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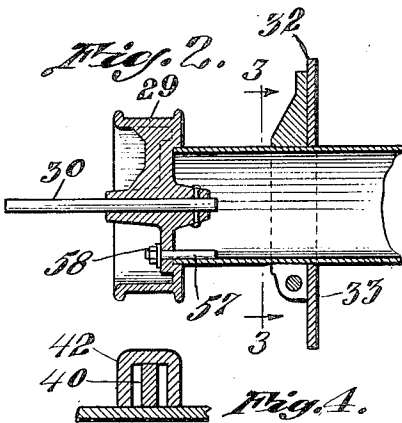
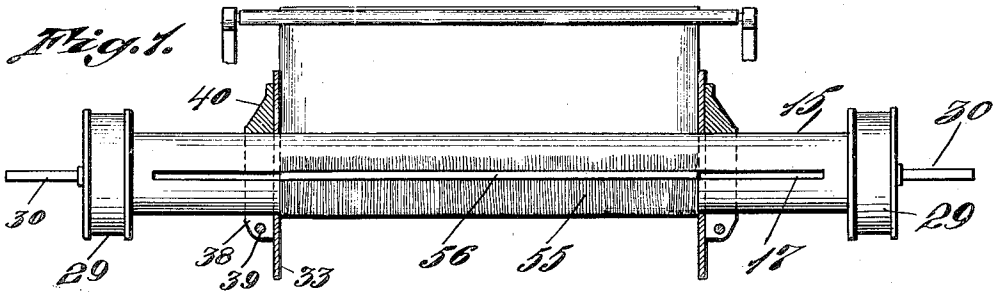
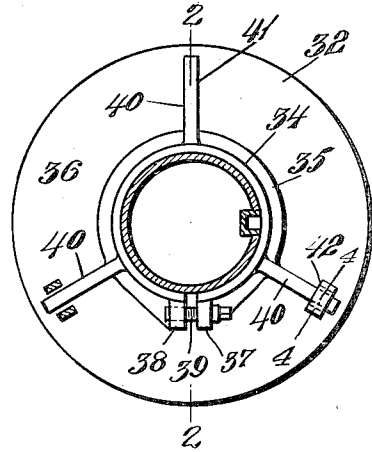


Fig. 3.



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3 Claims. (Cl. 242—124)

This invention relates to a beam more particularly a beam used for the winding of warp threads thereon; and has for one of its objects the provision of a warp beam having adjustable heads by which they may be moved to obtain the desired spacing between the heads along the beam.

Another object of the invention is the provision of a head for the beam which may be contracted to secure it in the desired position along the barrel and of such a construction that this construction will not warp or cause the inner surface of the head with which the yarn contacts to be moved out of its desired alignment.

A further object of the invention is the provision of a construction by which the head may be supported by outwardly-extending ribs and yet be contracted to securely fasten it upon the barrel.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing:

Fig. 1 is an elevation of the beam showing the warps as being assembled thereon.

Fig. 2 is a sectional view of the beam and adjustable head thereon.

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a sectional view on the line 4—4 of Fig. 3.

We have provided an arrangement for adjusting heads along the barrel of the beam so that the desired distance between these heads may be maintained and have so arranged the heads that a hub in the form of a band extending about the barrel may be clamped in position and yet supported by outwardly-extending ribs arranged in such a way that the hub of the head may be flexed to obtain the desired clamping action; and the following is a detailed description of the present embodiment of these improvements illustrating the preferred means by which these advantageous results may be accomplished:—

With reference to the drawing, the barrel of the warp beam is designated 15 and is formed of a seamless tube, with a recess 17 for the reception of the warp threads. This channel 17 may extend either the entire length of the barrel or substantially the entire length and short of the ends as illustrated in Fig. 1, by suitably cutting the stock.

The warp 55 will be positioned in the slot 17

and a batten or rod 56 will be forced into the slot to bind the warps against the surfaces thereof.

At the ends of the barrel there are mounted pulleys or friction drums 29 by pins 57 welded to the inner surface of the barrel and extending thru the web portion of the drum to be held by nuts 58, each drum being provided with a trunnion 30 to suitably support the beam in bearings for rotation thereof.

Adjustable heads designated generally 31 are provided upon the barrel 15 and each consists of a circular disk 32 having a smooth, flat, inner surface 33. Upon this disk, from the outer side there extends a hub 34, generally band shaped, having a flange 35 abutting the outer face 36 of the disk. At the ends of this band, ears 37 and 38 are provided with a headed bolt 39 extending freely thru the ear 37 and in threaded engagement with the ear 38 for contraction of the band. Ribs 40 are secured to the hub and flange and extend outwardly therefrom with one rib 41 opposite the ears secured to the outer face 36 of the disk by welding or any other suitable means. The other ribs 40, however, extend thru the U-shaped holders 42 which are of a width to permit movement of the rib when the band hub is contracted.

The foregoing description is directed solely towards the construction illustrated, but we desire it to be understood that we reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

We claim:

1. In a warp beam, a barrel member, an adjustable head member comprising a disk and a hub band embracing said barrel member and having terminal ears, ribs secured to said hub and extending outwardly therefrom, one of said ribs located substantially opposite said ears and fixed to the outer surface of said disk, means fixed to the disc and straddling portions of said other ribs for holding said other rib against said disk and yet permitting movement thereof upon contraction of said hub, and means for contracting said hub.

2. In a warp beam, a barrel member, an adjustable head member comprising a disk and a hub in the form of a one piece band embracing said barrel member and having terminal ears, a flange secured to said hub, ribs secured to said hub and flange and extending outwardly therefrom, one of said ribs fixed to the outer

face of said disk, straps fixed to the disk and straddling a portion of the other ribs for holding them against said disk and yet permit movement thereof upon contraction of said ears, and means for contracting said ears.

3. In a warp beam, a barrel member, an adjustable head member, comprising a disc and a hub embracing said barrel member, ribs secured to said hub and extending outwardly therefrom, one of said ribs being fixed to the outer surface

of said disc, and another of said ribs being movable relatively to said disc, and means fixed to said disc and straddling a portion of said movable rib for holding it against said disc and yet permitting movement along the surface thereof upon contraction of said hub, and means for contracting said hub.

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