

(No Model.)

2 Sheets—Sheet 1.

G. A. KEIST.
MACHINE FOR ROLLING BANDAGES.

No. 510,346.

Patented Dec. 5, 1893.

Fig. 1.

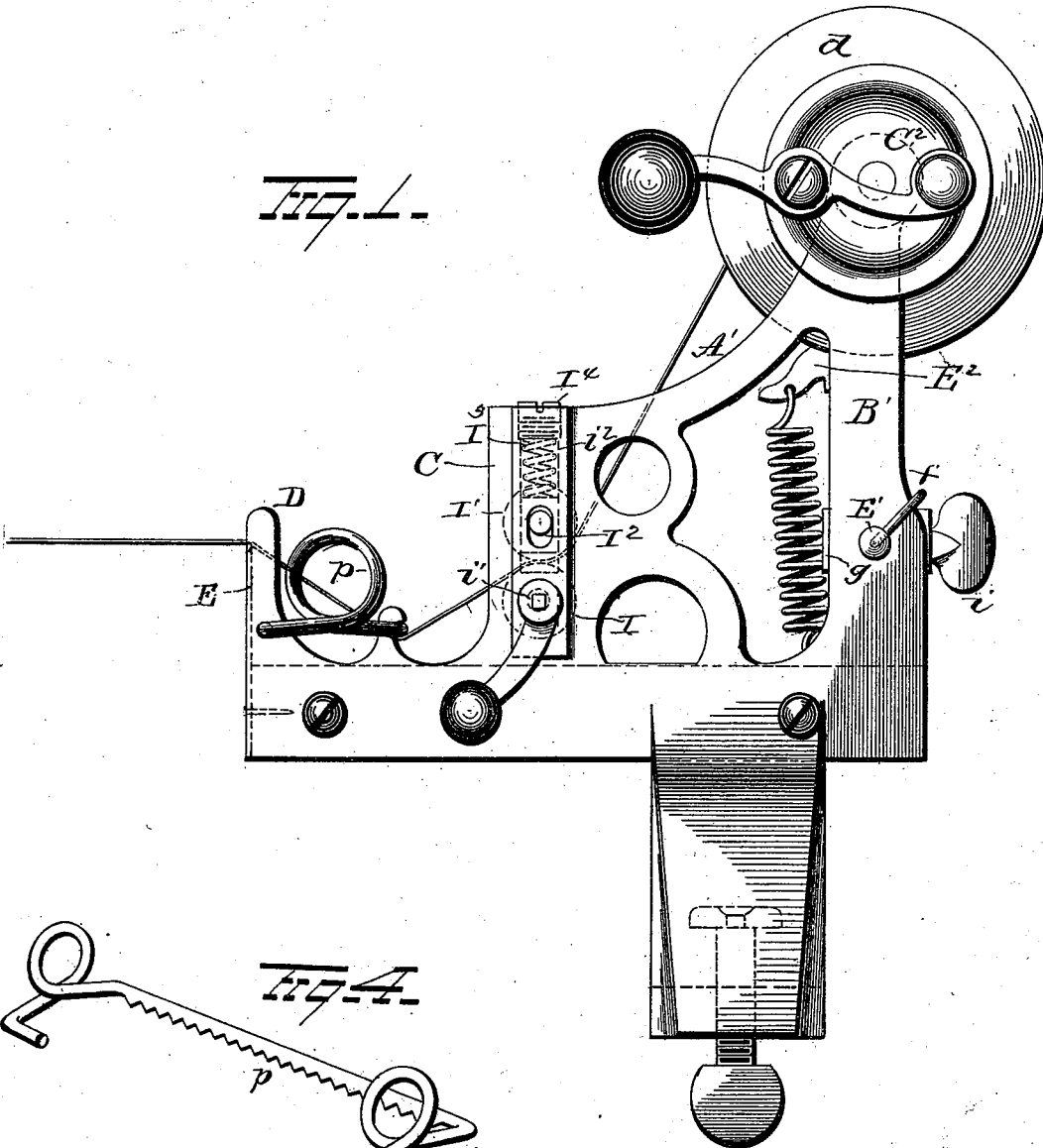
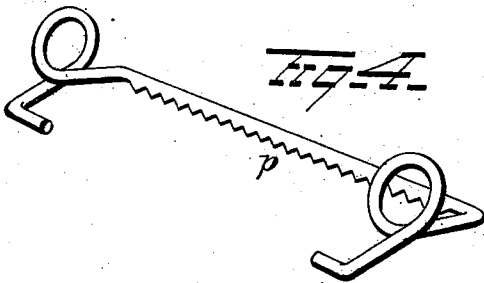


Fig. 4.



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GEORGE A. KEIST, OF AUBURN, MAINE, ASSIGNOR OF ONE-HALF TO
WALLACE K. OAKES, OF SAME PLACE.

MACHINE FOR ROLLING BANDAGES.

SPECIFICATION forming part of Letters Patent No. 510,346, dated December 5, 1893.

Application filed January 11, 1893. Serial No. 458,035. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. KEIST, of Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Machines for Rolling Bandages, Cloth, &c.; 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.

My invention relates to an improvement in machines for rolling bandages, cloth and the like, the object being to provide a simple and durable device which will permit articles of various widths to be rolled thereon, and quickly and readily removed after having been rolled.

With this end in view my invention consists in the parts and combinations of parts as will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings Figure 1 is a side elevation of my improvement. Fig. 2 is a view in vertical section of the same. Fig. 3 is a side view showing the mechanism for locking the spindle in place and Fig. 4 is a modification.

A A' represent the sides of the machine, preferably made of metal and provided with upwardly projecting standards B for the spindle on which the cloth or other fabric is to be rolled, with standards C for the pressure rolls, and with standards D between which is located the serrated or toothed plate E. This plate E is a vertical plate as shown, with a toothed upper edge.

The side A' of the machine is provided with a depending L-shaped bracket carrying a thumb screw by means of which the entire apparatus is fastened to the edge of a desk, table, shelf or other like article. The two sides A and A' are attached to the base F which latter is preferably made of wood and is of a length equal to the length of the sides A A'.

The standard B is provided with a bearing C^1 in which is journaled one end of the spindle C', while the enlarged end of standard B' is provided with a bearing C^2 for the reception of the cylindrical block C^3 carried by the operating pulley. The inner half of bearing C^2 is of a diameter greater than the outer half,

and the block C^3 is shaped to correspond therewith. Hence by inserting the block C^3 into the larger end of the bearing and then attaching the pulley or crank handle to the smaller end of said block the latter is held securely in place and is free to rotate with the pulley or crank. This block is provided on its inner face, which by the way is flush with the inner face of standard B', with an angular opening c for the reception of one end of the spindle C'. This spindle is preferably angular in cross section and passes centrally through a rigid disk d secured to standard B' and forming an abutment against which the cloth or fabric abuts while being wound on the spindle. The spindle is also provided at the end adjacent to the disk d with an angular section d' adapted to enter the angular opening in block C^3 , and at its opposite end with a round section d^2 which latter rests in the bearing d^3 formed in the upper end of standard B. A shoulder d^4 on the spindle prevents endwise movement of the latter. The spindle is also retained in place by the spring actuated catch E^2 pivoted to standard B and having a flanged upper edge adapted when in its normal position to rest over the adjacent end of the bearing and prevent the latter from being raised. To remove the spindle, the spring catch is moved to one side of the bearing thus leaving the end of the spindle exposed and free to be removed.

On a line with and a suitable distance below spindle C' is located a rod E', which latter is supported by the standards B B' and is removably held therein by means of a staple f , which latter straddles the standard B' and enters holes located in the rod E', thus preventing any endwise movement. The rod E' is provided with a sliding block g , having an upwardly projecting arm or strip g' secured to one side thereof, which in turn supports a disk h , which latter is provided with a slot h' running from its periphery to the center thereof and so arranged relatively to the spindle that when turned up the slot registers with the spindle. This disk forms an end abutment for the cloth or other fabric and can be adjusted to accommodate different widths of

bandages by means of the thumb screw *i*, which latter passes through a screw threaded opening located in the rear end of the sliding block *g* and locks the parts in position by its contact with the rod *E'*.

The standards *C*, are hollow throughout a portion of their distance and open at their tops, and each is provided at a point below the hollow portion with bearings *i'* for the trunnions of the lower roller *I* and with elongated slots *i''* through which the trunnions of the upper roller *I'* pass. The trunnions of the upper roller are mounted in the blocks *I''* located within the standards and the roller itself rests on the lower roller and is adjusted to bear against same with more or less pressure by springs *I'''* and screws *I''''*. The springs rest on top of the blocks *I''* and bear on the under ends of screws *I''''*; hence by turning the screws outwardly the pressure is diminished and by turning them downwardly the pressure is increased. Both friction rollers *I* and *I'* are preferably composed of metal cores and yielding bodies, rubber being preferably employed in the construction of the latter.

To the front of the machine is secured a serrated plate *E*, which latter straightens the edges of the cloth and prevents the latter from slipping or entering the rollers in an uneven manner. This plate *E* also takes out all wrinkles and creases in the cloth being rolled, and also combs out ravelings and folded edges of the article being rolled.

To the standard *D* is pivotally secured a spring clamp *p*, which latter is constructed of spring metal and in the form shown in the drawings, said clamp being held in its operative position or in a position below the serrated edge of plate *E* and below the upper edge of roller *I* by means of lugs *r*, which latter are integral with the sides of the machine.

The spring clamp *p* may if desired be provided with a serrated lower edge under which the material passes.

When it is desired to roll bandages, the machine is fastened to a table as hereinbefore explained, after which one end of the bandage is passed under the spring clamp, which latter is out of engagement with the lugs *r*; the bandage is then passed between the rollers *I I'* and is finally secured to the main spindle *C'*. After the bandage has been secured to the spindle the sliding block carrying the movable disk is moved on the rod *E'* until said disk comes in contact with the outer edge of the bandage, after which the thumb screw is screwed into the sliding block until it makes rigid contact with the rod *E'*, thus locking the disk against displacement. The bandage is then rolled on the spindle *C'* by rotating the handle, or if desired a belt could be passed over the pulley and the machine operated by an engine or other motive power.

While the machine is in operation the cloth can be held in contact with the serrated face

of plate *E* and during its passage over said plate will have its edges straightened and all creases removed therefrom. The spring clamp *p* being in its normal position will cause the cloth to be fed to the rollers *I I'* taut and perfectly straight. The rollers *I I'* will also materially assist in carrying the cloth straight to the spindle, while the roller *I'* will adjust itself to accommodate the different thicknesses of articles rolled. The disks form guides and absolutely prevent the cloth from being rolled in an uneven manner.

When it is desired to unroll the whole or part of the article contained on the spindle, it is accomplished by revolving the handle secured to the roller *I* until the whole or a sufficient amount of the article is unrolled.

When the bandage or other fabric has been rolled and it is desired to remove it from the spindle, the screw *i* is released and the disk *h* turned back until clear of the spindle. The spring actuated catch is then moved as previously explained leaving the end of the spindle exposed. By now lifting out this end the spindle is disengaged from block *C''* and can be removed after which the bandage or roll can be easily and quickly removed by withdrawing the spindle from the center thereof.

It is evident that changes in the construction and relative arrangement of the several parts might be made without avoiding my invention and hence I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but,

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

1. The combination with a suitable frame, a spindle removably mounted therein, tension rollers and a strip having a serrated edge located at the forward end of the machine over which the material to be rolled is drawn by the tension rollers, substantially as and for the purpose set forth.

2. The combination with a frame, of a spindle removably mounted thereon, a plate having a serrated edge, tension rollers located in a plane between said serrated plate and the spindle, and a spring clamp located between the rollers and the serrated plate, substantially as set forth.

3. The combination with a suitable frame, of a spindle removably mounted therein, yielding tension rollers supported in the frame, one of which is mounted in movable bearings, and a plate having a serrated upper edge, said plate located at the forward end of the machine substantially as set forth.

4. The combination with a spindle, a disk located concentric to said spindle, and means for rotating the spindle, of a slotted disk having a bearing therein to which the slot leads, said disk secured to a swinging arm, and means for securing the arm in place, substantially as set forth.

5. The combination with a frame, a rigid disk thereon, a spindle passing centrally through said disk and means for actuating the spindle, of a movable and adjustable block, an arm carried thereby and a slotted disk secured to the end of said arm, substantially as set forth.

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

GEORGE A. KEIST.

Witnesses:

ALBERT R. SAVAGE,
JULIAN J. STEVENS.