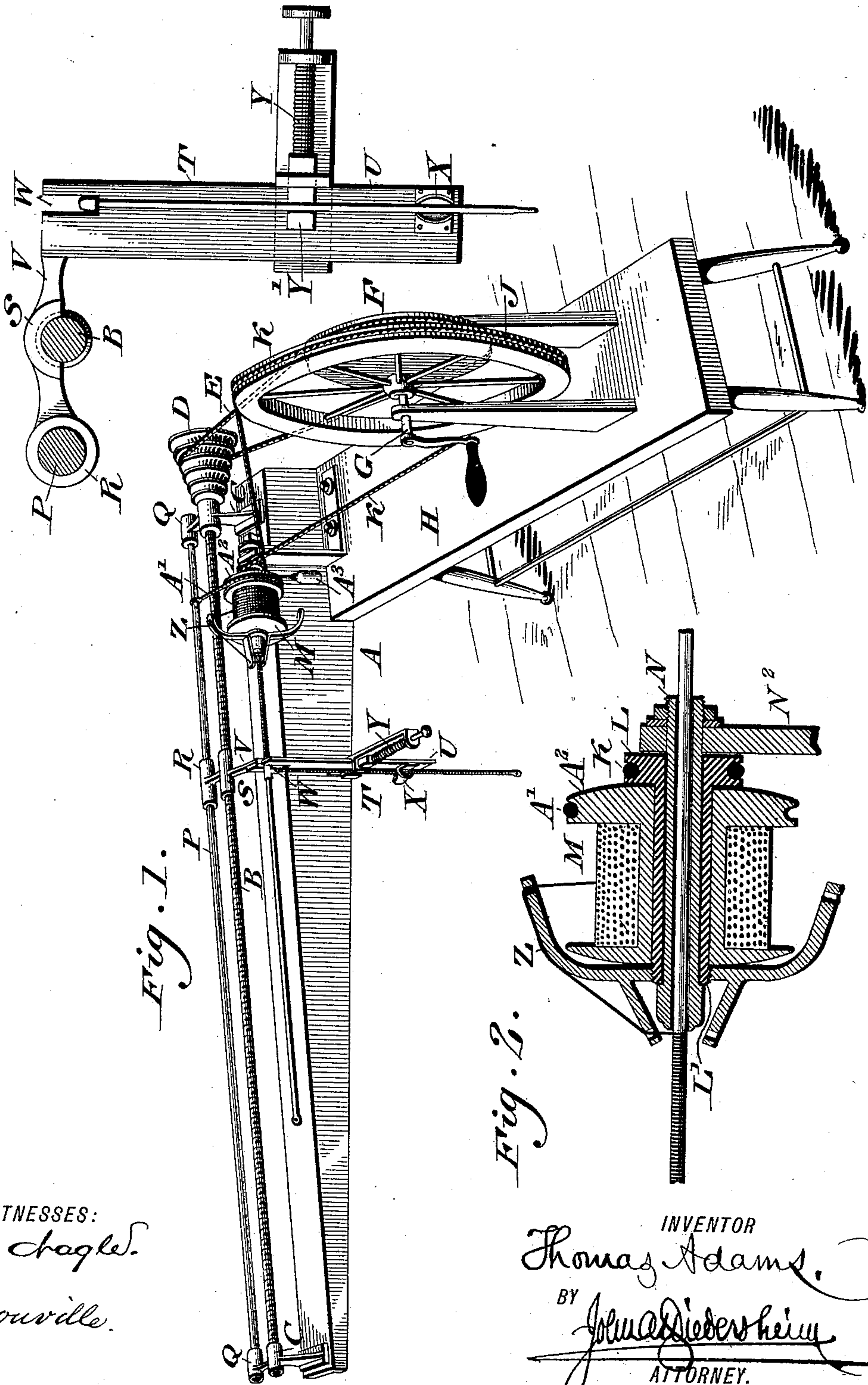


(No Model.)

T. ADAMS.
MACHINE FOR COVERING UMBRELLA OR PARASOL RIBS.
No. 428,873. Patented May 27, 1890.

Fig. 3.



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MACHINE FOR COVERING UMBRELLA OR PARASOL RIBS.

SPECIFICATION forming part of Letters Patent No. 428,873, dated May 27, 1890.

Application filed February 11, 1890. Serial No. 340,061. (No model.)

To all whom it may concern:

Be it known that I, THOMAS ADAMS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machines for Covering Umbrella or Parasol Ribs and Stretchers and other Articles with Thread, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of improvements in machines for covering umbrella or parasol ribs, stretchers, &c., and other articles with thread, the same embodying a novel carrier and holder for the article and a novel thread-winding device, as will be hereinafter set forth and definitely claimed.

Figure 1 represents a perspective view of a machine embodying my invention. Fig. 2 represents a longitudinal section of the reel or spool flier and immediately-connected parts of the machine on an enlarged scale. Fig. 3 represents a side elevation of the traveler and carrier of the machine on an enlarged scale.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the frame of the machine, and B designates a rotatable screw, which is mounted in bearings C, which are supported on the frame A. Connected with the screw B is a pulley D, around which passes the endless band or belt E, which also passes around the pulley F, the latter being secured to the driving-shaft G, whose bearings are on the table or portion H of the frame of the machine.

J designates a pulley, which is secured to the shaft G, and around the same passes an endless band or belt K, which also passes around the collar or pulley L, on whose hub L' is mounted the spool or reel M, which pulley is freely mounted on a tubular shaft N and adapted to rotate thereon, said shaft being mounted on a standard or support N², which rises from and is connected with the table H.

P designates a rod, which is arranged parallel with the screw B and mounted on supports Q on the frame A. Fitted on said rod is a sliding sleeve R, to which is attached the

section or segment of a sleeve S, the inner face whereof is threaded to engage with the screw B, it being noticed that said segment rests upon said screw, the two parts R and S forming a traveler for the carrier, to be hereinafter referred to.

Connected with the segment S is the carrier T for the article to be covered, the same consisting of a bar or plate U, which is pendent from an arm V, projecting horizontally from the sectional sleeve S.

At the top of the bar U is a vertical recess or socket W, and at the lower end thereof there are spring-lips X. Secured to the side of the bar is a spring-actuated catch or bolt Y, opposite to the head of which is an abutment Y', the latter being secured to the bar.

Z designates a flier, which is secured to hub L' of the pulley L, it being noticed that said hub is extended so as to pass through the spool M and have said flier connected with the end thereof.

The thread or covering material is passed from the spool M through eyes in the flier to the article to be covered.

The operation is as follows: The article to be covered (in the present case the rib and stretcher of an umbrella) is applied to the carrier T, the central portion of the rib being set in the recess W and thus supported upon the bar U, and the stretcher depending from said rib. The latch Y is drawn back and the stretcher pressed against the bar U, whereby it enters between the lips X, and is thus held at its lower end. The latch Y is now let go, whereby its head clamps the contiguous portion of the stretcher against the lug or abutment Y'. As the stretcher is thus securely confined on the bar U, the rib is also securely held in position. The segment S is now slightly raised, the same turning with the sleeve R on the rod P, and thus clears the screw B, after which said segment is moved toward the flier Z, so that the end of the rib to be covered enters the tubular shaft N. The segment is now lowered, so as to engage with the screw B, and power applied to the shaft G, whereby the pulleys F and K are rotated, the power being communicated to the pulley D of the screw B and the pulley L of the flier Z. The segment S now travels from

the flier and the latter rotates, the carrier T following the segment. One end of the thread is primarily secured to the rib at the starting-point thereof by gumming or otherwise, and
 5 as the rib advances the flier winds the thread thereon. When the end of the rib is reached, the machine is stopped, and the thread cut and gummed or otherwise secured to the adjacent portion or end of the rib, so that unwinding of
 10 the same is prevented, it being noticed that the rib has entirely emerged from the tubular shaft L'. The latch Y is now drawn back and the stretcher withdrawn from the lips X, after which the rib, with the connected stretcher, is
 15 lifted and thus cleared of the carrier. The rib is then reversed and reapplied to the carrier, or the stretcher is adjusted thereon and the segment is again raised and moved toward the flier, so that the rib or stretcher enters the shaft N, after which the segment is lowered and the machine started, whereby the operation of covering the article is continued.

The spool M is provided with a tension device consisting of a cord A', which is connected with the rod P or any suitable part of the frame of the machine, wound around a pulley A² on one of the heads of the spool, and carrying a weight A³, whereby the rotation of the spool is controlled.
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Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A carrier for the article to be covered, consisting of a bar with holding devices, in combination with a traveler with which said bar is connected, substantially as described.
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2. A traveler and means for operating the same, in combination with a carrier for an article to be covered, connected with said traveler, substantially as described. 40

3. A pulley with a laterally-extending hub, a spool on said hub, a tubular shaft supporting said pulley, and a flier connected with said hub, in combination with a carrier in front of said flier, a traveler attached to said carrier, a screw engaging said traveler, and means for rotating said screw and pulley, substantially as described. 45

4. A spool and a tubular shaft supporting the same, a pulley supported on said shaft, a flier connected with said pulley, and means for rotating the latter, in combination with a rod and a screw and means for rotating said screw, a rising and falling traveler journaled on said rod and engaging said screw, and a carrier connected with said traveler, substantially as described. 50 55

5. In a machine substantially as described, the carrier for the article to be covered, consisting of the bar T, with socket W, the lips X, and bolt Y, having abutment Y', said parts being combined substantially as stated. 60

6. In a carrier for the article to be covered, the bar U, with holding devices thereon, in combination with the threaded segment S, the sleeve R, the screw B, which engages with said segment, and the rod P, on which said sleeve is freely fitted, substantially as described. 65

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Witnesses:

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