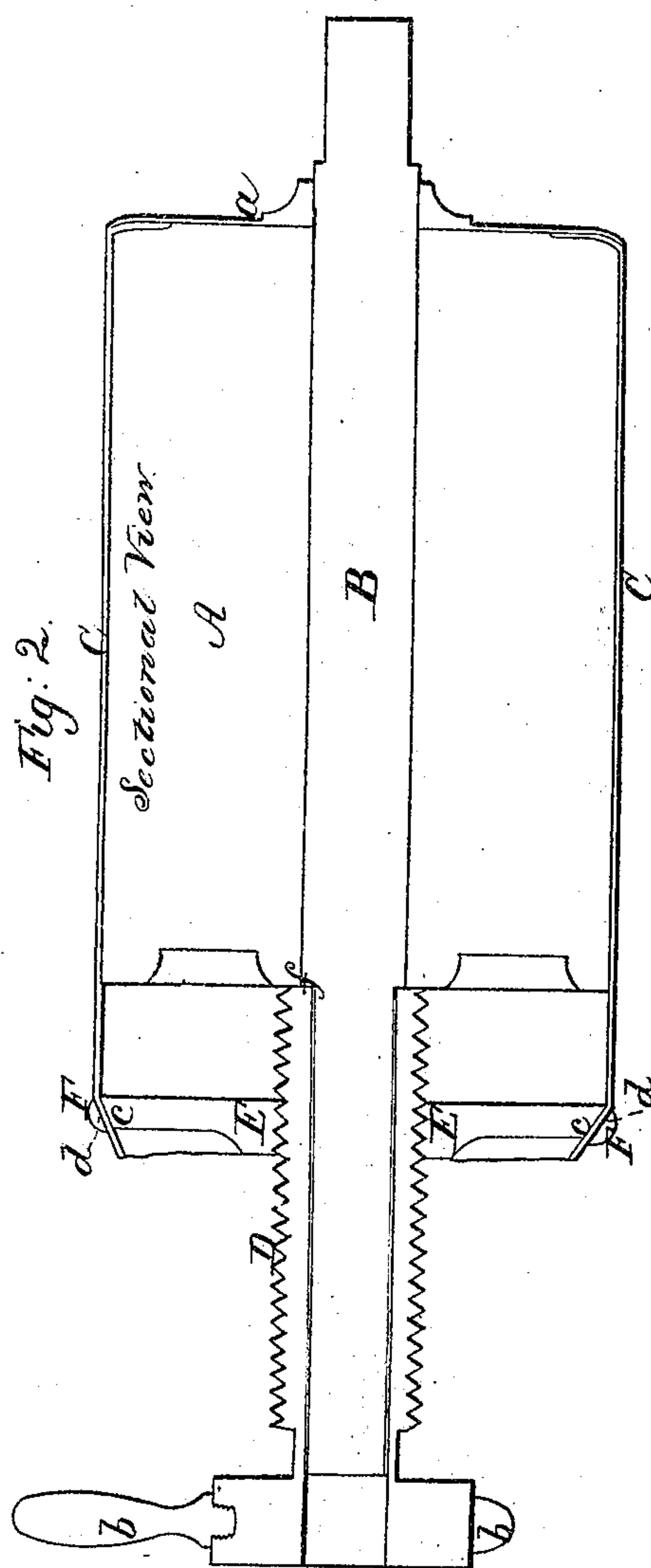
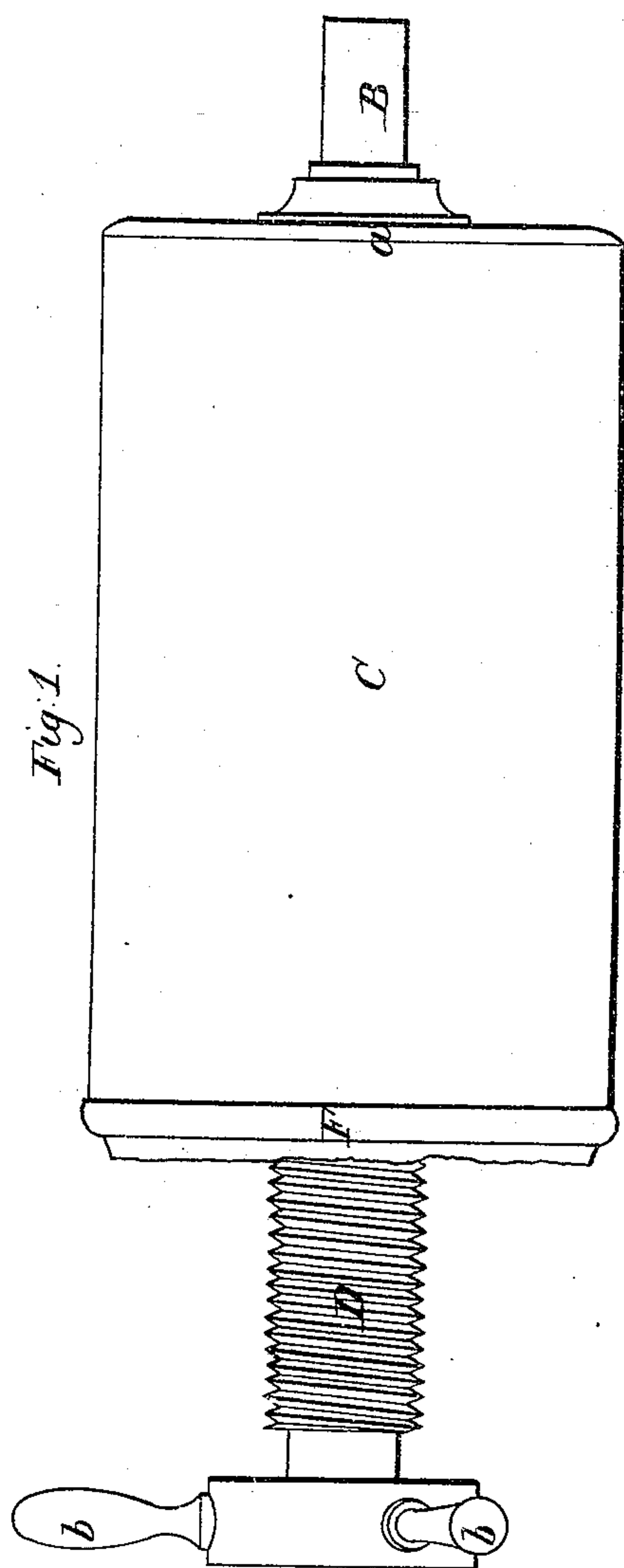


R. L. HOWE.
JACKET STRETCHER FOR COUCH ROLLERS OF PAPER MACHINES.
No. 42,854. Patented May 24, 1864.



Witnesses;
Chas. P. Hale Jr.
Frederick Curtis

Inventor;
Robert L. Howe
by his attorney
R. M. Eddy

UNITED STATES PATENT OFFICE.

ROBERT L. HOWE, OF WESTBROOK, MAINE.

IMPROVED JACKET-STRETCHER FOR COUCH-ROLLERS OF PAPER-MACHINES.

Specification forming part of Letters Patent No. 42,854, dated May 24, 1864.

To all whom it may concern:

Be it known that I, ROBERT L. HOWE, a resident of Westbrook, in the county of Cumberland and State of Maine, have invented a new and useful mechanism for stretching upon a couch-roller the cloth jacket thereof; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side view, and Fig. 2 a longitudinal section, of a roller with my invention applied to it and its jacket.

The couch-roller is a roller or drum employed in a Fourdrinier paper-making machine. Its jacket is a tube of cloth, which constitutes a covering to the curved surface of the body of the roller, and is to be strained or stretched thereon very tightly, the purpose of my invention being to accomplish the stretching of the jacket after one end of it may have been fixed to one end of the said body.

In the drawings, A denotes the body of the roller, such body being a cylinder provided with a shaft, B, extending through it axially.

C is the tubular cloth covering or jacket of the body. Such covering, after having one end fastened to one head of the cylinder and covered by a cap-plate, *a*, secured to the shaft, is to be stretched longitudinally on the cylinder by my invention, applied to it and the shaft of the cylinder, the nature of my said invention consisting in a combination composed not only of a tubular or socketed male screw and a disk having a beveled edge or periphery and provided with a female screw going through it centrally, but a beveled annulus to surround such disk and fit to or nearly to its circumference.

In the drawings, D denotes the socket or tubular screw, which is separate from, and while in use encompasses, the shaft or journal of the couch-roller, or is placed thereon in manner as shown in Fig. 2. The head of the screw has a series of arms, *b b b*, or other means, by the aid of which the screw may be revolved by the hand of a person.

E is the beveled-edge disk, which is not only constructed with a female screw going through it and of a size to correspond with and receive the thread of the male screw, in

manner as shown in Fig. 2, but has its circumference or edge beveled or tapered, as represented at *c* in said figure, the taper of the said edge going entirely around it. An annulus or ring, F, having its inner periphery tapering, as shown at *d*, to correspond with and fit to the taper of the disk, surrounds such disk concentrically.

In the use of the stretching apparatus or mechanism, its male screw D is to be placed on the journal *e* of the couch-roller, and so as to be capable of being revolved on the said journal, one end of the screw being caused to bear against the shoulder *f* of the journal. The disk on the screw is to be arranged within the jacket C, or to have the latter drawn over the beveled edge of such disk, and through the annulus surrounding it, after which, on rotating the screw D in the right direction, the disk will be drawn closely into the ring or annulus, and so as to cause the latter to confine the jacket closely to the disk, the further revolution of the screw serving to draw both ring and disk away from the cylinder and stretch the jacket lengthwise. After such jacket may have been properly stretched a cord or thread may be passed with a running stitch through that part of the jacket which may be between the disk and the next adjacent end of the roller. Next, on reversing the motion of the screw so as to slacken the strain on the jacket, and by carrying the two ends of the cord or thread and drawing them tightly in opposite directions, the slack may be taken up by the cord, and the jacket gathered and closed tightly upon the end of the body of the roller.

Having described my invention, what I claim is—

The said couch-roller jacket-stretcher or combination of the screw D, the beveled disk E, and the beveled annulus F, constructed and arranged substantially in manner and so as to operate as and for the purpose hereinbefore specified.

In testimony whereof I have hereunto set my signature.

R. L. HOWE.

Witnesses:

GEO. W. HAMMOND,
WM. GRAHAM, Jr.