

No. 878,432.

PATENTED FEB. 4, 1908.

T. L. TOTTEN.
CARPET SWEEPER.
APPLICATION FILED JAN. 31, 1907.

2 SHEETS—SHEET 1.

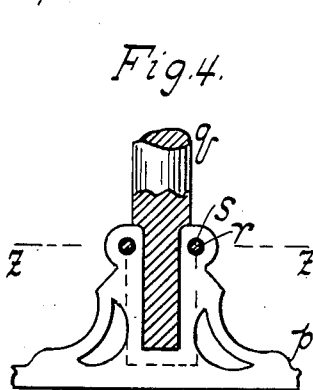
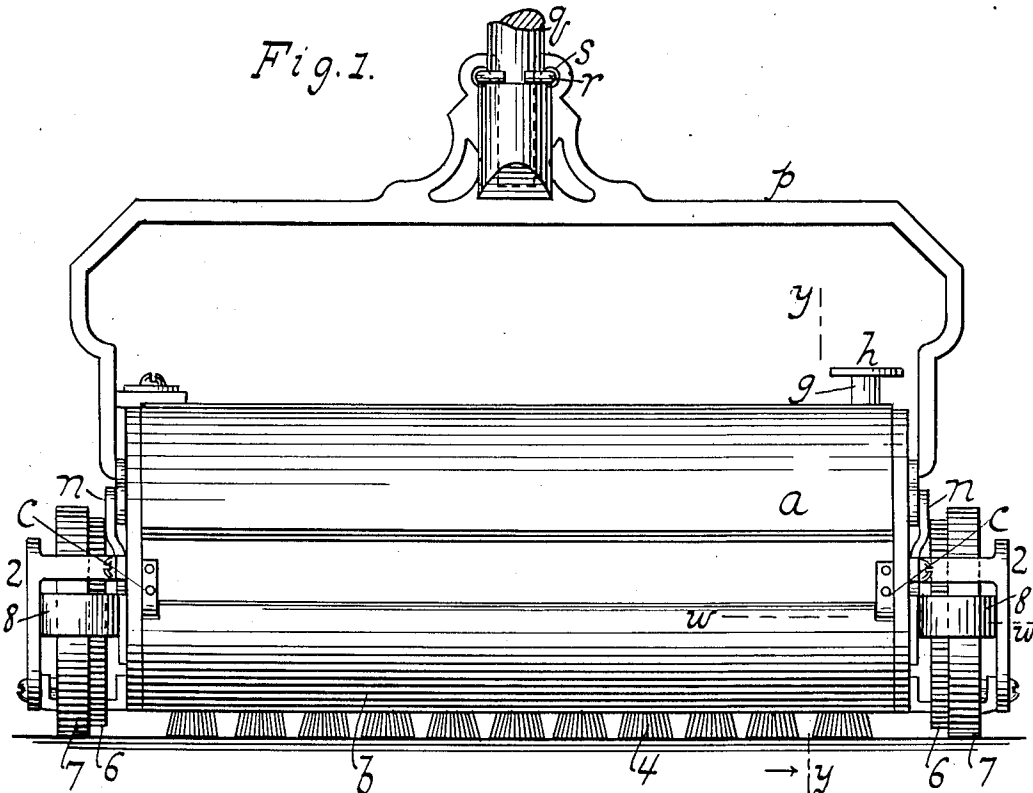
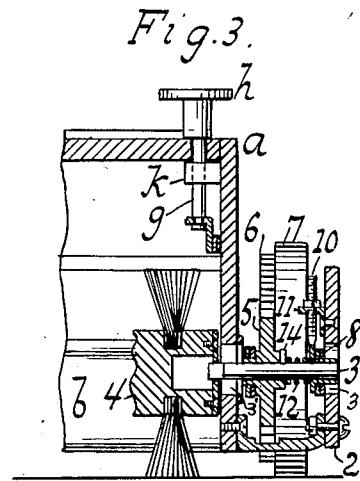
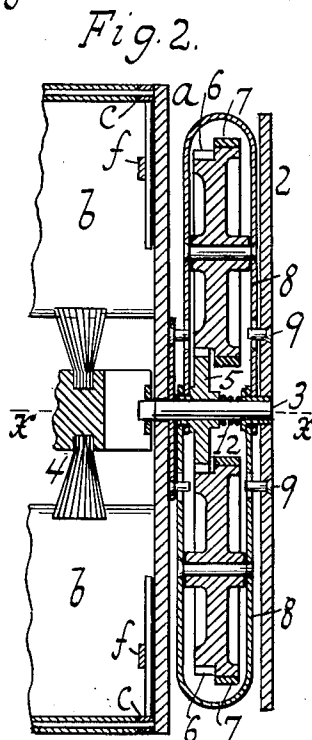


Fig. 5.

WITNESSES:
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2 SHEETS—SHEET 2.

Fig. 6.

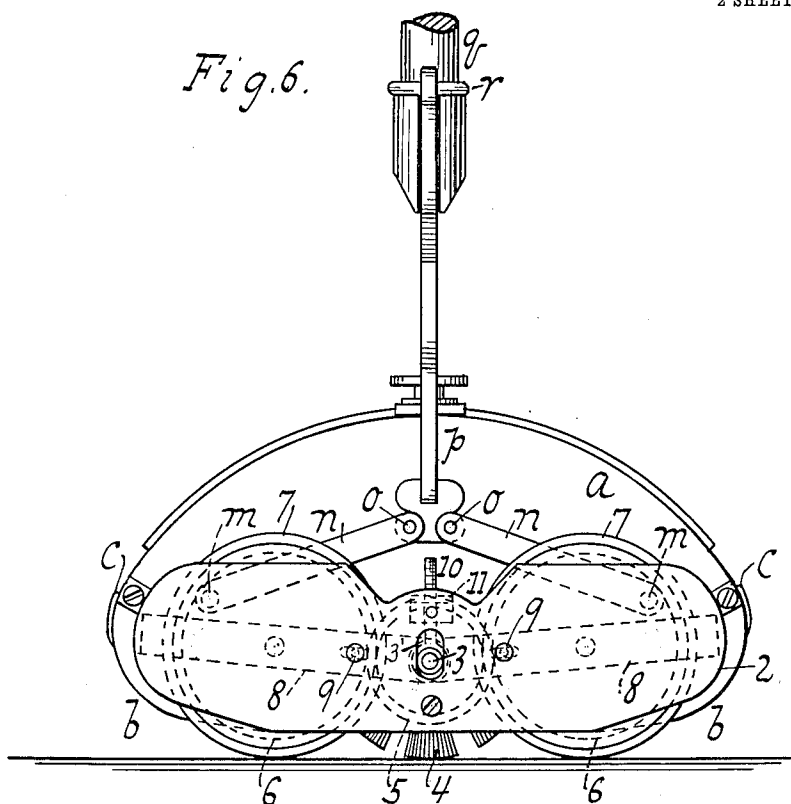
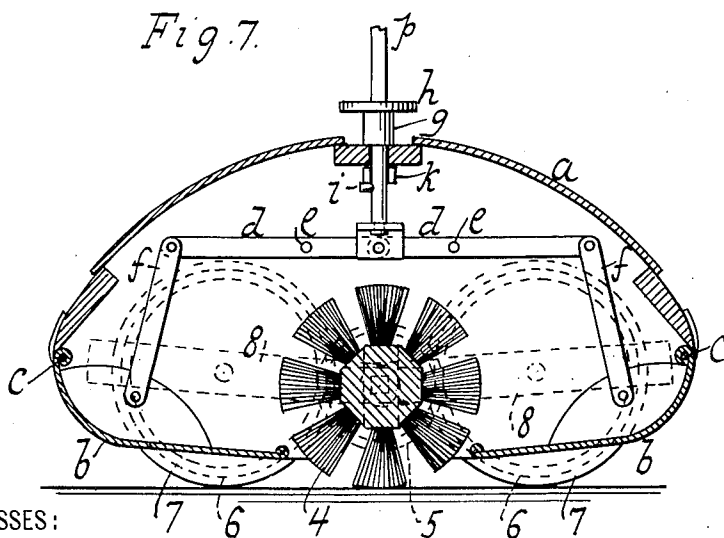


Fig. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS L. TOTTEN, OF BROOKLYN, NEW YORK.

CARPET-SWEEPER.

No. 878,432.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed January 31, 1907. Serial No. 355,047.

To all whom it may concern:

Be it known that I, THOMAS L. TOTTEN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Carpet-Sweepers, of which the following is a specification.

This invention relates to a carpet sweeper which can be made practically dust proof and which also possesses other features and the invention resides in the features of construction set forth in the following specification and claim and illustrated in the annexed drawing, in which:

Figure 1 is a front elevation of a carpet sweeper embodying this invention. Fig. 2 is a section along the line *ww* Fig. 1. Fig. 3 is a section along the line *xx* Fig. 2. Fig. 4 is a front view of the handle of Fig. 1 partly in section. Fig. 5 is a section along line *zz* Fig. 4. Fig. 6 is an end elevation of the sweeper. Fig. 7 is a section along *yy* Fig. 1.

In this drawing is shown a casing *a* with bottom sections *b* hinged thereto at *c c*. The casing has fixed fulcrum points *e* to each of which is fulcrumed a lever *d*, to each of which levers a bottom section is linked as seen at *f*. The levers are of the first class order and connected at their inner ends to a stem *g* having a handle or finger button *h* by which the stem *g* can be rotated and moved lengthwise. The stem *g* has a rotative connection with the levers, and is provided with a pin or projection *i* which passes beneath a shoulder *k* on the end of the casing when the stem is depressed and rotated.

If the handle or stem is pushed in and its locking stud or projection *i* turned to engage shoulder or lock part *k* the bottom sections *b* by means of links *f* and levers *d* fulcrumed at *e* will be raised to closing position. If the stem *g* is turned or released from shoulder *k* and its stud *i* moved along or through releasing part shown at the shoulder the levers *d* are swung to dump or open the bottom so that the collected dust will discharge.

As the bottom sections are hinged at their outer edges they open so as to incline inward or toward the center part of the casing and the contents or sweepings will not be thrown outward but converged toward a central point or line to be kept together. Scattering being avoided the device aids in maintaining cleanliness.

At two fixed points at each side of the casing indicated at *m* are pivoted links *n* which

at their inner ends are separately pivoted at *o* to the ends or engaging parts of a bail *p*. This link connection has sufficient play or looseness at its pivot points *m o* so that it allows the handle or stick *q* to be brought to any convenient tilt for directing the device over the floor or carpet.

The bail *p* has a suitable prong or fork portion and the stick *q* is grooved and on a shoulder of the stick sits the rotatable split ring *r*. When the stick has been passed into place on the bail or fork the ring *r* is rotated to engage into the eye parts *s* of the bail (Figs. 4 and 5) to lock the parts together. By rotating the ring to enable its split part to successively clear the fork branches the stick can be withdrawn.

To the casing *a* is fixed a plate 2. This plate 2 is cast or provided with arms by which the plate is attached to the side of the casing. This plate 2 is thus supported by its arms at a certain distance from the casing so as to leave room in which to place the arms supporting wheels 7. This plate with the adjacent wall of the casing is slotted at 3' to form a loose bearing at each side for the gudgeons 3 to not only turn but also have play or movement up and down. As these gudgeons carry the brush or rotary broom such broom can come to the floor as presently seen.

Each gudgeon is keyed to the hollow shaft of a gear 5 which engages the gear part or rings 6 of wheels 7. These wheels 7 have rubber or like tires to get a grip on the surface over which they run. Said wheels 7 have their axles mounted on carriers or swinging arms 8 pivotally mounted on the gudgeons 3. These arms 8 have a loose pivot or fulcrum connection with the plates 2 formed by pin and slot connections, the pins being shown at 9. These arms 8 as seen in Fig. 2 are of U-shape so as to extend on both sides of wheels 7 and said arms support both ends of the axle of each of said wheels. These arms are pivoted on gudgeons 3.

When the device is set on the floor or carpet the wheels 7 touch the ground and the arms 8 swing about fulcrum 9 to allow the gudgeons to sink and carry the brush to the carpet or floor.

An adjuster or screw stem 10 with nut 11 arrested by a shoulder or eye on plate 2 can be made to limit the swing or drop of gudgeons 3.

On running the device along the rotating wheels 7 by gears 6 and 5 rotate the gudgeons with the brush 4 to give a positive motion.

The gudgeons 3 feather in the hollow hubs of gears 5 and when the gudgeons are held back against the action or pressure of springs 12 the brush can be withdrawn or replaced.

As the casing has practically no opening except the small slots 3' allowing play of the gudgeons 3 no dust can escape. The slots through which the gudgeons 3 pass do not extend through the bottom edge of the end walls of the case, but as seen in Fig. 6, such slot is of limited extent. In practice, it has been found that such slots need not be more than three-quarters of an inch in length by three-eighths of an inch in width. Practically no dust can escape from the casing through such small apertures.

The gudgeons 3 can be retracted against the action of spring 12 by a pin or peg 14 (Fig. 3) which forms a finger piece and which peg also engaging a slot in the hub of gear 5 forms a feather connection. When said gudgeons are released the spring 12 forces these gudgeons back to engaging position.

Now what I claim is:

1. In a carpet sweeper, a bail having parallel uprights provided with eyes, a handle provided with oppositely arranged grooves in its lower end and a shoulder near its lower extremity, said uprights adapted to fit in said grooves and said shoulder being located below and adjacent to said eyes, and a locking ring adapted to pass through said eyes and engage said shoulder.

2. A carpet sweeper comprising a casing provided with vertically elongated bearings, gudgeons adapted to turn and play in said bearings, carriers swinging on the gudgeons

and wheels on the carriers geared to the gudgeons, said gudgeons being spring pressed or yielding to releasably engage a brush.

3. A carpet sweeper comprising a casing having its sides provided with bearing slots of limited extent so as not to pass through the bottom edges of said casing, a rotary brush in said casing, gudgeons connected with the brush and extending outside the casing and adapted to turn and play in said bearing slots, carriers swinging on the gudgeons and wheels on the carriers geared to the gudgeons, said carriers and wheels all being outside of and free or clear from the casing so as to leave the side wall of the casing unbroken except at said bearing slots.

4. A carpet sweeper comprising a casing provided with bearing plates, said casing and plates having vertical bearing slots, a rotary brush in said casing, gudgeons guided in the slots and detachably engaging the brush, and springs yieldingly holding said gudgeons in engagement with the brush.

5. A carpet sweeper comprising a casing provided with bearing plates, said casing and plates having vertical bearing slots, a rotary brush in said casing, gudgeons guided in the slots and detachably engaging the brush, traction wheels geared to the gudgeons, threaded stems connected with the gudgeons, eyes on said plates through which the stems loosely pass, and nuts adjustable on the stems to limit the downward movement of the gudgeons and brush.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

THOMAS L. TOTTEN.

Witnesses:

EDWARD WIESNER,
CHRISTIAN ALMSTEAD.