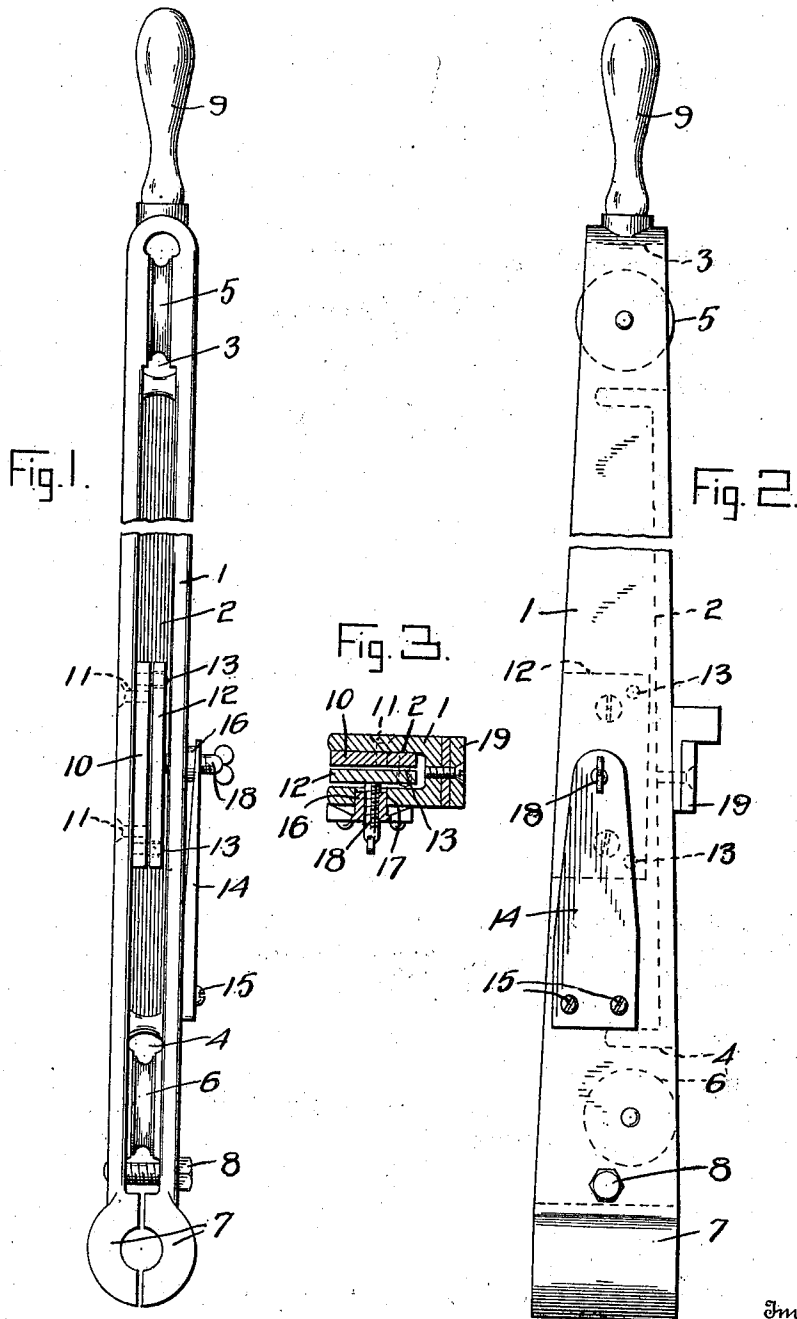


A. J. HUNTER.
POWER ARMATURE BANDER.
APPLICATION FILED APR. 30, 1909.

996,019.

Patented June 20, 1911.



Witnesses

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ALFRED J. HUNTER, OF BAYONNE, NEW JERSEY.

POWER ARMATURE-BANDER.

996,019.

Specification of Letters Patent. Patented June 20, 1911.

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To all whom it may concern:

Be it known that I, ALFRED J. HUNTER, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Power Armature-Banders, of which the following is a description.

My invention relates more particularly to tension arms for banding machines, and as it may be adapted to any of the well known banding machines, I do not deem it necessary to illustrate any type of such machine.

In the drawings, Figure 1 is a front elevation of a tension arm embodying my invention; Fig. 2 is a side elevation of the same. Fig. 3 is a transverse sectional view of the arm on the line of the set screw, the screw being in full lines.

1 represents a tension arm embodying my invention, 2 is a groove formed in the front face of the arm which extends practically the entire length of the arm.

3 and 4 are slots formed through the arm at the top and bottom thereof registering with the slot 2 as clearly seen in the drawing.

5 and 6 are pulleys or sheaves journaled in the slots 3 and 4, respectively. The pulley 6 is journaled so that its periphery is just above the bottom of the groove 2, while the pulley 5 is journaled with its periphery flush with the front and rear faces of the arm. These pulleys act as guides.

The lower end of the arm 1 is split and provided with integral clamping jaws 7, said jaws being semi-cylindrical whereby they may be clamped around a shaft by means of the lag screw 8. Various tensions may be applied to the shaft secured in the jaws.

9 is a hand hold integral with the arm.

The arm is clamped on the shaft by the screw 8 just tight enough to hold the arm at any angle.

10 is a stationary friction plate secured to the arm in the groove 2 by means of the screws 11, which hold the plate firmly against one wall of the groove.

12 is a movable friction plate held in position in the groove 2 by means of pins 13 secured in the plate 10.

14 is a flat spring secured to one face of the arm by means of screws 15 or any other suitable means. The upper end of this spring is provided with a lug 16 extending from its inner face. A screw-threaded hole

is formed through the spring and lug, said lug being adapted to enter and move in an opening 17 formed in said arm and opening into the groove 2. A thumb screw 18 is positioned in the screw threaded opening in the lug and spring and its inner end bears against the side of the movable friction plate 12 as shown in the drawings. The adjustment of this screw in its screw-threaded opening results in a corresponding movement of the movable plate 12.

In operation banding wire is passed over the sheave 6, thence between the friction plates 10 and 12 and thence over the sheave 5. If it is desired to put a high tension on the wire the thumb screw 18 is turned, shoving the movable plate 12 before it, until the wire has sufficient tension put upon it between the plates. The thumb screw 18 not only carries the tension but is also intended to prevent the breaking of the wire under tension, by reason of kinks or any other imperfections in the wire, the spring permitting the movable plate 12 to give automatically. The friction plates may be round, oval or flat. The thumb screw 18 permits the operator who is banding the armature to use thumb and fingers to adjust the tension, thereby leaving him free to still continue his work of banding with the other hand.

19 is a fiber shoe secured to the arm which, when tension is applied to the wire, permits the arm to swing with less friction.

It is possible to arrange the friction means herein shown on the carriage or any other part of the banding machine, but I prefer to place it on the arm.

The reel of wire is placed on a traveling carriage on the banding machine, is threaded underneath the bed, passed through an inlet and dragged up over the roller placed at the bottom of the arm as shown in the drawing, and then up through the two friction plates, then over another roller at the feeding end of the arm, from there over on to the armature in the banding machine. The wire is then anchored and the armature revolves and drags the wire through the friction plates. The top and bottom rollers on the arm act as frictionless guides.

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

1. The combination with a tension arm, of a movable and a stationary plate, and a

spring acting upon the movable plate to vary the tension of said plates, said plates and spring mounted on said arm.

2. The combination with a tension arm 5 having a groove extending in the direction of its length and terminating in slots, of guide rollers mounted in said slots, and tension plates carried by said arm.

3. In a device of the character described, 10 the combination with a tension arm having a groove extending in the direction of its length, of a plate fixed to said arm in said groove and a movable tension plate positioned in said groove to co-act with said 15 fixed plate to put tension on the wire passing between them, and means controlling the position of the plates relatively to each other.

4. In a device of the character described, 20 the combination with a tension arm having a groove extending in the direction of its length, of a plate fixed to said arm in said groove and a movable tension plate positioned in said groove to co-act with said 25 fixed plate to put tension on the wire pass-

ing between them, means controlling the position of the plates relatively to each other, and guide rollers mounted in slots at the ends of said groove.

5. The combination of a tension arm hav- 30 ing a groove extending lengthwise thereof, a guide roller journaled at each end of said groove, and tension plates positioned in said groove.

6. The combination with a tension arm 35 having a groove extending lengthwise thereof and terminating at each end in a slot, of guide rollers journaled in said slots, a fixed tension plate positioned in said groove, and a movable tension plate positioned in 40 said groove opposite the fixed plate, and a spring bearing on the movable plate to vary the tension of said plates.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED J. HUNTER.

Witnesses:

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