L. J. BOILLOT.

Cloth-Folding Machine.

No. 210,486. Patented Dec. 3, 1878.

Fig. 4

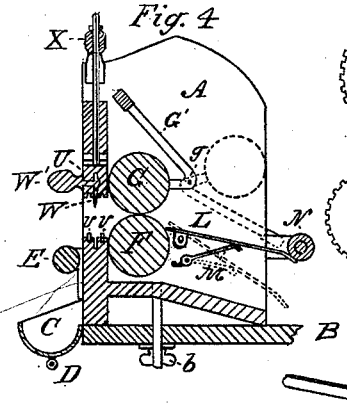


Fig. 5

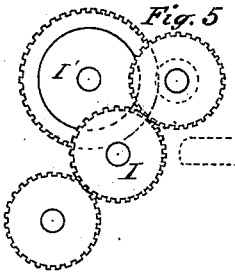


Fig. 6

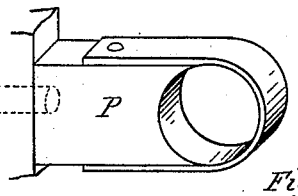


Fig. 7

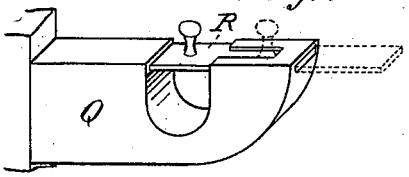


Fig. 1

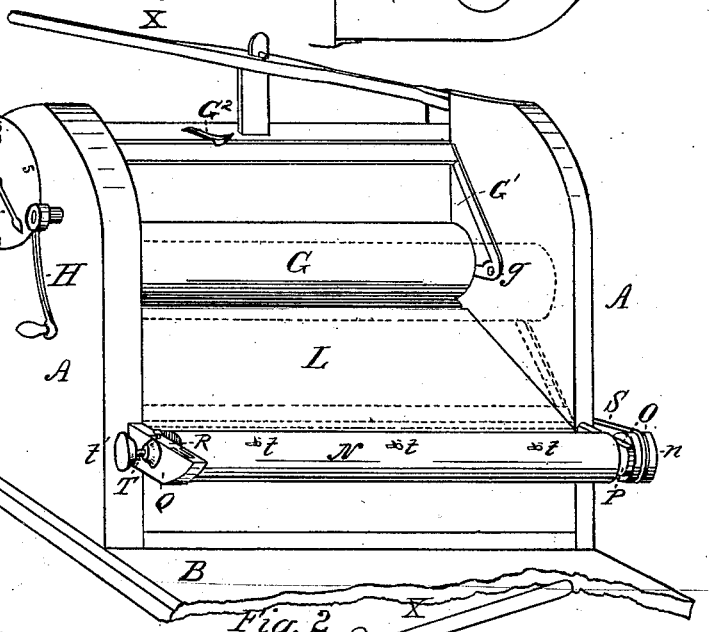


Fig. 8

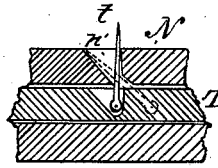


Fig. 3.

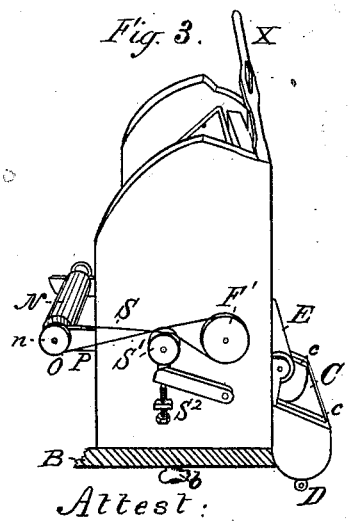
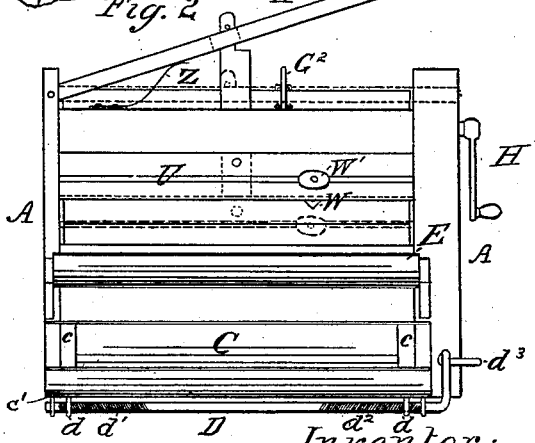


Fig. 2



Attest:

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UNITED STATES PATENT OFFICE.

LUCIEN J. BOILLOT, OF BONNOT'S MILLS, MISSOURI.

IMPROVEMENT IN CLOTH-FOLDING MACHINES.

Specification forming part of Letters Patent No. **210,486**, dated December 3, 1878; application filed July 11, 1878.

To all whom it may concern:

Be it known that I, LUCIEN J. BOILLOT, of Bonnot's Mills, in the county of Osage and State of Missouri, have invented a new and useful Improvement in Cloth Measuring and Folding Machines Combined, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My improvement relates to a machine for measuring cloth, especially intended for retailers' use.

My improvement consists in the combination of feed-rollers, between which the cloth is passed to measure it, and which are connected with an indicator to show the length of the cloth passing through, and a roller with retractible catches, to engage the cloth and cause it to be wrapped around it as it rotates; also in the described details of construction, as described and claimed.

Figure 1 is a perspective view, showing the rear of the machine and the end having the indicator upon it. Fig. 2 is a front elevation. Fig. 3 is an end elevation. Fig. 4 is a section transverse to the feed-rollers. Fig. 5 is a detail side elevation of the system of cog-gearing between the hand-crank measuring-rollers and the indicator. Fig. 6 shows an enlarged detail perspective view of the universal-jointed bearing of the cloth-roller. Fig. 7 is a similar view of the bearing at the other end of the roller. Fig. 8 is a detail axial section of part of the cloth-roller.

A is the main frame of the machine, that may be secured to the counter or other stand, B, by screws *b* or otherwise. C is a trough, to contain the roll or bolt of cloth to be measured. The trough has two moving ends, *c*, from which screw-threaded ears *d* extend through the longitudinal slot *c'* in the trough. In the ears *d* there turns a screw-rod, D, having a right-hand worm, d^1, and a left-hand worm, d^2, so that as the screw-rod is turned the ends *c* are moved simultaneously either toward or away from each other. The object is to form the receptacle of the proper length to receive the bolt of cloth and hold it in the middle of the trough, so that the cloth passes through the middle of the machine. The screw-rod is turned by a hand-crank, d^3. E is a roller, over which the cloth runs. Inside the roller is a grooved board, over which the cloth passes to reach the feed-rollers F G. Of these rollers, F is the driving-roller, turned by the hand-crank H, by means of an interposed system of cog-gearing, I. The shaft I' of the system carries a hand, J, which moves over a face, K, marked with figures, to indicate the length of cloth which has passed between the feed-rollers. The roller G has bearings in a frame, G^1, that is hinged at *g* to the standards of the main frame, so that the roller can be thrown away from the feed-roller F. The frame is held by a catch, G^2, when the roller G is in working position. Beyond the feed-rollers the cloth passes over an inclined spring board or plate, L, hinged to the standard near the roller G, and its free end supported by a spring, M. The purpose of this board is to support the advancing end of the cloth and present it to the roller N, around which it is wound and formed into a roll. As the size of the roll of cloth increases upon the roller N, the free edge of the spring-board is moved down by pressure of the cloth-roll. The roller N is journaled (at the end most distant from the operator) in an ear, O, connected to the main frame by a universal joint, P, so that the end of the roller next to the operator may be moved freely upward and outward when it is raised from its bearing Q. The bearing Q consists in an open-topped notch, which is closed by a sliding bolt, R, when the roller N is in operation.

The roller N is turned by a belt, S, on the pulley *n* upon it, and which belt also extends around a pulley, F', on the shaft at the feed-roll E. The belt S is kept tight by an idler, S^1, forced upward by a screw, S^2, beneath it. In the roller N is an axial rod, T, which has endwise movement to throw outward and to draw inward a number of points or catches, *t*, which are hinged to the rod at their inner ends, and which extend outward through slots *n'*. The rod is moved by a knob, *t'*, which is drawn outward to project the catch-pins, and the knob is forced inward to retract them.

For the advanced position of the pins see Figs. 1 and 8, and for the retracted position see dotted lines in Fig. 8. The pins are to engage the front end of the cloth as it passes

down the spring-board L, and to cause it to be rolled upon the roller N. The roller N takes up the cloth as fast as it is drawn through between the rollers F and G, and when the roll of cloth upon it has become so large that the roller tends to take up cloth faster than it is measured the belt S slips upon the pulley *n*, and the rotary motion of the roller N is decreased accordingly.

To cut off the cloth when the required quantity has been measured, the sliding bar U is forced down upon it, said bar descending upon two rubber ribs, *v v*, on the bar V, beneath the cloth, and thus the cloth is held while it is cut across by a knife, W, sliding in the bar U, and whose point projects beneath the bar and works in the groove *v'* between the ribs *v v*. The bar U is forced down by a hand-lever, X, and is lifted and held up by a spring, Z. The knife is moved by a knob, W'.

The operation of the machine is as follows: The movable ends *c* of the trough C may be set about the width of the bolt of cloth apart, so as to hold the bolt in the middle of the trough. The end of the cloth is then passed between the feed-rollers, and the hand-crank H turned forward. The roller G may be lifted for the insertion of the cloth, if preferred. As the cloth is drawn from the bolt the end slides down the inclined board or plate L, and as the roller N turns the pins *t* take hold of the cloth and wrap it around the roller N. The index-finger indicates the length of the cloth which has passed between the feed-rollers, and when the proper amount has passed through the bar U is forced down upon the cloth to hold it firmly, and then the knife W passed from edge to edge of the cloth to cut it. It is preferred that the index-finger J should be turnable on its shaft, so that it may be set to zero when commencing to measure. After the cloth is cut off further rotation of the roller N will coil the last end of the cloth on the roller. Then the knob *t'* may be pushed inward to withdraw the pins *t* from the cloth, and, the slide R being drawn back and the end of the roller being lifted from its bearing Q, the roll of cloth is slipped over the end of the roller N.

I claim as my invention—

1. The combination of measuring-rollers F and G, spring board or plate L, and roller N, having retractible pins or catches *t*, hinged to the rod T at their inner ends, said pins being projected outward and held in an erect position or retracted and placed in an inclined position within the roller N by the outward or inward movement, respectively, of said rod, substantially as and for the purpose set forth.

2. The combination, with the rollers F and G, of the trough C, having movable ends *c*, attached, by screw-threaded ears *d*, extending through longitudinal slots in the bottom of the trough, to a right-and-left-handed screw-rod D, each end *c* being moved simultaneously back or forth on the turning of winch d^2, as set forth.

3. The combination, with the measuring-rollers F and G, of the clamping-bars U and V and sliding cutter or knife W, for the purpose set forth.

4. The roller N, supported at one end within an ear, O, upon the bearing P, and at the other end upon an open-topped bearing, Q, and provided in its interior with an axial rod, T, sliding within said roller and carrying pins *t*, hinged to said rod, and adapted to be retracted within or projected out through the same longitudinally, substantially as set forth.

5. The combination of measuring-rollers F and G, indicator J K, spring board or plate L, and roller N with retractible pins or catches *t*, substantially as and for the purpose set forth.

6. The rod T, arranged to slide horizontally within the roller N, and having suitable slots, within which are hinged the pins or catches *t*, which are projected above or retracted within said roller in a longitudinal direction on the endwise movement of the rod, substantially as set forth.

To which I have set my hand in the presence of two subscribing witnesses.

LUCIEN J. BOILLOT.

Witnesses:
WM. A. WILSON,
JOHN KETTING.