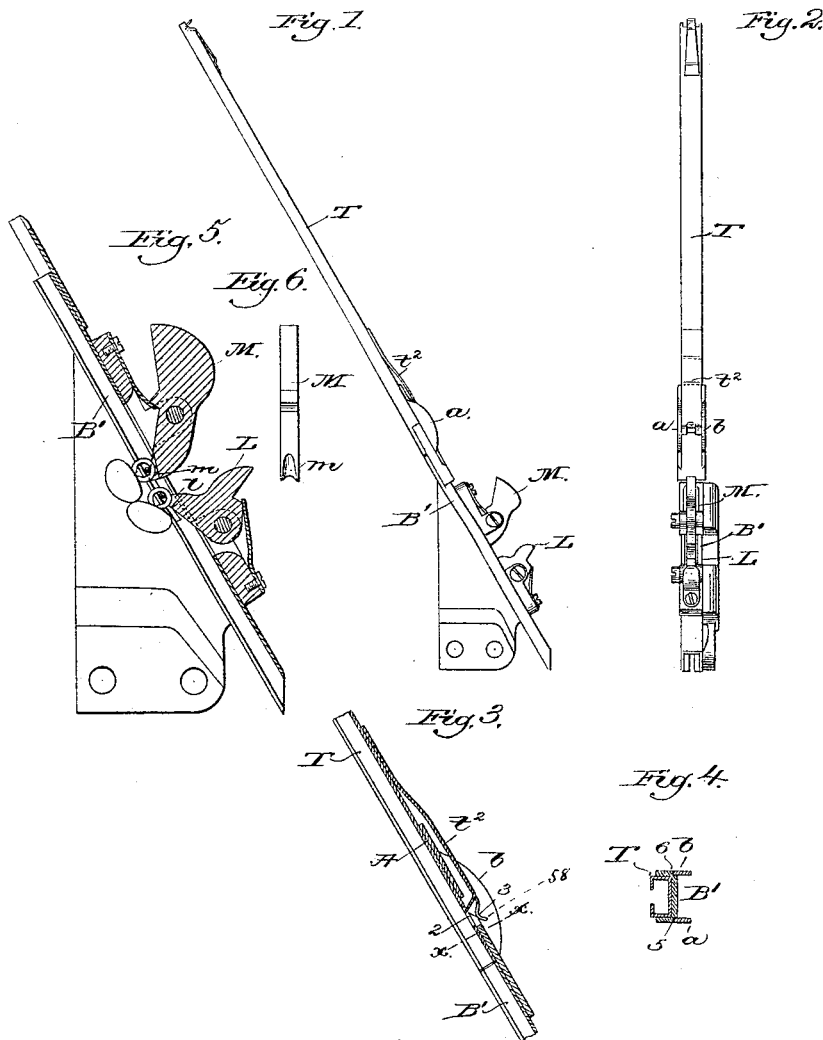


(No Model.)

J. H. VINTON.  
BUTTON SETTING MACHINE.

No. 346,419.

Patented July 27, 1886.



Witnesses:  
John F. C. Brinkley  
Anna L. Emery.

Inventor:  
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attys.

# UNITED STATES PATENT OFFICE.

JOHN H. VINTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE PEN-  
INSULAR NOVELTY COMPANY, OF GRAND RAPIDS, MICH.

## BUTTON-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 346,419, dated July 27, 1886.

Application filed December 3, 1885. Serial No. 184,572. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. VINTON, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Button-Setting Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention is an improvement upon the machine represented in United States Patent No. 328,365, dated October 13, 1885, and has for its object to provide the independent tubes therein shown for receiving and holding the staples and attached buttons, with novel coupling devices by which the said tubes may be readily and firmly connected to the regular chute; also, to so construct the detent and let-off, which control the passage of the button, that the engaging ends thereof may engage the fastenings, instead of the eye of the button, to feed the same forward.

The coupling or engaging devices herein shown consist of two prongs or fingers integral with and rising from opposite sides of a plate secured to the upper side of the tube at its end adjacent to the chute, said prongs or fingers engaging and bearing upon shoulders at opposite sides of the chute when the tube is attached thereto, to thereby form a simple and rigid connection. The end of the chute is beveled to cause the spring stop attached to the tube, and employed to retain the staples therein, to rise as the tube is coupled to the chute, and thereby afford a free passage for the staples from the tube to the chute.

Figure 1 shows in side elevation a tube supplied with coupling devices in accordance with this invention and attached to a chute; Fig. 2, a front view of Fig. 1; Fig. 3, a vertical section of a portion of the tube and its coupling devices; Fig. 4, a cross-section of Fig. 3, taken on the dotted line *x x*; Fig. 5, a sectional detail of the feeding mechanism, and Fig. 6 a detail to be referred to.

The tube T, open ended and slotted from end to end to receive and hold staples with attached buttons, which follow down in the slot of the tube, the spring-stop *t*, with its finger 58, the staple-chute B', forming part of the button-setting machine, are all as in the

said patent referred to, so need not be herein further described.

The tubes T, a number of which are employed, and preferably rectangular in cross-section, are each provided with a slot from end to end, corresponding with the slot in the chute B', so that as each filled tube is temporarily applied to the chute and its spring-stop raised the staples are permitted free passage down the tube and chute. The engaging device, by which the tube T is temporarily attached to the chute, consists of a plate, A, placed upon and secured to the upper side of the said tube, near its end adjacent to the chute, said plate having two fingers or prongs, *a b*, integral with it and bent at right angles thereto, and projecting forward parallel with the tube, the projecting portions or prongs engaging the chute B' as the tube is forced thereon. As shown in Fig. 4, the tube is of such shape as to readily enter the chute B', and the prongs *a b* are only a sufficient distance from the tube as to allow them to readily pass over the exterior of the chute B' and bear upon the shoulders 5 6, shaped to receive the prongs. The prongs herein shown form braces, which, bearing upon the shoulders formed in the chute, and also against the sides of the chute between the shoulders, prevent movement of the tube. In this instance the end of the chute B' is beveled, as at 2, (see Fig. 3,) so that as the tube is forced into the chute the up-turned end 3 of the spring-stop *t* rides over the beveled portion, causing the spring-stop to rise and afford a free delivery for the staples from the tube to the chute.

The engaging device herein shown is strong, durable, and cheap, and cannot get out of order.

It is obvious that the prongs, instead of being integral with the plate A, may be independent and rigidly secured to the tube T in any well-known manner, thereby dispensing with the plate A.

The detent M and let-off L are similar in construction and arrangement to that shown in the patent above referred to, except that the engaging ends *m l* are grooved or recessed, as shown in detail, Fig. 6, to stride the eye of the button and bear upon the fastenings, so

that as the button following down the chute and held by the fastenings comes beneath the said detent M and let-off L the engaging ends thereof bear upon the fastenings and force the same forward, carrying the button with it. By this construction the movement of the button does not in any way affect the movement of the fastening, as it did formerly.

I claim—

10 1. The independent tube T, having prongs *a b* rigidly secured to it, combined with the chute, substantially as described.

2. The independent tube T, plate A, and prongs *a b*, combined with the chute, substantially as described.

15 3. The independent tube T, plate A, and prongs *a b*, combined with the chute having shoulders 5 6, substantially as described.

4. The independent tube T, the spring-stop *t*<sup>2</sup>, and prongs *a b*, combined with the chute having a beveled end, substantially as and for the purpose described.

5. The slotted chute to receive the staple and button, combined with the detent, and let-off having grooved engaging ends to stride the eye of the button and engage the staple, thereby permitting the button to move forward with the staple, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. VINTON.

Witnesses:

G. W. GREGORY,  
B. J. NOYES.