

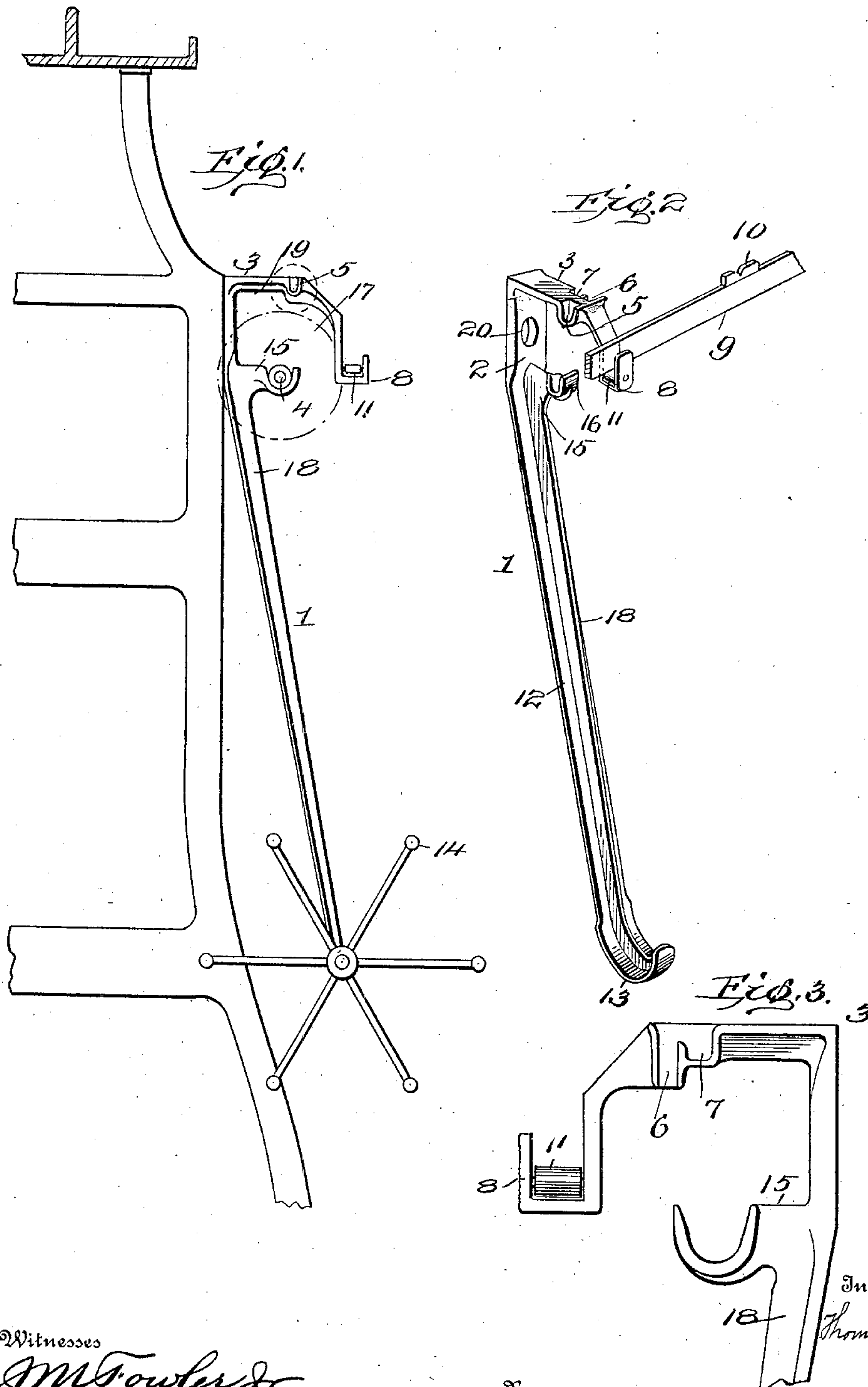
No. 879,562.

PATENTED FEB. 18, 1908.

T. LEWIS.

BRACKET HANGER FOR WINDING MACHINES.

APPLICATION FILED AUG. 12, 1904.



Witnesses

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BRACKET-HANGER FOR WINDING-MACHINES.

No. 879,562.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed August 12, 1904. Serial No. 220,528.

To all whom it may concern:

Be it known that I, THOMAS LEWIS, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Bracket-Hangers for Winding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in winding machinery, and has particular relation to an improved means for supporting the mechanism employed in winding machines for placing silk or other threads upon spindles or bobbins.

The invention consists in a bracket or frame for a winding machine having an upper lateral arm for supporting bobbins or spindles, together with thread guiding means, and a lower arm supporting an actuating shaft and skein reels or swifts.

It consists in a new article of manufacture comprising an integral bracket having projecting means for supporting bobbins or spindles, the said arm also supporting guiding means and an arm for supporting supply reels or swifts, and means for supporting an actuating shaft for operating the mechanism.

In the accompanying drawing: Figure 1 is a partial sectional view of a silk winding machine, my improved supporting bracket being shown in side elevation. Fig. 2 is a perspective view of the said bracket removed from the machine. Fig. 3 is an enlarged detail view in side elevation of the upper part of the bracket.

The present invention is designed to greatly simplify and improve the structure of a silk winding machine, and the improvement is of such character that the bobbins or spindles upon which material is wound and the power mechanism for accomplishing such winding, together with the mechanism for supplying the material may all be supported by the members of the machine.

Each of the members referred to is a bracket 1 formed with an attaching portion or base plate 2. Projecting outwardly from the base plate is an upper supporting bracket 3. The bracket is projected a suitable distance to one side of the plate to hold bobbins or spindles upon which material is to be

wound in proper relation to a winding mechanism which is mounted below them upon an actuating shaft as 4. The arm 3 is formed upon one side with a bearing or recess 5, while on the opposite side thereof a bearing 6 is provided. An auxiliary bearing 7 is formed to one side of the bearing 6 to receive the end of a spindle when it is not desired to rotate the same in winding. The arm 3 is also so formed as to accomplish a further function, it being bent downwardly near its outer end and provided with a hooked portion 8. The hook 8 is designed to movably hold and guide a thread-guide rail as 9. The guide rail is of the usual structure employed in winding machines and is formed at suitable intervals with thread engaging recesses or notches 10. The hooked portion of the arm 3 is supplied with an anti-friction roller 11 for movably supporting the rail 9.

Projecting from the lower end of the attaching base or plate 2 is an arm 12, the lower end of which is provided with bearings 13 to support the usual skein reel or swift 14. The upper portion of the arm 12 is provided with a lateral support 15, which at its outer end is formed into a bearing 16 adapted to support the actuating shaft 4. The support 15 extends outwardly a sufficient distance to hold the shaft 4 in proper relation to the bearings 5 and 6 and to the spindles mounted therein. In this manner frictional rolls or wheels as 17 can be mounted upon the shaft 4 and will engage at their peripheries the spindles or bobbins journaled in bearings 5 and 6. The projection 12 is strengthened by forming a rib 18 upon its outer surface, the said rib extending from the support 15 to the bearings 13 at the lower end of the support 12. The bearings 13 are preferably formed by curving upwardly the lower end of the arm 12 and the lower end of the rib 18 forms a partition between the said bearings, there being one bearing on each side of the said rib. A portion of the rib 18 extends around upon the under surface of the bearing 16 so as to strengthen the same. The under surface of the upper lateral bar or arm 3 is also provided with a strengthening web as 19. The support 15 is preferably so constructed as to be practically a portion of the web 18 though it need not be so formed in order to remain within the scope of the invention.

The bracket above described is preferably constructed in a single piece of metal and the base or supporting plate 2 is apertured at one

or more places to receive one or more attaching screws or bolts for securing the bracket to the frame of the winding machine. In the drawings, only one aperture, as 20, is shown, since one screw or bolt is usually employed for holding the bracket rigidly to the frame of the winding machine. The bracket formed in a single piece makes it possible to greatly simplify the structure of an ordinary silk winding machine. A pair of members with their upper and lower arms are able to perform the functions, of supporting the bobbins or spindles which are being wound, the movable guide rails which direct the strands of materials to the bobbins, the shaft which carries the actuating frictional rollers, and the swift or skein reel from which the material is taken to wind the bobbins. The formation of the arms of said bracket is such that the arms, while possessing great rigidity and strength are comparatively light and require only a small quantity of metal in forming them. The ribbed construction of the arms cause them to be approximately T-shape in cross section. As many brackets are provided for the sides of a winding machine as may be found desirable, and the width of the bracket is sufficient to support the adjacent ends of the parts which are journaled thereon. Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

As a new article of manufacture an integral bracket for winding machines and the like, comprising a vertical base-plate formed

with means whereby the same can be attached to a vertical support, a lateral arm projecting outwardly from the upper portion of the base plate and having the extremity thereof extended downwardly and hooked to form a bearing for a thread guide, the said bracket being provided at an intermediate point with a principal bearing opened both top and bottom, an auxiliary bearing closed at the bottom on one side of the principal bearing, and a closed bearing located upon the opposite side of the bracket, an arm projecting downwardly from the base-plate and having the lower extremity thereof curved upwardly to form two bearings for a swift, an intermediate support projecting from the base-plate and formed with a bearing adapted to receive actuating rollers for operating the spindles carried by the first mentioned bracket, and a continuous rib extending under the intermediate support longitudinally along the downwardly projecting arm and into the curved end of said arm, the said rib accomplishing the triple function of strengthening the arm, of dividing the bearings at the lower end of the arm into two portions, and of strengthening the before mentioned intermediate support.

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

THOMAS LEWIS.

Witnesses:

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