

(No Model.)

E. BLÜTCHEN.
MACHINE FOR CUTTING QUILL STRIPS.

No. 519,659.

Patented May 8, 1894.

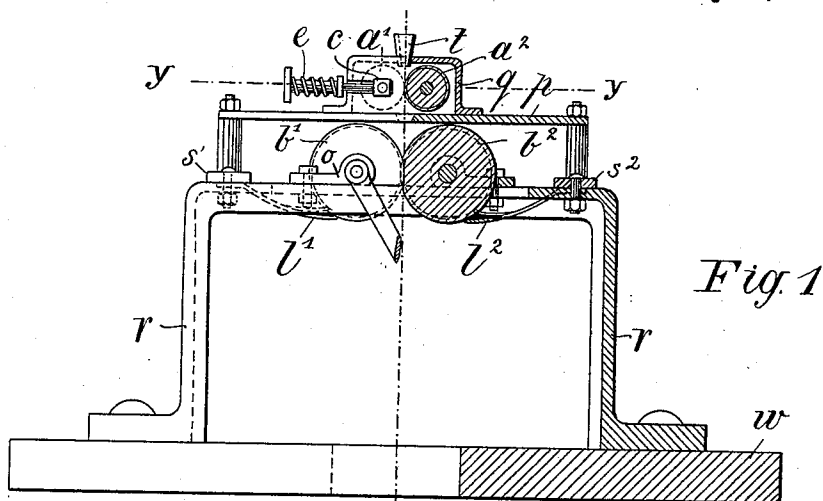


Fig. 1

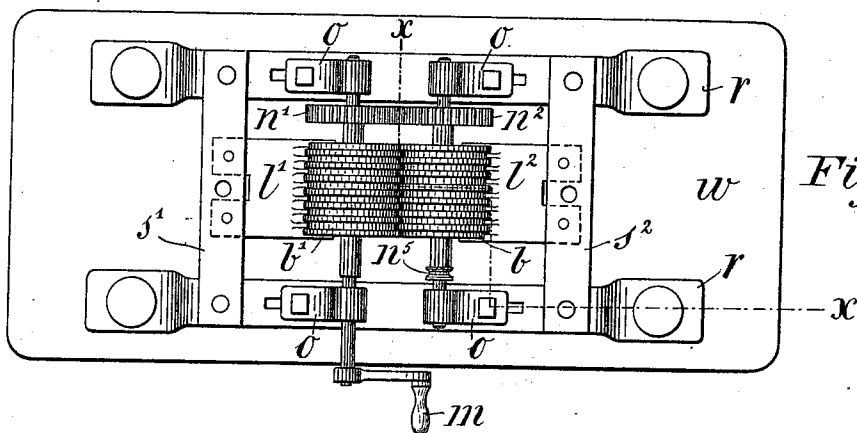
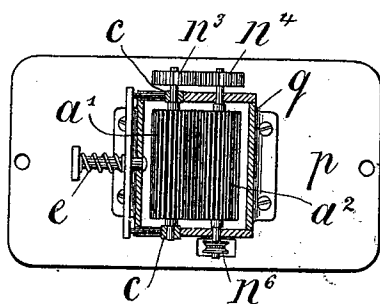


Fig. 2

Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

ERNST BLÜTCHEN, OF BERLIN, GERMANY.

MACHINE FOR CUTTING QUILL-STRIPS.

SPECIFICATION forming part of Letters Patent No. 519,659, dated May 8, 1894.

Application filed June 14, 1893. Serial No. 477,582. (No model.)

To all whom it may concern:

Be it known that I, ERNST BLÜTCHEN, a subject of the Emperor of Germany, residing at Berlin, in the Empire of Germany, have invented certain new and useful Improvements in Machines for Cutting Quill-Strips; 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.

The object of my invention is to provide a machine for cutting quills into strips, for use in all kinds of brushes instead of costly bristles.

Referring to the drawings which form a part of this specification: Figure 1 is an elevation of the machine partly in vertical section on lines $x-x$ of Fig. 2. Fig. 2 is a plan view of the machine, the feeding mechanism being removed. Fig. 3 is a plan of the feed rollers whose casing or cover is shown in section on line $y-y$ of Fig. 1.

The frame of the machine consists of two standards r riveted on the bed plate w , and held in position by rails $s' s^2$. In the bearings o of the standards r , rollers b' , b^2 are mounted, and caused to rotate in opposite directions by pinions n' , n^2 operated by power or by a handle m . The faces of the said rollers are ribbed or fluted in such way that the ribs of the one engage the corresponding slots or spaces between the ribs on the other, thus forming the cutting mechanism. A second pair of rollers a' a^2 is operated from the shaft of roller b^2 by string pulleys n^5 , n^6 and pinions n^3 n^4 and, in such way, that the rollers run in opposite directions, the speed at which these rollers run relative to the speed of the cutting rollers being determined by the relative size of the pulleys n^5 and n^6 .

In order to prevent the quill to be cut, running obliquely through the rollers b' , b^2 , the feed rollers are fluted, the gripping effect being increased by the roller a' being mounted

in slide bearings $c c$, and working under pressure against roller a^2 .

The casing q , in which the feed rollers a' a^2 are mounted, is cast with a funnel-like projection t of the same width as the feed rollers, and serving as guide or feed slot. The plate p has a slot of the same dimensions as the lower end of the funnel, through which slots the quills coming from the feed rollers, enter the cutting rollers. A corresponding opening in the bed plate allows of the passing out of the quills cut into more or less thin strips.

In order to keep the grooves of the cutting rollers free from shreds of quills, &c., the bent end of a spring plate $l' l^2$ is inserted with projecting edges into the grooves of each roller from underneath, said plates being fastened to the rails s' , s^2 .

Having now described my invention, I declare that what I wish to secure by Letters Patent is—

1. In a quill cutting machine the combination of the cutting rollers and the two feed rollers geared together so as to rotate in opposite directions, and fluted, whereby they prevent the quills from being fed obliquely, substantially as and for the purpose described.

2. In a quill cutting machine, in combination with the cutting rollers, the removable support in which are mounted the feeding rollers and consisting of the plate p provided with a slot between the feeding and cutting rollers, and a casing q , surrounding the feeding rollers and provided with a feed slot, substantially as and for the purposes set forth.

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

ERNST BLÜTCHEN.

Witnesses:

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