

J. HOTHERSALL.

Carpet-Beaters.

No. 134,059.

Fig. 1.

Patented Dec. 17, 1872.

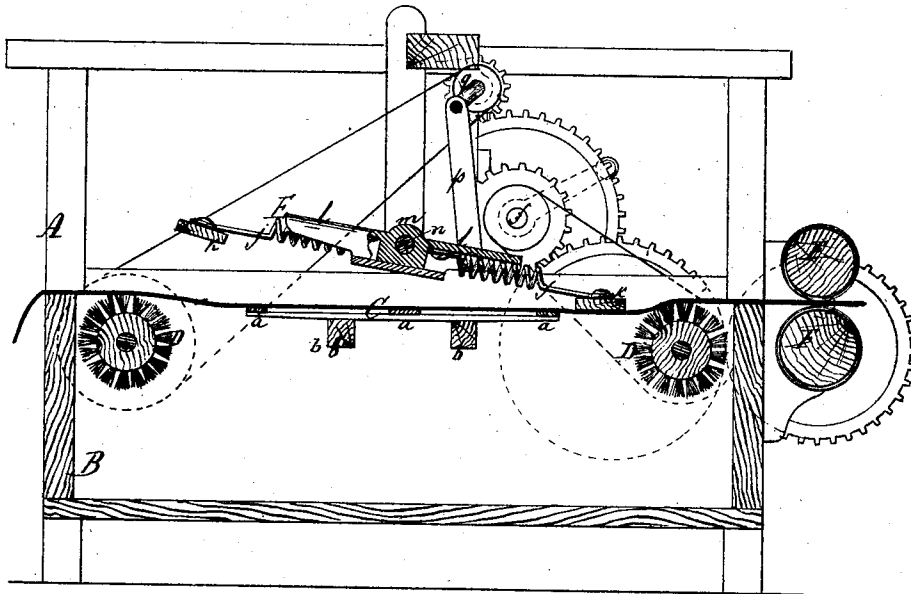
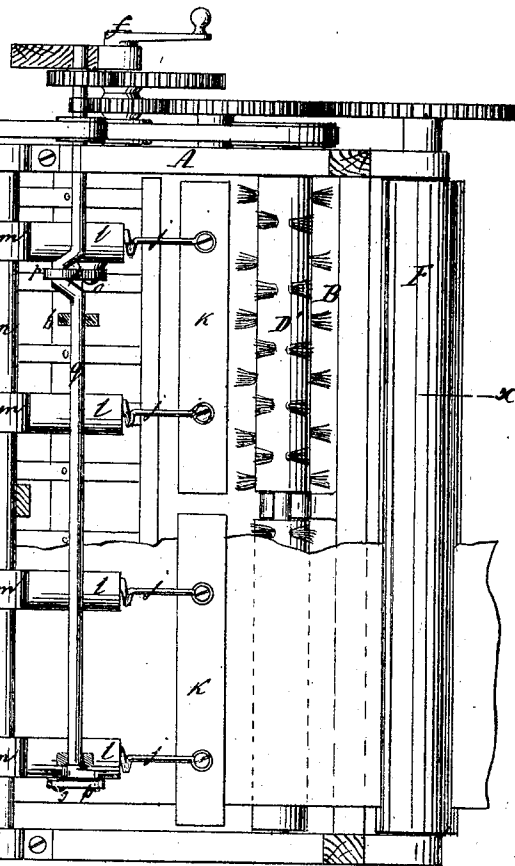


Fig. 2.



Inventor.
James Hotheralls
per
Geo. Sutherland
Attor.

Witnesses.
E. Ailshier.
Chas. W. Hall.

UNITED STATES PATENT OFFICE.

JAMES HOTHERSALL, OF NEW YORK, N. Y.

IMPROVEMENT IN CARPET-BEATERS.

Specification forming part of Letters Patent No. 134,059, dated December 17, 1872.

To all whom it may concern:

Be it known that I, JAMES HOTHERSALL, of the city, county, and State of New York, have invented a new and Improved Carpet-Beater; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a transverse vertical section of my invention in the plane *x x*, Fig. 1, and looking in the direction of the arrow opposite to that line; and Fig. 2 is a sectional plan or top view of the same.

Similar letters indicate corresponding parts.

This invention relates to an improvement on that class of carpet-beaters which I have described in my patent No. 125,815, dated April 6, 1872. My present improvement consists in the arrangement of one or more oscillating double-acting beaters composed of elastic arms and cross-bars, and operated from a crank-shaft in combination with a rigid bed situated between two revolving brushes placed at some distance from the sides of the bed, and in such relation to the cross-bars of the beaters, that when the carpet is carried across the brushes and the bed the beaters strike the same in the spaces situated between the bed and the brushes, and thereby the dirt and dust are readily disengaged, and caused to collect in a receptacle below, while the texture of the carpet is not injured. The elastic arms of the beaters are made of coiled wire, so that the same can be readily fastened to the cross-bar on one end and to the recoil-plates on the opposite end, and that arms are obtained which are limber and not liable to lose their elasticity. The revolving brushes are supported at one or more places between the end bearings of their shafts, so that they are not liable to yield and that they act with uniform power on all parts of the carpet.

In the drawing, the letter *A* designates a frame, in the lower part of which is formed a box, *B*, to receive the dirt which is disengaged from the carpet by the action of the beaters and brushes. On this box is secured a platform, *C*, formed of a series of slats, *a a*, which

are fastened down upon beams *b b* extending from one end of the box to the other. On each side of this platform is situated a revolving brush, *D D'*, these brushes being mounted on shafts which have their bearings in the ends of the box *B*, and which are supported at one or more places between said end bearings, so that the brushes are not liable to spring, and that they produce a uniform action on the carpet throughout its entire width. The carpet is drawn through the machine by the action of feed-rollers *F F*, which receive the desired motion from the driving-shaft *f*, with which the same are geared together in any suitable manner. From this driving-shaft motion is transmitted to the brushes *D D'* by belts and pulleys or by any other suitable means. The beaters *E E* are composed of elastic arms *j j*, to the outer ends of which are secured cross-bars *k k*. The elastic arms are by preference made of coiled wire, which are secured at their inner ends to recoil-plates *l*, while their outer ends support the cross-bars *k*. The recoil-plates *l* extend from boxes *m*, which are firmly keyed to a shaft, *n*, extending throughout the entire length of the frame *A*. From the edges of the recoil-plates project pins *o*, which connect by rods *p* with a crank-shaft, *q*, that is geared together with the driving-shaft, so that it receives a rapid revolving motion. The cross-bars *k k* of the beaters are so situated that they strike the carpet on each side of the open platform *C* right over the spaces left between said platform and the brushes *D D'*, so that the dirt which is disengaged from the carpets by the blows of the beaters is free to drop down into the box *B*, and as the carpet passes the brushes *D D'* it is freed from the dust and dirt adhering to its surface.

By constructing the elastic arms of the beaters of coiled wire I gain the advantage that said arms can be readily secured to the recoil-plates and to the cross-bars; and, furthermore, the arms thus constructed do not lose their elasticity, and at the same time they yield easily so that the beaters will not injure the texture of the fabric.

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

1. The combination of a rigid open platform with revolving brushes situated on each side thereof, and with beaters E, which act on the carpet at the places between the platform and the revolving brushes, substantially as described.

2. The arms *jj* of the beaters, constructed of coiled wire, each being fastened at one end

to a recoil-plate and at the other end to a cross-bar, substantially as set forth.

This specification signed by me this 30th day of October, 1872.

JAMES HOTHERSALL.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.