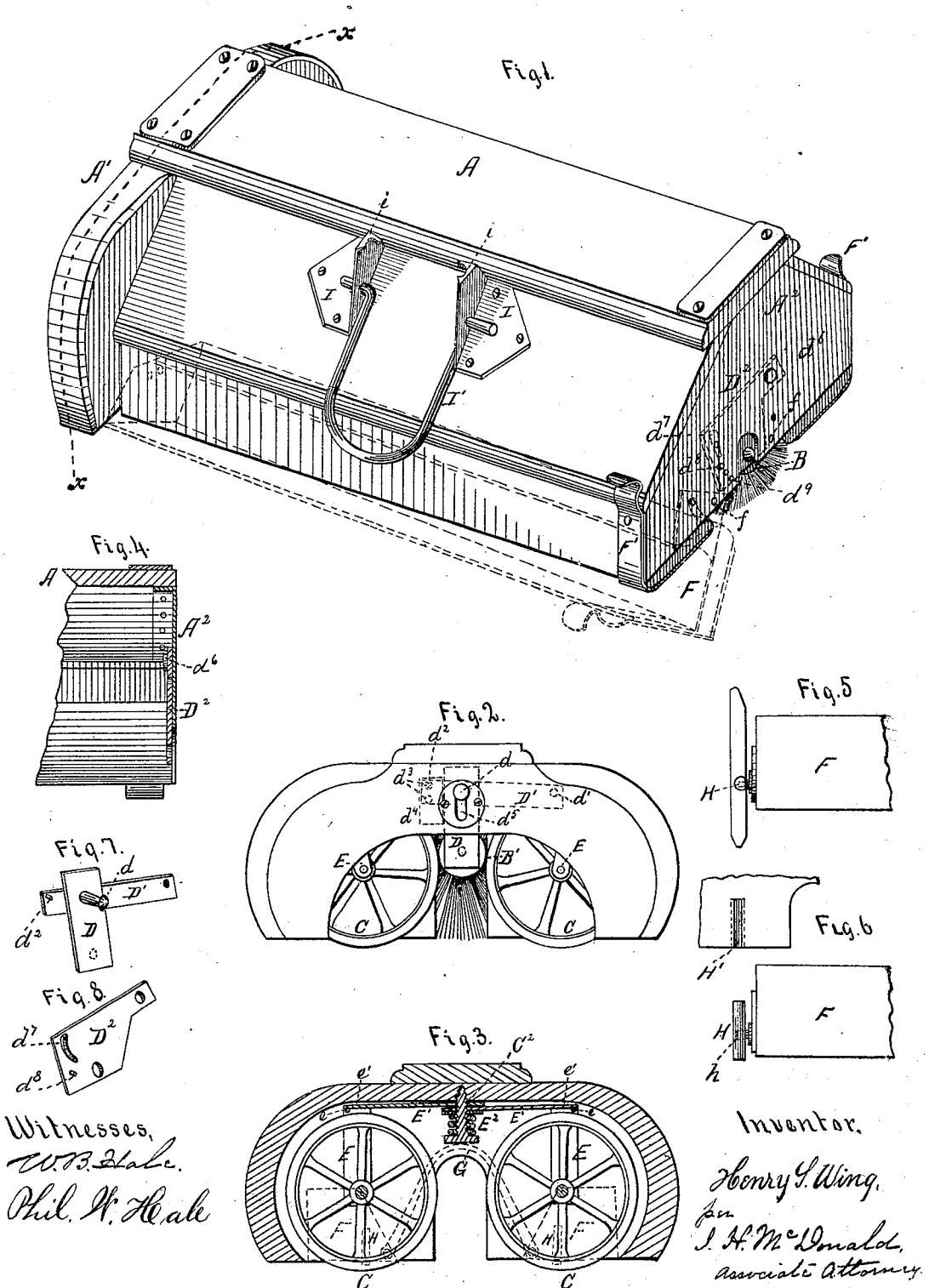


(Model.)

H. S. WING.
CARPET SWEEPER.

No. 248,379.

Patented Oct. 18, 1881.



UNITED STATES PATENT OFFICE.

HENRY S. WING, OF DETROIT, MICHIGAN, ASSIGNOR TO JENNIE A. WING,
OF SAME PLACE.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 248,379, dated October 18, 1881.

Application filed March 26, 1881. (Model.)

To all whom it may concern:

Be it known that I, HENRY S. WING, 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 particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a carpet-sweeper constructed according to my invention. Fig. 2 is an end view of the same, looking toward the wheel-chamber. Fig. 3 is a section in the plane indicated by the dotted line *xx*, Fig. 1. Fig. 4 is a central vertical section of the end wall at the end of the sweeper opposite the wheel-chamber. Fig. 5 is a view of a portion of the bottom of one of the dust-pans and a portion of the lower edge of the wall to which it is pivoted, illustrating the arrangement of the bearing-blocks. Fig. 6 is a partial view of the outer wall of one of the dust-pans, showing the bearing-block out of its socket, and having the pintle of the pan inserted therein, said figure also showing a portion of the partition-wall, in which is formed the socket for said bearing-block. Figs. 7 and 8 are respectively detached views of the adjustable devices for supporting the brush-roller.

My invention relates more particularly to the friction device, the brush-hangers, the peculiar method of dumping the pans, and their construction and connection with the case.

To this end *A* is a sweeper-case, made of any suitable material. *A'* is the friction-wheel case, and *A²* the opposite end. This latter end, *A²*, I prefer to form of sheet metal or other thin metal, in order that the brush-wheel may come out close to the outer surface of the sweeper, and thus be brought close to the edge of the carpet when the sweeper is being used close to the wall of an apartment. This feature I regard as very important, because in the ordinary sweepers in which a wooden end board is employed the thickness of the wood holds

the brushes so far away from the wall that it is impossible to sweep close to the wall. Another function may be accomplished by the making of this end wall of sheet metal—*i. e.*, it will spring sufficiently to permit the brush-roller to be sprung into place without other appliances.

B is the brush-roller; *B'*, the brush-wheel, which engages the friction rollers or wheels *C*.

D is the brush-hanger. It consists of a plate, pivoted at *d* by means of a pin, *d*, to an arm, *D'*, shown in dotted lines, Fig. 2, said arm being pivoted at *d'* to the inner surface of the wall of the wheel-chamber. At its free end this arm *D'* is provided with a pin, *d²*, which may enter any one of a series of holes, *d³*, formed in the wall, or in a metal plate, *d⁴*, fixed to said wall. The pin *d* projects outwardly through a slot, *d⁵*, surrounded by a suitable plate or escutcheon, and terminates in a button or knob. By pressing the button or knob the arm *D'* may be forced inward, its pin disengaged from any hole it may be in, and the arm adjusted up or down, as desired, its elasticity causing the pin to engage with another hole and retain the arm as adjusted.

In Fig. 1 is shown the brush-supporting plate at the opposite end of the case. It is a metallic plate, *D²*, shown in dotted lines, pivoted at *d⁶*, to the inner surface of the thin end wall, and provided with a slot, *d⁷*, through which a guide-pin projects from the wall. A pin, *d⁸*, projects from the plate, and may, for the purpose of adjusting the plate, be engaged with any of a series of holes, *d⁹*, formed in the wall. This adjustment is very simple, inexpensive, and not liable to get out of order.

E represents the hanger for the friction-rolls, they each consist of a metallic loop in the ends of which the wheel is journaled, as shown. The hangers are pivoted at *e* to the case. A spring-arm, *E'*, is rigidly attached to the plate at *e'*, and as the opposite or free end embraces a bolt or screw, *C²*, which latter holds a spiral spring, *E²*, in constant pressure upon the ends of the springs *E'*, it is apparent that the spring-arm *E'* causes the wheels *C* to press firmly against the brush-wheel, and this pressure may be varied by means of the screw *C²*, the whole constituting an adjustable friction.

F represents the pans. They are hinged to the case at *f*, as shown, so that when dumped they will, at the end opposite the friction-wheel case, drop below the end of the case. The pans are made open at this latter end, so that the dirt may be slid out of the pans longitudinally. Springs or latches *F'* are secured to the pans, so as to lock them up against the case, and form a thumb-hold, against which to press when dumping the pans. I also propose to employ a spring, *G*, to lock the pans in either an open or closed position; but I do not here claim the same as it forms the subject-matter of another application heretofore filed by me.

H are journal blocks or boxes for receiving the pintle at the end of the dust-pans, which may or may not be employed. The positions of these blocks are indicated by dotted lines, Fig. 3, and the same more clearly shown in full lines, Figs. 5 and 6. The bearing-blocks are simply cylindrical blocks of wood, with aperture *h* formed in one side to receive the pan pivot or pintle. A socket, *H'*, is formed for each of said bearing-blocks by boring a hole upwardly in the lower edge of the partition-wall and cutting a slot through the inner surface of the wall from said hole, to allow the passage of the pivot-pin. The object is as follows: It is usually quite difficult to insert the pans in the case, but by this device the pintles can be inserted in the blocks or boxes and then the latter be pushed into their places and fastened; or the pintle at one end of a pan may be, as usual, inserted in a hole in the case, and the other pintle be provided with one of these removable blocks or boxes and be slipped into place.

The handle attachment consists of a plate or plates, *I*, with ears *i* projecting up alongside the handle-brace *I'*, so that as the handle is raised to its vertical position the ears will yield and permit the sides of the brace to snap into the notches; but by a slight effort the handle may be again recessed after dumping the pans. The notches *i* are beveled, so as to automatically engage the handle-brace, and when it is de-

sired to again use the sweeper the latter is brought down upon the carpet, and a downward pressure of the handle will automatically disengage it from the notches *i*.

I am aware that carpet-sweeper brushes have been provided with adjustable bearings, and I lay no claim to such construction.

What I claim is—

1. In a carpet-sweeper, the combination, with the casing end wall having the slot and series of holes formed therein, substantially as described, of the brush-hanger consisting of the spring-plate pivoted at one end to the inner surface of said wall, provided intermediately with a brush-roller bearing and with a push-button projecting through said slot, and having at its opposite end a pin arranged to enter the holes, substantially as described.

2. In a carpet-sweeper, a friction device consisting of the combination, with a friction-wheel, of a hanger pivoted at its upper end, a spring-arm fastened rigidly to the hanger at its pivotal point, and in connection with the end of said arm an adjusting spring and screw, whereby the amount of friction may be varied at will, substantially as described.

3. In a carpet-sweeper, a dust-pan having the end farthest from the friction-wheel case open, said pan pivoted at both ends on longitudinal pivots, so located with respect to the end of the brush-case that on dumping the pan it will drop below the case and permit the contents to be discharged through the open end, substantially as described.

4. In a carpet-sweeper having a dust-pan pivoted at both ends on longitudinal pivots, a removable journal box or block adapted to receive one of said pivots and be then slid up into its place, whereby the insertion of the dust-pan is facilitated, substantially as described.

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

HENRY S. WING.

Witnesses:

W. M. PORTER,

HENRY P. QUELCH.