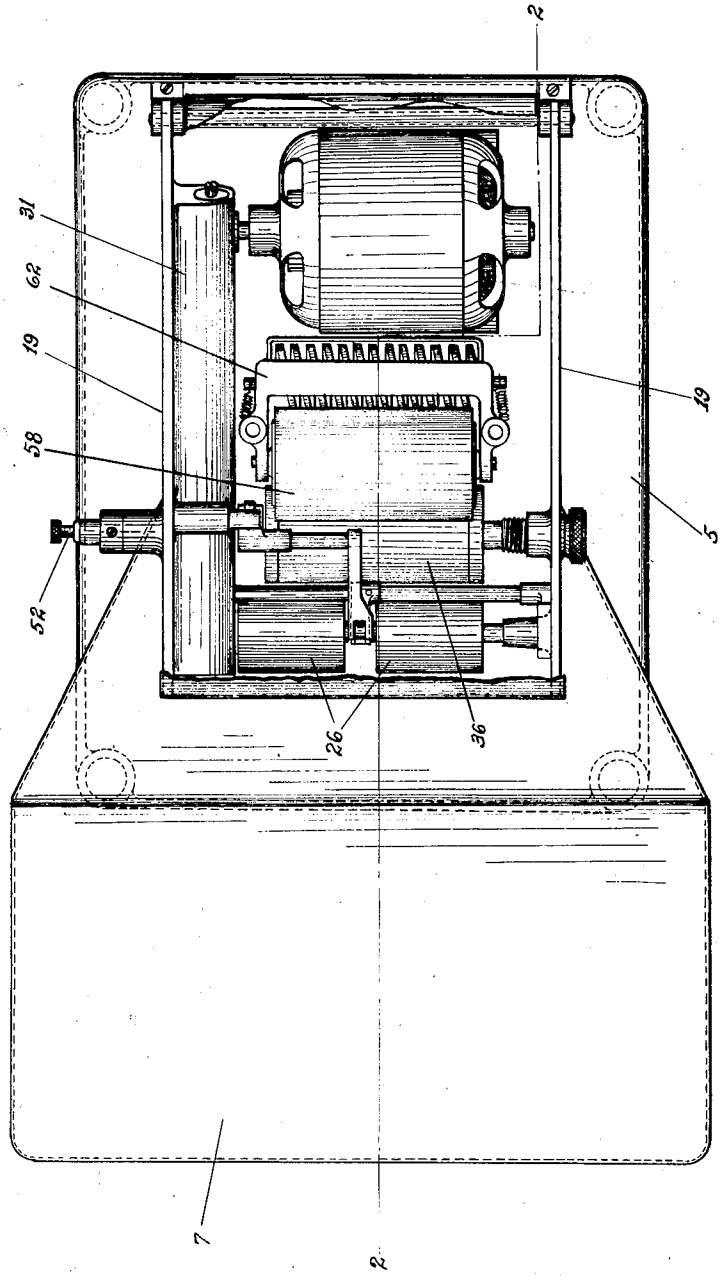
Aug. 4, 1925. 1,548,699

L. J. ZAHN

CHECK INDORSING MACHINE

Filed June 19, 1923 3 Sheets-Sheet 1

Fig. 1



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Filed June 19, 1923 3 Sheets-Sheet 2

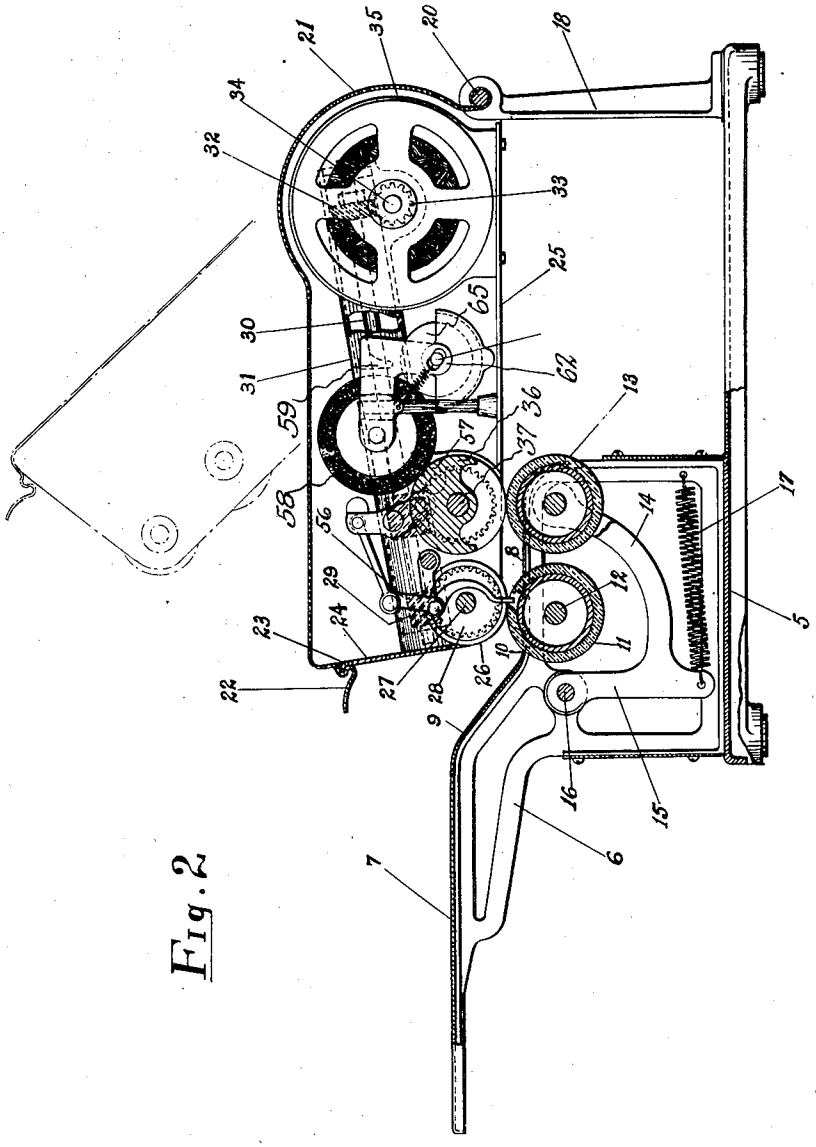


Fig. 2

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Fig. 3

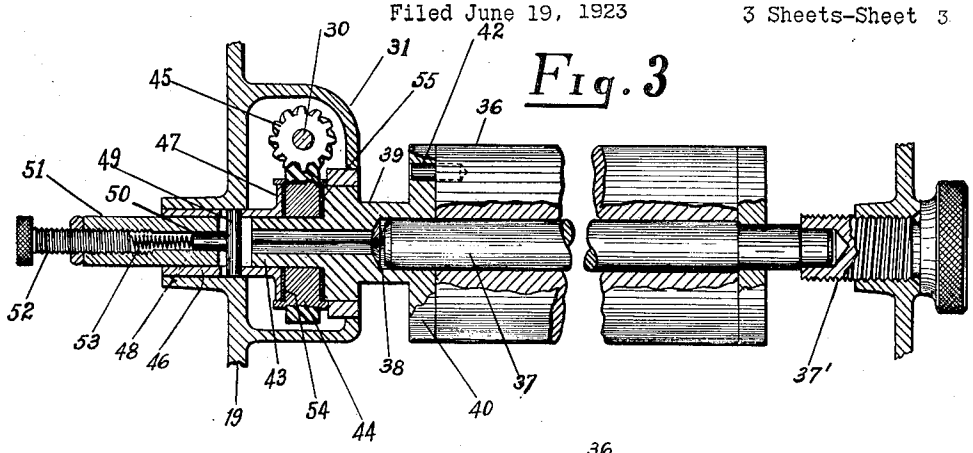


Fig. 4

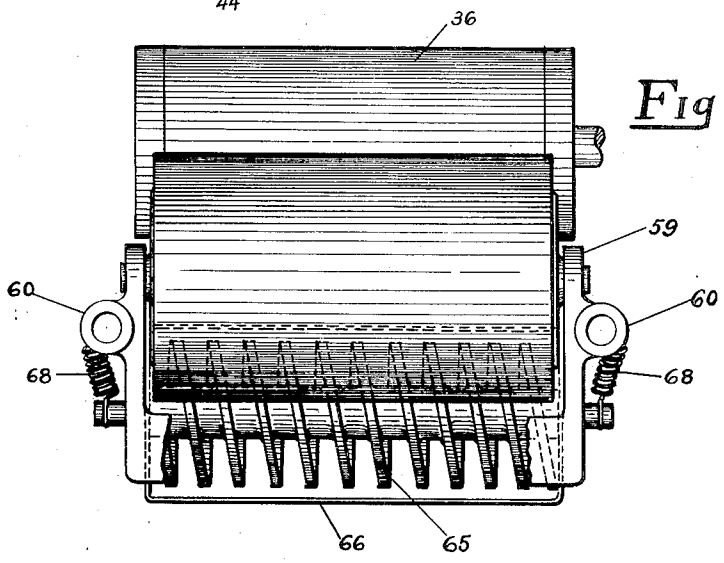
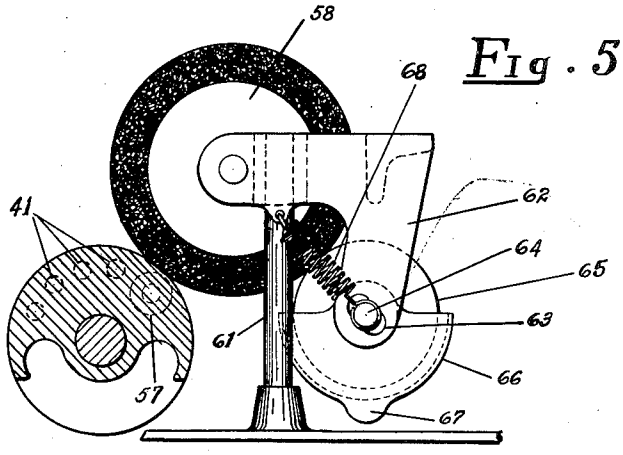


Fig. 5



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UNITED STATES PATENT OFFICE.

LAWRENCE J. ZAHN, OF ASTORIA, NEW YORK, ASSIGNOR TO THE INTERNATIONAL POSTAL SUPPLY COMPANY, A CORPORATION OF NEW YORK.

CHECK-INDORSING MACHINE.

Application filed June 19, 1923. Serial No. 646,372.

To all whom it may concern:

Be it known that I, LAWRENCE J. ZAHN, a citizen of the United States, and a resident of Astoria, county of Queens, city and State of New York, have invented certain new and useful Improvements in Check-Indorsing Machines, of which the following is a specification.

This invention relates to check indorsing machines and has for its primary object to provide a machine for this purpose in which the printing mechanism is very compactly arranged and mounted and supported in co-operative relation with check feeding means for convenient use in conjunction with an adding or calculating machine, such as is commonly employed in banks and other large financial institutions.

It is an important feature of the present invention to arrange the printing mechanism with its operating motor within a pivotally supported housing whereby said mechanism and motor may be moved as a unit into or out of operative relation with the check feeding rolls.

A further object of the invention is to provide an improved means for continuously supplying fluid ink to the absorbent inking roller of the printing mechanism which in turn inks the faces of the type on the revoluble printing die.

With the above and other objects in view the invention consists in the improved check indorsing machine and in the form, construction and relative arrangement of its several parts as will be hereinafter more fully described, illustrated in the accompanying drawings and subsequently incorporated in the subjoined claims.

In the drawings wherein I have disclosed one practical and satisfactory embodiment of the invention and in which similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a top plan view, the housing cover being broken away;

Figure 2 is a longitudinal section taken on the line 2—2 of Figure 1;

Figure 3 is an enlarged detail section showing the mounting of the printing die and operating means therefor;

Figure 4 is an enlarged plan view of the inking means for the printing die; and

Figure 5 is a side elevation thereof.

Referring in detail to the accompanying drawings, 5 designates a base plate upon one end of which supports 6 are suitably secured for the table or platform 7, said table including a forwardly projecting part extending beyond the base 5 and preferably of greater width than said base. The rear end portion 8 of said table is at a lower elevation than the front portion thereof, said front and rear portions being connected by the obliquely inclined intermediate portion 9.

The lower rear portion 8 of the table plate is provided with an opening 10 through which the upper portion of the rubber covered feed roller 11 projects, said roller being rotatably supported by a transverse rod or shaft 12 suitably mounted at its ends in the table supporting frames 6. This feed roller is in two sections slightly spaced apart on the shaft 12.

Rearwardly of the sectional feed roller a rubber covered presser roll 13 is supported between the upper ends of curved arms 14 each of which has a front vertical portion 15 pivotally engaged upon the transverse rod 15 fixed in the frames 6. This roller 13 extends upwardly through a slot or recess in the rear edge of the portion 8 of the table, the roller 13 being urged upwardly to a normal position by means of coil springs 17 which are attached at their rear ends to the frames 6 and at their forward ends to the vertical portions 15 of the arms 14.

Upon the rear end of the base plate 5 and adjacent to its opposite edges, standards 18 are rigidly secured. In the upper ends of these standards the side plates 19 of a housing or casing are pivotally mounted on the rod 20 which connects the standards to each other. Between said standards the rear end of the housing cover 21 is pivotally engaged upon said rod, said cover at its other or free end being provided with suitable latch means 22 to engage with a lug 23 on the upper edge of the front plate 24 of the housing. The lower side of the housing is also closed by means of the plate 25 extending between the side plates 19.

In the forward end of the housing a pair of feed rollers 26 corresponding with the feed rollers 11 (see Fig. 1) are fixed upon

the shaft 27 which is journaled at its ends in suitable bearings on the housing plates 19. A worm gear 28 is fixed upon this shaft and is engaged by a worm 29 on an obliquely inclined shaft 30 which is enclosed within a casing 31 formed upon the inner side of one of the housing pates 19 and extending substantially the entire length thereof. The other end of this shaft is provided with a worm 32 engaged with the worm gear 33 on the shaft 34 of the driving motor 35 which is mounted in the rear end of the housing.

The printing die 36 is fixed upon the shaft 37 which projects beyond the opposite ends of the die. One end of this shaft is adapted to be engaged in a central socket 38 of the frictionally driven member 39. At one of its ends this member is formed with a disc 40 having a series of circumferentially spaced openings 41 therein in any one of which a pin 42 projecting from one end of the die 36 may be engaged in accordance with the particular arrangement of the type characters of said die. The member 39 is suitably mounted in one side wall of the casing 31 for free rotation and is provided with a reduced shaft extension 43 on its other end upon which the worm gear 44 is loosely mounted, said worm gear having constant meshing engagement with the worm 45 fixed upon the shaft 30. Upon the extremity of the shaft extension 43, an axially shiftable sleeve 46 is engaged, said sleeve having a flange 47 opposed to the gear 44 and extending through a tubular boss 48 formed upon the housing wall 19. The opposite side walls of the sleeve 46 are provided with openings to receive the ends of a pin 49 which is centrally formed with a stud 50 projecting into the longitudinal bore of a member 51 fixed in the outer end of said sleeve. The outer end of the bore is threaded to receive the screw 52 which is adapted to be adjusted to regulate the tension of the spring 53 disposed between said screw and stud 50.

Between the flange 47 and one side of the gear 44, a friction disc 54 is disposed, and a similar disc 55 is also positioned between the opposite face of the gear 44 and the central part of the member 39. It will be obvious from this construction that by adjustment of the screw 52, the frictional pressure of the discs 54 and 55 against the faces of gear 44 may be regulated whereby rotation is imparted to the member 39 and consequently to the die 36 upon the operation of the motor and the rotation of the shaft 30.

The other end of the shaft 37 is supported by the bearing member 37′ which has adjustable threaded engagement in one wall of the housing as clearly shown in Fig. 3 of the drawings. It will be apparent that by taking off or threading this bearing member outwardly, it may be disengaged from the end of the shaft 37 and the pin 42 then removed from the opening 41 in the member 39 so that the printing die can be readily removed and another substituted therefor.

In order to limit each operation of the die to stamp or print a single indorsement on a check passing through the machine, I provide the check actuated trip device, generally indicated by the numeral 56 which includes a pivotally mounted trip member adapted to coact with a stop roller 57 mounted on the plate 40 to normally overcome the driving friction between the disc 55 and the member 39, and thus prevent rotation of the printing die. This check actuated trip mechanism is quite similar to that shown and described in the pending application of William F. Muller, Ser. No. 578,272, filed July 28, 1922, and since the same constitutes no essential feature of the present improvement, no further detail description thereof is necessary in the present application.

Rearwardly of the printing die 36 the inking roller 58 is mounted in the substantially U-shaped frame or yoke 59. This roller has a covering of felt or other absorbent material and rests by gravity upon the periphery of the printing die. The ends of the frame 59 are provided with guides 60 which loosely receive the upper ends of the rods or standards 61 fixed to the bottom plate 25 of the housing. The frame 59 is also provided at its opposite ends and at the rear side thereof with depending arms 62 which are provided with obliquely inclined slots 63 to receive trunnions 64 on opposite ends of a spiral ink supplying member 65. This member has its lower portion disposed in the ink receiving pan or receptacle 66 which is loosely engaged for free swinging movement on the trunnions 64. The base of the pan wall is weighted as indicated at 67 so that said pan will always remain suspended in a perpendicular position. Coil springs 68 are attached to the trunnions 64 and act to yieldingly hold the edge of the spiral member 65 throughout its length in bearing contact against the felt or other absorbent material of the inking roller 58. It will be apparent that in the rotation of the printing die, the inking roller will also be rotated and this roller in turn frictionally engaging the edge of the spiral blade 65 the ink will be carried by the convolutions of this spiral blade as it is rotated and supplied to the absorbent material of the inking roller. Thus uniform saturation of the inking roller is obtained and the type faces of the printing die will always be perfectly inked so that legibility of the impressions on the checks or other papers will be assured.

When the printing mechanism is in operative position as shown in full lines in Fig. 2, the feed rollers 26 rest upon the lower

feed rollers 12 while the printing die 36 bearing on the impression roller 13 forces the same downward slightly against the action of the spring 17. Therefore, it will be seen that as the paper checks are passed over the table 7 down the inclined section 9 thereof and fed rearwardly by the rollers 11 and 26, the roller 13 will hold the paper check firmly in contact against the face of the printing die as the check is moved rearwardly by the rotation of said die. The indorsed checks will collect beneath the rear portion of the housing upon the base 5 and they may be readily removed simply by swinging the housing of the printing mechanism upwardly as shown in dotted lines in Fig. 2. For the purpose of oiling or lubricating the parts of the mechanism, the mechanism may remain in its operative position while the cover plate is swung upwardly after disengaging the latch 22 from the keeper 23. It will be seen that a machine of this character may be readily arranged alongside of an adding or calculating machine, such as is used in banks or other financial institutions so that as the amounts of the checks are recorded or tabulated, they may be successively moved over the table 7 where they will be caught by the feed rollers 11 and 26 and then carried through the machine and automatically provided with the proper indorsement. Thus such clerical operations may be greatly facilitated and much time and labor saved.

While I have herein shown and described one embodiment of the improved machine which I have found to be entirely satisfactory in practical use it is nevertheless apparent that the novel features of my present disclosure might also be exemplified by numerous other alternative structures. Accordingly, it is to be understood that I reserve the privilege of resorting to all such legitimate changes in the form, construction and relative arrangement of the several parts as may be fairly embodied within the spirit and scope of the invention as claimed.

I claim:

1. In combination with a feed table, motor operated printing mechanism, and means for mounting said mechanism and its operating motor for bodily unitary movement into and out of operative position with relation to said table.

2. In combination with a feed table, a presser roll and means for yieldingly urging said roll upwardly to project above the table surface, motor operated printing mechanism including a rotatable printing die adapted for engagement upon said presser roll, and means for mounting said mechanism for bodily unitary movement into and out of operative position with relation to said table.

3. In combination with a feed table and feed rollers projecting above the surface of the table, a motor operated printing mechanism including a rotatable printing die to engage one of the feed rollers, complementary feed rollers operated by the motor of said mechanism to engage the other feed rollers mounted in said table, and means for pivotally supporting the printing mechanism and the last named feed rollers for unitary bodily swinging movement in a vertical plane into and out of operative position with relation to the feed rollers in said table.

4. In combination with a feed table, a housing pivotally mounted at one of its ends for swinging movement in a vertical plane, motor operated printing mechanism arranged within said housing and movable as a unit therewith, said mechanism including a rotatable printing die, a yieldingly supported presser roll, and means for yieldingly urging said presser roll above the surface of the table into contact with said printing die when the latter is in operative position.

5. In combination with a feed table, a housing pivotally mounted at one of its ends for vertical swinging movement with respect to said table, motor operated printing mechanism arranged within said housing and movable as a unit therewith into and out of operative relation to said table, and a cover for said housing affording access thereto and pivotally mounted at one of its ends for independent swinging movement.

6. In printing mechanism of the character described, a rotatably mounted member, a printing die having a shaft, a bearing supporting one end of said shaft, the other end of said shaft being rotatably supported by said member, means for adjustably and detachably connecting the printing die with said member, a motor driven shaft, and means for transmitting rotation from said shaft to said member to rotate the printing die.

7. In combination with a printing mechanism having a rotatably mounted printing die, an absorbent ink supplying roller engaged upon the periphery of said printing die, an ink receptacle, a continuous spiral blade rotatably supported in said receptacle and frictionally contacting with the absorbent inking roller to continuously and uniformly supply ink to said roller in the operation of the mechanism.

In testimony that I claim the foregoing as my invention, I have signed my name hereunder.

LAWRENCE J. ZAHN.