To all whom it may concern:

Be it known that I, STERLING ELLIOTT, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Stencil-Cutting Machines, of which the following is a specification.

This invention relates to stencil-cutting machines, and has for its object to improve the construction of the tool-carrier, whereby it may be cheaply manufactured, and hold a set of tools from lateral displacement, which are made square or other than round, so that they cannot turn, yet free to be moved in a vertical direction for the purpose of cutting the stencil; also to improve the construction of the plunger whereby it is securely yet adjustably held; also to improve the construction of the centering-device, whereby the upper ends of the cutting-tools, which project above the tool-carrying plate, are utilized to serve as the sides of the guideways for the centering-tool; also to provide a centering-holder of improved construction which permits of easy application and removal of a stencil, and which firmly holds the stencil while being cut, said centering-holder being connected to a reciprocating support, in such manner that it may be drawn forward and then tilted to lift its centering-holding portion for the easy insertion or removal of a stencil, yet such tilting movement can be accomplished only when the centering-holder is in its forward position, thus avoiding the danger of bending the stencil; also to provide step-by-step actuating-mechanism for said centering-support and to connect said actuating-mechanism with the centering-device and to yieldingly connect said centering-device with the operating-lever for the plunger, whereby in case movement of the centering-device is obstructed the centering-support will not be advanced; also to arrange on the centering-holder an improved line-spacing device adapted to be manipulated by hand, but which acts to hold the centering-holder in whatever position it may be set; also to provide an improved engaging-device for the flexible bed-strip on which the stencil rests while being cut, said engaging-device being connected to the reciprocating support for the centering-holder.

Figure 1 is a front elevation of a stencil-cutting machine embodying this invention. Fig. 2 is a horizontal section of the machine shown in Fig. 1, taken on the dotted line 2—2. Fig. 3 is a vertical section of the machine shown in Fig. 1, taken on the dotted line 3—3. Figs. 4 and 5 are enlarged vertical sectional details of a portion of the tool-carrier. Fig. 6 is an enlarged vertical section of the plunger. Figs. 7 and 8 are enlarged details of the centering-tool. Figs. 9 and 10 are rear and side elevations respectively of the centering-holder. Figs. 11 and 12 are detail views of the bracket on which the centering-holder is mounted. Fig. 13 is a sectional detail of the line-spacing device. Fig. 14 is a side elevation of the engaging-device for the flexible bed-strip.

The tool-carrier comprises a circular plate a having on its under side a central spindle a' arranged in a tubular bearing b, rising from a table b'. Ball-bearings a' are provided for the spindle, arranged at the top of the bearing b, at the junction of the spindle and plate. A disk a'' is secured to the lower end of the spindle which is made larger in diameter than the spindle to extend over the under side of the table, sufficiently to hold the spindle against upward movement yet permit free rotary movement thereof. The plate a has a vertical flange a' at its perimeter extended entirely around it which has an inwardly extended lip a'' at the top, and the outer side of said flange is formed with a plurality of notches a''' extending from top to bottom, and equidistantly arranged, and made square in cross section to receive the cutting-tools c. The notches are here shown as cut as deep as the thickness of the flange so that between the plate a and lip a'' slots are formed through the flange by thus cutting the notches. The tools are made as square bars corresponding in shape to the notches a''', and longer than the depth of the flange, and extend below and also above said flange. The lower ends of the tools have cutting portions and the upper ends are made flat, to be engaged by a suitable plunger d which acts to slide them longitudinally in the notches. As the tools correspond in shape to the notches or thereabouts, it will be noted that the outer sides of the tools are substantially flush with the outer face of the flange and the inner sides thereof are substantially flush with the inner face of the flange, and said inner sides are exposed along that portion of the flange between the plate a and lip a'''. A ring a''' embraces the flange which may be driven onto it or otherwise secured to it, for the purpose of securing it in place, and
said ring is made approximately as wide as the depth of the flange to extend from top to bottom thereof, although this is not material, and said ring acts to hold the tools from lateral displacement in the notches. Said ring has arranged on its outer side letters, numerals or other characters, corresponding to the tools, said characters being arranged respectively opposite the corresponding tools. Each tool is connected to the free end of a spring which is attached to the top of the plate, said springs being radially disposed on the plate, and their free ends sufficiently elevated to permit up and down movements thereof. The free ends of the springs are extended beneath the lip and are connected to the upper exposed sides of the tools and upward movement of the springs is limited by the lip, the side of which they normally engage. Said springs act to lift the tools and hold them in elevated position, yet permit downward movements thereof. This construction of tool-carrier is simple and may be cheaply manufactured, and provides for the employment of tools which are made other than round so that they cannot turn, and for holding said tools from lateral displacement. To turn the tool-carrier to bring any one of the tools into position beneath the plunger, the side of the carrier is simply grasped by the hand and moved in either direction.

The plunger, as here shown, see Figs. 3 and 6, consists of a cylindrical bar aranged to slide vertically in a bearing in the head of the machine, and formed or provided with a socket at its lower end which is screw-threaded internally, and a striker formed with a flat face to engage the top of the tools and having an externally screw-threaded portion to engage the threaded portion of the socket and having a stem which extends up into the socket which is formed with an annular projection fitting said socket. Said striker is screwed into the socket and held from turning therein by a set-screw. Upon loosening said set-screw the striker may be turned for purposes of adjustment. The upper end of the cylindrical bar is connected by a link with a short arm on the operating-lever, which is pivoted at. Up and down movement of said lever operates to move the plunger to engage and slide the tools to cut the stencil and permit them to return to normal position. Normally, the operating-lever is held in elevated position by a spring, and such position is determined by a stop on the frame against which the short arm bears. Downward movement of the operating-lever is limited by a stop, also on said frame.

For the purpose of centering the tools beneath the plunger an improved form of centering-device is here shown, whereby the upper ends of the tools, which project above the flanged plate are utilized to serve as the sides of the guideways for the centering-tool, and as the tools are made square and are arranged in a circle, the spaces between them are slightly tapered.

Referring to Figs. 3, 7 and 8, e represents the body of the centering-tool which is attached to a pivot-shaft. A short arm projects from said shaft which is yieldingly connected with the operating-lever whereby the pivot-shaft is rocked and the centering-tool is moved by said lever. The yield connection here shown comprises a pivot pivotally connected at one end to the arm, and slotted longitudinally as at e, and having its opposite end portion formed with a longitudinal hole through it for a bar, which is pivotally or loosely connected to the arm of the operating-lever. The end of said bar which extends through the hole in the plate has a head at its extremity which is movable in the slot of said plate as the bar is thrust longitudinally. A spring encircles said bar, bearing at one end against a shoulder on the bar and at the other end against the end of the plate. As the bar is thrust longitudinally by a movement of the operating-lever the spring is caused to yield and the pivot-shaft to rock and the centering-tool to swing in the arc of a circle about the pivot-shaft as a center. The lower end of the centering-tool is formed to enter the space between any two tools, and, as here shown, the engaging end-portion is made separate and attached to the body by screws or otherwise. Said engaging end-portion is made wedge-shaped, that is to say, it has one side formed on a line in parallel with one side of the tools for a portion of its length and inclined for the remaining portion of its length, and its other side is inclined for its entire length, as best shown in Fig. 8. The centering-tool having an engaging end-portion thus formed will enter any of the spaces between the projecting portions of the cutting-tools upon a downward movement of the operating-lever and acts to center the tool-carrier so that one of the tools will be correctly disposed beneath the plunger. The centering-tool is moved by the operating-lever into one of the spaces before the plunger engages the top of the tool which is brought into position beneath it, so that it will be correctly located by the time the plunger engages said tool, and the yielding connection between the centering-tool and operating-lever especially provide for continuance of movement of the operating lever to cause the plunger to move downward the cutting-tool after the centering-tool has entered one of the spaces and has come to rest. On the return movement of the operating-lever the
centering-tool immediately resumes its normal retracted position, see Fig. 3.

The stencil to be cut is held by a holder of improved construction borne by a reciprocating support, and said support is connected with the operating-lever \( g' \), whereby it may be moved to in turn move the holder and stencil held by it along step by step beneath the cutting-tools, which are brought into position beneath the plunger; and the parts are preferably so constructed and arranged that after the plunger has been depressed by a downward movement of the operating-lever to move a cutting-tool and cut the stencil, said stencil will be fed automatically on the return movement of said operating-lever.

A flexible bed-strip is provided upon which the stencil rests while being cut, said strip being composed of thick paper into which the end of the cutting-tool sinks when passing through the stencil, and an engaging device for said bed-strip of improved construction is provided, which is also borne by said reciprocating-support, to be moved simultaneously with the stencil-holder, in order that the bed-strip may be moved along and uncut portions repeatedly brought beneath the cutting-tool which is deposed beneath the plunger. Said engaging device is adapted to be operated to engage the bed-strip and to be moved along, carrying the bed-strip with it, then to disengage the bed-strip and to be returned to starting point, to again engage the bed-strip. As a reciprocating support for the stencil-holder a bar \( f \) is here shown, which is slidably supported in a guideway on the frame, and a bracket arranged on said bar on which the stencil-holder rests. The bracket is secured to the front side of said bar, see Figs. 10 to 12, and consists of a base or upright \( g \) which engages the bar, and a pair of forwardly extended arms \( g', g'' \), formed integral therewith, each having an integrally formed top-plate as \( g', g'' \). Said top-plates are arranged in the same plane with a space \( g'' \) between them, extending from end to end thereof or thereabout, in a direction transversely with respect to the direction of movement of the reciprocating-support, and said space \( g'' \) serves as a transverse guide-way for the stencil-holder. A nose-piece \( g'' \) is secured to the forward extremities of both arms \( g', g'' \), which extends along the forward ends of both plates and across the space between them, and said nose-piece has engaging-portions \( g' \) at its inside, at opposite sides of the space \( g'' \). The stencil-holder which is mounted on said bracket consists of a nipper adapted to engage the edge of a stencil and hold said stencil while being cut.

\( k \) represents the lower nipper member of the stencil-holder. It comprises a plate normally resting flat on the top-plates \( g' \), and \( g'' \) having on its under side a lug \( k' \), which extends downward through the space \( g'' \), and a pin \( k'' \) extended transversely through said lug \( k' \), beneath the top-plates, which projects from opposite sides of said lug, see Fig. 11, so as to extend beneath both plates \( g' \) and \( g'' \). Said lug is centrally disposed on the plate and with its pin acts to hold the nipper-member in position on the bracket, yet permit it to be slid along on the top-plates in a forward and backward direction or toward and from the operator, and when moved forward far enough to extend over the front edge of the top-plates the pin will strike the engaging-portions \( g' \), and limit further forward movement of the nipper and also act as a pivot to permit the nipper to be tilted, as represented by dotted lines Fig. 10, to lift the rear edge or jaw for the purpose of enabling a stencil \( k' \) to be inserted in or removable from a groove \( k'' \), which is arranged at said jaw. The groove \( k'' \) extends from end to end of the nipper jaw or thereabout, although along the middle portion the upper lip thereof is cut away, as shown in Fig. 9, to provide for the upper nipper-jaw engaging the edge of the stencil. The upper nipper-member comprises a jaw \( k'' \) designed to enter the cut-away portion of the groove \( k'' \) and engage the edge of the stencil and a finger-engaging lever \( k' \). The lower member has an ear \( k' \) and the upper member an ear \( k'' \) and the pivot-pin \( k'' \) extends through said ears to pivotally connect the nipper-members together. A spring \( h' \) is arranged between the nipper members which acts to hold the jaws in closed position.

The lower nipper member has a finger-piece \( h'' \), at its forward end, which is conveniently accessible, and when it is desired to apply or remove a stencil said finger-piece is engaged and the stencil-holder drawn forward or toward the operator until the pin \( k'' \) strikes the engaging-portions \( g' \), then said-stencil-holder is tilted, and its stencil-receiving edge projected upward, to permit insertion or removal of a stencil, after which the stencil-holder is swung back into horizontal position, and slid along on the bracket toward the tool-carrier. By centrally disposing the lug \( k' \) on the stencil-holder, or at least arranging it intermediate its width it will be seen that when arranged horizontally on its support and in its rearward position to present a stencil to the cutting tools it cannot be tilted by manipulating the finger-piece \( h'' \), hence the danger of bending the stencil is avoided.

The spacing-device for the lines is arranged on the stencil-holder support at the side of the stencil-holder. As here shown, it is adapted to be manipulated by hand. It consists essentially of a finger \( n \), arranged.
to engage one or another hole $n'$ of several rows of holes formed in a plate $n^2$, which is mounted on an extension of the bracket $g^2$. Said finger is secured to a pivot-shaft $n^3$, passing transversely through the end of a rock-shaft $a^1$, having its bearing in the lower nipper-member, said finger therefore extending at right angles to said rock-shaft. A thumb-and-finger post $n^5$ is secured to said pivot-shaft by which it may be turned to move the finger $a$ in a horizontal plane, and a finger-piece $n^9$ is secured to the rock-shaft by which said shaft may be rocked to lift the finger. Each row of holes in the plate $n^2$ represents the spaces for a different number of lines, as for instance, in the first row there are two holes which represents two lines and the second, three holes for three lines, and so on. When it is desired to cut two lines on a stencil, the first row of holes is used, and the stencil-plate is pushed inward and the finger engaged with the end hole nearest the tool-carrier. Upon return of the stencil-holder said finger is lifted to disengage the plate $n^2$ and the finger is drawn toward the operator and the finger then swung into the second hole. The holes of the other rows are used in the same manner. The finger-piece $n^9$ is conveniently arranged at the side of the finger-piece $n^5$ so that both may be grasped by the operator at the same time to lift the finger $a$ and to move the stencil-holder. The engaging-device for the flexible bed-strip consists essentially of a nipper attached to said reciprocating-support, as for instance to the frame-bar $f$ thereof.

Referring to Fig. 14, $m$ represents the upper nipper-member and $m'$ the lower nipper-member, said members being pivotally connected together, and each having a finger-piece. The lower nipper-member is arranged on or connected with a post $m^4$, attached to the bar $f$, having a pin $m^5$ extending through it from top to bottom, the upper end of which engages the upper nipper-member, and the lower end of which is designed to engage a bar $f^4$, to be described. Said pin is pressed upward by a spring $m^4$ arranged in the post for the purpose of causing the nipper to engage the flexible bed-strip. As the nipper is connected with the reciprocating-bar $f$ it is moved by it and the flexible bed-strip is thus moved along. At the end of the stroke the finger-pieces of the nipper are engaged to open the nipper-jaws and disengage the flexible bed-strip permitting the nipper to be returned with the reciprocating-support to again engage the bed-strip. In fact, the reciprocating-support itself may be returned by using said finger-pieces as hand-levers, and moving them in a direction toward the right.

The reciprocating-bar $f$ has ratchet-teeth $f'$ arranged along its under side for the engagement with a pawl $f^2$, pivotally connected at $f^3$, to an arm $f^4$, secured to one end of a horizontal shaft $f^5$, the other end of said shaft having secured to it an arm $f^6$, which is connected by a link $f^7$, with an arm $f^8$, secured to the pivot-shaft $e^1$, which, as before described, is yieldingly connected with the operating lever $a^1$. The pawl is held pressed into engagement with the ratchet-toothed bar by a spring $f^{10}$, which is connected at one end to a pin $f^{12}$ on the pawl and at the other end to the frame. Downward movement of the operating-lever acts to move the pawl in a direction toward the right, Fig. 1, the pawl slipping over the teeth of the bar, and upward or return movement thereof acts to move the pawl in the opposite direction, to move the ratchet-toothed bar along a distance equal to one tooth. The bar is thus moved along step by step until it is desired to return it to normal, whereupon the pawl is disengaged to permit return movement of the bar. For the purpose of disengaging the pawl a horizontally arranged bar $f^{13}$ is pivotally supported on the frame beneath which the pin $f^{12}$ of the pawl extends, and said bar is held in elevated position by a weight $f^{14}$, is adapted to be depressed, and when depressed it will engage the pin $f^{12}$, in whatever position said pin may be located, and will thereby disengage the pawl from the ratchet-toothed bar. The bar $f^{13}$ is arranged directly beneath the pin $m^4$ of the engaging-device for the bed-strip, so that when said pin is depressed, as it will be upon opening the nipper to disengage the bed-strip, said bar $f^{13}$ will be depressed to disengage the pawl from the ratchet-toothed bar. Thus in the operation of the machine when it is desired to return the stencil-holder the nipper $m$, $m'$, is operated to disengage the bed-strip and also to disengage the pawl from the reciprocating-bar and while so held the reciprocating-bar may be moved in a direction toward the right by a bodily movement of the nipper levers in such direction.

I claim:

1. In a stencil-cutting machine, a plunger adapted to engage any one of a set of cutting-tools, consisting of a cylindrical socketed bar adapted to slide in a suitable bearing, and a striker having an externally screw-threaded portion and a stem arranged in the socket of said bar, and having its end portion projecting from the bar formed with a flat end to engage the tops of the tools, and a binding-screw to engage the stem and hold the striker in any position it may be set, and an operating-lever connected with said bar for sliding it to engage the tools, substantially as described.

2. In a stencil-cutting machine, the combination of a rotatable tool-carrier bearing a set of vertically sliding tools, the upper
ends of said tools extending above the carrier with spaces between them, a wedge-shaped centering-tool arranged to swing on a horizontal axis and to enter any of the spaces between the upper ends of said tools, thereby to hold the carrier in fixed position with respect to the plunger and to shift the carrier if not correctly disposed with respect to the plunger, a vertically sliding plunger and operating means to which both said plunger and centering-tool are connected, substantially as described.

3. In a stencil-cutting machine, the combination with a plunger, of a tool-carrying plate bearing a set of tools, the upper ends of said tools projecting above the plate, a centering-tool having inclined sides to form a wedge, adapted to enter the spaces between the upper projecting ends of said tools and thereby center the tools correctly beneath the plunger, an operating-lever for the plunger, and means connecting said centering-tool with said operating-lever, substantially as described.

4. In a stencil-cutting machine, the combination with a plunger, of a tool-carrying plate bearing a set of tools, the upper ends of said tools projecting above the plate, a centering-tool having inclined sides to form a wedge, adapted to enter the space between the upper projecting ends of said tools and thereby center the tools correctly beneath the plunger, an operating-lever for the plunger, and means to yieldingly connect said centering-tool with said operating-lever, whereby the plunger may be moved after the centering-tool has entered one of the spaces and come to rest, substantially as described.

5. In a stencil-cutting machine, the combination with a plunger, of a circular tool-carrier bearing a set of square tools, the upper ends of said tools projecting above the carrier and having flat ends adapted to be engaged by the plunger, the spaces between said square tools converging in a radial direction toward the center of the carrier, and a centering-tool having inclined sides to form a wedge adapted to enter any one of said spaces at the side and engage the adjacent sides of any two tools to shift the carrier, thereby to correctly locate the tools with respect to the plunger and to hold said carrier in fixed position while the plunger operates, and means to move said centering-tool, substantially as described.

6. In a stencil-cutting machine, the combination of a rotatable tool-carrier bearing a set of tools arranged with spaces between them, the upper ends of said tools projecting above the carrier, a plunger at one side of said carrier for engagement with the tools, and an operating-lever for said plunger, a centering-tool arranged at the other side of said carrier and adapted to enter one of said spaces at the side and engage the adjacent sides of any two tools to shift the carrier, thereby to correctly locate the tools with respect to the plunger, and to hold said carrier in fixed position while the plunger operates, and means to connect said centering-tool with the plunger, substantially as described.

7. In a stencil-cutting machine, the combination of a plunger, an operating-lever therefor, a rotatable tool-carrier bearing a set of tools, a centering-device for said tool-carrier, a reciprocating support for a stencil-holder, step-by-step actuating-mechanism for said support, means to connect said actuating-mechanism with said centering-device, and means to yieldingly connect said centering-device with said operating-lever, whereby in case movement of the centering-device is obstructed the stencil-support will not be moved, substantially as described.

8. In a stencil-cutting machine, the combination with a plunger, a rotatable tool-carrier bearing a set of cutting-tools, a reciprocating support for a stencil-holder, a stencil-holder slidably connected with said support by means arranged intermediate its width whereby it is movable independently of its support, transversely with respect to the direction of motion of said support, and when in a forward position may be tilted to lift its stencil-holding portion, substantially as described.

9. In a stencil-cutting machine, the combination with a plunger, a rotatable tool-carrier bearing a set of cutting-tools, a reciprocating support for a stencil-holder, a stencil-holder borne by said support, and means connected with said stencil-holder intermediate its width which slidably engages said support, permitting a sliding movement of said stencil holder forward and backward with respect to its support, and a tilting movement when in a forward position only, substantially as described.

10. In a stencil-cutting machine, the combination with a plunger, a rotatable tool-carrier bearing a set of cutting-tools, a reciprocating support for a stencil-holder having a transverse guideway, a stencil-holder arranged on said support to be moved by it having means connected with it intermediate its width which is arranged in said guideway permitting forward and backward movement thereof with respect to the direction of motion of the support, and a tilting movement when in a forward position only, substantially as described.

11. In a stencil-cutting machine, the combination of a plunger, a rotatable tool-carrier bearing a set of tools, a reciprocating support having a flat top and a transverse guideway, a stencil-holder arranged in horizontal position on said support having means extended into said guideway permit-
ting transverse movement of said stencil-holder in a horizontal plane and also a tilting movement with respect to said support, substantially as described.

12. In a stencil-cutting machine, the combination with a plunger, a rotatable tool-carrier bearing a set of cutting tools, a reciprocating-support for a stencil-holder having a transverse guideway and engaging portions at the forward extremity of said guideway, a stencil-support having a lug extended downward through said guideway, and a pin extended through said lug permitting independent transverse movement of the stencil-holder with respect to the direction of motion of its support, and a tilting movement when the pin strikes the engaging-ports at the forward extremity of the guideway, substantially as described.

13. In a stencil-cutting machine, the combination of a plunger, a rotatable tool-carrier having a set of tools, a reciprocating support having a flat top and a transverse guideway terminating at the front of said support, a stencil-holder arranged in horizontal position on said support having a centrally disposed lug extended into said guideway, and a pin extended through said lug thereby to permit transverse movement of said stencil-holder with respect to its support, and a tilting movement when the pin engages the front end of the guideway, substantially as described.

14. In a stencil-cutting machine, the combination of a plunger, a rotatable tool-carrier, a reciprocating-support for a stencil-holder, a stencil-holder borne by said support and movable forward and backward independently thereof, a spacing-finger in connection with said stencil-holder adapted to engage one or another hole of a row of holes in a plate, according to the position of the stencil-holder with respect to its support, and means to operate said spacing-finger, substantially as described.

15. In a stencil-cutting machine, the combination of a plunger, a rotatable tool-carrier, a reciprocating-support for a stencil-holder, a stencil-holder borne by said support and movable forward and backward independently thereof, a spacing-finger in connection with said stencil-holder adapted to engage one or another hole of a row of holes in a plate, according to the position of the stencil-holder with respect to its support, said spacing-finger being movable in a vertical plane and also in a horizontal plane, and means to move said spacing-finger, substantially as described.

16. In a stencil-cutting machine, the combination of a plunger, a rotatable tool-carrier, a reciprocating-support for a stencil-holder, a stencil-holder borne by said support and movable forward and backward, independently thereof, a spacing-finger and a pivot-shaft therefor, a rock-shaft bearing said pivot-shaft which is borne by the stencil-holder, a post secured to said pivot-shaft for turning it and a finger-piece connected to said rock-shaft for rocking it, substantially as described.

17. In a stencil-cutting machine, the combination of a plunger, a rotatable tool-carrier, a reciprocating-support for a stencil-holder, a stencil-holder borne by said support and movable forward and backward independently thereof, a spacing-finger in connection with said stencil-holder adapted to engage one or another hole of a row of holes in a plate, according to the position of the stencil-holder with respect to its support, said spacing-finger being movable in a vertical plane and also in a horizontal plane, and means to move said finger in a vertical plane arranged in proximity to the means for moving the stencil-holder forward and backward, substantially as described.

18. In a stencil-cutting machine, the combination of a plunger, a rotatable tool-carrier, a reciprocating support for a stencil-holder, a stencil-holder borne by said support and movable forward and backward independently thereof and also adapted to be tilted to lift its stencil-holding portion, a spacing-plate arranged on said reciprocating support having one or more rows of holes, a spacing-finger carried by the stencil-holder and adapted to engage one or another hole in said plate according to the position of the stencil-holder with respect to its support, and means to move said spacing-finger arranged to be operated conjunctively with the stencil-holder, substantially as described.

19. In a stencil-cutting machine, the combination of a plunger, an operating-lever therefor, a rotatable tool-carrier bearing a set of tools, a centering-device for said tool-carrier, a reciprocating-support for a stencil-holder, step-by-step actuating mechanism for said support, means connected with said support to move a flexible bed-strip, means to connect said actuating mechanism with said centering-device, and means to yieldingly connect said centering-device with said operating-lever whereby in case movement of the centering-device is obstructed the stencil-support and flexible bed-strip will not be moved, substantially as described.

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

STERLING ELLIOTT.

Witnesses:
B. J. NOYES,
H. B. DAVIS.