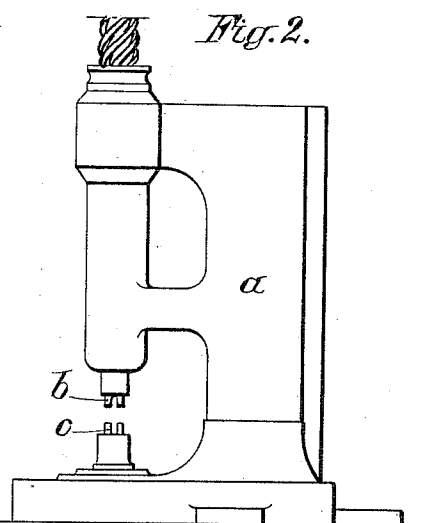
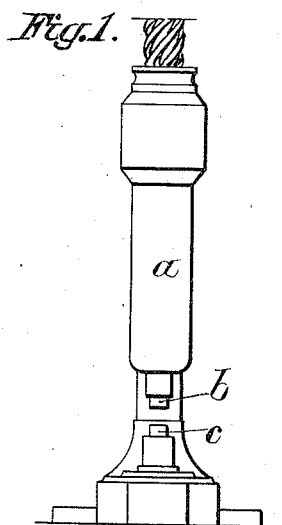
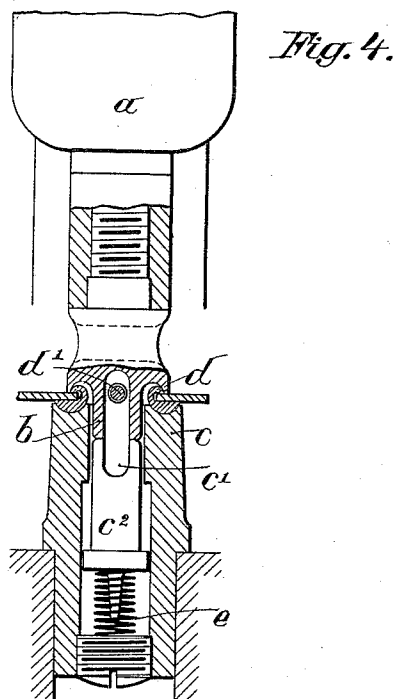
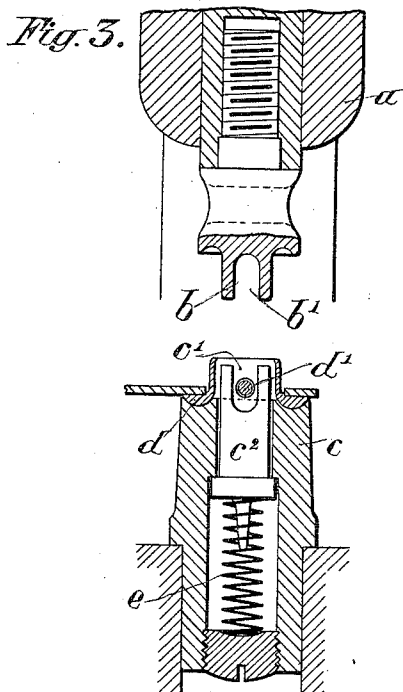


M. A. A. EDMOND-SIMONNET.
MACHINE TOOL FOR CLENCHING EYELETS.
APPLICATION FILED DEC. 19, 1910.

1,018,888.

Patented Feb. 27, 1912.



WITNESSES
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UNITED STATES PATENT OFFICE.

MARIE ANTONINE AGLAÉ EDMOND-SIMONNET, OF LA GARENNE, SEINE, FRANCE.

MACHINE-TOOL FOR CLENCHING EYELETS.

1,018,888.

Specification of Letters Patent.

Patented Feb. 27, 1912.

Application filed December 19, 1910. Serial No. 598,012.

To all whom it may concern:

Be it known that I, MARIE ANTONINE AGLAÉ EDMOND-SIMONNET, of La Garenne, Seine, Republic of France, have invented a certain new and useful Improved Machine-Tool for Clenching Eyelets, of which the following is a full, clear, and exact description.

This invention relates to an improved machine tool for clenching eyelets including ordinary eyelets as well as eyelets provided with an inner roller and it is differentiated essentially from the known machines by the special form and arrangement of the punch and matrix.

The invention will now be described with reference to the accompanying drawing in which by way of example:—

Figures 1 and 2 show diagrammatically in front and side elevation respectively a machine embodying the invention. Fig. 3 shows to a larger scale a vertical section of the punch and matrix in the position that they occupy before the clenching of an eyelet and Fig. 4 shows the same parts in the clenching position.

In this drawing *a* represents the frame of the machine, *b* the punch and *c* the matrix die, it being understood that the machine may be so constructed that relative positions of the parts *b* and *c* may be reversed so that the punch occupies the lower position and the matrix the upper. These two tools follow in cross section, generally speaking, the size and shape of an ordinary eyelet and each of them presents at its extremity a transverse recess *b*¹ *c*¹ to permit of the passage of the roller *d*¹ of the eyelet *d* to be clenchd. As shown in Figs. 3 and 4 the depth of these recesses is determined in such a manner that the roller *d*¹ always remains free. It should be understood that as the two recesses must always remain opposite each other, the punch *b* being fixed, the matrix *c* instead of being engaged freely in the frame *a* as for ordinary eyelets is guided therein by means of a flat or other appropriate arrangement for the purpose of preventing it from rotating. A similar arrangement prevents the circular displacement of the piston *e*² of the matrix when it is depressed under the influence of the punch *b*, this action being deadened by the spring *e*. Obviously the punch may likewise be capable of longitudinal displacement but should be prevented from rotating.

Obviously when employing the machine for the insertion of ordinary eyelets not provided with the roller *d*¹, the recesses *c*¹ and *b*¹ have no function, the blank being merely slipped over the piston *e*² of the matrix; but on the other hand they in no way interfere with the operation of the punch *b* which serves to turn down the neck sides of the eyelet in the usual manner.

What I claim and desire to secure by Letters Patent of the United States is:—

1. A machine tool for clenching an eyelet provided with an inner roller, comprising a frame *a*, and a punch *b* having in cross section the size and shape of an ordinary eyelet and presenting at its extremity a transverse recess *b*¹, in combination with a matrix die *c* of the same size and shape, and a plunger *c*² presenting at its extremity a transverse recess *c*¹ corresponding to the transverse recess *b*¹ in the end of the punch *b*, to permit the passage of the roller *d*¹ of the eyelet *d* to be clenchd, substantially as set forth.

2. A machine tool for clenching an eyelet provided with an inner roller, comprising a frame *a*, and a punch *b* having in cross section the size and shape of an ordinary eyelet and presenting at its extremity a transverse recess *b*¹, in combination with a matrix die *c* of the same size and shape, and a plunger *c*² presenting at its extremity a transverse recess *c*¹ corresponding to the transverse recess *b*¹ in the end of the punch *b*, the depth of the recesses *b*¹, *c*¹ being such that the roller *d*¹ is always cleared, substantially as set forth.

3. A machine tool for clenching an eyelet provided with an inner roller, comprising a frame with a fixed punch having in cross section the size and shape of an ordinary eyelet and presenting at its extremity a transverse recess, in combination with a matrix having in cross section the size and shape of an ordinary eyelet, and a spring supported plunger longitudinally guided in said matrix and presenting at its extremity a transverse recess to receive the eyelet roller.

4. A machine tool for clenching an eyelet provided with an inner roller, comprising a frame with a fixed punch having in cross section the size and shape of an ordinary eyelet and presenting at its extremity a transverse recess, in combination with a matrix having in cross section the size and

shape of an ordinary eyelet, and a spring supported plunger longitudinally guided in said matrix and presenting at its extremity a transverse recess to receive the eyelet roller, the depth of the recesses in the punch and plunger being such that the eyelet roller is always cleared.

5. An eyeleting machine for clenching an eyelet with a cross member, comprising a punch transversely slotted to straddle the cross member of the eyelet, a cooperating matrix, an eyelet positioning plunger longitudinally displaceable in said matrix and transversely slotted at its upper end to straddle the cross member of the eyelet, and means to prevent the rotary displacement of said plunger with relation to the matrix.

6. An eyeleting machine for clenching an eyelet with a cross member, comprising a punch transversely slotted to straddle the cross member of the eyelet, a cooperating

matrix, an eyelet positioning plunger longitudinally displaceable in said matrix and transversely slotted at its upper end to straddle the cross member of the eyelet, means to prevent the rotary displacement of said plunger with relation to the matrix, and spring means to return said plunger to position on the withdrawal of the punch.

7. In an eyeleting machine, a matrix member, and a longitudinally guided, yielding, eyelet-positioning plunger working in said matrix member, said plunger being transversely slotted to receive a cross member of an eyelet.

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

MARIE ANTONINE AGLAÉ EDMOND-SIMONNET.
Witnesses:

ANDRÉ HAAS,
BENJAMIN HOCHÉ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."