

June 28, 1938.

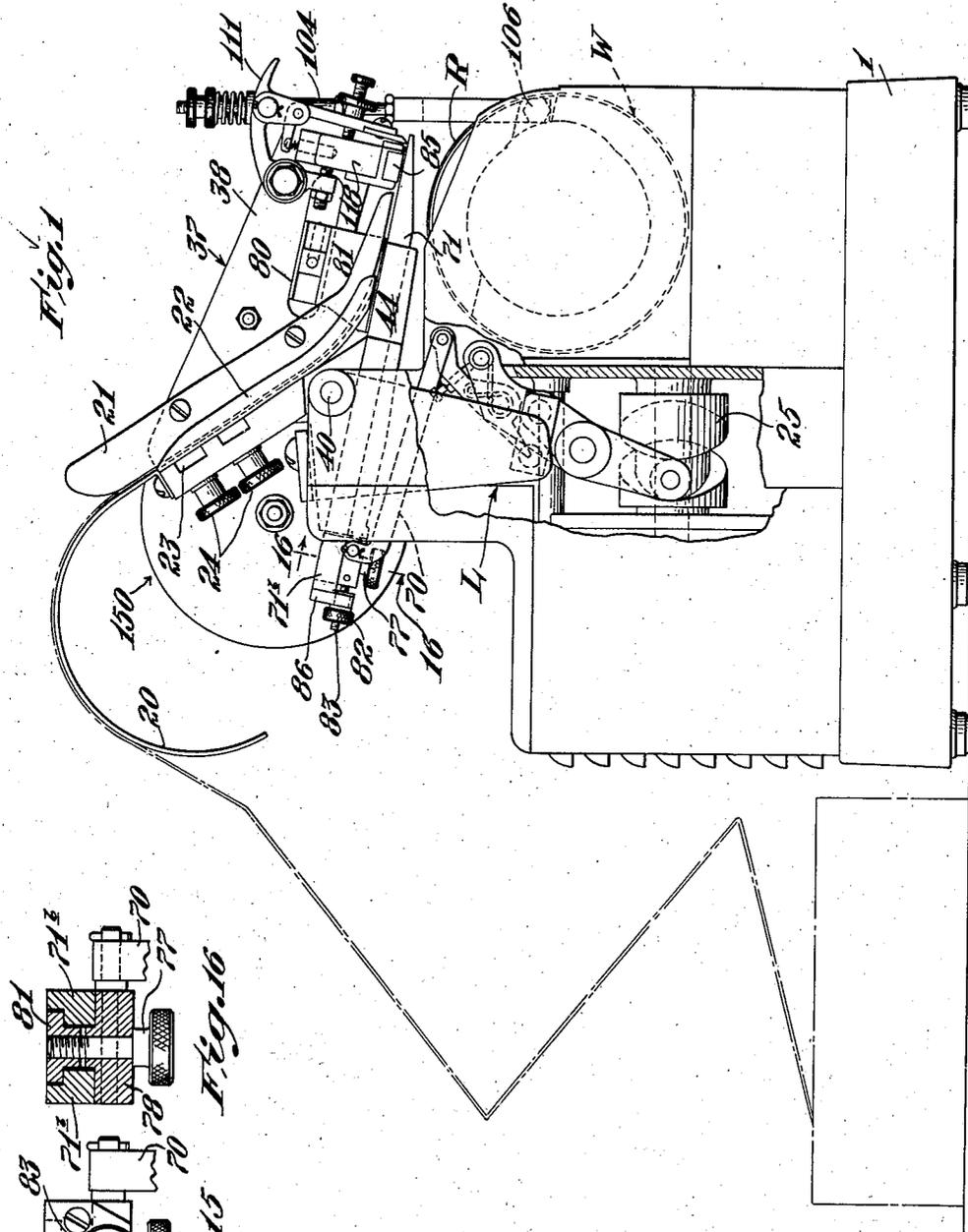
C. A. FLOOD

2,121,864

PRINTING MACHINE

Filed April 13, 1937

5 Sheets-Sheet 1



Inventor
Carl A. Flood
by Robert Cushman Woodbury
attys.

June 28, 1938.

C. A. FLOOD

2,121,864

PRINTING MACHINE

Filed April 13, 1937

5 Sheets-Sheet 2

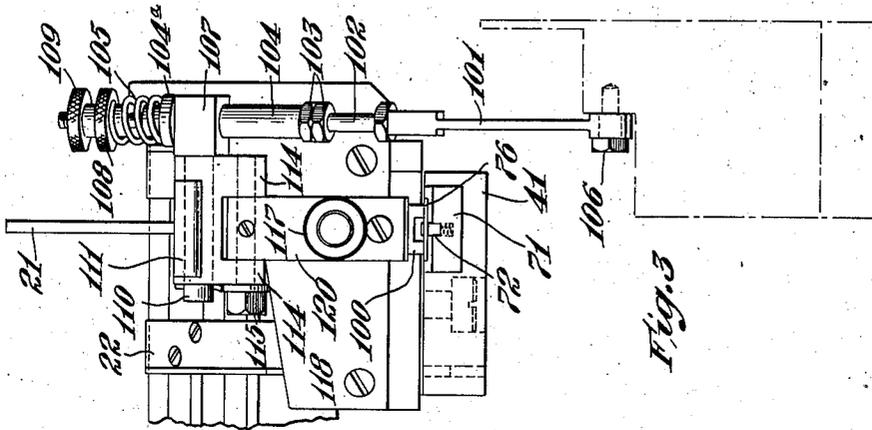


Fig. 5

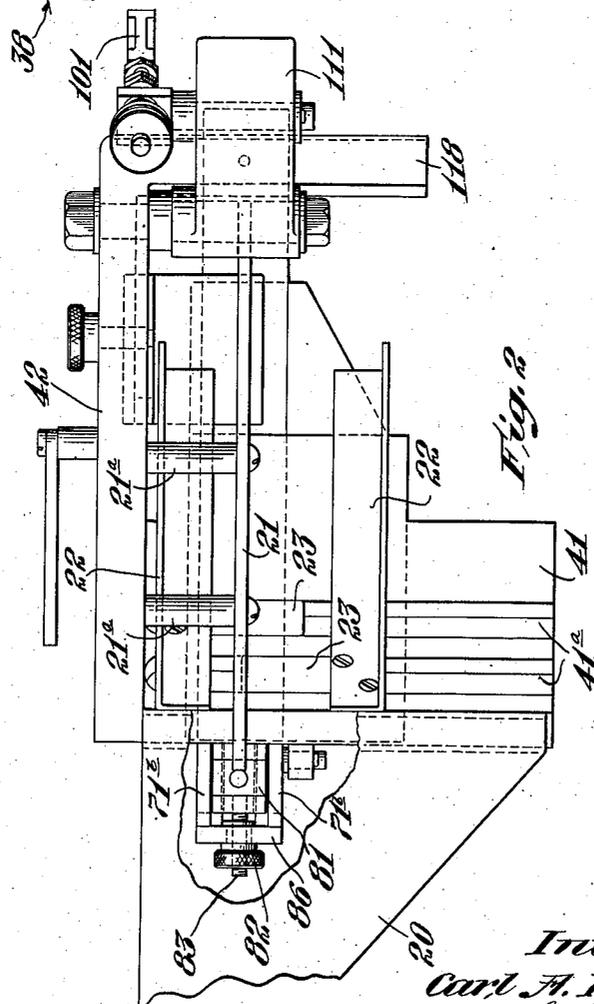


Fig. 2

Inventor
Carl A. Flood
by Robert, Cushman & Woodbury
Att'ys.

June 28, 1938.

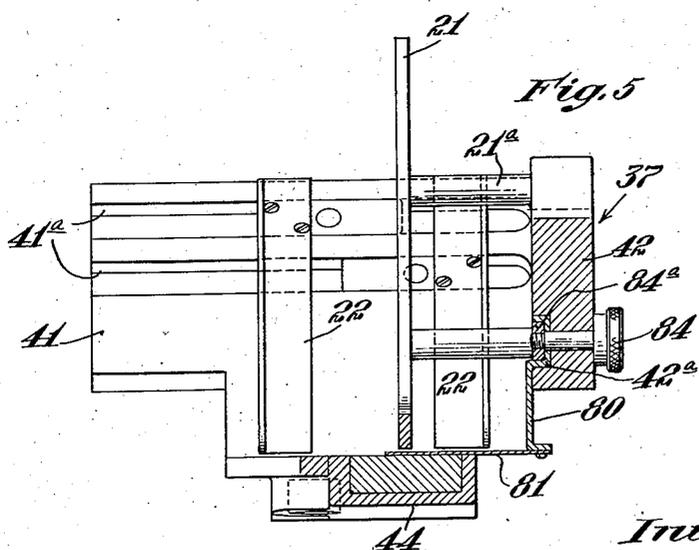
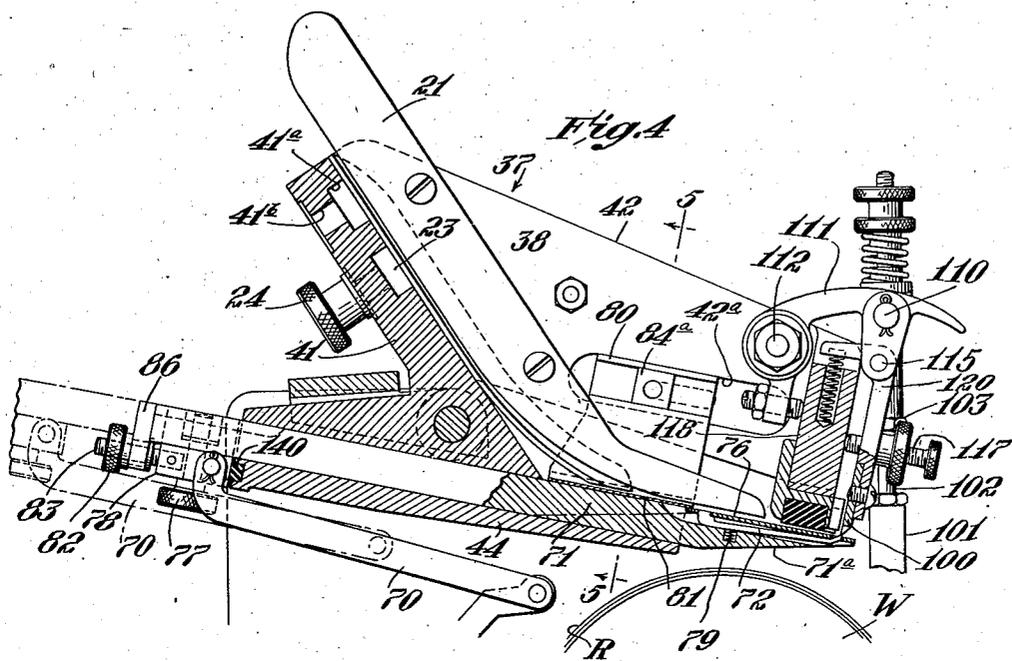
C. A. FLOOD

2,121,864

PRINTING MACHINE

Filed April 13, 1937

5 Sheets-Sheet 3



Inventor
Carl A. Flood
by Robert Cushman Nordberg
att'ys.

June 28, 1938.

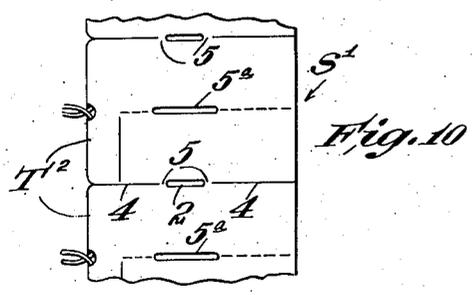
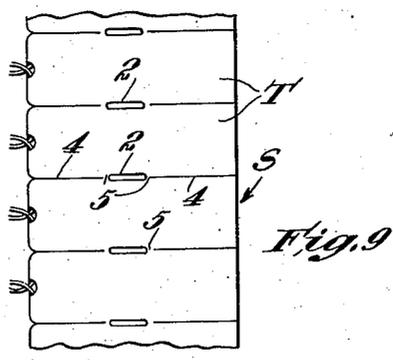
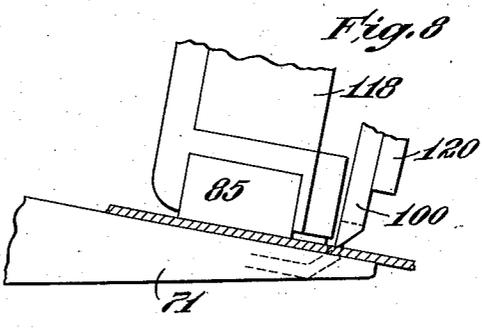
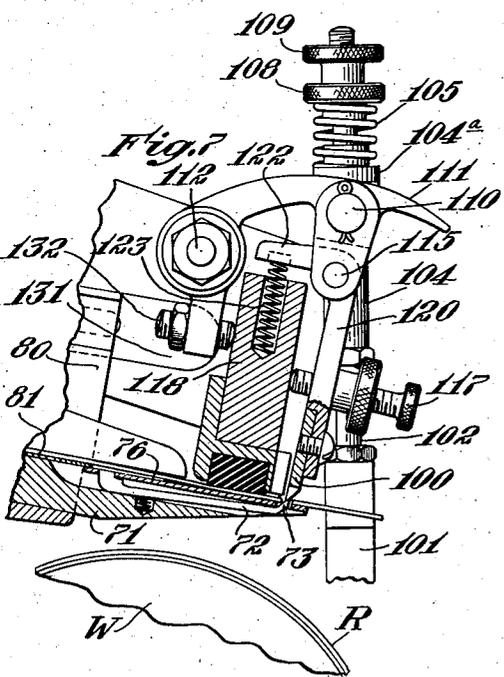
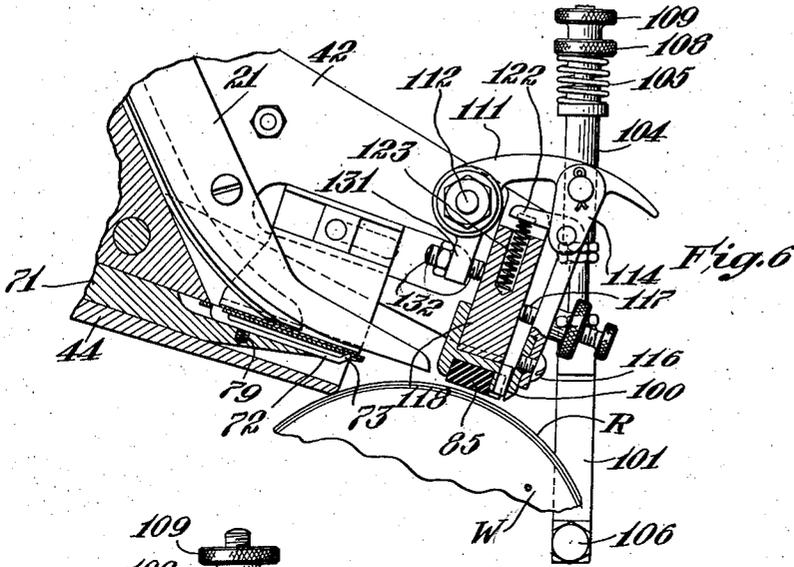
C. A. FLOOD

2,121,864

PRINTING MACHINE

Filed April 13, 1937

5 Sheets-Sheet 4



Inventor
 Carl A. Flood
 by Robert Cushman & Woodberry
 Att'ys

June 28, 1938.

C. A. FLOOD

2,121,864

PRINTING MACHINE

Filed April 13, 1937

5 Sheets-Sheet 5

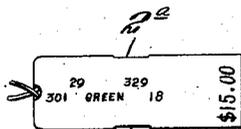
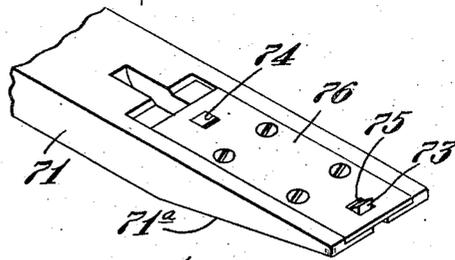
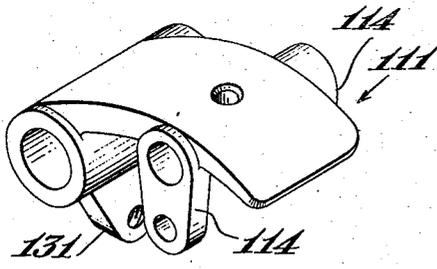
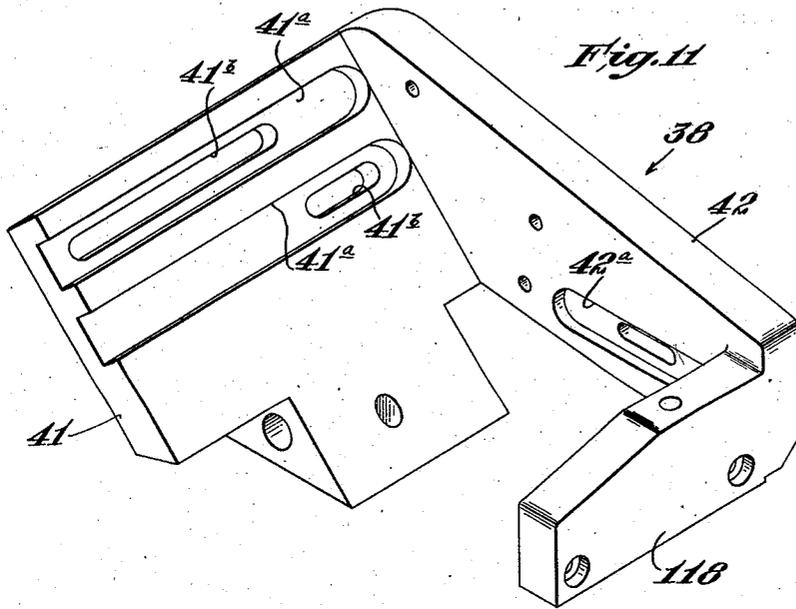


Fig. 14

Inventor
Curt A. Flood
by Roberts, Cushman & Woodberry
Att'ys.

UNITED STATES PATENT OFFICE

2,121,864

PRINTING MACHINE

Carl A. Flood, Framingham, Mass., assignor to
Dennison Manufacturing Company, Framing-
ham, Mass., a corporation of Massachusetts

Application April 13, 1937, Serial No. 136,598

16 Claims. (Cl. 101—288)

This invention relates to an improved printing machine having a movable head portion and a cooperating fixed portion. The head assembly may be arranged to feed successive sections of a ticket strip to printing position, this assembly also being provided with cutting mechanism to sever the strip into separate tickets, if desired. In some respects the present invention affords an improved machine of the general character disclosed in my United States Patent No. 1,980,576, issued November 13, 1934, and my United States Patent No. 2,007,526, issued July 9, 1935.

The present machine is particularly adapted to receive ticket strips of the character disclosed and claimed in my copending application Serial No. 136,599, filed on even date herewith. Such ticket strips may comprise ticket sections separated by short feed slots and by slits aligned with the slots, there being narrow connecting necks between adjoining sections at the ends of the slots. Accordingly such a strip may readily be folded along lines between adjoining tickets. A ticket strip of this character may be supplied to a user of the printing machine in a compact bundle wherein the strip is folded back and forth on itself, the end of the strip being fed into the printing machine so that the adjoining part of the strip possesses a zigzag form.

In accordance with this invention, the oscillating head of the machine may have suitable guide means associated therewith to receive the ticket strip and guide the same to printing position. The head may also be provided with feed mechanism of the general character disclosed in my above-identified patents, this mechanism, however, being somewhat modified in order more satisfactorily to feed a strip rather than separate tickets.

An important feature of the present invention involves the arrangement of a bipartite cutter which may straddle the feeding finger in its advanced position and which may sever or chop the connecting necks between adjoining tickets. The knife may be automatically operable in response to the movement of the head, it being understood that the latter and the feeding mechanism preferably are operated from a single cam as taught in my above-identified patents. The cutter may thus be operated by the relative motion occurring between the head and the fixed frame of the machine during each cycle of operation, so that no additional cam mechanism or the like is necessary, the various elements of the machine being arranged so that a printed ticket is advanced to a position to be cut from the strip as the head

rises away from the printing assembly. Accordingly each printed ticket is severed from the strip immediately after printing. Such an arrangement is also advantageous when a printing wheel assembly is employed, permitting the strip to be severed close to a printed zone without interference by the assembly or necessity for an extra movement of the ticket to bring it to cutting position.

In the accompanying drawings:

Fig. 1 is a side elevation of a machine constructed in accordance with this invention;

Fig. 2 is a top view of the printing head and related parts, as seen from an angle to the vertical;

Fig. 3 is an end elevation of the same as seen at an angle at right angles to that of Fig. 2;

Fig. 4 is a sectional view of a portion of the printing head assembly, adjoining parts being shown in elevation;

Fig. 5 is a section indicated by line 5—5 of Fig. 4;

Fig. 6 is a sectional view of one end of the printing assembly, showing the same in printing position;

Fig. 7 is a similar view but showing the assembly spaced from its printing position;

Fig. 8 is an enlarged elevational view of a part of the assembly shown in Fig. 7, but showing the cutter as it is operating to cut a ticket strip;

Fig. 9 is a plan view of a portion of a ticket strip which may be printed by a machine constructed in accordance with the present invention;

Fig. 10 is a similar view of another form of strip;

Fig. 11 is an isometric view of the main frame member of the head of the machine;

Fig. 12 is a similar view of a rocker member which forms a part of the cutter operating mechanism;

Fig. 13 is a similar view of a portion of the strip feeding means;

Fig. 14 is a plan view of a ticket printed and severed from a ticket strip by a machine of the type disclosed herein; and

Figs. 15 and 16 are respectively elevational and sectional details of a portion of the feed slide assembly.

In general, a machine of the type provided by the present invention may include a base and suitable driving mechanism of the same type disclosed in my above-identified patents. The driving mechanism may be controlled by a suitable counter and stop mechanism of the type more fully disclosed in my United States Patent

No. 2,007,526 so that the machine may operate to print a predetermined number of tickets. A linkage L causes the platen frame or head 37 to swing in response to actuation by a barrel cam 25, while this linkage may also include a link 70 to actuate a feed slide 71 and feed finger 72 (Fig. 4).

A ticket strip S may be employed with a machine of this character (Fig. 9). Such a strip S may comprise a plurality of tickets T separated by feed slots 2 with elongate slits 4 aligned with these slots, there being narrow connecting necks 5 at the ends of the slots separating the same from from the slits. Such a strip may be folded back and forth on itself, as shown at the left of Fig. 1, to afford a compact rectangular package from which the end of the strip may extend in zigzag form to the machine.

The head 37 includes a main frame member 38 having a pivotal connection 40 with the fixed frame of the machine and having a rather steeply inclined plate portion 41 (Fig. 11). A wall portion 42 extends from the plate portion 41 to a front flange 118, to which the rubber platen block 85 is secured. The head 37 also includes a lower guide plate 44 which affords a channel in which the feed slide 71 is mounted. A substantially semicircular sheet metal guide 20 is secured to the inclined portion 41 of the head 37, as shown in Fig. 1, this guide being arranged to engage the lower surface of a ticket strip and to direct the same downwardly to the inclined portion 41 of the head.

The margins of the ticket strip may be received by opposite angle members 22 which are adjustably mounted upon the inclined part 41 of the head. These angle members are secured to blocks 23 (Fig. 2) which are slidable in channels 41^a in the head portion 41, suitable slots 41^b (Fig. 4) extending along these channels so that thumb screws 24 may extend through the slots to permit clamping of the blocks and angles in adjusted position. Accordingly the width of the guideway provided by the angles 22 may be varied to accommodate ticket strips of different widths. The angles 22 are inclined downwardly, as shown in Fig. 1, but their lower ends are curved to approach a slightly inclined path which is followed by the ticket strip as it approaches the printing mechanism. A metal retaining member 21 is supported by elements 21^a extending from the frame 38 of the head. This retaining member is arranged so that its edge may engage the upper surface of the ticket strip between the angles 22.

The end of the feed slide 71 is beveled, as designated by the numeral 71^a (Fig. 13) adjoining the printing wheel or type assembly W, and this end of the slide 71 is provided with a channel over which a thin metal plate 76 extends. The feed finger 72 has an end portion engaging an opening 74 in this plate and has an opposite prong-like end 73 extending through an opening 75 in the plate. A spring 79 (Fig. 4) yieldably urges the prong-like end 73 of the feed finger upwardly.

The wall 42 of the head frame 38 is milled out to provide a guide channel 42^a (Figs. 4, 5 and 11) along which a plate 80 is slidable, this plate being clamped in adjusted position by a hand bolt 84—84^a. A shield 81 is secured to the lower part of the member 80 to be movable therewith. This shield underlies the end portions of the guides 22 and the end portion of the retaining member 21 (Fig. 6) and the pronged end 73 of the feed finger 72 is yieldably pressed in engagement with the lower surface of this shield until it reaches the edge of the same, whereupon the prong may

be pressed upwardly to engage the ticket strip S, the prong 73 moving into a feed slot 2 in the strip and advancing the adjoining ticket section to printing position beneath the platen block 85. The latter is disposed in the same general manner as taught by my above-identified patents with reference to a printing wheel assembly W over which a printing ribbon R may extend.

The position of the shield 81 may be adjusted by loosening the hand bolt 84—84^a and sliding the part 80 along the guideway 42^a. Such an adjustment may be made when it is desired to vary the effective feeding stroke of feed finger 72 to accommodate tickets of different sizes.

When the head is moved downwardly to printing position (Fig. 6) by the cam 25 and linkage L, the platen block 85 presses the ticket strip against the ribbon R, and the end of the strip is printed. As the head then moves upwardly away from the assembly W, the slide 71 and the feed finger 72 are advanced by the link 70 from the position shown in dot and dash lines in Fig. 4 to the position shown in full lines, the feed finger feeding the next ticket section to printing position while the printed ticket section is advanced away from the platen block 85. The feed finger 72 advances somewhat beyond the block 85, as shown in Fig. 7, as the head reaches the upper end of its oscillatory path. As this occurs, a cutter 100 is automatically operated to cut the printed ticket section from the ticket strip. For this purpose, suitable cutting mechanism is provided which is operated by the relative movement of the head and the fixed lower portion of the machine without necessity for special actuating mechanism such as cam means or the like.

To this end an operating link 101 (Fig. 3) has a pivotal connection 106 with the fixed frame of the machine adjoining the end of the type assembly W (Fig. 1). The upper part of this link has a threaded connection with a rod 102 which is provided with stop nuts 103 that are engageable with the lower end of a sleeve 104 that is slidable on the rod 102 and slidable in a block 107. A stud 110 extends from the block 107, and a rocker 111 has a pivotal connection with the stud 110, the rear end of the rocker 111 also having a pivotal connection 112 (Fig. 4) with the wall 42 of the frame member 38. The rocker 111 is provided with depending ear portions 114 (Fig. 12) which receive the ends of a pintle pin 115 which is fixed to a knife supporting plate 120. The latter is provided with an adjustable set screw 117 that slidably engages the face of the flange 118 (Fig. 6), and it is also provided with an angular extension 122 which is yieldably urged upwardly by a compression spring 123, the lower portion of which is disposed in a socket in the flange 118. The rocker 111 is provided with a depending extension 131 upon which a set screw 132 is mounted so that the end of this screw engages the inner face of the flange 118.

The upper end of the sleeve 104 is provided with a collar 104^a which is engageable with a compression spring 105 that is held in place by adjusting nuts 108 and 109 secured to the upper end of rod 102.

When the head 37 is in printing position, the sleeve 104 may be lifted to the position shown in Fig. 6 relative to the head 37. As the head moves upwardly, the spring 105 tends to cause the sleeve 104 to slide in the block 107 until the flange 104^a at the upper end of the sleeve engages the upper surface of the block 107, whereupon continued movement of the head tends to cause the

compression of spring 105, tending to swing the rocker 111 about its pivotal support 112 and to move the knife supporting plate 120 downwardly relative to the head 37 and its flange 118. As this occurs, the spring 123 is slightly compressed but continues to hold the set screw 117 in engagement with the outer face of flange 118, so that this portion of the assembly is guided in a straight line path. Accordingly the knife is yieldably urged downwardly relative to the frame of the head so that the knife may cut or chop away the connecting necks 5 of the ticket strip which secure the printed ticket to the remainder of the strip.

Obviously as the head again moves downwardly toward printing position, the stop nuts 103 tend to cause the sleeve 104 to slide upwardly in the block 107, the pressure imposed by the spring 105 being reduced as the head moves out of its uppermost position.

The adjusting screw 117 permits accurate adjustment of the position of the cutting edges of the knife 100 relative to the path of the feed finger 72 so that the knife may be positioned accurately to cut the connecting necks of the strip S in alignment with the slits 4. The retaining nuts 108 and 109 may be loosened, if desired, so that the knife 100 is not pressed down with as much force when the head reaches the upper end of its path, so that the knife may merely crease the connecting necks 5 of the strip rather than entirely severing the same, or these nuts may be still further loosened so that the knife does not operate except when manually actuated by pressure on the rocker 111, which affords a handle for this purpose. Thus, for example, it may be desired to print a plurality of tickets without separating them by cutting and then to cut such a set of tickets from the remainder of the strip by manual actuation of the knife.

As shown particularly in Fig. 3, the knife 100 is of bipartite form, the beveled edge of the blade being cut away to accommodate the feed finger 72, the pronged portion 73 of this finger being in its advanced position beneath the knife (Fig. 7) when the knife moves to cutting position. It is apparent, therefore, that the feed finger is positioned between the cutting portions of the knife and has moved the feed slot into position wherein the slits 4 of the strip are aligned with the cutting edges of the knife so that the necks 5 may be cut in alignment with these slits. Thus a separate printed ticket T¹ of the character shown in Fig. 14 is provided, such a ticket being characterized by cut edges extending to a shallow cut reentrant portion 2^a provided by a half of the original feed slot 2 of the ticket strip. The printing on such a ticket may be arranged in the manner described in my United States Patent No. 2,007,526.

In order to permit the cutting of the ticket strip by the knife 100 while the strip is not being moved, a yieldable stop member 140 (Fig. 4) limits the movement of the slide 71 at the advance end of its path, it being understood that the link 70 is being yieldably actuated by the linkage L through this portion of the cycle. Accordingly, although the link 70 is being yieldably actuated, its movement and that of the slide 71 is halted while the knife chops the printed ticket from the ticket strip.

The slide 71 is adjustably connected to the link 70 so that the advance position of the slide 71 and of the feed finger 72 may be adjustably

varied. For this purpose the slide 71 is provided with a cut-away portion between similar rabbeted extensions 71^b (Figs. 2 and 16). An upper clamping plate 81 slidably engages these rabbeted portions 71^b and receives the threaded end of a clamping screw 77 which extends through a lower clamping plate 78. When the screw 77 is tightened, the plate 78 is thus pressed against the lower surfaces of the extensions 71^b of the slide, while the member 81 is pressed against the horizontal surfaces of the rabbeted parts of the portions 71^b. The end of the member 78 is engageable with the yieldable stop 140 to limit the yieldable movement of the slide (Fig. 4).

A plate 86 is secured by screws (Fig. 15) to the ends of the extensions 71^b of the slide 71 and is provided with a cutout portion received in a groove in an adjusting nut 82 (Fig. 4) which is threaded onto a stud 83 fixed to and projecting from the block 78. Accordingly when the clamping screw 77 is loosened, the adjusting screw 82 may be rotated to move the members 78 and 81 toward or away from the plate 86 which is fixed to the end of slide 71, and accordingly the relationship of the slide to the link 70 may be adjustable, while the end of the slide as well as the feed finger 72 may be advanced different distances so that under some conditions of adjustment the feed finger may be spaced at a greater distance from the platen block 85.

The position of the knife 100 relative to the platen block can also be varied so that the position of the printed indicia relative to the feed slots or the edges of the severed tickets may be varied as desired to suit different requirements. Thus, under some operating conditions the line of printed indicia may be quite close to one edge of the ticket, while under other conditions it may be desirable to have the line of printed indicia substantially midway between the parallel edges of the ticket. The adjustable arrangement of the slide 71 and of the knife 100 permits these desirable results, it being understood that the knife 100 may be adjusted so that it will sever the ticket strip when the feed finger 72 has moved to a point in substantial registration with the knife as shown, for example, in Fig. 7.

A machine of this type may not only feed ticket strips of different widths but may also feed such strips comprising tickets having a plurality of sections, each of which receives one printing impression. Fig. 10 illustrates such a strip S' comprising tickets T², each of which have two sections. The tickets T² may be separated by feed slots 2 and slits 4 of the type shown in Fig. 9, the tickets being joined by the narrow connecting necks 5. Between the sections of each ticket a feed slot 5^a may be provided which is wider than the feed slots 5, so that the knife 100 may pass through this wider slot without necessity for cutting the material. Obviously the strip S' is fed forward section by section to printing position but the knife is only effective in cutting separate tickets from the strip and does not operate in separating the sections of a single ticket from each other. Suitable perforated lines may be afforded in alignment with the feed slots 5^a to permit the subsequent separation of the sections of the ticket when desired.

In the operation of a machine of this character, the ticket strip S may be provided in a flat bundle with portions of the strip folded back and forth on itself. One end of the strip is lifted from the bundle to possess a more or less zigzag form, as shown in Fig. 1, and the end of this por-

tion of the strip is directed over the guide 20 and beneath the retaining member 21 to a position where the end feed slot 5 (or 5^a) may be engaged by the prong 73 of the feed finger 72 during the advance movement of the feed finger.

The printing wheel assembly W may be adjusted as described in my United States Patents Nos. 1,980,576 and 2,007,526 so that the desired indicia may be printed on the tickets. The counter mechanism 150 may be adjusted as taught in my last-identified United States patent so that the machine is set to print the desired number of tickets. The machine may then be started in operation, whereupon the first advance movement of the feed finger feeds the first ticket section beneath the platen 85 and the finger is retracted as the head moves downwardly to press the ticket section against the ribbon R of the printing wheel assembly. Thereupon the head swings upwardly away from its printing position as the feed finger 72 engages the feed slot adjoining the printed ticket section and advances this section beyond the plates 85 (Fig. 7).

As the head approaches the upper end of its path, the linkage associated with the cutter 100 is effective in moving the cutter downwardly, so that the necks 5 of the ticket strip may be severed (Fig. 8), thus affording a separate printed ticket T'. As the cutter 100 is moving downwardly through the necks of the ticket which is being pressed against the plate 76 on the feed slide 71, the prong 73 of the feed finger 72 is in its advanced position and the actuating linkage for the feed slide is being held against movement by the stop member 140 (Fig. 4). As the head starts downwardly toward printing position, the feed slide moves away from the platen and the prong 73 is disengaged from the edge of the severed strip.

After the next printing operation has been effected, the feed finger starts its advance movement, the prong 73 being pressed yieldably against the shield 81 and against the lower surface of the ticket strip until it finds its way into the feed opening 2 next to the end section of the strip, whereupon the cycle is repeated.

It is evident that the shield 80 may be adjusted to vary the effective path of the prong 73 wherein it may engage the strip, thus permitting the feeding of ticket sections of different widths. Obviously when a ticket strip of the type shown in Fig. 10 is being printed, the cutter 100, although operated once during each printing cycle, is not effective in tending to separate sections of a ticket from each other but is effective in separating the successive tickets from the strip. The cutter can be arranged to operate once during each printing cycle, while the ticket strips may be arranged with certain sections having connecting portions therebetween that lie wholly within the path of the knife so that such connecting portions are severed entirely to separate such sections, the strip having other connecting portions between other sections disposed outside of the path of the cutter, so that these sections are not entirely separated by the cutter and may remain connected to each other when leaving the machine. Thus the tickets may be arranged with any desired number of sections, each of which are printed and remain attached to each other, although the tickets themselves are separated by the cutter. Furthermore, the adjustable arrangement of the feed slide 71 and of the cutter 100 permits the printing of the ticket sections so that the line of indicia may be spaced as desired be-

tween the transverse edges of the ticket section.

The arrangement of the strip feeding means and of the cutter disclosed herein is particularly advantageous when employed in combination with a printing assembly comprising a plurality of adjustable type carrying wheels to permit the printed ticket immediately to be severed from the ticket strip. Accordingly when the operation of the machine is stopped there are no printed tickets remaining in the machine which are not severed from the strip. The arrangement of the knife 100, so that it cooperates with the end of the feed slide 70 in severing a ticket from the strip, permits the cutting or severing action to take place close to the platen even when a relatively large type wheel assembly is employed, such as is illustrated herein.

It should be understood that the present disclosure is for the purpose of illustration only and that this invention includes all modifications and equivalents which fall within the scope of the appended claims.

I claim:

1. Printing machine of the class described comprising a frame, a fixed printing portion and a movable printing head including a platen movable toward and away from said printing portion, feeding means on the head to feed successive sections of a ticket strip to printing position between said platen and portion, said means including a reciprocating element to engage successive feed openings in the strip, and a bipartite cutter operable to cut a ticket from the strip by severing connecting necks at each side of a feed opening, said cutter being arranged to cut the necks while straddling the reciprocating element when in engagement with a feed opening, and driving mechanism for operating the head, the feeding means and the cutter.

2. Printing machine of the class described comprising a frame, a fixed printing portion and a movable printing head including a platen movable toward and away from said printing portion, feeding means on the head to feed successive sections of a ticket strip to printing position between said platen and portion, said means including a reciprocating element to engage successive feed openings in the strip, and a bipartite cutter mounted on said head and operable to cut a ticket from the strip by severing narrow connecting necks at each side of a feed opening, said cutter being arranged to cut the strip while straddling the reciprocating element when in engagement with a feed opening between the necks, a link extending from the frame to the movable head for causing movement of the cutter relative to the head in response to the movement of the head away from the printing portion, and driving mechanism for operating the head and the feeding means.

3. Printing machine of the class described comprising a fixed frame, a printing portion mounted on the frame, an oscillating head pivotally connected to the frame, a platen on said head movable toward and away from said portion, a feed slide movable on said head, driving means to oscillate said head and to actuate the feed slide, a feed finger carried by said slide for engaging feed openings in a ticket strip to feed the successive sections of the strip to printing position between the printing portion and platen, a cutter movably mounted on said head to sever a printed ticket from the strip, and a link pivotally connected to the frame and operatively connected to the cutter to actuate the latter in re-

sponse to movement of the head and platen away from the printing portion.

4. Printing machine of the class described comprising a fixed frame, a printing portion mounted on the frame, an oscillating head pivotally connected to the frame, a platen on said head movable toward and away from said portion, a feed slide movable on said head, driving means to oscillate said head and to actuate the feed slide, a feed finger carried by said slide for engaging feed openings between successive sections of a ticket strip to feed the sections to printing position between the printing portion and platen, a cutter movably mounted on said head to sever a printed ticket from the strip, and a link pivotally connected to the frame and operatively connected to the cutter to actuate the latter in response to movement of the head and platen away from the printing portion, said knife being bipartite and being arranged to cut connecting necks at each side of a feed opening in the strip while the feed finger is engaged with such an opening.

5. Printing machine of the class described comprising a fixed frame, a printing portion mounted on the frame, an oscillating head pivotally connected to the frame, a platen on said head movable toward and away from said portion, a feed slide movable on said head, driving means to oscillate said head and to actuate the feed slide, a feed finger carried by said slide for engaging feed openings between successive sections of a ticket strip to feed the sections to printing position between the printing portion and platen, a cutter movably mounted on said head to sever a printed ticket from the strip, and a link pivotally connected to the frame and operatively connected to the cutter to actuate the latter in response to movement of the head and platen away from the printing portion, said knife being bipartite and being arranged to cut connecting necks at each side of a feed opening in the strip while the feed finger is engaged with such an opening, said feed slide including a portion against which the cutter may move in cutting a ticket.

6. Printing machine of the class described comprising a frame portion, an oscillating head portion pivotally mounted on the frame portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head for directing a strip between the assembly and platen, a feed slide movably mounted on said head and provided with a feeding element to feed successive sections of the strip to a printing position between the platen and assembly, driving means for actuating the head and feed slide, and a shield adjustably mounted on said head to underlie a portion of the path of the strip, said shield being engageable by said feeding element and being adjustable to vary the fraction of the path of the slide during which the element may engage and feed the strip.

7. Printing machine of the class described comprising a frame portion, an oscillating head portion pivotally mounted on the frame portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head for directing a strip between the assembly and platen, feeding means mounted on said head for feeding successive sections of the strip to a printing position between the platen and assembly, a cutter movably mounted on the head to sever a printed section from the remainder of the strip,

driving means for actuating the head and feeding means, and linkage connected to the frame portion to actuate the cutter in response to movement of the head portion, said linkage being adjustable so that the cutter may operate to crease the strip between adjoining sections without severing the same.

8. Printing machine of the class described comprising a frame portion, an oscillating head portion pivotally mounted on the frame portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head for directing a strip between the assembly and platen, feeding means mounted on said head for feeding successive sections of the strip to a printing position between the platen and assembly, a cutter movably mounted on the head to sever a printed section from the remainder of the strip, driving means for actuating the head and feeding means, and linkage connected to the frame portion to actuate the cutter in response to movement of the head portion, said linkage being adjustable so that the cutter may no longer be operable in response to movement of the head, the linkage providing a handle so that the cutter may then be manually operated when desired.

9. Printing machine of the class described comprising a frame portion, an oscillating head portion pivotally mounted on the frame portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head for directing a strip between the assembly and platen, feeding means mounted on said head for feeding successive sections of the strip to a printing position between the platen and assembly, a cutter movably mounted on the head to sever a printed section from the remainder of the strip, driving means for actuating the head and feeding means, and linkage connected to the frame portion to actuate the cutter in response to movement of the head portion, said linkage including a link pivotally connected to the frame, a swinging support on the head, the knife being carried by said support, a yieldable element between the link and support so that movement of the head away from the frame tends yieldably to cause the support to move the knife relative to the head.

10. Printing machine of the class described comprising a frame portion, a movable head portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head for directing a strip between the assembly and platen, a feed slide movably mounted on said head and provided with a feeding element to feed successive sections of the strip to a printing position between the platen and type assembly, a cutter movably mounted on said head and cooperating with a part of the feed slide in cutting a printed section from the remainder of the strip, and driving means for actuating the head, the feed slide and the cutter.

11. Printing machine of the class described comprising a frame portion, a movable head portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head for directing a strip between the assembly and platen, a feed slide movably mounted on said head and provided with a feeding element to feed successive sections of the strip to a printing position between the platen and type assembly, and a bipartite cutter movably mounted on said head

for straddling said feeding element when the latter has advanced a printed section of the strip away from printing position, said cutter being movable to press the material of the strip against a cooperating portion of the feed slide while cutting the printed section of the strip from the remainder thereof, and driving means for actuating the head, the feed slide and cutter.

12. Printing machine of the class described comprising a frame portion, a movable head portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head for directing a strip between the assembly and platen, a feed slide movably mounted on said head and provided with a feeding element to feed successive sections of the strip to a printing position between the platen and type assembly, and a cutter movably mounted on said head for cutting a printed section of the strip from the remainder of the strip, and means to adjust said cutter longitudinally of the path of the strip so that the position of the cut between the printed section of the strip and the remainder of the strip may be accurately determined.

13. Printing machine of the class described comprising a frame portion and a movable head portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, strip feeding means mounted on said head portion for feeding successive sections of a strip to printing position between said assembly and the platen, a cutter on said head portion movable to sever a printed section from the strip as the head portion moves away from said frame portion directly after having printed said section, and driving means for actuating said head portion, cutter and feeding means.

14. Printing machine of the class described comprising a frame portion and a movable head portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, strip feeding means mounted on said head portion for feeding successive sections of a strip to printing position between said assembly and the platen, a cutter on said head portion movable to sever a printed section from the strip as the head portion moves away from said frame portion directly after having printed said section, and driving means for actuating said head portion, cutter and feeding

means, said feeding portion and cutter being adjustable relative to the platen and type assembly, whereby the relative positions of severed edges of ticket sections and of indicia printed on said sections can be predeterminedly varied.

15. Printing machine of the class described comprising a frame portion, a movable head portion, a type assembly carried by one of said portions, a cooperating platen carried by the other of said portions, guiding means on said head portion for directing a strip between the assembly and platen, a feed slide movably mounted on said head portion and provided with a feeding element to feed successive sections of the strip to a printing position between the platen and type assembly and to cause successive printed sections of the strip to advance beyond the printing position, a cutter movably mounted on said head and cooperating with a part of the feed slide in cutting a printed section from the strip, said cutter and feeding element being adjustable relative to the platen and type assembly, whereby the relative position of the severed edge of a printed section and of indicia printed thereon may be predeterminedly varied, and driving means for actuating the head, the feed slide and the cutter.

16. Printing machine of the class described comprising a frame portion, a movable head portion, a type assembly mounted on said portion and comprising a plurality of adjustable wheels, a cooperating platen carried by the head portion, guiding means on said head portion for directing a strip between the assembly and platen, a feed slide movably mounted on said head portion and provided with a feeding element to feed successive sections of the strip to a printing position between the platen and said wheels and to cause successive printed sections of the strip to advance beyond the printing position, a cutter movably mounted on said head portion and cooperating with a part of the feed slide when said part of the slide advances between the wheels and platen in cutting a printed section from the strip, said cutter being actuatable as the head portion moves away from printing position to sever the section of the strip which has just been printed and advanced from printing position, and driving means for actuating the head, the feed slide and the cutter.