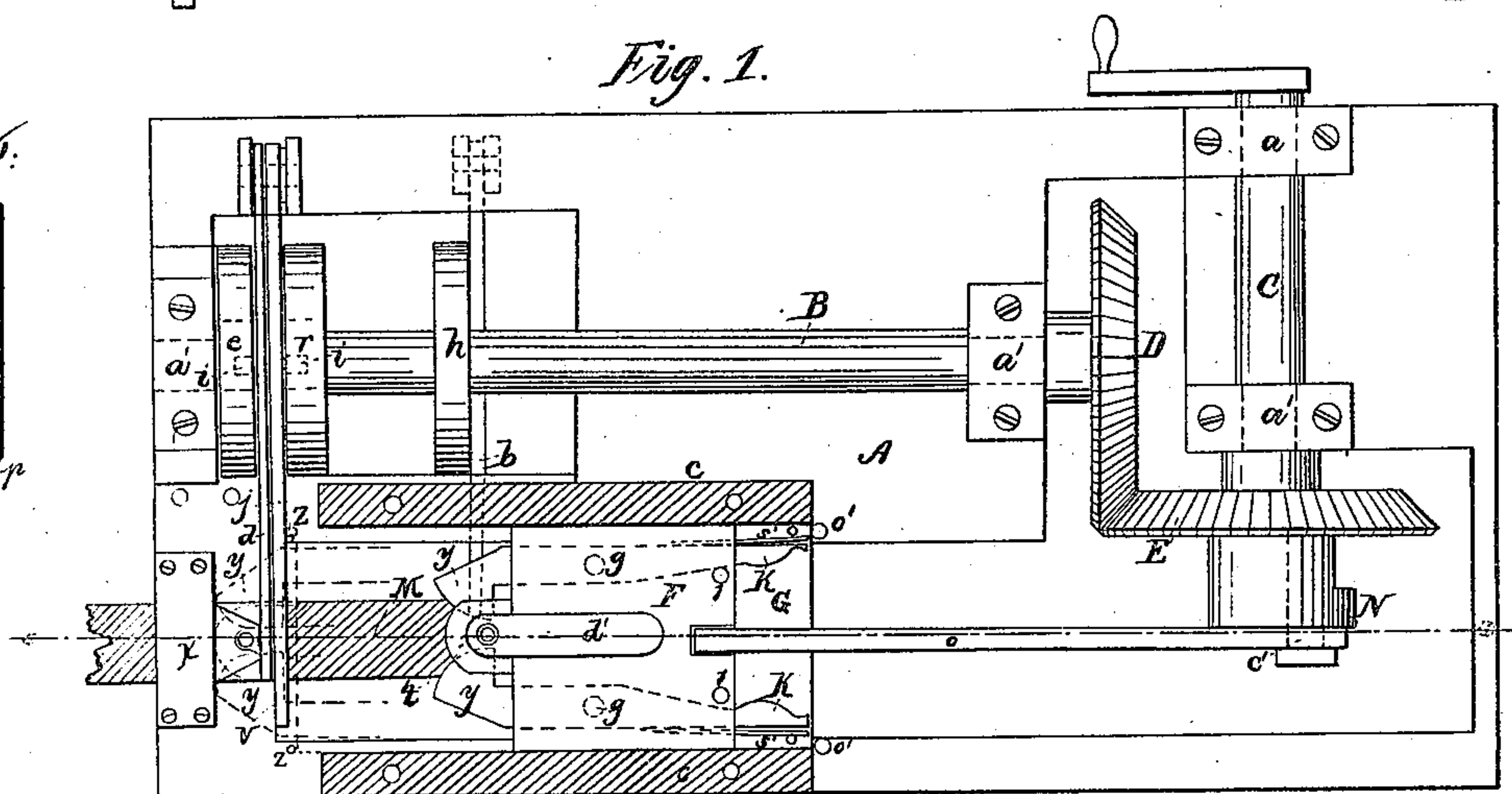
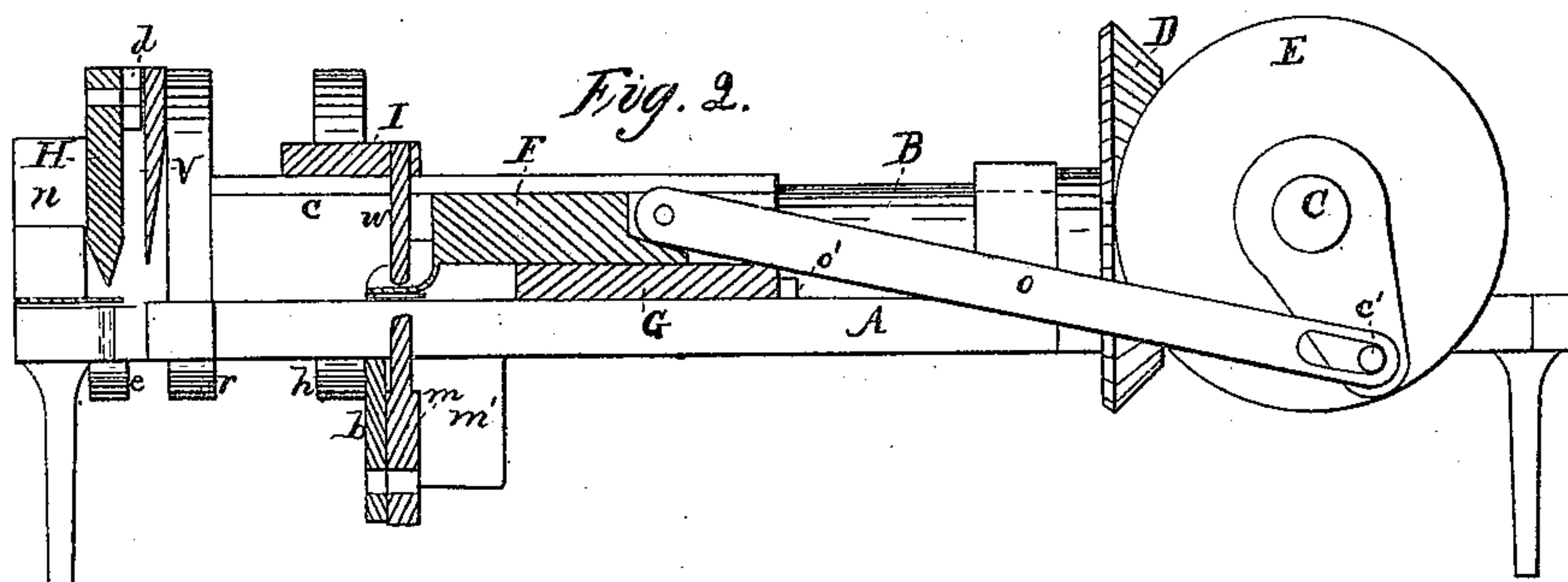
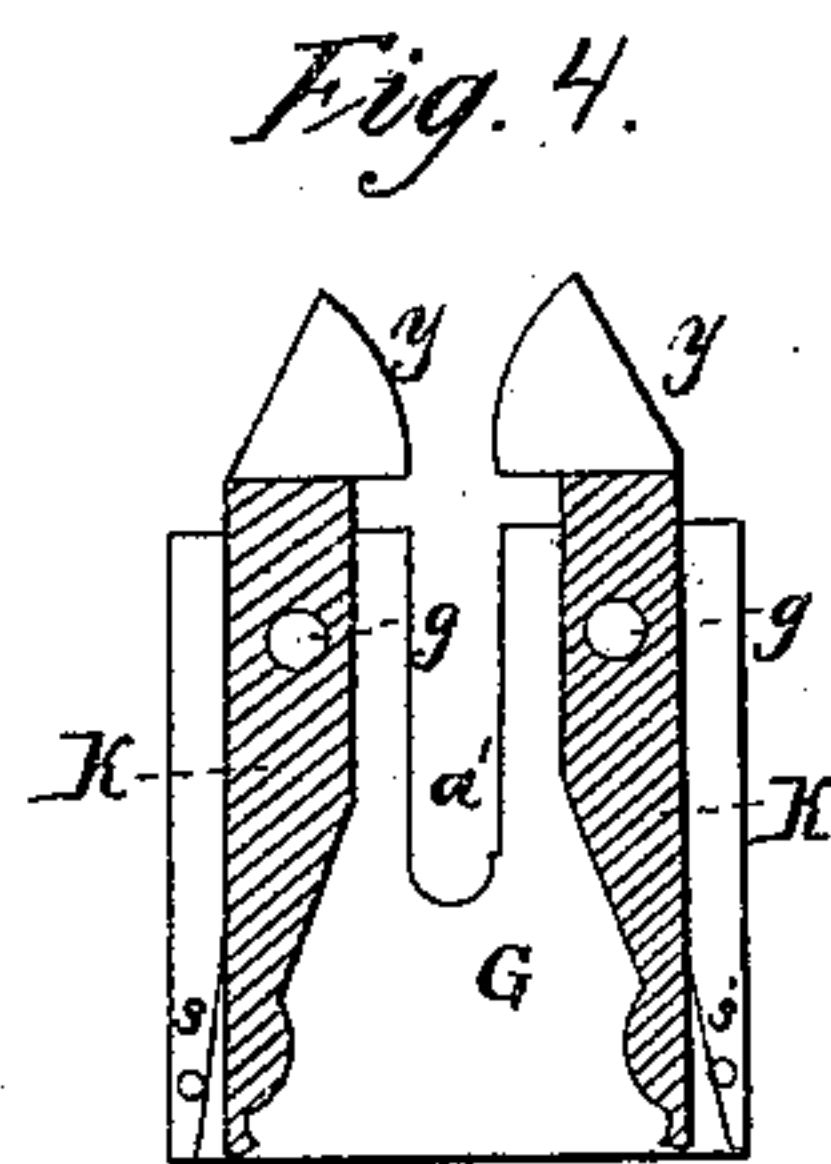


*Tag Making Mach.*

*Patented Feb. 28. 1865.*

*Fig. 3.*



Witnesses;  
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# UNITED STATES PATENT OFFICE.

JAMES B. CLARK, OF PLANTSVILLE, CONNECTICUT.

## IMPROVEMENT IN APPARATUS FOR MAKING TAGS.

Specification forming part of Letters Patent No. 46,543, dated February 28, 1865.

*To all whom it may concern:*

Be it known that I, JAMES B. CLARK, of Plantsville, in the county of Hartford, in the State of Connecticut, have invented a new and Improved Machine for Making Tags; and I do hereby declare that the following is a full and correct description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon.

In these drawings, Figure 1 is a plan or top view of the machine with the parts marked *n* I in Fig. 2 removed. Fig. 2 is a vertical longitudinal section taken through in the direction of the red line  $\odot \odot$ , Fig. 1. Fig. 3 is an elevation of the end to the left hand in Fig. 1. Fig. 4 shows a top view of the sliding plate G. Fig. 5 represents the face of one of the cams. Fig. 6 represents a finished tag.

The same letters in all the figures denote like parts.

My machine is designed for making "tags," so called, used for the purpose of directing articles, &c. It feeds in the strip of material of which the tags are made, folds the end properly, punches the hole through the folds for the eyelet, inserts the eyelet and clinches it, and cuts off the tag finished ready for use.

That others may be able to understand and use my machine, I will describe its construction and mode of operation.

A is a frame, upon which are placed the two shafts C B, turning in the boxes *a' a' a'*, fastened to the frame. D E are two bevel gear-wheels, secured to the two shafts, to convey motion from one to the other. *c c* are two guides or ways fastened to the frame to guide the sliding plates F G, which are moved by crank or its equivalent, N, on the inner end of shaft C. Upon shaft B are fastened three cams, *e r h*, one of which is shown in Fig. 5, with grooves *l'* in their faces, to receive the pins *i i'* in the levers, the motions of which are so nearly alike that their grooves are all of about the same shape. One of these cams, *e*, operates the punch H by means of the lever *d*, and cam *r* operates the shear-blade V by lever *j*, and cam *h* gives motion to the eyelet-carrier *m* by means of the lever *l*. A plate, *x*, is secured to the frame at one end over a recess in the frame, or the plate is so made as to leave room between it and the frame to allow the strip of material M to pass through, and this

plate *x* has its two inner corners cut off to allow the two corners *p p* of the tag to be folded over it by the folders *y*. (Shown in this position by red lines in Fig. 1.) A notch is also cut in the side of plate *x*, between the corners before mentioned, to admit the punch H to pass through when making a hole in the folds of the tag. A recess is also made in the frame below to receive the point of the punch. The support that holds the punch H is seen in Figs. 2 and 3, (marked *n*.) *m'* is a support placed across underneath the guides *c c* to hold the eyelet-carrier *m*, over which is put a pointed rod *w*. (see Fig. 2 and 3,) against which the eyelet is clinched when carried up through the tag by L. V is a shear-blade, attached to the lever *j*, and cuts by a proper edge below to sever the tag from the strip of which it is made.

The sliding plates F G, to the upper one of which the connecting-rod *o* is fastened, slide between the guides *c c*. The lower plate, G, has two levers, K K, on it, which are pivoted to it at *g g*, so as to move freely. Upon the front end of these levers are fastened the folding-plates *y y*, which project in toward each other and have their outer edges rounded. The other end of the levers K are notched, (See Fig. 4,) and are provided with springs *s s'* to press them in toward each other, and the upper plate, F, has two pins *l l*, projecting down, so as to rub against the levers K and move them when one plate is passing by the other. On the front end of plate F, between the levers K K, is fastened a plate, *t*, rounded on its outer edge, and having a hole in its center to allow the punch H to pass through when making a hole in the tag. This plate makes the fold *q* on the tag. *d'* is a recess cut into both plates F G to allow of their passing forward without coming in contact with rod *w*. *a' a'* and *z z* are pins or chocks on the frame, to designate the distance that the plate G' shall slide.

The operation is as follows: The sliding plates F G being at the back ends of the guides *c c*, the end of the strip of material M of which the tags are to be made is inserted under the plate *x*, and the shaft C being turned, the crank N will push forward the top plate, F, carrying with it the lower plate, G, until the latter plate comes in contact with the two pins *z z*, when the two folding-plates



*y y* will be in proper position on each side of plate *x*, as shown by red lines in Fig. 1, and as the upper plate, *F*, continues to move forward, the pins *g g* in it, pressing against the slanting edges of the levers *K K*, cause the two plates *y y* on the outer ends of the levers to approach each other, and, catching under the corners of the strip, fold them over the plate *x*, when the plate *t* comes forward, and, catching under the end of the tag, doubles it over the two corner folds, *p p*, Fig. 6, and holds it in that position while the crank-pin *c'* is passing the center and moving along the slot in the end of the connecting-rod *o*, which allows time for the punch *H* to be brought down by its cam and make a hole in folds of the tag. When punch *H* has returned to its former position, the sliding plates are drawn back by the crank *N*, carrying with them the strip *M* by its folded end, until the hole in it is over eyelet-carrier *m*, when the cam *h* throws up the carrier, which thrusts the eyelet previously placed on it up into the hole in the tag and against the end of the rod *w*, which clinches the eyelet, so as to hold the folds in place. The cam *r* brings down the shear-

blade *V* and cuts off the tag, leaving the end of the strip in proper position to be folded, as the one already described. When the lower plate, *G*, is drawn back against the pins *o' o'*, the pins *g g* in plate *F*, which continues to move back, slide into the notches in the levers *K K*, and allow the springs *s' s'* to open the folding plates *y y*, releasing the tag, which drops out in a finished state, and the machine is ready to go through the same motions as before.

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

1. The combination of the plates *y y* and *t*, substantially as herein described, and for the purposes set forth.

2. The combination and arrangement of the punch *H* and plate *x*, over which the folds of the tag are made, substantially as described, and for the purpose set forth.

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Witnesses:

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