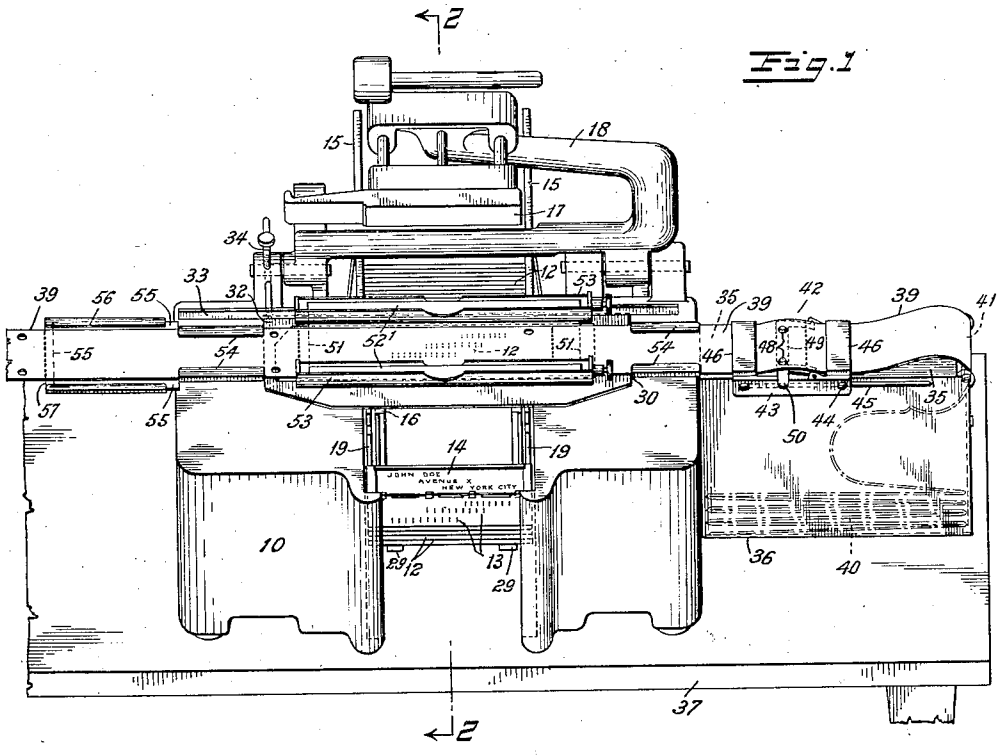
Oct. 29, 1929. E. K. BOTTLE 1,733,329

MANIFOLDING MACHINE

Filed May 22, 1925 2 Sheets-Sheet 1

Fig. 1



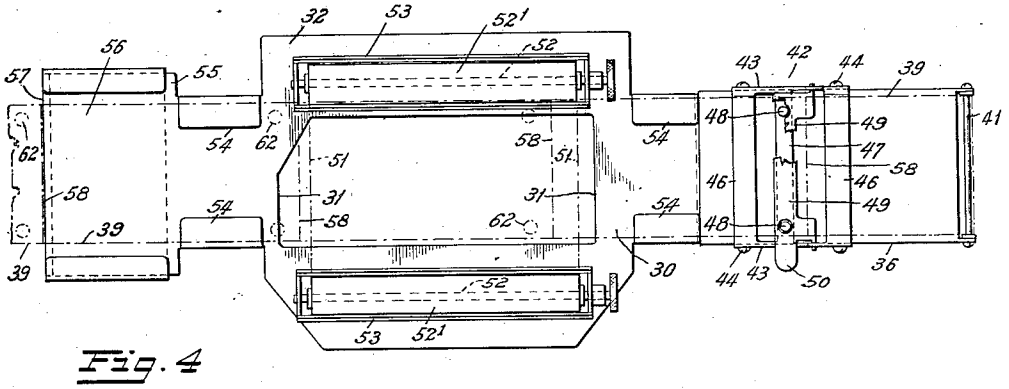


Fig. 4

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MANIFOLDING MACHINE

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Fig. 2

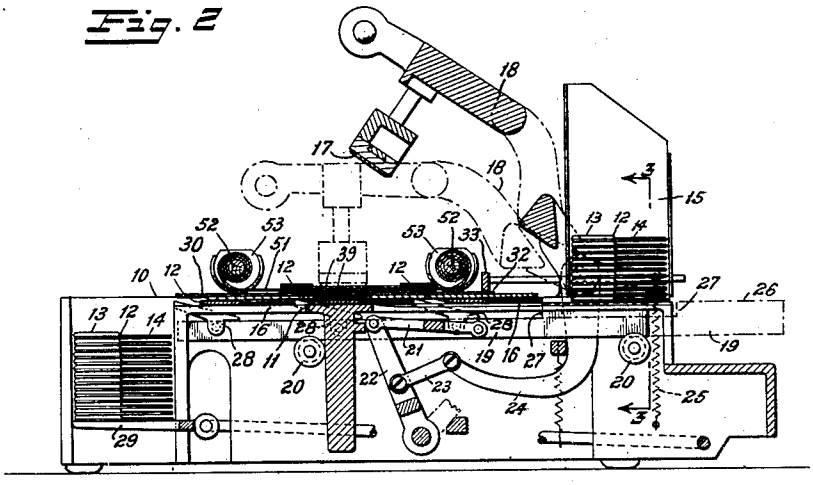


Fig. 3

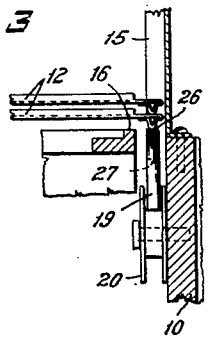


Fig. 5

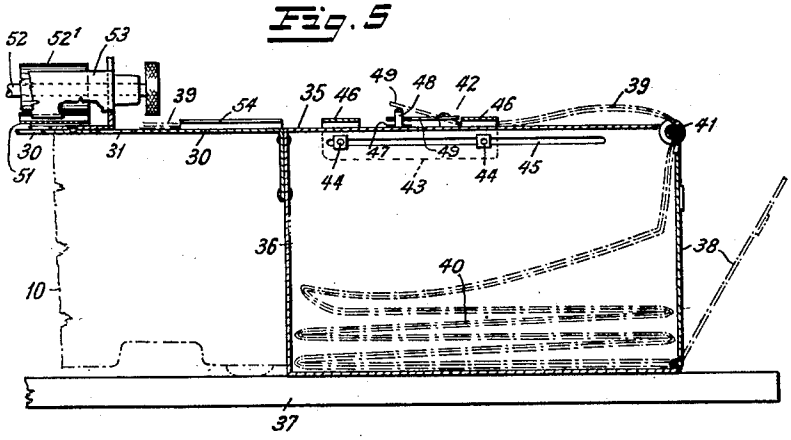
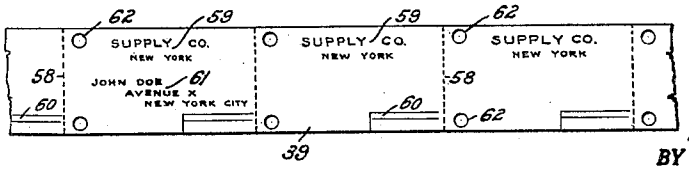


Fig. 6



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UNITED STATES PATENT OFFICE

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MANIFOLDING MACHINE

Application filed May 22, 1925. Serial No. 32,019.

This invention relates to improvements in manifolding machines, and more particularly in some of its details to improvements in such machines embodying a printing mechanism whereby a plurality of duplicate copies can be made at a single printing impression.

It is a general object of the invention to provide, in a machine of the class mentioned, an improved arrangement whereby a plurality of duplicate copies can be made at a single impression-making operation of the machine.

A further object is to provide an improved and simple arrangement for supporting one or more continuous record strips or webs, which may have blank forms arranged therealong, in position to receive successive printed impressions and to align and position these strips for the reception of such impressions.

Another object is to provide an improved arrangement for supporting a plurality of superposed continuous record strips or webs in position for the reception of successive impressions at spaced parts thereof by pressure of the strips onto a printing element and to simultaneously duplicate such impression upon each strip.

Other objects will be in part pointed out in connection with the following detailed description, and in part obvious in connection therewith.

The invention accordingly comprises the features of construction, combinations of elements, and arrangement of parts, which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the claims.

For a complete understanding of the nature and objects of the invention reference is had to the following description and to the accompanying drawings showing an illustrative embodiment of the invention, and in which

Figure 1 is a perspective view looking downwardly upon the front of a machine embodying the invention;

Fig. 2 is a vertical section taken approximately upon the line 2—2 of Fig. 1,

Fig. 3 is a fragmentary detail section on the line 3—3 of Fig. 2,

Fig. 4 is a plan view of the strip or web supporting attachment,

Fig. 5 is a vertical central section through the strip supporting attachment, and

Fig. 6 is a plan of a strip or web which may be used in the machine.

Referring to the drawings for a detailed description of the embodiment there shown, a printing mechanism is provided embodying a base frame 10 having a supporting bed 11 for supporting a printing element 12 in printing position adjacent the upper face of the machine. Each of these printing elements may form an independent movable unit with raised type 13 thereon and having a holder for an index card 14. A supply of these printing elements may be carried in a magazine 15, the elements being superposed in the form of a tier or stack in the magazine as shown. The printing elements are preferably fed forwardly one at a time from the bottom of the stack into operative printing position on the bed 11 along a supporting guideway 16 positioned between the magazine and the supporting bed 11.

For pressing the strips or other articles on which a printed impression is to be made into printing contact with the type of the printing element 12, when supported by the bed 11, a presser plate 17 of any preferred construction is mounted on a swinging supporting arm 18 pivotally mounted at one end on the frame 10. The printing elements 12 are automatically fed forwardly one at a time and advanced step by step at each impression making stroke of the presser plate 17. For accomplishing this function a feed mechanism is employed, including in the embodiment shown, a pair of spaced parallel reciprocable feed bars 19 suitably supported on rollers 20 to which is connected a link or links 21 attached at one end to a rock arm 22 pivotally supported in the frame 10. The rock arm is rocked at each printing stroke of the arm 18 by means of a link connection 23 between the rock arm and an arm 24 connected to and oscillatable with the swinging arm 18. The arm 18 may be operated manually to move the

presser plate 17 into impression-making position, and may be retracted by means of a spring 25 anchored to the frame and operatively connected to the arm 18.

The rear ends of the feed bars 19 have elevated supporting surfaces 26 for supporting engagement with supporting lugs or beads at each end of the undersides of the printing elements (see Fig. 3). At the forward terminal of these supporting surfaces are lugs or shoulders 27 (Fig. 2) formed by lowering the upper surface of the bar 19 forwardly of this point. Feed dogs 28 may also be pivoted in spaced positions along said feed bars 19.

For a more complete disclosure of a feeding mechanism for printing elements and embodying a construction and arrangement similar to the present disclosure, reference is made to Patent No. 764,660 for an addressing machine issued to J. S. Duncan on July 12, 1904.

When the presser plate 17 and arm 18 are depressed to the position shown in dot and dash outline, Fig. 2, the feed bars 19 are retracted to the dot and dash position shown in Fig. 2, whereupon the stack of printing elements 12 which had previously been supported upon the elevated surfaces 26, drops slightly so as to be supported at points spaced inwardly slightly from their ends upon the supporting bars or guideway 16. Then upon forward movement of the feed bars as the arm 18 is raised by the action of the spring 25, the shoulders 27 of said bars engage with the rear edge of the bottommost printing plate to push or slide it along the guideway 16 toward the bed 11. At the next successive feeding stroke of the arm 18 one of the feed dogs 28 attached to the feed bar 19 moves into position with its forward end in engagement with the rear edge of the printing element which had just previously been moved from the bottom of the stack, whereby said printing element is carried forward to printing position upon the supporting bed 11 at the next operative movement of the arm 18. It will be noted that the dogs 28 are biased as by spring or similar means so the forward or engaging ends thereof are automatically positioned for engagement with the rearward edges of the printing elements to carry the latter forward. Successive strokes of the arm 18 carry the printing elements from the supporting bed 11 along a supporting guideway where they are deposited in a stack upon a support 29.

For the purpose of supporting one or more continuous strips or webs in position over the printing elements when positioned on the bed 11, a supporting device is provided which may be and preferably is in the form of a detachable attachment. This attachment which is best shown in Figs. 1, 2 and 5 is provided with a strip supporting plate 30 adapted for lying upon the printing machine adjacent the supporting bed 11. An aperture 31 is provided in the supporting plate in position for registry with the printing elements when supported by the bed 11. A clamping extension 32 is formed at one edge of the supporting plate whereby said plate may be clamped in position by means of a clamping bar 33 which may be forced down into clamping position on the clamping extension by one or more screws 34, thus maintaining the strip supporting plate in correct operative position relative to the printing machine.

The strip supporting plate 30 is extended at one end thereof for connection with the top plate 35 of a receptacle or housing 36 for a supply of record webs or strips, the strip supporting plate 30 preferably being connected to the receptacle so as to form virtually a continuance of said top plate 35. The receptacle 36 is suitably of box-like construction, its forward wall being adapted to abut against the side of the printing machine and its height corresponding to the height of the printing machine so it may rest upon the same support 37 as the printing machine, its top then being at the same level as that of the machine. The receptable is provided with an interior compartment to which access is had through an end opening closed by a spring-pressed door 38 whereby the receptacle may be loaded with a supply of record strips such as indicated at 39. As shown, the supply of record strips is preferably in the form of a zigzag folded supply pack or pad 40 made up of one or a plurality of interfolded continuous strips or webs. The record strips may be led from the pack through a slot above the door 38, over the top of the receptacle onto the strip supporting plate 30. As many strips as desired for a particular purpose may be superposed one on another as mentioned, three such strips being indicated in Fig. 5 and two in Fig. 1. The strips are led over a guide roller 41 adjacent the forward end of the top plate 35 through a guiding and aligning device 42. This aligning device in the embodiment shown includes a unitary frame structure or carriage, being longitudinally adjustably supported upon the receptacle through depending plates or flanges 43, and bolts or similar securing devices 44 are positioned for connecting the flanges 42 to the receptable 36 through longitudinal slots 45 formed in the side plates thereof.

Transverse strip guide plates 46 extend across the top plate 35 from side to side of the guiding and aligning carriage, being slightly spaced above the top plate 35 to receive the record strips thereunder. Between these strip guide plates and mounted on the guiding and aligning carriage 42 so as to be longitudinally adjustable therewith, is a strip feed controlling and aligning mechanism including a transverse supporting plate 47 lying close to the plate 35 and carrying a pair of upwardly directed spaced lugs or posts

48. Overlying this supporting plate is a strip clearing or releasing plate 49 pivoted to the carriage and having openings through which the posts 48 project, and a handle 50 for manual operation of the plate.

A support for carbon or similar transfer strips 51 is positioned upon and supported by the strip supporting plate 30, this support preferably including longitudinally extending rotary supporting spindles 52 positioned near opposite longitudinal edges of the plate 30 and mounted in housings 53 attached to the plate 30. The carbon strip or strips may be wound upon the spindles 52 in the form of rolls 52′ so the reach of transfer strip extending between the spindles is positioned just above the printing element 12 when positioned over the supporting bed 11, each such reach of the transfer strip being positioned between two adjacent record strips. The transfer strips may be manually adjustable as by means of knurled knobs or heads attached to the spindles 52. For convenience of illustration, but one carbon strip is shown in Fig. 1, but it will be understood that two or more such strips may be employed.

Retaining guides 54 may be spaced along the strip supporting plate 30 for guiding and retaining the record strips in correct position upon the supporting plate, these guides being preferably formed integrally with the supporting plates and bent from the margins thereof to overlie the supporting plate in slightly spaced relation above the surface thereof, as shown.

The strip supporting plate 30 is provided at a point thereof remote from the receptacle 36 with an extension 55 on which is slidably mounted for longitudinal adjusting movement a plate 56 having a forwardly disposed transverse severing edge 57 which may be adjusted to coincide with points upon the record strip where the forwardly fed parts or sheets thereof are to be severed from the main strip. This adjustable severing plate may be mounted upon the extension 55 by turning its lateral edges over the corresponding lateral edges of the extension so the severing plate can be adjustable manually to position the severing edge as desired.

As mentioned, any desired number of record strips 39 may be employed, dependent upon the number of duplicates required for the particular purpose, and each strip may be divided into successive sheets connected end to end by means of transverse lines 58, preferably perforated or otherwise weakened and coinciding with the folds at the ends of the zigzag supply pack. Each sheet of the strip may also be provided with a printed heading or other insignia as indicated at 59 and with a blank form 60 for the reception of an entry by manual or other means. The space for receiving the printed impression, which is indicated at 61, Fig. 6, may be located as desired upon the sheet. Each sheet of each record strip is also provided with aligning apertures 62 spaced on each strip to correspond with the spacing of the feed controlling and aligning posts 48 and bearing a definite relation to the blank form and heading on the strip.

The operation of the apparatus will now be understood and may be summarized as follows: The supply pad 40 having been loaded into the compartment of the receptacle 36, the strips 39 are carried over the top plate of the receptacle under the guide plates 54 and 46 and over the feed controlling and aligning pins 48, being positioned with the face side down next to the supporting plate 30. The face sides of the strips are then directed toward the raised type of the printing elements 12 when the latter are in supported position upon the bed 11. It will be understood that an inking device may be furnished for inking the type of the printing elements, such as an inking ribbon lying over the bed 11 and printing element 12.

The magazine 15 having been loaded with the desired printing elements and the supporting plate 30 clamped in position as described, the machine is then ready for operation.

The record strips are fed forwardly over the printing machine until the sheet upon which an impression is to be made has passed beyond the feed control and aligning pins 48, which are prevented from entering the apertures 62 by manually raising the pivoted clearing plate 49 so as to ease the strips over the pins, preventing entry thereof into the apertures. It will be noted that the ends of the feed control and aligning pins are positioned somewhat above the guides 46 so the strips arch upwardly between said guides over the pins so there is a tendency as the strips are pulled forwardly, to continuously force said strips toward the pins, so the latter will automatically engage in the aligning apertures when they reach registering position therewith.

When the clearing plate 49 is permitted to drop to lowered position, the next pair of aligning apertures 62 coming along as the strip advances will be entered by the pins, thus checking the forward feed of the strips. This action not only effects a measured delivery of the strips and stops the sheet upon which an impression is to be made in correct registry with the printing element, but also tends to maintain the strips in correct registry with each other. It will be noted that the carriage or frame 42 is adjustable longitudinally of the record strips so the pins 48 may be positioned to check the strips for correct registry with the printing elements.

In order to release the strip for forward feeding after a checking action so as to introduce a fresh sheet over the printing element, the strips may be released from the pins

48 by raising the clearing or releasing plate until the apertures have moved forwardly out of registry with the pins, the clearing plate being then permitted to drop so the strip checking action takes place when the next set of strip apertures comes along.

The sheet upon which the impression is to be made being positioned as described over the printing element, the presser plate 17 is moved into contacting position with the strip, applying pressure thereto to force it into contact with the type, whereby a printed impression is made upon the bottom strip lying next to the printing element. It will thus be seen that the pressure plate 17 functions as a platen for supporting the record strips and cooperates with the printing plate to effect a printed impression upon the record strips. By virtue of the carbon strip or strips 51 lying between the adjacent record strips, this printed impression is also simultaneously transferred to the upper record strip or strips in the same relative position thereon as the original impression upon the bottom strip. The sheets thus printed upon, when fed forwardly, may be severed across the edge of the severing plate 56 as above described.

From the foregoing it will be seen that a plurality of printed impressions may be simultaneously made upon separate sheets or record strips at a single operating stroke of the presser plate 17.

Since certain changes may be made in the above construction and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:

1. In a manifolding machine, in combination, a bed for supporting a printing element in printing position, means for supporting a plurality of relatively superposed traveler record strips having respectively registering sets of record receiving forms in aligned position with said printing element for receiving printing impression therefrom, means for effecting pressure between said printing element and the aligning record forms of said record strips, means for imparting a printed record by said printing element simultaneously on a plurality of said record forms when pressure is effected between said forms and printing element and means operable upon operation of said pressure effecting means for replacing said printing element by another printing element.

2. In a manifolding machine, in combination, a bed for supporting a printing element in printing position, means for supporting a plurality of relatively superposed traveler record strips having respectively registering sets of record receiving forms in aligned position with said printing element for receiving printing impression therefrom, means for effecting pressure between said printing element and the aligning record forms of said record strips, means for imparting a printed record by said printing element simultaneously on a plurality of said record forms when pressure is effected between said forms and printing element, means operable upon operation of said pressure effecting means for replacing said printing element by another printing element, and a positive strip engaging device for checking the forwardly fed record strips when the respective record forms thereof are aligned with said printing element so as to receive a printed impression thereby.

3. In a manifolding machine, in combination, a bed for supporting a printing element in printing position, means for supporting a plurality of record strips in impression receiving position adjacent said printing element, a presser plate for pressing said record strips upon said printing element, means for imparting a printed impression by said printing element simultaneously on a plurality of said record strips when said presser plate is operated to exert pressure upon said strips, a supply compartment for a plurality of supply record strips having blank forms thereon so the strips may be fed from said compartment into impression receiving position, and means for checking the forwardly fed record strips when said blank forms reach impression receiving position.

4. In a manifolding machine, in combination, a bed for supporting a printing element in printing position, means for supporting a plurality of record strips in impression receiving position adjacent said printing element, a presser plate for pressing said record strips upon said printing element, manifolding means for duplicating the impression of said printing element simultaneously on a plurality of said record strips when said presser plate is operated to exert pressure upon said strips, a supply compartment for a plurality of supply record strips having blank forms thereon so the strips may be fed from said compartment into impression receiving position, and a plate having a tearing edge positioned beyond said printing element across which the forwardly fed strips may be severed.

5. In a manifolding machine, in combination, a bed for supporting a printing element

in printing position, means for supporting a plurality of record strips in impression receiving position adjacent said printing element, a presser plate for pressing said record strips upon said printing element, manifolding means for duplicating the impression of said printing element simultaneously on a plurality of said record strips when said presser plate is operated to exert pressure upon said strips, a supply compartment for a plurality of supply record strips having blank forms thereon so the strips may be fed from said compartment into impression receiving position, means for checking the forwardly fed record strips when said blank forms reach impression receiving position, and a plate having a tearing edge positioned beyond said printing element across which the forwardly fed strips may be severed.

6. In a machine of the character described, in combination, a bed for supporting a printing element in printing position, means for supporting a record strip in impression receiving position adjacent said printing element, a presser plate for pressing said record strip upon said printing element, a supply compartment for a supply record strip having blank forms thereon so the strips may be fed from said compartment into impression receiving position, and means for placing a printing element in impression receiving position at each pressing operation of said presser plate.

7. In a machine of the character described, in combination, a bed for supporting a printing element in printing position, means for supporting a record strip in impression receiving position adjacent said printing element, a presser plate for pressing said record strip upon said printing element, a supply compartment for a supply record strip having blank forms thereon so the strips may be fed from said compartment into impression receiving position, and means for checking said record strip as fed forwardly when said blank forms reach aligning position with said printing element.

8. In a machine of the character described, in combination, a bed for supporting a printing element in printing position, means for supporting a record strip in impression receiving position adjacent said printing element, a presser plate for pressing said record strip upon said printing element, a supply compartment for a supply record strip having blank forms thereon so the strips may be fed from said compartment into impression receiving position, means for checking said record strip as fed forwardly when said blank forms reach aligning position with said printing element, and a plate having a tearing edge positioned beyond said printing element across which the forwardly fed strips may be severed.

9. In a machine of the character described, in combination, a bed for supporting a printing element in printing position, means for supporting a record strip in impression receiving position adjacent said printing element, a presser plate for pressing said record strip upon said printing element, a supply compartment for a supply record strip having blank forms thereon so the strip may be fed from said compartment into impression receiving position, and a positive strip engaging device for checking the forwardly fed record strip when a blank form thereon is aligned with said printing element so as to receive an impression thereby when pressed by said presser plate.

10. In a manifolding machine, in combination, a bed for supporting a printing element in operative position, a plate for supporting a plurality of record strips in impression receiving position adjacent said printing element, and having an opening in registry with said printing element, a presser plate for pressing said record strips upon said printing element, transfer strips supported by said plate and positioned for duplicating the impression of said printing element simultaneously on a plurality of said record strips when said presser plate presses upon said strips, a container for a supply of record strips to which said supporting plate is attached, and means for clamping said supporting plate in operative position upon the machine.

11. In a machine of the character described, in combination, a bed for supporting a printing element in printing position, means for supporting a record strip in impression receiving position adjacent said printing element, a presser plate for pressing said record strip upon said printing element, a supply compartment for a supply record strip having blank forms thereon so the strips may be fed from said compartment into impression receiving position, stops for engagement in apertures in said record strips for checking the latter when the blank forms thereon are positioned in alignment with said printing element, and means for disengaging said stops and apertures for permitting forward feeding of said strip.

12. In a manifolding machine, in combination, a bed for supporting a printing element in operative position, a plate for supporting a plurality of record strips in impression receiving position adjacent said printing element, and having an opening in registry with said printing element, a presser plate for pressing said record strips upon said printing element, a support carried by said plate for supporting a transfer strip in position for duplicating the impression of said printing element simultaneously on a record strip when said presser plate presses upon said strips, and stops for engaging

apertures in said record strips for checking the latter when the blank forms thereon are positioned in alignment with said printing element.

13. In a manifolding machine, in combination, a bed for supporting a printing element in operative position, a plate for supporting a plurality of record strips in impression receiving position adjacent said printing element, and having an opening in registry with said printing element, a presser plate for pressing said record strips upon said printing element, a support carried by said plate for supporting a transfer strip in position for duplicating the impression of said printing element simultaneously on a record strip when said presser plate presses upon said strips, stops for engaging aperture in said record strips for checking the latter when the blank forms thereon are positioned in alignment with said printing element, and means for disengaging said stops and apertures for permitting forward feeding of said strips.

14. The combination with a machine adapted to print upon a sheet or the like and including a printing plate and means to press a sheet and printing plate into printing relation with each other, of a detachable attachment for the printing machine adapted to be applied thereto and removed therefrom, said detachable attachment including a support for a record strip supply and a strip support connected directly to and extending from said supply support for supporting a record strip in position upon said printing machine to receive a printed impression from said printing plate.

15. The combination with a machine adapted to print upon a sheet or the like and including a printing plate and means to press a sheet and printing plate into printing relation with each other, of a detachable attachment for the printing machine adapted to be applied thereto and removed therefrom, said detachable attachment including a supporting plate extending on the upper surface of the printing machine substantially from side to side thereof for supporting a record strip in position upon said printing machine to receive a printed impression from said printing plate, guiding means on said strip support for guiding the strip in impression receiving position and securing means for detachably securing said attachment in operative position upon said printing machine.

16. The combination with a machine adapted to print upon a sheet or the like and including a printing plate and means to press a sheet and printing plate into printing relation with each other, of a detachable attachment for the printing machine adapted to be applied thereto and removed therefrom, said attachment including a support for a plurality of supply record strips, a strip support connected directly to and extending from said supply strip support for supporting said strips in position to receive a printed impression through cooperation of the printing plate and pressing means, and a support mounted upon said attachment for supporting a transfer strip so as to transfer said printed impression to one of said record strips.

17. The combination with a machine adapted to print upon a sheet or the like and including a printing plate and means to press a sheet and printing plate into printing relation with each other, of a detachable attachment for the printing machine adapted to be applied thereto and removed therefrom, said attachment including a support for a plurality of supply record strips, a strip support for supporting said strips in position to receive a printed impression through cooperation of the printing plate and pressing means, and a support mounted upon said attachment for supporting a transfer strip so as to transfer said printed impression to one of said record strips, said attachment having an extension in the form of a plate slidably connected to the attachment over which the forwardly fed strips may be severed.

18. A detachable attachment for printing machines including, in combination, a support for a record strip supply, a strip supporting plate for supporting said strip in position on said machine to receive a printed impression, and means for effecting measured delivery of the record strip, said delivery means being adjustable relatively to said strip supporting plate.

19. In a manifolding machine, in combination, means for supporting one or more record strips in position to receive an entry thereon, means for checking the record strips when fed forwardly in position to receive an impression, and means for mounting said checking means for adjustment so as to check the strips in different positions.

20. In a manifolding machine, in combination, means for supporting one or more record strips in position to receive an impression thereon, a carriage mounted for adjustment longitudinally of the record strip, a pin carried by said carriage in position to enter an aperture in said strip to check advancement thereof, and a releasing plate on said carriage to release the strip from said pin.

21. In a manifolding machine, in combination, means for supporting one or more record strips in position to receive an entry thereon, a carriage mounted for adjustment longitudinally of the record strip and having spaced strip guides, a pin on said carriage between said strip guides and positioned to enter an aperture in the strip to check advancement thereof, and means on said carriage to disengage said strip and pin from each other.

22. In a manifolding machine, in combina-

tion, a strip supporting plate upon which a record strip may be led and supported and a tear-off plate having a tearing edge, said tear-off plate having sliding connection with said supporting plate whereby said tear-off plate may be slid longitudinally of the strip to vary the tearing position of said tearing edge relative to said strip.

23. In a manifolding machine, in combination, a strip supporting plate upon which a record strip may be led and supported, a tear-off member having a tearing edge adjustable longitudinally of the strip to vary the tearing position thereof relative to the strip, and a strip engaging, strip checking device, mounted on said supporting plate for adjustment thereon longitudinally of the strip.

24. In a manifolding machine, in combination, a strip supporting plate upon which a record strip may be led and supported and a tear-off plate having a tearing edge, said tear-off plate having sliding connection with said supporting plate whereby said tear-off plate may be slid longitudinally of the strip to vary the tearing position of said tearing edge relative to said strip, and a strip engaging, strip checking device, mounted on said supporting plate for adjustment thereon longitudinally of the strip.

25. In a manifolding machine, in combination, a strip tearing member adjustable longitudinally of the strip, and a strip engaging, strip checking device spaced longitudinally from said tearing member, and being adjustable longitudinally of the strip.

26. A detachable attachment for printing machines including a strip supporting plate adapted for detachable attachment to a printing machine and having strip retaining guides thereon, said plate having an opening therein positioned for alignment with printing elements of the machine and in registry with which one or more record strips may be supported for receiving a printed impression.

27. A detachable attachment for printing machines including a strip supporting plate adapted for detachable attachment to a printing machine and having strip retaining guides thereon, said plate having an opening therein positioned for alignment with printing elements of the machine and in registry with which one or more record strips may be supported for receiving a printed impression, and supporting means mounted on said strip supporting plate for supporting a transfer strip in registry with said opening adjacent to one of said first mentioned strips.

28. In a manifolding machine, in combination, a supoprt for record strips, a supporting bed for supporting printing plates in printing position relative to the record strips, means including a lug engageable in apertures in the strips to check said strips in printing position with respect to said bed and means for manifold printing a plurality of said record strips by a printing plate supported by said bed.

29. In a manifolding machine, in combination, a supporting bed for supporting printing plates in printing position with relation to record strips, a top plate adjacent said bed, means for manifold printing a plurality of said record strips by a printing plate supported upon said bed, a strip supporting plate superposed upon said top plate upon which the record strips may be led and supported, and a tear off member carried by said supporting plate and having a tearing edge adjustable longitudinally of the strip to vary the tearing position thereof relative to said bed.

30. In a manifolding machine, in combination, a supporting bed for supporting printing plates in printing position with relation to record strips, a top plate adjacent said bed, means for manifold printing a plurality of said record strips by a printing plate supported upon said bed, a strip supporting plate superposed upon said top plate upon which the record strips may be led and supported, a platen cooperating with said printing plate so as to effect printed impression upon said record strips, and transfer strip supports extending from opposite lateral edges of said strip supporting plate forwardly and rearwardly of said bed so as to support a transfer strip in position for duplicating the impression of said printing element simultaneously on a record strip.

31. In a manifolding machine, in combination, a supporting bed for supporting printing plates in printing position relative to record strips, a top plate positioned adjacent said bed, means for manifold printing a plurality of said record strips by a printing plate supported upon said bed, a detachable strip support including a strip supporting plate superposed upon said top plate upon which record strips may be led and supported, said strip support including a strip supply support positioned laterally at one side of the manifolding machine so as to position the record strips for movement transversely of the machine bed, said support having an extension plate carrying a strip tearing edge positioned laterally at the side of the machine opposite to said supply support.

In testimony whereof I affix my signature.

EDWARD KIRBY BOTTLE.