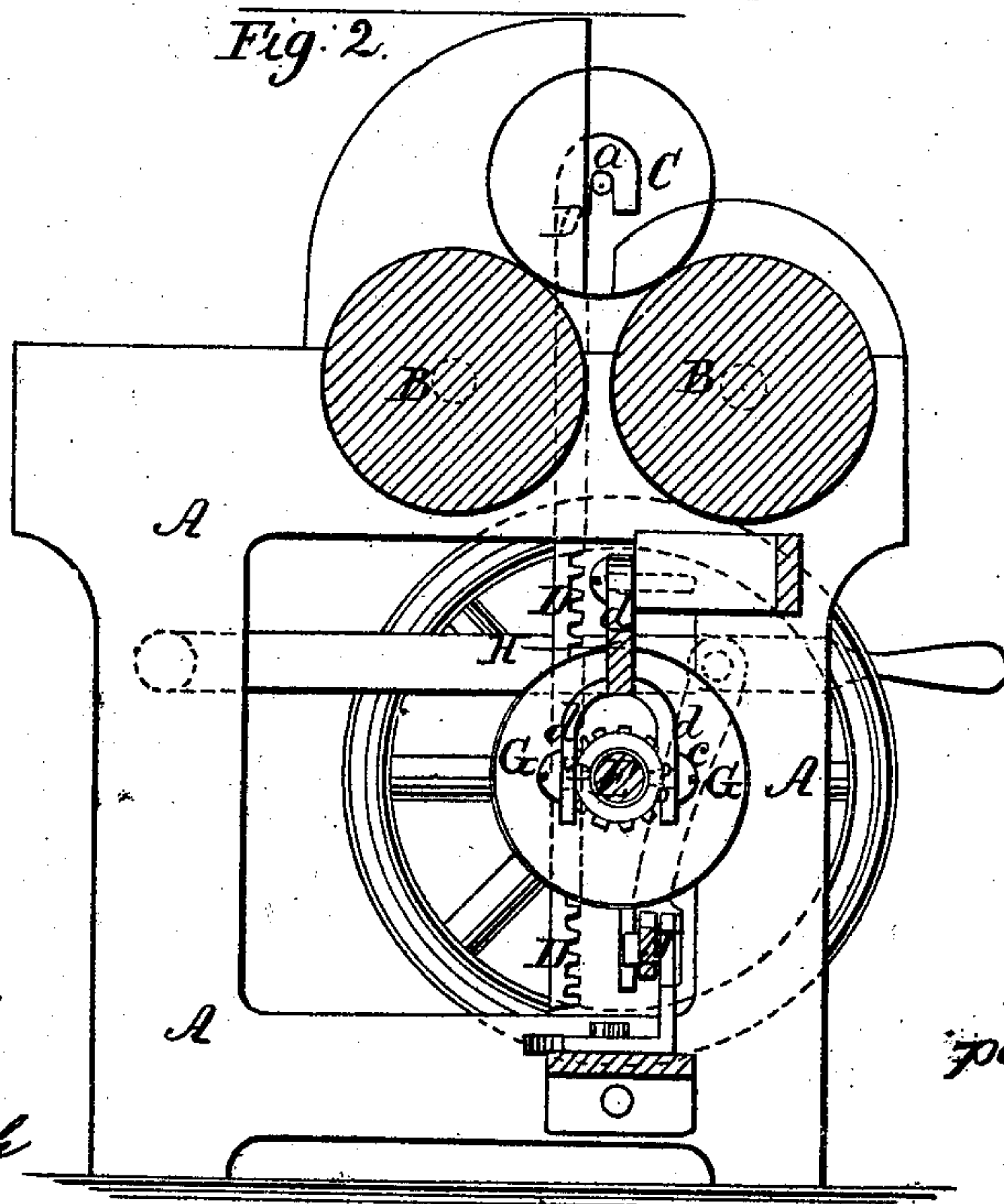
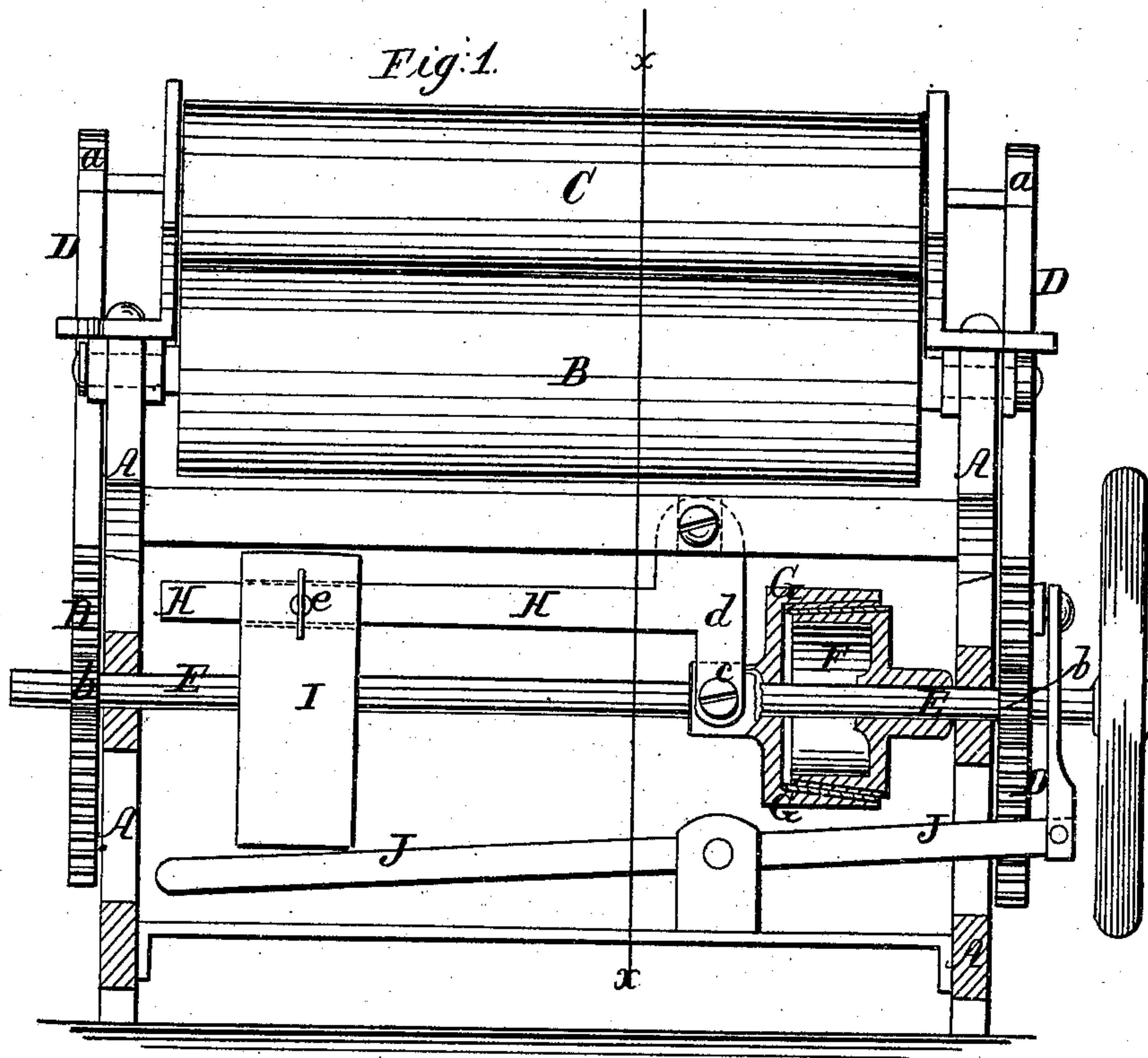


E. Van Winkle.
Friction Attachment to Cotton Lapper.
Nº 93,649. Patented Aug. 10, 1869.



Witnesses;
Amos Morgan
Ph. C. Dieterich

Inventor,
E. Van Winkle
per Munn & Co
Attorneys.

United States Patent Office.

EDWARD VAN WINKLE, OF PATERSON, NEW JERSEY.

Letters Patent No. 93,649, dated August 10, 1869.

IMPROVEMENT IN FRICTION-BRAKES FOR COTTON-LAPPING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD VAN WINKLE, of Paterson, in the county of Passaic, and State of New Jersey, have invented a new and improved Friction-Attachment to Cotton-Lappers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a front elevation, partly in section, of my improved friction-attachment to cotton-lappers.

Figure 2 is a vertical transverse section of the same, taken on the plane of the line *x x*, fig. 1.

Similar letters of reference indicate like parts.

The object of this invention is to produce an adjustable friction-attachment for those machines through which the cotton is passed, preparatory to its being carded, and which are usually termed cotton-lappers.

The friction-attachments heretofore in use were generally but a system of weights, connected with the lap-roller; they were in no case so arranged that, whatever may be the wear of the friction-surfaces, the degree of friction remains always the same.

In Kitson's patent friction-attachment, where two cheek-flanges, covered with leather, are used, the friction is, by short wear of the cheeks, so reduced as to produce laps much lighter than those for which the apparatus was originally adjusted.

My invention consists chiefly in the application of two conical friction-clutches, one being stem-shaped, and the other a cup. The former is attached to the axle to be detained, and the other slides loosely on that axle, and is pivoted to a weighted arm.

When this arm is not otherwise raised, it will always automatically hold the clutches together, to have the friction applied, and as the weight is adjustable on the rod, the degree of friction can always be regulated.

A, in the drawing, represents the frame of my improved cotton-lapper.

B B are the two bed-rollers of the same.

C is the lap-roller. It fits with its ends under the hooks *a a* of the toothed bars D, as usual.

The toothed bars mesh respectively into pinions *b b* that are mounted on a horizontal shaft, E, which shaft has its bearings in the frame A.

On the shaft E is mounted a somewhat conical wheel, F, the rim of which is covered with leather, or equivalent material.

G is a cup, sliding loosely on the shaft E, its inner diameter being as large as and shaped to correspond with the outer surface of the wheel F, leather, or its equivalent, being put on its interior surface.

The cup G is pivoted by a pin, *c*, to, or otherwise connected with the lower end of a swinging rod, *d*, which is suspended from the frame A, as shown.

From the arm *d* projects a horizontal lever, H, on which an adjustable weight, I, is secured.

This weight always serves to press the parts F and G closely together, as shown in fig. 1, and to thereby keep the friction constantly applied to the shaft E, and thereby also to the lap-roller.

If the friction-faces of the clutches F G should wear, the degree of friction will remain the same, as the weight will have so much more downward play, to keep them together.

When, by means of a lever, J, the weight is raised, the friction is, of course, released.

The weight I is clamped to the lever H, in the desired position, by means of a screw, *e*.

The part G of the clutch may, if desired, be made stationary, and F sliding, instead of otherwise, if desired.

I do not claim the conical friction-clutches *per se*, as I am aware that they have been used before; but

What I do claim, and desire to secure by Letters Patent, is—

The arrangement of the elbow-lever H and its adjustable weight I, in combination with the male and female cones F G, substantially as shown and described, for the purpose set forth.

EDWARD VAN WINKLE.

Witnesses:

H. J. CLARKE,
JOS. CUNDELL.