

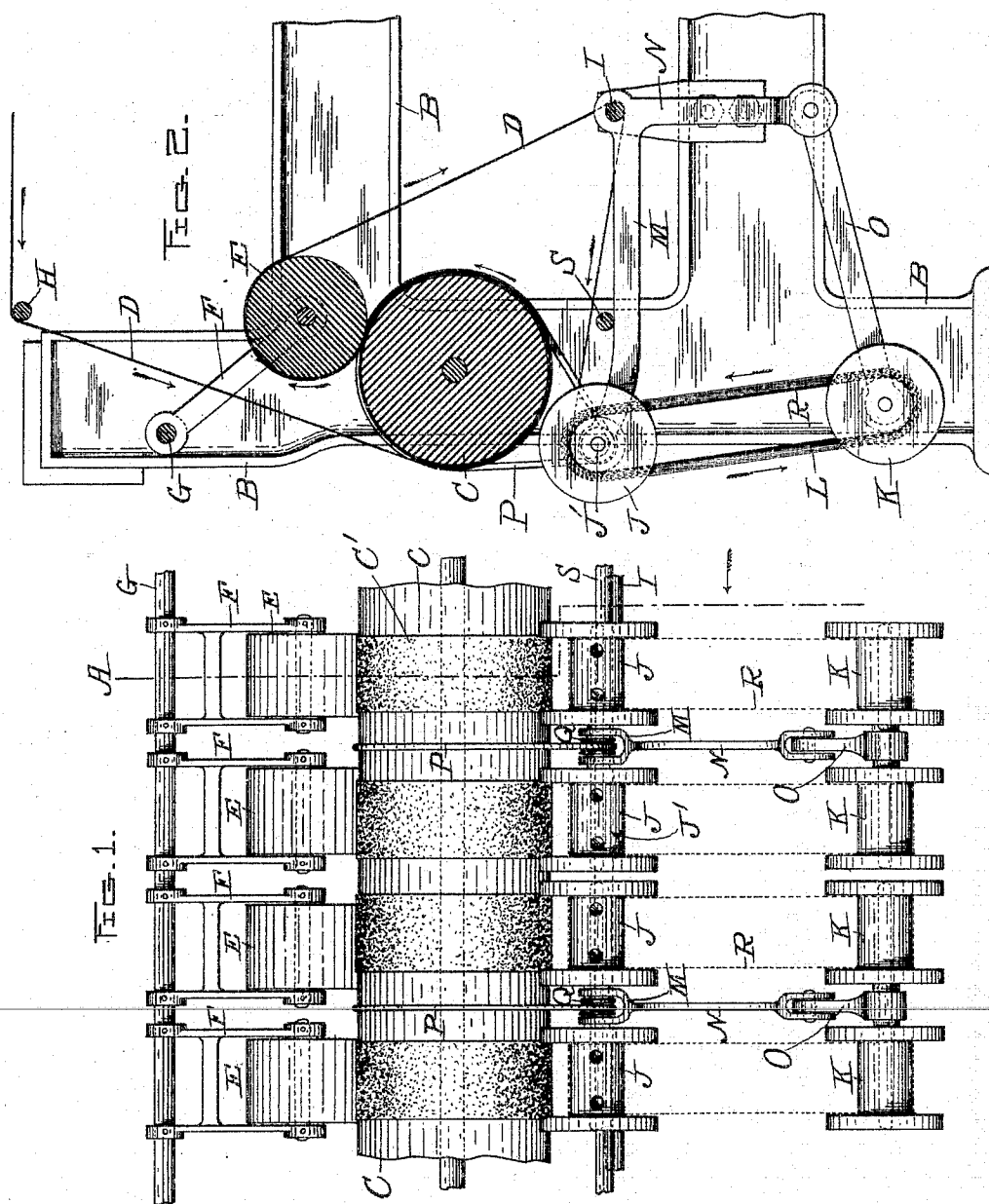
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MECHANISM FOR WINDING FABRICS IN SKEIN FORM ON NARROW WARE LOOMS.

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MECHANISM FOR WINDING FABRICS IN SKEIN FORM ON NARROW-WARE LOOMS.

SPECIFICATION forming part of Letters Patent No. 788,798, dated May 2, 1905.

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To all whom it may concern:

Be it known that I, ALBERT H. STEELE, of the city and county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Mechanism for Winding the Fabrics in Skein Form on Narrow-Ware Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a front view of so much of a loom as is necessary to illustrate my improvements applied thereto; and Fig. 2 is a vertical transverse section therethrough, taken on line A, Fig. 1.

My invention relates to narrow-ware looms for weaving narrow fabrics—such as webbing, tape, &c.—and more especially to the mechanism for winding said fabric in skein form, after it has been woven, as fast as it is delivered from the delivery-rolls of the loom.

Said invention consists of a frame pivoted to the loom-frame and of spools mounted on said pivoted frame, over which the webbing or other fabric may be wound in skein form after it leaves the delivery-rolls. Said pivoted frame comprises a horizontal arm having a pair of spools and a small pulley mounted on its free end, a fixed arm extending down vertically from the pivoted end of said horizontal arm, and a horizontal arm pivoted at its inner end to the lower end of said vertical fixed arm, extending forward under the other horizontal arm and having mounted on its free end another pair of spools coming substantially vertically under the other pair of spools and at the proper distance therefrom to form the desired length of skein, as will be hereinafter more fully set forth.

To enable others skilled in the art to which my invention appertains to better understand the nature and purpose thereof, I will now proceed to describe it more in detail.

Referring to the drawings, B represents part of an ordinary narrow-ware loom-frame.

C is the large carrying-roll at the front of

the loom, over the periphery of which bands of sandpaper C' are preferably wound to produce a better friction between the roll and webbing D passing over in contact therewith.

E represents the usual "knee" or weight rolls, which lie on the carrying-roll with the woven fabric between, said rolls being suspended, by means of suitable swinging brackets F, from a horizontal rod G. The webbing or other fabric is, as usual, carried from the weaving mechanism (not shown) over the top and front side of the supporting or guide rod H, thence down the front side, under and around the back side of the carrying-roll C, thence up over the front sides and down over the back sides of the knee-rolls E, thence down over the top and back side of a guide-rod I, (which also forms the pivot for the hereinbefore-described pivoted frame,) thence over and around the spools J J K K, mounted on said pivoted frame, forming the skein L, as is shown in Fig. 2. The horizontal arm M and vertical arm N are in this instance formed in one integral part and pivoted at the juncture thereof, therefore moving together, while the horizontal arm O, arranged under arm M and pivoted to the lower end of vertical arm N, as previously described, has an independent swinging movement. An elastic drive-belt P is passed around each carrying-roll C and each pulley Q, mounted on spindles J' between each pair of spools J. Said belt not only serves to turn the spools from the carrying-roll C, which is driven by the usual drive mechanism of the loom, (not shown,) but also to support said spools and the frame upon which they are mounted. The bottom spools K K and their arm O are supported from the other spools, J J, by a belt R passed around each pair of spools, as is shown by dotted lines in Fig. 1 and full lines, Fig. 2. Said belts preferably consist of woven fabric or any other suitable material whereby the forward end of the webbing to be wound on the spools may be pinned thereto at the commencement of the winding opera-

tion. The upward movements of arm M are controlled by a transverse stop-rod S, fastened to the loom-frame just above said arms M.

Ordinarily, as is well known, in weaving narrow fabrics—such as webbing, tape, &c.—the woven material is allowed to pass onto the floor or into a receptacle under the front end of the loom and is afterward wound therefrom onto spools. This method results in said material becoming entangled and knotted together and results in considerable waste of time and material, and to remove this objection is the principal purpose of my invention. As will at once be apparent, by winding the narrow fabric in skein form on two pairs of spools, as described, it is sure to be wound evenly without the possibility of “snarling,” and when a sufficient amount of material has been wound to form the desired size of skein the attendant has but simply to raise the arm O and its spools K K, when the belt R and the skein wound thereon may be slipped over the ends of the spools and removed preparatory to being otherwise disposed of in the usual way. Aside from the skein-winding frame, with its spools and means for supporting and operating the same, the loom is made the same as any narrow-fabric loom. My improved winder may be arranged, as shown, under the front of the loom or at

any other convenient place adapted for the purpose of taking the webbing or other fabric as fast as delivered from the loom and winding it in skein form, as described.

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

In a loom, a device arranged at some convenient point from the delivery-rolls of said loom for winding the webbing or other fabric in skein form as fast as delivered, consisting of a horizontal arm pivoted at one end to the loom-frame, spools mounted on its free end adapted to receive the woven fabric, a pulley also mounted on said free end, a driving-belt passing around said pulley and one of the drive-rolls, a vertical, fixed arm extending down from the pivoted end of said horizontal arm, another horizontal arm pivoted at one end to the lower end of said vertical, fixed arm, and arranged under the other horizontal arm, spools mounted on the free end of said bottom horizontal arm, a belt connecting said top and bottom spools, and a stop for regulating the upward movements of the top, horizontal arm, substantially as set forth.

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