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G. W. STEFFEE & M. J. BEENEY.
MACHINE FOR TRIMMING WINDOW SHADES.

APPLICATION FILED FEB. 17, 1903.

NO MODEL.

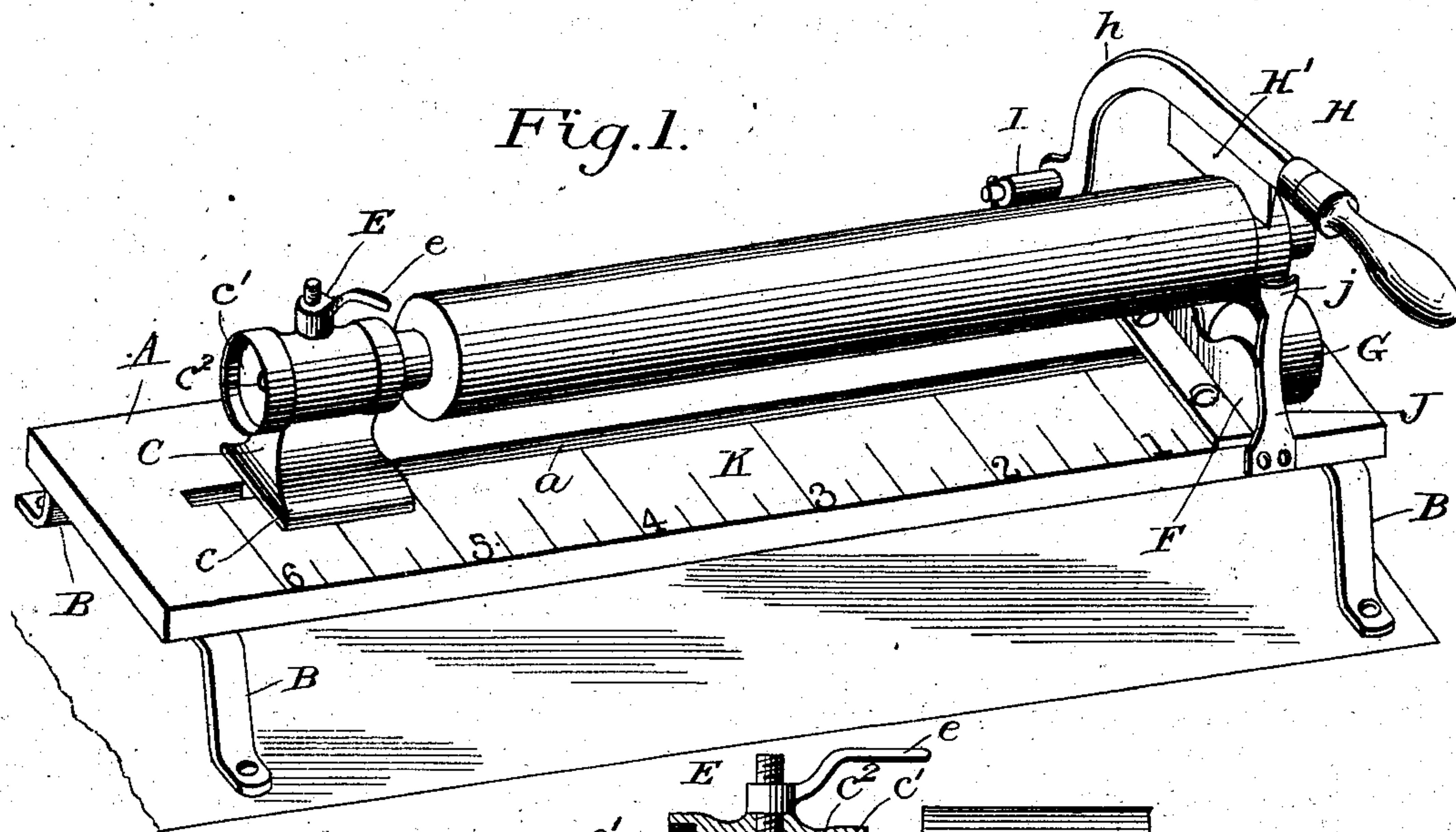
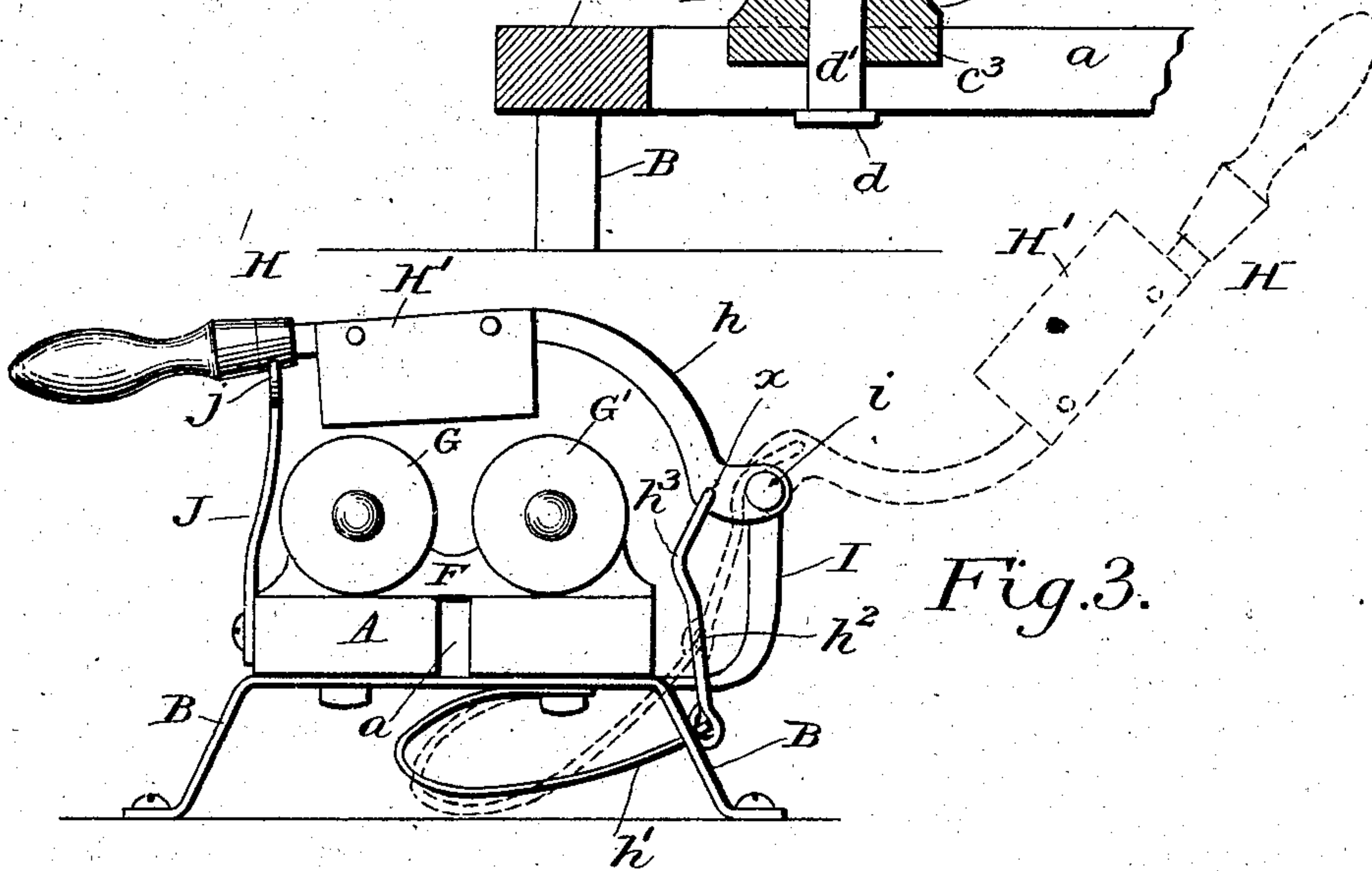
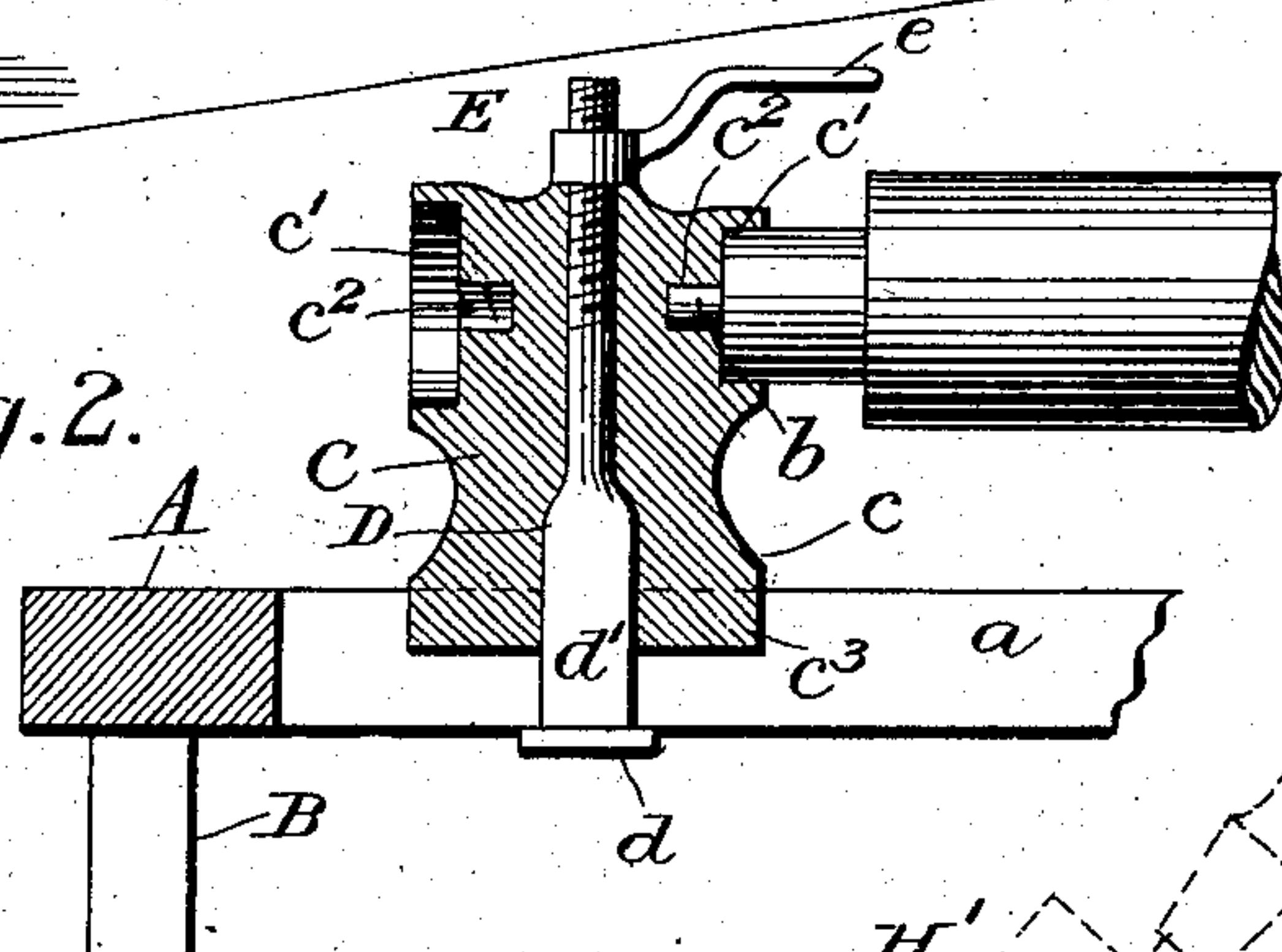


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE W. STEFFEE AND MAURICE J. BEENEY, OF NEWARK, OHIO.

MACHINE FOR TRIMMING WINDOW-SHADES.

SPECIFICATION forming part of Letters Patent No. 728,424, dated May 19, 1903.

Application filed February 17, 1903. Serial No. 143,811. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. STEFFEE and MAURICE J. BEENEY, citizens of the United States, residing at Newark, in the county of Licking and State of Ohio, have jointly invented certain new and useful Improvements in Machines for Trimming Window-Shades, of which the following is a specification.

10 The object of our invention is to provide improved means for cutting or trimming window-shades to reduce them in width from the standard sizes to the proper sizes to fit windows where they are to be used.

15 Ordinarily window-shades are made either thirty-six, thirty-eight, forty-two, forty-five, forty-eight, fifty-four, or sixty-three inches wide; but windows do not always correspond in width with either of these dimensions.

20 In fact, they very often vary from these dimensions to such an extent that shades of standard sizes cannot be made to fit them without being trimmed. For instance, some windows are only twenty-seven inches wide, and in order to fit a shade to such window it is necessary to cut off nine inches of a thirty-six-inch shade along one side thereof. Window-shades are generally rolled on spring-rollers and inclosed in paper wrappers, which are stamped with a memorandum of the brand, width, length, and color. To fit a shade thirty-six inches wide and seven feet long to a window the width of which is twenty-seven inches, it is customary to tear off the wrapper, unroll the shade, stretch it out on the floor or on a table, mark off the part to be removed, cut along this line with a knife or with scissors, and then wind up the shade again before hanging it.

40 According to our invention we provide a machine by means of which a window-shade while still wound on its roller and, if preferred, before the paper wrapper is removed may be quickly and accurately cut to the desired width.

50 In carrying out our invention we provide supports for opposite ends of the shade-roller, and near one support we employ a knife, which is made to bear against the rolled shade by means of a spring in a proper manner to cut through the shade down to the roller, and thus sever the surplus material without un-

winding the shade. The support at the opposite end of the roller is adjustable in such manner as to hold the rolled shade in any desired position relatively to the knife to permit the latter to sever from the shade the necessary width of material.

The details of construction will be hereinafter more fully described.

In the accompanying drawings, Figure 1 is a perspective view of our improved machine for trimming window-shades. Fig. 2 is a detail view, partly in elevation and partly in section, showing particularly the manner of connecting one of the supports or, as we call it, the "tail-stock" to the bed-plate of the machine and to the shade-roller. Fig. 3 shows an end elevation of the machine, one position of the trimming-knife being indicated by dotted lines.

A bed-plate A, which may be made of wood of any desired length, preferably of a length sufficient to accommodate the largest-sized shades, is by preference mounted on legs or standards B, which may be attached to a table, if desired, or may be made to simply rest thereon. The bed-plate is formed with a longitudinal slot *a*, which receives the lower portion of a tail-stock C, which latter is adapted to slide back and forth over the slot and be held in any desired position on the bed-plate. Preferably the tail-stock is formed with a base *c*, that bridges the slot, and it has on its under side a flange *c*³, that extends into the slot, but fits it loosely, its dimensions being such as to prevent the tail-stock from turning, while allowing it to move longitudinally over the slot. The upper portion of the tail-stock is formed with one or more circular recesses *c*¹, either of which may be used to receive the end of a shade-roller, and smaller recesses *c*² to receive the projecting end of the stud *b*, which is connected with the roller-spring. When two recesses *c*¹ are used, they are made of different diameters in order to accommodate rollers of different sizes. Some simple clamping device is employed for attaching the tail-stock to the bed-plate. Preferably we employ a bolt D, having at its lower end a head *d*, bridging the slot, and a shank *d*¹, rectangular in cross-section and extending through the slot and into the lower portion of the tail-stock. The bolt

extends upwardly through the tail-stock, and its upper end is rounded and screw-threaded to receive a nut E, having a handle *e*. The construction and arrangement are such that
 5 when the parts are arranged as shown in Fig. 2 the nut will bear against the top of the tail-stock and draw the head of the bolt against the bed-plate, thus securely holding the tail-stock in the position to which it is set. By
 10 turning the nut the connection may be loosened, and the tail-stock may be adjusted longitudinally on the bed-plate and again clamped thereto. By removing the bolt the tail-stock may be lifted away from the bed-
 15 plate and reversed, so as to present either one of the recesses *c'* to the roller. After being thus reversed the bolt and nut may be again applied in the manner before stated. At the opposite end of the bed-plate is se-
 20 cured a frame F, to which are pivoted two rollers G G', arranged on opposite sides of the slot *a* and of proper dimensions to hold the rolled shade in line with the axis of the tail-stock, and above these rollers we
 25 arrange a knife-carrying lever H, provided with a knife H', adapted to bear on the shade, and this knife-carrying lever is provided with a handle, by means of which it may be raised and lowered when desired. The lever
 30 H is also provided with an arm *h*, pivoted to a bracket I, attached to the bed-plate, and just inside the pivot a link *h*² is attached to the arm, the lower end of the link being attached to a spring *h*'. The link is recessed
 35 or curved at *h*³ in such manner that as the knife is moved up and outward in the manner shown by dotted lines in Fig. 3 the connection at *x* between the link and the arm *h*
 40 will pass across the axis about which the arm turns; but the outward movement of the lever is limited by the engagement of the link with a stud *i*, projecting from the arm. By this arrangement the spring tends to draw
 45 the knife downward against the rolled shade when the lever is moved inward or when the pivotal point *x* is inside the pivot of the lever; but when the pivotal point *x* passes outward across the axis about which the knife-
 50 lever moves the spring tends to move the lever outward and hold it in the position shown by dotted lines in Fig. 3. By this arrange-
 55 ment the knife can be thrown back out of the way and held within convenient reach when a rolled shade is being adjusted or when it is being taken out of the machine; but when a
 60 shade is being cut the knife is held by the spring *h*' in proper position relatively to the shade and is prevented from being thrown out of position accidentally. The spring *h*'
 65 is made of sufficient strength to cause the knife to cut the shade without additional pressure being applied to the handle, both hands of the operator being thus free to turn the shade, although this may ordinarily be
 done with one hand. Additional pressure may, if desired, be applied to the knife by means of the handle. In order to provide a

rest for the lever when no roller is mounted in the machine, we employ a bracket J, at-
 70 tached to the front of the bed-plate and having a bifurcated upper end *j* to receive the lever. The proper adjustment of the tail-stock may be obtained by means of the scale
 75 K, which is graduated to indicate feet and inches from the knife side of the machine to-
 ward the tail-stock.

In using our invention we preferably do not tear off the paper wrapper, but leave it on the shade in order that the latter need not
 80 be soiled in handling. When the knife is thrown back to the position shown in Fig. 3 by dotted lines, the end of the roller contain-
 85 ing the spring is adjusted in the tail-stock, the stud projecting from the spring being protected in the recess *c*². The opposite end of the rolled shade rests between the rollers G G'.
 90 The tail-stock is adjusted and set at the proper distance from the knife, (indicated on the scale K,) and then the knife-carrying lever H is turned inward and the knife is made to
 95 bear on the shade in the manner indicated in Fig. 1. Pressure is applied to the knife-carrying lever by the spring *h*', while either one or both hands of the operator may turn the
 100 rolled shade slowly around its axis, and as the paper is still on the shade there is no danger of the shade being soiled by handling. This operation is continued until the shade is cut
 105 through to the roller. The surplus material is then withdrawn, and the surplus projecting end of the roller is removed by means of a saw. Ordinarily when a roller is trimmed in this
 110 way the casting containing the pivot is attached to the roller by means of tacks or by means of a pin projecting centrally through its inner side, and a careless workman often
 115 rests the opposite end of the roller containing the spring on the floor or against some stationary object. In doing this it very often happens that the spring is injured, inas-
 120 much as the stud *b* is forced inward by such an operation; but in using our machine after the end of the roller is sawed off the pivot-casting may be attached to the roller without
 125 removing it from the machine. The tail-stock affords a suitable abutment to withstand the blows of the hammer, and the spring-stud *b* is protected within the recess *c*². The knife cuts the shade evenly, with
 130 no ragged edges, and when the tail-stock is once adjusted to cut a shade of suitable width for one window no further adjustment is of course required for shades of other windows
 of the same width, and therefore we save a great deal of time by the use of our machine
 135 by reason of the fact that we avoid the necessity of measuring off the proper width on each shade.

Our machine is simple, it may be manu-
 140 factured at small cost, and very little skill is required to operate it, and yet it does the work required more evenly and expeditiously than has heretofore been possible. The machine is also light and may be transported from

place to place. It is not necessary that the standards should be screwed down to the table, and when not in use the machine may be stood up in a corner where it will be out of the way.

We claim as our invention—

1. A machine for trimming window-shades, comprising a bed-plate, a tail-stock adapted to receive one end of a shade-roller, rollers for supporting the opposite end of the shade-roller, and a knife-carrying lever arranged over the supporting-rollers.

2. A machine for trimming window-shades, comprising a bed-plate, a tail-stock adjustable longitudinally thereon and adapted to receive one end of a shade-roller, rollers for supporting the opposite end of the shade-roller, and a knife-carrying lever pivoted to the bed-plate and arranged over the supporting-rollers.

3. A machine for trimming window-shades, comprising a bed-plate, a reversible tail-stock having recesses on opposite sides, each adapted to receive one end of a shade-roller, clamping devices for attaching the tail-stock to the bed-plate, rollers on the bed-plate for supporting the opposite end of the shade-roller, and a knife arranged over the rollers.

4. A machine for trimming window-shades, comprising a bed-plate, a tail-stock having a recess therein adapted to receive one end of a shade-roller, and a smaller recess communicating therewith adapted to receive the stud adjacent to the spring of the roller, means for adjustably connecting the tail-stock with the bed-plate, means for supporting the opposite end of the shade-roller, and a knife for trimming the shade arranged near the supporting-rollers.

5. A machine for trimming window-shades, comprising a bed-plate, supports for opposite ends of a rolled shade, a knife-carrying lever pivotally connected with the bed-plate, a

spring attached to the bed-plate, a link attached to the spring and connected with the knife-carrying lever between its pivot and the knife, a stop engaging the link and limiting the outward movement of the knife-carrying lever, and a bracket for supporting the knife-carrying lever and for limiting its inward movement.

6. A machine for trimming window-shades, comprising a slotted bed-plate having a scale thereon, rollers at one end of the bed-plate for supporting a rolled shade, a knife arranged over said rollers for trimming the shade, and an adjustable tail-stock for supporting the opposite end of the shade-roller, substantially as described.

7. A machine for trimming window-shades, comprising a bed-plate, a tail-stock adjustable longitudinally of the bed-plate and adapted to receive one end of the shade-roller, means for supporting the opposite end of the roller, a trimming-knife pivoted to move about a stationary axis, and a spring for drawing the knife into engagement with the shade.

8. A machine for trimming window-shades, comprising a bed-plate, a tail-stock adapted to receive one end of a shade-roller, rollers for supporting the opposite end thereof, a pivoted trimming-knife, a spring and a link connected with the spring and connected with the knife inside its pivot, whereby the knife is held either in engagement with the shade or is held away from the shade, substantially as described.

In testimony whereof we have hereunto subscribed our names.

GEORGE W. STEFFEE.
MAURICE J. BEENEY.

Witnesses:

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