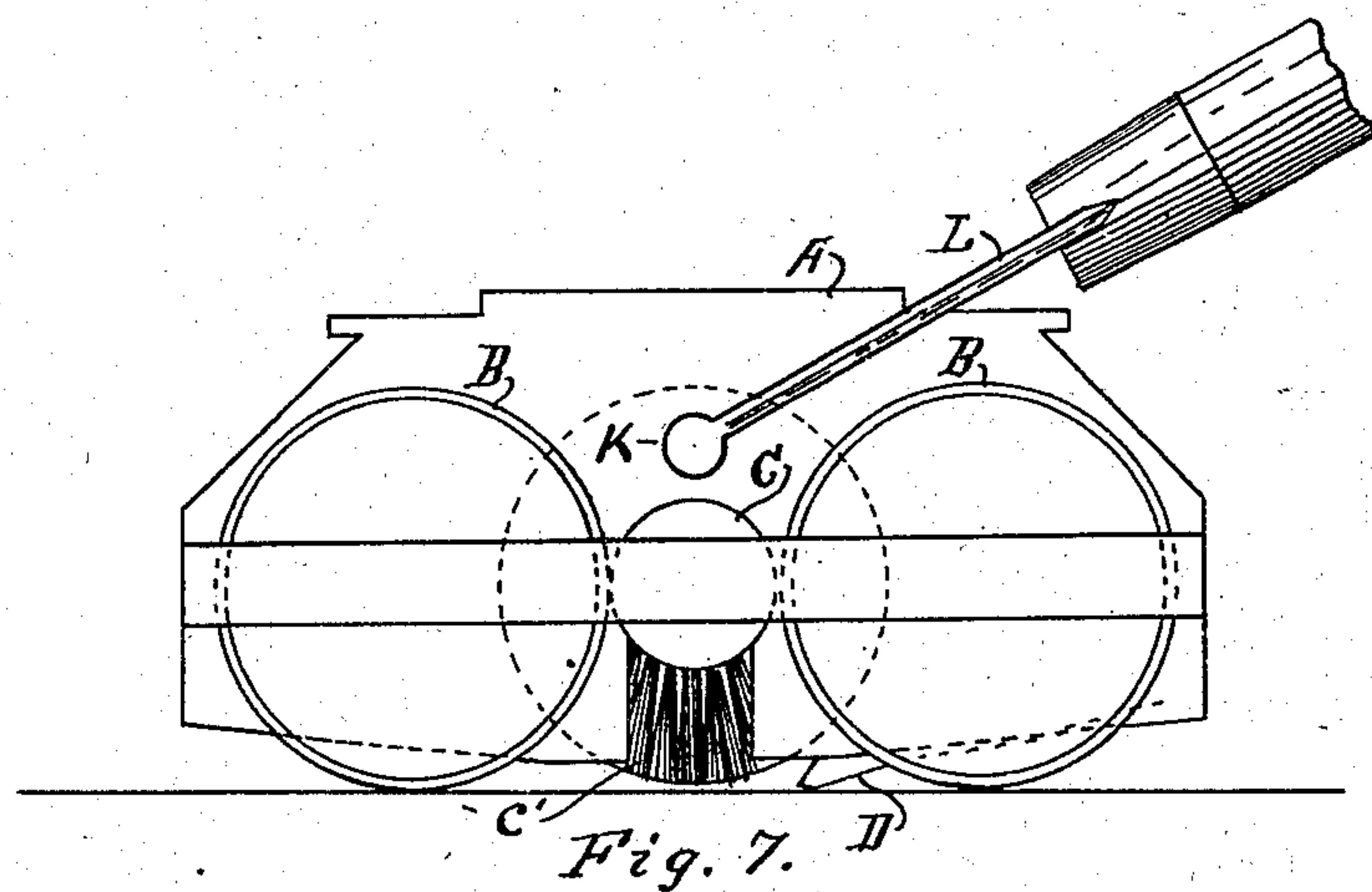
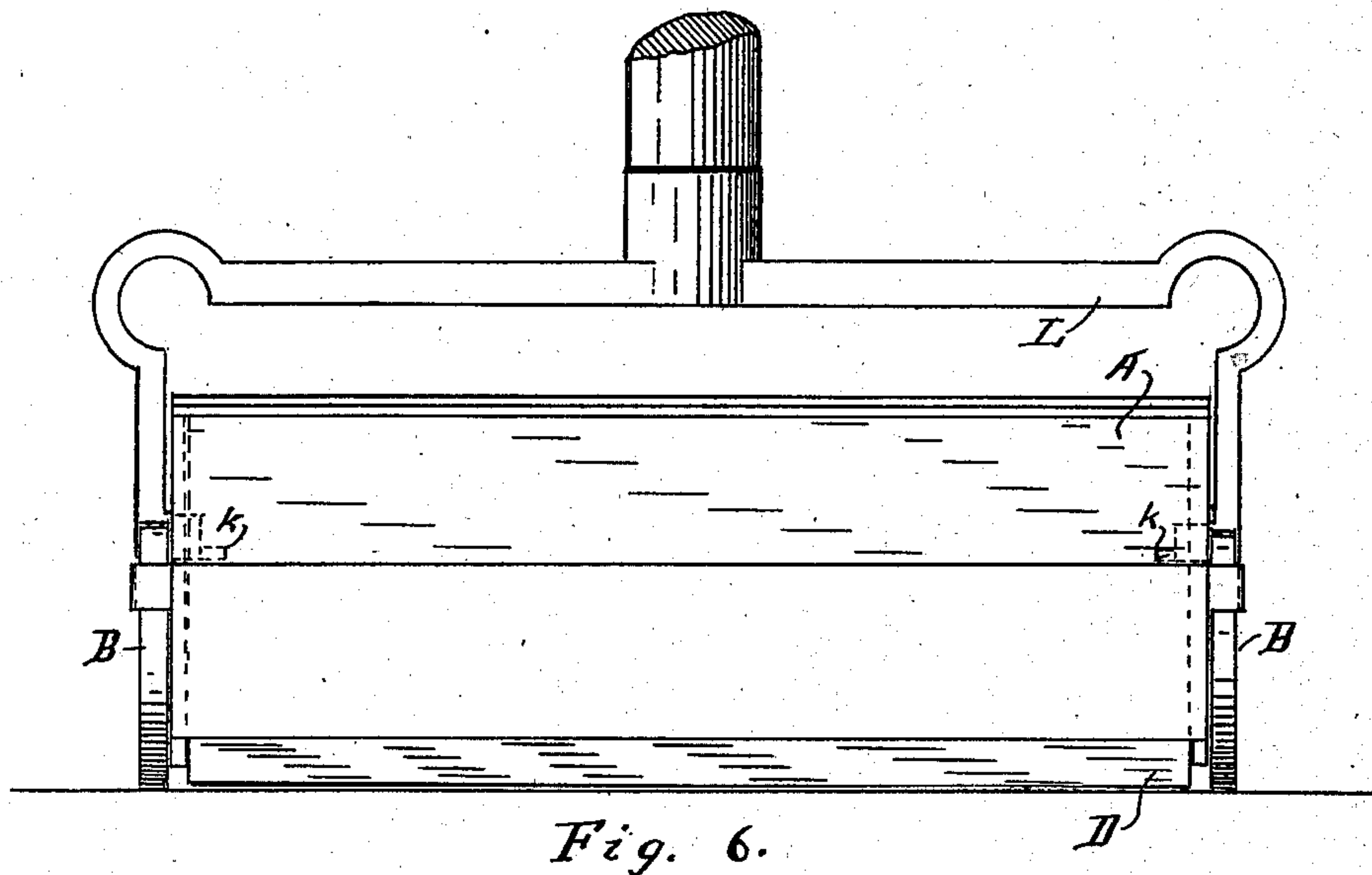
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES KING, OF PORT HURON, MICHIGAN, ASSIGNOR OF ONE-THIRD TO
ROSCOE J. GROVES, OF DAVISON, MICHIGAN.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 724,111, dated March 31, 1903.

Application filed June 9, 1902. Serial No. 110,930. (No model.)

To all whom it may concern:

Be it known that I, CHARLES KING, a citizen of the United States, residing at Port Huron, in the county of St. Clair and State of Michigan, have invented certain new and useful Improvements in Carpet-Sweepers, of which the following is a specification.

My invention relates to improvements in the actuating mechanism of carpet-sweepers; and its objects are, first, to facilitate the raising and lowering of the pans for adjusting the sweeper to hard or soft carpets, and, second, to simplify and facilitate the dumping of the pan. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a transverse vertical section of a carpet-sweeper, showing my improvement in position. Fig. 2 is a section of the axletree-springs detached, and Fig. 3 is a like view of the actuating-springs that hold the pans to normal position. Fig. 4 is a detached view of the hub or bearing of the bail, and Fig. 5 shows a modified form of the lever that actuates the sweeper to vary the height of the pans to the varying length of the nap upon various carpets. Fig. 6 is a side elevation, and Fig. 7 is an end elevation, of a carpet-sweeper.

Similar letters refer to similar parts throughout the several views.

In the drawings, A represents the case or containing-box.

B represents the driving-wheels.

C represents the brush-roll.

C' represents the brush.

D represents the pans, and H represents the axletrees.

The pans D are pivoted to the case at *d* by means of pins or screws passing through the ends of the pans and into the ends of the case, so that they may be thrown to the position represented by the dotted lines to the right of and below Fig. 1. The link E has a hook *e*, that passes through an aperture in the lever G and over the spring F at one end, and at the other end is a hook *e'*, that passes through an aperture in the end of the pan, as indicated, making a direct connection with the lever G, so that to throw the free end of this lever down acting around the pivot *g*

will throw the pan down, as indicated by the dotted line to the right of Fig. 1, and the rebound of the spring F will carry it back to its normal position.

My appliance for raising and lowering the pans to correspond with the various length of nap upon carpets consists of two angle-levers consisting each of the arms I and I' and pivoted to the case, as at *i*, so that the raising and lowering of the upper end of the arm I will raise and lower the arms I' and with them the axletrees H, so that the case is lowered and raised, as indicated by the dotted lines B' of the wheels, and the pans and brush are carried toward or from the surface of the carpet as necessary to meet the variation in the position of these parts upon hard or soft carpets. These levers are actuated by the handle-bow L, as follows: The handle-bow is connected with the case A by passing the hubs K, which are integral with the handle-bow, (see Fig. 4,) through apertures in the ends of the case, in which they fit closely, as indicated in Fig. 1. The hub K of the handle-bow is provided with a pin *k*, that stands to one side of the hub, so that with the handle-bow in the position indicated by the solid lines in Fig. 1 the axletrees H are thrown down by the springs J and the carpet-sweeper is held up to position to sweep a carpet having a long soft nap that will allow the wheels to become embedded to a degree, and thus bring the actual surface of the carpet much nearer the surface of the pans and also nearer the brush than they would be if in use upon a hard carpet, and if it is desired to lower the pans, &c., to accommodate them to use upon a hard carpet the handle-bow is carried over to the position indicated by the dotted lines in Fig. 1, when the pin *k* forces the ends of the arms I down and I' up and carries the axletrees H up with them, thus allowing the case and pans, &c., to approach the surface of the carpet, so that it may take up the dust even though the surface of the carpet be hard and unyielding.

It will be noticed that the arms I' incline slightly upward from the point of connection with the arm I toward the axletrees and that the ends of the springs J incline at a sharp angle from the perpendicular, so that the

pressure upon the upper surface of the axletrees is nearly as great toward the center of the case as downward. The object of this construction is to so apply the single spring that it will not only force the wheels B downward, but at the same time solidly toward and against the wheel on the brush-roll C' to insure the action of the brush when the sweeper is being operated. Thus the axletrees are held up by the arm I' of the lever I I', are forced downward and toward the center of the case by the springs J, and are held apart by their bearing upon the periphery of the brush-roll wheel C', as shown in Fig. 1.

The springs F and J are both coiled around a screw f' in the end of the case, and, as will be readily seen, each end of each spring acts as the support for the other end, thus reducing the construction to the simplest possible consistent with the effective operation of the sweeper.

j in Fig. 2 and f in Fig. 3 indicate the coils by means of which the respective springs are connected with the screw f' , hereinbefore referred to.

In Fig. 1 I have shown the upper ends of the arms I of the levers plain and open. They can be successfully operated in this way, but I greatly prefer the use of a slot, as i' in Fig. 5, as with it the action of the levers upon the axletrees is more positive, the levers being more rigidly held to place by the pin k than if the springs J alone are depended upon, and, furthermore, if the sweeper is not raised quite high enough normally it may be raised further by dropping the handle and forcing the ends of the levers up with the pin.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In combination with a carpet-sweeper case, pans, axletrees, wheels, brush-roll and handle-bow, a hub projecting from the ends of the handle-bow through the end of the case, an eccentric pin projecting longitudinally from said hub, angle-levers pivoted to the ends of the case, one arm of each of said levers extending to and actuated by said pin and the other end projecting to and actuating the axletrees, and springs secured to the ends of the case and extending thence at an angle of practically forty-five degrees from the perpendicular, pressing upon and actuating the axletrees, substantially as and for the purpose set forth.

2. In combination with a carpet-sweeper case, pans, axletrees, wheels, handle-bow, a hub projecting from each end of the handle-bow through the ends of the case, a pin eccentrically connected with, and extending longitudinally from each hub, and a brush-roll, angle-levers pivoted to the ends of the case one arm of each of which is provided with a slot and actuated by the pins on the handle-bow hubs and the other end actuating the axletrees, and a spring pivoted to the ends of the case one arm of which presses upon each of the axletrees at an angle from the perpendicular, substantially as and for the purpose set forth.

Signed at Detroit, Wayne county, Michigan, May 28, 1902.

CHARLES KING.

In presence of—

C. LEIDICH,

F. P. RUSSELL.