May 30, 1933. J. E. EDWARDS 1,911,994

CHECK IDENTIFYING MACHINE

Filed June 2, 1931 4 Sheets-Sheet 1

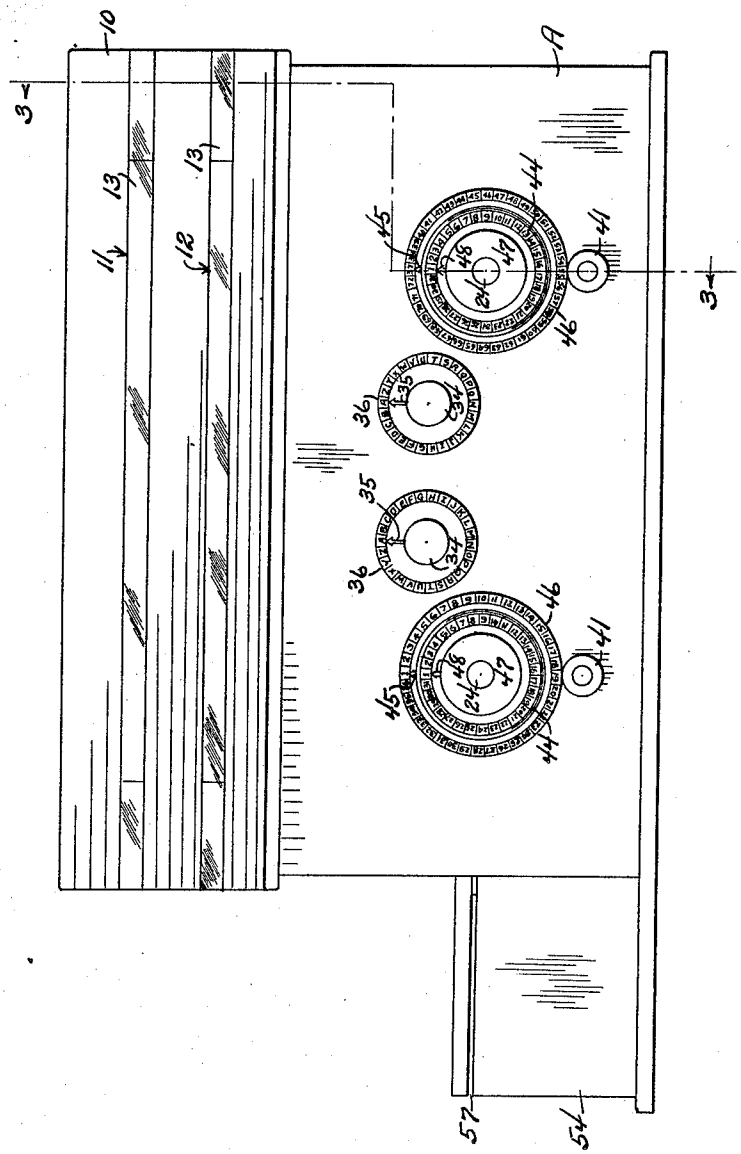


Fig. 1.

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CHECK IDENTIFYING MACHINE

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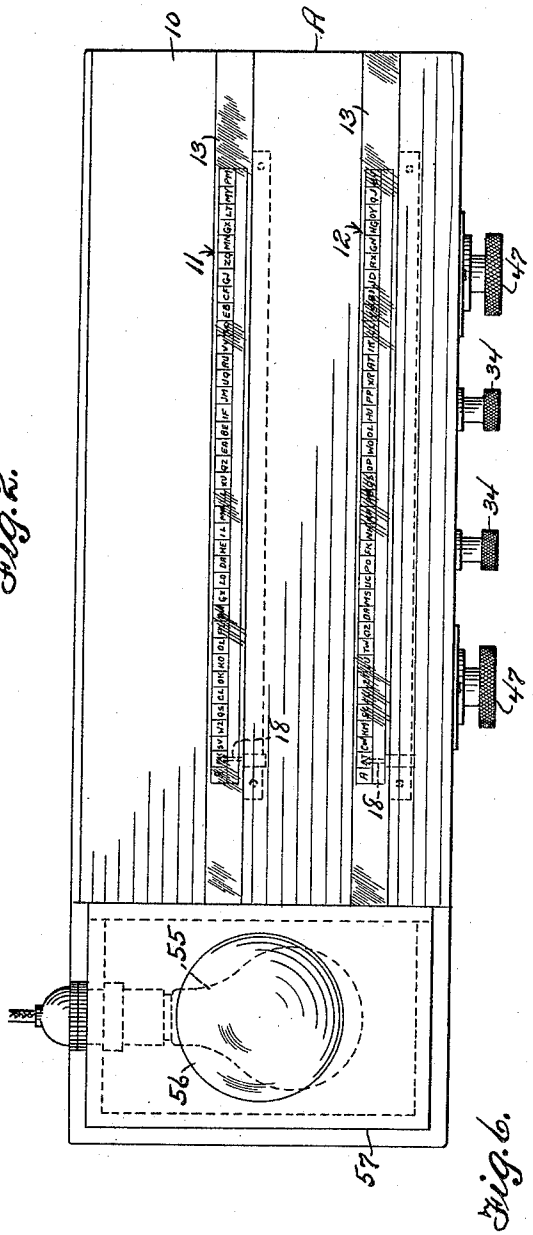


Fig. 2.

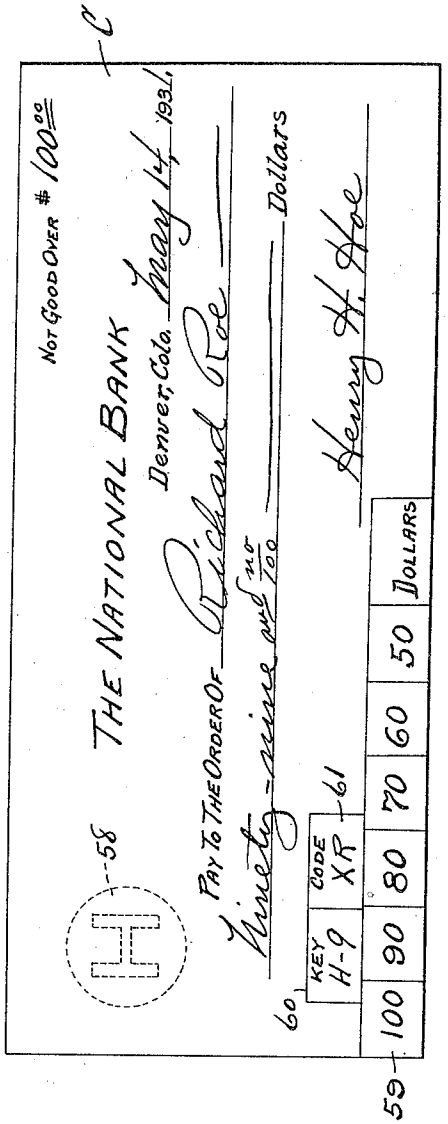


Fig. 6.

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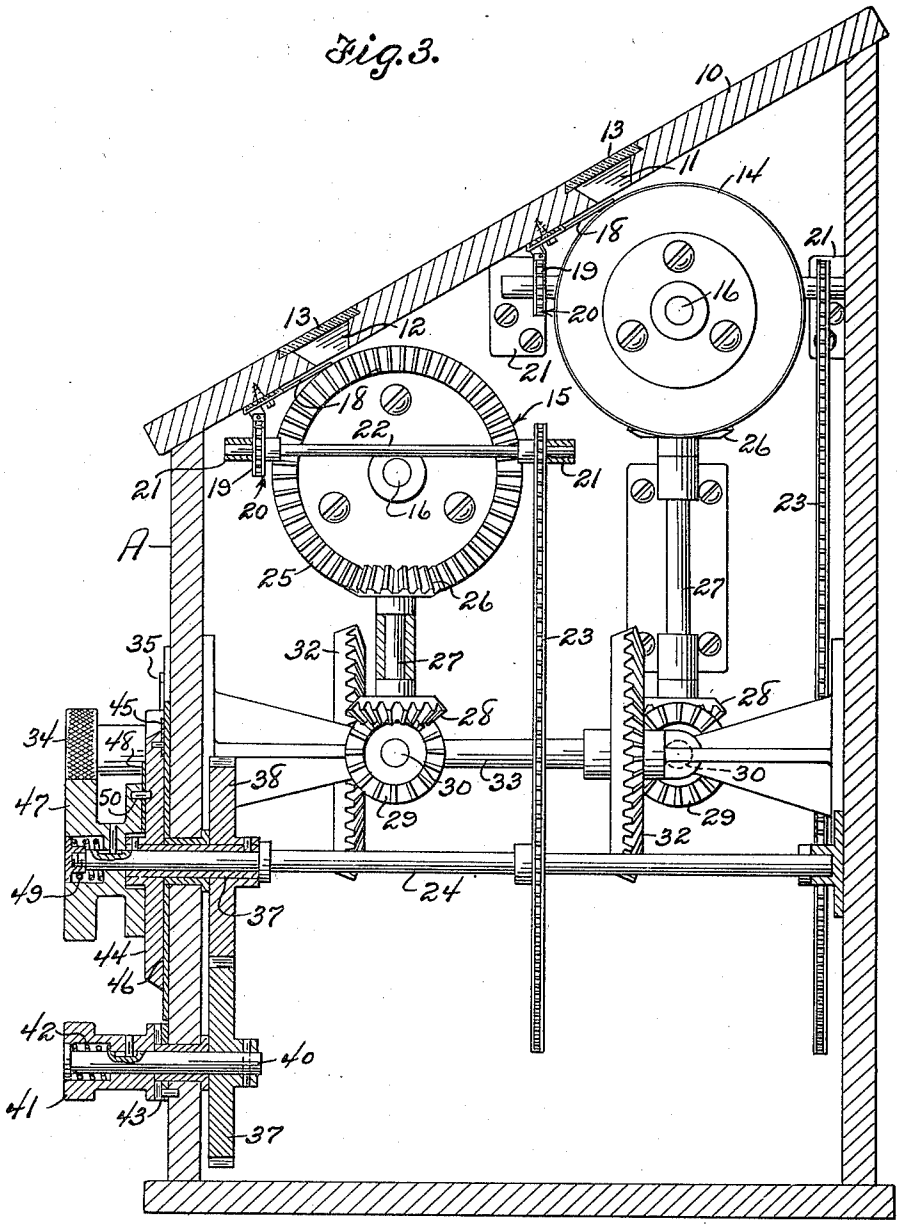
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CHECK IDENTIFYING MACHINE

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Fig. 3.



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CHECK IDENTIFYING MACHINE

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Fig. 4.

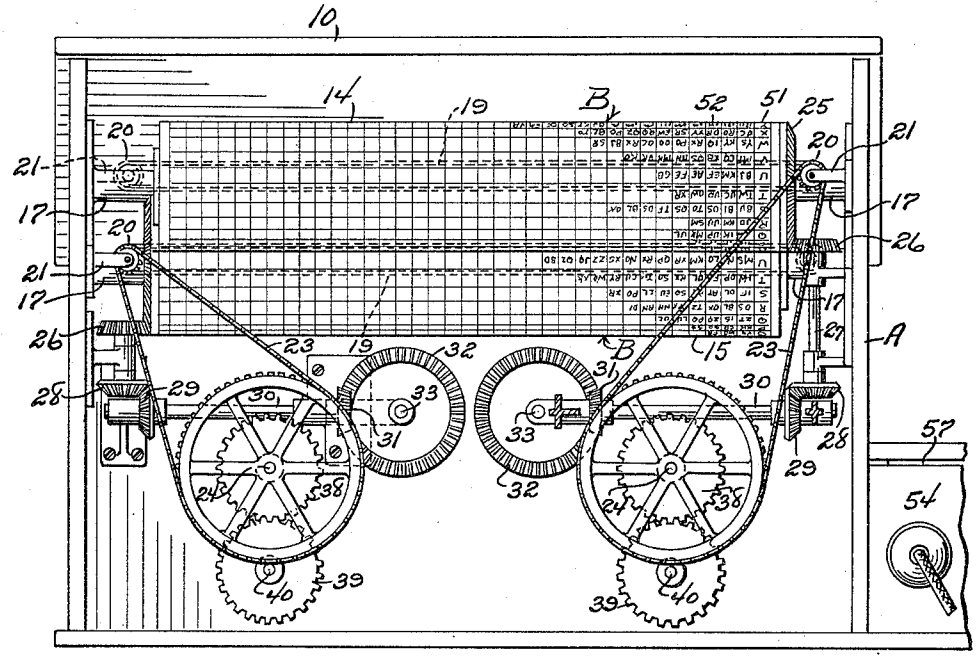
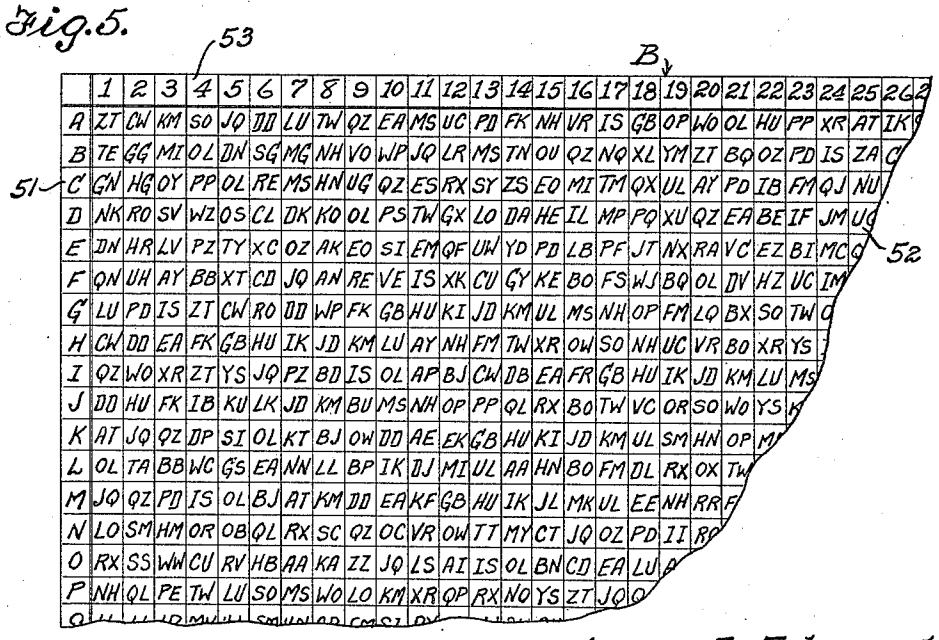


Fig. 5.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
A	ZT	CW	KM	SO	JQ	DD	LU	TW	QZ	EA	MS	UC	PD	FK	NH	VR	IS	GB	OP	WO	OL	HU	PP	XR	AT	IK
B	TE	GG	MI	OL	DN	SG	MG	NH	VO	WP	JQ	LR	MS	TN	OU	QZ	NQ	XL	YM	ZT	BQ	OZ	PD	IS	ZA	C
C	GN	HG	OY	PP	OL	RE	MS	HN	UG	QZ	ES	RX	SY	ZS	EO	MI	TM	QX	UL	AY	PD	IB	FM	QJ	NU	
D	NK	RO	SV	WZ	OS	CL	DK	KO	OL	PS	TW	GX	LO	DA	HE	IL	MP	PQ	XU	QZ	EA	BE	IF	JM	UC	
E	DN	HR	LV	PZ	TY	XC	OZ	AK	EO	SI	EM	QF	UW	YD	PD	LB	PF	JT	NX	RA	VC	EZ	BI	MC	C	
F	QN	UH	AY	BB	XT	CD	JQ	AN	RE	VE	IS	XK	CU	GY	KE	BO	FS	WJ	BQ	OL	DV	HZ	UC	IM		
G	LU	PD	IS	ZT	CW	RO	DD	WP	FK	GB	HU	KI	JD	KM	UL	MS	NH	OP	FM	LQ	BX	SO	TW	C		
H	CW	DD	EA	FK	GB	HU	IK	JD	KM	LU	AY	NH	FM	TW	XR	OW	SO	NH	UC	VR	BO	XR	YS			
I	QZ	WO	XR	ZT	YS	JQ	PZ	BD	IS	OL	AP	BJ	CW	DB	EA	FR	GB	HU	IK	JD	KM	LU	MS			
J	DD	HU	FK	IB	KU	LK	JD	KM	BU	MS	NH	OP	PP	QL	RX	BO	TW	VC	OR	SO	WO	YS	K			
K	AT	JQ	QZ	DP	SI	OL	KT	BJ	OW	DD	AE	EK	GB	HU	KI	JD	KM	UL	SM	HN	OP	M				
L	OL	TA	BB	WC	GS	EA	NN	LL	BP	IK	DJ	MI	UL	AA	HN	BO	FM	DL	RX	OX	TW					
M	JQ	QZ	PD	IS	OL	BJ	AT	KM	DD	EA	KF	GB	HU	IK	JL	MK	UL	EE	NH	RR	F					
N	LO	SM	HM	OR	OB	QL	RX	SC	QZ	OC	VR	OW	TT	MY	CT	JQ	OZ	PD	II	RQ						
O	RX	SS	WW	CU	RV	HB	AA	KA	ZZ	JQ	LS	AI	IS	OL	BN	CD	EA	LU	Q							
P	NH	QL	PE	TW	LU	SO	MS	WO	LO	KM	XR	QP	RX	NQ	YS	ZT	JQ	Q								

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Patented May 30, 1933 1,911,994

UNITED STATES PATENT OFFICE

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CHECK IDENTIFYING MACHINE

Application filed June 2, 1931. Serial No. 541,730.

The invention relates to a check identifying machine designed for use in banks or other institutions dealing with checks, negotiable papers or the like.

The primary object of the invention is the provision of a machine of this character which will enable the banks or other institutions to determine whether or not each and all of the checks presented by the drawers or bearers are genuine, thereby eliminating the possibility of surreptitious checks being passed against a depositor and the bank constituting the latter's depository.

Another object of the invention is the provision of a machine of this character, wherein the set up of the same covers a code symbol system for the purpose of testing the checks or other negotiable instruments employed by a bank and a depositor whereby each check used by the depositor will carry an identification under the code symbol set up so that the machine when operated will enable detection with dispatch as to whether or not the check tested by the machine is genuine.

A still further object of the invention is the provision of a machine of this character which is comparatively simple in construction, thoroughly reliable, efficient and accurate in its operation, readily and easily operated, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawings:—

Figure 1 is an elevation of a machine constructed in accordance with the invention.

Figure 2 is a top plan view thereof.

Figure 3 is an enlarged sectional view on the line 3—3 of Figure 1 looking in the direction of the arrow.

Figure 4 is a vertical longitudinal sectional view through the machine.

Figure 5 is a fragmentary plan view of a code symbol layout of the chart as used by a bank or other institution in the operation of the machine.

Figure 6 is a plan view of one of the checks as issued by a depository for the drawing of funds by a depositor therefrom as issued by said depositor under the code symbol of the machine.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, the machine comprises a box-like body or casing A having a forwardly inclined top 10 in which are provided slot-like windows 11 and 12 respectively, these being arranged longitudinally of the body or casing A in spaced parallel relation to each other and are preferably covered by a transparent magnifying glass covering 13 which is counterseated in the top and coextensive with the windows therein.

Located interiorly of the body or casing A to be clearly visible through the windows 11 and 12 are code symbol cylinders 14 and 15 respectively, each being fixed to its supporting shaft 16 mounted in suitable end bearings 17 fixed to the end of the body or casing A in any suitable manner so that the cylinders will be disposed spaced from each other in parallel relation and in confronting position with respect to the windows 11 and 12 in the top 10 of said body or casing.

Adapted to travel across each cylinder under windows 11 and 12 is a pointer or indicator which is visible during the operation of the machine and these pointers or indicators are carried by and made a part of an endless sprocket chain 19 engaged with and trained over sprocket wheels 20 supported in brackets 21 fixed interiorly of the body or casing A, one of the sprocket wheels being fixed to a driven shaft 22, while the other sprocket wheel serves as an idle wheel. It is desirable and preferable to have one of the sprocket wheels 19 driven from the right hand end of the machine and the other from the left hand end thereof.

The shaft 22 has a sprocket and chain connection 23 with a main shaft 24, the lat-

ter journaled in the body or casing A at right angles to the shafts 16 carrying the cylinders 14 and 15 and beneath the same. This shaft 24 extends through the front of the body or casing A exteriorly thereof for manual manipulation.

Each cylinder 14 and 15 at one end thereof has fixed thereto a crown toothed gear 25 with which meshes a pinion 26, carried by a stud shaft 27 which also has a pinion 28 meshing with a pinion 29 upon a driven shaft 30 the latter being also fitted with a pinion 31 meshing with a gear 32 fixed to an operating shaft 33, the latter being extended through the front of the body of casing A and carries a hand knob 34 provided with a pointer 35 for coaction with a stationary dial 36, this dial being marked or otherwise formed with an indicator marginally thereof including the letters of the alphabet from A to Z inclusive.

Surrounding each shaft 24 at the end projected through the front of the body or casing A is a sleeve 37 carrying fixed thereto at its inner end a gear 38, the latter meshing with a gear 39 fixed to an operating shaft 40 journaled in and projecting through the front of the body or casing A and this shaft carries a hand knob 41 and is frictionally held through the medium of a spring 42 against a friction device 43 on the front of the body or casing A. Thus it will be seen that when the knob 41 is turned motion will be imparted to indicator or pointer 45 around dial 46 and pointer or finger 18 will move longitudinally over code cylinder 14 or 15 under windows 11 or 12.

The sleeve 37 at its outer end carries a dial 44 having a pointer or indicator 45 which latter traverses a dial 46 stationarily mounted on the front of the body or casing A next to the said dial 44 and this dial 44 is turned with the gear 38, the dial 44 being marked or otherwise formed with a marginal scale including digits numerically arranged from one to thirty-one which indicates the days of the month which the indicator or pointer 45 is to cooperate when the dial 44 is a part of, turned by rotating the knob 41 as should be obvious. Dial 46 is stationary on the panel of the machine and serves the purpose of dialing the key number that will be found on check shown in Figure 6 indicated at 60 in the drawings which is assigned to the depositor by the bank and is inserted on the check when the check is signed by the issuer thereof. This dial can be made of any size and to contain any amount of numbers from one on upward and these numbers are classified as key numbers. It will be readily seen that when any number on this dial 46 is selected by the indicator 45 with the knob 41 all the digits on dial 44 have shifted their position as indicator 45 is a part of the dial 44 and by moving the indicator 45 the location of the date numbers in reference to pointer 48 is differentiated. The key letter 60 in Figure 6 of the drawings is also assigned by the bank to the depositor and said bank may assign any letter that they may deem proper or necessary. As there will be more accounts with the bank in letter B than in letter X the bank may assign code key X to a depositor with the name of Brown or Bates. When the bank assigns some other code letter than that which is the first letter of the depositor's last name the code letter is marked by the depositor in space 60 in Figure 6 of the drawings and so is his key number and the check is tested by that letter and number of key and by the date of the check. When the dial 44 is turned by the knob 41 a motion will be imparted to the shaft 24 and thus the pointer or finger 18 will be shifted relative to and beneath the window confronted thereby. The shaft 24 has displaceably mounted on its outer end a knob 47 carrying a pointer or indicator 48, the latter being adapted to traverse over the dial 44 which is marked or otherwise formed with a scale marginally thereof including digits numerically arranged from one to thirty-one inclusive. The knob is displaceably keyed to the shaft 24 and is provided with a spring 49 which forces the said knob toward the dial 44 so that the lock pin 50 of said knob 47 will engage selectively in any one of a series of holes corresponding in number to the digits on the dial 44 and thus be locked with said dial. The connection of the knob 47 with the shaft 24 permits the latter to be rotated by said knob and on displacing the latter for the unlocking of the knob with the dial 44 the pointer 48 can be brought into alignment with any of the digits on the dial 44 and be held at such point when the knob 47 is locked with the dial.

Each cylinder 14 and 15 carries a surface code marking as particularly illustrated in part in Figure 5 at 52 of the drawings and these code markings are composed of two or more letters of the alphabet or two or more letters and digits or two or more digits or both mixed digits and letters and are disposed longitudinally over the cylinders. Each cylinder contains twenty-six lines of code distributed circumferentially on the cylinder and each line of code on the cylinder is synchronized with a letter of the alphabet on stationary dial 36 in Figure 1 of the drawings. When any letter of the alphabet is dialed on dial 36 and indicator 35 the line of code B on cylinder 14 comes to view under window 11. The symbol lines on cylinders 14 and 15 synchronize with the dial 36 marking, while the code markings in the rows 52 synchronize with the digit

markings on dials and pointers 44—46 and 45—48 respectively.

Located at one end of the body or casing A is an electric lamp house 54 and a heating unit 55 in which the check C as shown in Figure 6 of the drawings is inserted through gap 57 over light bulb and heating unit under magnifying glass 56 for the purpose of detecting the concealed letter 58 as will be hereinafter more fully described.

It will be obvious that the code B in row 52 as shown in Figure 5 of the drawings on the cylinders 14 and 15 will be visible through the windows 11 and 12 for a purpose presently described.

The check C shown in Figure 6 of the drawings is an example of a check as issued by a depository and such check carries an obscure chemical mark as at 58, which chemical mark is made all over the papers, the latter being only visible by the penetration through the material of the check C when heated and the light rays from the bulb 55 penetrate the body of said check and this mark 58 is an identifying mark indicative of the check C issued exclusively to an individual depositor, the mark 58 being indicative of the first letter of the last name of the person to whom the check in blank is issued. It is of course understood that the depository may issue in blank any number of checks C for use by the party to whom issued but not to exceed balance in bank.

The face of the check C is printed or otherwise marked customary to banking procedure, namely, the name of the bank; location thereof; date space; "pay to the order of" clause, blank spaces following the latter to be filled in with the payee and the amount of the valuation of the check with a space for the signature of the drawer of the check. In addition, the check is provided with valuation spaces 59, these having indicated valuations from a minimum to a maximum amount, for example, fifty dollars to one hundred dollars, while other indicia may be present on the face of the check to indicate that the same in valuation is not to exceed a determined amount consistent with the valuation as indicated in the valuation spaces 59, that is, the maximum valuation appearing therein. Additionally, the check A has provided thereon key and code spaces 60 and 61 respectively, these being identified respectively by the word "Key" and by the word "Code" and in these spaces is adapted to be written by the drawer of the check his or her key or identification mark, in this instance including a letter and a number, and also a code symbol corresponding with the date of the check and the key letter and number, the working of which being hereinafter fully described.

In the use of the machine which is installed in the banking institution which issues to its respective depositors a group of checks exemplified by specimen in Figure 6 of the drawings, this group of checks issued to an individual depositor in the aggregate having a maximum valuation to correspond to the amount of deposit to the credit of said depositor and additionally the banking institution issuing the group of checks to the individual supplies the latter with a code slip attached to check book corresponding or duplicating a determined row 52 on the code cylinder 14 or 15 of the machine and on key chart at the bank. This code slip is similar to the code letter as at 52 in Figure 5 of the drawings corresponding to the first letter of the last name of the individual to whom such slip is issued and such letter appears in alphabetical order on the dial of the machine and on the chart at the bank. So it will be seen that space 61 in Figure 6 of the drawings is filled in by the depositor at the time the check is signed and this code marking is governed by the date of the check and the key number assigned to the depositor under key chart in Figure 5 from code slip issued by the bank. The code characters upon the issued slip, it being preferable to have these characters in letters two in number, are arranged in this fashion in sequence to cooperate successively with the lines 52 according to the numerical order thereof which digits of the numerical order on dial 44 are indicative of the dates of the days of a month and also any one digit is used as the numeral of the identification key or mark on dial 46 for the account of said individual.

The code rows 52 have their characters indicative of the date, that is the number of the day of a month as affixed by the drawer of the check in the filling in of the same or the issuing thereof.

The maximum valuation identity of the check C is controlled by detaching from check but remaining with stub the values as appearing in the spaces 59 and also accordingly to the statement appearing on the face of the check, namely, "Not good over $", and in this way the raising of the check beyond the maximum valuation indicated thereon is prevented.

Now it is to be assumed that the depositor issues a check to the person as named on the face of the check C, which check is dated with a specific date and said drawer of the check has inserted his key mark "H–9" in the space 60 and likewise the code "X R" in the space 61, the amount for which the check is drawn having been written in in the space provided therefor. This check is negotiated and presentation has been made to the banking institution having an account with the depositor issuing the check or any other banking institution having the machine. On presentation the check is insert-

ed in the machine through the way 57 above the lamp house 54 and heating unit so that the concealed identification mark 58 will confront the lighted bulb 55, whereby the light penetrating the check C will make visible the identification mark 58 and this mark to be genuine corresponds with the first letter of the last name of the drawer of the check. Thereafter the operator of the machine, by the key letter appearing on the check, manipulates the knob 34 so that its pointer 35 will be turned to the letter H on the dial 36 which is the letter of the key mark in the key space 60 on the check. This manipulation of the knob 34 causes the code cylinder 14 or 15 to rotate whereby the code row H on cylinder 14 appears in front of window 11 in cooperation with the dial 36. Then the operator of the machine turns knob 41 causing dial 44 to rotate until pointer 45, which is a part of dial 44, is in line with number 9 on dial 46. This numeral 9 is a part of the identification key assigned by the bank to the depositor. During this movement of the dial 44 carrying pointer 45 and numerals 1 to 31 inclusive, the pointer 18 will have been shifted over the cylinder 14 and pointer 18 will be in line with code "K M", line H of code cylinder (see chart—line H—column 9) which represents the key point for key H9. Then the operator of the machine turns knob 47 carrying indicator 48 until the indicator is in line with number 14 on dial 44 (14 is the date on the check) and causing finger or pointer 18 to be carried fourteen more spaces over the code cylinder 14 on code line H seen through window 11. When this movement is completed pointer or finger 18 will point to code symbol "X R" (as on chart Figure 4 column 22) on code cylinder 14 and then comparison is made between code symbol on check and code symbol in the machine. If the code on the check Figure 6 #61 corresponds with the code in the machine the check has stood the test. The code slip is issued to each depositor with verbal instructions as to how to use same in reference to key point determined by the bank from key chart. The code slip of the depositor corresponds with one of the alphabetical code lines on the key chart and also with the same letter and line on the code cylinder of the machine. The sequence of the codes on the chart and on the code slip are the same as on code cylinders in the machine, but the key point on the depositor's code slip is known only to the depositor and it is determined by the bank where the depositor keeps his account. The key point or code slip is the starting point for the first day of the month and from then on the codes on the slips are used in rotation for the entire month beginning at that key point, using one code for each day.

The machine in the makeup hereinbefore described has the mechanism for the respective code cylinders 14 and 15 duplicated, but different code combinations on each cylinder thereby increasing the capacity for testing purposes of checks by a double number of depositors than can be taken care of by a single code cylinder as will be obvious.

What is claimed is:—

A machine of the character described comprising a body having a windowed top, a cylinder journaled in the body immediately beneath the window in its top, code symbols surfacing the cylinder and disposed in longitudinal rows circumferentially thereof, an indicator finger movable between the cylinder and the top of the body and visible through the window in the top for identifying selected code symbols on the cylinder, turning dials arranged at the front of the body and manually operable, connections between one of the dials and said finger for operating the latter, connections between the other dial and the cylinder for rotating the latter, and indicia related with said dials and identical with the code symbols upon the cylinder and selective by the dials to have the code symbols upon the cylinder selected appear through the window and by the pointer.

In testimony whereof I affix my signature.

JAMES E. EDWARDS.