

Jan. 31, 1939.

M. J. HOFFMAN

2,145,654

COUPON TICKET PRINTING MACHINE

Filed July 25, 1936

5 Sheets-Sheet 1

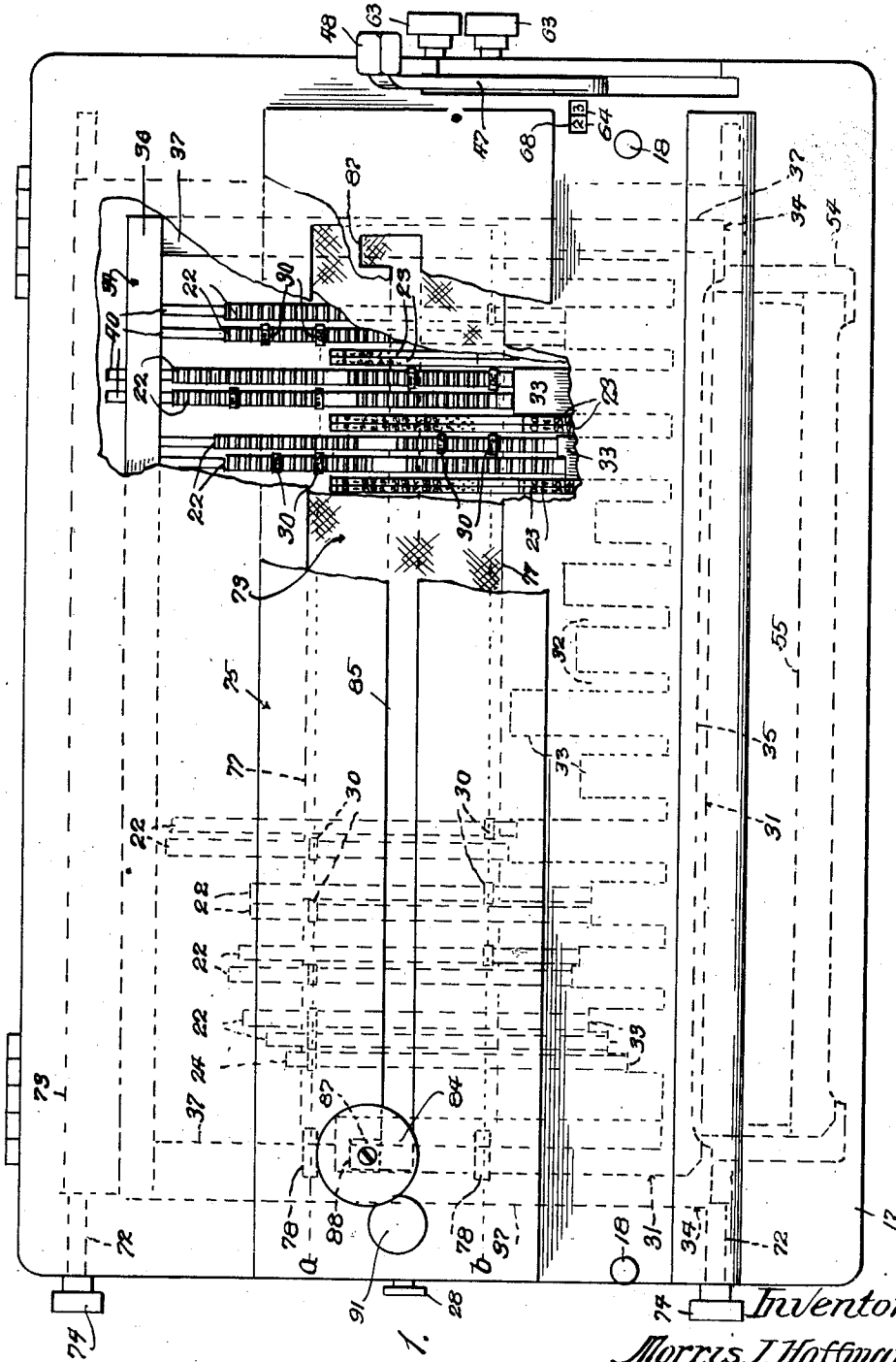


Fig. 1.

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COUPON TICKET PRINTING MACHINE

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5 Sheets-Sheet 2

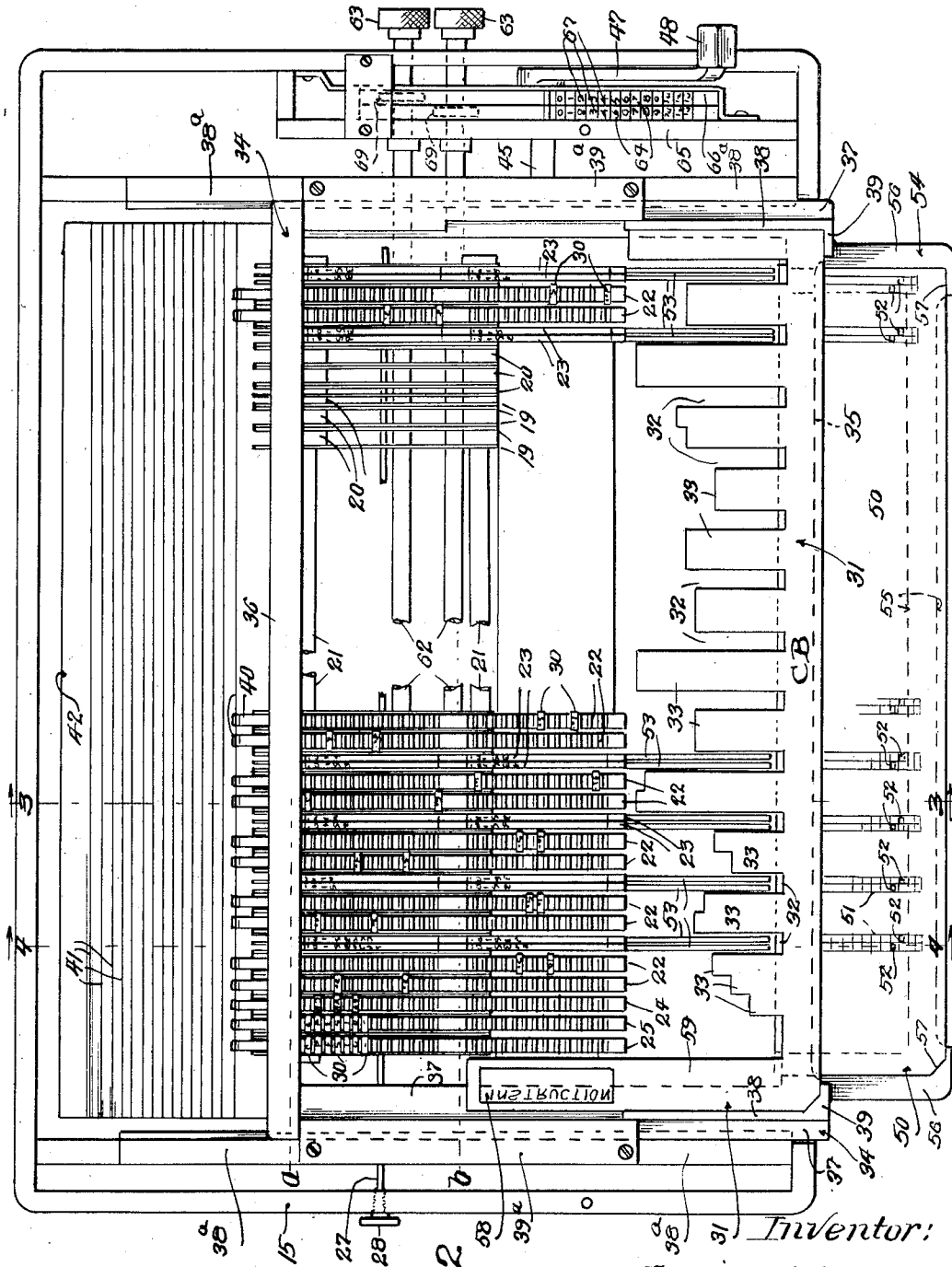


Fig. 2

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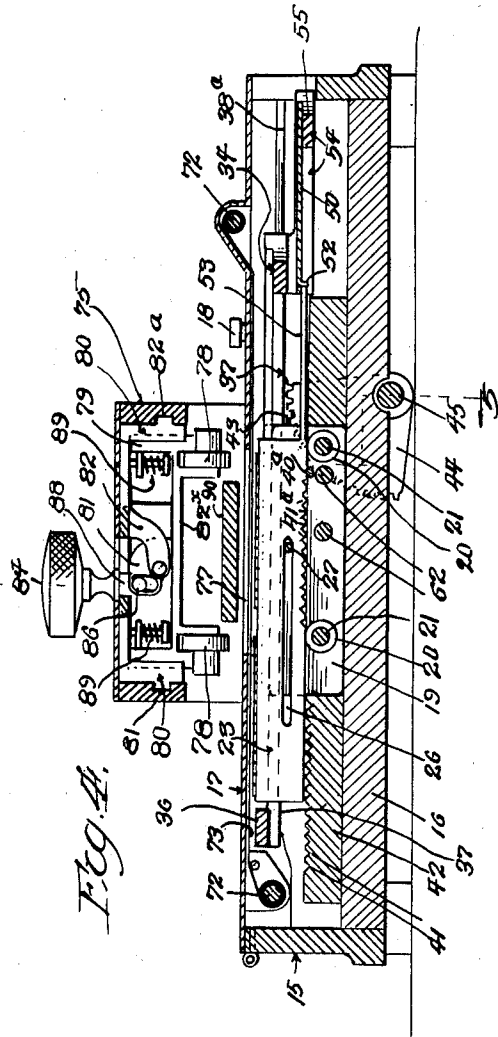
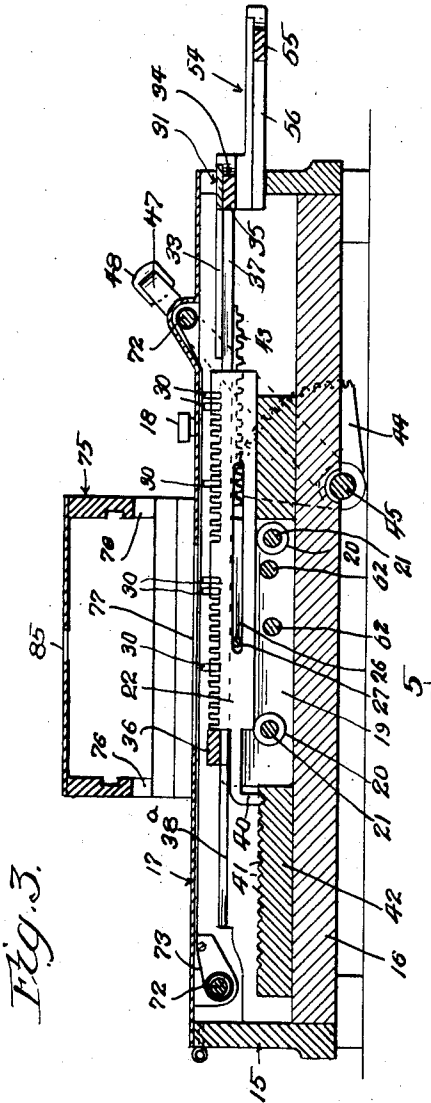
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COUPON TICKET PRINTING MACHINE

Filed July 25, 1936

5 Sheets-Sheet 3



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COUPON TICKET PRINTING MACHINE

Filed July 25, 1936

5 Sheets-Sheet 4

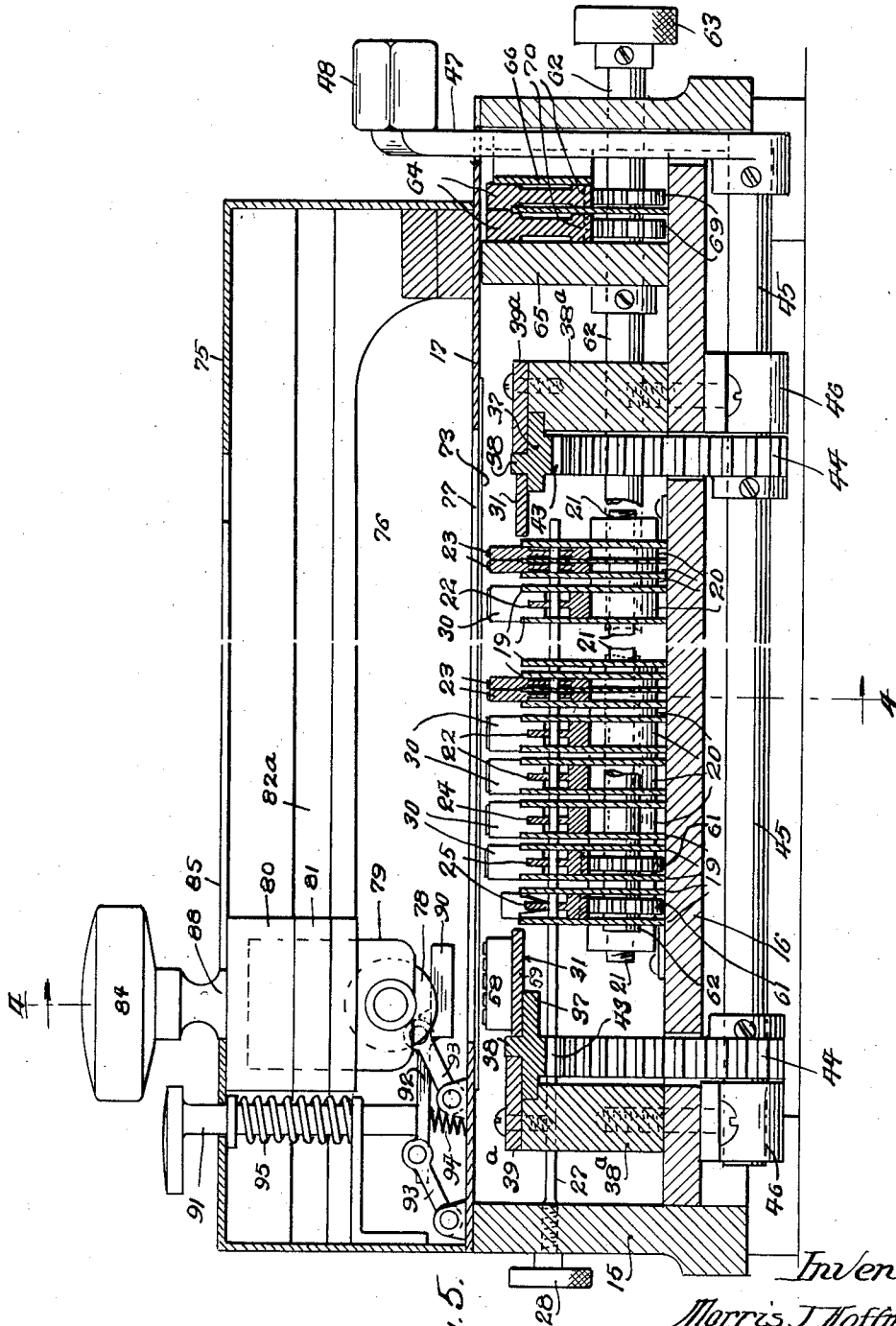


Fig. 5.

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COUPON TICKET PRINTING MACHINE

Filed July 25, 1936

5 Sheets-Sheet 5

Fig. 12.

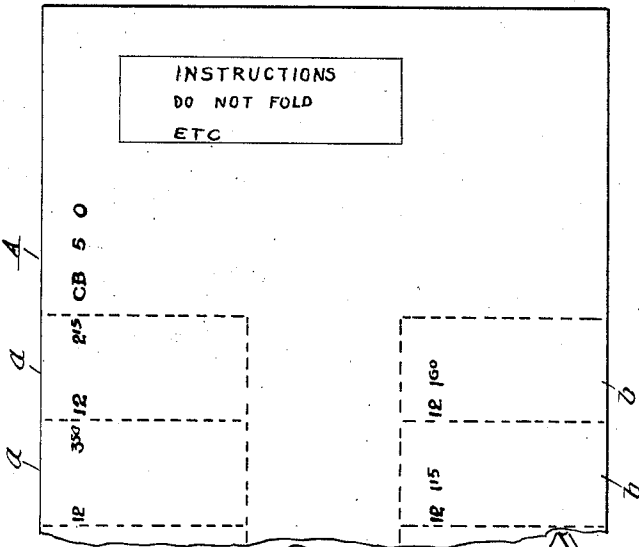


Fig. 11.

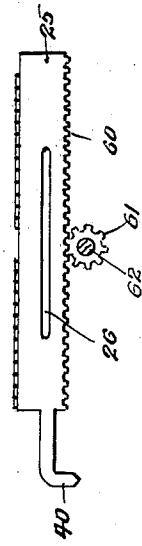


Fig. 6.

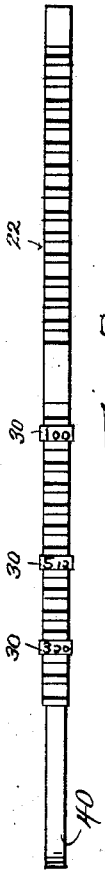


Fig. 7.

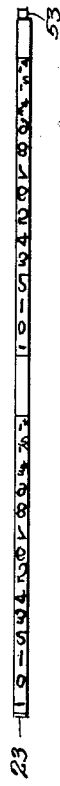


Fig. 8.

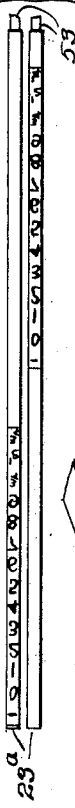


Fig. 9.

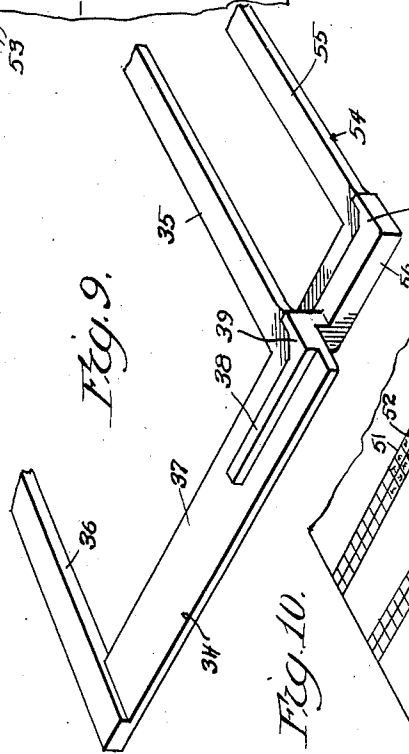
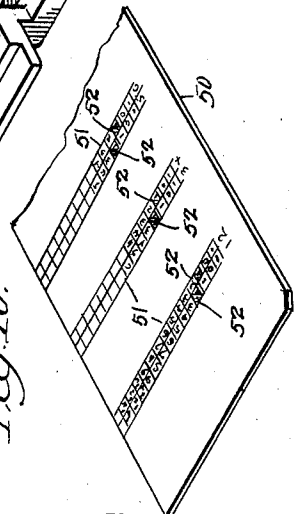


Fig. 10.



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UNITED STATES PATENT OFFICE

2,145,654

COUPON TICKET PRINTING MACHINE

Morris J. Hoffman, Chicago, Ill., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application July 25, 1936, Serial No. 92,512

18 Claims. (Cl. 101—93)

This invention relates to coupon ticket printing machines and has been designed for printing the same data, such as an identification number on the several coupons of a coupon ticket, and for printing other dissimilar data, such as prices, on the several coupons. As is well known, coupon tickets are employed for keeping account of workmen's time spent in the manufacture of an article which requires labor to be performed on it by several workmen. Such a ticket contains a number of detachable coupons, each of which identifies the article, the workman and the different prices for piece work performed by the several workmen on the article. The ticket accompanies the material and each workman who performs labor on the article tears off the printed coupon representing his share of the work and receives pay in accordance with the indication on the coupon.

With the use of a machine for printing the data on the coupons, the likelihood of mistakes occurring in placing the data on the coupons is practically eliminated and a great deal of time is saved which would otherwise be spent in preparing the coupon by writing the data thereon.

The principal object of the invention is to provide printing mechanism having type bars provided with type characters thereon, and shiftable lengthwise of themselves, in unison, and independently of each other, so as to bring the desired type characters thereof into printing position, whereby to print similar or dissimilar data in two spaced lines upon a coupon ticket or other sheet.

Another object is to provide a series of type locating plates associated with said type bars and having means located thereon in position to engage the type bars and move them, thereby bringing selected type characters thereof into printing position.

Another object is to provide an arrangement of type bars, whereby, for instance, various prices may be printed upon the coupons of the tickets, and simultaneously, numbers indicating quantity of other data, either the same number or different numbers may be printed on the coupons.

Another object is to simplify and otherwise improve upon the construction and operation of printing machines of this character.

With these and other objects and advantages in view, this invention consists in the several novel features of construction, arrangement and combination of parts hereinafter more fully set forth and claimed.

An embodiment of the invention is clearly

illustrated in the drawings accompanying this specification, in which:

Fig. 1 is a plan of a coupon ticket printing machine embodying a simple form of the present invention, part of the top being broken out to show some of the type bars and certain others of the type bars being shown in dotted lines, and the type bars, in this view, being illustrated in printing position;

Fig. 2 is a plan with the top removed and certain parts broken away, this view showing the type bars in their neutral position;

Fig. 3 is a vertical cross-section on the line 3—3 of Fig. 2;

Fig. 4 is a vertical cross-section, taken on the line 4—4 of Figs. 2 and 5, but showing the type bar in printing position;

Fig. 5 is an enlarged vertical cross-section, taken on the broken lines 5—5 of Fig. 4, showing the type bars in neutral position.

Fig. 6 is a plan of one of the price printing type bars;

Fig. 7 is a plan of one of the number printing bars;

Fig. 8 is a plan of a pair of number printing type bars, showing a somewhat different arrangement of type characters thereon;

Fig. 9 is a fragmental, perspective view of a carriage;

Fig. 10 is a fragmental, perspective view of one of the type locating plates;

Fig. 11 is a detail, side elevation of one of the code number printing type bars and an associate pinion; and

Fig. 12 is a plan of a fragment of one of the coupon tickets showing data printed thereon by the machine.

Referring to said drawings, the reference character 15 designates a rectangular frame, in which is secured a bottom 16, and 17 designates a top or cover hinged to the frame 15 at the back thereof. The top or cover is fastened down by screws 18 and, if desired, a lock may be provided for locking the top to the frame so as to prevent unauthorized access to the mechanism therein. The printing mechanism is mounted in the frame and the impression making mechanism is mounted in the top. Mounted upon the bottom 16 and extending crosswise of the machine are a multiplicity of flat strips 19 which I have called "liners", suitably spaced apart by washers 20, through which extend rods 21, which have nuts threaded upon their ends for rigidly securing the liners in place. The adjacent liners provide guide-ways in which are slidably held type bars 22, 23, 24, 25, said type

bars resting upon the washers 22 and being provided with elongated slots 26 through which extends a rod 27 threadedly mounted in one wall of the frame and having a knob 28 on its end by which it is handled. The rod 27 serves to prevent accidental removal of the type bars from their guide-ways.

The type bars 22 are employed for printing "prices" or other data which may vary on the several coupons, *a*, *b*, (see Fig. 12), and the type bars 23 are used to print numbers on the coupons, which numbers may be the same on each coupon or different, as the case may be. The type bar 24 is used to print a code at the top of the ticket A, corresponding with the hereinafter mentioned type locating plate, and the type bars 25 may also be used to print numbers or other data in connection with the code as is found desirable. The type bars 25 are adjustable independent of the other type bars.

The price printing type bars 22 are provided with removable, interchangeable type slugs 30, which are mounted in notches formed upon the upper edges of the type bars 22. There are two series of notches in each type bar 22, one series being disposed at each end of the type bar, whereby to enable two type slugs to simultaneously occupy printing positions indicated by the dotted lines *a*, *b*, in Figs. 1 and 2. The type slugs bear type characters which print prices; that is to say, the price for work done by each workman upon the article or series of articles which the coupon ticket identifies and these type slugs are selectively set in the type bars 22, one set of type slugs being set in the series of notches at one end of a type bar and the other set of type slugs being set in the other series of notches in an adjacent type bar. The type slugs in one series of notches print along the line, *a*, on one row of coupons, and those in the other series of notches print in the other line, *b*, on the other row of coupons. The type bars 22 are arranged in pairs, one pair for two opposite coupons. The type slugs of one bar of each pair print on one coupon and those on the other type bar of the pair print on an oppositely disposed coupon.

From the above it is evident that either price printing type bar 22 of each pair may be adjusted independently of the other, so as to bring any of the type slugs thereon into printing position. As illustrated, the number printing type bars 23 are arranged between adjacent pairs of price printing type bars 22, and one full set of type bars for any two oppositely disposed coupons comprises a pair of type bars 22 and two or more type bars 23, whereby to simultaneously print the price and the quantity on two opposite coupons.

The number printing type bars 23 may be made considerably narrower than the type bars 22, and they are provided upon their upper sides with type characters (see Fig. 7), such as the digits 0 to 9 and fractions, there being a similar arrangement of type characters at both ends of the type bars 23. For the purposes of illustration, only two type bars 23 are shown in each group, but there may be as many type bars 23 in each group as is found desirable, for instance, if it is necessary to print a number of four digits on each coupon, four type bars 23 should be employed in each group. When the type characters at both ends of the type bars 23 are duplicated, then irregardless of the adjustment of said type bars, the same set of digits will be presented in printing position at both ends of the type bars 23, and print

similar quantities or amounts on all of the several coupons. Sometimes it is desired to print different numbers on the several coupons, and in such case, instead of having the duplicate type characters at both end of each type bar 23, one series of type characters are placed upon one or the other end of each type bar 23^a, as seen in Fig. 8. It is to be observed that either of the type bars 23^a of a pair may be adjusted independently of the other so as to bring the desired type character thereon into printing position on either of two oppositely disposed coupons, and where several pairs of type bars 23^a, similar to the one shown in Fig. 8 are employed in each group, a number having several digits may be printed upon one coupon and a different number having several digits may be printed on the opposite coupon.

For conveniently and accurately adjusting the several price printing and number printing type bars into printing position, a series of type locating plates are employed, one of which is illustrated at 31. Each type locating plate is provided with projections or tongues which are adapted to engage the ends of the type bars and slide them to printing position. In the form of plate shown at 31, it is formed with a series of notches 32 parallel with the type bars and disposed in alignment with the number printing type bars 23, the notches being formed between a series of tongues 33 that are arranged parallel to encounter the rear ends of the price printing type bars when moved forward to thereby slide said type bars to printing position. The length of said tongues determines the distance the type bars are moved to bring selected type slugs into printing position. The ends of the notches are so disposed that when the plate is moved through its full stroke for setting the price printing type bars the ends of the notches will not encounter any type bars aligned therewith.

A slidable carriage 34 is provided in the base for supporting the type locating plate 31 in proper position. The carriage 34 is of rectangular form and comprises a front bar 35, a back bar 36, and end bars 37, 37. The end bars 37 of the carriage are formed with parallel raised ribs 38 between which the type locating plate 31 is held, and said ribs are carried around the forward corners of the plate 31, as seen at 39, to thereby definitely locate the plate on the carriage.

The carriage is slidably mounted in ways formed in rails 38^a, which are secured to and extend up from the bottom 16 of the frame, and the carriage is held down on the rails by guide plates 39^a, fastened upon said rails and overlying the side edge portions of the end frame bars 37. The back bar 36 of the carriage is arranged to restore all of the type bars to neutral position whenever the carriage is moved to its neutral position, as is clearly seen in Fig. 2, and thereby placing them in position to be properly engaged by the several tongues of the type locating plate 31, whereby when the plate is moved forward to set the selected type slugs into printing position, all of the type bars actuated thereby will be placed in printing position. For further positively locating each type bar in exact printing position, each type bar is provided at an end thereof with a finger piece 40, (see Fig. 3) having a down-turned tapered end which is arranged to enter any of a series of V-shaped grooves 41 formed in the upper face of a block 42 fastened upon the bottom 16 of the frame. By reason of the tapered finger engaging in the tapered grooves, the type bar is positively located

in the exact printing position. As an alternate form for positively determining the printing position of each type bar, the bars themselves may be provided with V-shaped notches on their lower edges, as is seen at 41^a in Fig. 4, which engage with V-shaped bars or lugs 40^a mounted in the liners 19. The price printing bars are shown with fingers and the number printing ones with notches.

Means are provided for moving the carriage back and forth and, as shown, said means comprise rack bars 43 on the under sides of the end frame bars 37 and gear segments 44 rigidly mounted on a rock shaft 45 journaled in bearing brackets 46 carried by the bottom 16 of the frame. A crank arm 47 fastened upon one end of the rock shaft 45 and provided with a knob or handle 48 provides means for rocking the shaft. The crank arm 47 protrudes through a slot formed at one end of the top 17 and the ends of the slot may serve as stops for limiting the strokes of the crank arm and thereby limiting the length of strokes or movement of the carriage.

In the present embodiment of the invention, the number printing type bars 23 are controlled by a separate type locating plate 50 which may be of the same form as the plate 31, or it may be of the form illustrated in connection with the number printing type bars. As shown, the type locating plate 50 is of rectangular form and upon one face thereof are printed or otherwise formed graduation marks 51, one for each number printing type bar and bearing the same characters as are employed on the number printing type bars. The spacing of the graduation marks is the same as the spacing of the type characters on the printing bars and the projections for engaging with said bars are formed by punching the metal of the plate downward to form tongues, as seen at 52 in Fig. 10.

To form the downwardly projecting tongues, for instance if it is desired to print the number "12" on the several coupons, as seen in Fig. 12, tongues are punched down at the digits 1 in the units column, and at the digits 2 in the tens column, at the several graduation marks along the length of the plate. These tongues are arranged to engage with extensions 53 formed on the forward ends of the number printing type bars. Obviously the tongues could be arranged to engage with the forward ends of the type bars, but when the plate 50 is used in connection with the embodiment of the invention as illustrated, it is located in a plane below the type locating plate 31 and is arranged to slide over the tops of the extensions 53 with the tongues coming into engagement with said extensions as the plate is moved forward.

The carriage 34 is formed with a carriage extension 54 located in front of the main portion of the carriage and slightly below the plane thereof. The extension 54 comprises a front bar 55 and two end bars 56, that extend to and join with the front and end bars of the main carriage, as is more clearly seen in Fig. 9. Ribs 57 are provided on the end bars as in the main carriage, with which to locate the type locating plate 50 on the carriage extension.

Several of the type locating plates 50 accompany each machine so that the attendant may prepare them by punching the tongues therein at the proper places to move the number printing type bars to selected printing position. As illustrated in the drawings, the tongues of the

plate 50 are arranged to move the number printing bars to a position in which they print the number "12". Sometimes on each coupon the same prices may prevail, but it may be necessary to change the quantity and by selecting the properly prepared plate 50, the desired quantity may be printed on each coupon.

It is to be observed that either type locating plate may be used to actuate all of the type bars 22, 23 and 24, if so desired. One of the tongues 10 of the plate 31 is arranged to actuate the code printing type bar 24 (see Fig. 2) which type bar sets up the code for the particular type locating plate 31 used for printing coupon tickets in connection with a particular job, and this code corresponds with the code appearing on the type locating plate selected.

It is sometimes desired to print a set of instructions at the top of a coupon ticket, as is seen in Fig. 12. For this purpose a type block 58, having type characters thereon for printing instructions, is removably fastened to the tongue 59 of the type locating plate 31 in position to print at the top of the coupon ticket.

The type bars 25 are manipulated independently of the other type bars and, as shown, they are provided with rack bars 60 (see Fig. 11) upon their lower edges, which mesh with pinions 61 fast upon shafts 62 that extend through the liners and out through one end member of the main frame 15, where they are provided with knobs 63 by which the shafts may be manipulated. Indicating bars 64, slidably mounted between guide strips 65, 66, secured in the base and having indicating characters 67, duplicating the type characters on the type bars 25, are provided for indicating to the workman the position of the type bars 25. The sight opening 68 is provided in the top 17, above the indicating bars, through which the indicating characters thereon may be seen when adjusting the type bars 25. Pinions 69, fast on the shafts 62, and meshing with rack bars 70 on the undersides of the indicating bars provide means for moving each indicating bar 64 and associated type bar 25 in unison. The type bars 25 are used in connection with the code printing type bar 24 to print code or other data at the top of the coupon ticket beyond the uppermost coupon thereon, as is indicated in Fig. 12, where the code, "C, B, 5, 0" is printed.

Wound upon rollers 72, journaled in bearings on the underside of the top 17, is an inked ribbon 73, which overlies all of the type bars and type block. The rollers 72 or their shafts project beyond one end of the cover and are provided with knobs 74, whereby the ribbon may be moved occasionally to bring a fresh place into position over the type bars.

Secured to and extending up from the top 17, is a housing 75 of rectangular form and having elongated openings 76 in its side walls through which the coupon ticket may be inserted so as to lie on the top 17 above the type characters. The top 17 is formed with an elongated slot 77 of sufficient width to expose the two rows of type characters that are adjusted to printing position, whereby a coupon ticket may be depressed through said slot against the two rows of type characters that are in printing position and the interposed inked ribbon. The means for making the impressions on the coupon tickets may be of any appropriate form. As shown two rollers 78 are employed for pressing the coupon ticket into engagement with the type characters and inter-

posed inked ribbon. The rollers 78 are spaced apart the same distance as the two rows of type characters that are in printing position. The rollers are carried by a depressible frame 79 (see Fig. 4), slidably mounted in a guide block 80, which is formed with ribs 81, that are guided in grooves or ways 82^a formed on the inner faces of the side walls of the housing. Any form of means may be provided for depressing the frame 79 and rollers 78 and, as shown, a segmental block 81, fulcrumed upon arms 82, carried by the guide block 80 and engaging with the bottom wall 82^x of the depressible frame, is employed. A knob 84, extending through a slot 85 in the top wall of the housing and extending through a slot in the guide block 80, is provided with a pin 86 which engages with the segmental block 81 when the knob is shifted transversely of the slot. At the ends of the slot 85 are transverse extensions 87 thereof, in which the stem 88 of the knob 84 extends. Springs 89 between the depressible frame 79 and guide block 80 are provided for raising the frame and therewith the rollers. Normally the stem of the knob extends through the transverse part of the slot at either end thereof and in this position the rollers are held in raised position. By moving the knob through the transverse part of the slot and into the lengthwise extending part thereof, the cam block is swung downward, thereby depressing the frame 79 and therewith depressing the rollers 78 into position for making the impression.

An impression block 90 is provided in connection with the type block 58 for printing the instructions at the top of the ticket. Suitable means are provided for depressing the impression block 90 and, as shown, said means comprise a stem 91 guided in the housing and engaging a tail piece 92 of the impression block 90 and a pair of parallel movement links 93 connecting the top 17 with the impression block. Springs 94, 95 are employed for restoring the impression block to its raised position. The block 90 occupies the space between the rollers and is not interfered thereby when they are depressed.

In the drawings only a few type slugs are shown in the type bars, but in actual practice all of the notches may be filled with type slugs. One way of loading the machine is to set a series of selected type slugs in an end row of notches, placing one slug in one of each pair of type bars and placing a series of selected type slugs in an end row of notches in the other type bars of the pairs. These type slugs are thus arranged to print the various prices in the several coupons along both side edges of a coupon ticket.

For the purposes of illustration, 14 notches are provided at each end of each bar and other selected type slugs may be set in other rows as above set forth. By using type locating plates having tongues of the proper length, any of these rows may be brought into printing position. By varying the lengths of the tongues any combinations of the several rows is obtainable, thereby making it possible to print almost unlimited combinations of prices. As above stated, the type locating plates 31 may be formed with tongues arranged to engage the number printing type bars, as well as the price printing bars, but there are advantages in using a separate plate for actuating the number printing type bars. For instance, if it is desired to use narrow coupons the price printing bars may first be set into printing position, by one of the plates 31, to print the prices, the coupon ticket inserted and

the prices printed on the coupons, and after the prices have been printed, the type bars are restored to their neutral position, the plate 31 removed and the plate 50 placed on the carriage extension, the number printing bars then set into printing position by the plate 50 and the numbers printed on the coupon tickets above or below the impressions made by the price printing slugs.

Obviously the code printing type bars and the instruction printing type block are optional and may be dispensed with, if desired.

More or less variation of the exact details of construction is possible without departing from the spirit of this invention. I desire, therefore, not to limit myself to the exact form of the construction shown and described, but intend, in the following claims, to point out all of the invention disclosed herein.

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

1. In a printing machine, the combination of a frame, a multiplicity of parallel type bars slidably guided therein and arranged in groups and each provided with type characters thereon, a type locating plate slidably guided in said frame and having projecting tongues adapted to engage and propel the type bars to selected printing positions, and means to reciprocate said plate.

2. In a printing machine, the combination of a frame, a multiplicity of parallel type bars slidably guided in said frame and arranged in pairs, each type bar having type characters thereon, the type characters on one type bar of each pair being disposed at one end thereof, and the type characters on the other bar of each pair being disposed at the other end of said bar, whereby any one pair of type bars print at two spaced places, a type locating plate slidably guided in said frame and having projecting tongues adapted to engage and propel the type bars to selected printing positions, and means to reciprocate said plate.

3. In a printing machine, the combination of a frame, a multiplicity of type bars slidably guided in said frame, said type bars being arranged in groups and each type bar having duplicate series of type characters at both ends thereof, whereby to print duplicate data in two spaced parallel lines, a type locating plate slidably guided in said frame and having projecting tongues adapted to engage and propel the type bars to selected printing positions, and means to reciprocate said plate.

4. In a printing machine, the combination of a frame, a multiplicity of type bars slidably mounted in said frame, said type bars being arranged in groups and each two type bars having a series of type characters thereon, one series being disposed at one end of one type bar and a different series at the other end of the second type bar, whereby to print different data in two spaced lines, a type locating plate slidably guided in said frame and having projecting tongues adapted to engage and propel the type bars to selected printing positions, and means to reciprocate said plate.

5. In a printing machine, the combination of a frame, a multiplicity of type bars, slidably guided therein, said type bars being arranged in groups, each group having a pair of price printing type bars provided with type characters thereon, those on one bar being disposed on one end thereof and those on the other bar being disposed on the other end thereof, the other type bars of each group having number printing type characters thereon, a type locating plate slidably guided in said frame and having projecting tongues adapted to engage

and propel the type bars to selected printing positions, and means to reciprocate said plate.

6. In a printing machine, the combination of a frame, a multiplicity of parallel type bars slidably guided therein and arranged in groups and each provided with type characters thereon, a type locating plate slidably guided in said frame and having projecting tongues adapted to engage and propel the type bars to selected printing positions, a carriage slidably guided in said frame and arranged to removably support said type locating plate, and means to reciprocate said carriage.

7. In a printing machine, the combination of a frame, a multiplicity of parallel type bars slidably guided therein and arranged in groups and each provided with type characters thereon, a type locating plate slidably guided in said frame and having projecting tongues adapted to engage and propel the type bars to selected printing positions, a carriage slidably guided in said frame and arranged to support said type locating plate, said carriage having a back bar extending parallel with the rear ends of the type bars and adapted to engage and line up the type bars when moved in one direction, and means to reciprocate said carriage.

8. In a printing machine, the combination of price printing type bars and number printing type bars, a type locating plate associated with the price printing type bars, a type locating plate associated with the number printing type bars, and a reciprocating carriage adapted to support both of said type locating plates.

9. In a printing machine, the combination of a frame, price printing type bars, and number printing type bars slidably mounted therein, a type locating plate associated with the price printing type bars and a type locating plate associated with the number printing type bars, a carriage slidably mounted in said frame and having means to support both of said type locating plates, and means to reciprocate said carriage.

10. In a printing machine, the combination of printing elements arranged in groups, some of the corresponding printing elements of all the groups having dissimilar type characters thereon, and other corresponding printing elements of all the groups having similar type characters thereon, setting mechanism for simultaneously setting corresponding printing elements of the several groups in printing position, whereby to print dissimilar data in several places, and auxiliary setting mechanism for individually setting any of the other printing elements of the several groups in printing position, whereby to print similar data in several places.

11. In a printing machine, the combination of type bars arranged in groups, some of the corresponding type bars of all the groups having similar type characters thereon, and other corresponding type bars of all the groups having dissimilar type characters thereon, setting mechanism for simultaneously setting corresponding type bars of each group to similar printing position, whereby to simultaneously print similar data in several places, and other setting mechanism, for individually setting any selected type bars of the several groups in printing position, whereby to simultaneously print dissimilar data in several places.

12. In a printing machine, the combination of

printing elements arranged in groups, some of the corresponding printing elements having similar type characters thereon, and other corresponding printing elements having dissimilar type characters thereon, setting mechanism for simultaneously setting corresponding printing elements of the several groups in printing position, whereby to simultaneously print similar data in several places, and a type locating plate having selectively located tongues thereon for adjusting other individual printing elements of the several groups to printing position, whereby to print dissimilar data in several places.

13. In a printing machine, the combination of a series of slidable price printing type bars arranged in groups and provided with removable type slugs, a type locating plate having tongues thereon adapted to engage said type bars and propel them to selected printing position, and a reciprocating carriage for supporting and reciprocating said plate.

14. In a printing machine, the combination of parallel type bars provided with equi-distantly spaced type characters on one edge, means to selectively slide the type bars to selected printing position, a finger on each type bar having a V-shaped end, and a plate having parallel, equi-distantly spaced V-shaped grooves co-operating with the V-shaped finger ends to precisely locate the type bars in printing position.

15. In a printing machine the combination of groups of price printing type bars, each provided with removable and replaceable type slugs, and interchangeable type bar locating means having bar engaging elements disposed at various predetermined effective places thereon adapted to directly engage and adjust the printing bars to various selected printing positions.

16. In a printing machine the combination of groups of price printing type bars, each provided with two series of removable and replaceable type slugs, one series adjacent each end of the type bar whereby to print upon two spaced rows of coupons, and interchangeable type bar locating means having bar engaging elements disposed at various predetermined effective places thereon adapted to directly engage and adjust the printing bars to various selected printing positions.

17. In a printing machine the combination of groups of price printing type bars and associated number printing bars, each price printing type bar being provided with two series of removable and replaceable type slugs, one series adjacent each end of the type bar whereby to print upon two spaced rows of coupons, and the number printing type bars having type characters thereon whereby to print upon said two spaced rows of coupons, interchangeable type bar locating means having bar engaging elements disposed at various predetermined effective places thereon adapted to adjust the price printing bars to various selected printing positions, and means for adjusting the number printing type bars to selected printing positions.

18. In a printing machine, the combination of groups of price printing type bars, each provided with removable and replaceable type slugs, and a type bar locating plate having bar engaging elements disposed at various predetermined effective places thereon adapted to directly engage and adjust the bars to various selected printing positions.

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