A. M. GUYTON.

Cloth-Measuring Machine.

No. 220,139. Patented Sept. 30, 1879.

Fig: 1.

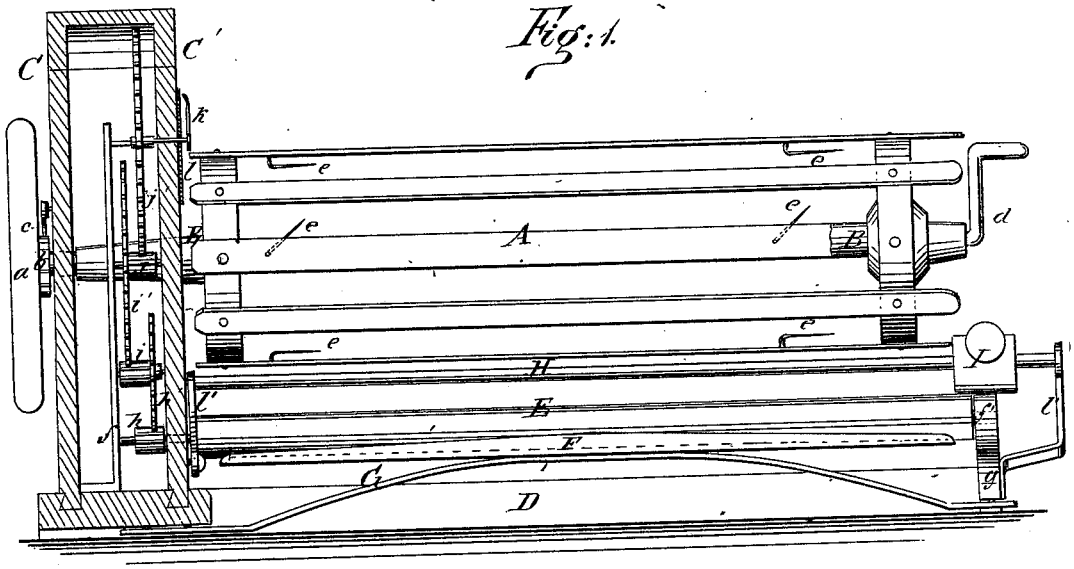


Fig: 2.

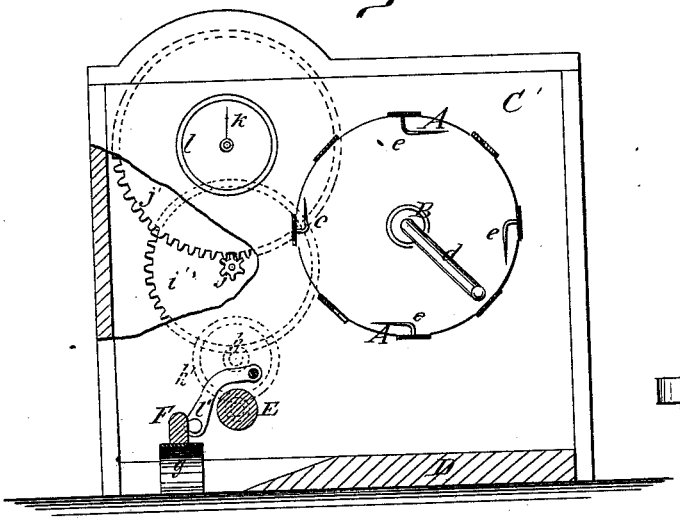


Fig: 4

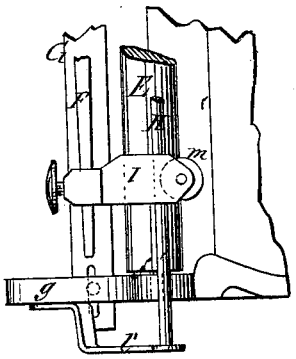
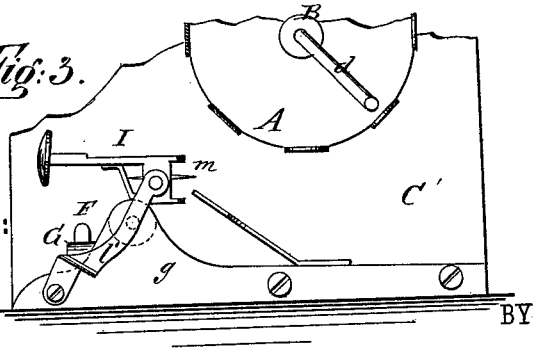


Fig: 3.



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UNITED STATES PATENT OFFICE.

ALBERT M. GUYTON, OF ORBISONIA, PENNSYLVANIA.

IMPROVEMENT IN CLOTH-MEASURING MACHINES.

Specification forming part of Letters Patent No. **220,139**, dated September 30, 1879; application filed May 12, 1879.

To all whom it may concern:

Be it known that I, ALBERT M. GUYTON, of Orbisonia, in the county of Huntingdon and State of Pennsylvania, have invented a new and Improved Dry-Goods Measurer, of which the following is a specification.

This invention relates to a machine for measuring, folding, and cutting off dry-goods, the object whereof is to measure off the goods accurately and more rapidly than can be done with a yard-stick or tape-line; also, to fold them at the time they are measured, and to cut the piece measured off straight and even without the use of scissors.

The invention consists of a reel, to which the end of the material to be measured is attached and over which it is rolled, and a friction-roller connected with a registering apparatus which the material, as it is wound on the reel, rotates, and thus gives motion to the registering apparatus, which sounds a bell as each yard is measured off, and also records the same on a dial.

It further consists of a rotary cutter pivoted in a traveler held on a rod, which is moved across the cloth and severs the part measured off from the piece.

In the accompanying drawings, Figure 1 is a front elevation of the measurer with the housing in vertical section, exposing the registering apparatus. Fig. 2 is an end elevation of the same, partly in section. Figs. 3 and 4 are detailed views of the cutting device.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the reel, built upon a shaft, B, journaled at one end in the housings C C′. The end projecting through the housings is provided with a balance-wheel, *a*, and a ratchet-wheel, *b*, over which is a pawl, *c*, engaging the ratchet, and preventing the shaft and reel from turning backward. The opposite end of the shaft is provided with a crank, *d*, by which it is operated. In the slats of the reel every other one are points *e e*, for taking hold of the material when measuring.

In front of the reel, near the base-plate D, is a roller, E, in the ends whereof are fixed pivots *f f′*, the former passed through the housing C′, and the latter through an end piece, *g*, of the frame of the machine, the roller and pivots rotating freely on the bearings. On pivots *f*, beyond housing C′, is a pinion, *h*, meshing with toothed wheel *h′*, on the shaft whereof is pinion *i*, meshing with wheel *i′*, on the shaft whereof is pinion *j*, giving motion to toothed wheel *j′*. The shaft of this last wheel projects through housing C′, and carries a pointer, *k*, over a dial, *l*, which is designed to be graduated into yards and divisions thereof.

Outside of roller E is a bar, F, supported on a bow-spring, G, having slotted ends—one held under the base of the housings, and the other under end piece, *g*, by screws passed up through the slots into those parts of the frame. The middle of the bar is the thickest. From here it tapers to the ends, and at this point it is about on a level with the axis of roller E. Above roller E is a rod, H, fastened in the upper ends of arms *l′ l′*, one of which is connected with the housing C′, while the other is attached to end piece, *g*. This rod is held rigidly in place, and on it is placed a key, I, so as to move freely backward and forward on the rod parallel to the roller and reel. In the end of the key next to the reel is pivoted a rotary cutter, *m*, which is for the purpose of cutting across the material when stretched between the reel and roller E at right angles to its length.

In the construction of the machine the roller E must be proportioned in such a way that a certain number of complete revolutions will be required to make one complete revolution of the toothed wheel *h′*. For example, if the circumference of roller E is one-sixth of a yard the relation between pinion *h* and wheel *h′* should be such that wheel *h′* will make one revolution to six of roller E—that is, to one yard—and the gearing above this wheel must be arranged to move the pointer over the space allotted to one yard at every revolution of wheel *h′*. It is designed also that a bell shall be connected with wheel *h′* in such a way as to sound when it completes a revolution.

The manner of operating the machine is as follows: The end of a piece of goods from which the measurement is to be made is carried over bar F, under roller E, and fastened to the hooks *e e* on one of the bars of the reel. The pressure of the spring-bar F against the

cloth gives a tension that causes the movement of the cloth to rotate roller E. The reel is now rotated by crank *d*, or by a treadle belted to fly-wheel *a*, and as the material is wound on the reel its movement rotates roller E, and as each yard passes under the roller it rotates, say, six times, and moves wheel *h'* once, and this is sounded by the bell. The clerk keeps count by the bell; but if he should omit to do so the pointer *k* records the measurement, and he can take it from that. When the proper quantity is measured off the reel is stopped, and the key I being moved along the rod, the rotary cutter *m*, coming in contact with the stretched material between roller E and the reel, severs it in a perfectly-straight line. When this is done the roll of material on the reel is drawn off from the free end thereof in a roll all ready to wrap up.

By this arrangement it will be seen that the material can be measured off much more quickly than in the usual manner, and at the same time is folded, thus greatly facilitating the work of the clerk, while the arrangement for cutting the goods enables it to be done more quickly and evenly than with scissors.

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

The spring-bar F, supported on bow-spring G, the roller E, and the rod H, carrying key I and cutter *m*, in combination with a reel and mechanism, substantially as shown and described, for the purpose specified.

ALBERT MARION GUYTON.

Witnesses:

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J. S. HOUCK.