

Feb. 6, 1934.

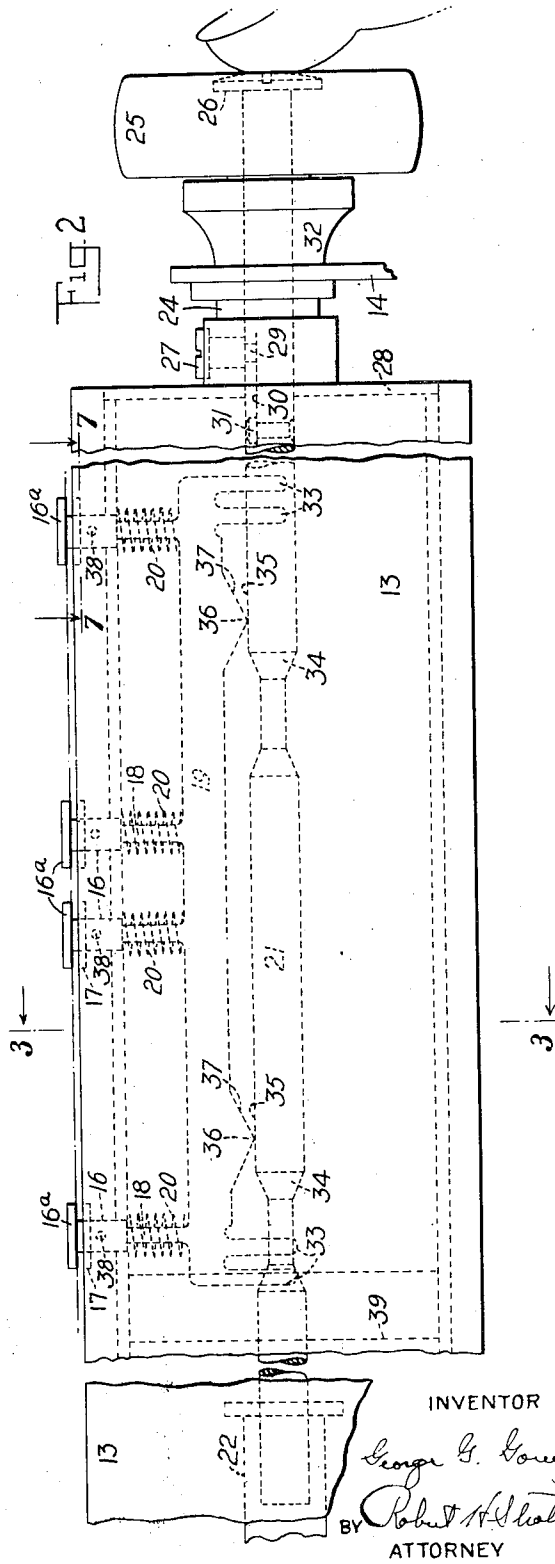
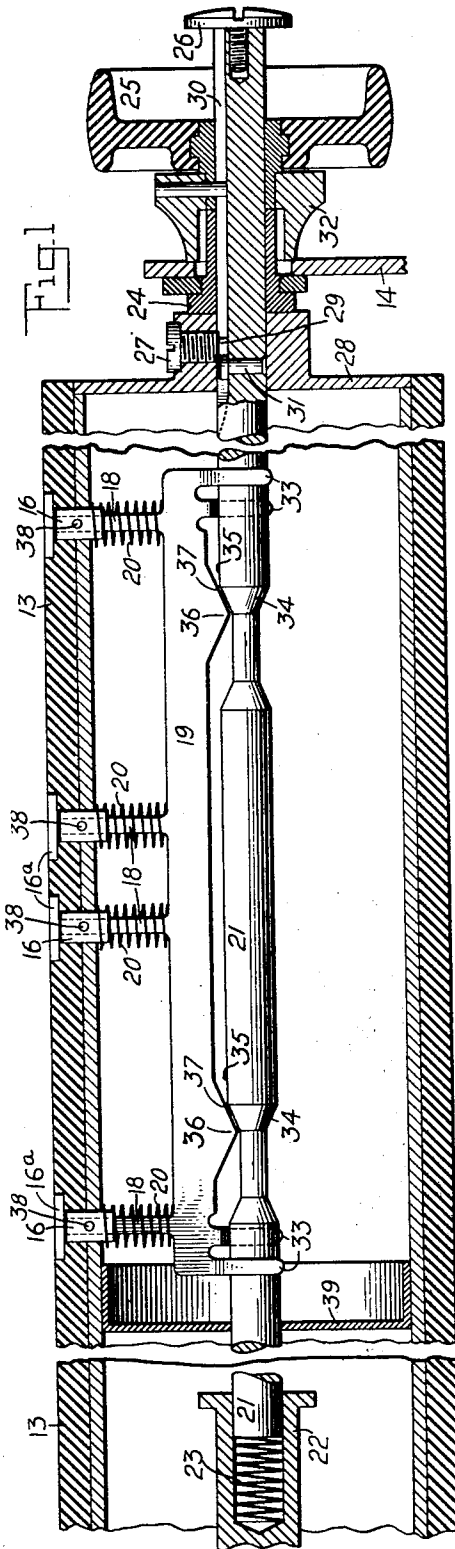
G. G. GOING

1,945,894

TYPEWRITING MACHINE

Filed Nov. 27, 1931

2 Sheets-Sheet 1



Feb. 6, 1934.

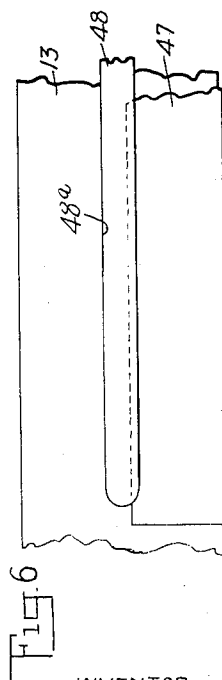
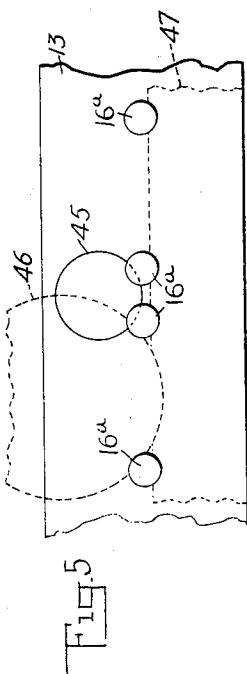
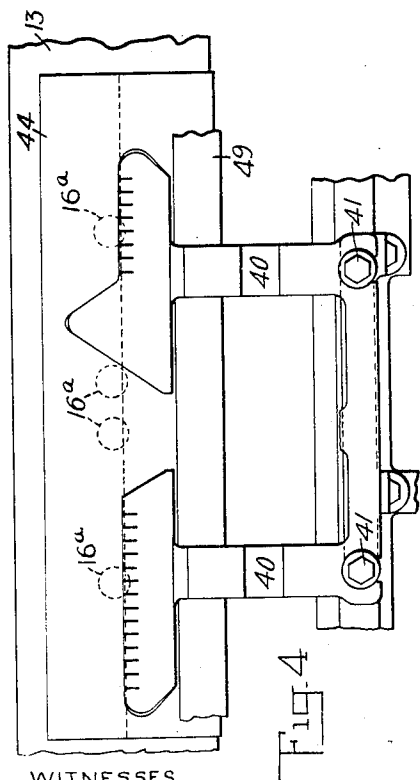
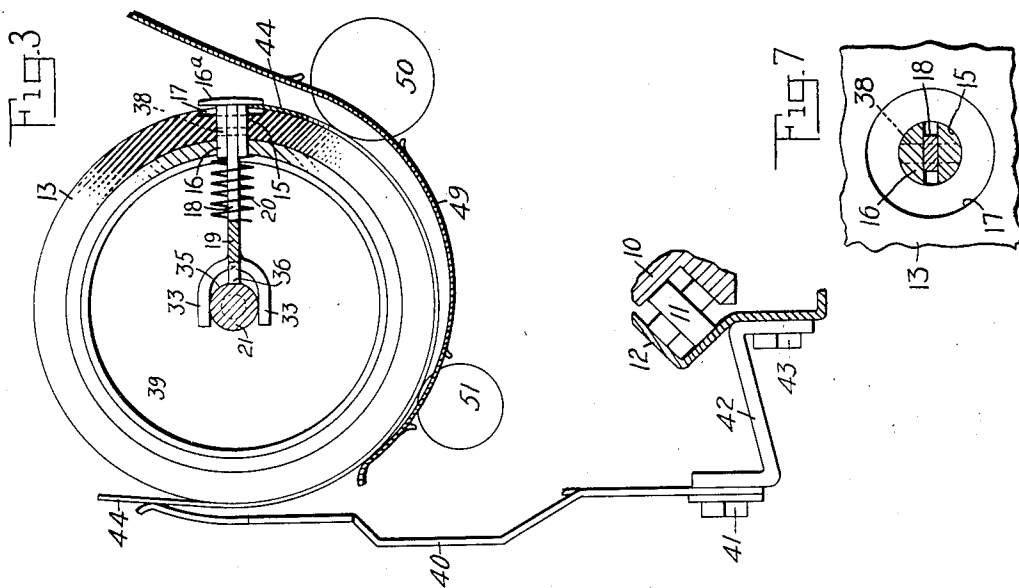
G. G. GOING

1,945,894

TYPEWRITING MACHINE

Filed Nov. 27, 1931

2 Sheets-Sheet 2



WITNESSES

N. Chillington
Wm. O. Smith

INVENTOR

George G. Going
BY *Robert H. Shattuck*
ATTORNEY

UNITED STATES PATENT OFFICE

1,945,894

TYPEWRITING MACHINE

George G. Going, Glenbrook, Conn., assignor to
Remington Rand Inc., New York, N. Y., a cor-
poration of Delaware

Application November 27, 1931
Serial No. 577,596

13 Claims. (Cl. 197—136)

My invention relates to typewriting and like machines and more particularly to means for clamping cards or labels to the platen to be fed to and past the printing line thereby.

One of the main objects of the invention is to provide means for clamping and effectively holding round or elliptical labels of various sizes as well as rectangular cards or labels on the platen.

A further object of my invention is to provide card and label clamping means that are simple in construction, effective in use, and inexpensive to manufacture and assemble and which may be applied to typewriting and like machines of various makes.

To the above and other ends which will hereinafter appear my invention consists in the features of construction, arrangements of parts, and combinations of devices set forth in the following description and particularly pointed out in the appended claims.

In the accompanying drawings wherein like reference characters designate corresponding parts in the different views—

Fig. 1 is an enlarged, detail, fragmentary, longitudinal, sectional view taken through the center of a platen equipped with the clamping means of the present invention, the parts being shown in the normal or clamping position;

Fig. 2 is an enlarged, detail, fragmentary front elevation of the same showing the parts in the released position;

Fig. 3 is an enlarged, detail, transverse, sectional view taken on the line 3—3 of Fig. 2 and looking in the direction of the arrows at said line;

Fig. 4 is a fragmentary, detail, front elevation of the parts disclosed in Fig. 3, and showing a rectangular card in position to receive a line of writing;

Fig. 5 is a fragmentary, detail, front view of the platen illustrating the use of the clamp in connection with round labels of different sizes as well as a rectangular card or label;

Fig. 6 is a front view showing a modified form of the construction; and

Fig. 7 is an enlarged, detail, sectional view taken on the line 7—7 of Fig. 2 and looking in the direction of the arrows at said line.

The invention is shown embodied in the present instance in a No. 6 Remington noiseless machine but may be employed with equal facility in the "Remington No. 7X" or noiseless portable as well as other machines which employ cylindrical platens.

As shown in the present instance the carriage

10 is mounted on crossed bearing rollers 11 that travel on fixed guide rails, one of which is indicated at 12 in Fig. 3, to travel from side-to-side of the machine over the top plate. This carriage supports a cylindrical platen 13 to turn in bearings in end plates 14 on the carriage. The platen is apertured at 15 at different points in the length thereof to receive headed clamping members 16, the headed portions 16^a of which are received in counter-sunk openings 17 in order that the outer surfaces of the clamping heads may be coincident with the outer surface of the platen, as shown in Fig. 1, when the clamping heads are in the normal position shown in this figure. Each clamping head is provided with a bifurcated stem, and as shown in Fig. 3 each stem receives between the arms thereof an arm 18 which projects laterally from and is integral with a sheet metal bar 19 contained within the platen. A coiled expansion spring 20 surrounds each arm 18 and bears at one end against the inner face of the platen and at the other end against the body of the bar 19. The effective force of these springs 20 is therefore exerted to maintain the clamping heads in effective position. The arms 18 extend radially of the platen and said arms with the bar 19 have a bodily movement radially of the platen to control the movement of the clamping heads into and out of effective or clamping position.

A spindle 21 extends into the platen and is mounted centrally thereof for longitudinal movement. Thus, the spindle is supported at its inner end in a guide 22 fixed to the left-hand platen head and containing an expansion spring 23 that bears at one end against the bottom wall of the guide opening and at its other end against the inner end of the spindle 21. The other or outer end of the spindle 21 extends through a bearing 24 on one of the end plates 14 of the carriage and through a central opening in the usual finger wheel 25. The outer end of the spindle is provided with a finger piece 26 by which the spindle may be shifted longitudinally against the force of its spring 23. A screw 27 extends through a tapped opening in the hub of the right-hand platen head 28 and at its reduced end 29 is received in a spline groove 30 in the spindle. This spline connection between the spindle and platen causes the two to turn together, but affords an independent longitudinal movement of the spindle. The spindle 21 carries a pin 31 in the spline groove 30 which coacts with the reduced end 29 of the screw 27 to limit the outward and longitudinal movement of the spindle 21 under the pressure of its spring 23. When the screw 27 is removed

or backed up, the finger wheel 25, the member 32 intermediate the finger wheel and right-hand end plate 14 and the spindle 21 may be removed. A reversal of this operation enables the parts to be readily assembled.

The bar 19 is provided at the ends thereof with integral guide fingers 33 that straddle and are disposed on opposite sides of the spindle 21 to aid in guiding the bar 19 and the parts carried thereby radially of the platen. The spindle 21 is also provided with a plurality of cams located near the ends of the bar 19. Each of these cams comprises an inclined face 34 and a high portion or dwell 35. Inwardly extending projections 36 on the bar 19 have inclined faces 37 which coact with the inclined faces 34 on the spindle to effect a movement of the bar 19 and the parts carried thereby radially of the platen and against the force of the expansion spring 20. When the finger piece 26 is moved to the left as indicated in Fig. 2, the bar 19 and the parts carried thereby will be shifted to the position shown in this figure thereby bringing the projections 36 to bear on the high portions or dwells 35 on the spindle so as to hold the clamp in the released position disclosed in this figure. When pressure on the finger piece 26 is released, the spring 23 will shift the spindle to the right, thereby enabling the bar 19 and the clamping heads to be forced to operative or effective position by the springs 20.

In assembling the parts the bar 19 is first introduced into the platen while a platen head 28 is removed and before the spindle 21 is in place. The springs 20 surround the arms 18 and with the clamping heads 16 removed the arms 18 are introduced through the openings 15 in the platen. An outward pressure is then exerted on the bar 19 to carry them at a considerable distance beyond the outer surface of the platen. The clamping heads 16 are then mounted on the arms 18 and connecting pins 38 are driven through registering openings in the bifurcated stems of the clamping heads and in the associated arms 18 to connect the clamping heads to the arms. Pressure on the bar 19 is then released and the bar 19 and clamping heads will be shifted by their springs 20 to the Fig. 1 position. The removed platen head 28, is then secured in place and the spindle 21 placed in cooperative relation with the bar 19 and guide 22 as shown in Fig. 1. I prefer to employ intermediate the ends of the platen a supporting disk 39 supported by the inner walls of the platen and provided with a central bearing opening in which the spindle 21 is received to provide a support therefor intermediate its ends.

From an inspection of Figs. 3 and 4 it will be seen that the usual line indicator and guide 40 is secured by screws 41 to a bracket 42 which in turn is secured by screws 43 to the front fixed guide rail 12 of the carriage. This guide coacts with a card as indicated in Fig. 3 to maintain it snug against the platen in condition to receive the pressure of the type at the printing line.

In the use of the device the card or label may be introduced beneath the clamping heads 16^a when they are shifted to the Fig. 2 position, either from below or above said clamping heads. The platen is turned in either direction depending on the character of the card or label engaged by the clamps and whether they are engaged from below or above by the clamping heads. In the use of a rather long rectangular card 44 and as indicated in Figs. 3 and 4 the bottom edge of the card is preferably engaged by the clamping heads and the platen turned in an anti-clockwise direction,

as the parts are shown in Fig. 3, to bring the upper edge of the card to the writing line position. When a comparatively small label 45 or 46, for example such as is shown in Fig. 5, is employed, the platen is turned in the same direction so as to carry the clamped edges of the label down and bring the label into proper position with reference to the printing line. On the other hand as indicated in Figs. 5 and 6, a card 47 may have its leading or upper edge engaged beneath the lower sides of the clamping heads and the platen will then be turned in a clockwise direction, as the parts are shown in Fig. 3, to bring the upper portion of the card to the printing line. From a consideration of Fig. 5 it will be understood that the separate clamping heads 16 are located at different distances apart, the two innermost clamping heads being arranged close together for engaging at a plurality of points a comparatively small label 45 whereas the distance between one of these centrally disposed clamping heads and a terminal clamping head is greater to enable the clamping heads to effectively cooperate with a larger sized round label 46. This arrangement is such that any size and shape of label may be clamped at a plurality of points to effectively hold the label or card to the platen to be fed to the printing line. The aligned clamping heads 16 also are effective on rectangular cards or labels, as indicated at 47 in Fig. 5, whether the clamping heads be employed to clamp the card at the bottom or top edge thereof.

In Fig. 6 I have shown a modified form of construction in which the clamping head 48 is in the nature of a single bar, the head of which is adapted to be received in a correspondingly shaped counter sunk opening 48^a in the platen and to overlie either the top or bottom edge of a card, like the clamping separate heads 16. The bar 48 is provided with one or more bifurcated extensions in which the arms 18 are received and connected by pins 38 as in the previously described construction. In other words the modified form of construction is similar to that previously described except that a single continuous T-shaped clamping bar is provided in place of the separated clamping heads 16. This modified form of construction is intended more particularly for use where rectangular cards or labels alone are employed.

From certain aspects of the invention I prefer the construction first described in that it provides for a wider latitude in effectively holding various shapes of cards and labels.

It will be understood that when the card or label clamp is not in use as such the outer face of each clamping head 16^a or the bar 48 will be flush with the outer surface of the platen and will not interfere in any manner with the use of the platen for ordinary purposes and in which the work sheet or sheets overlie and rest on the clamping heads.

I have shown in Fig. 3 the usual paper deflector 49 and feed rolls 50 and 51.

Various changes may be made in the construction and parts thereof may be employed without others without departing from my invention as it is defined in the accompanying claims.

What I claim as new and desire to secure by Letters Patent is:

1. The combination of a cylindrical platen having openings therein, a plurality of headed clamping members spaced apart at different distances longitudinally of the platen and received in said openings, whereby either circular or rectangular cards or labels of different sizes may be effectively

engaged at a plurality of points by said clamping members, a bar within the platen to which said clamping members are attached, an expansion spring located within the platen adjacent to each of said clamping members and bearing at one end against the inner surface of the platen and at the other end against said bar, and hand controlled means operable at will for controlling the movement of said bar radially of the platen to control the movement of said clamping members into and out of effective position.

2. The combination of a cylindrical platen having counter-sunk openings therein, a plurality of headed clamping members spaced apart at different distances and the heads thereof received in said counter-sunk openings with the outer surfaces of the heads normally flush with the surface of the platen, whereby either circular or rectangular cards or labels of different sizes may be effectively engaged at a plurality of points by said clamping members, a bar within the platen having laterally projecting arms to each of which one of said clamping members is secured, an expansion spring surrounding each of said arms and bearing at one end against the inner wall of the platen and at the other end against said bar to force the clamping members by a spring pressure to effective position, and hand controlled means operable at will for shifting said bar radially of the platen against the force of said springs to move the clamping members to releasing position.

3. The combination of a cylindrical platen, one or more card or label clamping devices normally flush with the surface of the platen, a sheet metal bar within the platen and having laterally extending arms intermediate said bar and clamping device or devices and to which they are detachably fixed, an expansion spring that surrounds each of said arms and bears at one end against the bar and at the other end against the inner surface of the platen and effective to force the clamping means against the platen, and a longitudinally movable hand controlled spindle extending into the platen and operative to shift said sheet metal bar against the force of said springs and thereby release said clamping device or devices.

4. The combination of a cylindrical platen, one or more card or label clamping devices, a sheet metal bar within the platen and having arms that extend from the bar and are detachably connected at their outer ends to said clamping device or devices, an expansion spring that surrounds each of said arms and bears at one end against the bar and at the other end against the inner surface of the platen and effective to force the clamping device or devices against the platen, a longitudinally movable hand controlled spindle extending into the platen and provided with a finger piece at the outer end thereof, a spring which tends to force said spindle to the limit of its movement in one direction and which is overcome by pressure exerted on said finger piece, and coacting means on said spindle and bar for shifting the latter against the force of said expansion springs when the spindle is shifted by pressure exerted on said finger piece.

5. The combination of a cylindrical platen, one or more card or label clamping devices normally flush with the surface of the platen, a sheet metal bar within the platen and having laterally extending arms that project outward therefrom and are detachably connected at their outer ends to said clamping device or devices, an expansion spring that surrounds each of said arms and bears at one end against the bar and at the other

end against the inner surface of the platen and effective to force the clamping device or devices against the platen, a longitudinally movable hand controlled spindle extending into the platen and provided with a finger piece, a spring which tends to force said spindle to the limit of its movement in one direction and which is overcome by pressure exerted on said finger piece, means on said bar which coact with the spindle to assist in guiding the bar radially of the platen when the spindle is shifted longitudinally, and coacting means on said spindle and bar for shifting the latter against the force of said expansion springs when the spindle is shifted by pressure exerted on said finger piece.

6. The combination of a cylindrical platen, one or more card or label clamping devices, a sheet metal bar within the platen and having laterally extending arms that are connected to said clamping device or devices, an expansion spring that surrounds each of said arms and bears at one end against the bar and at the other end against the inner surface of the platen and effective to force the clamping means against the platen, a longitudinally movable hand controlled spindle extending into the platen and operative to shift said sheet metal bar against the force of said springs and thereby release said clamping means, and guide fingers on said sheet metal bar that straddle said spindle and aid in guiding the bar radially of the platen when the spindle is shifted longitudinally.

7. The combination of a cylindrical platen, one or more card or label clamping devices normally flush with the surface of the platen, a sheet metal bar within the platen and having laterally extending arms that are detachably connected to said clamping device or devices, an expansion spring that surrounds each of said arms and bears at one end against the bar and at the other end against the inner surface of the platen and effective to force the clamping device or devices against the platen, a longitudinally movable spindle extending into the platen and provided with a finger piece at its outer end outside of the platen, and a plurality of cams on said spindle that coact with said bar to control its movement radially of the platen and thereby control the movement of said clamping device or devices into and out of effective position by the longitudinal movement of the spindle in one direction or the other.

8. The combination of a cylindrical platen, one or more card or label clamping devices, a sheet metal bar within the platen and having laterally extending arms that project outward from said bar and are connected to said clamping device or devices, an expansion spring that surrounds each of said arms and bears at one end against the bar and at the other end against the inner surface of the platen and effective to force the clamping device or devices against the platen, a longitudinally movable spindle extending into the platen and provided with a finger piece, a plurality of cams on said spindle that coact with said bar to control its movement radially of the platen and thereby control the movement of said clamping means into and out of effective position by the longitudinal movement of the spindle in one direction or the other, a spring which tends to force the spindle to the limit of its movement in one direction and which is overcome by pressure applied on said finger piece, and guide fingers on said bar at the ends of thereof which extend to the axis of the platen and straddle

said spindle and aid in guiding the bar in its movement radially of the platen.

9. The combination of a cylindrical platen having counter-sunk openings therein, a plurality of headed clamping members spaced apart and the heads thereof received in said counter-sunk openings with the outer surfaces of the heads normally flush with the surface of the platen, whereby either circular or rectangular cards or labels may be effectively engaged at a plurality of points by said clamping members, a sheet metal bar within the platen and having laterally extending arms that extend through said openings in the platen and are detachably secured to said clamping members, a spring that surrounds each of said arms and exerts its force to move the bar radially of the platen and apply the clamping members, and hand controlled means for shifting said bar in the opposite direction to release said clamping members.

10. The combination of a cylindrical platen having counter-sunk openings therein, a plurality of headed clamping members spaced apart and the heads thereof received in said counter-sunk openings with the outer surfaces of the heads normally flush with the surface of the platen, whereby either circular or rectangular cards or labels may be effectively engaged at a plurality of points by said clamping members, a sheet metal bar within the platen and having laterally extending arms that extend through said openings in the platen and are detachably secured to said clamping members, a spring that surrounds each of said arms and exerts its force to move the bar radially of the platen and apply the clamping members, and hand controlled means for shifting said bar in the opposite direction to release said clamping members, said hand controlled means comprising a spindle that extends into the platen, and means carried by said spindle and coacting with said bar to control its movement.

11. The combination of a cylindrical platen having counter-sunk openings therein, a plurality of headed clamping members spaced apart and the heads thereof received in said counter-sunk openings with the outer surfaces of the heads normally flush with the surface of the platen, whereby either circular or rectangular cards or labels may be effectively engaged at a plurality of points by said clamping members, a sheet metal bar within the platen and having laterally extending arms that extend through said openings in the platen and are detachably secured to said clamping members, a spring that surrounds each of said arms and exerts its force to move the bar radially of the platen in one direction and apply the clamping members, and hand controlled means for shifting said bar in the opposite direction to release said clamping members, said hand controlled means comprising a spindle that extends into the platen and is provided with a finger piece at its outer end, said spindle being mounted for longitudinal move-

ment, and a plurality of cams on said spindle that coact with said bar to control its movement.

12. The combination of a cylindrical platen having counter-sunk openings therein, a plurality of headed clamping members spaced apart and the heads thereof received in said counter-sunk openings with the outer surfaces of the heads normally flush with the surface of the platen, whereby either circular or rectangular cards or labels may be effectively engaged at a plurality of points by said clamping members, a sheet metal bar within the platen and having laterally extending arms that extend through said openings in the platen and are detachably secured to said clamping members, a spring that surrounds each of said arms and exerts its force to move the bar radially of the platen in one direction and apply the clamping members, and hand controlled means for shifting said bar in the opposite direction to release said clamping members, said hand controlled means comprising a spindle that extends into the platen and is provided with a finger piece at its outer end, said spindle being mounted for longitudinal movement, a plurality of cams on said spindle that coact with said bar to control its movement, a spring which tends to force said spindle to the limit of its longitudinal movement in one direction, and guide fingers on said bar which coact with said spindle to guide the bar in its movements radially of the platen.

13. The combination of a cylindrical platen having counter-sunk openings therein, a plurality of headed clamping members spaced apart and the heads thereof received in said counter-sunk openings with the outer surfaces of the heads normally flush with the surface of the platen, whereby either circular or rectangular cards or labels may be effectively engaged at a plurality of points by said clamping members, a bar within the platen having laterally projecting arms to each of which one of said clamping members is detachably secured, an expansion spring surrounding each of said arms and bearing at one end against the inner wall of the platen and at the other end against said bar to force the clamping members by a spring pressure to effective position, a spindle disposed centrally of the platen and mounted for longitudinal movement therein and provided at an end outside of the platen with a finger piece to control the longitudinal movement of the spindle, a spring which tends to shift the spindle to the limit of its movement in one direction, a plurality of cams on said spindle which coact with corresponding cams on said bar to bring about a movement of the bar radially of the platen when the spindle moves longitudinally to thereby control the freeing and the application of the clamping members, and guiding fingers carried by said bar near the ends thereof and which straddle and coact with said spindle to aid in guiding the bar in its movements radially of the platen.

GEORGE G. GOING.