

No. 637,620.

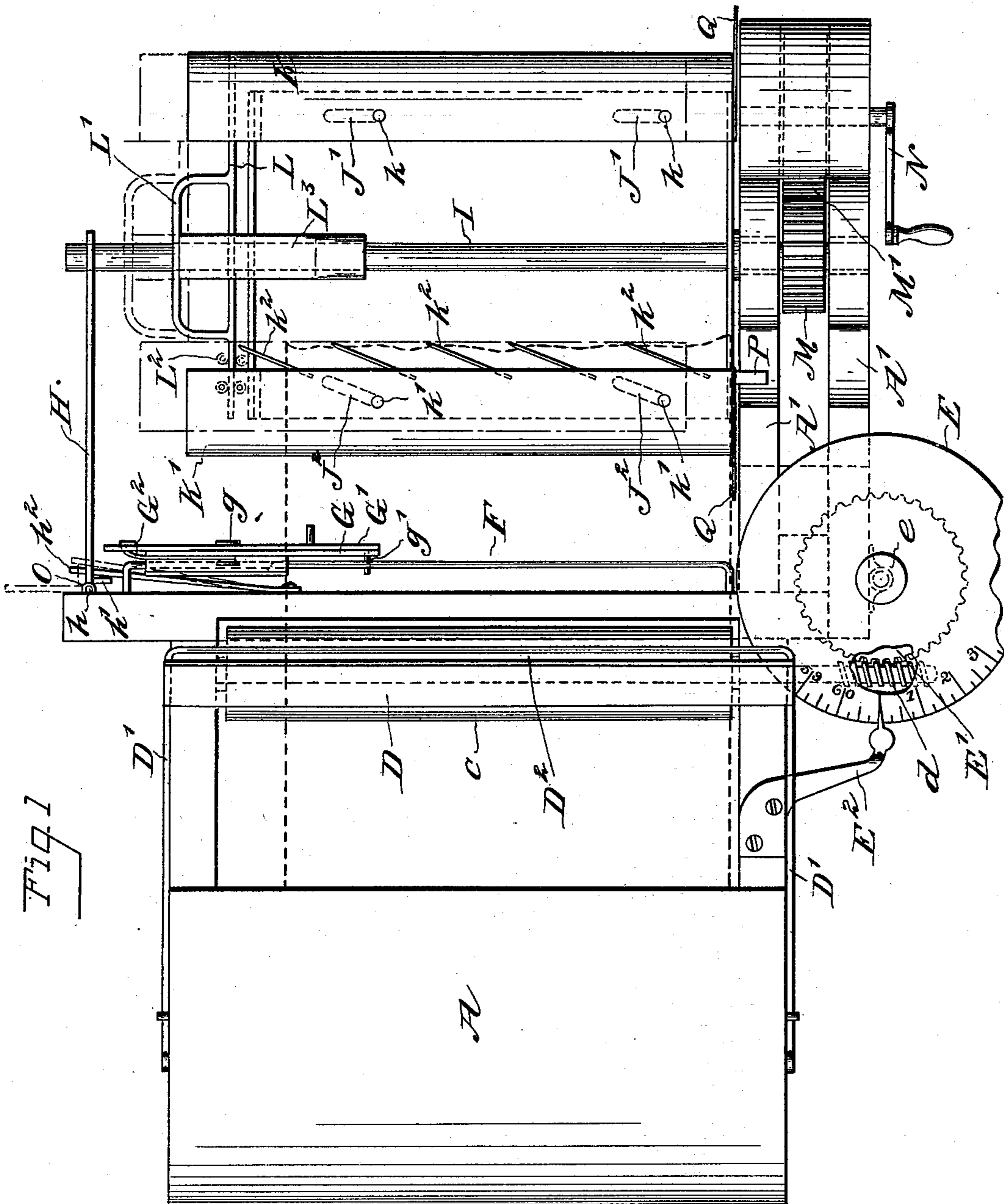
Patented Nov. 21, 1899.

J. H. KING.
CLOTH MEASURING DEVICE.

(Application filed July 22, 1898.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

J. A. Prophy.
W. L. Reynolds.

INVENTOR

J. H. King.
BY *Munn & Co.*

ATTORNEYS.

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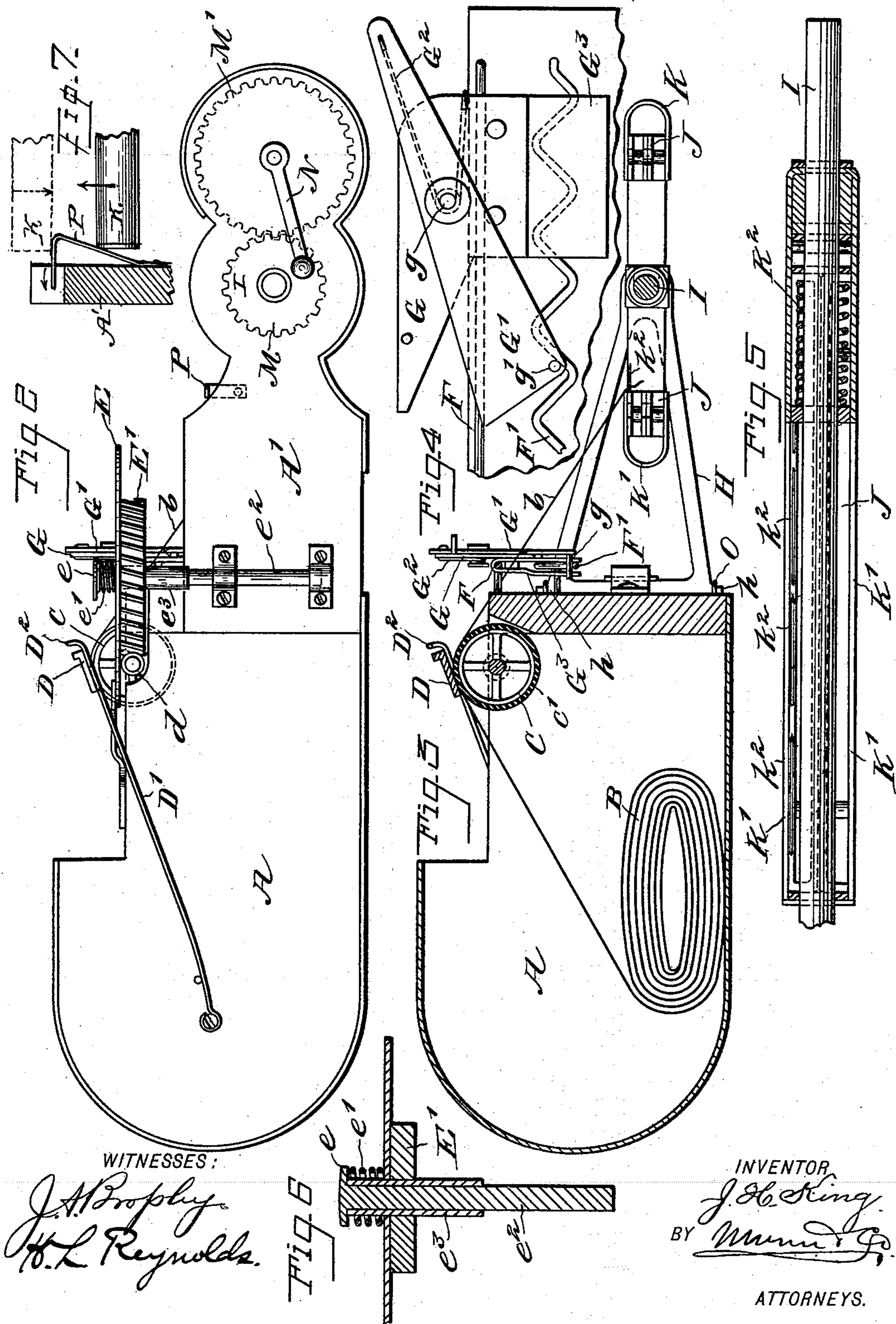
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UNITED STATES PATENT OFFICE.

JESSE HENRY KING, OF ESCATAWPA, MISSISSIPPI, ASSIGNOR TO VICTOR A. LENNEP, OF SAME PLACE.

CLOTH-MEASURING DEVICE.

SPECIFICATION forming part of Letters Patent No. 637,620, dated November 21, 1899.

Application filed July 22, 1898. Serial No. 686,609. (No model.)

To all whom it may concern:

Be it known that I, JESSE HENRY KING, of Escatawpa, in the county of Jackson and State of Mississippi, have invented a new and Improved Cloth-Measuring Device, of which the following is a full, clear, and exact description.

My invention relates to an improvement in devices intended for measuring and recording the length of bolts of cloth or for measuring off any required amount from a bolt of cloth.

My invention consists of the novel features hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a top plan view of my device. Fig. 2 is a side elevation thereof. Fig. 3 is a longitudinal sectional elevation thereof. Fig. 4 is a detail showing the manner of operating the shears. Fig. 5 is a longitudinal section taken through one of the arms of the reel. Fig. 6 is a sectional detail showing the manner of mounting the registering-disk, and Fig. 7 is a detail view illustrating the spring for engaging the end of the reel.

My device is intended to be used in dry-goods stores and similar places where it is desired at times to measure the goods for stock-taking purposes and also for measuring off any required amount from a bolt. The device is intended to lie upon a counter or any convenient support and is provided with a receptacle or holder A, consisting of a box having an opening in the upper side of sufficient size to take in any ordinary bolt of goods. The bolt B lies in this receptacle and turns over as the cloth is drawn off. The end of cloth *b* is taken from the bolt and passed over a roller C, which is journaled in the upper portion of the frame and at one end of the chamber A. This roller is preferably provided with a layer C' of rubber or similar material which will engage the cloth in such manner as to prevent slipping. The cloth is held upon the surface of the roller by a presser consisting of a plate D, extending the length of the roller and carried by spring-arms D'. These spring-arms are fastened to the outer sides of the chamber A and preferably are

made of round wire. The arms are preferably formed of a single wire bent upon itself, the loop forming a convenient object by which the presser may be raised.

From one side of the body of the device extends an arm A'. Upon this arm is mounted a reel adapted to receive the cloth. The shaft or axis I of this reel is securely mounted in the arm A' and has its outer end free except for the support given by a standard H. This standard H is hinged at its base to the frame, so as to swing away from the reel and leave its end free. Staples O, secured to the frame, receive pivot-pins *h* upon the standard. The base of the standard has a side extending flange *h'*, which is engaged by a spring *h*² to hold the standard in an elevated position. The outer end of the standard is provided with a hole or notch to receive the end of the shaft I. This standard may quickly be swung around, as shown by the dotted lines in Fig. 1, to release the reel and permit the cloth being removed therefrom. The reel, as herein shown, is provided with only two arms J, although more might be used. These arms are covered by U-shaped plates K, upon which the cloth is directly wound. These plates K are preferably made U-shaped, as shown; but other forms are used. The essential feature is that the plates be interposed between the reel-frame and the cloth to carry the cloth as it is wound on the reel. These plates are mounted so as to slide longitudinally upon the reel. The arms of the reel are provided with slots J' and J², through which pass pins *k* and *k'*, engaging the plates K and K'. The slots J' are straight or parallel with the axis, while the slots J² are at an angle with the axis. In consequence of this if the plate K' be given longitudinal movement it will also be moved toward the axis of the reel, while the plate K will be held at all times at the same distance from the axis. A ready means is thus provided by which the roll of cloth may be readily freed from the reel.

The outer ends of the plates K and K' are connected by means of a bar L, which is provided with a handle L', by which it may be readily engaged to slide the plates. Upon the arm J of the reel, which carries the plate

K', are secured a number of pins k^2 , adapted to receive the end of the cloth. In securing the cloth to the reel the end is placed upon the pins k^2 and held thereby until a turn has
 5 been taken about the reel. When it is desired to remove the cloth from the reel, the plates K and K' are moved lengthwise. This draws the plate K' toward the center of the reel. The inner edge of the plate K' is normally a little outside of the points of the pins
 10 k^2 . The inward motion of the plate K' is, however, sufficient to carry its inner edge inside of the points of the pins, and thus to free the end of the cloth. The motion of the
 15 plates K and K' thus frees the end of the cloth and reduces the dimension of the reel, so that the cloth may be readily slipped off. A spring K^2 is placed about the center shaft I and inside of the collar L^3 in such a way as
 20 to hold the plates in the position shown by full lines in Fig. 1. This is the position in which the plate K' is in its outermost position. To reduce the friction between the bar L and the plate K', friction-rollers L^2 are
 25 placed within the plate and bearing against the sides of the bar L.

The shaft I and the reel are rotated by means of a crank N, placed upon the shaft of a gear-wheel M', said gear-wheel meshing
 30 with a gear-wheel M upon the shaft I. This construction enables the speed of rotation to be multiplied. If such a result is not desired, the crank N may be placed directly upon the shaft I. To prevent backward rotation of the
 35 wheel, a spring-catch P is mounted upon the arm A', so as to engage the end of the reel. This consists of a spring-bar secured to the frame A' and extending upwardly, bending outward, so as to engage the end of the reel,
 40 and having its end bent at right angles away from the reel. This spring-bar will be forced back when engaged by the reel, turning in one direction, but will stop the reel when it is turned in the opposite direction. Upon
 45 the inner end of the reel is preferably placed a projecting arm Q, adapted to engage the edge of the cloth and prevent its running off of the reel.

The roller C, which is rotated by engagement with the cloth as it is drawn out, has a worm d formed upon the outer end of its shaft. This worm engages a worm-wheel E'. Secured to the upper side of the worm-wheel E' is a registering-disk or dial E. This disk
 55 is held against the worm-wheel by means of friction, so that it is readily adjusted to zero. The spirally-coiled spring e' surrounds the shaft upon which the gear E' turns and presses against the dial E and a head e upon the upper end of the shaft e^2 . Preferably the gear E' is mounted upon a collar e^3 , which extends upward through the dial E. If it is desired to cut the cloth, this may be done by the cutting mechanism shown in detail in Fig. 4.
 65 This consists of two cutting-blades G and G', pivoted to each other at g . The blade G is

mounted to slide upon a rod F, which extends from one side of the device to the other. An extension G^3 of the blade G embraces a second rod F', which is crimped or bent so as to
 70 form a succession of wavy outlines. Preferably the extension G^3 will entirely inclose the rod F', so as to prevent its being bent to one side. A pin or roller g' , mounted upon the movable blade G', engages the rod F', and
 75 is thereby given a reciprocating or oscillating motion, so as to cause the cutting edges to cut the cloth. The blade G' is held toward the rod F' by means of a spring G^2 . This device is so placed that the opening between the
 80 cutting-blades is in line with the cloth after leaving the roller C. In using this device it is simply pushed along upon the rod F. The bends in the rod F' will engage the movable blade so as to cause it to reciprocate, and thus
 85 to cut the cloth. In setting the adjusting-dial it should be moved back to a point corresponding with the amount of cloth lying between the pins k^2 and the cutting-blades. As a consequence it should not be set to zero,
 90 but so as to register that amount of cloth.

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

1. A cloth-reel having arms, a plate connected to one arm by slots inclined to the axis and adapted to support the cloth wound on the reel, and a spring for normally holding the said plate outward, substantially as described. 95
2. A cloth-reel provided with arms, pins projecting inwardly from one arm, a plate mounted to slide on said arm and connected thereto by guides inclined to the axis of the reel and adapted to support the cloth, said plate normally exposing the pin-points and covering the same when moved upon its guides, substantially as described. 100
3. A cloth-reel provided with arms, a plate mounted to slide upon one arm on guides at an angle with the axis, means for normally holding the plate in its outermost position, and pins projecting inwardly from the reel in the direction of sliding of said plate, and adapted to be covered by said plate when it is moved inwardly, substantially as described. 105
4. A cloth-reel provided with arms, plates connected with said arms and mounted to slide longitudinally thereon, one of said plates having guides at an angle with the axis, connections between the plates whereby they may be given longitudinal movement together, springs acting on said plates and pins projecting inwardly from the arm carrying the angularly-moving plate, and normally exposed but covered by said plate when moved inward, substantially as described. 110
5. A cloth-reel provided with arms, a section upon one arm mounted to slide longitudinally and also to move inward toward the axis of the reel, whereby when the section is moved longitudinally the diameter of the 115

reel is reduced, and a spring for normally holding said section in the outer or expanded position, substantially as described.

5 6. A cloth-reel provided with arms, pins projecting inwardly from one of said arms and adapted to engage the end of the cloth, a plate on said arm normally exposing the pins, and arranged to move inward, and means for moving the plate inward to reduce the dimension of the reel, and also to free the end of the cloth from the pins, substantially as described.

15 7. The combination with a supporting-frame, of a cloth-reel provided with means for securing the end of the cloth thereto, and having one end of its shaft mounted in the frame, a standard hinged at one end to the frame and mounted to swing in a horizontal plane, the said standard being adapted to support at its free end the other end of the reel-shaft, the hinged end of the standard having a projection extending at right angles to the standard, and a spring secured at one end to the frame and engaging said projection, substantially as described.

25 8. The combination with a supporting-frame, of a cloth-reel having means for securing the end of the cloth thereto, the said reel being provided with a shaft one end of which is mounted in said frame, a triangular standard provided at the ends of its base

with pivot-pins, sockets on the frame adapted to receive the said pivot-pins, the free end of said standard being adapted to support the other end of the reel-shaft, a flange on the base of said standard, between the ends of the base, and a spring secured at one end to the frame and engaging said flange with its free end and serving to hold the standard in position, substantially as described.

40 9. A cloth-reel provided with arms having slots formed therein, the slots in one of said arms being parallel with the axis of the reel, and the slots in the other arm being arranged at an angle with the axis of the reel, the latter arm being provided with pins adapted to receive the end of the cloth, plates mounted upon the arms, pins passing through the slots in the arms and engaging the said plates, a bar connecting the outer end of said plates and provided with a handle, friction-rollers carried by one of said plates and bearing against the sides of the connecting-bar, a spring carried by the shaft or axis of the reel and serving to hold the plates in normal position, and means for rotating said reel, substantially as described.

JESSE HENRY KING.

Witnesses:

V. A. LENNEP,
ANDREW ANSON FIELD.