

S. B. STEARNS.
CARPET-CLEANER.

No. 183,600.

Patented Oct. 24, 1876.

Fig. 1.

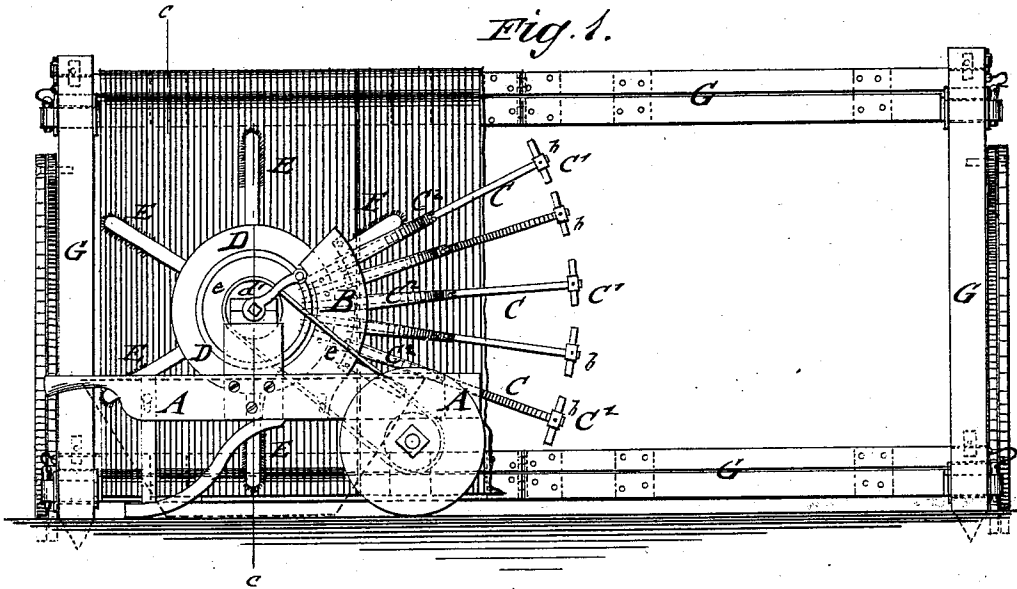


Fig. 2.

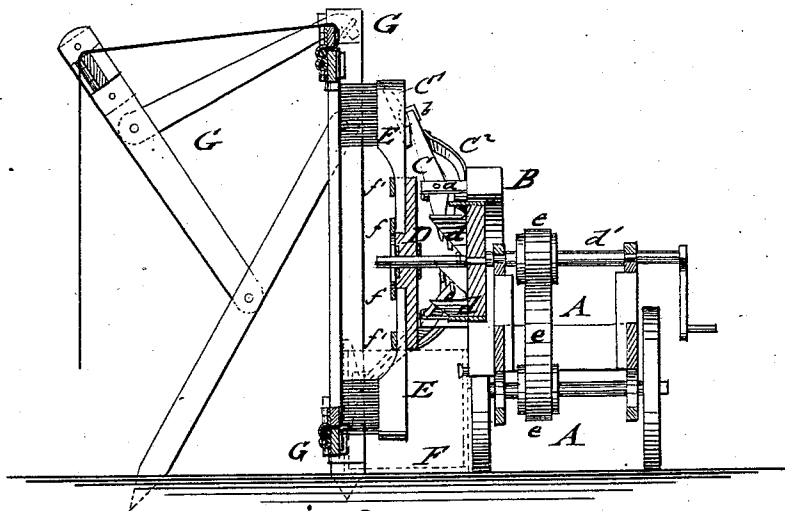


Fig. 3.

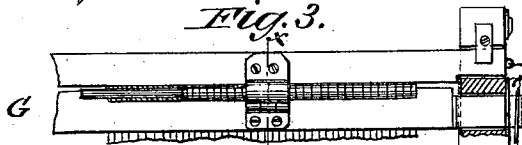
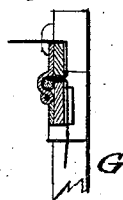


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SARAH B. STEARNS, OF DULUTH, MINNESOTA.

IMPROVEMENT IN CARPET-CLEANERS.

Specification forming part of Letters Patent No. **183,600**, dated October 24, 1876; application filed September 16, 1876.

To all whom it may concern:

Be it known that I, SARAH B. STEARNS, of Duluth, in the county of St. Louis and State of Minnesota, have invented a new and Improved Carpet-Cleaner, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a rear elevation of my improved carpet-cleaner; Fig. 2, a vertical transverse section of the same on line *c c*, Fig. 1; and Figs. 3 and 4 are, respectively, a detail front view and vertical transverse section on line *x x*, Fig. 3, of the carpet-stretching frame.

Similar letters of reference indicate corresponding parts.

My invention has reference to a carpet-cleaner that is adapted for family and business purposes, being operated either by hand or steam power, and so arranged that the carpets are rapidly and effectively beaten, and freed of dust or scoured.

The invention consists of a number of alternately-working spring-arms, with beaters or whips fastened to the ends, which are operated jointly with revolving dusting-brushes at the ends of radial arms, which may be detached and replaced by scouring-brushes to be used in connection with a suds-trough.

In the drawing, A represents a light, yet firmly-made, truck or carriage that is moved from place to place by wheels and handles in suitable manner. To one side of the truck is secured an upright standard, B, having supports, *a*, to which are fulcrumed, to be removed at pleasure, a series of radial arms or rods, C, that are made strong, yet flexible, and provided with cross-pieces C¹ at their ends, which serve as beaters or whips. The beaters C¹ are centrally pivoted to bearings or clamp-supports *b* at the ends of the arms C, from which they are readily taken out and replaced, if required. Strong steel springs C² bear on the back of each arm C, and throw the same forward whenever a ratchet, *d*, acting on the metal-lined inner ends of the arms, carries the arms back. The ratchet *d* is placed on a crank-shaft, *d'*, driven by hand or other power, and produces, by engaging the inner ends of the arms; the alternating working of the beaters in quick succession by drawing them first back by the ratchet and throwing

them instantly forward again, when released from the ratchet-teeth, by the power of the springs, so as to strike thereby quick and forcible blows upon the carpet suspended in front of the apparatus. Simultaneously with the beating of the carpet by revolving the crank-shaft the truck is moved forward by pulley-and-belt connection *e* with the axle of the truck-wheels. To the end of the crank-shaft is rigidly keyed in front of the ratchet *d* a disk, D, to which are socketed by a facing, *f*, and guide-bands *f'*, radial brushes E of suitable size. The brushes are operated simultaneously with the beaters, and follow the same closely, so as to remove the dust brought to the surface of the carpet by the beaters. The brushes E may be of any suitable size and quality, lighter ones being used for dusting the carpets, while heavier ones are required for scouring the same. The brushes are readily removed from the sockets of the disk, and changed to suit the work to be done on the carpet.

When the carpet is to be scoured the beaters are removed, and a trough, F, shown in dotted lines, in Fig. 2, is attached to the truck by clamping-screws, hooks, or otherwise, below the scouring-brushes. The trough is partly filled with hot suds, which are taken up by the brushes and applied to the carpet, so as to thoroughly saturate and scour the same by the revolution of the brushes. The carpet is stretched for beating, dusting, and scouring upon any suitable supporting-frame, G, along which the cleaning apparatus is moved forward and back, the carpet being exposed to the action of the cleaner, section by section, until fully cleaned. The frame is made to fold together after use, to be laid upon the truck lengthwise after removing the belt from the pulleys.

The entire apparatus, including the stretching-frame, may thus be readily moved from place to place, and set up in a few minutes for use.

The usefulness and portability recommend the apparatus for family, hotel, and other use, while for business purposes the apparatus is preferably driven by steam and arranged with additional beaters at the other side of the brushes, and both brushes and beaters dupli-

cated at the opposite end of the actuating-shaft.

A number of such cleaners may be arranged stationary, and the carpets suspended at both sides, and moved along the same for thorough cleaning.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A carpet-cleaning apparatus, constructed of successively-striking spring-acted beaters and radial revolving brushes operated jointly from one actuating-shaft, substantially in the manner and for the purpose set forth.

2. The combination of the ratchet *d* of the actuating-shaft with the spring-acted beater-arms, fulcrumed to standard B, and provided with cross whips or beaters at their ends, substantially as specified.

3. The combination of the revolving disk D, having sockets with interior fastening-ring, and outer guide-bands with radial dusting or scouring brushes, substantially as described.

SARAH B. STEARNS.

Witnesses:

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