

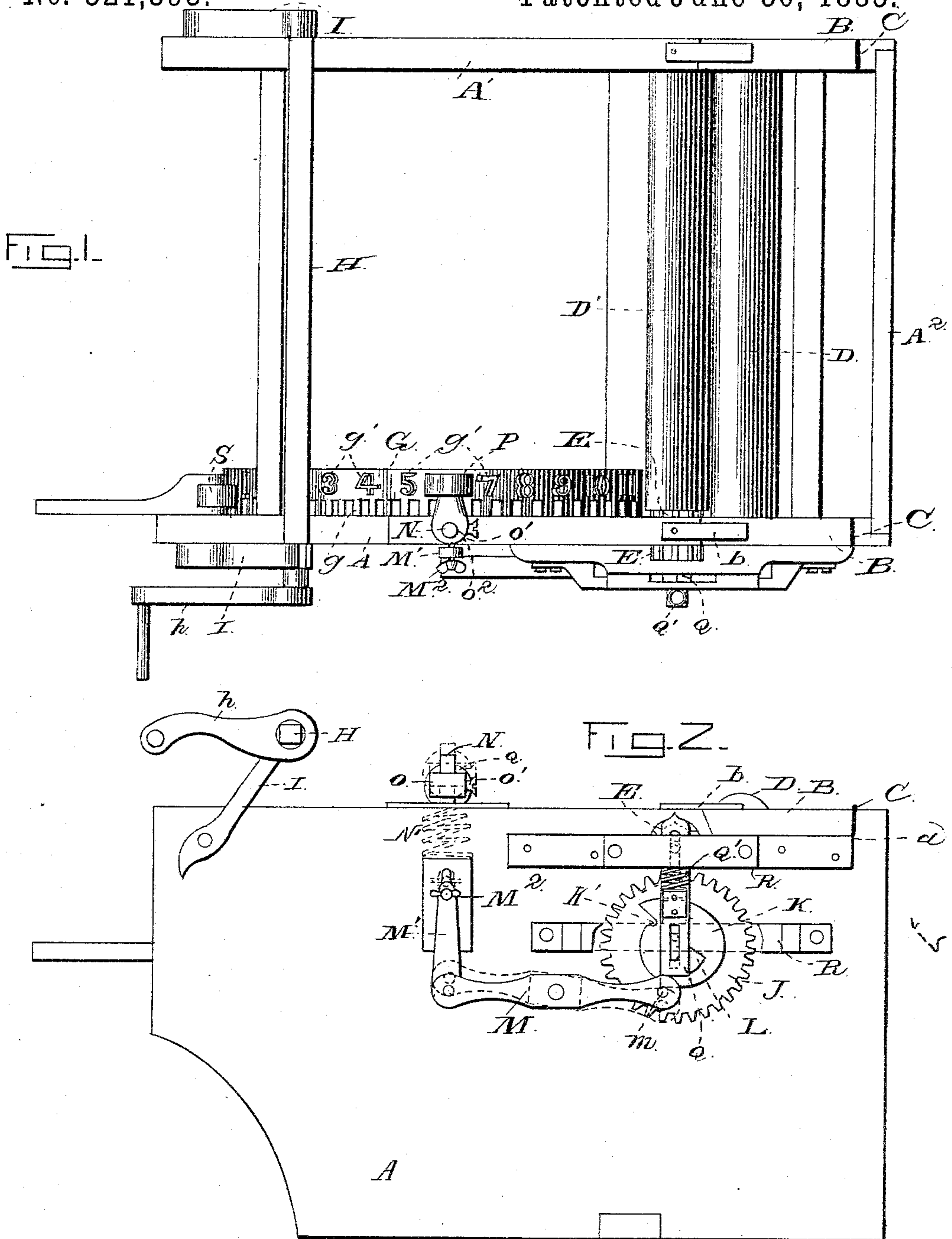
(No Model.)

2 Sheets—Sheet 1.

M. B. SMITH & L. J. A. ROSWALL.
MACHINE FOR MEASURING AND MARKING CLOTH.

No. 321,393.

Patented June 30, 1885.



WITNESSES:

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 attys

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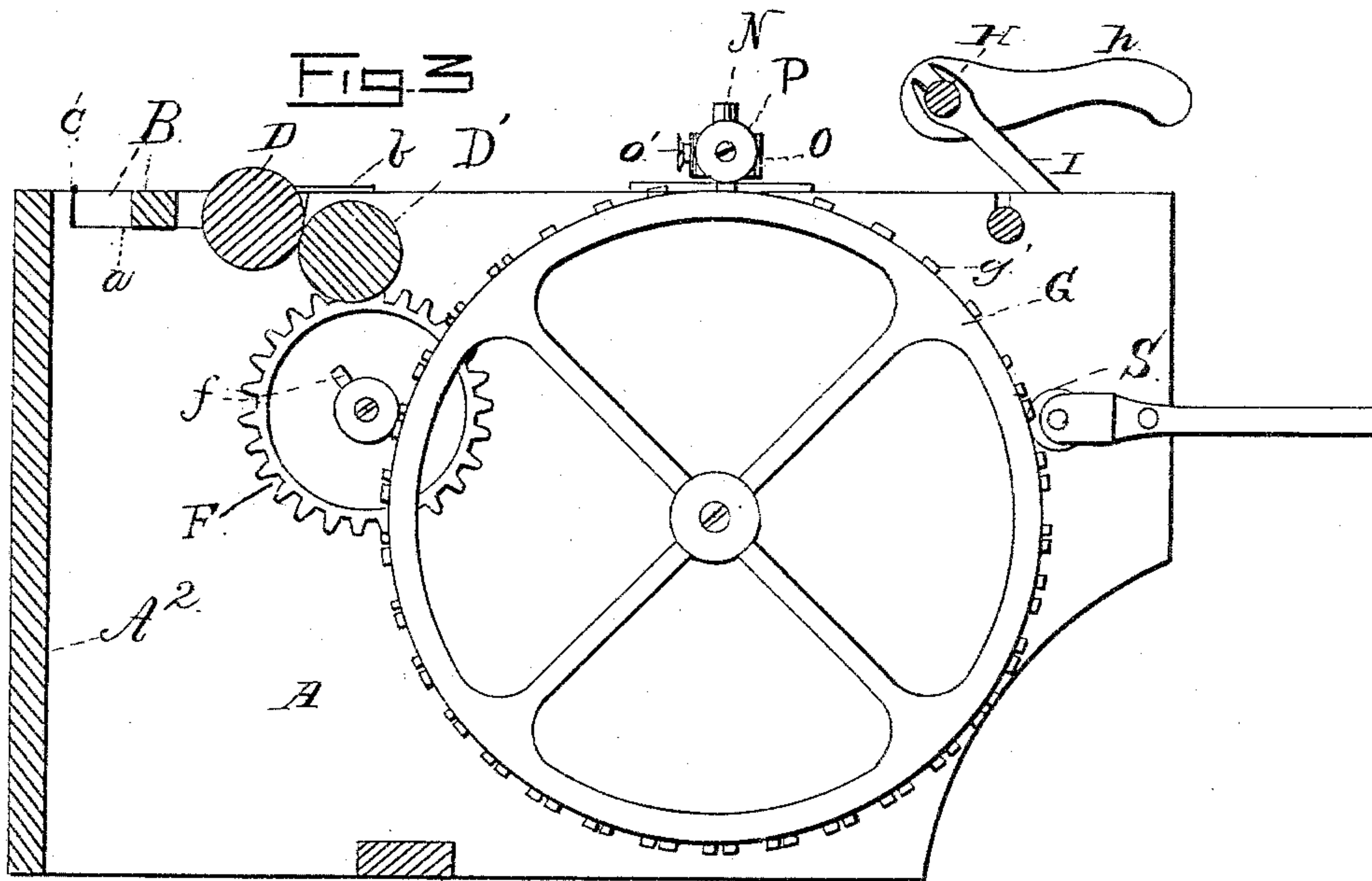


Fig. 4.

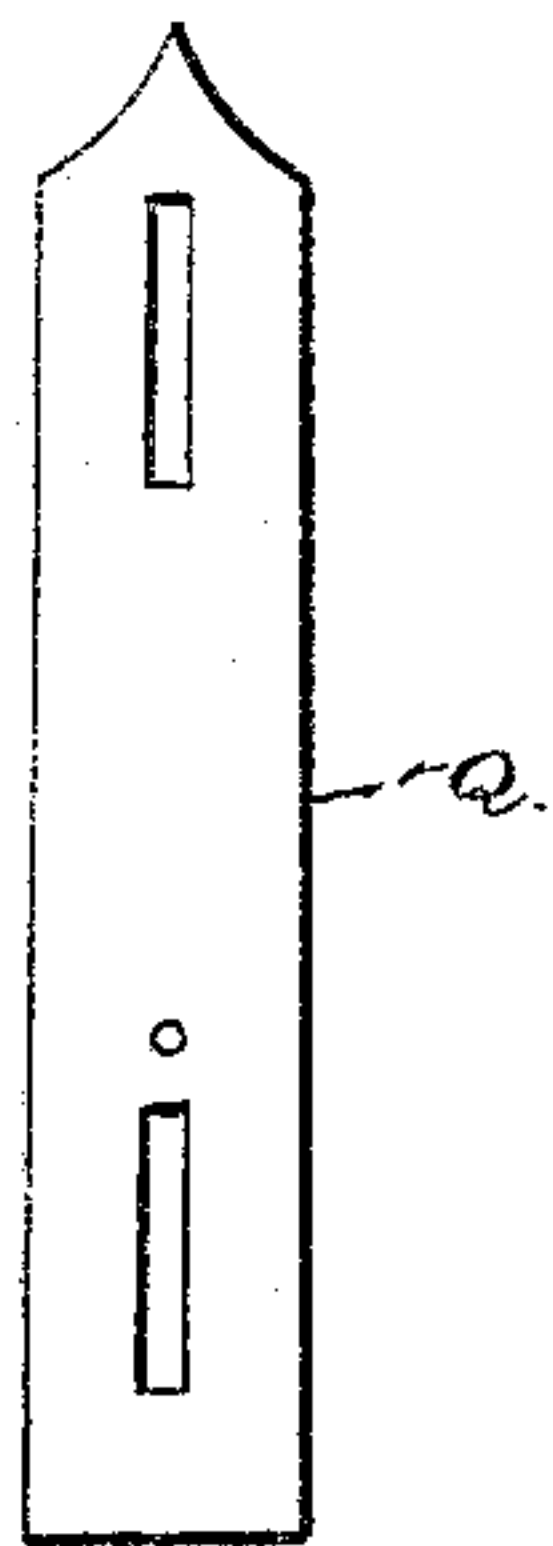


Fig. 5.

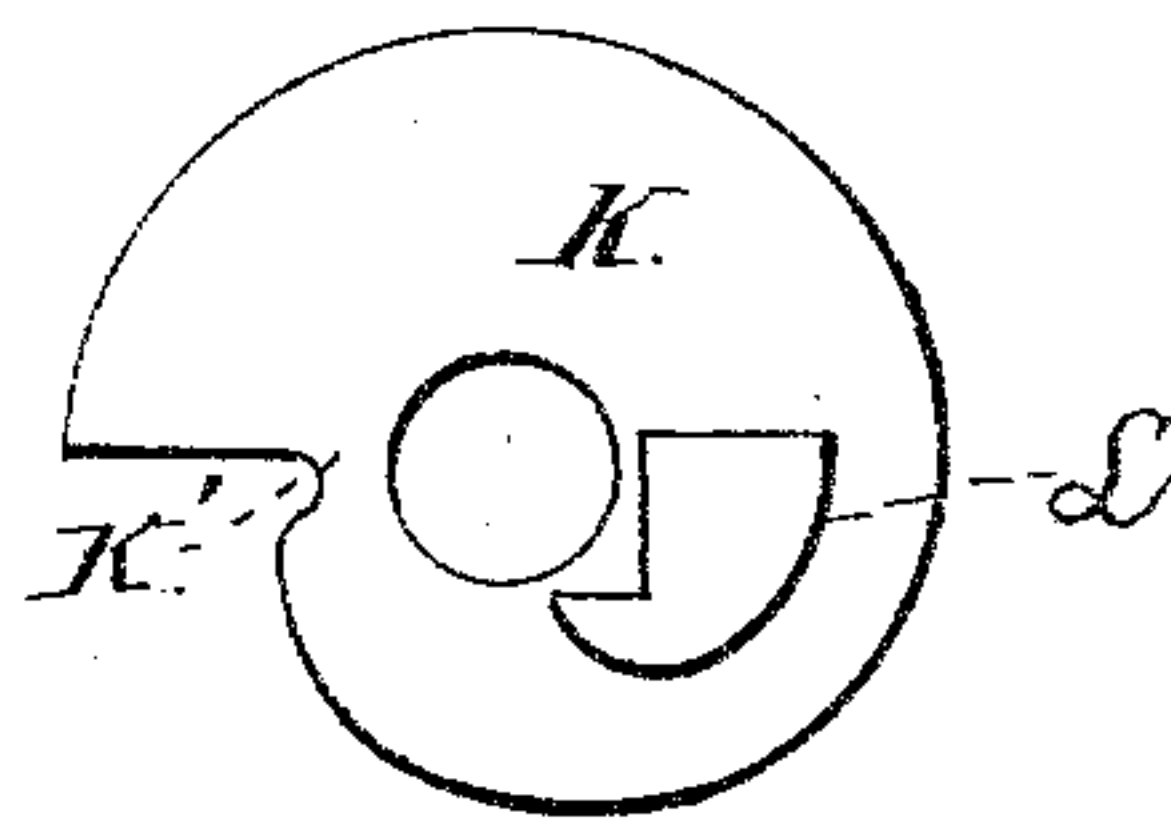
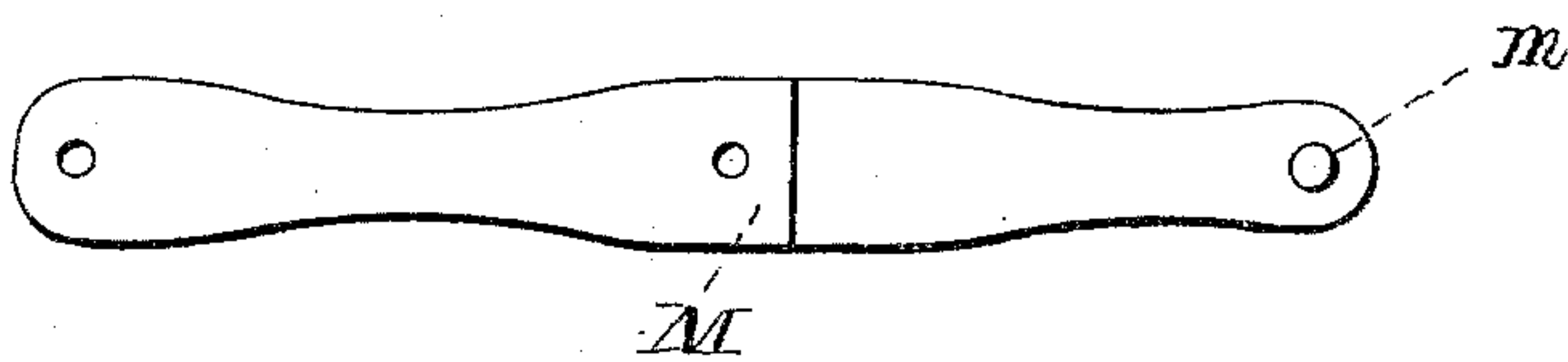


Fig. 6.



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UNITED STATES PATENT OFFICE.

MARCUS B. SMITH AND LARS J. A. ROSWALL, OF CLARENCE, MISSOURI.

MACHINE FOR MEASURING AND MARKING CLOTH.

SPECIFICATION forming part of Letters Patent No. 321,393, dated June 30, 1885.

Application filed September 26, 1884. (No model.)

To all whom it may concern:

Be it known that we, MARCUS B. SMITH and LARS J. A. ROSWALL, citizens of the United States, residing at Clarence, in the county of Shelby and State of Missouri, have invented certain new and useful Improvements in Machines for Measuring and Marking Cloths, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to machines for measuring and marking cloths; and it consists in novel mechanism, as hereinafter described, and specifically pointed out in the claims, by which the cloth is marked or stamped into length of yards or any other suitable division, and the characters thereby stamped increase numerically, so the entire number of yards reeled may be instantly determined.

In the drawings, Figure 1 is a plan view, Fig. 2 is a side view, and Fig. 3 a vertical longitudinal section, of our machine. Fig. 4 is a detail view of the releasing-bar; Fig. 5, a detail of the cam-wheel, and Fig. 6 a detail view of the main stamping-lever.

In carrying out our invention we prefer to employ as supports two parallel side boards, A A', connected at their rear ends by a back board, A². In the rear upper edges of the boards A A' we cut mortises *a*, fitted to receive the bearing-bars B B, which are hinged at their rear ends to the sides A A' by hinges C C. These hinges are of the spring variety, so that they give the bars B a downward tendency or force at their forward ends, and thus form the tension of the device, which is supplemented by the spring-buttons, presently described.

In the forward end of the bars B is journaled the roller D, which in operation bears against the roller D', and is pressed thereagainst by the spring-hinge, before referred to. The roller D', it will be seen, is journaled in the boards A A'.

The buttons *b* are pivoted at one end on the boards A A', immediately in front of mortises *a*, and may be turned over the forward end of bars B when the latter are lowered into operating position. These buttons serve to re-

tain the said bars B in place, and are made, by preference, of spring metal, so as to bear thereon and assist the spring-hinges in giving proper tension to the rollers D D'.

On one end of roller D' we secure or form a gear-pinion, E, by which the motion of said rollers is properly communicated to the marking mechanism.

On the inner side of the board A is journaled a gear-wheel, F, meshed with and receiving motion from the pinion E. This wheel F is provided with a lateral pin, *f*, which in operation gears with the teeth of the marking-wheel once during each revolution of the wheel F. This marking-wheel G is also journaled on the inner side of the board A, and is provided on its inner edge with teeth *g* and on its periphery with figures *g'*, as 1 2 3 4, &c., or any other characters by which the merchant may desire to stamp or mark his goods. The periphery of this wheel extends approximately to or above the upper side of board A in position to be properly operated on by the presser, presently described.

The relation between pinion E and gear-wheel F is such that wheel F is given one complete revolution as each yard is drawn through between the rollers D D', the latter being revolved by the cloth. The relation between the teeth *g* and the pin *f* is such that each mesh of pin *f* with teeth *g* turns the wheel G the distance between the characters *g'* thereon, so that the said characters are presented successively under the presser as each yard of material is drawn between rollers D D'.

The reel or shaft H is journaled in bearing-brackets I in front of wheel G, and is provided with a crank, *h*, by which it may be rotated, and it may be lifted out of one or both of its bearings to permit the removal of the cloth when the desired quantity has been reeled thereon, as will be understood.

On the outer side of the board A, preferably concentric with wheel F, is journaled the wheel J, meshed like wheel F with pinion E, and provided with a main cam, K, and a supplemental cam, L.

The drop or recess K' of the main cam and the commencement of the cam-surface of the

supplemental cam are so arranged that they will operate practically simultaneously for the purpose hereinafter described.

The wheel J has an equal number of teeth with the wheel F, so it and said wheel F are revolved alike by pinion E.

The lever M is pivoted midway its ends on the outer side of board A, and is provided near one end with a pin or stud, *m*, which projects under and is engaged by the edge of cam K, by which said lever is depressed at its rear end, as will be seen. The opposite or forward end of the lever M is connected by a link, M', with a rod or carrier, N, which is held and movable vertically in suitable guides, preferably in a mortise formed downward from the upper edge of board A. This is the construction as shown, and a narrow slot is formed from said mortise through the outer side of board A, for the passage and vertical play of pin M², which secures link M' to rod or carrier N.

The carrier N is held downward by a coil-spring, N', embracing it within its mortise, as will be understood from dotted lines, Fig. 2.

A bracket, O, is sleeved at one end on the upper end of rod N, and secured adjustably thereto by a clamping-screw, O'. This bracket projects inward over the marking-wheel, and has journaled on it the roller P, which is arranged over and fitted to engage the characters *g'* of the marking-wheel. This bracket and roller form the head of rod N, and might be dispensed with, and the upper end of said rod simply bent laterally to form the pressing-head; but we prefer to use the adjustable bracket, because by it the device may be fitted to cloths of different thicknesses, and we prefer to use the roller, because it prevents frictional damage to the cloths, as will be appreciated.

In operation, as the wheel J is revolved and revolves cam K, the rear end of the lever M is depressed by the latter bearing against pin *m* until the pin comes opposite recess K' in cam K, when the rear end of the lever will be forced into said recess by the spring N' forcibly depressing the rod N and causing its head to press the cloth against the characters *g'* of the marking-wheel and stamp said characters on the cloth, as will be understood.

The before-described operation, it will be noticed, by reason of the relative construction before described, only occurs once as each yard is reeled off, and consequently only marks the beginning or ending of each yard.

The object of cam L is to prevent the presser P pressing the cloth against the marking-characters, so as to blur or blot the same. To secure this end the bar Q is held and movable vertically in suitable guides, as R R, along the outer side of cams K L.

A coil-spring, Q, connects the bar with the framing and gives it an upward tendency. Near its lower end the bar Q has a lateral pin, which projects under and is engaged by the

cam L. As the rear end of lever M springs up in recess K', it strikes the lower end of bar Q, which is instantly depressed by the action of cam L, and forces the presser-head of rod N off the cloth and thus prevents blotting or smearing of the cloth, as will be understood.

It is manifest the cam K might be formed of a groove in the face of the wheel J, instead of projecting therefrom, as shown; also, that the bar Q and its actuating parts might be dispensed with when neat, fine marking was not required.

Usually in practice we arrange an inking-roller, S, so it will bear on the characters *g'* and automatically ink the same.

By our machine goods of all varieties may be rapidly invoiced and measured, the character or figure being clearly marked on the selvage edge, where it does not damage the useful portion of the fabric. It will also be understood the machine may be used for goods of the width of tape, or any greater, up to the full width of rollers D D'.

Manifestly the marking-wheel might be of any suitable size desired; also, the mechanism might be graduated to mark off quarter-yards, half-yards, or any other length desired without departing from the principles of our invention.

As one lot of goods is wound on the reel-shaft, the latter may be removed from its bearings and the cloth slipped off one end of same and the machine is ready for another length, as will be understood.

We claim—

1. In a cloth measurer and marker, the combination of the marking-wheel, the guide-roller D', having pinion E, intermediate mechanism, substantially as described, by which the marking-wheel is caused to intermittently revolve at proper intervals, the wheel J, the cam K, the lever M, and the rod N, connected with lever M and provided with a pressing-head projected laterally over the marking-wheel, substantially as set forth.

2. In a cloth measurer and marker, a presser-rod provided with a laterally-projected vertically-adjustable head, having a roller or rotating presser-surface, in combination with the marking-wheel, substantially as set forth.

3. A cloth measurer and marker comprising, in combination, a marking-wheel, guide-rollers D D', a pinion, E, a presser-bar, and intermediate operating mechanism, substantially as described, between pinion E and the presser and the marking-wheel, said mechanism being actuated by pinion E, substantially as set forth.

4. The combination, in a cloth measurer and marker, of the presser-rod N, the lever M, the wheel J, having cams K L, and the bar Q, substantially as set forth.

5. In a cloth measurer and marker, the combination of the guide-roller D', having pinion E, the wheel F, meshed with pinion E, and having a pin, *f*, the marking-wheel G,

having teeth *g* and characters *g'*, the wheel J, meshed with pinion E, and provided with cams K L, the lever M, the bar P, and the rod N, all arranged and operating substantially as set forth.

5 6. The combination of the bearing-bars B, the roller D, the button *b*, the roller D', having pinion E, the wheel F, having pin *f*, the marking-wheel, the wheel J, having
10 cams K L, the lever M, the bar Q, the rod N,

having the spring N', and provided with adjustable brackets O and roller P, and the reeling-shaft H, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

MARCUS B. SMITH.

LARS J. A. ROSWALL.

Witnesses:

FRANK. DIMMITT,

W. J. SLAUGHTER.