

Nov. 3, 1964

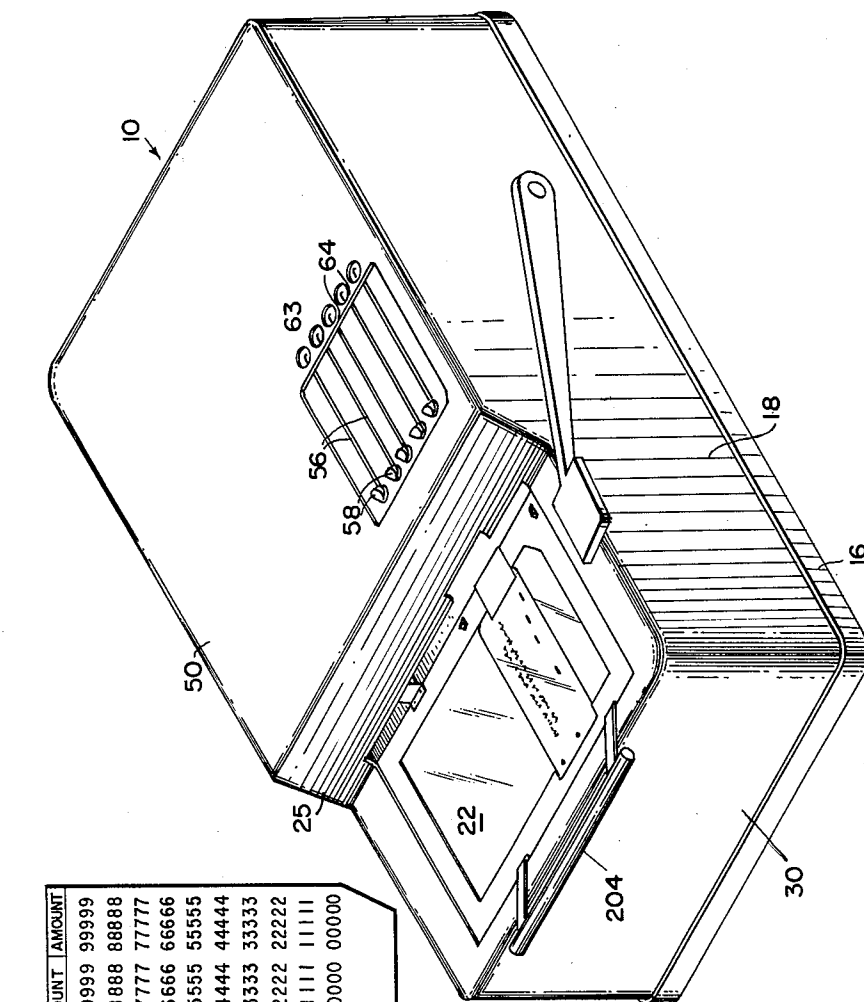
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3,155,031

PRINTING AND DIGITAL CODING MACHINE

Filed March 16, 1962

6 Sheets-Sheet 1

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PRINTING AND DIGITAL CODING MACHINE

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6 Sheets-Sheet 2

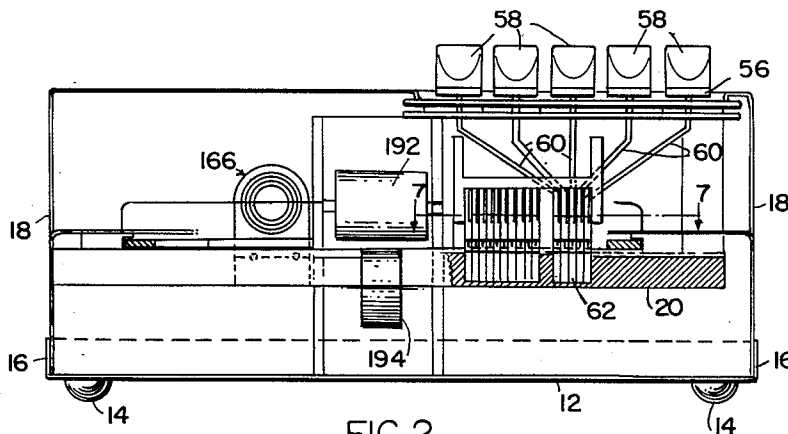


FIG. 2

QUAN.	MERCHANDISE	AMOUNT	TAX	TOTAL	SOURCE	CUSTOMER	ACCOUNT #	CUSTOMER
1	article	25 95		25 95			999999999	9999
							888888888	88888
							777777777	77777
							666666666	66666
							555555555	5555
							444444444	44444
							333333333	33333
							222222222	22222
							111111111	11111
							000000000	00000
CUSTOMER'S SIGNATURE					DATE			
					CUSTOMERS NAME & NUMBER			

FIG. 3a

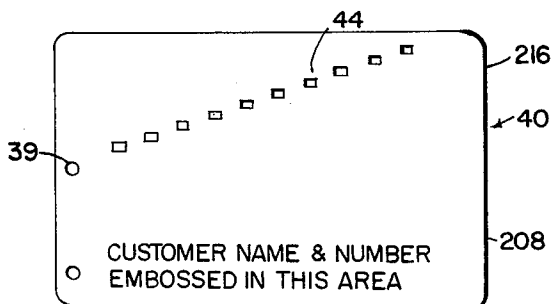


FIG. 4

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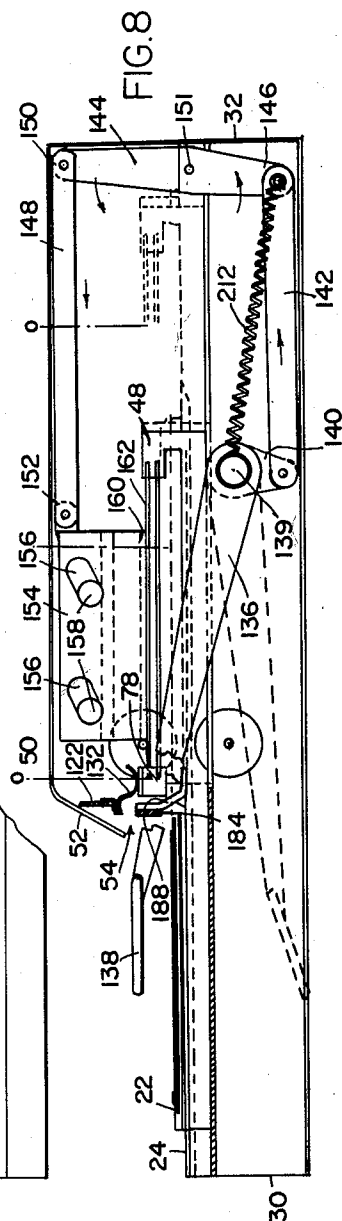
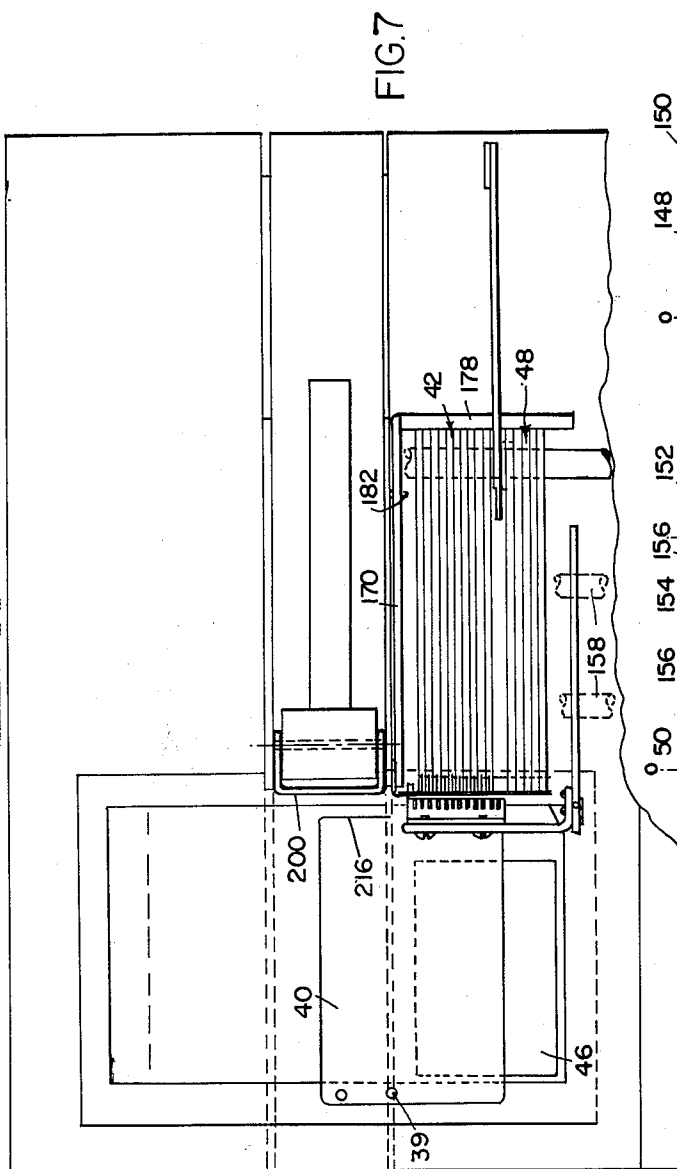
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PRINTING AND DIGITAL CODING MACHINE

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6 Sheets-Sheet 4



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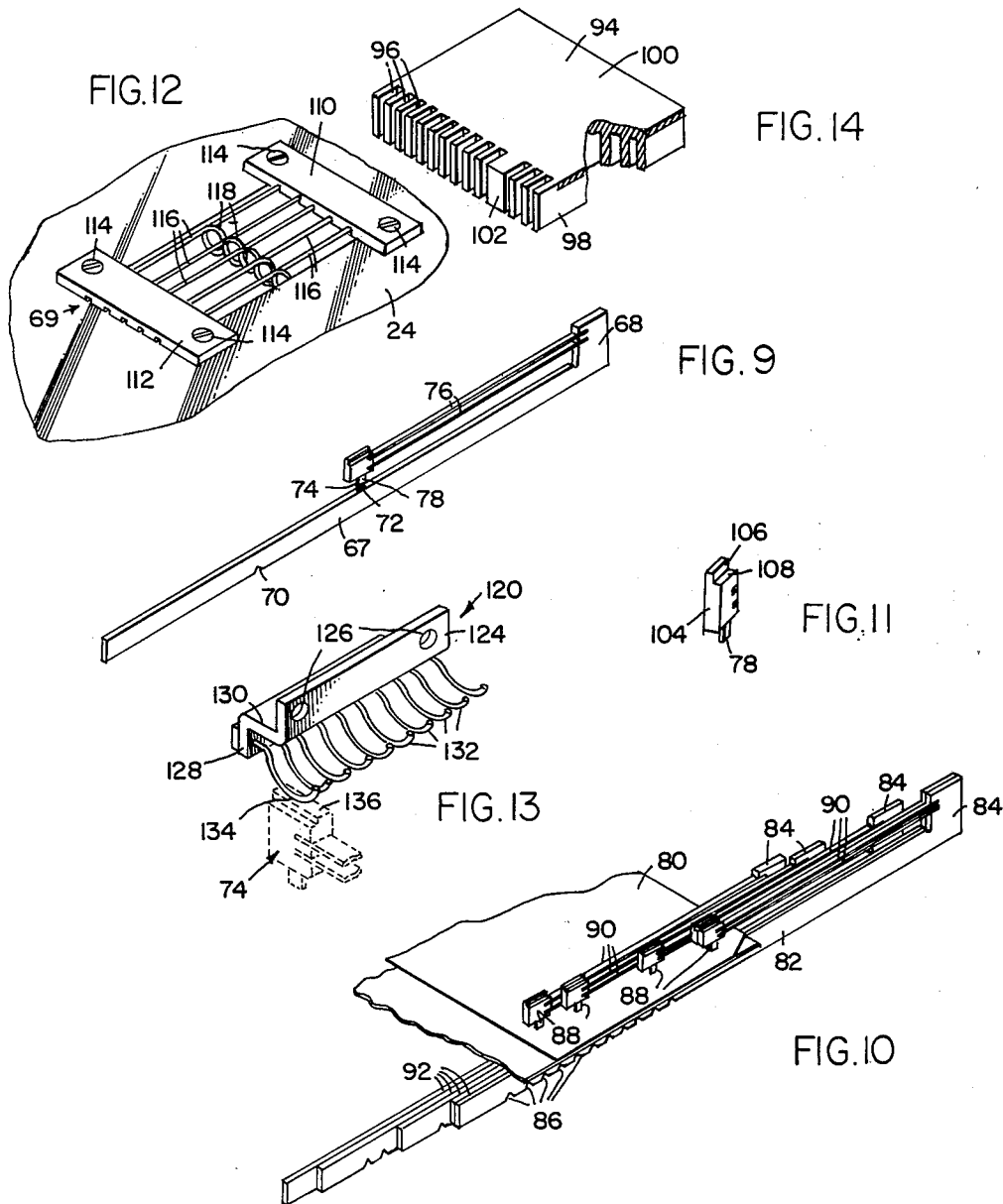
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PRINTING AND DIGITAL CODING MACHINE

Filed March 16, 1962

6 Sheets-Sheet 5



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PRINTING AND DIGITAL CODING MACHINE

Filed March 16, 1962

6 Sheets-Sheet 6

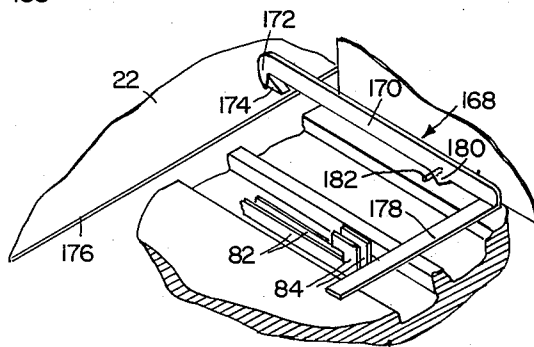
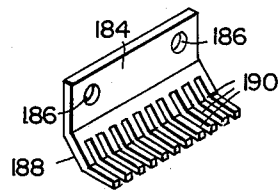
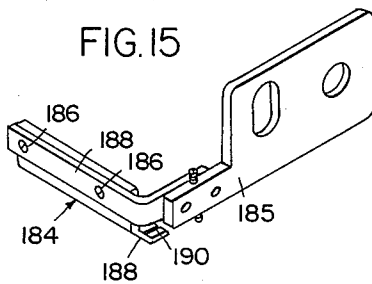
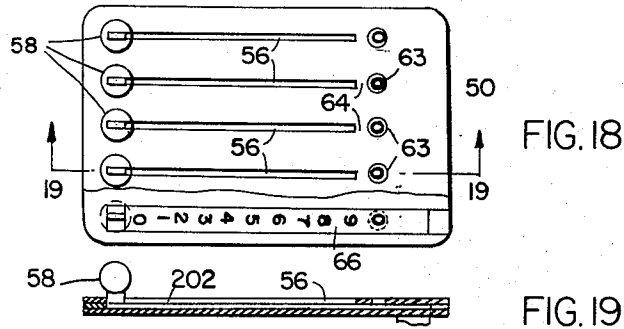


FIG. 17

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3,155,031

PRINTING AND DIGITAL CODING MACHINE

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Filed Mar. 16, 1962, Ser. No. 180,183
6 Claims. (Cl. 101—19)

This invention relates generally to business machines and more particularly to a printing and digital coding machine having horizontally movable punches adapted for self-registration with a coded consumer credit card and provides an apparatus for transferring to a multicarboned invoice form the information on the credit card and to simultaneously manually encode the invoice form with an individual sales transaction.

The machine herein set forth has particular application to consumer credit transactions in department stores, gasoline stations and other industries where a large volume of consumer sales is involved. The use of credit cards by large department stores and by the major gasoline companies has increased to such an extent over the past years that a major portion of their business involves credit transactions. The normal procedure followed is to supply the customer with a plastic credit card which bears his name and address and an account number in embossed lettering. When a purchase is made the credit card along with a multileaved carbon invoice form is inserted within a printing machine and the handle or lever actuated to transfer the indicia on the credit card to the invoice. The salesclerk then fills out the remainder of the invoice form indicating the amount of purchase, obtains the signature of the customer and other required information, separates the invoice sheets giving one carbon to the customer, retaining one copy for the files and forwards the remaining copy to the accounting department of the organization. The accounting department then transfers the information from the individual invoice to a master record sheet and ultimately utilizes this information in the preparation of the bill to be sent to the customer. This entire operation requires a complicated sorting procedure and a manual transference of the data from the invoice to the master customer card and then finally to the bill. This procedure has proved satisfactory where the operation has been kept relatively small, however, where a large volume of organizations' business involves credit card customers, it becomes extremely time consuming and the many steps involved increases and multiplies the possibility of errors.

Various machines have been developed to facilitate the encoding of a master card which use the credit card as a template for registration with purchases but usually they merely provide for identifying the consumer and require the penciled insertion of the sales transaction.

Therefore the object of this invention is to provide a business machine which will transfer identifying data from a credit card to an invoice form through self-registration therewith and in the same operation encode the form with manually selected sales data.

Another object of this invention is to provide a business machine utilizing transversely movable punches and dies which are self-registering with encoded indicia on the credit cards.

Another object of this invention is to provide a punching and embossing machine having laterally spaced punch and die combinations in which the punches are maintained in spaced axial alignment with the die by transversely extending members.

A further object of this invention is to provide a business machine in which the punch and die combinations are laterally movable in response to the coding data contained on the credit card and to provide self-registration therewith and also having manually movable tabs adapted

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to shift other punch and die combinations to record on the master card an individual sales transaction.

Another object of this invention is to provide a credit punching and printing machine which is novel, useful and has ease of operation whereby problems now present in the industry are simply and effectively solved.

Other objects of this invention will in part, be obvious and will in part, appear hereinafter.

Broadly stated one feature of this invention is to provide a credit punching and printing machine which will automatically index coded data present on a credit card with a multicarbon invoice form having a master card attached thereto and by the transverse movement of the coded card and the invoice form from a first station to an operating station will position suitable punches and dies in the operating state. The machine also includes manually operable tabs to shift other punches and dies from an out position to the operating station to correspond numerically with a sales transaction so that the operation of the machine will record on the master card the identifying data of the credit card and the numerical amount of the sales transaction.

To the accomplishment of this and the foregoing related ends, the present invention then consists of the means hereinafter fully described and particularly pointed out in the claims, the annexed drawings and the following description setting forth in detail certain means in the carrying out of the invention, such disclosed means illustrating however but one of the various ways in which the principle of the invention may be employed.

In the drawings:

FIG. 1 is a view in perspective of the machine embodying the features of this invention;

FIG. 2 is a view in front elevation partly in section of the machine in FIG. 1;

FIG. 3 is a top plan view of the multicarbon invoice form having a master card attached thereto adapted for use with this machine;

FIG. 3a is a top plan view of the invoice form of FIG. 3 as it appears after being punched by a complete machine operation;

FIG. 4 is a top plan view of a typical encoded credit card for use with this machine;

FIG. 5 is a top plan view of the machine with the housing removed;

FIG. 6 is a view in side elevation of the machine of FIG. 5;

FIG. 7 is a view in section taken on line 7—7 of FIG. 2;

FIG. 8 is a side view of the machine with the side cover removed illustrating the operational details of the lever and cam plate;

FIG. 9 is a view in perspective of the self-registering die blocks utilized with this invention;

FIG. 10 is a view in perspective of the manually movable die blocks having the invoice form positioned thereon;

FIG. 11 is an enlarged view of a portion of the punch illustrating a configuration of the opposed lateral surfaces;

FIG. 12 is a bottom view in perspective of the die block spring engaging apparatus;

FIG. 13 is a view in perspective of the spring pressure assembly in position over a punching unit;

FIG. 14 is a view in perspective of the guide block;

FIG. 15 is a view in perspective of the punch disengaging mechanism;

FIG. 16 is a view illustrating the punch disengaging comb mechanism;

FIG. 17 is a view in perspective of the punch return harness;

FIG. 18 is a top plan view of the machine partly broken

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away illustrating the lateral positioning of the tab members;

FIG. 19 is a view in section of the tab members and numerical indicators.

Reference is now to be had to the drawings wherein an illustrated embodiment of the imprinting and encoding machine, a construction made in accordance with the present invention and designated by the reference numeral 10 is shown.

The encoding machine 10 consists primarily of the rigid base 12 having a plurality of downwardly depending supporting legs 14 formed of a resilient material to prevent marring the surface of a desk or table. The base 12 has flanges 16 formed at the four corners to permit the attachment of the cover 18 by screws or other suitable means (not shown). A planar shelf member 20 is positioned within the machine so as to be vertically spaced from the base 12 and is adapted to support some of the operating components within the housing in a manner we will fully set forth hereinafter. Referring to FIGS. 5 and 6 there is illustrated the general configuration of machine 10 in which a credit card supporting tray 22 supported on a surface 24 which extends between the side walls 26 and 28 and furthermore extends from the front wall 30 of the machine 10 and in the direction of the rear wall 32. The credit card tray 22, having a tray handle 204, is dimensioned to ride in supporting gibs 34 and 36 and as illustrated in FIG. 7 has a registering stop 38 adapted to engage aperture 39 and position a credit card 40 on the tray in such a manner that the encoded portion 44 of the card is in linear alignment with a group of punches and dies 42. A cutout portion 46 of the tray is in transverse alignment with the group of punches and dies 42 and also in alignment with a second group of punches and dies 48 which are laterally spaced from the first group. As will be seen in referring to FIG. 8 a portion of the surface 24 is exposed at the front end of the machine with the remaining portion extending through the raised housing 50. The housing 50 has a front wall 52 angularly extending downward in the direction of the surface 24 and spaced therefrom to provide a slot 54 to permit the travel of the tray 22 therein. The upper portion of the housing 50 has a plurality of longitudinally extending slots 56 adapted to allow tab members 58 having downwardly depending levers 60 to extend therethrough so as to connect the tabs 58 with the movable punches and dies 48. Referring to FIG. 2, it will be seen that each of the tabs 58 are spaced in lateral alignment with each other and spaced a greater distance apart from the individual punches 62 of the group 48. Consequently the levers 60 are each inclined downwardly at different angles so as to provide movement to the punches which will correspond to the longitudinal movement of the tabs. As it will be seen in FIG. 1 and FIG. 18 each of the longitudinally extending slots 56 has a corresponding opening 63 in the raised housing 50 and is separated transversely from the slots 56 by a section 64 of the housing. Longitudinally extending indicators 66 are secured to the undersurface of the tab members 58 and have numbers running from 0 to 9 inscribed thereon. The indicators 66 are freely movable with the tab members 58 to visually indicate in the circular opening 62 the position of the punch and die 48.

In FIG. 9 there is illustrated the die block of the group 42 which comprises essentially a longitudinally extending rigid bar 67 having an integral upstanding support 68 positioned at one end thereof.

A detent 70 comprising a cutout portion is formed on the lower surface of the bar 67 and adapted for cooperative engagement with frictional engaging means 69 positioned on the planar surface 20 and utilized for a purpose to be more fully set forth hereinafter. A die 72 is positioned on the upper surface of the bar 67 and longitudinally spaced from the support 68 so as to be in axial alignment with a punch 74 which is maintained in cantilevered suspension thereover by longitudinally extending

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leaf spring members 76 which are anchored in the support 68. Since this group of die blocks is adapted for self-registration with the credit card 40 the leaf spring members 76 are designed to bias the punch 74 in the direction of the die 72 and maintain the punch in spaced relation thereto a distance less than the thickness of the credit card 40 to enable the operating end 78 of the punch to engage the coded indicia 44 of the credit card. The manually movable die blocks of the group 48 are illustrated in FIG. 10 having an invoice form 80 positioned therein. The manually movable die blocks are similar to the previously described die blocks and comprise essentially a longitudinally extending rigid bar 82 having a vertically extending support 84 at one end thereof. On a lower surface of the bar 82 a plurality of detents 86 are formed and normally are eleven in number representing one detent for the out position and ten detents representing the corresponding positions relative to the integers 0 through 9. On the upper surface of the die block a die (not shown) is positioned which is in axial alignment with a punch 88. The punch 88 is maintained in suspension thereover by leaf spring members 90 which extend parallel to but spaced from the upper surface 92 of the die block and are anchored in the vertically extending support 84. Since these die blocks are not self-registering with the credit card 40 and are manually movable by suitable means the punch 88 must be maintained in vertical spaced relationship with the upper surface 92 of the die block a distance greater than the thickness of the invoice form 80 and consequently the leaf spring members are designed to bias the punch 88 in a direction away from the die.

Each of the groups of die blocks 42 and 48 are maintained in lateral spaced alignment by a guide block 94 having a plurality of slots 96 extending upwardly from a lower surface 98 and terminating adjacent the upper surface 100. A spacer 102 maintains a divisional separation between the groups 42 and 48. As shown in FIG. 11 each of the punches 74 and 88 of the groups 42 and 48 are rectangular block members 104. The structure of the block member 104 provides a simple and effective manner of allowing the die blocks to move independently of each other by having one lateral face 106 terminating in a shoulder 108 so that approximately one-half of the vertical height of the block member 104 has a lesser width than the entire block. In this manner the block 104 is kept in engagement with the walls of the slot 96 and prevents lateral displacement relative to the other die block members.

Referring to FIG. 12 there is shown frictional engaging means 69 which is adapted to prevent inadvertent movement of any of the die blocks of the group 42 during the self-registration of the coded indicia 44 of the credit card 40 or the manual movement of the die blocks within the group 48. The frictional engaging means 69 comprises a plate member 110 which is transversely spaced from a corresponding plate member 112 and which are secured to the planar surface 24 by screw members 114 and which have a series of spring members 116 extending therebetween. Each of these spring members 116 has a loop 118 positioned intermediate the ends thereof and which extends upwardly in the direction of the lower surfaces of the die blocks. In this manner the spring member 116 constantly exerts frictional pressure on the die blocks and resists movement of the die blocks in every direction other than the direction of self-registration of the punches with the coded indicia 44 of the credit card 40 or the manual movement of the die blocks of the group 48.

As a further aid in maintaining the punches 74 of the die blocks of the group 42 biased downwardly in the direction of the die 72 a pressure spring assembly 120 illustrated in FIG. 13 is mounted on a vertically extending support 122 of the raised housing 50 and positioned adjacent the slot 54. This pressure spring assembly 120 comprises a mounting plate member 124 which is secured

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to the front face of the support 122 by a screw means 126 or the like and has a spring holding plate 128 spaced from the mounting plate 124 by an angularly extending distance piece 130. A plurality of wiping spring members 132 extend angularly downward from the spring holding plate 128 and terminate in a planar surface 134 which bears against the upper surface 136 of the punches 74. It will be obvious by referring to FIG. 13 that the tension exerted by the spring members 132 can be varied to adjust the amount of pressure which is exerted on the punches 74 to provide the necessary clearance between the operating end 78 of the punch 74 and the die 72 to permit camming of the operating end of the punch 78 upon engagement with the edge of the credit card 40.

Punches 74 and 88 are depressed through the action of a lever 136 having a handle portion 138. One end of the lever 136 is secured to a rotatable shaft 139 having a downwardly depending link 140. The link 140 is connected to a horizontally extending lever 142 which extends in the direction of a rear wall 32 and joins a vertically extending pivot member 144 at its lower end 146. The upper end of the pivot member 144 connects a horizontally extending lever 148 at one end 150 which is in spaced parallel relationship to the lever 142. Both levers 142 and 148 are movable in response to pressure exerted on the handle portion 138 and are shifted in opposite directions by means of the pivot member 144 moving at its fulcrum 151. The other end 152 of the lever 148 is connected to a camming plate 154 having downwardly extending diagonal slots 156 adapted to ride on laterally extending pins 158. Operative by the lower surface 160 of the camming plate 154 is a horizontally extending pressure plate 162 which is positioned in vertical spaced relationship to the top surface of the punches 74 and 88 and adapted to engage them upon activation of the lever 136.

In FIG. 5 there is illustrated an air cylinder 164 adapted to telescopically receive a plunger 166 having one end which is connected to the tray 22 and movable therewith. The air cylinder is provided with an adjustable vent (not shown) to control the amount of the air trapped within the cylinder during the operation of the plunger and the cylinder acts as a speed control and damping mechanism for the tray operation. The air cylinder mechanism is an optional feature which has been found unnecessary where sufficient friction is developed between tray 22 and surface 24, in which case it can be omitted.

In FIG. 17 there is illustrated a harness mechanism 168 which is adapted for use with the tray 22 to return the die blocks of the groups 42 and 48 from the operating station to an out position after an invoice form has been encoded. The harness mechanism 168 comprises a longitudinally extending rigid bar 170 having a hook shaped distal end portion 172 adapted to ride over and engage a cam block 174 positioned adjacent the leading edge 176 of the tray 22. The other end of the longitudinally extending member 170 has a laterally extending draw bar 178 of sufficient length to encompass all of the laterally spaced die blocks of the groups 42 and 48. The lower surface of the longitudinally extending member 170 is provided with a camming surface 180 which is adapted to ride over a pin 182 which extends laterally from a portion of the housing. As tray 22 is pushed onto slot 54, cam block 174 cams distal end 172 up and over itself and the tray is free to continue toward rear wall 32 of housing 50. The die bars 67 are carried rearwardly as the punch ends 78 are engaged by the encoded indicia 44 of the credit card 40, and in turn carry draw bar 178 rearwardly. Similarly, die bars 82, which are manually moved, contact draw bar 178 if they are moved more rearwardly than are die bars 67. After the punching process has occurred, the tray 22 is pulled forwardly, whereupon distal end 172 is engaged by cam block 174 which causes draw bar 178 to return all the die bars to the out position. The bar 170 is then raised by the cam-

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ming action of pin 182 and the tray 22 is freed therefrom.

Since one of the basic requisites for the operation of the group 42 series of die blocks is the biasing of the punches 74 in the direction of the die 72 by means of the longitudinally extending leaf spring members 76 and the additional force exerted by the pressure spring assembly 120 thereon it becomes necessary to provide an assembly to disengage the punches from the invoice form 80 to permit the withdrawal of the tray 22 through the slot 54. This is accomplished by providing a comb assembly 184 as shown in FIGS. 15 and 16 which is attached to the support 122 of the housing 50 and adapted to have portions thereof extending within the housing. The comb assembly 184 is secured to a bracket 185 of the housing 50 by means of screws 186 or the like and has an angularly inclined supporting arm 188 extending within the slot 54 and extends downwardly so as to be positioned at the junction of the operational portion of the punch 78 and the block 104. The supporting arm consists of a series of laterally spaced slots 190 which allow the operating portion 78 of the punch 70 to enter therein and due to the supporting arm's angular inclination, cam the punches upwardly away from the die block in such a manner as to overcome the downwardly biasing action of the leaf spring member 76 and the pressure spring assembly 120 and to allow the punches 74 to become disengaged from the coded indicia 44 on the credit card 40.

Referring to FIG. 6 there is shown positioned within the housing 50 and adjacent the front wall 52 an embossing roller 192 rotatably carried by axle 196 which is mounted in movable pivot bracket 200. Positioned beneath embossing roller 192 is roller 194 rotating on axle 198. The bracket 200 pivots to allow the roller 192 to be slightly raised as it is contacted by credit card 40 which is carried on tray 22. Lower roller 194 serves to rotatably support tray 22 as it passes beneath upper roller 192. The embossing action takes place as roller 192 rolls across the surface of credit card 40. Tension is maintained between the embossing roller and the card by means of bias spring 214 which exerts a downward force on pivot bracket 200. The embossing pressure causes the upstanding print on credit card 40 to be impressed on the invoice 80 and the master card 210.

As illustrated in FIG. 1 and FIGS. 18 and 19 the upper surface of the housing 50 has a plurality of longitudinally extending laterally spaced slots 56 in which the tab members 58 can be manually moved by the operator. In FIG. 19 there is shown the construction of the indicator 66 which is sandwiched between the upper surface of the housing 50 and a planar surface 202 which is superimposed above the leaf spring members 90 and movable therewith. The manual movement of the tab members 58 by the operator longitudinally of the housing 50 will position any of the numbers which run from 0 to 9 in the circular opening 63 and enable the operator to accurately position the punch 88 in the operating area to indicate a numerical transaction.

The operation of the machine will now be described in view of the above description and the accompanying drawings. In the preliminary operating state tray 22 is positioned by means of tray handle 204 in its outermost position on the surface 24. An individual sales transaction is recorded in pencil or pen by the sales personnel on the top sheet 206 of the multileaved carbon invoice form 80 so that at the completion of the operation the consumer may have a numerical record of the purchase. The invoice form 80 is then placed face down on the tray 22 and the credit card 40 is then placed face down over the invoice form and positioned on the tray 22 by sliding aperture 39 over the registering stop pin 38 which aligns the precoded indicia 44 with the group of punches and dies 42. By moving the invoice tray 22 through the slot 54 the embossing roller 192 is deflected away from the front wall of the support 122 by the leading edge 216 of the credit card

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40. Simultaneously, the operating portion 78 of the punch 74 is cammed upwardly so as to ride on the back surface 208 of the credit card. At this stage of the operation the frictional engaging means 69, by having the loops 118 of the spring members 116 pressing upwardly on the detents 70 and 86 will prevent longitudinal movement of the die bars. As the tray 22 is progressively moved within the housing 50 in the direction of the rear wall 32 those punches 74 which are in alignment with the precoded indicia 44 of the credit card 40 will be biased into engagement with the card by the action of the longitudinally extending leaf spring members 76 and the pressure spring engaging assembly 120. Further longitudinal movement of the card will overcome the action of the frictional engaging means 69 and allow only those die blocks of the group 42 which are in registration with the coded indicia 44 to be longitudinally moved from the out position to the operating station. In this manner the punches will be prealigned and correspond with the information present on the credit card and in a position to transfer this information through the coded portion of the credit card 44 to the master card 210 of the invoice form 80. The individual sales transaction can now be set up by manually positioning the tab members 58 through the longitudinally extending slots 56 and through the downwardly extending levers 60 to shift the die blocks of the group 48 from the out position to the operating area. By depressing the handle 138 of the operating lever 136 the rotatable shaft 139 is rotated in a counter-clockwise direction to transmit a rotational motion to the link 140 which in turn transmits a further linear motion to the longitudinally extending lever 142 which forces the vertically extending pivot member 144 to pivot on its fulcrum 151 to force the lever 148 forwardly. The movement of the lever 148 in a direction toward the front of the housing 50 causes the camming plate 154 to shift forwardly and allows the downwardly extending slots 156 to ride on the pivot pins 158 to carry the lower surface 160 of the camming plate member 154 into engagement with the pressure plate 162 in such a manner as to contact the top surfaces of the punches of the groups 42 and 48 which are positioned in the operating area. Since the punches 74 and 88 are resiliently suspended from the vertically extending supports 68 and 84 by the leaf spring members 76 and 90 the operating end of the punches will penetrate the master card 210. Since only the punches of the group 42 which correspond with the coded indicia 44 of the coded card 40 and the punches of group 48 which are manually moved by the levers 60 which extend upwardly to the tab members 58 are positioned within the range of the pressure plate 162, the remaining punches are still in the out position and fall completely outside the scope of the pressure plate action. On the release of the lever 136 a spring member 212 biases the vertical pivot member 144 so that the lower horizontal lever 142 is drawn toward the front end 30 of the machine and the upper horizontally extending lever 148 is biased in the direction of the rear wall 32 causing the pressure plate 162 to be lifted upwardly away from contact with the upper surfaces of the punches. The withdrawal of the tray 22 containing the invoice forms 80 and the credit card 40 allows the hook shaped end 172 of the harness mechanism 168 to engage the cam block 174 which is attached to the leading edge 176 of the tray 22. In this manner the moving of the tray carries the harness mechanism 168 along therewith allowing the draw bar 178 to contact the vertical supports 68 and 84 of the die blocks of the groups 42 and 48 to carry them from the operating station to the out position. As the die blocks of the group 42 approach the slot 54 the harness mechanism is released from the tray 22 by the action of the pickup cam 180 riding up over the pin 182 allowing the tray to continue to its outermost position. In this manner the restraining motion of the harness mechanism 168 is released and the die blocks can be moved from the out position to the operating station in a subsequent transaction. Further for-

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ward movement of the tray 22 from within the housing 50 through the slot 54 will cause the slots 190 of the comb assembly 184 to engage the block 194 of the punches 74 in such a manner to exert a lifting action to offset the biasing action of the pressure spring assembly 120 and the longitudinally extending leaf springs 76 to allow the operating end 78 of the punches to be lifted out of the coded indicia 44 of the credit card 40 to permit complete withdrawal of the tray containing the credit card 40 and the invoice card 80. During the withdrawal action, the credit card 40 and the invoice form 80 pass beneath the embossing roller 192 which is biased against the credit card and invoice form whereby the embossed material on the credit card is imprinted on the multileaved carbon sheets and the master card of the invoice form.

After this operation it is a relatively simple matter to process the master card of the invoice form through an automatic sorting machine such as those utilized by the International Business Machine Corporation quickly and without the possibility of inadvertent mistakes being transferred from the individual copies to a master card. Utilizing this type of a credit transaction it will be seen that several stages in the handling of the credit card information have been eliminated and a simple and efficient method of handling credit transactions in large quantities has been provided.

Since certain other obvious modifications may be made in this device without departing from the scope thereof, it is intended that all matter contained herein be interpreted in an illustrative and not in a limiting sense.

We claim:

1. A sales form imprinting and encoding machine comprising a housing having a forward horizontal surface and a slotted opening in said housing above said horizontal surface, a tray supported on said forward housing surface, said tray carrying a sales invoice form and a coded credit card in superposed relation, guide means on said forward surface in which said tray is movable to an operating position within said housing, an embossing roller mounted adjacent said slotted opening and positioned to contact said coded credit card, a first group of die bars having vertically opposed punches and dies, said die bars longitudinally disposed and laterally aligned within said housing, punches in said first group adapted to be biased into the coded indicia of said credit card as said tray moves into said housing whereby the affected die bars move longitudinally in cooperation with said tray, tab members positioned above the said housing, said tab members connected to a second group of die bars having punches and dies laterally spaced from said first die bar group, each of the punches and dies of said second group movable to an operating position in response to the manual movement of said tab members, a camming plate positioned above said punches, and lever means acting in conjunction with said camming plate to depress said punches into said dies whereby said sales invoice form carried by said tray is encoded.

2. An invoice imprinting and coding machine comprising a housing having a forward horizontal surface, and a slotted opening in the housing above said horizontal surface, a movable tray and guide means therefor positioned on said forward horizontal surface, said tray longitudinally movable through said slot in said housing, means on said tray for aligning a coded perforated credit card in superimposed relationship with an imperforate invoice form, a first series of longitudinally disposed laterally aligned die bars positioned within said housing, said die bars each including a rigid base having a die positioned on the upper surface thereof and a punch maintained in vertical spaced relationship to said die by resilient means anchored in a support extending normal to said base, said punch biased toward said die to a distance less than the thickness of said coded perforated card, said die bars longitudinally movable within said housing from a nonoperating position to an operating position in response to engage-

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ment of said punches with the coded perforated indicia on said credit card, a second series of die bars having punches and dies, said second series laterally spaced from said first series and transversely aligned with a portion of said invoice form, levers extending angularly upward through said housing interconnecting the die bars of said second series with longitudinally movable tab members to allow manual movement of said die bars of said second series from a nonoperating position to an operating position, a camming plate positioned above said punches, and an operating lever cooperating with said camming plate to depress the punches of said first and second series when said punches are in the operating position whereby said invoice form is perforated in conformance with the coded indicia on said credit card and the tab member setting.

3. An imprinting and encoding machine for use with a perforated and embossed credit card and a multileaved imperforate invoice form, said machine comprising a housing, a first set of laterally aligned longitudinally extending die bars movably positioned within said housing, each said die bar having an integral die and vertical punch in opposed relationship, a tray having means thereon for holding said credit card and invoice form in superimposed relation, said tray mounted on and manually movable with respect to said housing to pass between the opposed punches and dies of said first die bar group, a bias means operably connected to and selectively urging said punches into the perforations of said credit card as said tray passes thereunder whereby the affected die bar is longitudinally carried rearwardly to an operating position, a second set of die bars having punches and dies laterally spaced from said first set, said second set laterally aligned and longitudinally extending, means for manually moving said second die bar set in a longitudinal direction, and means for selectively depressing both sets of punches to encode said invoice card.

4. Apparatus according to claim 3 wherein a spring biased embossing roller is positioned above said tray with its axis transverse to the path of said tray, said roller being adapted to contact said credit card whereby embossed matter on said credit card is imprinted on said invoice form.

5. An imprinting and encoding machine for use with an embossed perforate credit card and an imperforate invoice form, said machine comprising; a housing having an exterior horizontal surface and a vertical opening in said housing adjacent said horizontal surface, a cut-out tray shaped to carry said credit card and invoice form in superposed relation, said tray positioned on said exterior horizontal housing surface, guide means on said horizontal surface slidably engaging said tray for permitting longitudinal tray movement from a non-operating position on the exterior horizontal housing surface to an operating position within said housing, a first group of die bars slidably mounted within said housing, said die bars having vertically opposed punches and dies integral therewith, means for biasing said punches toward said dies to a spaced distance less than the thickness of said perforate credit card whereby manual movement of said tray from the nonoperating to the operating position causes the

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biased punches to be urged upwardly against the biasing means during said movement of said tray and subsequently to be biased downwardly into engagement with said credit card as the perforations thereof are presented to said punches, said punch-engaged die bars being drawn longitudinally within the housing by said tray movement, a second group of die bars slidably mounted within said housing, said second group of die bars having vertically opposed punches and dies integral therewith, manually movable connecting levers attached to said second group of die bars, means for depressing said punches at the operating position to perforate said invoice form, and pressure means for transferring embossed indicia from said credit card to said invoice form.

6. An invoice encoding machine comprising; a housing having a cut-out tray positioned on an exterior surface thereof, said tray slidably retained by guide means on said exterior surface and manually movable from an exterior nonoperating position through a housing slot into an interior operating position, means on said tray for aligning a coded perforated credit card in superposed relation on an imperforate invoice form, a first series of laterally aligned die bars longitudinally positioned within said housing, each said die bar having a punch axially positioned above an integral die, means for biasing said punches toward said dies to a spaced distance less than the thickness of said perforate credit card whereby manual movement of said tray from the nonoperating to the operating position causes the biased punches to be urged upwardly against the biasing means during said movement of said tray and subsequently to be biased downwardly into engagement with said credit card as the perforations thereof are presented to said punches, said punch-engaged die bars being drawn longitudinally within the housing by said tray movement, a second series of die bars having opposed punches and integral dies, said second series being laterally spaced from said first series and having selector levers affixed thereto, said levers protruding through slots in said housing and being manually movable to longitudinally position said second series of die bars at the operating position, a camming plate disposed above said punches in the operating position, and an operating handle attached to said camming plate whereby actuation of said handle depresses said plate into contact with said punches located at the operating position to perforate the invoice form in accordance with the credit card indicia and selector lever setting.

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