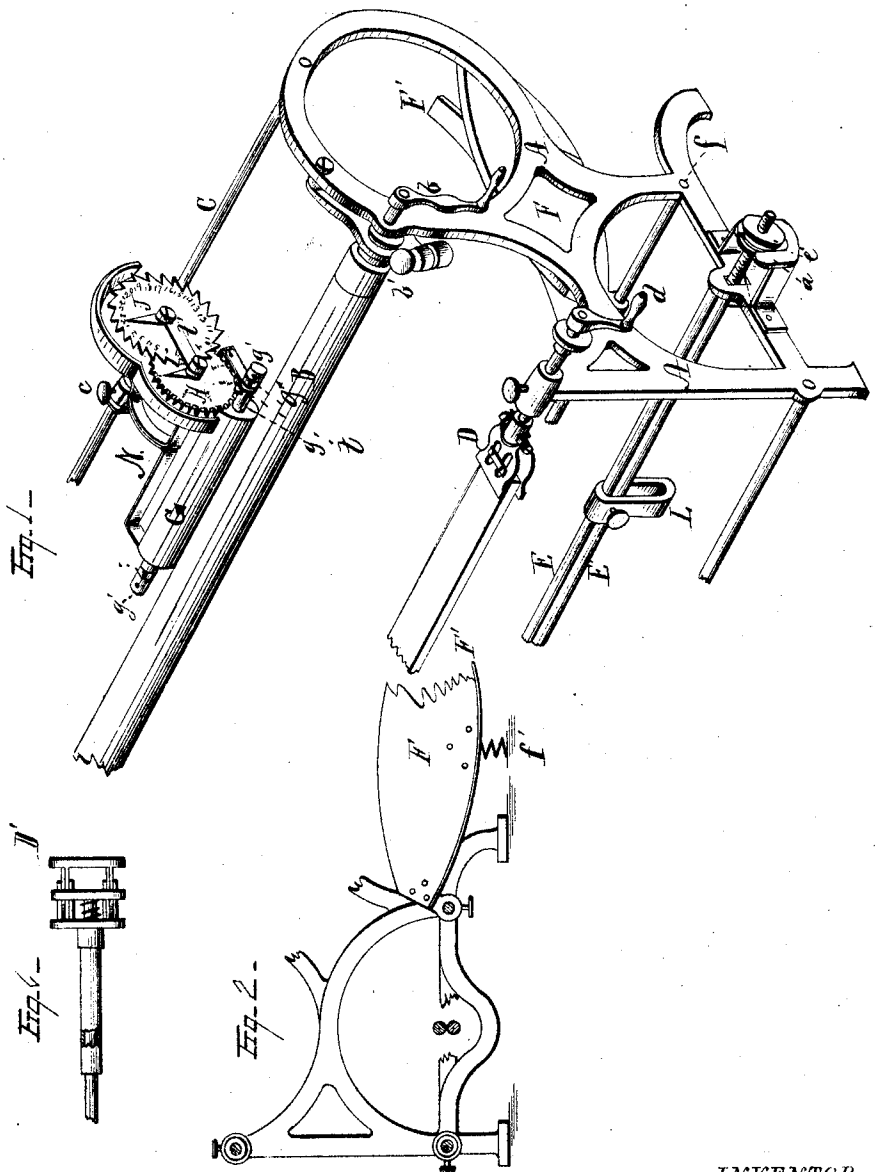
2 Sheets--Sheet 1.

T. M. BRINTNALL.

Cloth Measuring-Machines.

No. 147,235. Patented Feb. 10, 1874.



WITNESSES.

W. S. Newman.

Roland Boyle

INVENTOR

Thomas M. Brintnall

By Leggett & Leggett

Attorneys.

2 Sheets--Sheet 2.

T. M. BRINTNALL.

Cloth Measuring-Machines.

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Fig. 1.

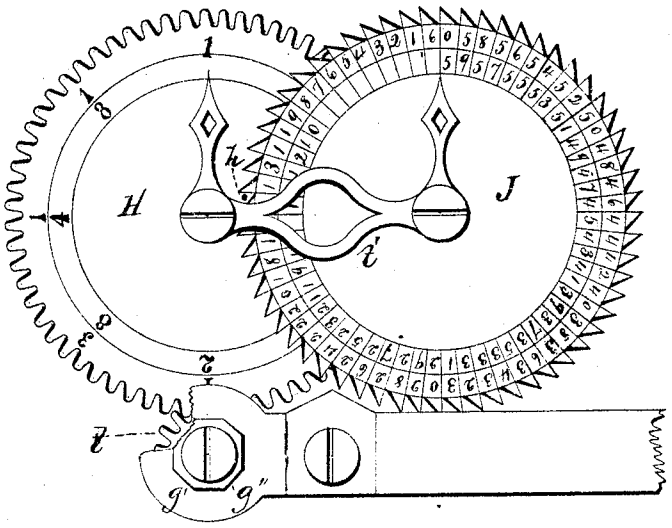


Fig. 4.

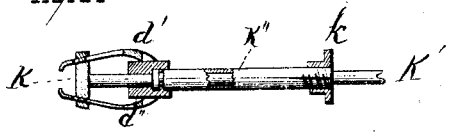
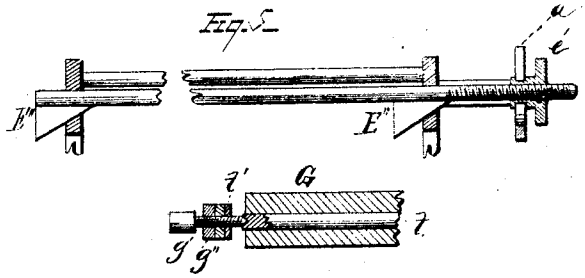


Fig. 5.



WITNESSES.

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INVENTOR

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Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS M. BRINTNALL, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF HIS RIGHT TO FLETCHER W. DICKERMAN, OF SAME PLACE.

IMPROVEMENT IN CLOTH-MEASURING MACHINES.

Specification forming part of Letters Patent No. **147,235**, dated February 10, 1874; application filed October 9, 1873.

To all whom it may concern:

Be it known that I, THOMAS M. BRINTNALL, of the city, county, and State of New York, have invented certain new and useful Improvements in Cloth-Measurer and Winder; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in machines for measuring cloth and other fabric.

In the drawings, Figure 1 is a perspective view of my cloth-measuring machine. Fig. 2 is an end view, showing the bolt-receiver and the tension-rods in cross-section. Fig. 3 is a separate view of the measuring and recording mechanism. Fig. 4 is a separate view of the clutch receiving the end of the bolt. Fig. 5 is a separate view of an improved tension. Fig. 6 is a view of the spring-clutch, which, with the device shown in Fig. 4, clamps and holds the ends of the bolt-board.

My invention consists in the combination of devices hereinafter specified and claimed, in which—

A is one of the end frames, made of metal or other suitable material. Between the tops of these frames is a roller, B, operated by a crank, *b*, to which is given more or less friction by means of a clamp and clamp-screw, *b'*. Just back of this roller B is the rod C, upon which slides the measuring and recording mechanism, which latter may be clamped in any position by the clamp-screw *c*, and about which, as a hinge, the measuring mechanism can be raised or lowered. D and D' are clamps for holding the ends of the board upon which the bolt of cloth is wound. To these clamps is connected a crank, *d*. At the bottom of the frame is a tension device, E E^1, and at the rear of the frame, on a lower rod, *f*, slides a swinging frame, consisting of the adjustable sides or jaws F F and spring-ribs F', supported or cushioned by springs *f'*.

Having thus briefly described the parts of this invention, I will now describe its mode of operation: A bolt of cloth, ribbon, &c., is placed between the clutches D D'. The end is then passed down between the rods E E^1 of the tension device, and up over the roller B, under the measuring-roller of the measuring device. By turning the crank *b* of the roller B, the material is soon wound upon the roller B, and the recording mechanism will show its exact length. Should the bolt-board be broken, as is very often the case, the bolt is thrown into the swinging frame F, and the material taken from there instead of from the clutches D D', the springs *f'* forming a cushion for the frame F F', and preventing any jar, noise, or rattling of the frame during the process of unwinding. This whole device is intended more especially to facilitate the taking of an inventory of stock.

The measuring device is composed of a measuring-roller, G, swung between the forks of a swinging frame on axle *g*. This axle has a pinion at one end, which gears into the yard-wheel H. At the ends of the axle *g* are set-screws *g'*, for gaging the pinion accurately into the teeth of the wheel H. The wheel H has a projection or lug, *h*, Fig. 3, which, at each revolution, engages a ratchet of the recording-wheel J, and turns it one space. The clutch D, Fig. 4, is composed of two jaws, d^1 d^2, hinged at their rear ends, as shown in Fig. 1. These jaws are slotted longitudinally to permit an inner wedge-piece, K, to be moved in an out by means of the rod K^1. This block K, as it is moved in or out, causes d^1 d^2 to open or close respectively, and thus to release or clamp the bolt-board. At the end of the rod K^1 a crank, *d*, is attached, by which to turn the bolt-board when it is desired to wind the cloth or fabric upon the bolt-board. This rod K^1 passes through a hollow tube, K^2. The tube K^2 is slotted at its end, and provided there with a screw-thread, upon which runs a nut, *k*, by means of which the tension of the rod K^1 may be increased or decreased at pleasure.

The tension device, Fig. 5, is composed of two rods, E E^1. The rod E is stationary. The rod E^1 is provided on the under side, at each end of the frame, with a beveled block, E^2; and a stationary nut, *e'*, held by a frame, *a*, operates upon a screw-thread at one end of the rod E^1. By turning this the rod E^1 is made to approach nearer and nearer to the rod E, and

thus the tension may be increased at pleasure. Just below, guides L are made to slide upon the tension-rods E E^1.

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

1. In combination with the sliding and adjustable roller B and registering mechanism, substantially as set forth, the clutches D D' and intermediate tension-rods E E^1, the latter provided with the wedges E^2 E^2 and nut e, for the purposes described.

2. The tension device composed of the stationary rod E and the adjustable rod E^1, substantially as herein described.

3. The combination of the rod E^1, the wedges E^2 E^2, and the stationary nut e', substantially as herein described.

4. The clutch composed of the hinged and slotted jaws d^1 d^2, the wedge-block K, rod K^1, barrel K^2, and nut k, substantially as herein described.

5. The swinging frame consisting of the adjustable sides or jaws F F, spring-ribs F', and springs f, all constructed as and for the purposes described.

6. The combination of the measuring-roller G, provided with adjustment-screws g', the yard-wheel H with spur h, and registering-wheel J, the whole rendered adjustable by means of a clamp-screw, c, upon the rod C, substantially as herein described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 8th day of October, 1873.

THOMAS M. BRINTNALL. [L. S.]

Witnesses:
JOHN SIGEL,
H. P. WEST.