

No. 709,044.

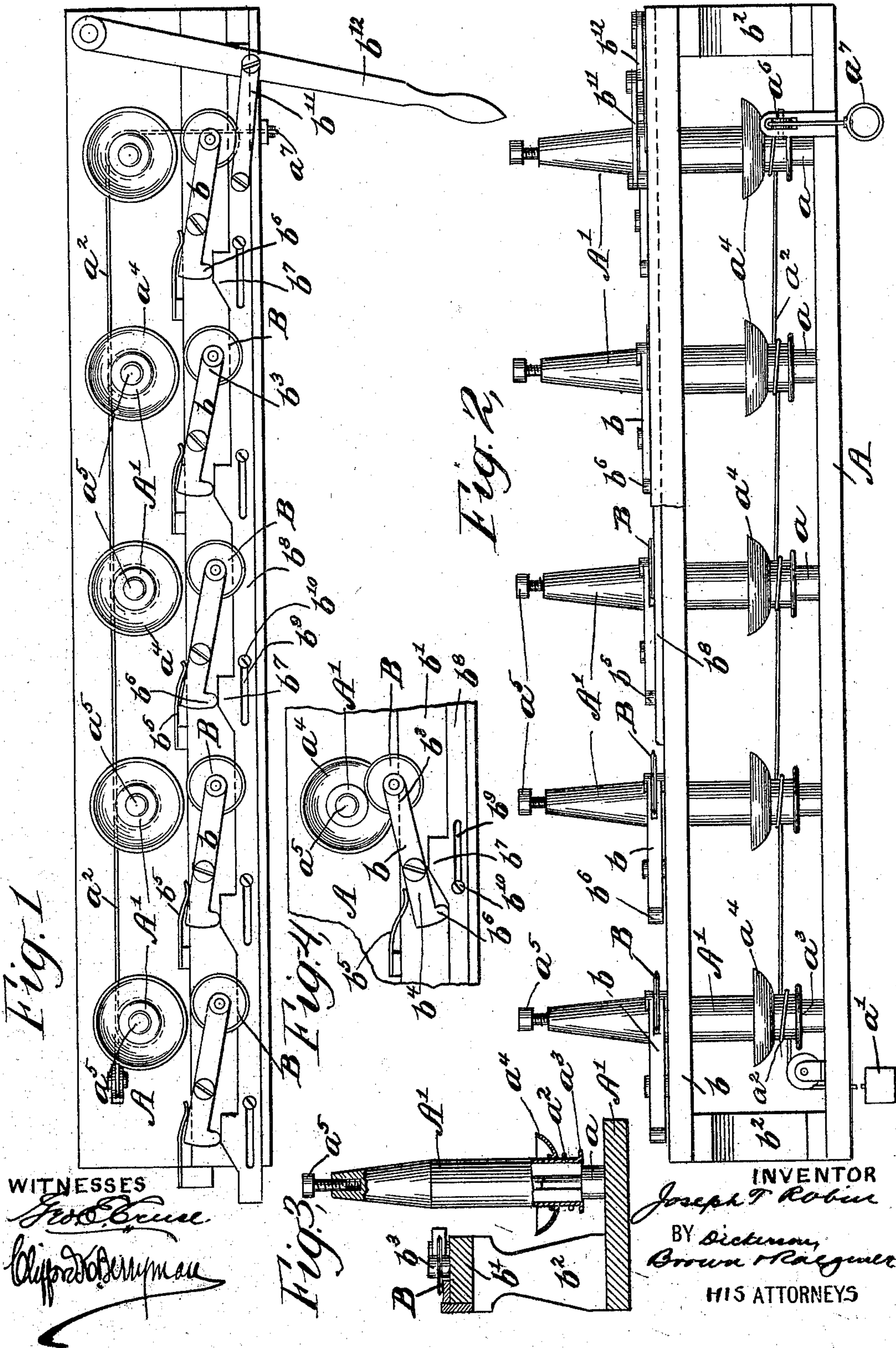
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J. T. ROBIN.

MECHANISM FOR TRIMMING MANTLES.

(Application filed Dec. 28, 1901.)

(No Model.)



WITNESSES

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MECHANISM FOR TRIMMING MANTLES.

SPECIFICATION forming part of Letters Patent No. 709,044, dated September 16, 1902.

Application filed December 28, 1901. Serial No 87,634. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH T. ROBIN, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, (whose post-office address is 52 Duane street, in said borough,) have invented certain new and useful Improvements in Mechanism for Trimming Mantles, of which the following is a specification.

My invention relates to mechanism for trimming or cutting mantles.

I will describe a mechanism embodying my invention and then point out the novel features thereof in the claims.

In the accompanying drawings, Figure 1 is a top plan view of a mechanism embodying my invention. Fig. 2 is a side elevation of the mechanism shown in Fig. 1. Fig. 3 is a view in transverse section. Fig. 4 is a detail top plan view showing the trimming position of a knife.

Similar letters of reference designate corresponding parts in all of the figures.

A represents a table or other suitable support on which are mounted, each so as to be capable of rotation a plurality of mandrels A' , which support mantles.

B represents a plurality of knives, which coact with the mandrels A' to trim the mantles supported thereby and which are adapted through suitable means to be moved into and out of operative position relatively to said mandrels. It is obvious that instead of moving the knives to and away from the mandrels the mandrels may be moved to and away from the knives.

The construction and arrangement of parts for each mandrel are the same in all the mandrels, so that the following description of one mandrel will apply to all.

a represents a post or upright supported on the base A. The mandrel A' is preferably hollow and incloses the post a . The mandrel is mounted and retained on the upper end of the post a in any desired manner. It is only necessary that the mandrel be mounted in such manner as to be capable of rotation. A cord a^2 is wound around the mandrel and when unwound rotates the mandrel in one direction. A weight a' is secured upon one end of the cord and serves to rotate the mandrel in a reverse direction when the cord is

released. Thus it will be seen that each mandrel is provided with means for causing its rotation in opposite directions, and, as here shown, the action of one affects the action of the other. The cord a^2 is here shown as being wound upon the mandrel and retained thereon by a flange a^3 . Instead, a spool or pulley may be mounted upon the mandrel. a^4 represents a cup carried by the mandrel, which serves to catch trimmings.

a^5 represents an adjustable extension for the mandrel, which is provided to accommodate different lengths of mantles and also to regulate the point at which a mantle is to be trimmed to produce different lengths of mantles.

As shown in the drawings, all of the cords a^2 are comprised in a single cord. The cord is wound about each mandrel in a plurality of coils and its free end passed over a pulley a^6 and provided with a hand or finger piece a^7 . By pulling the free end all of the mandrels are made to rotate simultaneously and the weight raised, so that when the cord is released the weight will act to rotate the mandrels in a reverse direction. Instead of a weight a single spring may be used or a spring on each mandrel.

The construction and arrangement of parts for each knife are the same in all the knives, so that the following description of one knife and concomitant parts will apply to all.

b represents a lever which is fulcrumed intermediate its ends on a support b' , which is located above the table A on standards b^2 , which project upwardly from the table A. One end b^3 of the lever b is bifurcated, and the knife B, which is in the form of a disk, is mounted between the branches, so as to be free to rotate. The other end b^4 of the lever is acted upon by a spring b^5 , which tends to swing the lever on its fulcrum to cause the knife to move toward the mandrel and also to hold the knife against the mandrel. This end of the lever is also provided with a toe-piece b^6 , which coacts with a cam b^7 . The cam b^7 , engaging the toe-piece, when moved causes the lever b to swing on its fulcrum and in a direction reverse to that induced by the spring b^5 . The normal position of the lever b is that shown in Fig. 1, in which position a mantle to be trimmed may be placed on a

mandrel. The cutting position of the knife is shown in Fig. 4. In this view the toe-piece b^6 is disengaged from the cam b^7 . For convenience the cams b^7 are carried by a bar b^8 , extending longitudinally of the support b^1 . The bar b^8 is provided with slots b^9 , through which screws b^{10} pass. The screws and slots serve to retain the bar b^8 on the support b^1 and also to guide it in its longitudinal movement. A hand-lever b^{10} , connected by a link b^{11} to the bar b^8 , may be employed to reciprocate the bar. Instead of a spring b^5 for each lever b a slotted or other flexible connection may be made between that end of the lever and the cam b^7 .

The mantles may be placed on the mandrels in any desired way, either by hand or automatically. They may also be removed after trimming in any desired manner.

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

1. In a mechanism for trimming mantles, the combination with a vertically-arranged mandrel over which the mantle fits, and the wall of which mandrel serves as a support for the lower portion of the wall of the mantle, a knife for trimming the mantle, and means for rotating one of said parts in contact with the other.

2. In a mechanism for trimming mantles, the combination with a mandrel over which the mantle fits, and the wall of which mandrel serves as a support for the lower portion of the wall of the mantle, an adjustable part carried by the mandrel, a knife for trimming the mantle, and means for rotating one of said parts in contact with the other.

3. The combination in a mechanism for trimming mantles, of a mandrel for supporting a mantle, means for causing a rotation of the mandrel in one direction, and other means for causing a rotation of the mandrel in a reverse direction, and a knife adapted to coact

with the mandrel to trim the mantle supported thereby.

4. The combination in a mechanism for trimming mantles, of a mandrel for supporting a mantle, a cord coiled about the mandrel for causing a rotation of the mandrel in one direction, a weight connected to the cord and adapted when the cord is released for rotating the mandrel in a reverse direction, and a knife adapted to coact with said mandrel for trimming the mantle supported thereby.

5. The combination in a mechanism for trimming mantles of a mandrel for supporting a mantle and adjustable extension on said mandrel, and a knife adapted to coact with said mandrel to trim the mantle supported thereby.

6. The combination in a mechanism for trimming mantles, of a rotatable mandrel for supporting a mantle, a knife adapted to coact with said mandrel for trimming the mantles, a lever on which said knife is mounted and means operating on said lever to move the knife into and out of operative position relatively to the mandrel, said means comprising a spring for moving the lever in one direction and a cam for moving the lever in a reverse direction.

7. The combination in a mechanism for trimming mantles, of a plurality of mandrels for supporting mantles, a plurality of knives for coacting with said mandrels for trimming the mantles, means for simultaneously moving the knives into and out of operative position relatively to said mandrels and means for causing a simultaneous rotation of said mandrels.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH T. ROBIN.

Witnesses:

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GEO. E. CRUSE.