L. M. MORROW & J. M. FOSTER.

WINDING MACHINE.

APPLICATION FILED JUNE 6, 1907.

899,423. Patented Sept. 22, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

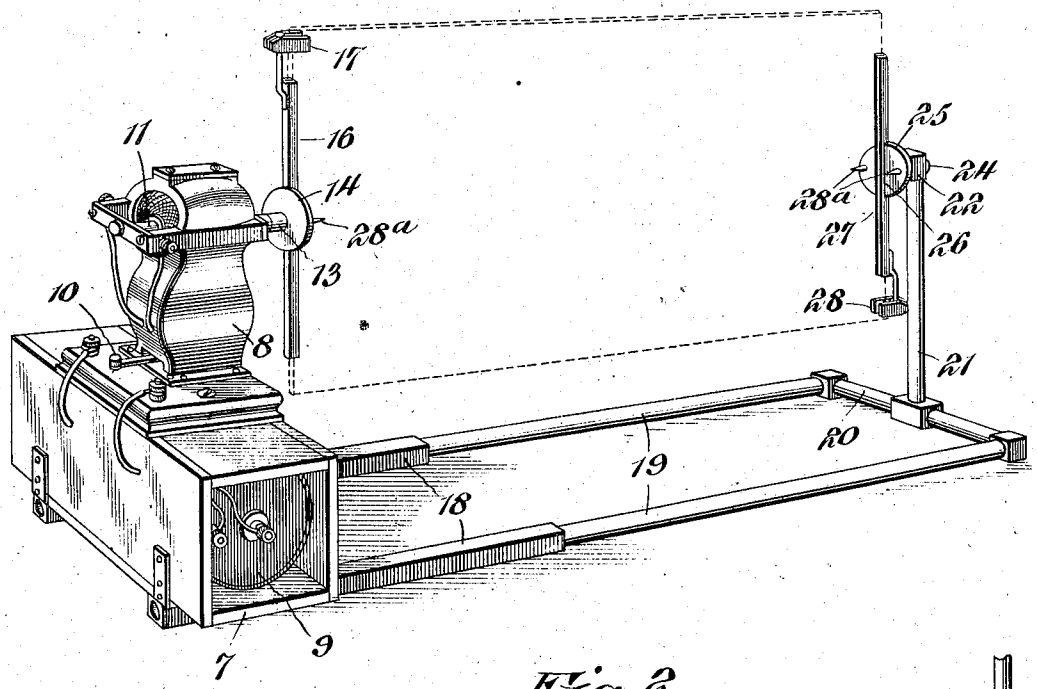


Fig. 2.

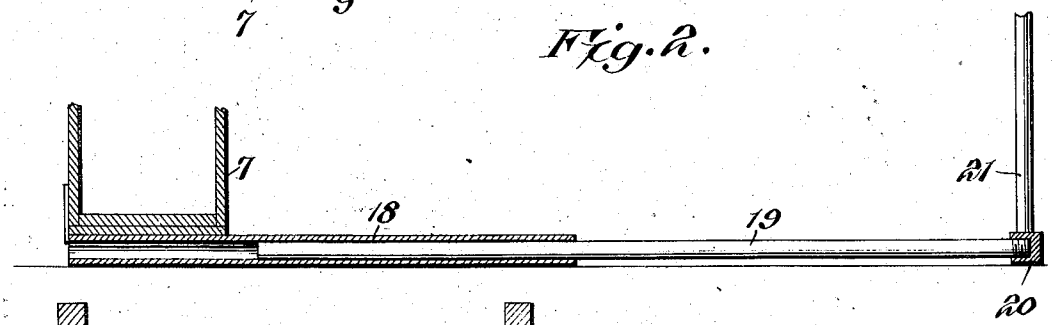
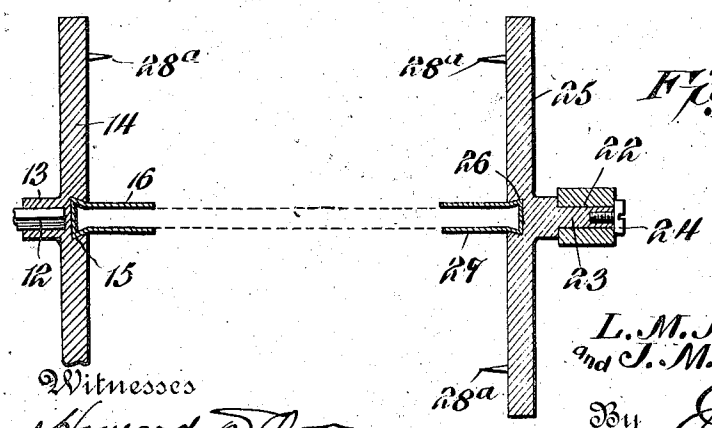


Fig. 3.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

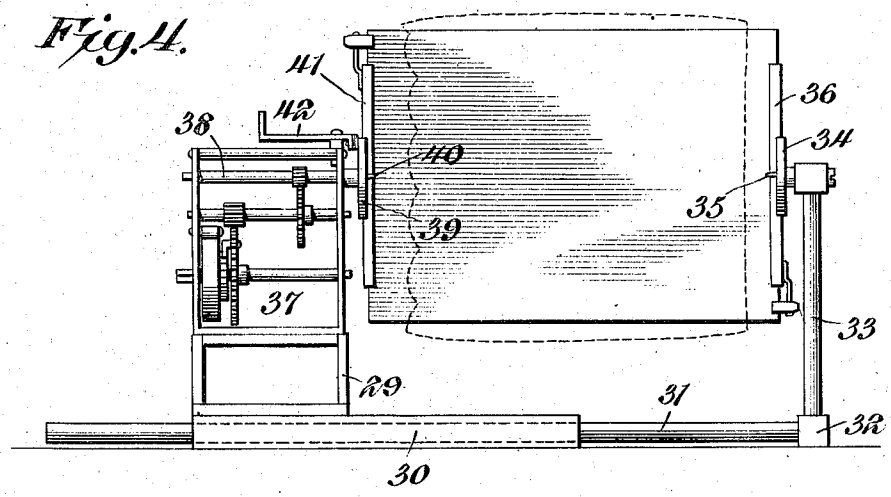


Fig. 6.

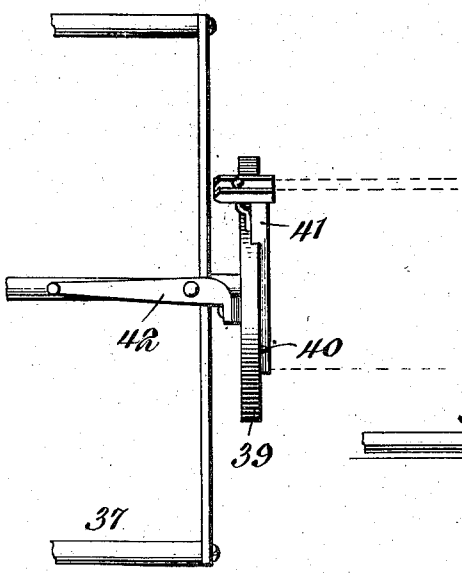
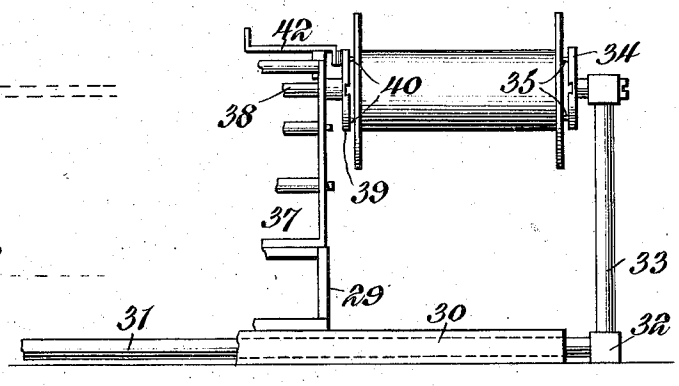


Fig. 5.



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UNITED STATES PATENT OFFICE.

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WINDING-MACHINE.

No. 899,423. Specification of Letters Patent. Patented Sept. 22, 1908.

Application filed June 6, 1907. Serial No. 377,581.

To all whom it may concern:

Be it known that we, LOUIS M. MORROW and JAMES M. FOSTER, citizens of the United States, residing at Wasco, in the county of Sherman and State of Oregon, have invented a new and useful Winding-Machine, of which the following is a specification.

The present invention relates to means for winding cloth, lace, ribbon and other material, and the principal object is to provide a novel, very simple, effective and compact machine, which is complete in itself, and is capable of being readily adjusted to holders of different sizes and types.

In the accompanying drawings:—Figure 1 is a perspective view of one embodiment of the machine. Fig. 2 is a detail sectional view therethrough. Fig. 3 is a cross sectional view through one of the carrier disks. Fig. 4 is a side elevation of a modified form of construction. Fig. 5 is a detail side elevation of a portion of the same, showing a different form of holder therein. Fig. 6 is a plan view of a portion of the structure.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment disclosed in Figs. 1, 2 and 3, a base 7 is employed that is in the form of a boxing, and mounted thereon is a suitable electric motor 8. Within the boxing is located a battery 9 having suitable connections with the motor, controlled by the usual rheostat 10, so that the speed of the motor may be varied as desired. The shaft 11 of the motor has its inner end squared as shown at 12, and mounted thereon is the hub 13 of a carrier disk 14. This disk is provided with a dovetailed channel 15 in its outer face, said channel intersecting the axis of rotation of the shaft and carrier. A channeled work-engaging device 16 is fitted in the channel 15, and is detachable therefrom upon its longitudinal movement. One end of the work-engaging device is preferably provided with a spring clip 17.

Fixed to the under side of the base 7 and supporting the same, are spaced guideways 18, in which are slidably mounted spaced rods 19 connected at their outer ends by a cross bar 20. These guideways constitute spaced supporting feet for the base. A standard 21 is fixed to the central portion of this cross bar, and has a journal box 22 on its upper end. In this journal box is rotatably mounted a gudgeon 23 held in place by a screw 24 threaded thereinto, said gudgeon being provided with a carrier disk 25 corresponding in all respects to the disk 14; that is to say, it is provided on its inner face with a transverse channel 26, in which is detachably mounted a channeled work-holder 27 provided with a clip 28. The disks 14 and 25 are furthermore provided on their opposing faces with spurs 28^a.

In using the device, the card upon which the cloth, lace or other material is to be wrapped, has its ends engaged in the channeled work holders 16 and 27, as indicated in dotted lines in Fig. 1, the card being held by the clips 17 and 28. It will be evident that the work holder can be properly adjusted to the card by sliding the rods 19 in the guideways 18. If now the motor is thrown into operation, it will be evident that the card will be rotated, and thus material can be wrapped upon it. If spools or other objects, which will not fit into the work holders are to be used for supports, the holders 16 and 27 are removed and the spurs 28^a are engaged in the ends of said spools or similar devices.

In Figs. 4, 5 and 6, a slightly different form of construction is illustrated. A base 29 is employed that is supported on guideways 30, in which are slidably mounted rods 31. These rods are connected by a cross bar 32, which supports the standard 33, and in the upper portion of this standard is journaled the usual carrier disk 34 having spurs 35 and a detachable work holder 36. A spring motor 37 is mounted on the base 29, and the main driving shaft 38 thereof has detachably mounted thereon another carrier disk 39. The carrier disk 39 has spurs 40, and a detachable work holder 41. Any suitable means may be employed for varying the speed of this motor. Thus in the present embodiment, a friction brake 42 is disclosed, which can be made to bear with more or less force against the carrier disk 39. The manner of using the device is precisely the same as that already described, and in this connection, it will be noted that in Fig. 4 a card is illustrated in the machine, while in Fig. 5 an ordinary spool is shown, the work holders being removed.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape,

proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is:—

1. In a winding machine, the combination with a base comprising a casing, of a motor mounted on the base, spaced elongated guideways secured to the under side of the base transversely thereof and projecting beyond the same, constituting an extended support for said base, devices slidably mounted in the guideways and movable beneath the base, a support connecting and secured to the outer ends of the devices, and rotatable work-engaging elements carried by the support and motor and adjustable toward and from each other upon the movement of the devices in the guideways.

2. In a winding machine, the combination with a support, of a rotatable carrier journaled on the support and having a channel, a work-engaging device that detachably engages in the channel, and work engaging spurs projecting from the side of the carrier having the channel.

3. In a winding machine, the combination with supporting means, of opposing rotatable carriers journaled on the supporting means and having dovetailed channels in their opposing faces, said channels intersecting the axes of rotation of the carriers, and channeled work engaging devices detachably fitted in the channels and longitudinally removable therefrom.

4. In a winding machine, the combination with a support, of a rotatable carrier mounted thereon and having a channel, a work engaging device that detachably engages in the channel, a holding clip carried by one end of the device, and means for rotating the carrier.

5. In a winding machine, the combination with a base having spaced guideways, of rods slidably mounted in the guideways, a connection between the rods, a standard mounted on the connection, a motor mounted on the base, spaced opposing disks having coincident axes of rotation, one of the disks being operated by the motor, the other being journaled on the standard, said disk having oppositely projecting spurs and having transverse openings in their opposing faces, and channeled work engaging devices that are engaged in the channels.

In testimony, that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

LOUIS M. MORROW.
JAMES M. FOSTER.

Witnesses:
R. C. ATWOOD,
W. H. LEE.