

C. W. HAMILTON.
CARPET-BEATER.

No. 176,469.

Patented April 25, 1876.

Fig. 1

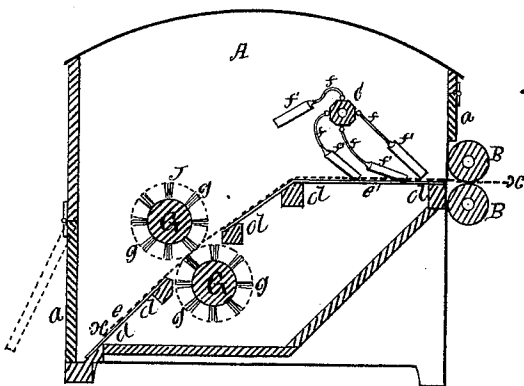


Fig. 2

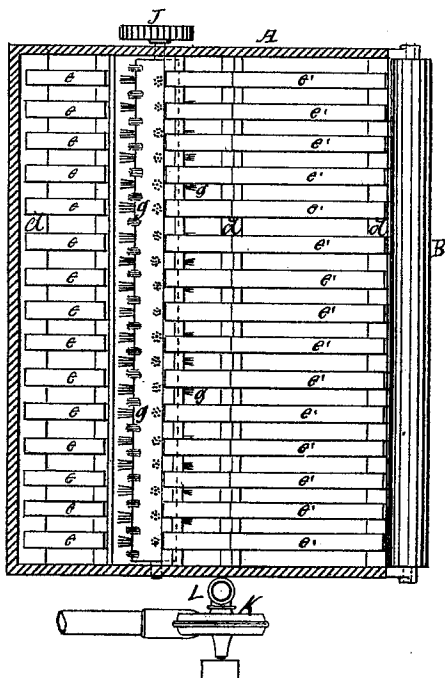
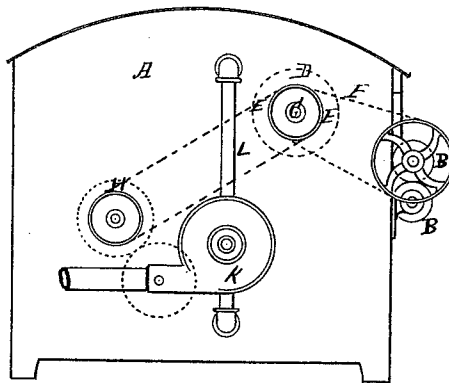


Fig. 3



Fig. 4

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CHARLES W. HAMILTON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CARPET-BEATERS.

Specification forming part of Letters Patent No. **176,469**, dated April 25, 1876; application filed March 15, 1875.

To all whom it may concern:

Be it known that I, CHARLES W. HAMILTON, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Carpet-Cleaning Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a vertical transverse section of a carpet-cleaning machine embracing my said invention. Fig. 2 is an end view of the same. Fig. 3 is a sectional plan of the same, taken on the line *x x* drawn across Fig. 1; and Fig. 4 is an enlarged view of one of the beaters detached.

Similar letters of reference indicate like parts in the several figures of the drawing.

In the drawing, A represents the frame or case supporting the operating parts of the machine. This case is made tight, and provided on opposite sides with doors *a a*, hinged to the walls of the case, and so arranged as to admit of being opened or closed at will, to prevent the dust which is removed from the carpet from escaping into the room. B B represent the feed-rollers, which are journaled to the end walls of the case immediately under door *a'*, as shown in Figs. 1 and 2. These rollers are covered with rubber or other similar flexible material, and are so adjusted that the lower roller is made to revolve by its frictional contact with the upper roller. C is the beater-shaft, which is also journaled to the end walls of the case, and so arranged as to freely revolve. Mounted on one end of this shaft is a pulley, D, (shown in dotted lines,) which communicates by a belt with any suitable motor for imparting motion to the operating parts of the machine. Mounted upon the opposite end of this shaft are like pulleys E E, one of which is shown in Fig. 2. F is the belt for imparting motion to the feed-rollers. This belt passes around pulley E, and extends to and around a like pulley mounted on the shaft of one of the rollers B, by which means said roller is made to revolve by the rotation of the beater-shaft. G G' are cylindrical rollers,

which are journaled to the end walls of the case, and so arranged as to freely revolve. These rollers are located one below the other, and slightly below the beater-roller, as shown in Fig. 1. Mounted on the end of the upper roller G is a pulley-wheel, H, around which is passed a belt, H', the latter passing around pulley E of the beater-shaft, by which means a rotary motion is imparted to the roller. Mounted on the end of the shaft of roller G, opposite the pulley, is a gear-wheel, J, (shown by dotted lines, Fig. 2,) which engages a like gear-wheel on the shaft of roller G', by which means a rotary motion is imparted to roller G'. Two series of longitudinal bars, *d d'*, extend the entire length of the case. Permanently attached to the upper surface of both series of bars is a series of elastic straps, *e e'*, forming two separate aprons, over which the carpet passes, as shown by the line *x x*, Fig. 1. Attached to the beater-shaft is a series of straps, *f*, to which the beaters *f'* are permanently secured. These beaters are made of wood or metal, as may be preferred, and are each covered with india-rubber or other flexible material which will yield slightly when impinging on the carpet, the object of which is to prevent the texture of the fabric from being injured by the concussion of the blow. Permanently attached to each roller G G' is a series of brushes, *g*, which are each so adjusted as to come in contact with the carpet as the latter is passed between the rollers. K is an ordinary exhaust-fan, which is attached to the end of the case, and communicating with the interior of the same through pipe L, the object of which is to remove the dust from the interior of the case when removed from the carpet.

In using my invention it is operated as follows: One end of the carpet to be cleaned is first passed between the feed-rollers B B, and upon the elastic apron *e'* under the beaters. Motion is then imparted to the machine, causing the beaters to come in contact with the carpet, impinging the latter upon the elastic apron, and, by the forward movement of the beaters, the carpet is moved forward on the apron, and between the revolving brushes of rollers G G' as it is fed under the beaters by the feed-rollers, the greater velocity of the

brushes, aiding to move the carpet forward, preventing the latter from being folded as it passes under the beaters, and by the concussion of the latter the dust is loosened, and is removed from the carpet by the friction of the brushes.

Having thus described my invention, I claim—

The weighted beaters *f'*, covered with flexible material, as and for the purpose specified.

The above specification of my invention signed by me this 27th day of February, 1875.

CHARLES W. HAMILTON.

Witnesses:

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