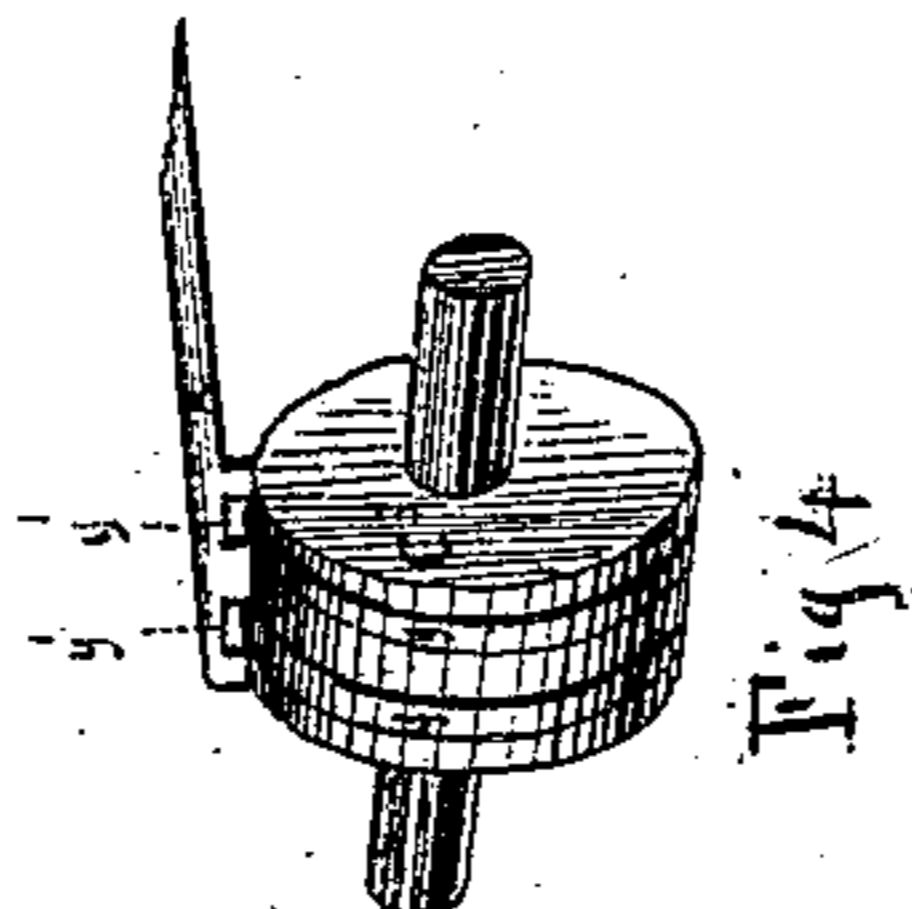
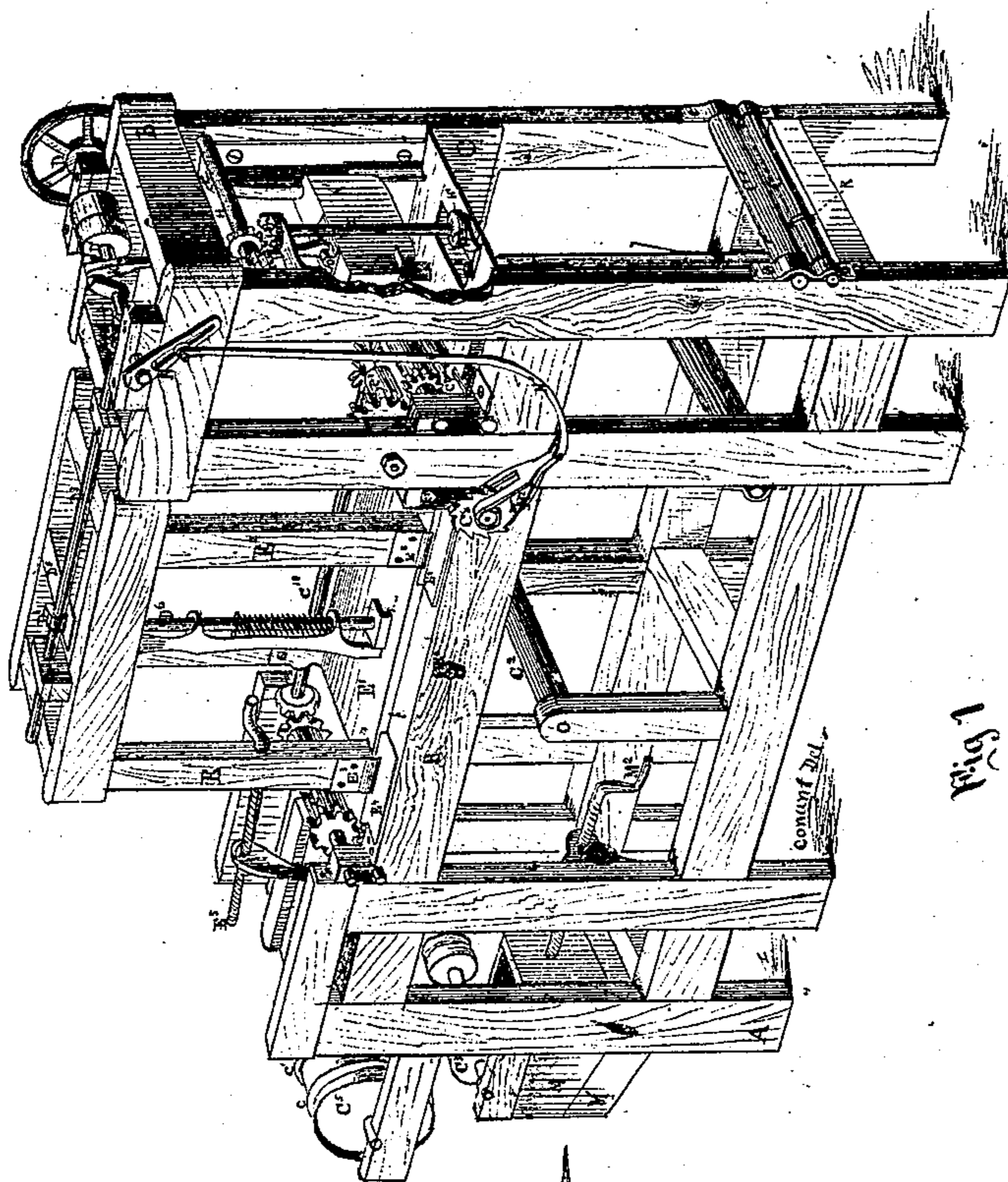


C. H. Chapman,
Label Machine.

2, Sheets, Sheet 1.

No. 100,258.

Patented Mar. 1, 1870.



C. H. Chapman, Inventor

Witnesses

David Porter
Frank L. Parker

C. H. Chapman,
Label Machine.

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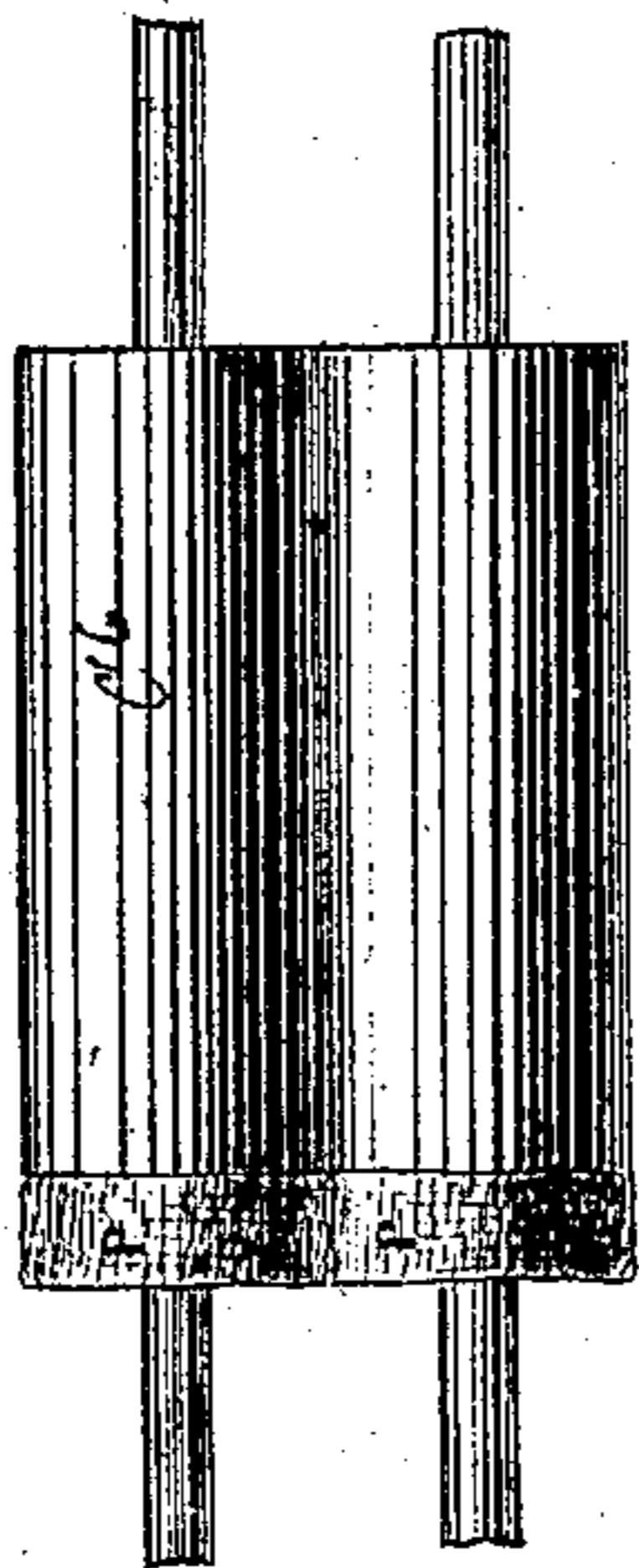


FIG. 3

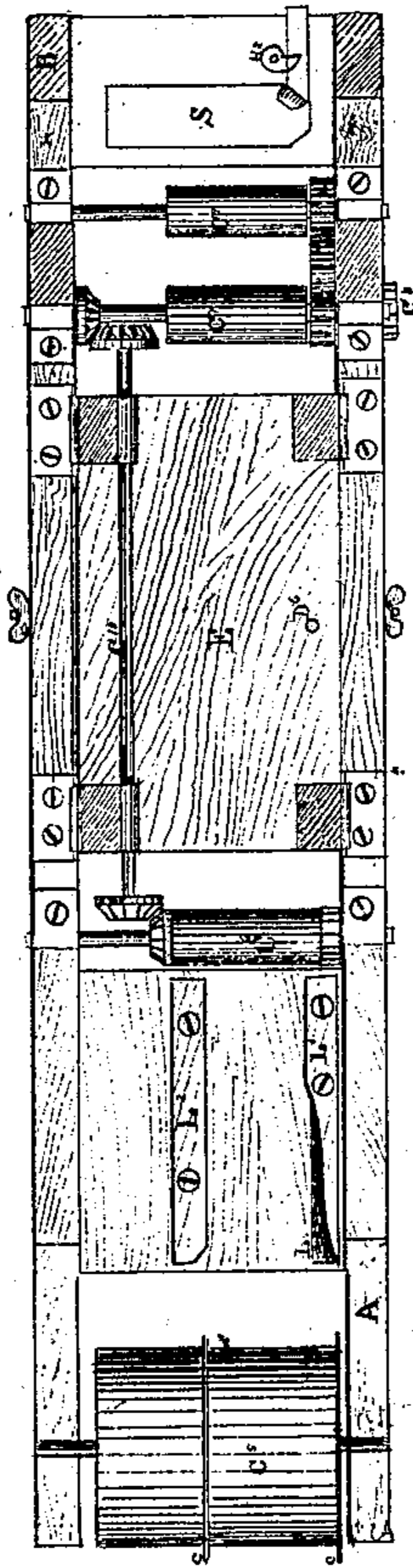


FIG. 2

Witnesses { David Porter
Frank L. Parker

C. H. Chapman Inventor

United States Patent Office.

CHARLES H. CHAPMAN, OF SHIRLEY, MASSACHUSETTS, ASSIGNOR TO A.
G. SNELL, OF SAME PLACE.

Letters Patent No. 100,258, dated March 1, 1870.

IMPROVEMENT IN TAG-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES H. CHAPMAN, of Shirley, in the county of Middlesex, and State of Massachusetts, have invented certain Improvements in Machines for Making Paper Tags, of which the following is a specification.

Nature and Objects of the Invention.

My invention consists in connecting a series of mechanical devices which, when made and operated as described in the following specification, will form from strips of suitable paper a complete tag, punched and glued.

Description of the Accompanying Drawings.

Figure 1 is a perspective view of my machine.

Figure 2 is a view, partly in plan and partly in horizontal section.

Figure 3 is an enlarged view of one pair of the feed-rollers.

Figure 4, perspective view of glue-wheel.

General Description.

A B represent the principal frame, upon which a smaller adjustable frame, E E¹ E², slides.

This upper or smaller frame is adjusted by means of a screw, E⁵, and is held in place by the thumb-clamp screw E⁶.

As this smaller frame carries the punching device D⁶, the above adjustment is necessary to suit tags of different widths.

D D¹ is the principal driving-shaft, which, acting through the bevel-gear at D², operates the cam-shaft D³, the revolution of which, acting through the cam D⁴, depresses the punch D⁶.

A spur-gear at D², operating through other spur-gears not shown in the drawings, revolves the shaft H, which, in its turn, acting through a bevel-gear, operates the shaft H¹, to which is attached a wiper, H², the function of this wiper H² being to remove the small triangular pieces of card paper that are left by the cutter K¹.

K is a pitman, which serves to raise and lower the cutter or die K¹.

This die K¹, working in combination with the socket or hollow die S, fig. 2, serves to cut the tag into the required shape.

N is a slotted crank-arm, which operates the pitman N¹, to which is attached a pawl, N², and so arranged, in connection with the ratchet-wheel C⁸, that at each revolution of the crank N the pawl N² will cause the ratchet-wheel to make a part revolution. The amount of motion given to the ratchet-wheel will depend upon the position that the upper end of the pitman N² has in the slot of the crank-arm N.

The ratchet-wheel C⁸ transmits its intermittent motion directly to the pair of feeding-rollers C⁷, thence by gearing, as shown in fig. 2, to the pair of feed-rolls C⁹, and by bevel-gear and shaft C¹⁰ to the first set of feed-rollers, C⁶.

The three sets of feed-rollers, namely, C⁶, C⁷, and C⁹, are all of the same diameter, and all move with the same intermittent motion, and are each provided with yielding bands P P, fig. 3, so that as the card paper rolls through them, that part of it which is folded, and consequently of double thickness, is not subjected to a greater pressure than the thinner part of the paper, which is in contact with the unyielding portion of the rollers.

In fig. 2, L² L¹ are guides to direct and fold the paper as it passes from the roll C⁵ to the feed-rolls C⁶.

L L¹ is formed as shown in the drawings, so that as the paper enters unfolded at L, its edge is turned up and finally bent back onto itself as it passes through the guide L¹. The folding up is caused by the peculiar shape of the passage in the guide L L¹.

The guide L² and the guide c', on the roller C⁵, are adjustable, to suit different lengths of tags.

M, fig. 1, is a glue-tank, and is set upon an inclined base M¹, upon which it slides, it being moved back and forth by the screw M². This movement of the glue-tank M on the incline base causes it to raise or lower, by which means the glue within it is adjusted to the surface of the glueing-wheel C³.

X, fig. 4, is a glue-gauge, which is attached to the glue-tank M. The upper end of the gauge rests on the periphery of the glue-wheel C³, and is cut, as shown in the drawings, so that it will scrape off from the periphery of the wheel all the glue except two bands y y. These two bands of glue are transferred to the tag.

The operation of my machine may be set forth as follows:

The paper being cut to a width corresponding to the length of the tag, including the fold, is fed in through the rollers C C¹, fig. 1, at which point it is creased by the flange R to facilitate the folding, then passes over the roller C² and over the glueing-wheel C³, where the fold is glued, thence over the roller C⁵ through the folding guides L, L¹, and L², between the feed-rolls C⁶. Now, if the machine is started, the strip of paper glued and folded will be fed along by an intermittent motion and be punched at intervals corresponding to the width of the tag by the punch D⁶, after which it will pass through the pair of rollers C⁷ and C⁹ and be fed to the cutting-die K¹, which cuts off and thus completes the tag.

The small triangular piece of waste made with each tag is removed by the wiper attached to H².

I claim, as my invention—

1. The adjustable sliding frame E E¹ E² in combination with the feeding-in device C⁶ C¹⁰ C⁷ C⁸, substantially as described and for the purpose set forth.

2. Combining with the sliding frame E E¹ E² the cam-plate D⁵, cam D⁴, and rod D³, operating substantially as described and for the purpose set forth.

3. Combining with the feed-rollers the yielding bands P P, substantially as described and for the purpose set forth.

4. The arrangement of the folding guide L L¹, in combination with the yielding bands P P of the feed-

rollers C⁶, whereby the folded part of the tag is directed onto the yielding part of the roll, operating substantially as described and for the purpose set forth.

5. In combination with the tag-machine, the wiper H², operating substantially as described and for the purpose set forth.

CHAS. H. CHAPMAN.

Witnesses:

FRANK G. PARKER,
CHARLES SIMONDS.