

March 7, 1967

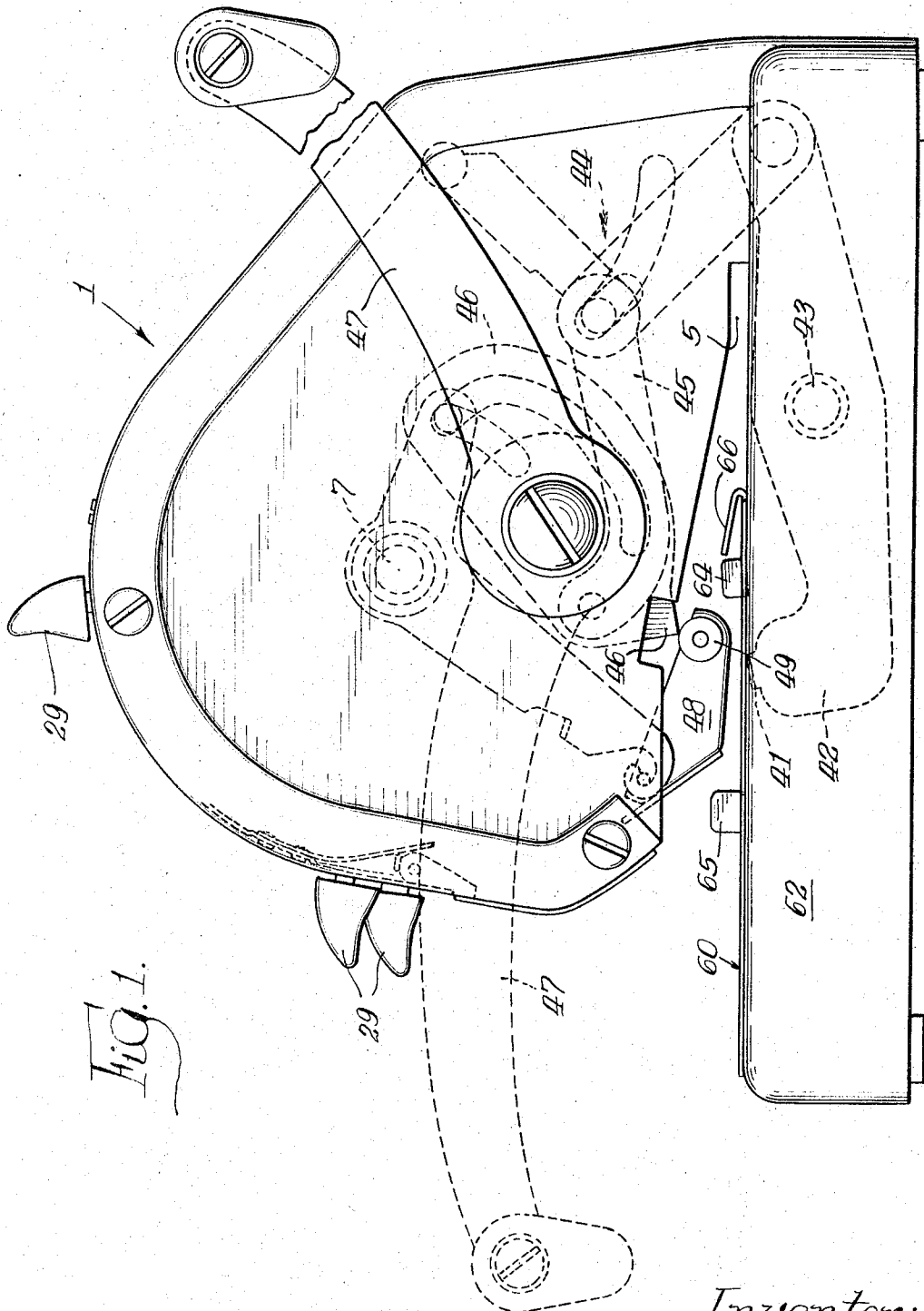
H. JAGGER

3,307,476

DUPLICATE PRINTING CHECKWRITER

Filed Jan. 21, 1965

4 Sheets-Sheet 1



Inventor:-
Hubert Jagger,
By Brown, Jackson, Beetham & Stenner
Attys.

March 7, 1967

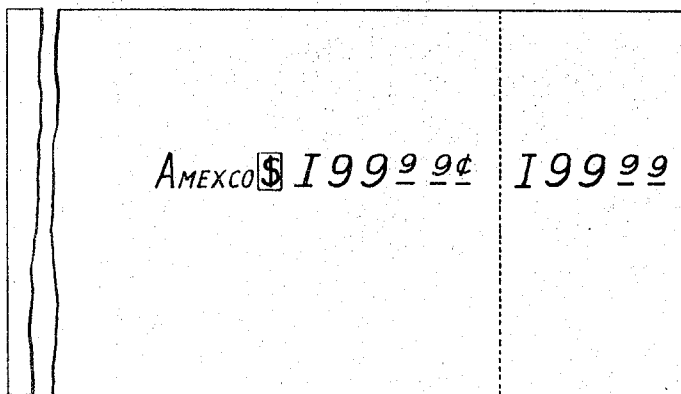
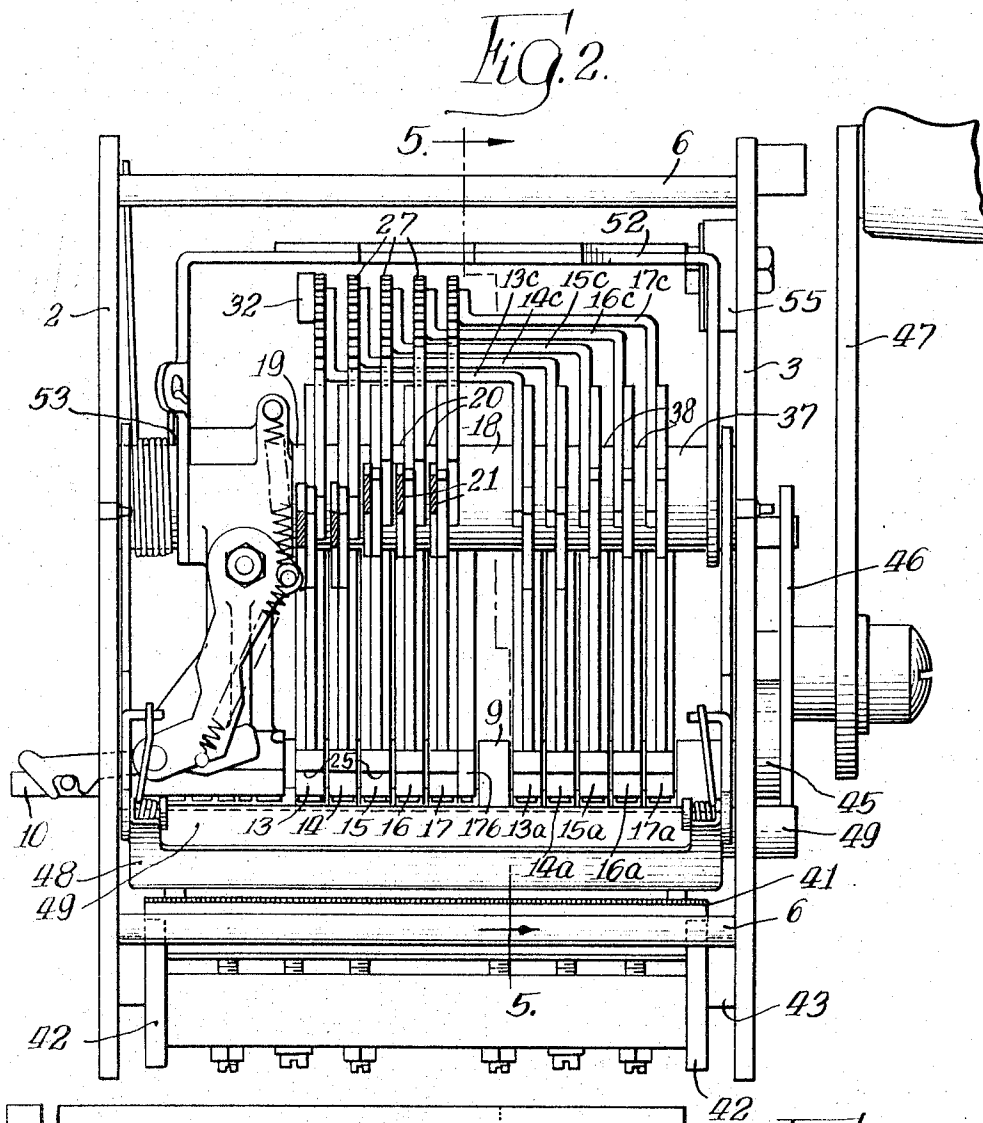
H. JAGGER

3,307,476

DUPLICATE PRINTING CHECKWRITER

Filed Jan. 21, 1965

4 Sheets-Sheet 2



Inventor:-
Hubert Jagger,

By *Crown, Jackson, Boettcher & Wimmer*
Attys.

March 7, 1967

H. JAGGER

3,307,476

DUPLICATE PRINTING CHECKWRITER

Filed Jan. 21, 1965

4 Sheets-Sheet 3

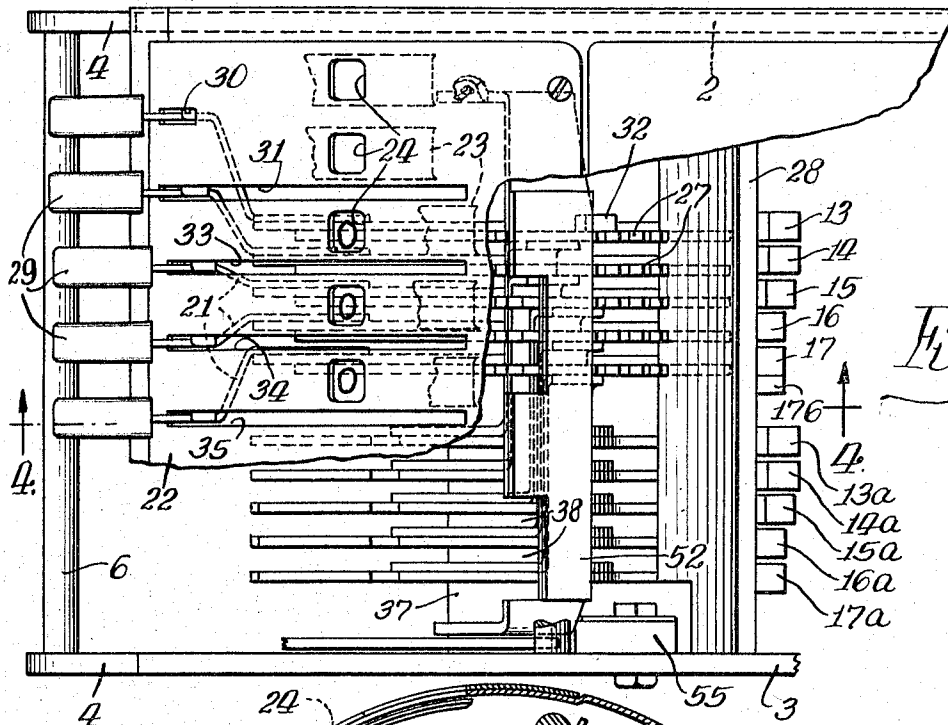


Fig. 3.

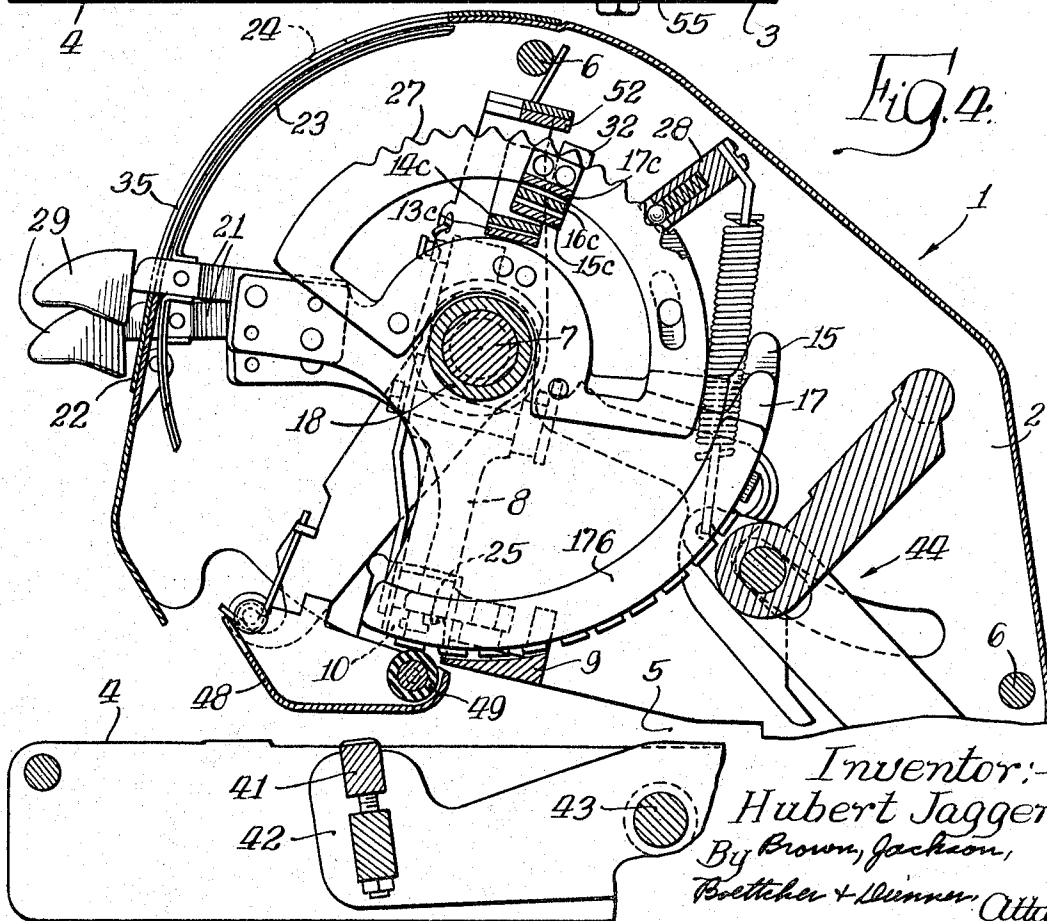


Fig. 4.

Inventor:-
Hubert Jagger,
By Brown, Jackson,
Boettcher & Dunbar Attys.
61

March 7, 1967

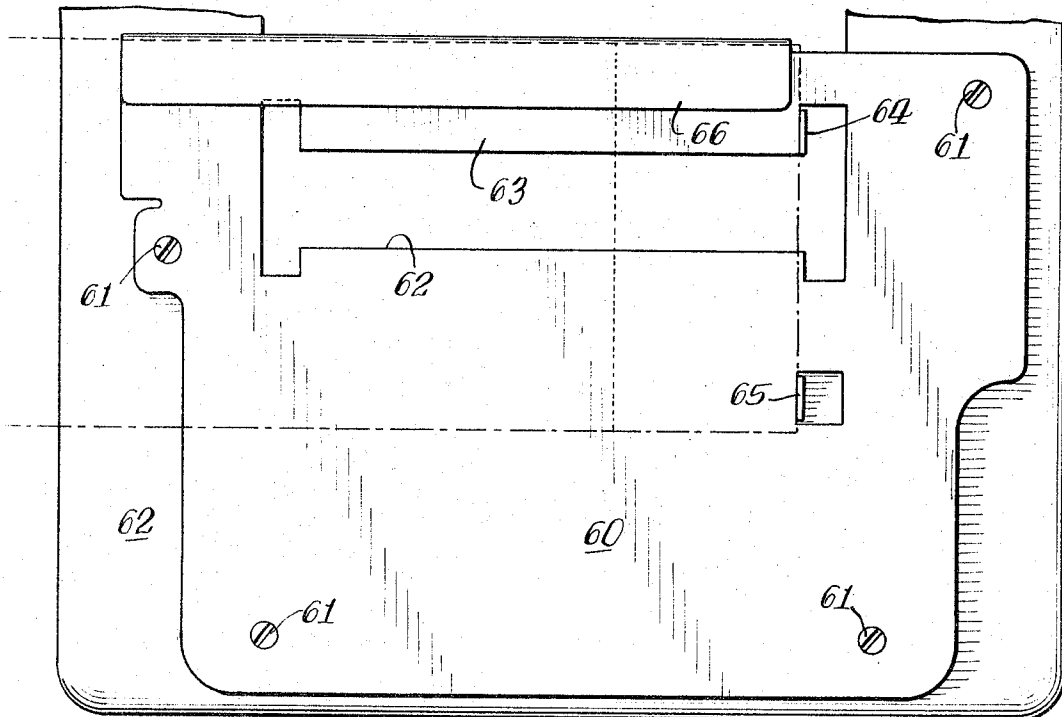
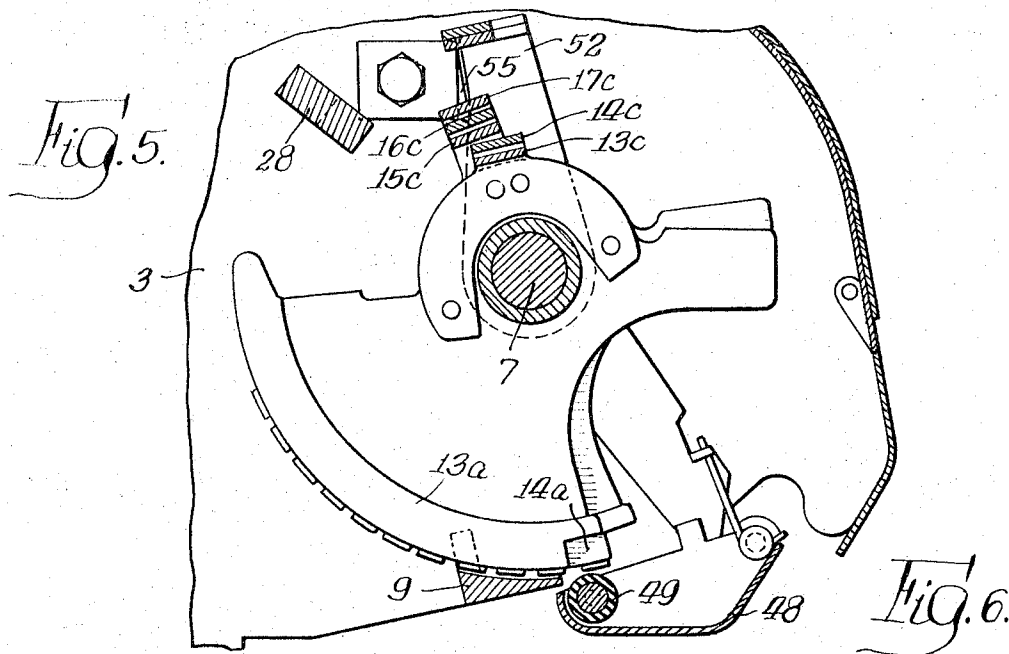
H. JAGGER

3,307,476

DUPLICATE PRINTING CHECKWRITER

Filed Jan. 21, 1965

4 Sheets-Sheet 4



*Inventor:-
Hubert Jagger,*

*By Brown, Jackson, Baettcher & Linnner,
Attys.*

1

3,307,476

DUPLICATE PRINTING CHECKWRITER

Hubert Jagger, Lincolnwood, Ill., assignor to Theodore B. Hirschberg, Jr., Chicago, Ill.

Filed Jan. 21, 1965, Ser. No. 426,867

2 Claims. (Cl. 101-90)

This invention relates to machines for printing instruments for payment of money, commonly termed check-writers, and has to do with a machine for printing checks, money orders and analogous instruments to be drawn for not greater than a predetermined maximum amount while simultaneously printing on a detachable stub of the instrument the amount for which it is drawn.

My invention is directed to a machine of the character stated having means whereby the maximum amount which can be printed can not exceed the predetermined maximum amount for which the instrument may be drawn but any lesser amount within such permissible maximum may be printed, the amount for which the instrument is drawn being also simultaneously printed on a stub detachably attached to the main instrument. It is also an object of my invention to provide means whereby the machine may readily be adapted to printing instruments of variable dimensions, such as checks, postal money orders, express company orders and other instruments which may vary considerably in width and length. A further object of my invention is to provide a check-writer of simple and compact construction, which is of light weight, occupies but little space and may readily be moved from place to place. Further objects and advantages of my invention will appear from the detail description.

In the drawings:

FIGURE 1 is a side view of a checkwriter embodying my invention;

FIGURE 2 is a front view of the checkwriter of FIGURE 1, with the housing removed;

FIGURE 3 is a top plan view of the checkwriter of FIGURE 1 with the housing shown fragmentarily and broken away;

FIGURE 4 is a sectional view taken substantially on line 4-4 of FIGURE 3, with the upper portion of the housing shown in section and the lower portion thereof omitted and the base portion partly broken away;

FIGURE 5 is a sectional view taken substantially on line 5-5 of FIGURE 2;

FIGURE 6 is a plan view of the forward portion of the base section of the housing and a blank positioning plate thereon, with a blank to be printed upon indicated in dotted lines; and

FIGURE 7 is a face view of a blank printed by the checkwriter of my invention.

The machine shown and described herein is generally similar to those shown in my Patents 2,826,140 and 2,853,001, except as to those features having to do with my present invention. It includes a housing 1, to be referred to more fully later, suitably mounted upon the main frame of the machine. The main frame comprises side frame members or plates 2 and 3 of irregular polygonal shape each provided with a forwardly extending base element 4 defining, with the body of the plate, a slot 5 for insertion of the check, money order, or analogous instrument into the machine. The side frame plates 2 and 3 are secured together, in spaced parallel relation, by cross rods 6 suitably secured therein.

A cross shaft 7 is mounted in the plates 2 and 3, by means of reduced studs at the ends of the shaft providing shoulders which abut the inner faces of the plates and restrain the shaft against endwise movement. A sum or prefix bar post 8 is mounted at its upper end on

2

shaft 7, a short distance inward from the left side plate 2, and is secured at its lower end to a guide bar 9 extending transversely of the main frame and secured at its ends in the plates 2 and 3, bar 9 being disposed a short distance rearward of the lower end of post 8. A prefix plate 10 is slidably mounted on the lower end post 8. It is yieldingly urged inward and controlled in the same manner as in my above identified patent and need not be described in further detail here. Suffice it to state that the prefix plate 10 is movable inward into contact with the nearest printing member or segment then in printing position, incident to a printing operation and is returned to its normal outer position upon completion of such operation, in a suitable known manner.

A first series of printing members or type segments 13, 14, 15, 16 and 17 are mounted for turning movement on shaft 7, these segments being disposed between the upper end of prefix post 8 and a spacing collar 18 on shaft 7 at approximately the midlength thereof. Segment 13 is spaced inward from prefix post 8 by a spacing collar 19 on shaft 7, and the remaining segments are spaced from each other and from segments 13 and 17 by spacing collars 20 on shaft 7. Each of the segments is provided with a type bar having upon its printing surface a series of printing characters ranging from zero to nine, as is known. The guide bar 9 is of approximately L-shape in cross section and is slotted to receive and guide the printing segments. The characters which are used for printing in a given printing operation are those which are disposed in alignment with the prefix plate 10, defining therewith the printing line of the machine, immediately in front of the forward edge of the guide bar 9.

Each of the printing segments 13 to 17, inclusive, has a forwardly adjusting arm 21 secured thereto and suitably shaped and disposed to project through a slot in cover plate 22 of housing 1. A numbered index strip 23 is secured to each arm 21 and is disposed approximately in concentric relation to the corresponding segment. The cover plate 22 is further provided with suitably disposed windows or openings 24 through which the numbers of the index strips 23 are displayed for indicating the setting of the respective segments, as is known. Each of the type segments is provided at its forward end with a notch 25 extending from the zero character thereof, for a purpose to be explained presently. The first three segments 13, 14 and 15 are dollar segments and the last two segments 16 and 17 are cent segments. The printing characters of the latter two segments are smaller than those of the first three segments and a short underscoring cross bar is disposed beneath each character, as will be apparent from FIGURE 7. Further, the second cent segment is provided, at the right face thereof, with a supplementary type bar 176 attached thereto bearing an abbreviation for cent aligned with the respective type characters on the type bar of that segment and a short underscoring bar underlying each such abbreviation.

Each of the printing segments 13 to 17 has a two way rack 27 which extends a substantial distance radially outward beyond the hub portion of the segment, opposite the type bar thereof. The racks 27 extend approximately one half the circumference of the respective segments and are slotted for the major portion of their extent, for a purpose to be explained later. The racks 27 extend into a slotted index bar 28 disposed above and rearward of the segments and mounted at its ends in the frame plates 2 and 3. The index bar 28 is provided with spring pressed ball detents which cooperate with the racks 27 of the respective segments for holding the latter in adjustment, as is known. A suitable finger 29 is frictionally secured on the outer end of each segment arm 21 to facili-

3

tate adjustment of the respective segments. As will be understood from the above, the segments 13 to 17, inclusive, may be adjusted individually about shaft 7 to desired positions. The first slot 30 in cover plate 22 is of such length and so disposed that the first segment 13 can be turned downward and forward to position with the notch 25 thereof disposed on the printing line, and can not be turned upward and rearward beyond its "I" printing position. The second slot 31 in plate 22 has its lower end at the plane of the lower end of slot 30 and is of such length that the corresponding segment 14 can be adjusted throughout its full range, from non-printing position to "9" printing position. It is important, as will be explained later, that the first printing segment 13 be not turned to a printing position beyond its "I" position. As a further safe guard against that, a stop 32 is secured to the left side of rack 27 of segment 13 and is disposed to contact index bar 28 when segment 13 is in its "I" printing position. The three remaining slots 33, 34 and 35 are shorter than slot 31, with their upper ends in the plane of the upper end of slot 31 and their lower end in a common plane spaced above the lower ends of slots 30 and 31 a distance such that the corresponding segments 15, 16 and 17 can be turned from zero printing position to nine printing position, but can not be turned to non-printing position. Briefly, printing segment 13 can be adjusted from non-printing position to "I" printing position only, segment 14 can be adjusted from non-printing position to nine printing position, and segments 15, 16 and 17 can be adjusted from zero printing position to nine printing position only.

A second series of printing members or type segments 13a, 14a, 15a, 16a and 17a are mounted for turning movement on shaft 7, between collar 18 and a collar 37 on shaft 7 adjacent side frame plate 3, such segments being spaced apart by spacing collars 38. The segments of the second series are the same as those of the first series, with the racks 27 of the latter and the supplementary type bar 17b of segment 17 omitted, and need not be described in greater detail here. The segments of the second series are respectively secured to segments 13, 14, 15, 16 and 17 of the first series by rigid connecting members in the form of substantially L-shaped brackets 13c, 14c, 15c, 16c and 17c fixed at their ends to the segments of both series. The bight portions of brackets 13c to 16c, inclusive, pass through the slots in the racks 27 of the segments 13 to 16, inclusive of the first series. The slots in such racks are of adequate length to permit adjustment of the corresponding segments to permissible maximum extent in either direction. The bracket 17c is secured to the rack of the last segment 17 of the first series and to the last segment 17a of the second series. The bracket 13c securing segments 13 and 13a together is disposed nearest to shaft 7 with the radial distance from the shaft of the brackets connecting successive segments increasing, the bracket 17c connecting segment 17 of the first series to segment 17a of the second series being the greatest radial distance from shaft 7. The brackets 13c to 17c, inclusive, are so disposed that when a given segment of the first series is adjusted to a given position the corresponding segment of the second series will be adjusted to the same position. For example, if segment 13 is adjusted to "I" printing position segment 13a will also be adjusted to "I" printing position, if segment 15 is adjusted to 7 printing position segment 15a will be adjusted to 7 printing position, etc. It is contemplated that in use of the machine the first segment 17 will be adjusted to either its "I" printing position or its non-printing position.

The printing members or type segments of both series cooperate with a platen 41 mounted on the forward ends of two arms 42 rockably mounted on a shaft 43 having reduced ends mounted in base elements 4 of side frame plates 2 and 3. The rearward ends of arms 42 are connected to a toggle 44 pivoted at its upper end between plates 2 and 3. The pintle of toggle 44 is connected by

4

a link 45 to a cam 46 pivoted on side frame plate 3. An operating lever 47 is attached to cam 46 and normally extends upwardly and rearwardly therefrom. Inking means, comprising a pan 48 and an inking roll 49 therein, is provided in front of the printing line. In the normal position of operating lever 47 the point of cam 46 contacts an end extension of inking roll 49 and holds it down out of contact with the printing characters on the printing line. In performing a printing operation the lever 47 is swung downward and forward. In the initial movement of lever 47 the inking roll 49 is released and is moved by spring means, upward into contact with the printing characters on the printing line. In the continued movement of lever 47 the inking roll is rolled across the printing characters, in pressure contact therewith, effective for inking them. The ink pan 48, with inking roller 49 is then swung upward and forward of platen 41 and the latter is moved upward into pressure contact with the money order blank or other instrument to be printed, previously inserted into the machine between the printing segments and platen 41, completing the printing operation. The operating lever 47 is then released and is returned by spring means to its normal position. The inking means and associated parts may be similar to those shown in my above identified Patent 2,853,001, with the exception of the use of a single inking roller, or may be similar to the inking ribbon means shown in my above identified Patent 2,826,140. The particular inking means and operating means therefor are not essential to my present invention and need not be described here in greater detail, it being noted that any suitable known inking means and associated elements may be used.

A clearing yoke 52 of substantially inverted U-shape and appropriately formed bridges both series of printing segments and has its arms rockably mounted on shaft 7. The left arm of yoke 52 is disposed between the upper end of prefix post 8 and a spacing collar 53 on shaft 7 adjacent side frame plate 2 and the right arm is disposed adjacent the outer end of spacing collar 37 of shaft 7 at the outer face of printing segment 17a. The yoke 52 normally is held in an upper position, in contact with a yielding bumper 55 fixed to the inner face of side frame plate 3, by a torsion spring coiled around collar 53 with one end anchored to an upper cross rod 6 and its other end attached to the left arm of yoke 52. Upon completion of a printing operation, during the return movement of the operating lever 47 the clearing yoke 52 is swung downward and forward and returns to their normal positions those segments which may have been moved from such positions, after which the yoke is released and returned to its normal position. The means for operating the clearing yoke may be similar to that of the Gopperton Patent 3,142,251. The particular means used for that purpose is not essential to my present invention and any suitable known means may be provided for that purpose.

Referring to FIGURE 6, a substantially rectangular blank positioning plate 60 is removably secured by screws 61 and nuts threaded on their lower ends, to the top wall of base section 62 of housing 1. The plate is provided with a substantially T-shaped opening 62 which accommodates upward movement of platen 41 and arms 42 incident to a printing operation. A shelf 63 extends inwardly of opening 62 and is provided at its right hand end with an upwardly extending tab 64 spaced rearwardly of and aligned with a similar tab 65 bent upwardly from the body of plate 60. The rearward portion of shelf 63 is bent forwardly and downwardly providing a flange 66 spaced above shelf 63 and defining therewith a slot or groove for reception of the paper or instrument to be printed upon. As will be understood, the plate 60 extends into slot 5 a proper distance for accurately positioning therein the money order or analogous blank in respect to the printing line of the machine.

The machine illustrated by way of example is intended for printing American Express Company money orders

5

in amounts less than two hundred dollars. Accordingly, the prefix plate has on its printing face—"Amexco \$"—. The money order blank to be printed upon, with its attached stub, is so positioned by the plate 60 that the amount for which it is to be drawn will be printed at the proper location on the main or body portion of the blank, and the same amount will be simultaneously printed on the stub, which may then be severed from the body portion. As previously noted, the maximum amount which the first segment 13 can be set to print is "1". Accordingly, the maximum amount which the machine can print is one hundred ninety nine dollars and ninety nine cents. If the amount to be printed is less than one hundred dollars, the first segment preferably is adjusted to its non-printing position, though it could be adjusted to zero printing position. In either case, the amount printed would be less than one hundred dollars. If the amount to be printed is less than ten dollars the first two segments 13 and 14 are adjusted to non-printing position. In such case the prefix plate 10 is moved inwardly, incident to the printing operation into contact with segment 14 and is returned to its normal outer position in the return movement of operating lever to its normal position, in a known manner. That results in the notation—"Amexco \$"—being printed immediately in advance of the amount for which the instrument is drawn. When the amount to be printed is less than one dollar, the segments 13 and 14 should be adjusted to non-printing position, and segment 15 should be adjusted to zero printing position. The amount then printed, less than a dollar, is immediately preceded by a zero immediately preceded by the above notation.

The machine illustrated is, as noted above, intended for printing American Express Company money orders. The form or blank positioning plate 60 may readily be removed and replaced. By providing positioning plates of appropriate forms, the machine may readily be adapted for printing on money order or check blanks, with detachable stubs, of various sizes, as will be understood. The detachable stubs are desirable as providing a record of the instruments printed and the amounts for which the respective instruments are drawn.

As above indicated, and as will be understood, changes in detail may be resorted to without departing from the field and scope of my invention, and I intend to include all such variations as fall within the scope of the appended claims, in this application in which the preferred form only of my invention has been disclosed.

I claim:

1. In a checkwriter, a frame, a transverse shaft mounted in said frame, means defining a printing line, a first series of printing type segments mounted on said shaft and individually adjustable thereabout, a second series of printing segments mounted on said shaft and

6

individually adjustable thereabout, the segments of said second series being similar to those of said first series and the segments of both series having printing characters selectively positionable on the printing line by adjustment of said segments, brackets respectively fixed to the segments of the first series and to the corresponding segments of the second series, said brackets being spaced increasingly greater distances radially from said shaft and effective for adjusting the respective segments of the second series similarly to adjustment of the segments of the first series and incident thereto, platen means cooperating with the printing characters disposed on the printing line, and operating means for effecting a printing operation.

2. In a checkwriter, a frame, a transverse shaft mounted in said frame, means defining a printing line, a first series of printing type segments mounted on said shaft and individually adjustable thereabout, a second series of printing segments mounted on said shaft and individually adjustable thereabout, the segments of said second series being similar to those of said first series and the segments of both series having printing characters selectively positionable on the printing line by adjustment of said segments, a slotted index bar adjacent said segments, arcuate slotted racks secured to the segments of said first series and extending into the slots of said bar, brackets respectively securing all but the last of the racks of the segments of said first series to all but the last of the segments of said second series and passing through the slots of said racks, a bracket securing the last segment of the first series to the last segment of the second series, said brackets being spaced increasingly greater distances radially from said shaft and the slots in said racks being of an extent to accommodate maximum permissible adjustment of the respective segments of both series, platen means cooperating with the printing characters disposed on the printing line, and operating means for effecting a printing operation.

References Cited by the Examiner

UNITED STATES PATENTS

1,608,145	11/1926	Tingley	101—90	X
1,728,826	9/1929	Gruttmann	101—95	
1,765,859	6/1930	Bartel	101—407	
1,909,141	5/1933	Woodward et al.	101—95	
1,957,167	5/1934	Hoffman	101—90	
2,019,442	10/1935	Buehler	101—90	X
2,070,763	2/1937	Ward	101—95	
2,539,949	1/1951	Ericsson	101—90	
2,826,140	3/1958	Jagger	101—96	
2,853,001	9/1958	Jagger	101—95	
2,928,343	3/1960	Mintz	101—407	

WILLIAM B. PENN, *Primary Examiner.*