Jan. 10, 1928.

1,655,957

O. A. HOKANSON

STENCIL HOLDER FOR TYPEWRITERS

Filed May 31. 1924

5 Sheets-Sheet 1

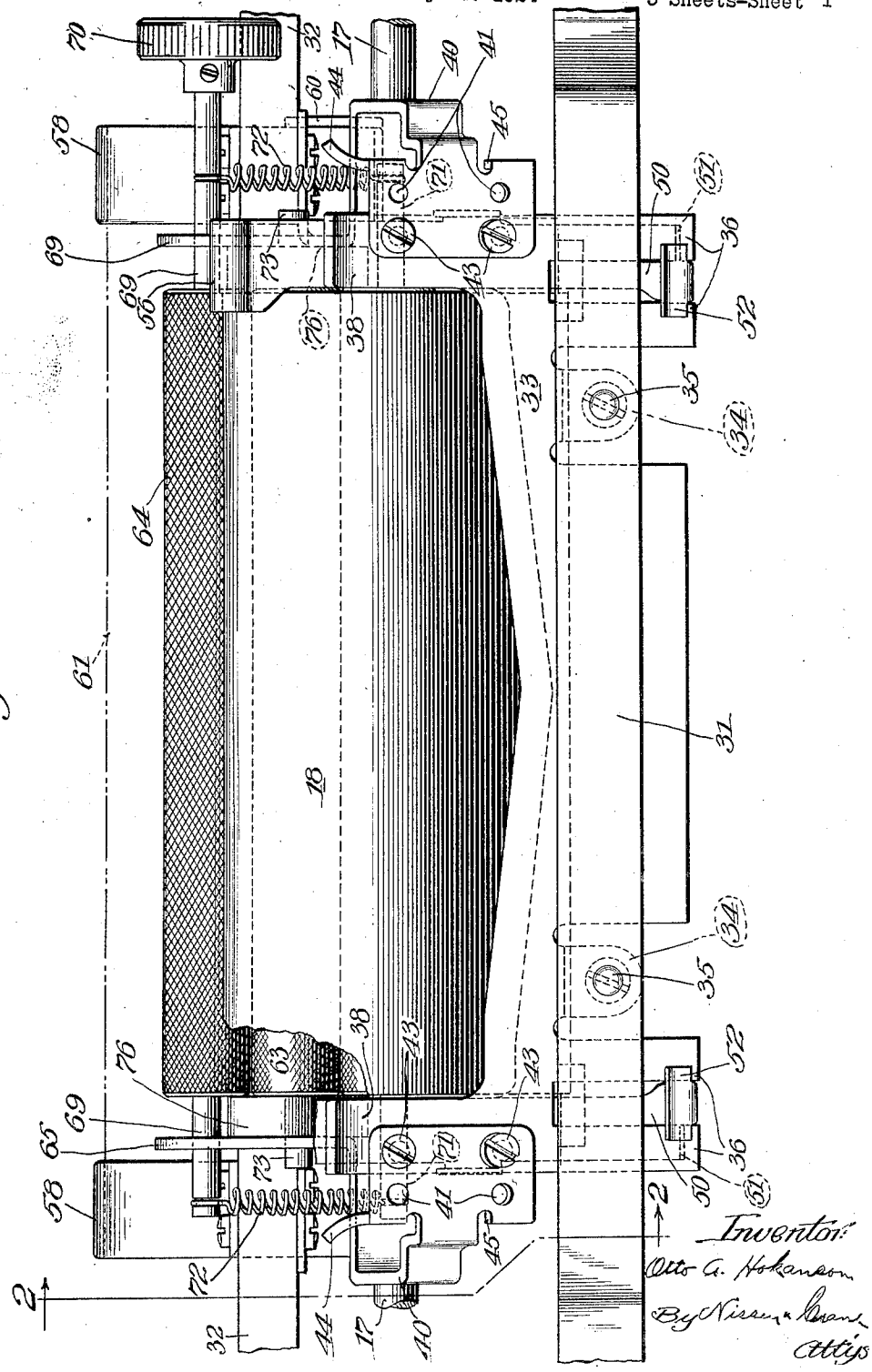


Fig. 1.

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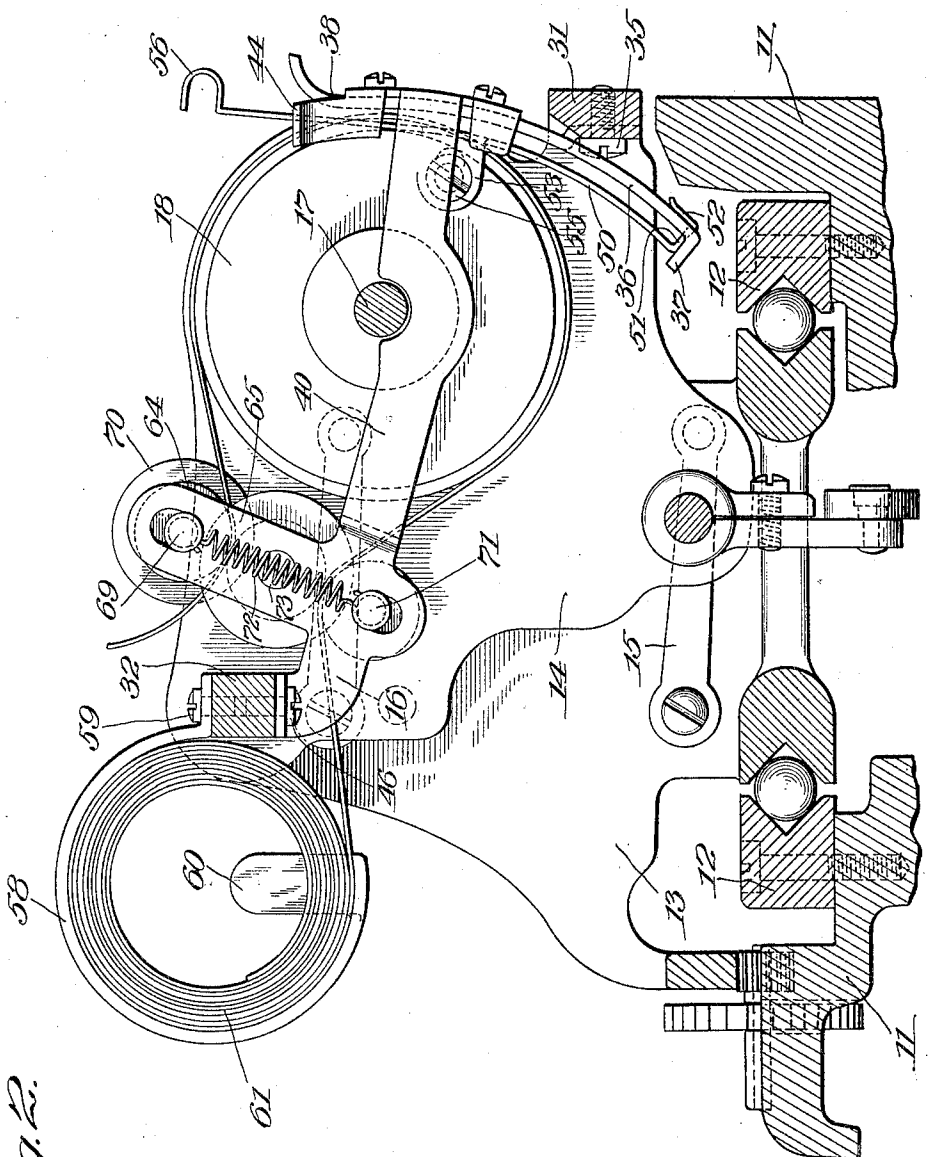


Fig. 2.

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5 Sheets-Sheet 3

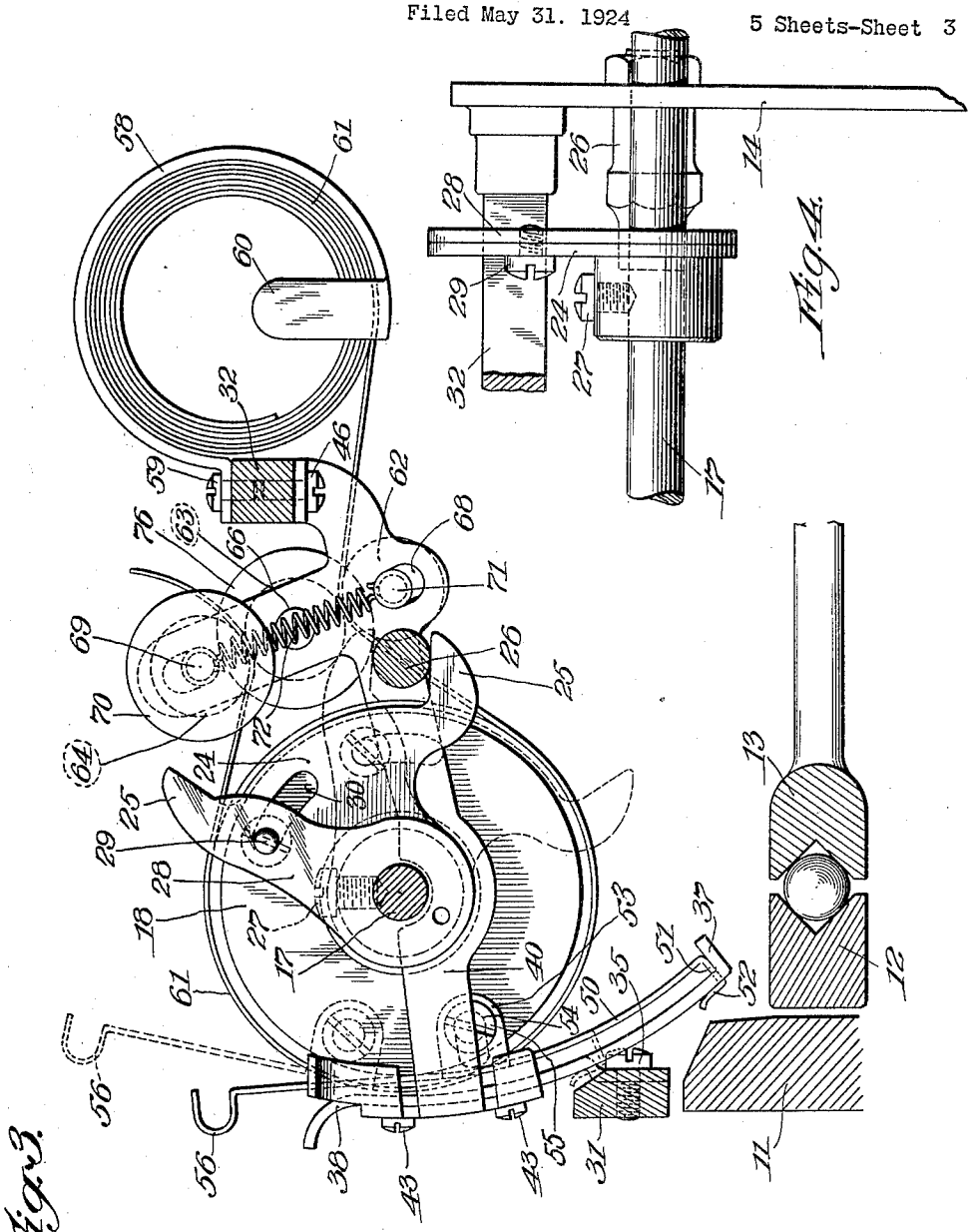


Fig. 3.

Fig. 4.

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Fig. 5.

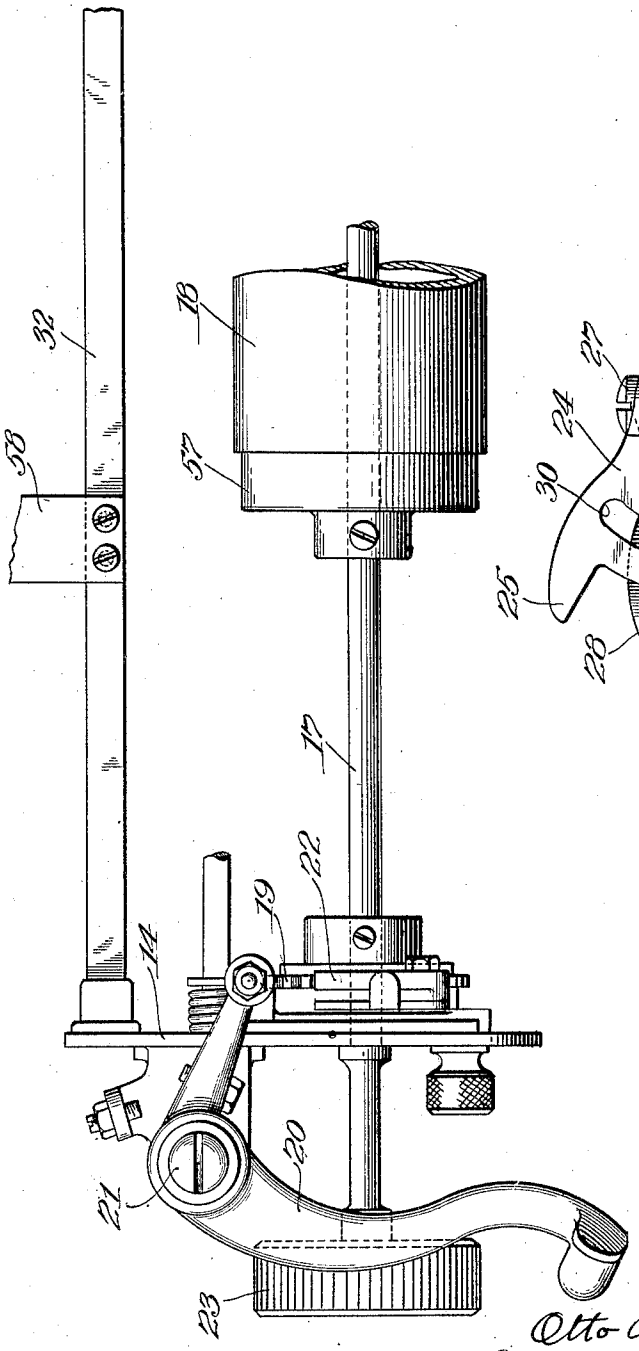
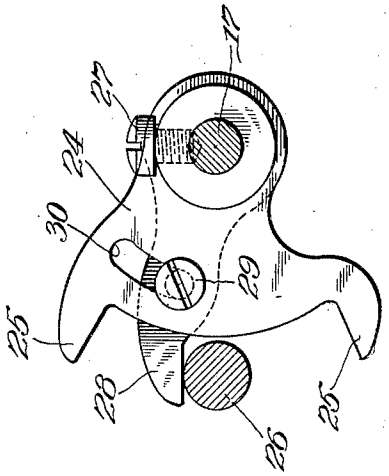


Fig. 6.



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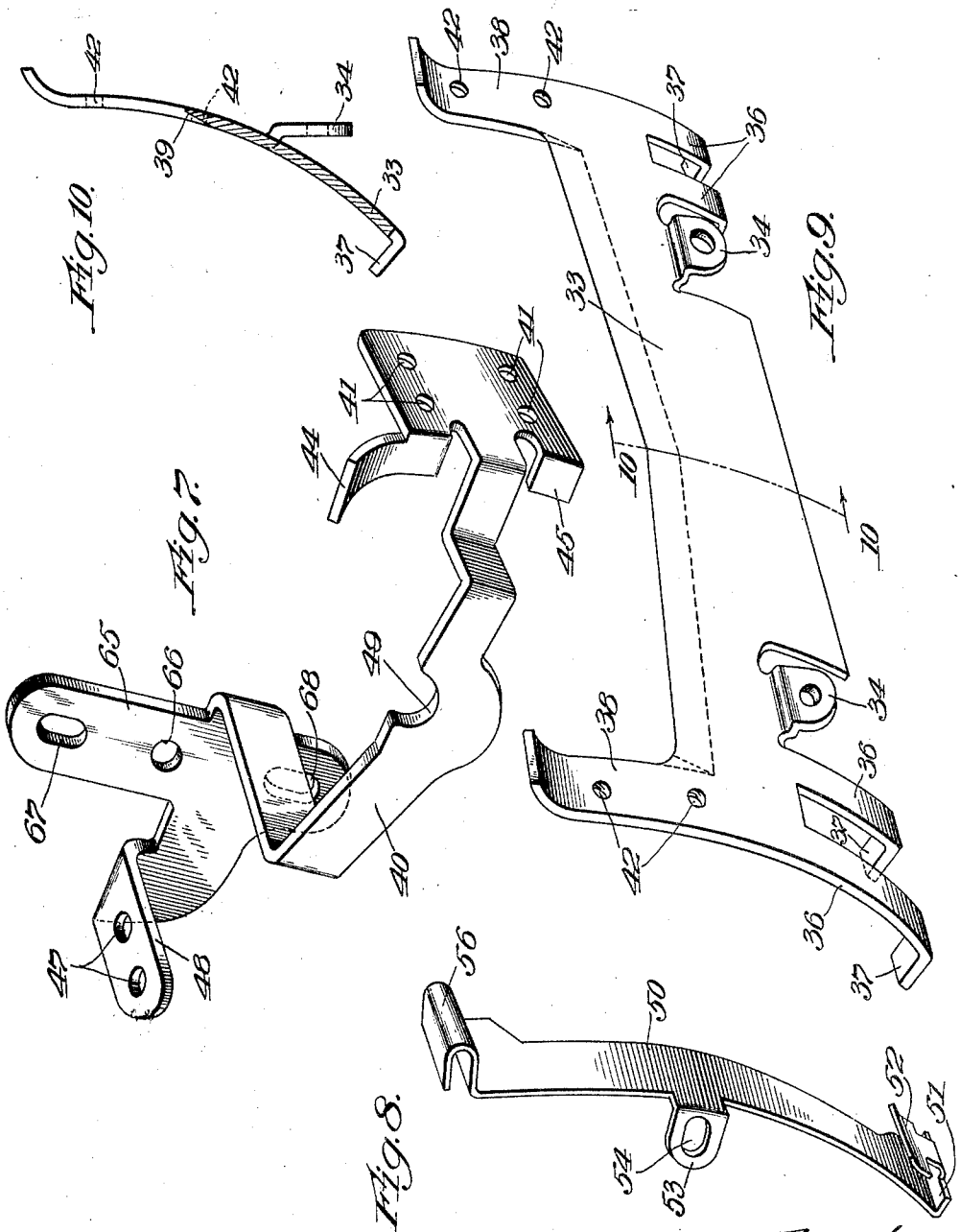
By Wissen & Crane Attys

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STENCIL HOLDER FOR TYPEWRITERS

Filed May 31. 1924 5 Sheets-Sheet 5



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Patented Jan. 10, 1928. 1,655,957

UNITED STATES PATENT OFFICE.

OTTO A. HOKANSON, OF WOODSTOCK, ILLINOIS, ASSIGNOR TO WOODSTOCK TYPEWRITER COMPANY, OF WOODSTOCK, ILLINOIS, A CORPORATION OF ILLINOIS.

STENCIL HOLDER FOR TYPEWRITERS.

Application filed May 31, 1924. Serial No. 716,873.

This invention relates to a work holding device especially adapted for holding stencil cards while they are having the name and address or other matter written thereon by a typewriting machine.

The object of the invention is to provide a stencil holding mechanism that may be operated by the usual line space mechanism and which shall be of improved construction and operation.

The invention is exemplified in the combination and arrangement of parts shown in the accompanying drawings and described in the following specification, and it is more particularly pointed out in the appended claims.

In the drawings,—

Fig. 1 is a front elevation of a stencil holding device showing one embodiment of the present invention.

Fig. 2 is a transverse section substantially on line 2—2 of Fig. 1.

Fig. 3 is a vertical section looking at the opposite end of the device from that shown in Fig. 2.

Fig. 4 is a fragmentary front elevation showing a limit stop for the platen.

Fig. 5 is a fragmentary top plan view of the line spacing mechanism.

Fig. 6 is a side elevation of the limit stop shown in Fig. 4.

Figs. 7, 8 and 9 are perspective views of details.

Fig. 10 is a section on line 10—10 of Fig. 9.

Referring more particularly to the drawings, the numeral 11 designates the top frame of a typewriter, having ways 12 thereon upon which the carriage 13 travels. A platen frame 14 is supported on the carriage 13 by parallel arms 15 and 16, which permit vertical movement of the platen carriage for case shift. A platen rod 17 is journaled in the carriage 14 and is provided with a platen 18 shorter than the standard platform but of sufficient length to accommodate the usual stencil card. A ratchet wheel 19 is secured to the platen rod 17 adjacent the lefthand end of the carriage 14, and a line spacing lever 20 is pivoted at 21 on the carriage 14 and provided with a pawl 22 for operating the ratchet 19. The line spacing mechanism may be of any well known construction, the form illustrated being that of the Woodstock typewriter, which is covered by Patent No. 1,243,110. In addition to the movement imparted to the platen by the line spacing lever 20 the usual knob 23 is provided for rotating the platen. A stop plate 24 is secured to the platen rod 17 adjacent the right hand end of the carriage frame as shown in Figs. 4 and 6. The stop 24 is segmental in form and provided with limit stops 25 spaced apart and arranged to engage a pin 26 projecting inwardly from the end of the carriage frame 14. The stop plate 24 may be adjustably attached to the rod 17 by a set screw 27, and a supplemental stop member 28 is pivoted on the shaft 17 adjacent the segment 24 and is provided with a screw 29, which operates in a slot 30 to hold the supplemental stop member in adjusted positions relative to the segment 24. In the position shown in Fig. 6 the rotation of the platen is limited to an amount sufficient for three lines of double space writing. When the screw 29 is moved to the extremity of the slot 30 the platen may be rotated a sufficient amount for four lines. It is usual to write either three or four lines on a stencil card.

As shown in Fig. 2, the opposite ends of the platen frame 14 are connected by a front bar 31 and a rear bar 32. The card holder 33, Fig. 9, is carried by the front bar 31 adjacent the front face of the platen 18. The holder 33 is provided with ears 34, which are secured to the bar 31 by screws 35. The holder 33 is provided with downwardly and rearwardly curved fingers 36, as shown in Figs. 2 and 9, and the lower ends of these fingers are provided with stops 37 for supporting the lower edge of a stencil card. Upwardly extending fingers 38 are curved outwardly at their upper ends to direct a card into place against the inner face of the holder 33. The upper edge of the holder 33 is beveled on its inner face as shown at 39, Fig. 10, and the edges inclined downwardly from the ends thereof toward the center. This arrangement prevents the central portion of the card from striking the upper edge of the holder 33 as it is moved into place and interfering with the movement thereof. It will be seen that the ends of the card adjacent the guide fingers 38 pass the top edge of the holder in advance of the center of the card so that as the lower edge of the card progressively engages the top edge of the

holder it will be guided inwardly and thus be prevented from catching upon the top edge of the holder. The card holder 33 is connected with the rear cross-bar 32 by brackets 40, the left hand bracket being shown in perspective in Fig. 7. Each bracket is provided wth two sets of openings 41 for securing the bracket to openings 42 on the card holder 33. Screws 43 are provided for this purpose and the brackets 40 may be moved laterally into either one of two positions, depending upon which set of openings 41 are engaged by the screws 43. The brackets carry end stops 44 and 45 for holding the stencil cards against lateral movement. The upper stop 44 is curved outwardly to guide the cards into place. It will be seen that the bracket may be shifted to accommodate cards of different lengths, it being usual to make the stencil cards in one of two standard lengths. The rear ends of the brackets 40 are secured to the rear cross-bar 32 by screws 46, and a pair of holes 47 is provided in an ear 48 at the rear end of the bracket 40 for this purpose. The holes 47 are spaced to correspond to the spacing of the holes 41 to permit the rear end of the bracket to be shifted laterally at the same time that the front end is shifted. The central portions of the brackets are provided with seats 49, which lie beneath the platen shaft 17, and provide just sufficient clearance to avoid contact with the shaft. It will be seen, however, that if any force is placed upon the platen tending to spring the shaft downwardly or laterally the seats 49 will provide supplemental braces near the center of the platen shaft for arresting any such movement of the shaft.

For moving the stencil card upwardly for line spacing a pair of card feeding fingers 50 is provided, one at each end of the platen. The fingers 50 are preferably made of thin spring metal and each is provided with a seat 51 for engaging the lower edge of the stencil, and with a T-head 52 which engages the front faces of the fingers 36 and guides the feeding finger in its upward movement. Each feeding finger is provided with a rearwardly extending ear 53, which lies adjacent the end of the platen 16 and is provided with a slot 54 for receiving a screw 55 by means of which the finger is pivotally supported on the end of the platen. The finger 50 may be a straight strip of spring metal, but when it is moved downwardly into the position shown in Fig. 2 its lower end will be curved rearwardly and inwardly by the card holder since the card will be interposed between the finger and the holder. If desired, the lower end may be given a permanent curved form to conform to that of the card holder. The upper ends of the feed fingers are provided with offset portions 56 beneath which the upper edges of the stencil cards are positioned to positively hold the cards against upward movement. It will be readily apparent that the line spacing movement imparted to the platen 18 will transfer a corresponding movement to the feeding fingers 50 and thus move the stencil cards upwardly each time the platen 18 is rotated for line spacing.

The ends of the platen 18 are cut away as shown at 57 to provide seats for the paper feeding fingers, so that the front faces of the fingers will be substantially flush with the periphery of the platen.

It is sometimes desirable to provide a special backing for the stencil card and a sheet of celluloid or similar material may be employed for this purpose. A magazine for holding such a sheet may be provided in the form of curved strips 58 attached to the rear cross-bar 32 by means of screws 59. One of the strips 58 carries a stop 60 for limiting the movement of the celluloid roll 61 as it is slid into place through the opening formed by the opposite strip. The celluloid sheet extends forwardly through a set of feed rollers 62, 63 and 64. From the feed roller 62 the celluloid passes downwardly about the platen 18 around the front face and back between the feed rollers 63 and 64. The feed rollers are supported upon plates 65 and 66 extending upwardly from the bracket 40, the central roller 63 being provided with a fixed bearing 66 in each of the brackets while the upper and lower rollers are provided with elongated slots 67 and 68. The upper feed roller 64 is carried on a shaft 69 journaled in the slot 67, the right hand end of the shaft being provided with a knob 70 by means of which it is rotated. The lower roller is mounted on a shaft 71 journaled in the slot 68, and springs 72 connect the shafts 69 and 71 at the opposite ends thereof for resiliently pressing the upper and lower rollers against the central roller. The central roller 63 is carried on a shaft 73 having a fixed axis. Spacing washers 74 are mounted on the shaft 73 at each end of the roller 63 for preventing end play of the roller when the brackets 42 are in their outermost positions. These washers are of sufficient diameter to overlap the ends of the upper and lower feed rollers so that a single set of washers controls the endwise position of all three rollers. When the brackets 42 are moved inwardly the spacing washers 76 are moved. The feed rollers are knurled or otherwise roughened to provide proper gripping contact with the celluloid sheet. Whenever a new backing face is desired it is only necessary for the operator to rotate the finger-piece 70 a sufficient amount to bring a fresh portion of the celluloid sheet into the printing line.

I claim:

1. In a typewriting machine, a platen, a

frame in which said platen is journaled, said frame having a bar extending longitudinally of said platen adjacent the front face thereof, a curved plate mounted on said bar and having a stop for supporting a card between said plate and said platen, and a member having its outer surface directly facing and spaced inwardly from the inner face of said plate to provide space for holding said card directly between the outer face of said member and the inner face of said plate, said member having a stop at its lower portion for engaging the lower edge of said card, and means for connecting said member to said platen to cause said member to move said card upwardly for letter spacing movement when said platen is rotated.

2. The combination with a typewriter platen, of a frame in which said platen is journaled, a bar extending longitudinally of said platen adjacent the front face thereof, a curved plate mounted on said bar and having vertically extending slots therein, a pair of spring fingers disposed between said plate and said platen and pivotally connected with said platen, said fingers having means thereon for engaging said slots to be guided thereby, and means for rotating said platen to cause said spring fingers to impart letter spacing movement to a card interposed between said fingers and said plate.

3. In a typewriting machine, the combination with a platen, of a frame in which said platen is journaled, said frame having a bar extending longitudinally of said platen adjacent the front face thereof, a card holder comprising a curved plate mounted on said bar and having means at its lower portion for supporting a card therein, a pair of spring fingers pivotally mounted on said platen and having engaging means at their lower ends for engaging the lower edge of said card, and means for rotating said platen to cause said spring fingers to impart line spacing movement to said card.

4. The combination with a platen, of a work holder for supporting a card adjacent the front face thereof, and means for supporting said work holder in fixed position in front of said platen, said work holder comprising a plate curved in the direction of the surface of said platen but having a greater radius of curvature, the upper edge of said plate being curved away from said platen to provide easy entrance of a card between said plate and said platen, means on the lower edge of said plate for limiting the downward movement of a card held thereby, and means at the lateral edges of said plate for holding said card against movement in the direction of the axis of said platen.

5. The combination with a typewriter platen, of a work holder therefor comprising a plate having supporting ears formed thereon, spaced fingers projecting downwardly from said plate and having stops at their lower ends for limiting downward movement of a card held by said plate, guide fingers projecting upwardly from said plate at the ends thereof, said fingers being curved outwardly for receiving the lower edge of a card, and a supporting bar arranged adjacent the front face of said platen to which said ears are attached.

6. In a typewriter machine, the combination with a platen, of a work holder arranged adjacent the front face of said platen, a feeding finger pivotally attached to the end of said platen, said work holder having a vertically extending slot therein, a stop at the lower end of said feeding finger for engaging the lower edge of a card supported on said work holder and for holding said finger spaced inwardly from said work holder, and means on said feeding finger for engaging said slot to guide the lower end of said finger relative to said work holder when said platen is rotated for line spacing movement.

7. In a typewriting machine, the combination with a platen, of a work holder comprising a plate extending longitudinally of said platen and spaced therefrom, and guides for directing a card between said plate and platen, the upper edge of said plate being inclined downwardly away from said guides to prevent said edge from interfering with the movement of said card into place adjacent said platen.

8. In a typewriting machine, the combination with a platen, of a work holder comprising a plate arranged adjacent said platen and extending longitudinally thereof, spaced guides extending upwardly from the upper edge of said plate for directing a card into position between said plate and platen, the upper edge of said plate being beveled inwardly toward said platen and inclined downwardly away from said guides to facilitate the entrance of work between said plate and platen.

9. In a typewriting machine, the combination with a platen, of a frame in which said platen is journaled, said frame having a bar extending longitudinally of said platen adjacent the front face thereof, a work holder mounted on said bar, feeding fingers for moving said card upwardly between said work holder and platen, said fingers being pivotally mounted on the ends of said platen and having means thereon for engaging said work holder to guide said fingers thereon, said platen being grooved to provide seats for said fingers, and means for rotating said platen to cause said fingers to impart line spacing movement to said bar.

10. In a typewriting machine, a platen, a frame in which said platen is journaled, said frame having a bar extending longitudinally of said platen adjacent the front face there-

of and having a second bar extending longitudinally of said platen adjacent the rear face thereof, a work holder mounted on said first-mentioned bar, brackets adjacent the ends of said platen supported on said work holder and said second-mentioned bar, and work feeding fingers connected with said platen and spaced inwardly from said work holder for imparting line spacing movement to a card held by said work holder.

11. In a typewriting machine, the combination with a platen, of a frame for supporting said platen, a work holder fixedly mounted on said frame adjacent the front face of said platen, means for imparting line spacing movement to work held in said work holder when said platen is rotated, and side edge guides for said work adjustably mounted on said work holder.

12. In a typewriting machine, the combination with a platen, a frame in which said platen is journaled, a work holder mounted on said frame adjacent the front face of said platen, said frame having a bar extending longitudinally thereof adjacent the rear of said platen, brackets adjustably mounted on said work holder, a bar for movement longitudinally of said platen, and side edge guides for cards held by said work holder, said guides being mounted on said brackets and adjustable therewith to provide for cards of different lengths.

13. In a typewriting machine, the combination with a platen shaft, of a frame in which said platen shaft is journaled, a platen mounted on said shaft and having the ends thereof spaced inwardly from the ends of said frame, bars connecting the ends of said frame and positioned one in front and one in the rear of said platen, and brackets supported by said bars and extending across said frame, said brackets having seats thereon in fixed relation to said platen shaft closely adjacent the lower side of said shaft for preventing displacement of said shaft adjacent the ends of said platen.

14. In a typewriting machine, the combination with a platen, of work support therefor, and means for feeding a strip of celluloid about the face of said platen between said platen and said work support, said feeding means being arranged to move said celluloid relative to the face of said platen and independently of rotation of said platen.

15. In a typewriting machine, the combination with a platen, of a work support adjacent the front face thereof, feed rollers adjacent the rear face thereof, means for rotating said feed rollers, and a strip of backing material held by said feed rollers and extending about said platen between the face thereof and said work support.

16. In a typewriting machine, the combination with a platen, of a work holder adjacent the front face thereof, three feed rollers adjacent the rear face of said platen and having their axes arranged in a common plane, and resilient means for drawing the outmost ones of said feed rollers toward the central roller to cause said outer rollers to cooperate with said central roller to grip a strip of backing material and feed said strip about said platen and between the face of said platen and said work holder.

17. The combination with a typewriter platen, of brackets positioned adjacent the ends of said platen and adjustable in the direction of the axis thereof, feed rollers for directing a strip of backing material about said platen, said rollers being mounted on said brackets, and spacers removably interposed between said brackets and the ends of one of said rollers to hold said rollers against longitudinal movement for one position of said brackets relative to said platen.

18. In a typewriting machine, the combination with a platen, of a plurality of feed rollers for directing a strip of backing material about said platen, brackets in which said feed rollers are journaled, said brackets being adjustable in the direction of the length of said platen, and a spacing collar removably mounted between the end of one of said rollers and one of said brackets, said spacing collar being of greater diameter than said roller so that it overlaps the end of an adjacent roller to provide a guide for the edge of said backing material and to prevent longitudinal movement of said adjacent roller.

19. In a typewriting machine, the combination with a platen, of a card holder for supporting work adjacent said platen, line spacing means operated by said platen when said platen is rotated, a stop member connected with said platen to move in unison therewith, a fixed stop cooperating with said stop member, and an adjustable stop mounted on said stop member for cooperation with said fixed stop.

20. In a typewriting machine, the combination with a platen shaft, of a platen mounted thereon, a card holder for supporting work adjacent said platen, means actuated by said platen when rotated for line spacing work held by said card holder, a plate secured to said shaft and having a stop fixed thereon, a second stop connected with said plate and adjustable relative to said fixed stop, a frame for supporting said platen, and a stop carried by said frame for cooperation with the stops on said plate.

In testimony whereof I have signed my name to this specification on this 29th day of May, A. D. 1924.

OTTO A. HOKANSON.