No. 725,907. PATENTED APR. 21, 1903.

J. E. WINDLE.

CLOTH UNROLLING MACHINE.

APPLICATION FILED MAR. 20, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

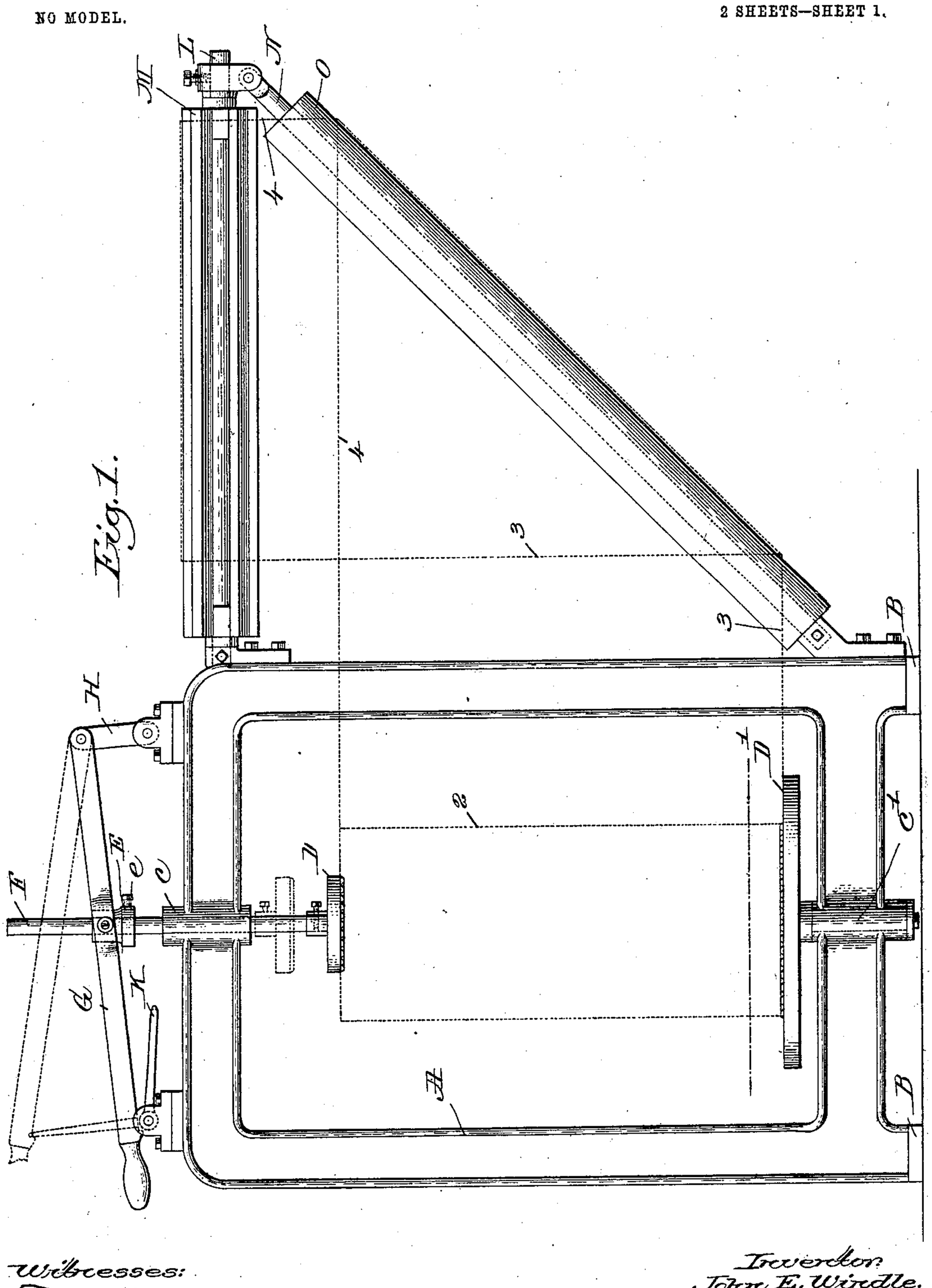


Fig. 1.

Witnesses:
Fred L. Grunbaf.
Herman J. Sartoris.

Inventor:
John E. Windle,
By Dewey Gregory
Attys.

No. 725,907. PATENTED APR. 21, 1903.

J. E. WINDLE.

CLOTH UNROLLING MACHINE.

APPLICATION FILED MAR. 20, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

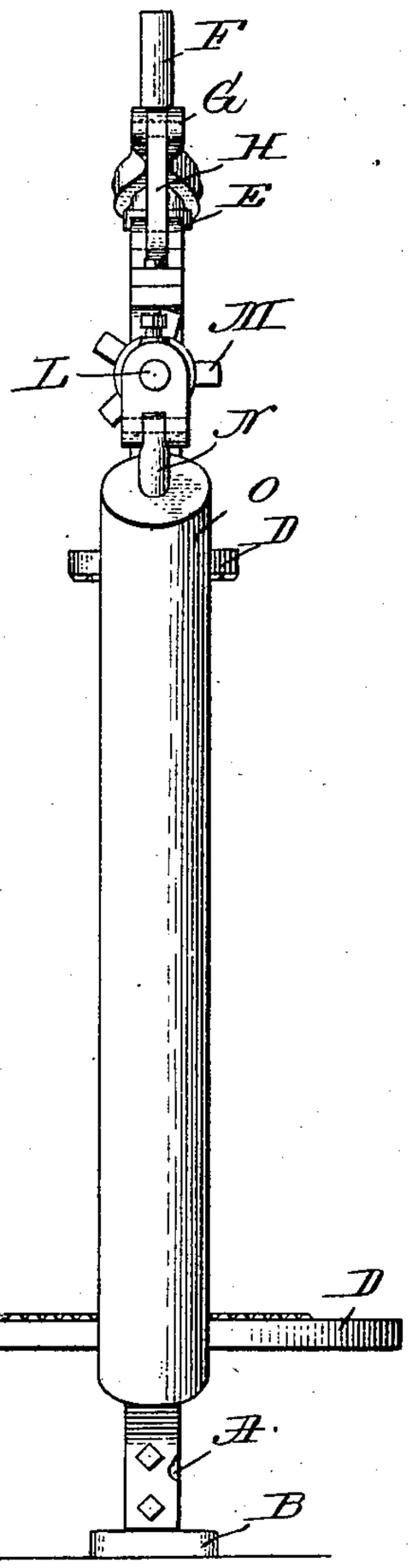
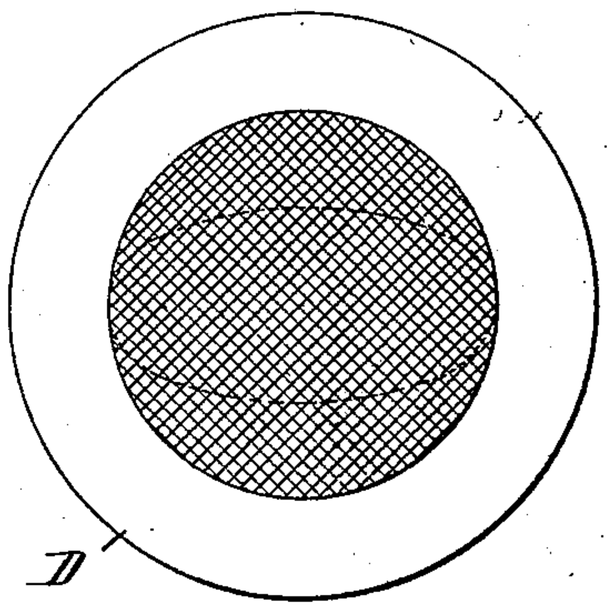


Fig. 3.



Witnesses:
Fred S. Grundy.
Herman J. Sartoris.

Inventor:
John E. Windle,
By Bradley Gregory,
Atty's.

UNITED STATES PATENT OFFICE.

JOHN E. WINDLE, OF NORTH GRAFTON, MASSACHUSETTS.

CLOTH-UNROLLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 725,907, dated April 21, 1903.

Application filed March 20, 1902. Serial No. 99,233. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. WINDLE, a citizen of the United States, residing at North Grafton, county of Worcester, State of Massachusetts, have invented an Improvement in Cloth-Unrolling Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a mechanism for use in unrolling cloth from the rolls in which it is usually made up.

The machine is for use in mills, tailoring establishments, and other places where it is desired to unroll the cloth; and the object of the invention is to allow the cloth to be taken from the roll and without being wrinkled presented in a horizontal plane to another machine or to an operative or person desiring to handle or cut up the cloth; and the machine is designed to make use of rolls of cloth in which it is impossible to hold the roll other than by a comparatively light frictional contact with the ends thereof.

In the drawings, Figure 1 represents a side elevation of the machine embodying my invention. Fig. 2 represents a front end elevation of the same; and Fig. 3 represents a plan view looking down upon the lower platen of the machine, showing in outline the roll of cloth resting thereon.

The machine consists of a vertical framework or standard A, preferably bolted or otherwise secured to the floor at B. The standard A is provided with two vertical alined bearings C and C′. In the lower bearing C′ the lower platen D′ is journaled. This platen is provided with an upper corrugated or roughened surface of sufficient area and roughness to enable the end of the roll of cloth to be firmly held. In the upper bearing C is journaled the upper platen D. This platen, since it does not sustain the weight of the roll of cloth, but serves simply to maintain it in its vertical position, need not be as large in size as the lower platen D′, but is provided with a similar corrugated or otherwise roughened surface. The platen D has an extended journal F and is slidingly mounted in the bearing C to enable the roll of cloth to be inserted and removed from between the platens. I have shown as a means for raising and lowering the upper platen for insertion or removal of the roll of cloth and for adjusting the same for different widths of cloth the following mechanism: A sleeve E is fastened by a set-screw *e* to the journal F. A lever G is pivoted to the sleeve E and connected at one end by a link H with the standard A and at the other end provided with a handle whereby it can be operated. The connections are so made that when the sleeve E is properly adjusted and the lever is in its lower position the vertically-placed roll of cloth will be held firmly between the platens D and D′. In order to position or remove the roll of cloth, the lever is raised, and I have shown a pivoted arm K, which may be swung into position, as shown in dotted lines, to hold the lever in its upper position during the positioning or removal of the roll.

Since the rolls of cloth which it is desired to handle in this machine are usually rolled up either on a pasteboard or a thin wooden former or on a former which is afterward withdrawn from the roll, it is impossible to hold the roll of cloth in an unrolling-machine firmly in a horizontal position, and it is therefore necessary to hold it in a vertical position and at the same time to hold the ends of the roll sufficiently to allow of its rotation. This is accomplished by the portion of the mechanism just described, and it is obvious that various changes of construction may be made without departing from this feature of my invention. It is necessary, however, in the ordinary manipulation of the cloth in the mill, in tailoring establishments, or elsewhere to have the cloth presented in a substantially horizontal plane for its further use or treatment. To secure this end without wrinkling the cloth, I provide an arm or bar located obliquely to the axis of the platen-journals and also a horizontal arm or roll above the obliquely-arranged arm or bar and substantially parallel therewith. I have shown for this purpose a rod L, secured to the upper portion of the standard A and projecting horizontally therefrom in the plane of the standard. I have shown journaled on this rod L a reel M, over which the cloth passes. This reel serves to spread and smooth out the cloth;

but it is not essential, since the cloth may pass over a smooth roll or even over the rod L itself. Connected to the rod L and the lower end of the standard A is a second obliquely-arranged rod N. I have shown this obliquely-arranged rod provided with an enlarged central cylindrical portion O, having found that the cloth moves easier when passing over a comparatively large-sized bar.

A roll of cloth is shown in dotted lines at 2, and dotted lines 3 and 4 indicate the lower and upper edges of the cloth, respectively, in its passage through the machine. The cloth leaves the roll *e* and passes on the far side of the bar O, as shown in Fig. 1, around the bar to the near side of the rod, and then up over the reel M into the desired horizontal position.

It is obvious that the angle of the bar O with respect to the axis of the platen-journals may be varied, but that an angle of about forty-five degrees is the most satisfactory.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cloth-unrolling machine, comprising a standard, vertically-alined platens journaled therein for supporting the roll of cloth in a vertical position, a horizontal delivery-guide for the cloth, and an intermediate guide arranged obliquely to the axis of the platen-journals.

2. A cloth-unrolling machine, comprising a standard, vertically-alined platens journaled therein for supporting the roll of cloth in a vertical position, a rotary horizontal guide for the cloth, and an intermediate guide arranged obliquely to the axis of the platen-journals.

3. A cloth-unrolling machine, comprising a standard, vertically-alined platens journaled therein for supporting the roll of cloth in a vertical position, a horizontal delivery-guide for the cloth, and an intermediate guide arranged obliquely to the axis of the platen-journals, said platen-journals, horizontal guide and intermediate guide being located in substantially the same vertical plane.

4. A cloth-unrolling machine, comprising a standard, vertically-alined platens provided with roughened faces journaled therein for supporting the roll of cloth in a vertical position, a horizontal delivery-guide for the cloth, and an intermediate guide arranged obliquely to the axis of the platen-journals.

5. A cloth-unrolling machine, comprising a standard, vertically-alined platens provided with roughened faces journaled therein, means whereby the upper platen may be adjusted with respect to the lower.

6. A cloth-unrolling machine, comprising a standard, vertically-alined platens provided with roughened faces journaled therein, means whereby the upper platen may be raised and lowered.

7. A cloth-unrolling machine, comprising a standard, vertically-alined platens provided with roughened faces journaled therein, and a lever pivotally connected with said upper platen and the standard of the machine whereby said upper platen may be raised and lowered.

8. A cloth-unrolling machine, comprising a standard, vertically-alined platens provided with roughened faces journaled therein, a lever pivotally connected with said upper platen and the standard of the machine whereby said upper platen may be raised and lowered, and means for holding said lever in its upper position during the positioning and removal of the cloth.

9. A cloth-unrolling machine, comprising a standard, vertically-alined platens journaled therein provided with roughened faces, whereby a roll of cloth may be unrolled in a vertical position, and means for guiding the cloth from the vertical position of the roll to a horizontal position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN E. WINDLE.

Witnesses:
JOHN C. EDWARDS,
N. H. COTTLE.