T. Percival. Sheet 1, 2 Sheets.

Label Mach.

No. 71,323. Patented Nov. 26, 1867.

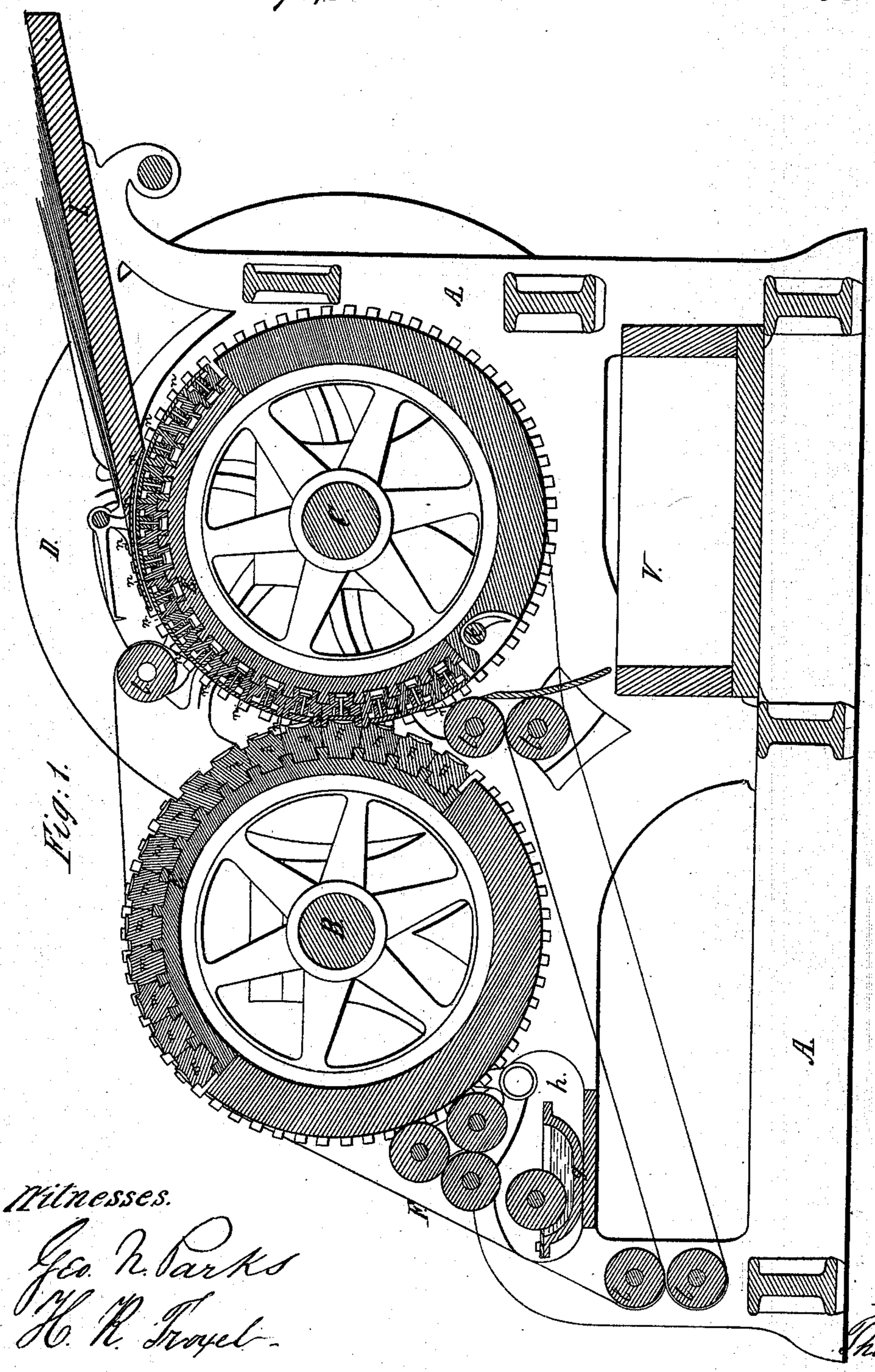

Fig. 1.

Witnesses.

Geo. R. Parks

H. R. Troyel

Inventor.

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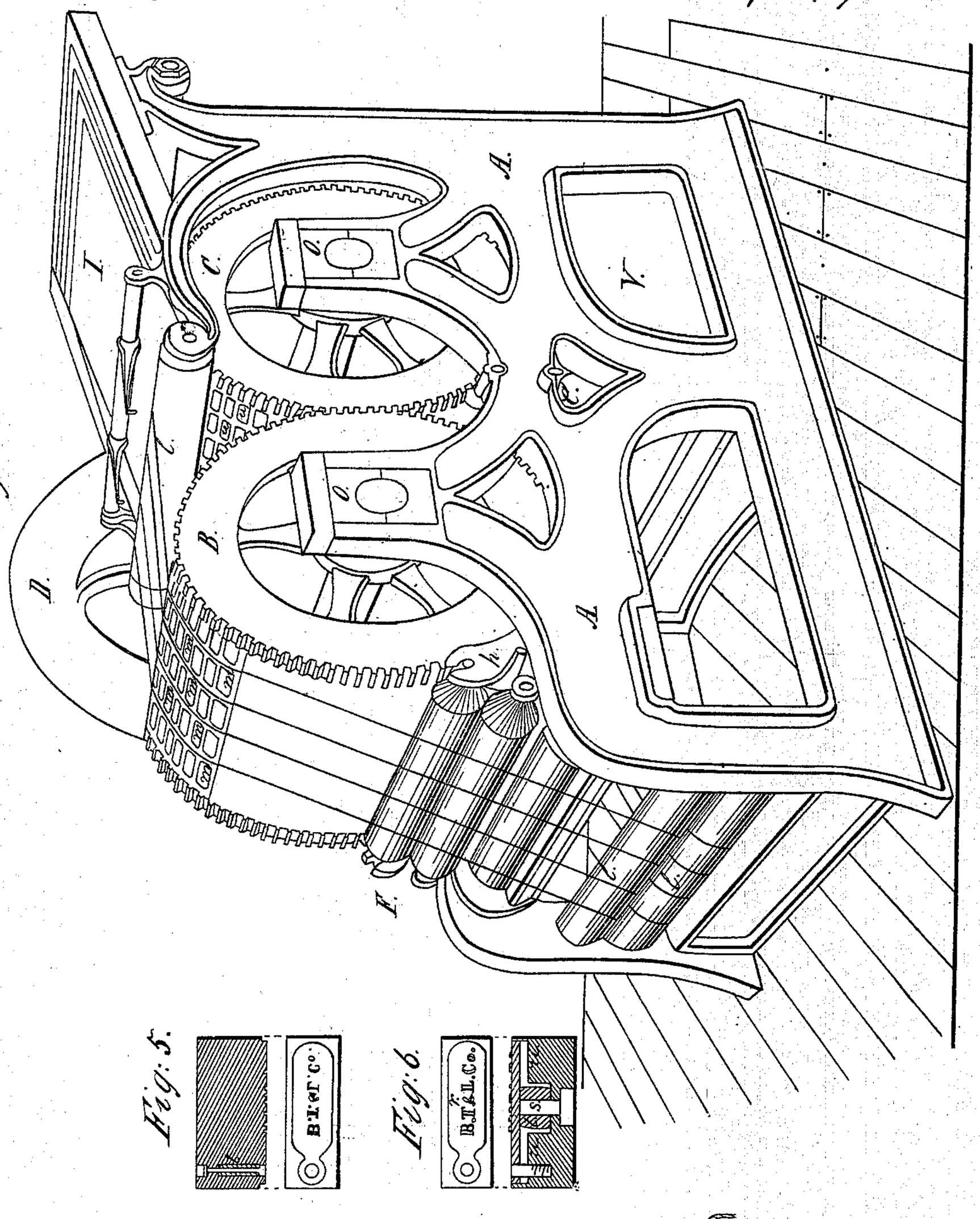

Fig. 2.

Fig. 5.

Fig. 6.

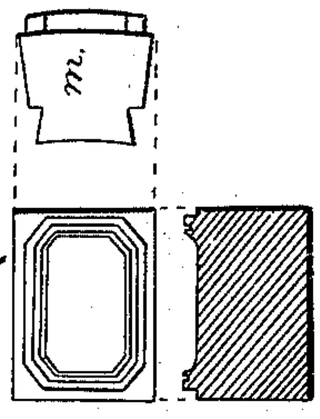

Fig. 3.

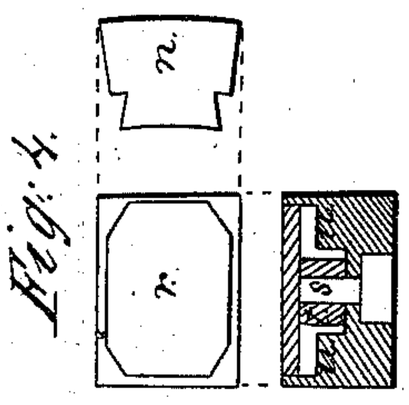

Fig. 4.

Fig. 7.

Witnesses.

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United States Patent Office.

THOMAS PERCIVAL, OF AUGUSTA, MAINE, ASSIGNOR TO HIMSELF, JOHN D. DEFREES, AND ROLLIN DEFREES.

Letters Patent No. 71,323, *dated November* 26, 1867.

IMPROVED MACHINE FOR MAKING TAGS AND LABELS.

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

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Be it known that I, THOMAS PERCIVAL, of the city of Augusta, in the county of Kennebec, and State of Maine, have invented a new and useful Improvement in Machinery for Making Tags and Labels; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, (wherein Figure 1 is a vertical section, Figure 2 a perspective view, and Figures 3, 4, 5, and 6 drawings of detached details,) and to the letters of reference marked thereon.

The nature of my invention consists in combining with a press for printing "stationers' labels" and marking-tags, a cutting apparatus, whereby the tags or labels are printed with suitable devices, cut out, and completed at one operation. For this purpose the type or die which prints the devices is made also to act the part of a punch to separate the labels or tags from the sheet of paper or metal from which they are made.

In the drawing, A A represent a cast-iron frame, upon which turn, in suitable bearings at *o o*, two large iron cylinders, B and C, which contain the printing and cutting apparatus. These cylinders are of equal size, and are geared together at each end so as to preserve an equal speed of rotation. D is a fly-wheel upon the shaft of C, whereon is also placed a crank or belt-pulley, through which power from any convenient source is applied to give motion to the machine, (not shown in the drawing.) One-half of the shells of each of the cylinders B and C are made removable, and from "turtles" E E, which receive the type or punches and dies *m m*, *n n*, the "turtles" having planed into them a number of grooves, which receive the dove-tailed ends of the punches and dies, and hold them firmly. The remaining halves of the cylinders B and C are left plain, that of B serving as a distributer for the ink or color when printing labels. At F is an inking-apparatus, similar to those used in cylinder printing-machines, the elastic rollers of which take the ink from the fountain *g*, and apply it to the faces of the types upon cylinder B. This inking apparatus is all carried by the frame *h h*, which rests upon brackets on the inside of the frame A A of the machine, and it may be removed for the purpose of cleaning, or when plain card or metal tags are to be made. At I is a feed-board, to receive the sheets of material, which is provided with the adjustable and lifting feed-guides usual in printing-machines. The cylinder C is provided with clutch-fingers *k*, operated by a cam-groove in the frame A A, which seize and release the sheets at the proper moment. Tape-rolls, *l l l l l*, are provided, around which pass tapes or strings for the purpose of guiding the sheets on their passage through the machine.

The construction of the punches and dies is shown in figs. 3, 4, 5, and 6, figs. 3 and 4 being the punch and die for making a "stationer's label," and 5 and 6 those for metal tags. Figure 7 represents one of these tags; but the tags and labels may be made of any size or shape, and printed with any desired device by providing suitable punches and dies. The punches have a raised face, of the size and shape desired, upon which the device to be printed is engraved. This face fits an opening in the die, whose edges cut the material and separate the tag or label from the sheet. In this opening is placed a movable bottom, *r*, supported by a stem, *s*, and kept up flush with the surface of the die by means of the rubber spring *t*, figs. 4 and 6. A similar arrangement is employed in the punch, fig. 5, for cutting the hole for the cord by which the tag is suspended. The sheet of material resting upon the face of the die, when the punch comes in contact with it the spring *t* yields, allowing the movable bottom *r* to be depressed until it reaches the shoulders *u u*, which yield the resistance required for printing, the edges of the opening cutting out the tag or label in its passage downward. When the punch recedes, the spring, relieved of its pressure, throws the bottom *r* up again, discharging the completed label from the die.

All the punches in use at one time are fastened upon the same "turtle," which is then made fast upon the cylinder B, the corresponding dies being similarly placed and fastened upon cylinder C, and so adjusted that in the rotation of the cylinders the punches will properly meet and enter their respective dies. If, then, the inking-apparatus being in order, (if labels are to be made,) motion be imparted to the machine, the faces of the punches will be charged with ink, and a sheet of paper fed down to the guides will be caught by the fingers *k*, and drawn down between the punches and dies, whereby the labels will be printed, cut out, and discharged into a box or drawer, *v*, prepared to receive them, while what remains of the sheet will be carried out by the strings

aud discharged at the opposite end of the machine. If different sizes or styles of labels are being made at the same time, the drawer *v* may be divided by means of partitions into a number of cells with wings, so arranged as to guide the different labels into separate cells.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The use, in a machine for making tags and labels, of the punches *m m* and the dies *n n*, with movable bottoms, the same to be used alone or in connection with an inking-apparatus for printing letters, numbers, or devices upon the tags or labels, all constructed and operating in the manner and for the purpose substantially as described.

2. The use of the inking-apparatus F, in connection with a machine for making tags and labels, operating in the manner and for the purpose substantially as described.

3. The combination and arrangement of parts of a machine for making tags and labels, all substantially as described.

THOS. PERCIVAL.

Witnesses:

GEO. N. PARKS,

H. R. TROXEL.