

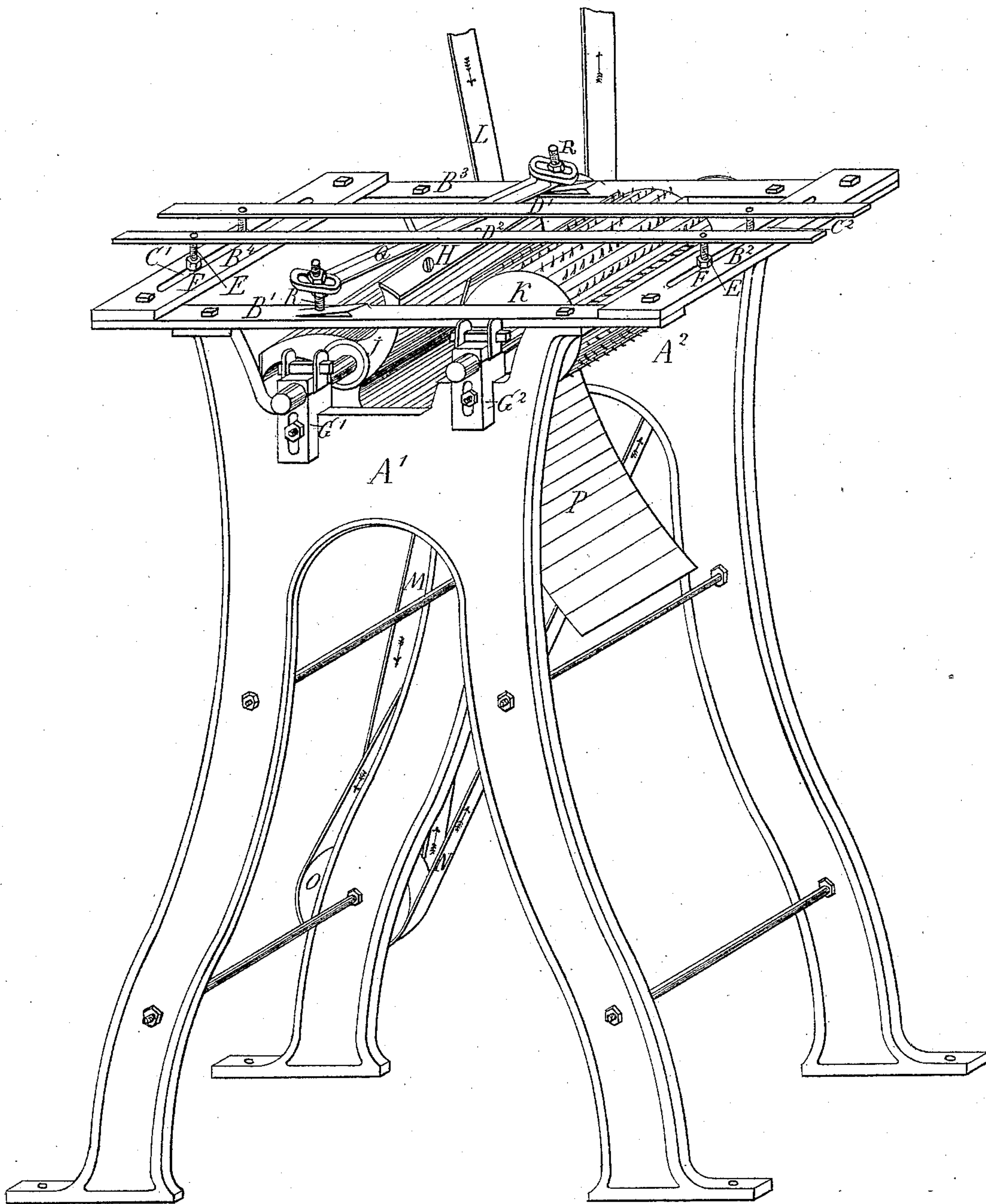
(No Model.)

W. WALTHER-VOGEL.

BRUSH CLEANING AND CUTTING MACHINE.

No. 307,692.

Patented Nov. 4, 1884.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILHELM WALTHER-VOGEL, OF OBER-ENTFELDEN, SWITZERLAND.

BRUSH CLEANING AND CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 307,692, dated November 4, 1884.

Application filed October 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILHELM WALTHER-VOGEL, a citizen of Switzerland, residing at Ober-Entfelden, in the canton of Argovia, Switzerland, have invented certain new and useful Improvements in Brush Cleaning and Cutting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a machine which shall, in an economical and expeditious manner, card and clean the bristles and then trim them; and my invention consists of the improved machine for doing this work, as hereinafter described and claimed.

The accompanying drawing shows a perspective view of the machine. The frame A' A² supports the top rectangular frame. B' B² B³ B⁴, the side members of which, B² B⁴, have each a longitudinal slot, C² C', respectively, the same being parallel with the carding-roller K and knife-shaft J. The two guide bars or plates, D' D², on which the brush-blocks rest, and which form guideways for them to be pushed along on, are adjustably supported on the screw-posts E, which pass through the slots C' C², and have nuts F above the frame and jam-nuts below. It will thus be seen that the bars D' D² can be adjusted vertically or horizontally at any desired distance apart or above the trimming-knives. The pillow-blocks G' G², adjustably attached to the frame, (there being similar pillow-blocks on the other side of the machine,) have bearings for the shaft J, which carries the knives H and the shaft of the carding or brush-cleaning cylinder K. The shaft J has three wings, each carrying a knife, H. The stationary knife-bar Q is vertically adjustable on the inclined screw-posts R by nuts and jam-nuts, the ends of the knife-bar being made with short slots at each end transverse to the bar, through which the posts R pass, which allows for lateral adjustment of the knife-bar. The knife-shaft is driven by the belt L, and the carding-roller

receives its motion through belts M and N passing over the intermediate pulley, O. The curved plate P, which passes up between the knives and cleaning-roller, separates the waste of the latter, which can in part be used again from the trimmings of the knives. The accurate adjustment of the knives H can be secured by means of outside and inside regulating-screws, which latter are not seen in the drawing.

The operation of the machine is as follows: The guide-plates D' D² are set according to the width of the brushes to be cleaned and cut and the desired length of the bristles to be cut, for which purpose, as above explained, the guide-bars are vertically and horizontally adjustable. The brushes, with the bristles turned downward and the sides of the blocks resting on the guide-plates, are then pushed forward, starting at the right-hand end of the guide-bars. The metal pins of the cylinder K first scrape and card the bristles, removing from them all dirt, loose bristles, &c. Then, as the brush is pushed on, the bristles are cut even and true between the knife-blade Q and the rotating knives. The waste from the cleaning-cylinder is delivered on one side of the partition P and the knife-clippings on the other.

Curved brushes can be cleaned and cut as well as straight ones, either by giving the necessary motion by hand or by means of suitable guiding-pieces to be set on the guide-plates.

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

A brush cleaning and trimming machine consisting of the combination of the vertically and laterally adjustable guideways D' D², the carding and cleaning cylinder K, the shaft carrying the rotary knives H, the vertically and laterally adjustable knife Q, and the partition P, all combined and operating substantially as described, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILHELM WALTHER-VOGEL.

Witnesses:

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