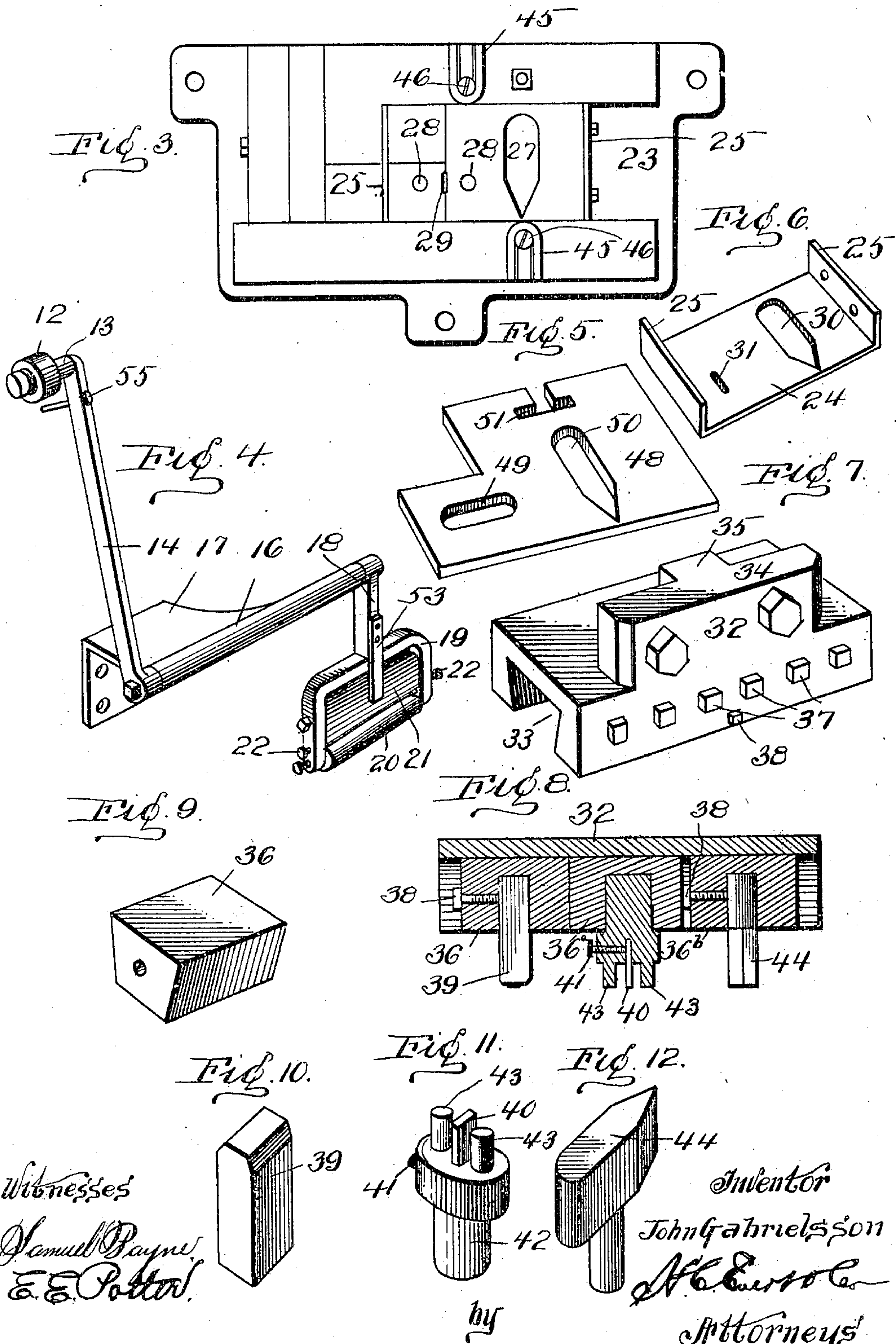


No. 837,049.

PATENTED NOV. 27, 1906.

J. GABRIELSSON.
PEN STAMPING MACHINE.
APPLICATION FILED MAY 7, 1906.

2 SHEETS—SHEET 2.



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JOHN GABRIELSSON, OF McKEES ROCKS, PENNSYLVANIA.

PEN-STAMPING MACHINE.

No. 837,049.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed May 7, 1906. Serial No. 315,548.

To all whom it may concern:

Be it known that I, JOHN GABRIELSSON, a subject of the King of Sweden, residing at McKees Rocks, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Pen-Stamping Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to pen-stamping machines; and its object is to provide a press of simple and effective construction for stamping, slotting, and punching pens from a strip of sheet metal, so that the product of the machine will be a flat pen-blank ready for bending and finishing.

The invention comprises a reciprocating plunger carrying a plurality of stamping and punching tools or dies, means for operating said plunger from a revoluble shaft, and means for feeding and guiding the strip of metal to the tools or dies.

The construction of the improved press will be fully described hereinafter in connection with the accompanying drawings, which constitute a part of the specification, and its novel features will be set forth in the appended claims.

In the drawings, Figure 1 is a front elevation of a press embodying the invention. Fig. 2 is a side elevation of the same. Fig. 3 is a top plan view of the bed-plate of the press. Fig. 4 is a detail perspective view of a portion of the feed mechanism. Fig. 5 is a perspective view of a guide-plate employed. Fig. 6 is a similar view of the bed-plate support. Fig. 7 is a similar view of the die-holder. Fig. 8 is a longitudinal vertical section of the die-holder with the dies or tools in position therein. Fig. 9 is a detail perspective view of one of the die-holder blocks; and Figs. 10, 11, and 12 are respectively views in perspective of the stamping-tool, the slotting-punch, and the cutting-die employed with the improved press.

The reference-numeral 1 designates an overhanging arm constituting the supporting-frame of the mechanism and mounted upon a suitable base 2. Rising from the arm 1 is a bracket 3, provided with a bearing 4 for a horizontal shaft 5, upon one end of which is mounted a wheel 6 for a driving-belt. Upon the opposite end of the shaft 5 is mounted an eccentric 7, to which is connected by a wrist-pin 8 the upper end of a pitman 9, the lower end of which is con-

nected to a reciprocating plunger 10, fitted to move in vertical guideways formed in the frame of the press at the front thereof. The elements thus far described are such as are now in use in presses of this character and form no part of the present invention.

Upon the shaft 5 adjacent to the wheel 6 is fixed a cam 11, adapted to contact with a roller 12, mounted on a stud 13, projecting from the upper end of a lever 14, fulcrumed upon one end of a shaft 15, supported in a sleeve-bearing 16, formed upon a bracket 17, securely bolted to the side of the frame 1.

From the forward end of the shaft 15 depends an arm 18, projecting from a yoke 19, provided with bearings to receive a roller 20. Above said roller within the yoke 19 is pivotally secured a gripping-plate 21, the lower end of which is adjustable by means of set-screws 22, passing through the sides of the yoke to engage the ends of the pivoted plate.

Upon the base or support 1 below the plunger 10 is secured a bed-plate 23, which supports a die-block holder 24, the latter consisting of a flat rectangular plate having its ends turned upward to form parallel flanges 25, between which is secured a die-block 26, cut away, as at 27, to form the outline of a pen-blank, and also formed with circular openings 28 and a slot 29 to receive a punching-tool, carried by the plunger. The holder 24 is formed with openings 30 and 31, registering with the openings in the die-block, to permit the metal cut from the blank to drop through.

32 designates a die-holder having a dovetail recess 33 on its under face and formed with a flange 34 and a projecting lug 35 to facilitate the attachment of the holder to the plunger 10.

Within the recess 33 are removably secured three blocks 36, 36^a, and 36^b, conforming in shape to the dovetail form of the recess 33 and secured therein by set-screws 37. Each of these blocks is formed on its under side with a socket to receive a tool, the latter being removably secured within the sockets by set-screws 38. The tool 39, secured to the block 36, is a stamping-tool adapted to stamp the name of the pen or its manufacturer upon the blank.

The block 36^a carries a tool consisting of a punch 40, secured by a set-screw 41 within a slot formed in the end of a rod 42, the latter being cut away to form parallel guide-pins 43, adapted to enter the holes 28 in the die-

block. The punch 40 forms the elongated slot in the pen-blank. The block 36^b carries a cutting tool or die 44, shaped to correspond to the opening 27 of the die-block and serving
5 in conjunction with said opening 27 to cut a blank of the required shape ready for bending.

The strip of sheet metal from which the blanks are formed is fed through the yoke 19,
10 passing between the plate 21 and the roller 20. To guide the strip along the die-block, oppositely-disposed U-shaped guides 45 are employed, said guides being recessed around their inner edges to receive the heads 46 of
15 securing-screws, by means of which the guides are secured adjustably.

Above the die-block is suitably supported a guide-plate 48, formed with openings 49 and 50, through which the stamping and punch-
20 ing tools pass, and a T-shaped slot 51 to receive a securing bolt or screw 52.

The feed-yoke is provided with a spring 53, secured at its upper end to the arm 18, and having its free end bearing against the plate 21
25 to permit said plate to grip the metal strip upon the roller 20 of the feed device.

It will be obvious that the feed-yoke will be operated from the shaft 5 through the intermediacy of the cam 11, roller 12 bearing
30 thereon, and the lever 14. A retracting-spring 54 connects the lever 14 to the frame of the machine, and I provide said lever with an adjusting-screw 55, extending through a threaded opening formed in the lever near its
35 upper end and abutting against the adjacent portion of the frame. By this means the position of the roller 12 with relation to the operating-cam 11 may be regulated.

It will be apparent that the press will per-
40 form simultaneously the three functions—viz., stamping, slotting, and cutting out blanks—and that the removability and adjustability of the various parts render the machine convenient in use.

45 What I claim, and desire to secure by Letters Patent, is—

1. In a pen stamping and punching machine, the combination with a reciprocating plunger, of a feed device comprising a sus-
50 pended yoke, a roller supported within said yoke, a spring-pressed gripping-plate secured within the yoke above said roller, means for adjusting said plate, a rock-shaft to which said yoke is connected, a lever extending up-
55 ward from said shaft and carrying a roller, and a rotary cam adapted to contact with said roller.

2. In a pen stamping and punching ma-

chine, the combination with a reciprocating plunger, of a feed device comprising a horizon- 60 tally-disposed shaft supported upon the frame of the machine, a yoke depending from one end of said shaft, a roller mounted within said yoke, a spring-pressed plate above said roller, means for adjusting said plate, a 65 lever extending upward from the opposite end of said shaft, a roller mounted at the upper end of said lever, and a rotary cam adapted to contact with said roller.

3. In a pen stamping and punching ma- 70 chine, the combination with a reciprocating plunger, of a bed-plate formed with openings corresponding in shape to the tools employed, a tool-holder secured to said plunger, remov- 75 able blocks carried by said holder, a plurality of tools removably secured to said blocks and an automatic feed device comprising a hori- zontally-disposed shaft supported upon the 80 frame of the machine, a yoke depending from one end of said shaft, a roller mounted within the yoke, a gripping-plate pivotally 85 secured between the arms of said yoke, means for adjusting the lower edge of said plate with relation to said roller, a lever ex- tending upward from the opposite end of 85 said shaft, a roller carried by said lever, and a rotary cam to contact with said roller.

4. In a pen stamping and punching ma- 90 chine, the combination with a reciprocating plunger, of a bed-plate formed with open- ings for the discharge of metal cut from the blanks, a die-block formed with similar open- 95 ings, a die-block supported by said holder, a tool-holder secured to said plunger, a plural- ity of tools removably secured within said 95 holder and a guide supported above the bed- plate and formed with openings for the pas- sage of said tools.

5. In a pen stamping and punching ma- 100 chine, the combination with a reciprocating plunger, and a revoluble shaft for operatin said plunger, of feed mechanism operated from said shaft, a tool-holder secured to the 105 plunger, and a plurality of tools removably secured to said holder, one of said tools being adapted to stamp letters or characters upon the blank, another of said tools being pro- 110 vided with a punch to slot the blank, and the remaining tool comprising a die to cut the blank from a strip of sheet metal,

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

JOHN GABRIELSSON.

Witnesses:

C. KLOSTERMANN,
E. E. POTTER.