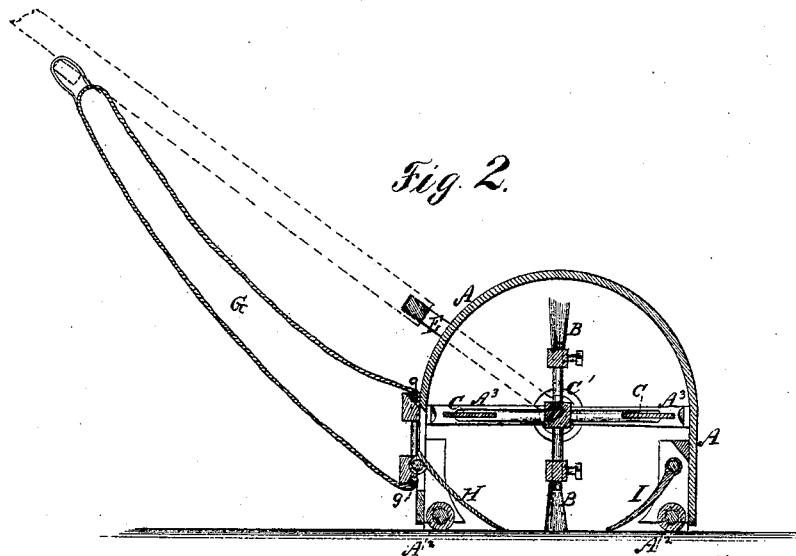
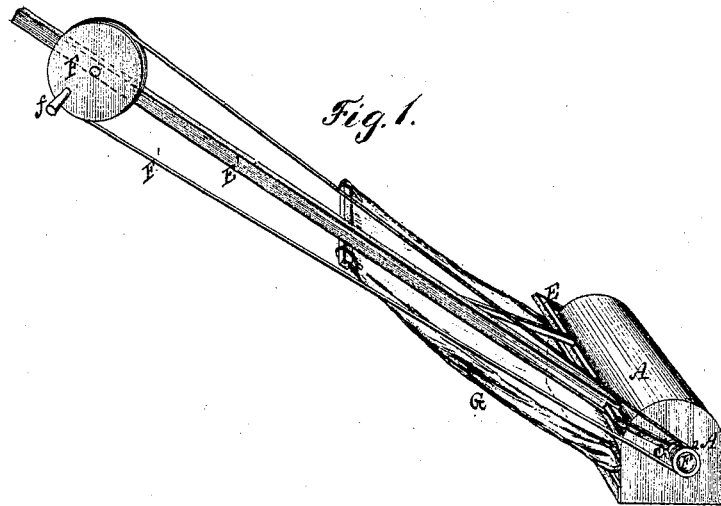


G. S. Morris,
Sweeping Machine

No. 112,837.

Patented Mar. 21, 1871.



Witnesses:
A. Ruppert
W. Clausen

G. S. Morris
Inventor.
D. P. Holloway & Co
Atty

UNITED STATES PATENT OFFICE.

GEORGE S. NORRIS, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN SWEEPING-MACHINES.

Specification forming part of Letters Patent No. 112,837, dated March 21, 1871.

To all whom it may concern:

Be it known that I, GEORGE S. NORRIS, of the city and county of Baltimore and State of Maryland, have invented certain Improvements in Sweeping-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making part of this specification, in which—

Figure 1 represents a perspective view of the improved sweeper. Fig. 2 is a transverse section.

The same letters are employed in both figures in the designation of identical parts.

This invention relates to a machine for sweeping carpeted and other apartments, so constructed that the light dust which, by the usual mode of sweeping with a broom or brush, rises into the air and eventually settles again on the floor or on the furniture, may be taken up and deposited in a suitable dust-receptacle attached to the sweeper together with the heavier particles of the sweepings. The first part of the improvement consists in mounting the case containing the rotary brushes and the fan upon long rollers preserving an unbroken contact with the floor the entire length of the case, and closing the ends of the latter by sheets of rubber or other elastic material, which may hug the carpet closely, to prevent the escape of dust from under them without subjecting the carpet to any undue wear. The second part of the invention consists in the employment of two hinged flaps or drop-pans arranged in the case, one in front and the other in rear of the fan and revolving brushes in such a manner as to rest with their lower edges upon the floor a short distance from the respective rollers, so that should either one of the rollers be raised above the floor for a moment in passing over any small article the case will be kept closed by these hinged drop-pans and the action of the apparatus not interrupted.

To enable those skilled in the art to make and use my invention, I will describe it more specifically.

In the annexed drawing, A represents the case in which the brushes and fan are inclosed, rectangular in form with a semi-cylindrical top. Its ends are closed by sheets A¹, of India rubber by preference, and it is mounted upon two

rollers, A² A², which may have rubber surfaces, one of which is arranged upon each side of the case in suitable bearings, extending from end to end thereof. The sides of the case do not come in contact with the floor, but the edges of the rubber ends A¹ extend down far enough to hug the floor closely when the case rests upon its rollers. The rotary brushes B, and fan-floats C are secured to a horizontal shaft, D, which has its bearings, in a bridge-tree, A³, placed across the case, one at each end. Suitable openings C' are cut in the sheets of rubber A¹ around the shaft D for the admission of air to the interior of the case. The shaft is so arranged in the case that its brushes will reach just below the rollers upon which it is mounted, the fan-floats being of less diameter so that they will not come in contact with the floor in operating the machine. The brushes can be set out from the shaft to compensate for wear. Both journals of the fan-shaft project through their boxes to pass through the eyes of a yoke, E, which embraces the case longitudinally, and moves around the same upon the shaft as its axis. A long handle, E', is fastened to the yoke by which the sweeper is guided in operating it, and near the upper end a grooved pulley, F, with a crank, f, is hung upon a stud projecting from the handle. The fan and brushes are operated from this pulley or sheave through the medium of a belt or cord, F¹, and a smaller pulley, F², which is fastened upon the overhung end of the journal of the shaft D.

The sweepings and dust are taken up from the floor by the combined action of the revolving brushes and the blast of air consequent upon the rapid rotation of the fan-floats. They are discharged through an opening in the rear side of the case into a dust-receptacle, G, made by preference of some fibrous material in the shape of a bag. The mouth of the latter is attached to the case around the discharge-opening by an elastic gathering-string, g, or in any other convenient manner, while its other end is fastened to a cross-arm of the handle, as shown.

H and I are flaps or droppers hinged along their upper edges to the sides of the case A, one in front and the other in rear of the revolving brushes and fan. Their lower edges rest upon the floor some distance from the re-

spective rollers upon which the case rests, and they aid in keeping the lower side of the case closed in case the rollers are momentarily lifted from the floor in passing over any small article. They extend from end to end of the case, and may be slightly curved to allow of the rotation of the fan and brushes under which they extend.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The case A, when mounted upon long rollers A², which form an unbroken support the entire length of the case and closed at the

ends by elastic sheets A¹, substantially as set forth.

2. In combination with the case A mounted upon long rollers A² and closed at the ends by elastic sheets A¹, the hinged drop-pans H and I, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses:

G. S. NORRIS.

D. SPRIGG HALL,
WASHINGTON TYLER.