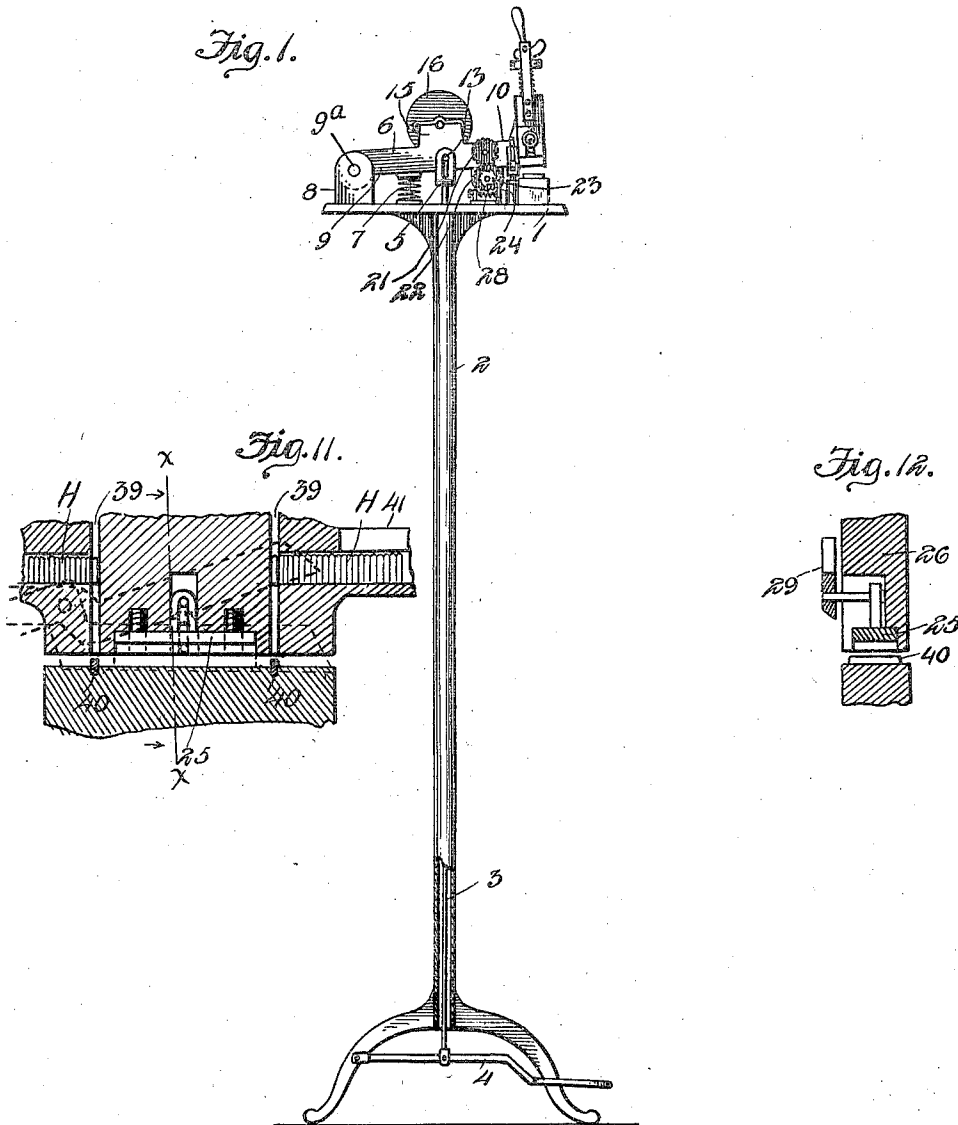


D. P. MOORE.
TAG FORMING AND AFFIXING MACHINE.
APPLICATION FILED FEB. 13, 1909.

1,049,509.

Patented Jan. 7, 1913.

4 SHEETS—SHEET 1.



Inventor

David Melton Moore

Witnesses

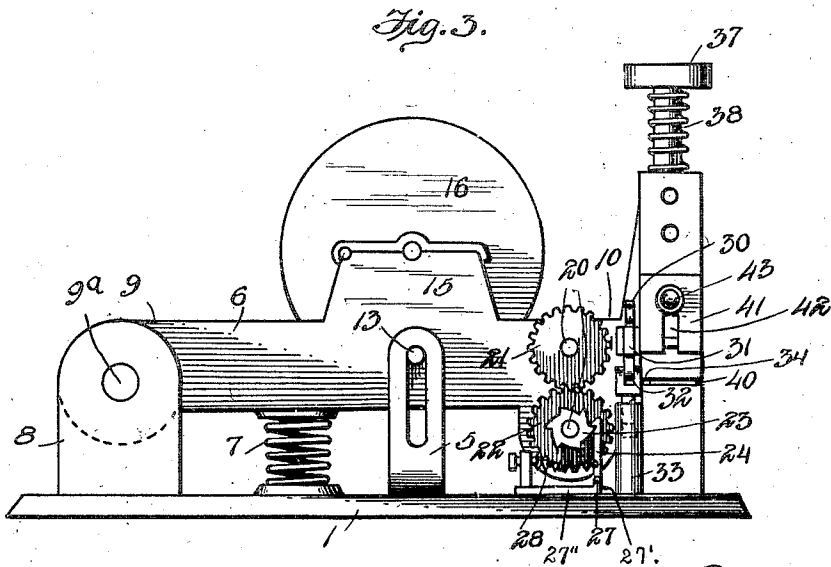
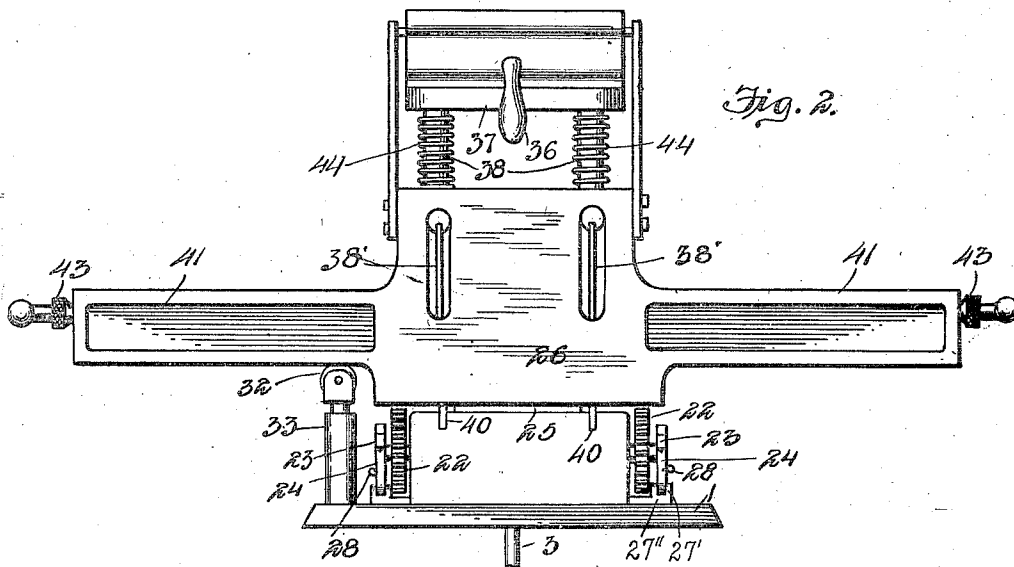
S. M. Spring.
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4 SHEETS—SHEET 2.



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4 SHEETS—SHEET 3.

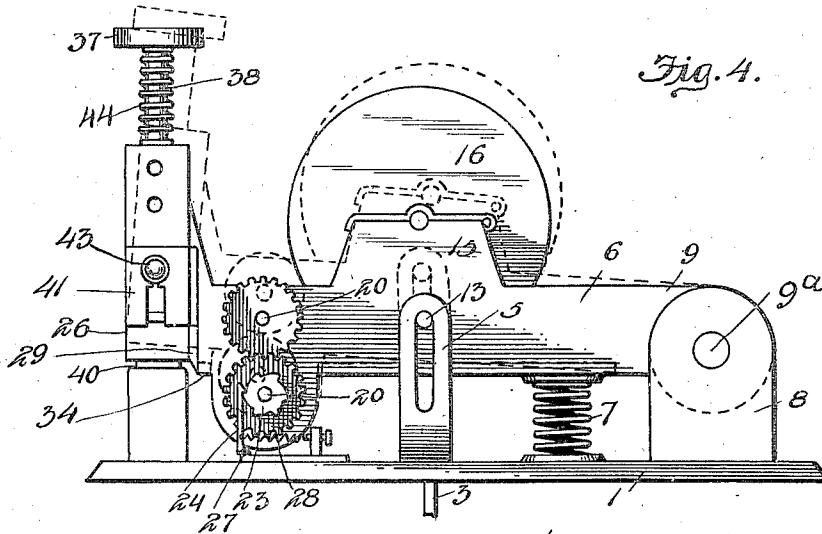


Fig. 4.

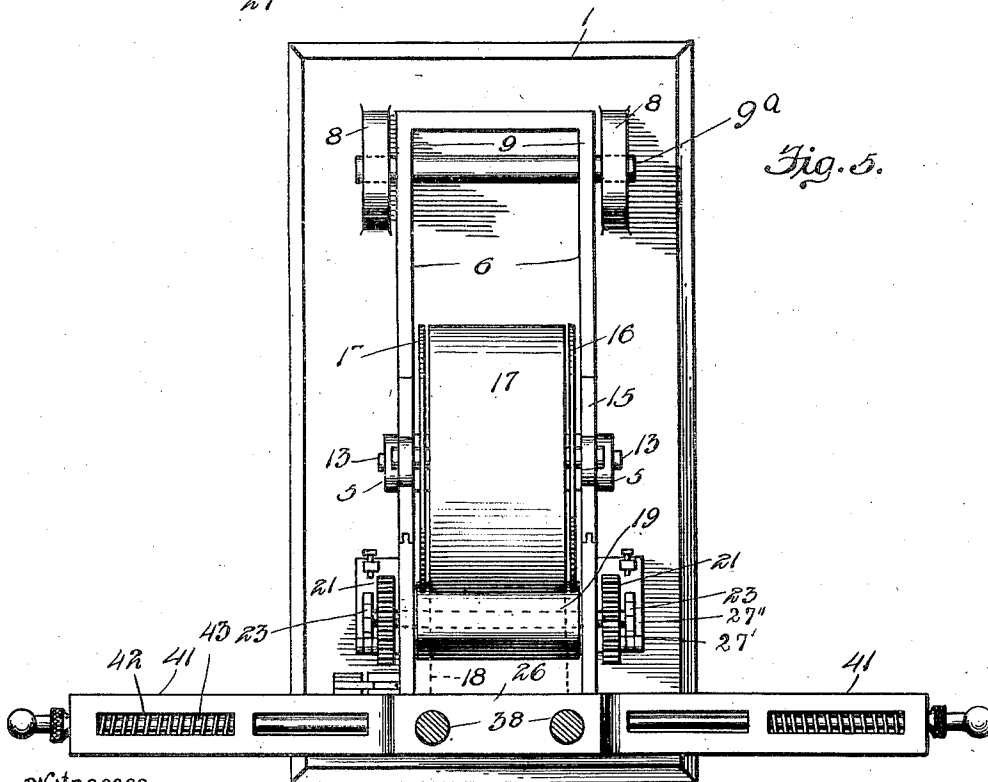


Fig. 5.

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4 SHEETS—SHEET 4.

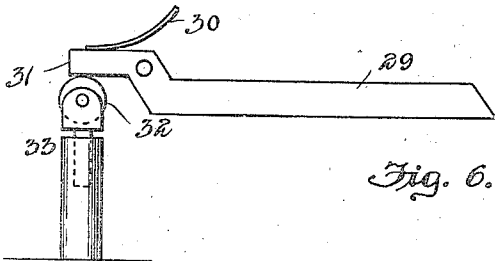


Fig. 6.

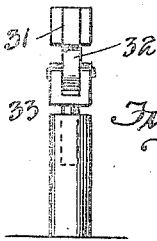


Fig. 7.

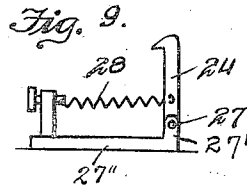


Fig. 9.

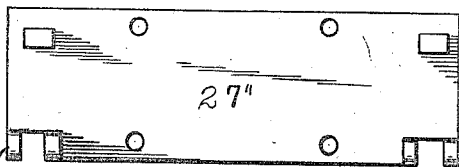


Fig. 10.

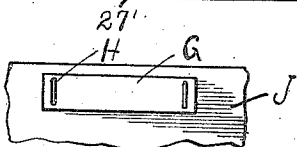


Fig. 13.

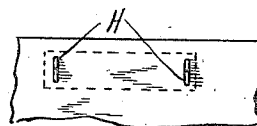


Fig. 14.

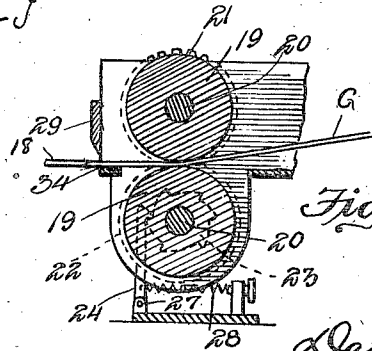


Fig. 8.

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A. B. Clarke.

UNITED STATES PATENT OFFICE.

DAVID PELTON MOORE, OF WASHINGTON, DISTRICT OF COLUMBIA.

TAG FORMING AND AFFIXING MACHINE.

1,049,509.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed February 13, 1909. Serial No. 477,787.

To all whom it may concern:

Be it known that I, DAVID PELTON MOORE, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Tag Forming and Affixing Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My present invention relates to improvements in tag forming and affixing machines, the main object of my invention being the provision of a machine, which forms predetermined widths or lengths of tags from a tape upon a spool or reel, cuts and delivers the same upon the article resting upon an anvil, staples the tag upon the article while in this position, and projects the predetermined length or width of tape to form the tag in position for cutting.

I am aware that numerous machines have been constructed to secure tags by a single staple to an article, such as clothing, but it is my idea to fasten the tag by two staples, one at each end, so that where the article to which it is attached is laundered, the mark contained upon the tag will always be presentable and will not wind or coil up and necessitate the unwinding to read the mark.

Therefore, to this end, I have constructed a machine which comprises primarily a base, carrying an anvil and knife and feeding roll actuators, while a pivoted casing is removably carried by the base, and operates in conjunction with the anvil, and the knife and feeding roll actuators, to feed the tape upon the upward movement of the casing, cut and hold the tag upon the article upon the anvil upon the downward movement of the casing, at which point the double-stapling device is operated to secure the tag to the article, the anvil clenching the staples and so bending their points as to leave no projections.

By providing the pivoted casing with the tape supply, tape feeding mechanism, cutting mechanism and staple carrying and affixing casing, I render the construction of the machine more simple; provide a means whereby the parts are more easy of access, and permit in case of accident, the removal of the complete casing and its parts, and the substitution of a new and complete casing and its parts, thus avoiding the delays occasioned by break-downs, should the vital parts be carried by both the base and cas-

ing. By this means, I also secure the better operation of the machine, for the casing no matter in what direction it moves, coacts with parts carried by the base, to operate the feeding and cutting mechanisms. Also by my form of construction, the manufacture and interchangeability of parts is more readily accomplished than in machines where it is necessary to have the whole machine to make a change or repair.

Attention is invited to the accompanying drawings, in which:—

Figure 1 is a side elevation of the complete machine mounted upon its stand with foot power attached. Fig. 2 is a front elevation of the base and main casing, the casing being in the position it assumes after having formed and stapled a tag. Fig. 3 is a view taken from the left-hand side of the machine. Fig. 4 is a similar view taken from the opposite side, dotted lines indicating the casing raised. Fig. 5 is a top plan view of the machine. Figs. 6 and 7 are detail views of the knife and its adjustable actuator. Figs. 8, 9 and 10 are detail views of the feeding rollers' actuator. Fig. 11 is a detail section of casing and anvil showing presser foot. Fig. 12 is a section on line *x-x* Fig. 11. Fig. 13 is a top plan of a tag affixed, and Fig. 14 is a bottom view thereof.

Referring to the drawings:—The numeral 1 designates the base, which as shown in Fig. 1, is carried upon the pedestal 2, which is preferably hollow, and has the vertical rod 3, slidably mounted therein. The lower end of the rod is pivotally connected to the foot lever or treadle 4, while the upper end is provided with the frame 5, which is adapted to pull down the pivoted casing 6, to be hereinafter more particularly described, the coiled spring 7, returning the casing and treadle to upward position when the treadle is released.

The base 1, carries near its rear the two standards 8, in which the rear end 9, of the casing 6 is pivoted by means of the removable pin 9^a, so that the forward end 10, of the casing when in its downward position will rest above and upon the upper end of the anvil, which is also carried upon the base near the forward portion thereof. In order to raise the casing and to hold it normally as indicated in Fig. 4, I employ the large coiled spring 7, the slotted plates of the frame 5, and the lugs 13, limiting said

upward movement, so that the article to be tagged, may be inserted between the forward end of the casing and above the anvil. Removably journaled within the sides 15, of the casing is a reel 16, which carries the tape 17, the end 18, from which being placed between the two tape feeding rollers 19, journaled in the casing forward of the tape reel. These feed rollers each have a shaft 20, upon which are keyed the gears 21 and 22, which mesh together in pairs upon both sides of the casing, and thus insure an even and simultaneous rotation of the feeding rollers. The lower shaft 20 is further provided with the ratchet wheel 23, which is actuated by the pawls 24, upon the upward movement of the casing. These pawls are pivoted to the lugs 27' of the base-plate 27'', which is supported upon the base 1 of the machine. Thus it will be seen that upon the upward movement of the casing a predetermined length or width of tape is fed by the feed rollers to and below the presser foot 25, which is carried in the lower end of the vertical frame 26, carried by the casing above the anvil. The two pawls are secured together by a rod 27, so as to insure unity in movement, and the springs 28, hold them against and in contact with their respective ratchet wheels.

In order to cut the tag G, Figs. 13 and 14, from the tape, I provide the shears or knife 29, which is pivoted to the casing, and normally held open by means of the spring 30, the underside of the handle 31 of the knife, as the casing is pulled downwardly, abutting the roller 32, mounted in the adjustable knife actuator 33, mounted upon the base, and as it does not give, the handle is moved upwardly and the blade downwardly, the knife with the assistance of the right-angled edge 34, of the casing, shearing or cutting the tape at this point and severing the outer end of the tape to form a tag, which at this moment is engaged by the spring actuated presser foot 25, and thus held upon the anvil and the article, which has been placed upon the anvil prior to this lowering of the casing.

When the machine is in this position, the hand-lever 36 is operated, moving the plate 37, and its two plungers 38 downwardly, so that the staple delivering and clenching strip 38' will deliver the two staples H, Figs. 11, 13 and 14, through the slots 39, through the tag G and article J, Figs. 13 and 14, and upon the staple clenching plates 40, where the ends of the staples are turned inwardly and upwardly and thus clenched within the tag and article so as to present no points and hold the tag upon the article. The stapling part of this machine is not my invention, it having been copied from a single stapling machine, now on the market, and in which the side wings 41, are provided

with a slot 42, in which are mounted the staple holding and feeding devices 43, the staples being previously made in U-shape and held within the wings so as to be presented one at a time, and the springs 44, return the plungers to an upward position, thus having a staple ready for delivery when the plungers are again depressed. The vertical portion of the casing, carrying the wings 41, slot 42, staple holding and feeding devices 43, and parts secured to the outer end of the casing 6, I term the staple carrying and affixing casing.

It is my intention to starch the tape, so that there will be stiffness enough in the body thereof, to render the feed of the same through the feeding rolls below the vertical staple-delivering portion of the frame positive, the presser foot only engaging the same from above, as the casing is lowered and during the shearing operation.

It is evident that many structural changes may be resorted to to carry out my invention, and yet at the same time remain well within the spirit of my invention.

From the foregoing description taken in connection with the drawings, it is evident that I provide a simple, inexpensive and durable machine of this character, and one in which there are simply three separate operations performed, to deliver the tape, to cut the tape to form the tag, and finally to staple the same at two points upon the article, thus producing a tag forming and affixing machine, especially adapted for securing laundry marking tags to colored garments, where the ordinary manner of marking cannot be resorted to.

What I claim as new is:—

1. In a tag forming and affixing machine, the combination with a base, and an anvil carried thereby, of a casing pivotally mounted thereon, means for feeding a predetermined length of tape mounted in the casing, means for operating said feeding means as the casing moves upwardly, means for severing said length of tape, co-acting means carried by the base and casing for operating said severing means to form a tag as the casing descends, and a double stapling means carried by the casing for affixing said tag at two points upon the article.

2. In a tag forming and affixing machine, the combination of a standard or pedestal, a foot treadle, a rod connected to the same and extending upwardly, a base carried by the pedestal, an anvil fixedly carried by the base, a casing pivotally mounted upon the base, means for normally holding the pivoted casing raised, means connecting the upper end of the rod and the pivoted casing operatively together, whereby the downward movement of the pivoted casing is effected by the foot-treadle, a vertical staple carrying and affixing casing carried by the

pivoted casing and adapted to rest directly above the anvil, means carried by the pivoted casing for feeding the tape below said staple affixing casing, and means for severing from the tape the portion of the tape below the staple affixing casing, said severing means also being carried by the pivoted casing.

3. In a tag forming and affixing machine, the combination with a base and an anvil upon the base, of a casing removably mounted upon the base and capable of movements toward and away from the anvil, tape feeding means for feeding a predetermined length of tape above the anvil and carried by the casing, means for operating the same as the casing is moved away from the anvil, means for severing said length of tape and depositing it upon said anvil and the article to receive it as the casing is moved toward the anvil, said casing and anvil co-acting to hold the cut tape upon the anvil, and stapling and clenching means for securing the severed tape to the article at a plurality of points.

4. In a tag forming and affixing machine, the combination with a hollow support, a base carried thereby, and an anvil fixedly carried by the base, of a casing pivotally and removably mounted upon the base and capable of movements to and from the anvil, means for normally holding the casing away from the anvil, means connected to the casing and operable through the support to move the casing toward and upon the anvil, tape feeding means carried by the casing, means actuated as the casing is moved away from the anvil to operate the feeding means, means for severing the tape to form a tag carried by the casing, means for actuating the same as the casing is moved toward the anvil, and means for delivering and clenching a fastening means for the tag and the article upon the anvil.

5. In a tag forming and affixing machine, the combination with a support, a base carried thereby, and an anvil carried by the base, of a casing capable of movements to and from the anvil, means carried by the casing for feeding tape so as to present the same to the anvil, means for operating said feeding means as the casing is moved away from the anvil, means for severing said tape, also carried by the casing, means for operating said severing means as the casing is moved toward the anvil and delivering the tape upon the anvil and the article to receive the tag, and means for securing the tag to said article at a plurality of points.

6. In a tag forming and affixing machine, the combination with a support, a base carried thereby, and an anvil carried by the base and provided with a plurality of staple clenching means, of a casing removably mounted upon the base and capable of two

movements, means carried by the casing adapted to feed tape to form a tag, means also carried by the casing adapted to sever said fed tape and form a tag, the formed tag being delivered by the casing upon the anvil, and a staple delivering and clenching means mounted in the casing adapted to drive a plurality of staples through the tag and the article, so that the staple clenching means of the anvil will co-act to clench the staples to secure the tag in place.

7. In a tag forming and affixing machine, the combination with a base, and an anvil carried thereby, of a casing pivotally and removably mounted upon the base and capable of movements to and from the anvil, means carried by the casing for feeding a predetermined length of tape, means for operating the feeding means as the casing moves away from the anvil, a knife for cutting said length of tape to form a tag also carried by the casing, means operated upon the opposite movement of the casing to operate the knife, cut the tape and deliver the cut tape upon the anvil where the cut tape is held by the casing, and means for attaching the cut tag in a plurality of places.

8. In a tag forming and affixing machine, the combination with a base, and an anvil carried thereby, of a casing removably mounted upon the base and capable of movements to and from the anvil, means carried by the casing for feeding a predetermined length of tape, means for actuating the same as the casing is moved away from the anvil, a knife carried by the casing for actuating said knife to cut the tape as the casing moves toward the anvil, the casing and anvil co-acting to hold the cut tape upon the anvil, and means for securing a plurality of staples through the cut tag and article upon the anvil.

9. In a tag forming and affixing machine, the combination with a base, and an anvil fixedly mounted thereon, of a casing removably mounted upon the base and capable of movements to and from the anvil, means carried by the casing for feeding a predetermined length of tape, means for actuating the same as the casing is moved away from the anvil, a knife also carried by the casing for cutting said tape to form a tag, means for actuating said knife to cut the tape as the casing is moved toward the anvil, the casing and anvil co-acting to hold the cut tape upon the anvil, and means for securing the cut tag to an article upon the anvil.

10. In a tag forming and affixing machine, the combination with a base, and an anvil fixedly mounted thereon, of a casing pivotally and removably mounted upon the base and capable of movements to and from the anvil, means for feeding a predeter-

mined length of tape carried thereby, means
for actuating the same as the casing is
moved away from the anvil, a knife also
carried by the casing for cutting the tape to
5 form a tag, means for actuating said knife
to cut the tape as the casing is moved to-
ward the anvil, the casing and anvil co-act-
ing to hold the cut tape upon the anvil,
and means for securing the cut tag upon
10 an article after the tag has been formed
and the casing is held toward the anvil.

11. In a tag forming and affixing ma-
chine, the combination with a base and an
anvil carried upon the base, of a casing piv-
15 otally and removably mounted upon the
base and capable of movements to and from
the anvil, means carried by the casing for
feeding a predetermined length of tape,
means for operating said feeding means

upon the movement of the casing away from 20
the anvil, means carried by the casing for
cutting said tape to form a tag and deliver-
ing the tag upon the anvil, means for op-
erating said cutting means as the casing is
moved toward the anvil, said casing and 25
anvil co-acting to hold the tag upon the
anvil, and a stapling means for delivering
and driving a plurality of staples through
the tag and article upon the anvil to secure
the tag to the article while the tag is being 30
held upon the article.

In testimony whereof I affix my signature
in presence of two witnesses.

DAVID PELTON MOORE.

Witnesses:

E. H. PARKINS,

E. H. CAMPBELL.