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D. RILEY, JR. & D. HAMILTON.

ATTACHMENT FOR DOUBLING AND LAPPING MACHINES.

APPLICATION FILED APR. 3, 1907.

Fig. 1.

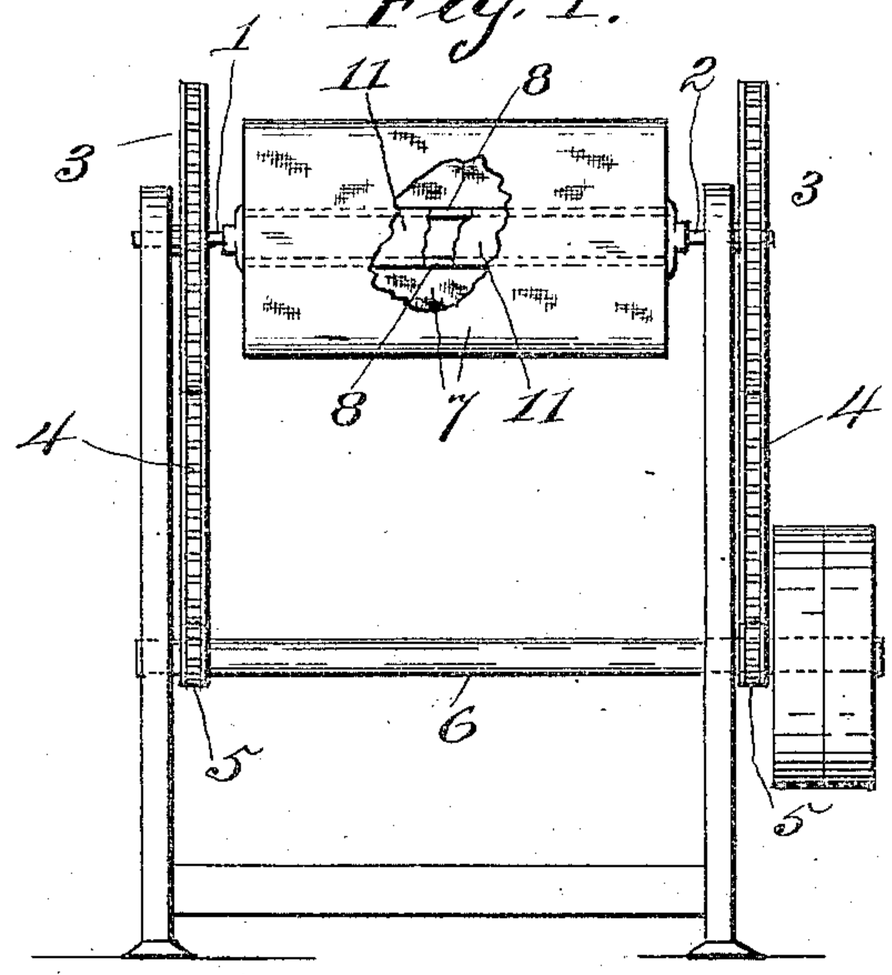


Fig. 2.

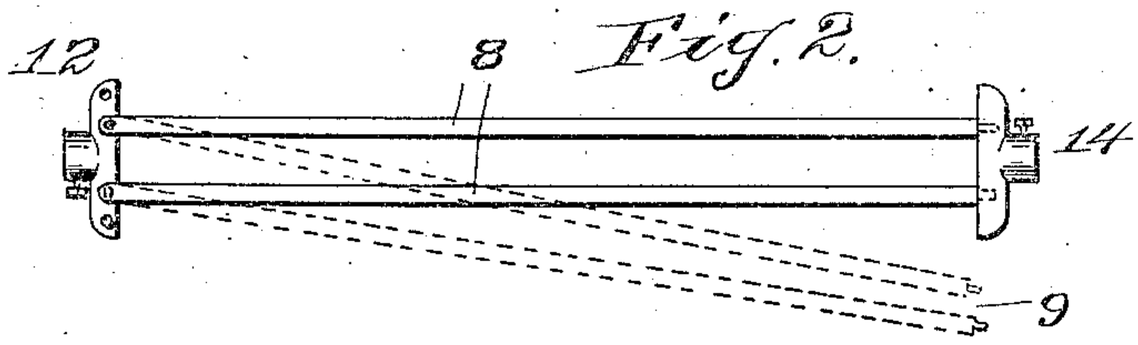


Fig. 3.

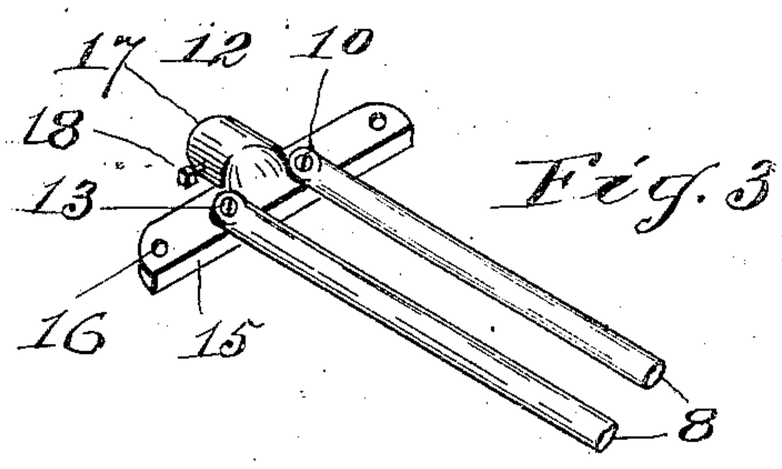


Fig. 4

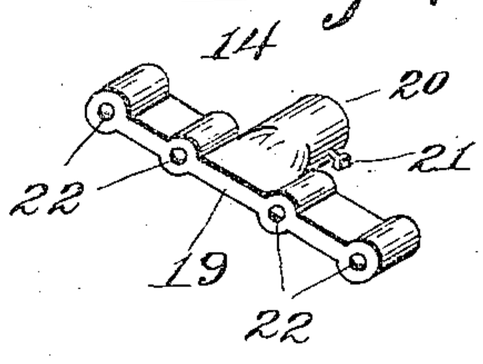
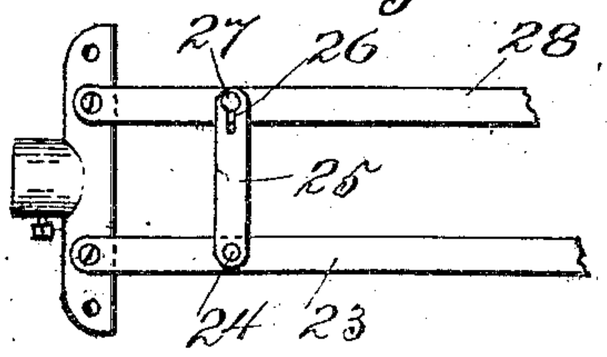


Fig. 5.



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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR DOUBLING AND LAPPING MACHINES.

No. 862,997. Specification of Letters Patent. Patented Aug. 13, 1907.

Application filed April 3, 1907. Serial No. 366,224.

To all whom it may concern:

Be it known that we, DAVID RILEY, Jr., and DAVID HAMILTON, citizens of the United States, residing, respectively, at Wilmington, in the county of Newcastle and State of Delaware, and at Chester, in the county of Chester and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Doubling and Lapping Machines, of which the following is a specification.

This invention relates to textile machinery and pertains especially to an attachment for doubling and lapping machines.

The object of the invention is to provide an attachment for doubling and lapping machines of such novel and peculiar construction and arrangement of parts as to result in the more expeditious lapping of fabric material; and of the more expeditious removal of such material in wound or lapped condition.

A further object of the invention is to provide an attachment or device for doubling and lapping machines which is capable of permitting the material lapped or wound thereon and its core or winding card removed therefrom together, without removing the device from the machines.

A still further object of the invention is to provide, in a fabric winding device, a pair of cross-heads, and a pair of arms each of which is pivoted at one end to one of said heads and having their other end held by the other head and released by the latter to permit pivot movement of the arms.

With these and various other objects, advantages and improved results in view, the invention consists in a pair of revoluble heads, a pair of arms held parallel to each other by the heads, one of the heads adapted to be removed from the arms to permit the latter to swing upon the other head.

A practical embodiment of the invention is represented in the accompanying drawings, in which:

Figure 1 is an end view of a machine having the invention attached. Fig. 2 is an elevation of the device the dotted lines showing it in position for removing the fabric therefrom. Fig. 3 is a detail perspective view of the cross-head having the arms partly broken away and pivoted thereto. Fig. 4 is a detail perspective view of the other cross-head. Fig. 5 is an elevation of a modification partly broken away.

The same reference numerals denote the same parts throughout the several views of the drawings.

The machine shown in the drawings being employed only to exemplify the invention the same will not be described in detail, it being understood that the shafts or spindles 1 and 2 of the said machine are capable of having this invention attached thereto, as will be hereinafter fully described. The said spindles each have a sprocket wheel 3, driven by sprocket chains 4, from sprocket wheels 5 on a driven shaft 6.

The attachment or device upon which the fabric 7, is lapped or wound comprises a pair of arms 8, each of which is preferably elliptical-shaped or convexed in cross section, and each of which has a shouldered-end 9, and a pivot-hole 10; and a card-board 11 or other suitable thin, stiff board is laid upon the arms. The arms are mounted at one end on a cross-head 12, by pivots 13, and a similar cross-head 14 holds the other end of the arms in operative position, and is removable from the arms to permit their pivot movement. The cross-head 12 consists of a plate or bar 15, having two or more pivot holes 16, and an integral socket 17, provided with a key-way and a set-screw 18. The cross-head 14, consists of a plate or bar 19, having a socket 20 integral therewith and projecting from its outer edge to fit and be removably secured to the spindle 1, by a set-screw, 21; and this bar is provided with two or more anchor holes 22 for the shouldered ends of the arms 8.

It will be seen that owing to the arms being free to swing, and the depth of the sockets, the device is readily applied to the spindles, and adjusted thereon for operation; that to remove the roll of lapped or wound material, with the board therein, from the arms, the cross-head or heads are adjusted to free the shouldered ends of the arms and permit the latter to swing toward each other and outwardly together so as to place them in such position as will enable the roll and its board to be conveniently slipped from the arms.

It is obvious that the several pivot holes and anchor-holes permit adjustment of the arms to vary the space between the arms as desired.

It will be understood that in the practical application of the invention such mechanical variations may be made in the form and connections of the parts as found advantageous, without departing from the spirit of the invention.

Referring to the modification shown in Fig. 5, the cross-heads are the same as those hereinbefore described. To one of the arms 23, is pivoted at 24, a connecting bar or link 25, having a slot 26, working on a pin 27 of the other arm 28. The bar or link limits

the relative movement of the arms when one of the cross-heads is removed therefrom for withdrawing a roll of material, and said link assists in adjusting the arms for replacement of the removable cross-head.

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

The combination, with the crossheads, and the pivoted arms revolved by the cross-heads, of a bar or link connecting the arms between the cross-heads to limit the lateral movement of the arms with respect to each other.

In testimony whereof we affix our signatures in presence of two witnesses.

DAVID RILEY, JR.
DAVID HAMILTON.

Witnesses:
HOWELL S. ENGLAND,
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