No. 844,703. PATENTED FEB. 19, 1907.

G. H. WILKINS.

MACHINE FOR ATTACHING TAGS TO CLOTHING.

APPLICATION FILED MAR. 27, 1905.

2 SHEETS—SHEET 1.

Fig-1-

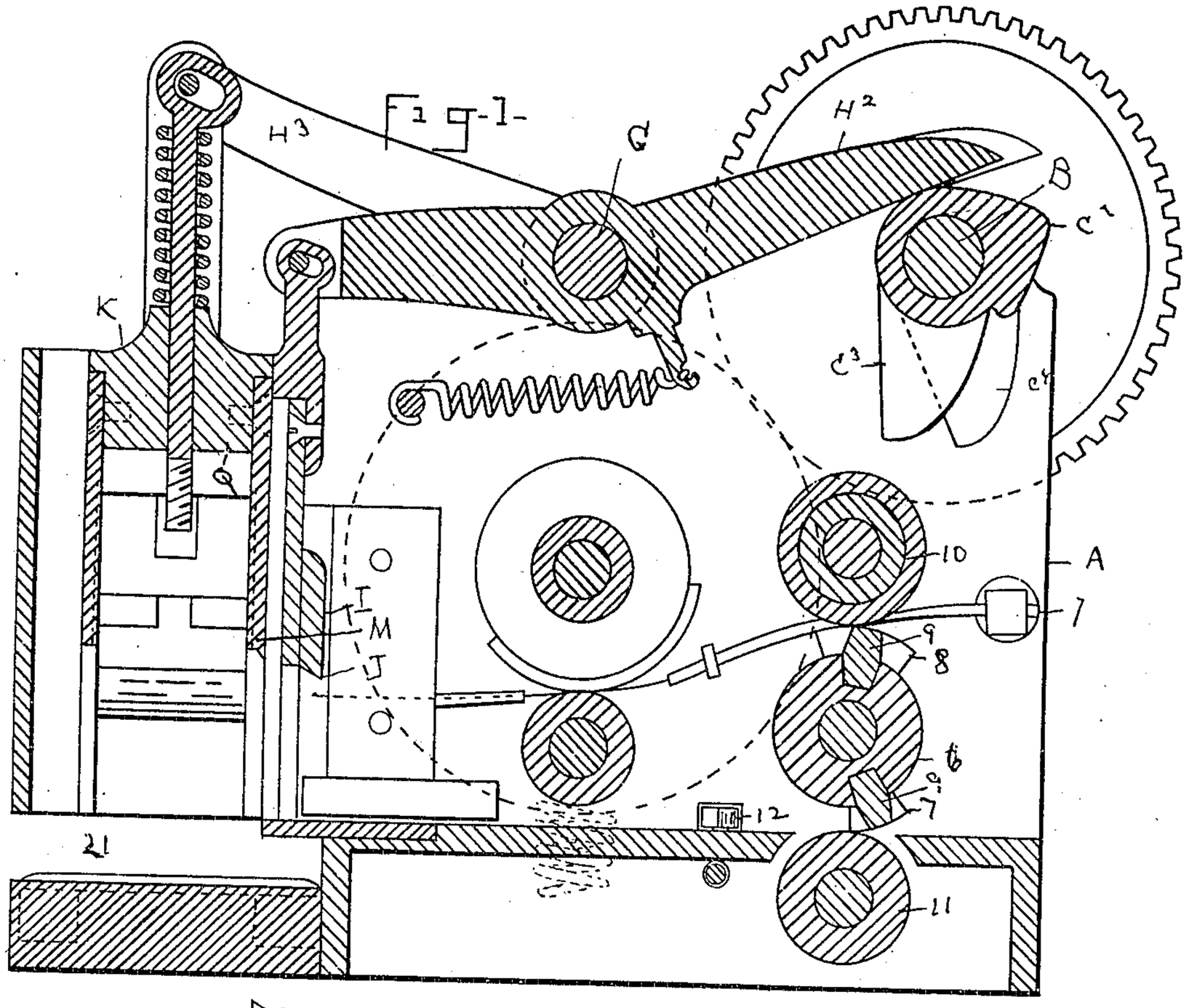
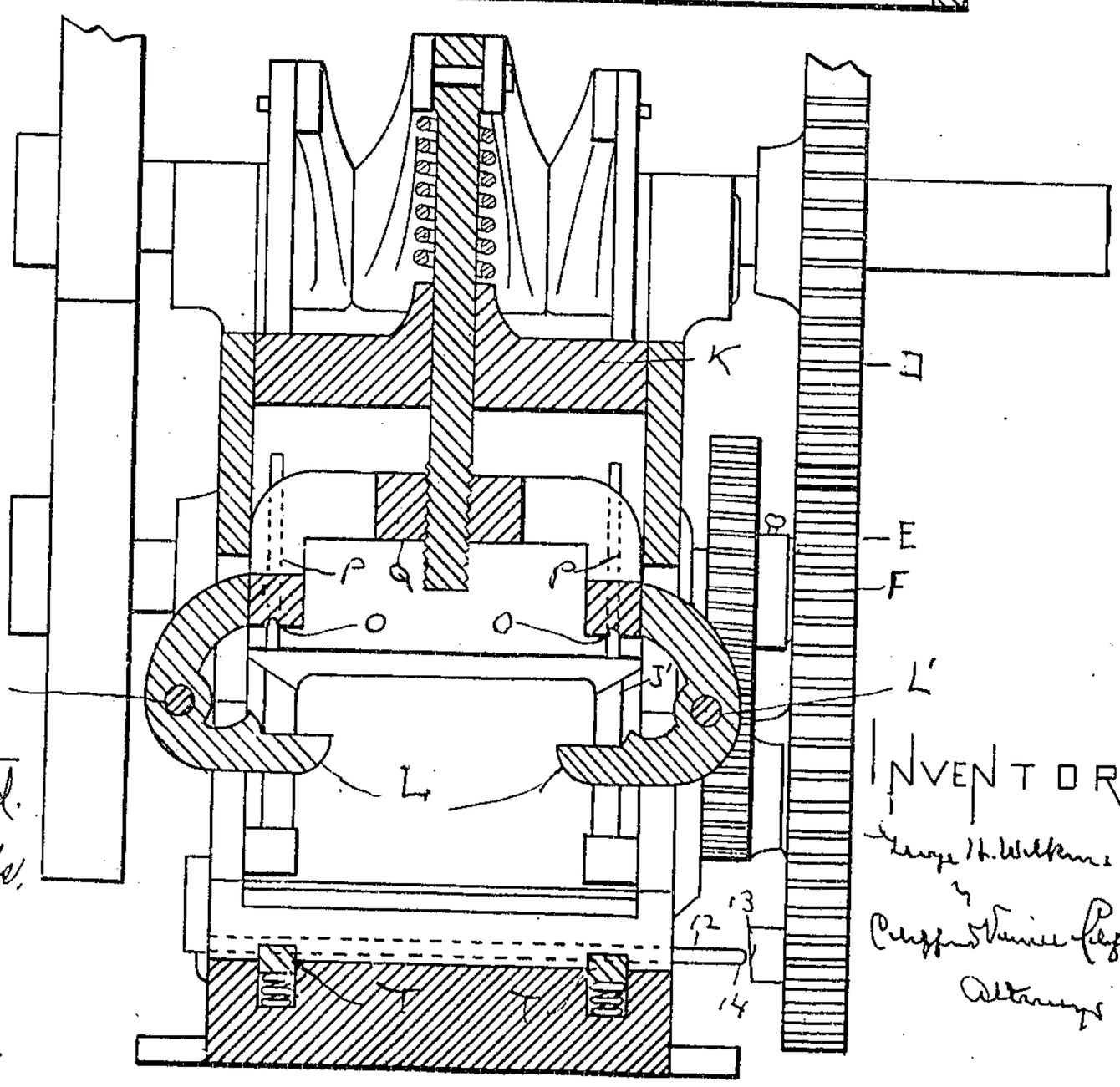


Fig-2-



WITNESSES—
Philip G. Clifford.
Marion Richards.

INVENTOR—
George H. Wilkins.
by
Clifford & Richards
Attorneys

No. 844,703. PATENTED FEB. 19, 1907.

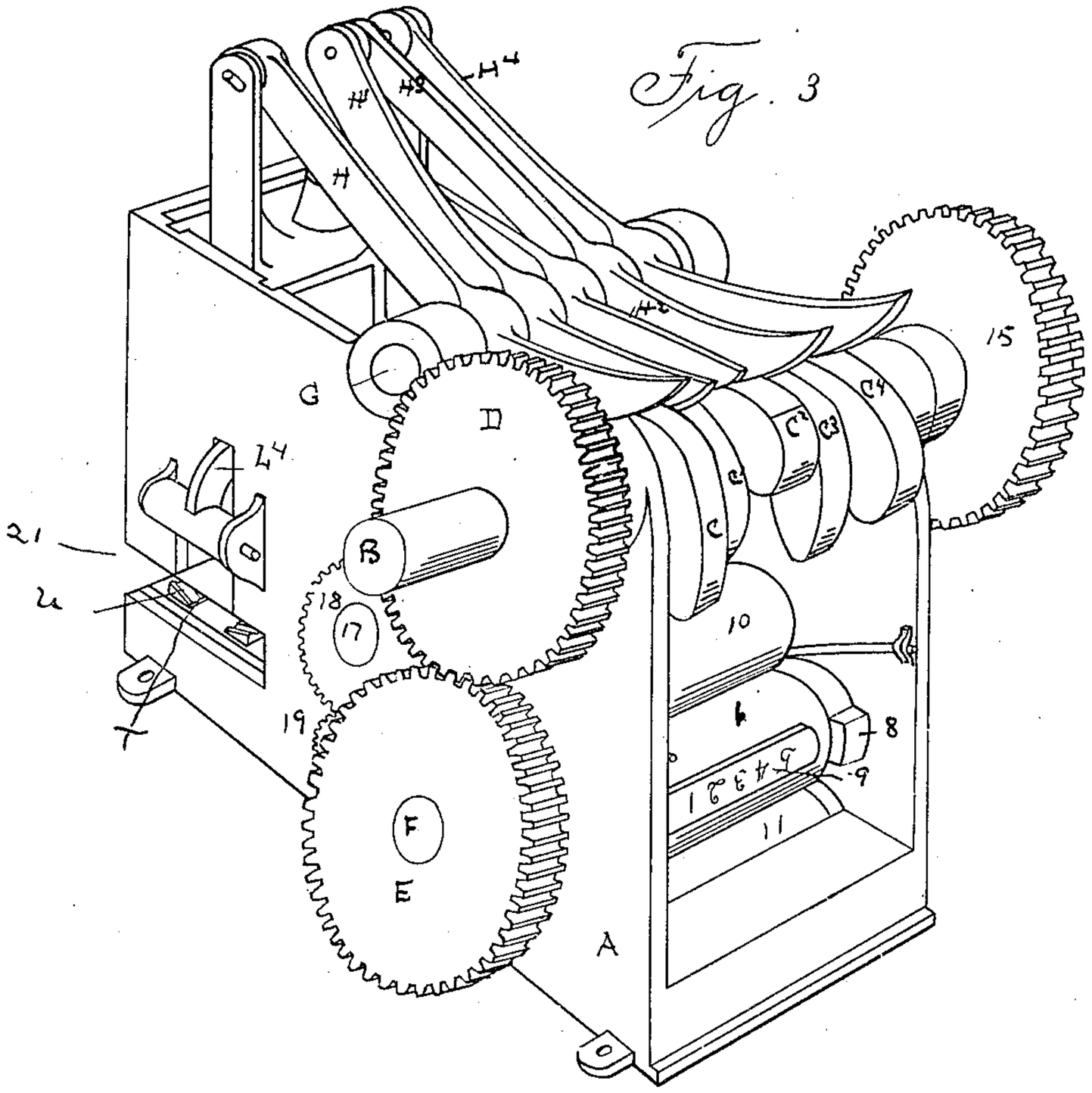
G. H. WILKINS.

MACHINE FOR ATTACHING TAGS TO CLOTHING.

APPLICATION FILED MAR. 27, 1905.

2 SHEETS—SHEET 2.

Fig. 3



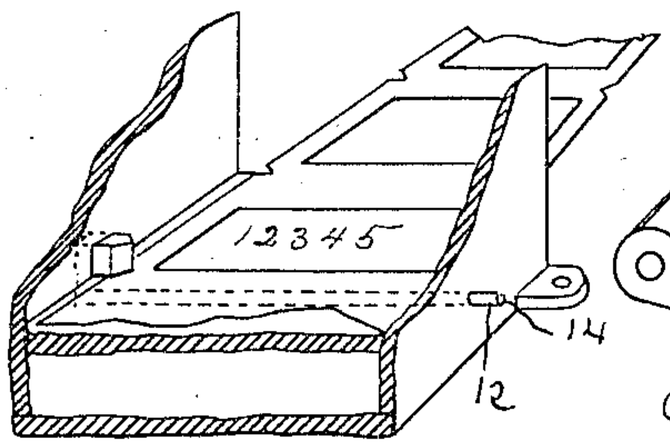


Fig. 6.

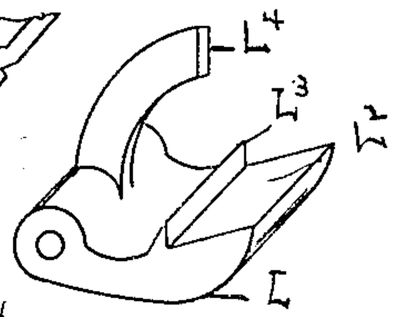


Fig. 4.

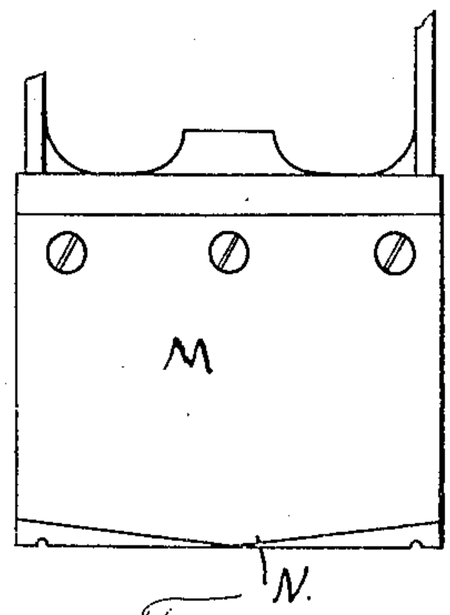


Fig. 5.

Witnesses:
Marion Richards.
Thomas L. Talbot.

Inventor:
George H. Wilkins
by
Clifford Davis Clifford
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE H. WILKINS, OF PORTLAND, MAINE, ASSIGNOR TO J. FRANK HULL, OF POUGHKEEPSIE, NEW YORK, AND GEORGE W. BROWN, OF CAPE ELIZABETH, MAINE.

MACHINE FOR ATTACHING TAGS TO CLOTHING.

No. 844,703. Specification of Letters Patent. Patented Feb. 19, 1907.

Application filed March 27, 1905. Serial No. 252,210.

To all whom it may concern:

Be it known that I, GEORGE H. WILKINS, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented new and useful Improvements in Machines for Attaching Tags to Clothing, of which the following is a specification.

This invention relates to improvements in machines for making and attaching tags of the class which are adapted to be affixed to cloth and clothing of all sorts and descriptions, which tags usually bear the size, selling-price, and other similar characters.

In the drawings herewith accompanying and forming part of this application, Figure 1 is a longitudinal vertical section of my improved machine. Fig. 2 is a section taken on line X X of Fig. 1. Fig 3 is a perspective view of the machine. Fig. 4 is a detail of a device used for bending wire, which element is not included in this application. Fig. 5 is a detail view of the paper-cutting-off knife. Fig. 6 is a detail of the mechanism employed for holding the tags in place and preventing the same from feeding forward too rapidly.

Same letters of reference refer to like parts.

In said drawings, A represents a suitable frame. Mounted in said frame is a shaft B having thereon a series of cams C, C′, C^2, C^3, and C^4, said cams being arranged at different angles on the shaft. The purpose of the arrangement of these in different positions and at different angles on the shaft will be hereinafter more thoroughly described.

D is a gear mounted on said shaft B, which meshes with a gear E, mounted on a suitable shaft F, which runs through the frame of the machine and which imparts motion to the paper-feeding and type rolls, hereinafter more fully described.

Pivotally mounted on shaft C is a series of levers H H′ H^2 H^3 H^4, the rear portion of said levers extending over the shaft B, so that when said shaft B is revolved and cams are brought up they may operate on said levers and give them an upward movement.

I is a wire-cutting-off knife (not claimed in this application, but claimed in applicant's divisional application, Serial No. 343,723, filed November 16, 1906,) adapted to be operated by the lever H^2.

K is a plunger, which after the wire has been cut off by the downward movement of a wire-cutting-off knife, receives the wire and forces the same over the bending-blocks L, said plunger being operated by levers H′ and H^4 and cams C′ and C^4. Attached to the rear end of said plunger is the paper or the tag cutting-off knife M. This knife is made V-shaped—that is, the cutting-edge tapers toward the center, the depth of the cutting-edge being greater at the center than at either end, as seen at N. The plunger is also provided with grooves O on its lower edges. There are also grooves P, which extend upward on the inner sides of the plunger, so arranged as to receive the wire blank as it is being forced over the bending-blocks L and further serves to prevent the blank as it is being formed from being thrown out of position.

Q is a hammer having a vertical movement within the plunger K and independent thereof. This hammer is operated by the movement of the levers H^2 and H^3. When hammer Q starts on its downward path, it tends to force the blocks L out of its path, so that the formed staple may be forced into the tag-strip before the tag is severed from the strip. This also serves to hold the tag from displacement while it is being cut from the strip, for when the paper-cutting-off knife descends and cuts off the tag the natural tendency of the tag cut would be to be forced out of position. This is obviated by the staple being forced into the tag before it is cut from the strip.

In the bottom of the machine are spring-controlled clenching-blocks T, provided with inclined grooves W therein, which serve to bend the end of the staple over after the same have been driven through the tag and cloth and hold the same against displacement.

6 is a feed-roll for driving the paper from which the tags are made forward. This feed-roll is provided on its periphery with cams 7 and 8 of different sizes, the purpose of this being to feed the paper at different distances at different times, so as to enable the proper characters to be stamped or printed thereon. Set into the periphery of said feed-roll 6 are types 9 for printing characters upon the tag. 10 is an ink-roll which supplies the type with ink.

11 is an idle-roll over which the paper or

tag moves in order that its passage toward the front of the machine may be uniform. Near the bottom of the machine and in the path of the tag and in front of the tag-feeding mechanism is a spring-controlled arm 12 working in a horizontal plane crosswise of the machine, said arm carrying a V-shaped lug which is adapted to press against the edge of the tag and hold the same against displacement while it is being cut off.

Gear-wheel F is provided with a lug 13, which is adapted to contact with the end 14 of the spring-controlled arm 12 and force the same upwardly, the purpose of this being to release the hold on the tag when it is necessary to have the same feed forward.

The operation of the device is as follows: A revolving motion is imparted to shaft B in any desirable manner—as, for instance, by a pulley attached to the end of said shaft. Said shaft is caused to revolve, bringing up the cams C C′ C^2 C^3 C^4. Cams C and C^4 then act on the levers H and H^4, controlling the plunger, and force the same down. Cams C′ and C^3 then come into operation and force the hammer down upon the staple already formed. As the hammer descends the wire is forced against the clenching-blocks in the bottom of the machine and bent upward. Gear D, meshing as it does with gear E, sets in motion said latter-named gear and the shaft to which it is attached and causes the paper-feed and type roll to be set in motion, feeding the paper forward a distance equal to the size of the cams on the periphery of said roll. The article to which the tag is to be affixed is placed in the opening 21 in the front of the machine, and as the tag with the staple therein is fed forward it is in a position to receive the same and to have the tag affixed thereto.

Having thus described my invention and its use, I claim—

1. In a machine for attaching tags to cloth or clothing, a series of levers pivotally mounted in a frame revoluble cams placed at various angles adapted to give movement in a vertical direction and at different times to said levers, wire and paper feed rolls and wire and paper cutting-off knives, a vertically-moving hammer provided with grooves on each side thereof and bending-blocks provided with upwardly-extending curved arms registering in said slots and operated by the movement of said hammer.

2. In a machine for attaching tags to clothing, in combination, a series of levers pivotally mounted in said frame and means for imparting a vertical motion to said levers at different times, a plunger, hammer, wire-cutting-off knife and paper-cutting-off knife operated by said levers, bending-blocks with upwardly-extending curved arms operated by the downward and upward movement of said hammer, means for feeding paper and wire blanks predetermined distances and means for imprinting characters on said paper-blanks at various distances.

3. In a machine for attaching tags to clothing, in combination, a frame, levers pivotally mounted therein, revoluble cams adapted to impart a vertical motion to said levers at successive times, a plunger, hammer, wire and paper cutting-off knives operated by said levers, bending-blocks with upwardly-extending arms and a longitudinal lip operated by said hammer, paper and wire feed rolls, said paper-feed rolls containing series of type for imprinting characters on the paper-blank.

4. In a machine of the class described, a suitable frame, a plunger having a vertical movement in said frame, said plunger carrying a paper-cutting-off knife, a wire-cutting-off knife, a hammer with grooves on each side thereof working within and independently of said plunger, pivoted bending-blocks normally in the downward path of said plunger, said blocks having upwardly-extending curved arms, said curved arms moving in the grooves in said hammer and thereby being forced out of the path of said plunger on the downward movement of said hammer, and returned to its normal position by the upward movement of said hammer, a feed-roll for feeding a strip of paper a predetermined distance at a predetermined time, type on said feed-roll for imprinting characters at various times and places on said paper strip, means for holding said paper strip from accidental displacement and means for clenching the wire.

5. In a machine of the class described, a frame, levers pivotally mounted therein, means for imparting a vertical motion to said levers at various successive times, a hammer provided with vertically-disposed slots in the side thereof, plunger, wire and paper cutting-off knives operated by said levers, means for causing said levers to resume their normal position, wire-feed rolls and paper-feed rolls and means for clenching the wire, bending-blocks provided with upwardly-extending arms registering in said slots in the side of the hammer and operated by the upward and downward movement of said hammer, said paper-feed roll carrying type on its periphery so that characters may be imprinted on a blank while said blank is being fed forward.

In testimony whereof I have signed this specification, in presence of two subscribing witnesses, this 16th day of March, 1905.

GEORGE H. WILKINS.

In presence of—
NATHAN CLIFFORD,
MARION RICHARDS.