

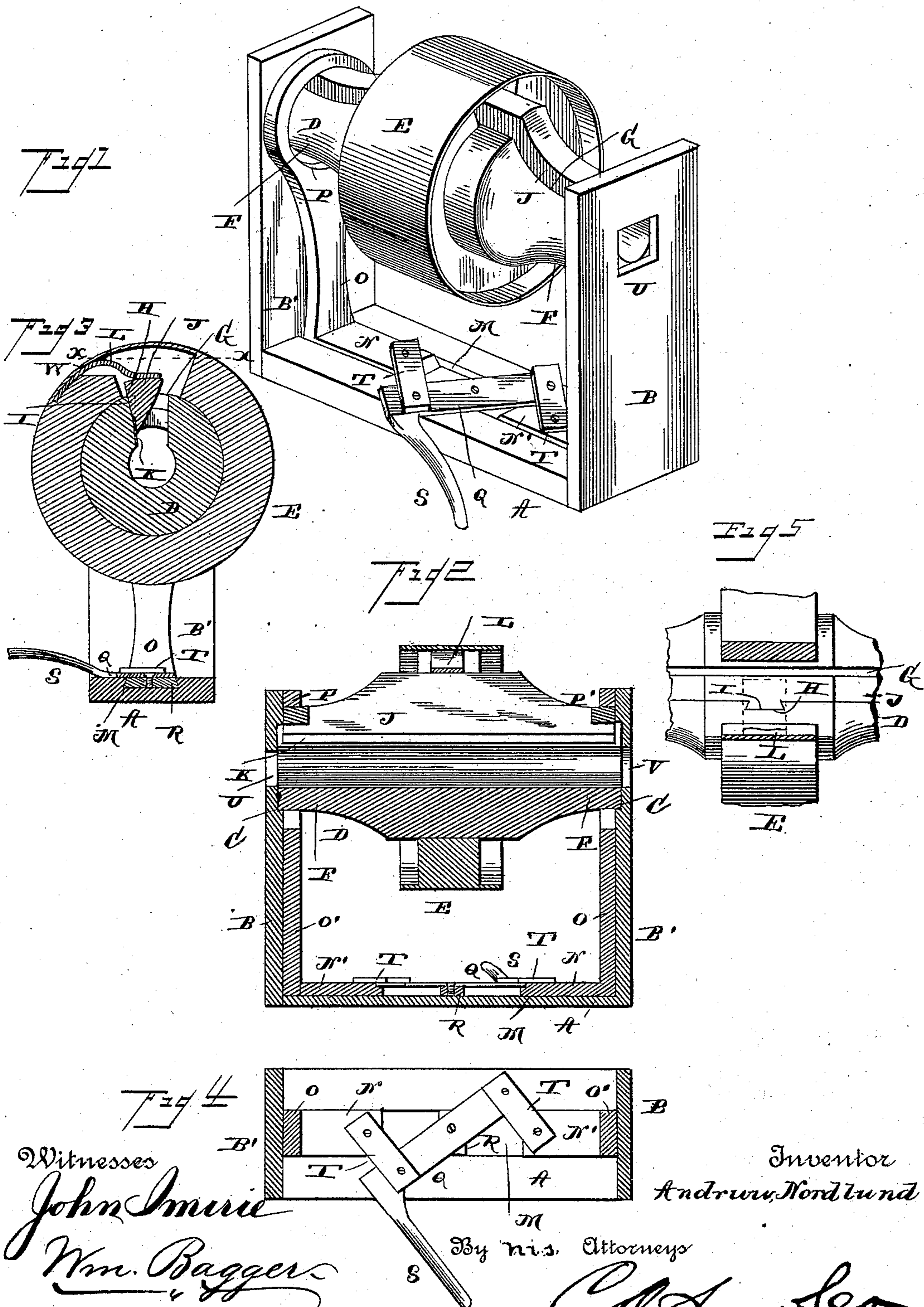
(No Model.)

A. NORDLUND.

MACHINE FOR MANUFACTURING CURTAIN ROLLERS.

No. 406,592.

Patented July 9, 1889.



UNITED STATES PATENT OFFICE.

ANDRUW NORDLUND, OF MENOMINEE, MICHIGAN.

MACHINE FOR MANUFACTURING CURTAIN-ROLLERS.

SPECIFICATION forming part of Letters Patent No. 406,592, dated July 9, 1889.

Application filed January 15, 1889. Serial No. 296,406. (No model.)

To all whom it may concern:

Be it known that I, ANDRUW NORDLUND, a citizen of the United States, residing at Menominee, in the county of Menominee and State of Michigan, have invented new and useful Improvements in Machines for Manufacturing Curtain-Rollers, of which the following is a specification.

This invention relates to a machine for manufacturing curtain-rollers from square sticks or pickets, which partakes of the nature of a tubular turning-lathe; and it has for its object to provide a simple and convenient machine in which the cutter may be readily adjusted, so as to provide for the manufacture of sticks or rollers of different diameters.

In the drawings, Figure 1 is a perspective view. Fig. 2 is a longitudinal vertical section. Fig. 3 is a vertical transverse section. Fig. 4 is a horizontal sectional view taken directly above the base of the machine. Fig. 5 is a detail sectional view taken on the line $x x$ in Fig. 3.

The same letters refer to the same parts in all the figures.

A designates the base of the frame, and B B' are uprights at the front and rear ends of the same, provided at their inner sides with circular recesses C C, affording bearings for the ends of the tubular shaft or mandrel D, which is provided with a pulley or band-wheel E to receive a belt or band, whereby motion may be transmitted from suitable operating machinery.

The ends of the mandrel or shaft D are made tapering, as shown at F F, and it is provided with a longitudinal slot G, one side of which has a dovetailed recess H, to receive a correspondingly-shaped projection I upon a slide-bar J, which carries the knife or cutter K, and which is thereby enabled to slide radially in the tubular shaft. A suitable spring L should be arranged to force the cutter-bar in an outward direction, as will be seen in Fig. 3 of the drawings.

The disk of the band-wheel E has a slot or opening W for the accommodation of the spring L, and to admit of the movement in an outward direction of the slide-bar J carrying the cutter.

The base of the frame is provided on its

upper side with a longitudinal dovetailed groove or recess M, in which is placed a pair of slides N N', provided at their outer ends with uprights O O', which terminate at their upper extremities in rings or bands P P', that encircle the tapering ends of the tubular shaft. It will be seen that by moving the slides N N' inwardly toward each other the rings P P' will engage the cutter-bar and force it in an inward direction in the tubular shaft. This may be effected by means of the following mechanism.

Q is a lever pivoted to a block or lug R centrally upon the frame-base, and having an arm or handle S, whereby it may be readily manipulated. Means may be employed for retaining said lever in any position to which it may be adjusted; but such means form no part of the invention, and are not shown in the drawings.

T T are links pivoted to the lever Q on opposite sides of and at equal distances from its fulcrum and connecting it with the slides N N', which may thus, by operating the lever Q, be moved outwardly or inwardly in opposite directions upon the base-plate. When moved outwardly, the rings or bands P P' will release their pressure upon the cutter-bar, which latter is then forced outwardly in the tubular shaft by the spring L. When, on the other hand, the slides are moved inwardly or toward each other, the pressure of the rings or bands P P' upon the cutter-bar will force the latter inwardly toward the longitudinal center of the tubular shaft, thereby adjusting the cutter to operate upon any material that may be fed into the machine.

The front upright B of the frame is provided with a square opening U, registering with a tubular shaft and serving for the admission of the pickets to be operated upon, which, by the square configuration of said opening, are held firmly while being operated upon. The rear upright B' of the frame has a round opening V, also registering with the tubular shaft, for the discharge of the finished roller.

Feed-rollers of ordinary construction are to be suitably arranged at the front and tail ends of the machine, which will also be provided with a suitable table or support for the

convenience of the operator. These devices are to be of ordinary well-known construction, and inasmuch as they form no part of my present invention they have not been shown in the drawings hereto annexed.

The operation of the machine is as follows: The tubular shaft carrying the cutter is caused to revolve rapidly in the proper direction by means of a belt passing over the band-wheel E. The operator then feeds the square sticks or pickets through the opening U, passing through which they will enter the tubular shaft and be subjected to the action of the knife or cutter, whereby they will be rapidly and evenly shaved down to a cylindrical shape. After passing the entire length of the knife or cutter the finished roller is discharged through the opening V at the tail end of the machine. The diameter of the rollers manufactured may be governed by means of the lever Q, whereby the slides N N', with their attachments, may be moved either outward, so as to release pressure upon the cutter-bar, which is then forced outward by the action of the spring L, or inward, when the cutter-bar will be forced toward the longitudinal center of the revolving tubular shaft by the pressure of the rings or bands P P'.

Having thus described my invention, I claim—

1. In a machine for manufacturing curtain-rollers, the revolving tubular shaft having a longitudinal slot, one side of which is provided with a radial dovetailed recess, in combination

with the radially-adjustable cutter-bar having a dovetailed lug fitting in the said recess, a spring arranged to force the said cutter-bar in an outward direction, and mechanism for forcing it inwardly toward the longitudinal center of the tubular shaft against the tension of the spring, as set forth.

2. The combination of the longitudinally-slotted revolving tubular shaft having tapering ends, the cutter-bar arranged to slide radially therein, and rings or bands arranged to move in opposite directions upon the tapering ends of the shaft, whereby the said cutter-bar may be forced inward toward the longitudinal center of the shaft, substantially as set forth.

3. The combination of the frame having front and rear uprights, the longitudinally-slotted shaft journaled therein, and having tapering ends, the cutter-bar arranged to slide radially in said tubular shaft, the slides arranged to move longitudinally upon the base of the frame and having uprights provided with rings or bands encircling the tapering ends of the shaft, and mechanism for moving the said slides simultaneously in opposite directions, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ANDRUW NORDLUND.

Witnesses:

CHARLES LINE,
HENRY J. WOESSNER.