

(No Model.)

2 Sheets—Sheet 1.

G. W. KEMERY.

CLOTH REELING AND MEASURING MACHINE.

No. 273,690.

Patented Mar. 6, 1883.

Fig. 1.

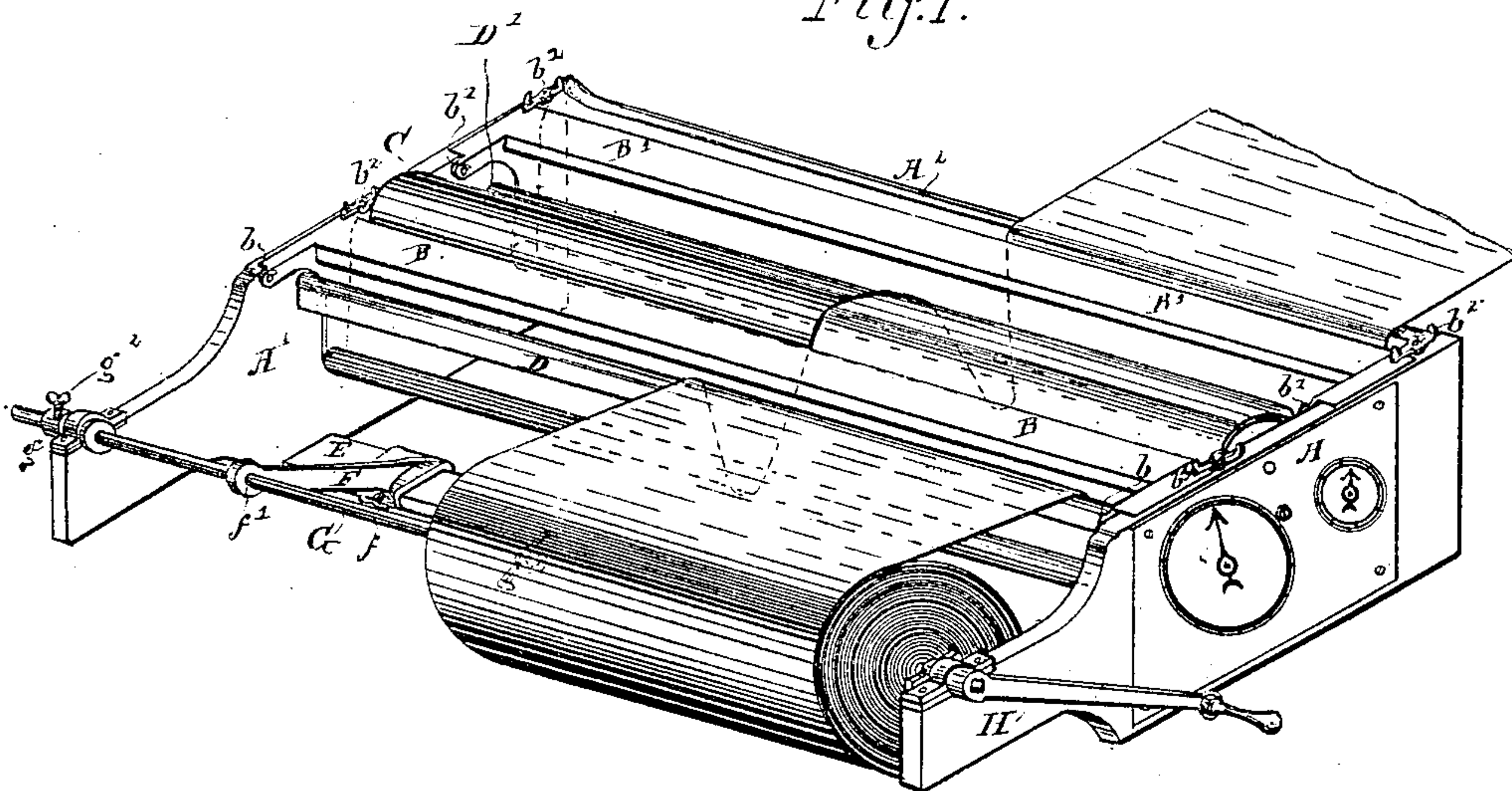


Fig. 2.

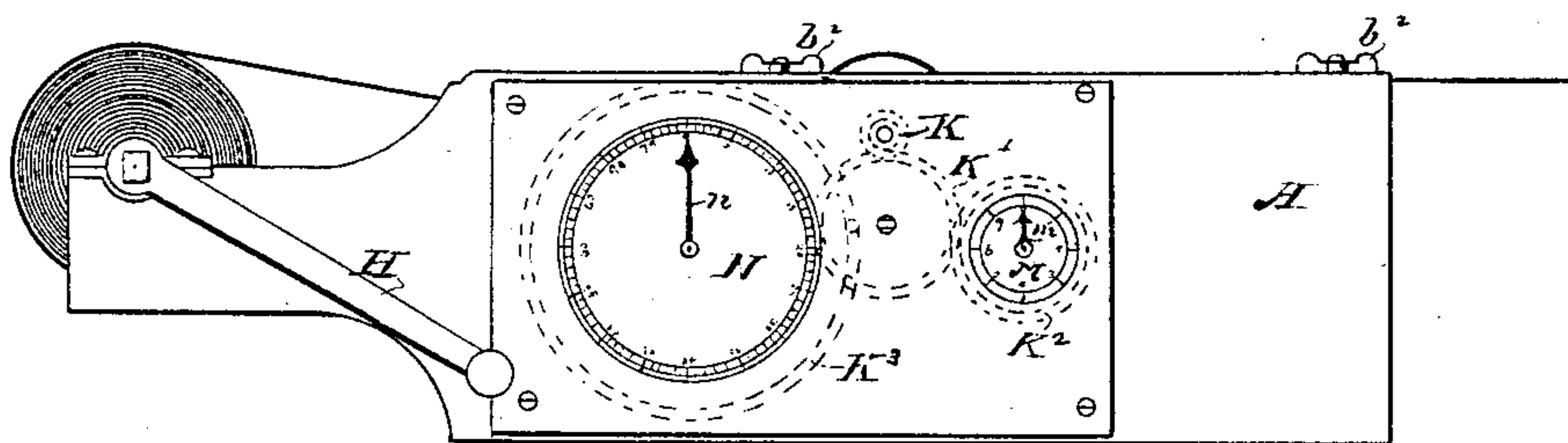
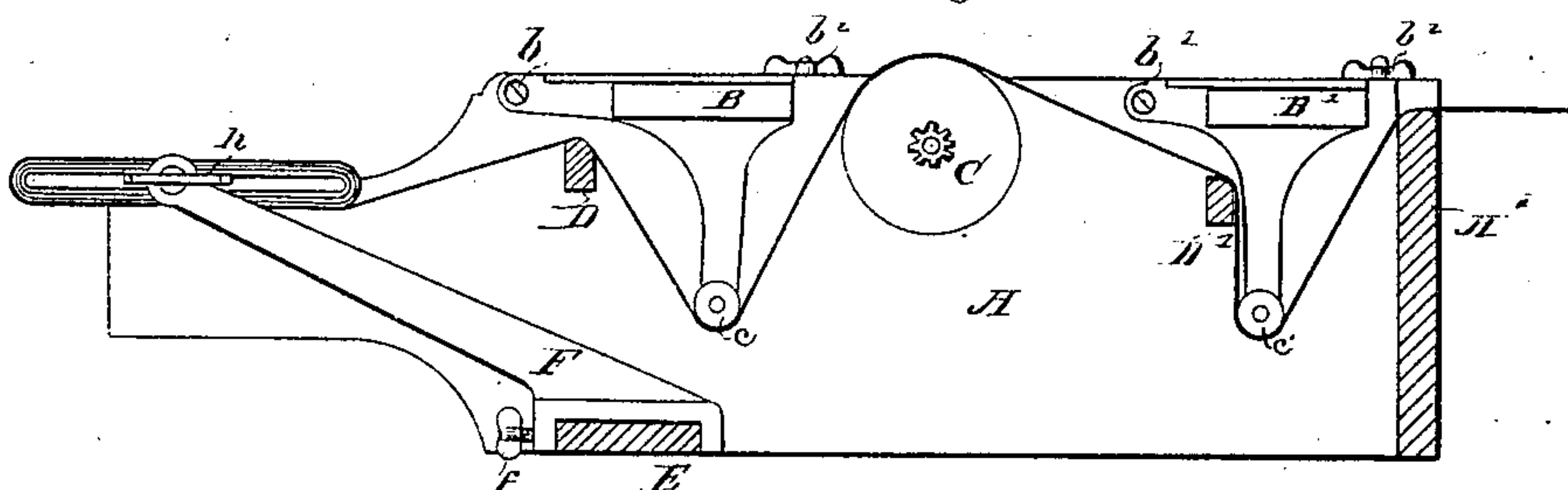


Fig. 3.



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(No Model.)

2 Sheets—Sheet 2.

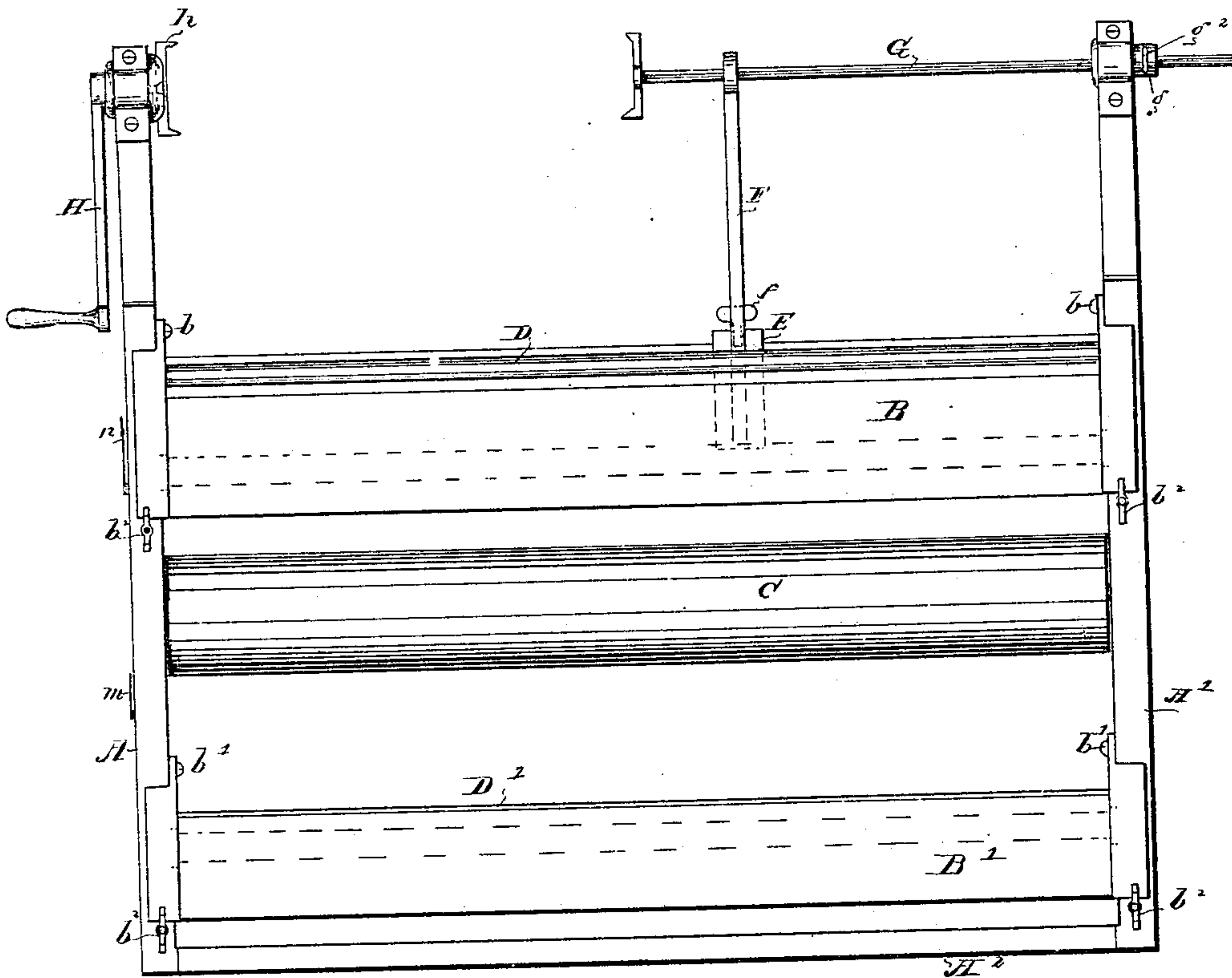
G. W. KEMERY.

CLOTH REELING AND MEASURING MACHINE.

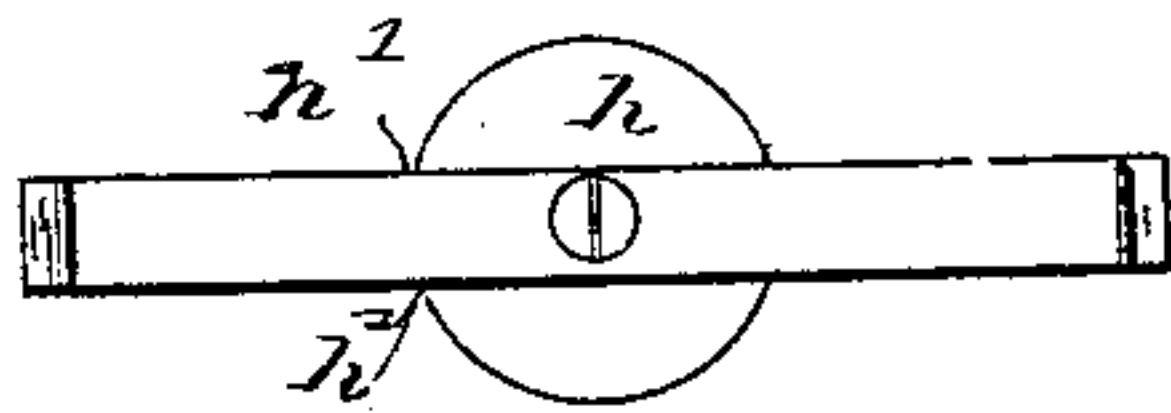
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*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

GEORGE W. KEMERY, OF ANGOLA, INDIANA.

## CLOTH REELING AND MEASURING MACHINE.

SPECIFICATION forming part of Letters Patent No. 273,690, dated March 6, 1883.

Application filed November 3, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. KEMERY, of Angola, Indiana, have invented a new and useful Improvement in Machines for Reeling and Measuring Fabrics, a description of which follows, reference being had to the accompanying drawings, in the several figures of which like letters indicate similar parts.

My invention belongs to that class of machines which are intended to receive fabric from bolts or in the mass and carry it forward evenly upon rollers and under tension and reel it upon other bolts, registering and measuring it in yards and fractions of yards, and is actuated by a crank or pulley.

In the drawings, Figure 1 is a perspective view of my invention, showing the bolt of cloth or fabric partly wound or reeled upon the bolt. Fig. 2 is an end view, showing the dials, and the dotted lines indicate the toothed wheels under the dial-plates. Fig. 3 is an end view with dials and gear-wheels removed, showing the tension-bars and back board and base-plate in cross-section. Fig. 4 is a top view, and Fig. 5 is a view showing the slotted face of the chuck with dog in place.

My invention consists in providing movable pressure-frames before and behind the main carrying-roll, in the combination of these frames with tension-bars secured to the main frame, in the combination of the main carrying-roll with such pressure-frames, in the arrangement and combination of the registering-dials and reeling mechanism, in the reversible mandrel adapted to hold boards and bolts of different shapes and lengths, in the adjustable brace that supports one end of the mandrel, and in the combination of these several parts, as hereinafter set forth and specified.

To describe my machine in detail, A A' are the sides of the frame-work, which are connected at the rear by the piece A<sup>2</sup>, and the front or part toward the operator is left open. Pivoted upon these sides at b b' b', and so they can be lifted up from the frame altogether when desired, are two pressure-frames, B B', on either side of the main carrying-roll C. These pressure-frames have small tension-rollers c c' underneath, which have gudgeons on each end and revolve in bearings formed in the ends of the pressure-frames. Under these

pressure-rollers the cloth or fabric passes. The top of these frames is flush with the top of the machine when they are in place, and buttons b<sup>2</sup> b<sup>2</sup> b<sup>2</sup> b<sup>2</sup> are used for holding the frames down when the machine is in operation. The main carrying-roll C revolves upon bearings in the end pieces, A A', and over this the cloth or fabric passes.

D is a front tension-bar, rigidly attached to the end pieces of the frame-work A A', and D' is a rear tension-bar of the same kind.

E is a base-plate for securing the device to the counter, and also for supporting an adjustable brace, F, which has a set-screw, f, and an eye, f', through which passes a mandrel, G, which has a collar, g, and rests upon a bearing thereon, and g<sup>2</sup> is a set-screw for securing the mandrel at any length desired.

H is the crank, having a bearing working in a box, and in the inner side is a chuck, h, which is slotted to receive adjustable dogs h<sup>2</sup>, which are secured to the chuck by a screw.

The reeling apparatus is connected with a register or measuring device, which is shown in Figs. 2 and 3.

K is a toothed wheel having the same axis as the main roller C. This engages with a toothed wheel, K', working on a loose pin, and this latter with a third, K<sup>2</sup>, and a fourth wheel, K<sup>3</sup>. The wheel K<sup>2</sup> has an index-hand, m, attached to its axis, the end of which passes through a brass plate, on which is a dial, M, graduated to sixteenths of a yard, and on the same plate, to the left, is a larger dial, N, having an index-hand, n, which dial is graduated to yards. The index n is attached to the axis of the toothed wheel K<sup>3</sup> and revolves with it.

My device operates as follows: The pressure-frames B B' being lifted up and out of the main frame, the end of the fabric is brought over the top of the back board, A<sup>2</sup>, and laid upon the roller C, so that the end of the fabric reaches the middle of the roller. The frame B' is then let down in place, and if the fabric is light the buttons may be used to hold the frame B' firmly down. Holding the fabric in place so it will not slip, the roller C is revolved toward the operator, and when the fabric has been carried across the front tension-bar, D, the front pressure-frame, B, is let down in place also. The end of the fabric is then attached



to the board or bolt on which it is desired to wind or reel it, and this board or bolt is secured in place between the end of the mandrel and the dog of the chuck, so it may be revolved by the crank. If a flat board is used, the wide dogs are applied; if round, the smaller dogs are used in the chuck, and the pointed end of the mandrel is forced into the other end. The wide dog of the mandrel is rigidly attached to one end thereof and may be used as a handle when the mandrel is reversed, and the pointed end used to hold the bolt or board in place. As the crank is turned the mandrel revolves, carrying with it the board or bolt held in its jaws, and the fabric is rapidly and evenly wound thereon. Under the pressure of the fabric the roller C revolves also, and the toothed wheel upon its axis causes the intermediate wheel, K', to revolve, and this communicates motion to the dial-wheels K<sup>2</sup> and K<sup>3</sup>. The sizes of these wheels may be conveniently proportioned to the size of the roller C. In the machine I have used for practice the roller C has a diameter of about three inches, the wheel K has eight teeth, the wheels K' and K<sup>2</sup> thirty-two, and the wheel K<sup>3</sup> eighty teeth.

What I claim, and desire to secure by Letters Patent, is the following:

1. A reeling and measuring machine for fab-

rics, wherein a main carrying-roller is placed between front and rear pressure-frames having tension-rollers below, which pressure-frames are so pivoted as to be capable of being lifted up out of the main frame, in combination with front and rear tension-bars connected with the main frame, a mandrel supported by one or more braces or bearings from the main frame, and a chuck connected with a crank for revolving the same, substantially as described.

2. In a machine for reeling and measuring fabrics, a reeling mechanism wherein a carrying-roller is placed between front and rear pressure-frames, the whole inclosed in a main frame, wherein front and rear tension-bars are sustained above the rollers of these pressure-frames, in combination with a mandrel for holding a bolt and means for revolving the same, and a registering device connected with the main carrying-roller and adapted to be actuated by one and the same mechanism, substantially as described.

In witness whereof I have hereunto set my hand this 18th day of October, 1882.

GEO. W. KEMERY.

Witnesses:

C. P. JACOBS,  
C. S. SPRITZ.