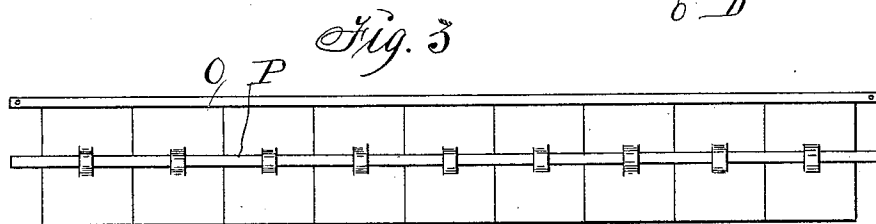
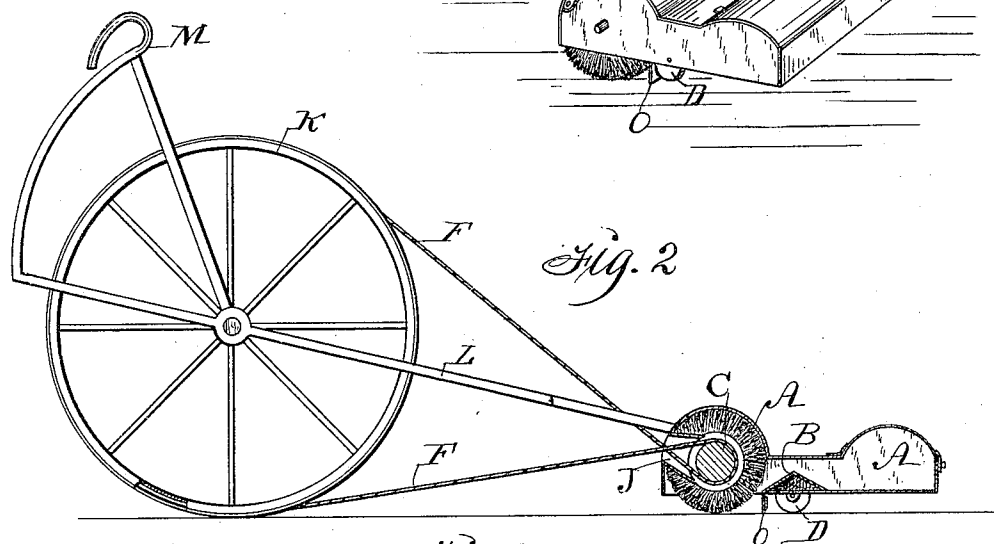
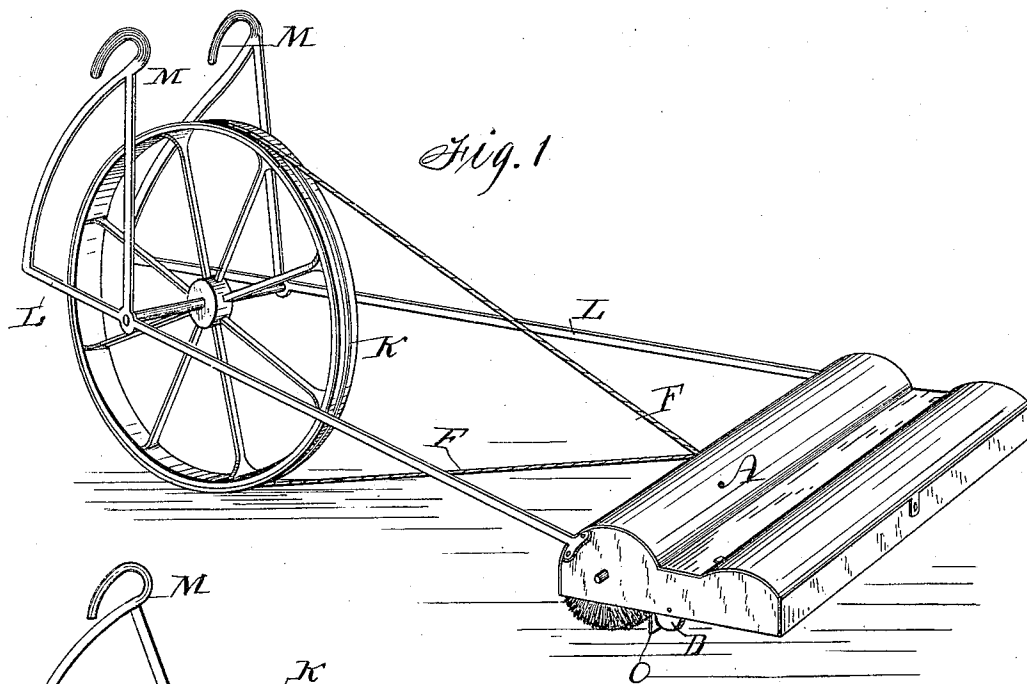


(No Model.)

E. K. HERR.  
FLOOR SWEEPER.

No. 465,930.

Patented Dec. 29, 1891.



Witnesses:  
W. B. Smith,  
R. H. Orwig.

Inventor: Elam K. Herr,  
By Thomas G. Orwig, Attorney.

# UNITED STATES PATENT OFFICE.

ELAM K. HERR, OF BLOOMFIELD, IOWA.

## FLOOR-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 465,930, dated December 29, 1891.

Application filed March 2, 1891. Serial No. 383,428. (No model.)

*To all whom it may concern:*

Be it known that I, ELAM K. HERR, a citizen of the United States of America, and a resident of Bloomfield, in the county of Davis and State of Iowa, have invented a new and useful Floor-Sweeper, of which the following is a specification.

The object of my invention is to provide improved means for collecting the dust and other waste matter which may be scattered about on a floor.

My invention consists in the combination, with a wheeled truck and a dust-pan mounted thereon, of a revolving brush geared to a manually-propelled traction-wheel, which latter is located in the rear of said brush, and is preferably of much greater diameter than said brush.

My invention consists, further, in the combination, with a floor-sweeper, of a curtain depending between the dust-pan and brush thereof, which apron is formed in sections, which are capable of transverse variation relative to each other and are provided with means to normalize the same automatically after any movement thereof.

My invention consists in certain details of construction hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of the complete device. Fig. 2 is a central vertical sectional view through the dust-box, brush, and wheel. Fig. 3 is a detail front view of the depending curtain.

A represents a case, preferably made of sheet metal and divided into two sections by an inclined partition B. One of these sections is open on the lower side and has a roller-brush C journaled in ends thereof. The other section has a lid hinged on the top side thereof and is used as a dust-box. This case A is supported on rollers D, pivoted to the ends thereof below the partition B. The brush-roller is provided with an annular groove in the periphery of its central portion, adapted to admit and guide a round belt F, by means of which the roller is geared to the actuating mechanism. An oval-shaped opening is made in one side of the convex top of that section of the case A which incloses the brush C. A conical open-ended guide-piece J is fitted by

means of its smaller end within the said opening and projects inward therefrom. The inner projecting portion of this guide-piece is in juxtaposition to the groove in the roller and serves to separate the brush on one side of said groove from that on the other side thereof. The bristles are so set in the roller adjacent to the groove as that the outer ends thereof meet at all points, except where separated by the guide-piece, and engage the inside of that part of the case which contains the rotatable brush, as required, to deposit the dust or other waste matter in the dust-box when the said brush is rotated in either direction. The belt F passes out of the case A through the guide-piece J and the opening H, and after being once twisted is carried to a groove in the center of the perimeter of the wheel K, in which groove it is adapted to be confined. The wheel K is vertically secured in a supporting-frame L, and has india-rubber or other cushioning material secured to its perimeter on each side of the annular groove. The frame L has handles M on one end, and the other end is fixed to the ends of the case A.

O represents an apron, the upper edge of which is secured to the upper edge of the partition, from which it depends. The apron O is made in sections, each having a loop secured on the under side thereof, adapted to admit an elastic strap P therein. The ends of this strap P are secured to the ends of the solid partition B.

In the practical use of my invention, the device being grasped by the handles and propelled forward, the wheel K is revolved, and, being geared by the belt F to the brush-roller, which is of a much less diameter than said wheel, said brush-roller will be revolved at a very high rate of speed with a very small amount of gearing, thus cheapening the construction and facilitating the operation of the device. By reason of the apron O being made in sections, the several sections will upon meeting any slight obstruction pass over the same independently of the adjacent sections, and after having so passed will be normalized by the resistance of the elastic strap P.

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

1. In a floor-sweeper, a flexible curtain composed of pieces of flexible material attached to the lower edge of the dust box or case to project downward, and an elastic strap extended through incisions in the curtain sections or pieces to normally retain them in line with each other, as and for the purposes stated.

2. In a floor-sweeper, a case A, having its front end adapted to serve as a dust-box and having its rear end adapted to allow a circular rotatable brush to be journaled therein and to engage the inside thereof, and a double-inclined partition B on the under side of the case in juxtaposition to the periphery of the rotatable brush and terminating in the dust-box, and the conical open-ended guide-piece J, adapted to separate the brush at the point where the bolt enters the case, and a flexible

curtain depending from the lower edge of the case, and rollers journaled approximately in the middle of the case and adapted to support it, substantially as shown and described, for the purposes stated.

3. A floor-sweeper composed of the frame L, having handles M, the traction-wheel K, journaled to the frame, a case A, secured to said frame, which case has a rotatable brush mounted therein and geared to the traction-wheel, a conical open-ended guide-piece J, and the inclined partition B, and rollers D, substantially as shown and described, to operate in the manner set forth.

ELAM K. HERR.

Witnesses:

JOHN F. SCARBOROUGH,  
M. GREENLEAF.