

I. G. PLATT.
BUTTON SETTING MACHINE.

No. 517,622.

Patented Apr. 3, 1894.

Fig. 5

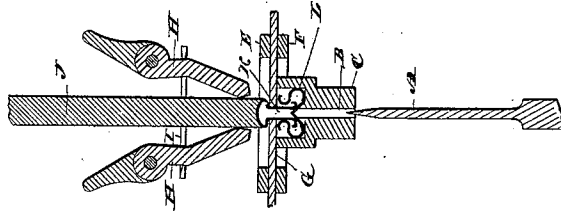


Fig. 4

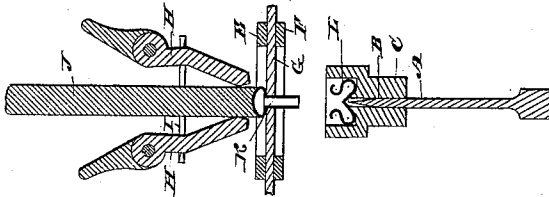


Fig. 3

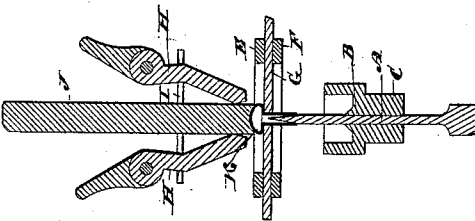


Fig. 2

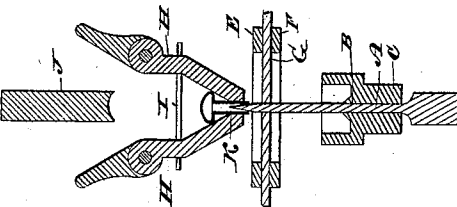
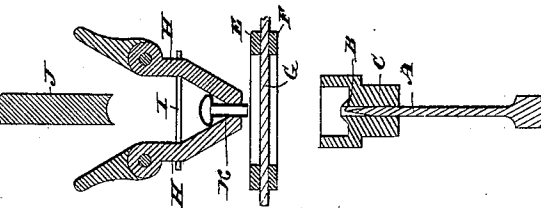


Fig. 1



Witnesses:

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Mydel Maurice

Inventor

Irring G. Platt

By George D. Chapman
Att'y.

(No Model.)

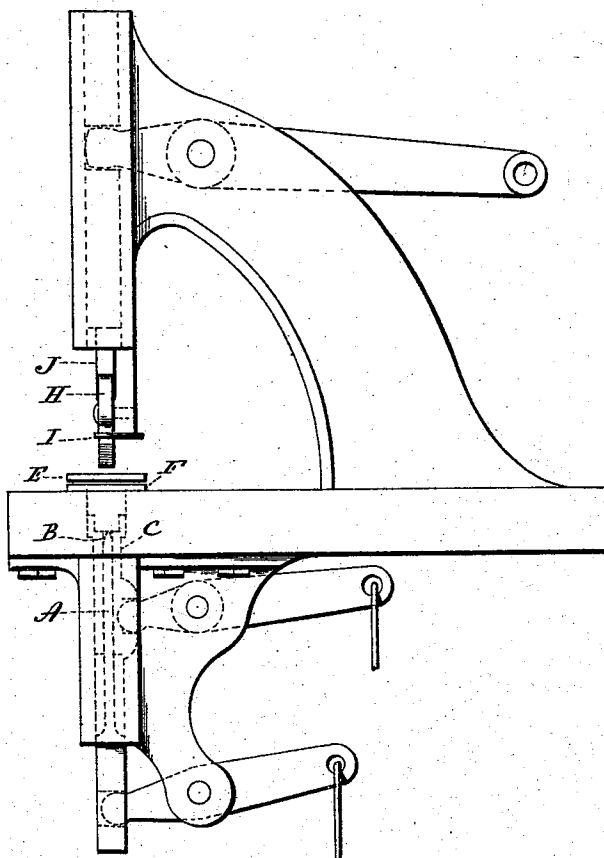
2 Sheets—Sheet 2.

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Fig. 6.



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UNITED STATES PATENT OFFICE.

IRVING G. PLATT, OF WATERBURY, CONNECTICUT.

BUTTON-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 517,622, dated April 3, 1894.

Application filed March 1, 1889. Serial No. 301,638. (No model.)

To all whom it may concern:

Be it known that I, IRVING G. PLATT, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Automatic Machines for Attaching Buttons to Cloth; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved machine for attaching hollow-shanked buttons to cloth, the object being to produce a simple and efficient automatic machine for the purpose indicated.

With these ends in view, my invention consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical, sectional view of a machine embodying my invention, with the parts in position for puncturing the cloth. Fig. 2 is a similar view with the cloth punctured; Fig. 3 a similar view with the shank introduced into the puncture; Fig. 4 a similar view showing the bodkin in its retired position, and the button-head in the button-head carrier; Fig. 5 a similar view showing the elevation of the button-head carrier for the assemblance of the button-head with the button-shank which projects downward through the cloth; and Fig. 6 is a view in side elevation of a press having my improvements applied to it.

As the press herein shown is of ordinary construction, I will not describe it; it may be replaced by any other press of suitable and approved construction.

As herein shown, the automatic bodkin A, which is of long and slender construction, is adapted to reciprocate up and down through an opening B, passing through the longitudinal center of a button-head carrier C, which is adapted for vertical reciprocation independent of the bodkin. The said bodkin which enters the said opening through the outer end thereof and carrier are situated on the same side of a cloth-clamp, composed of the parts E and F, one or both of which are movable toward and away from the other to permit the cloth G, to be slipped between

them, and to be clamped and held by it while being punctured by the bodkin. On the opposite side of the said clamp, is located the shank-carrier, which is composed of two pivotal arms H H, and a spring I, or its equivalent, for normally drawing their lower ends together. A reciprocating plunger or driver J, located between such arms, operates to separate them for releasing the button-shank K, which they carry, to drive the same through the cloth, and to finally force it into the button-head L, which is carried by the button-head carrier C, before mentioned.

Having described my improvement in detail, I will now proceed to set forth the mode of its operation:—Let it be assumed that the shank has been introduced into the shank-carrier, and that the parts of the machine are in the positions in which they are represented by Fig. 1 of the drawings. When, now, the machine is started, the automatic bodkin will be lifted up through the button-head carrier, and forced through the cloth into the lower end of the button-shank, as shown by Fig. 2 of the drawings. The plunger now descends upon the shank, and engages with it, and from that moment the bodkin begins to retire, followed by the plunger, which pushes the shank through the puncture in the cloth, the shank being meanwhile steadied and guided by the bodkin, which continues to retire until it has passed below the chamber in the button-head carrier, into which the button-head is now introduced, as shown by Fig. 4 of the drawings. The button-head carrier is now lifted, independently of the bodkin, for the assemblance of the button-head carried by it with the button-shank, which projects downward through the cloth, as shown by Fig. 5 of the drawings. The button having been attached to the cloth, the several parts of the machine are restored to the position which they occupy in Fig. 1 of the drawings.

I would have it understood that I do not limit myself to the particular mechanism shown and described herein, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

United States Patent No. 480,031, granted to me August 2, 1892, for an improved but-

ton-setting machine, shows means for puncturing the cloth, in combination with the plunger which drives the button-shank in assembling the same with the button-head. Patent No. 481,588, granted to C. M. Platt, August 30, 1892, for an improved machine for attaching buttons, shows the plunger which carries the button-shank as constructed with a central longitudinal opening which receives a spring actuated and therefore yielding pin constructed to co-operate in the perforation of the cloth with a fixed pin projecting from the button head carrier. My present invention is distinguished from the devices shown in both of those patents, in that the button-head-carrier is provided with a central longitudinal opening to receive a bodkin which is therefore located directly opposite the plunger, and perforates the cloth on the opposite side from which it is perforated as shown in the patents referred to.

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

1. In a machine for attaching hollow-shanked buttons to cloth, the combination with a button-head carrier constructed with a central longitudinal opening, of a bodkin extending into the said opening from the outer end thereof, means located outside of the said carrier for positively reciprocating the said bodkin to project it beyond and retire it within the face of the said carrier, a button-shank carrier located opposite to, and in line with, the said button-head carrier and bodkin, and means for reciprocating one of the said carriers, substantially as described.

2. In a machine for attaching hollow-shanked buttons to cloth, the combination with a button-head carrier constructed with a central longitudinal opening, of a bodkin extending into the said opening from the outer end thereof, means located outside of the carrier for positively reciprocating the said bodkin to project it beyond and retire it

within the face of the said carrier, a button-shank carrier located opposite the said button-head carrier, a plunger also located opposite and in line with the said button-head carrier, and means for reciprocating one of the said carriers, substantially as described.

3. In a machine for attaching hollow-shanked buttons to cloth, the combination with a button-head carrier constructed with a central longitudinal opening, of a bodkin extending into the said opening from the outer end thereof, means located outside of the said carrier for positively reciprocating the bodkin to project it beyond and retire it within the face of the said carrier, a button-shank carrier and a plunger located opposite to and in line with the said button-head carrier, and means for reciprocating the button-head carrier independent of the bodkin, for closing the two carriers together, substantially as described.

4. In a machine for attaching hollow-shanked buttons to cloth, the combination with a button-head carrier constructed with a central longitudinal opening, of a bodkin extending into the said opening from the outer end thereof, means located outside of the said carrier for positively reciprocating the said bodkin to project it beyond and retire it within the face of the said carrier, a button-shank carrier consisting of two spring actuated pivotal arms, located opposite said button-head carrier; a plunger located between the said arms, which are separated when it descends, and means for reciprocating the said button-head carrier, substantially as described.

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

IRVING G. PLATT.

Witnesses:

CHAS. B. SHUMWAY,
WM. J. DE MAURIAC.