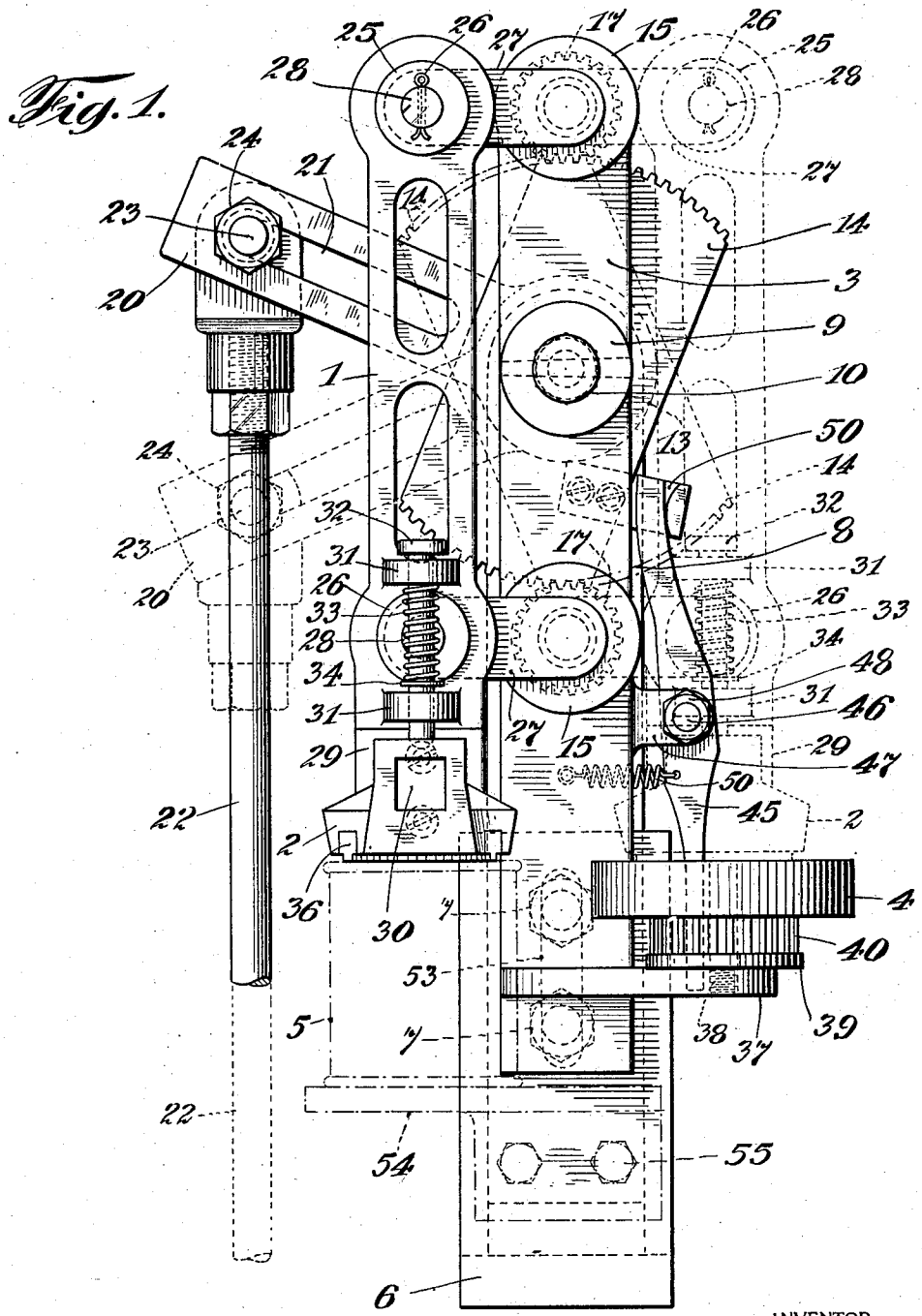
May 27, 1930. W. H. BROOKS 1,759,973

STAMPING MACHINE

Filed May 18, 1928 2 Sheets-Sheet 1

Fig. 1.



INVENTOR

William H. Brooks

BY C. V. Goepel

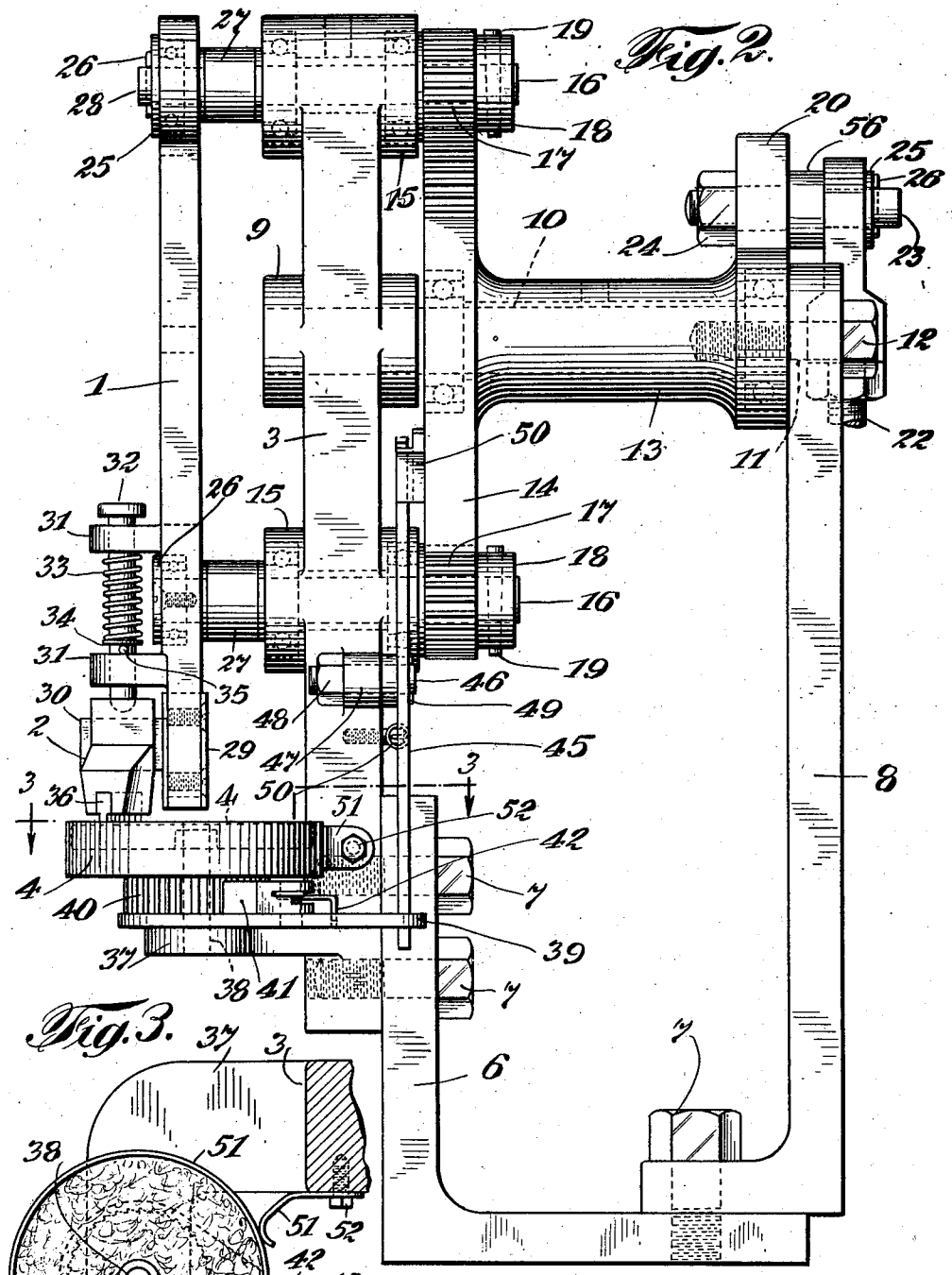
his ATTORNEY

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Fig. 2.



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Patented May 27, 1930 1,759,973

UNITED STATES PATENT OFFICE

WILLIAM H. BROOKS, OF OCONOMOWOC, WISCONSIN, ASSIGNOR TO CARNATION COMPANY, OF OCONOMOWOC, WISCONSIN, A CORPORATION OF DELAWARE

STAMPING MACHINE

Application filed May 18, 1928. Serial No. 278,700.

My invention relates to improvements in stamping machines; especially machines for stamping containers, such as cans and other storage vessels.

An object of the invention is to provide a can stamping machine designed for continuous operation, and of large capacity; but of simple construction and comprising relatively few parts.

A further object of the invention is to provide a can stamping machine of the type-carrying variety, which includes a holder for the type mounted to operate so that the characters can be printed upon the cans in succession; and a member for supplying ink to the faces of the types; the type-holder and the member for supplying the ink being so supported that they can be brought together immediately before each can is stamped; so that the faces of the types are kept well covered with ink by which the inscription on the can is produced.

The nature of the invention is clearly set forth in the following description, taken with the drawings on which a preferred embodiment of the invention is illustrated. But the description is explanatory only; and changes may be made which are not necessarily shown herein but nevertheless fall within the scope and principle of the invention, as the same is defined in the appended claims.

On the drawings,

Fig. 1 is a front view of a stamping machine according to my invention;

Fig. 2 is a side view thereof; and

Fig. 3 is a horizontal section on the line 3—3 of Fig. 2.

In the particular description of the drawings the numeral 1 indicates a stamp-carrying member in the form of an operating bar to which the type-holding block 2 is attached at its lower end. This bar 1 is mounted to operate in the manner required, by means of an upright support 3 which forms part of the framework of the machine. The framework also supports the ink pad 4 against which the type carried by the holder 2 is pressed immediately before the type is brought into contact with the can to be stamped. Such a can is indicated on Figure 1 in broken lines at 5. Upright 3 is attached to another part of the framework in the form of a bracket or angle member 6 to which it is secured by bolts 7; and this member 6 is similarly fastened to an upright 8 at the rear of the machine; see Fig. 2. The upright 3 has a central bearing 9 which receives a journal 10 extending between the front upright 3 and the rear upright 8. The upper end of this rear upright 8 may have an opening to receive a bolt 11 having a head 12; this bolt being screwed into the journal 10 so that this journal spans the space between the uprights 3 and 8. On this journal is mounted to oscillate the hub 13 of a segmental gear 14. The upright 3 also has a pair of bearings 15, one above and one below the middle bearing 9, and these bearings carry shafts 16 upon which are fixed gears 17 to mesh with the gear teeth on the opposite ends of the segment gear 14. The ends of these shafts 16 may carry collars 18 held in place by cotter pins 19 to prevent displacement of the gears 17.

The hub 13 has an arm 20 rigid therewith and extending from the rear end. This arm has a slot 21 and is rocked up and down to oscillate the gear 14 by means of a rod 22 connected to the slotted arm 20 by means of a pin 23. One end of this pin 23 is threaded to receive a nut 24 and the opposite end carries a washer 25 and cotter pin 26 so that the pin is held in position to connect the arm 20 and operating rod 22. In front of the bearings 15 the shafts or spindles 16 carry cranks 27 having pins 28 engaging the member 1. The moving up and down of the rod 22 will thus cause the gear 14 to oscillate and turn the gears 17. Thus the cranks 27 are thrown from side to side depressing the type block 2 against each can in succession and then lifting this type block 2 and carrying it over to the right as indicated by the dotted lines in Fig. 1 to press the types against the ink pad 4. The motion is repeated for each can so that the types always have a full supply of ink for each can against which they are pressed.

The type-holding block 2 is supported by a sleeve 29 into which the lower end of the

member 1 is received. The lower end of the member 1 may be reduced if necessary to fit the inside of the sleeve 29, and from this sleeve projects a stud 30 which may be square in cross section. The holder 2 has a transverse opening of the same shape as the stud 30 so that the holder can be slipped upon this stud and thus mounted in operative position. Above the stud 30 are two lugs 31 in vertical alignment projecting from the member 1. These lugs are perforated to receive a pin 32 surrounded between lugs 31 by a coiled spring 33. This spring abuts against the upper lug and against a collar 34 engaging a stop pin 35 so that the action of the spring is to force said pin 31 downward. The lower end of this pin enters a recess in the top of the block 2 and keeps it from coming off the stud 30. To release the block 2, one merely pulls catch 32 upward to make it clear the recess in the top of this block. Then the block 2 can be taken off and the types 36 therein changed or a new block may be put in its place. The under face of the block 2 will have one or more grooves therein and the types are put into this groove so that these faces are presented downward towards the can which is to be stamped.

The frame has a supporting shelf 37, affixed to the lower end of the upright 3, for the ink pad 4. This pad is mounted to rotate by means of a pin 38 attached to the shelf 37 and projecting upward. Between this shelf and the ink pad 4 is a rotatable disc 39 having a central opening through which the pin 38 passes and between the disc 39 and pad 4 is a ratchet 40 which is made fast to the ink pad. The disc 39 carries a pawl 41 which is pressed against the face of the ratchet 40 by a spring 42, as illustrated in Fig. 3. When the disc 39 is moved clockwise, the ratchet 40 and the ink pad 4 can be turned; but when the disc 39 is moved in the opposite direction the pawl will simply slide over the teeth of the ratchet 40 and no movement of the ratchet and the ink pad will result.

The disc 39 has a projecting arm 43 having an opening 44 and in through this opening extends the lower end of an operating lever 45. This operating lever is fulcrumed on a pin 46 mounted in a bearing 47 on the upright 3 and being threaded to receive a nut 48 at one end while at the opposite end it is pierced for a cotter pin 49. A spring 50 attached to this lever and to the upright 3 acts to draw the lower half of this lever towards the upright 3. At its upper end the lever is adapted to be engaged and is operated by a hook 50 on the segment gear 14. Therefore as the segment gear oscillates the upper end of the lever 45 is periodically pulled in towards the upright 3 to actuate the arm 43 of the disc 39 and thus turn the ink pad 4.

The entire machine is thus operated by a rod 22 which rocks the arm 20 to oscillate the segment gear 14 and throw the part 1 over to the right with reference to Fig. 1 to bring the types 36 into contact with the ink pad 34. This movement takes place upon the downward stroke of the rod 22. On the up stroke the cranks 27 are rotated in the reverse direction to carry the member 1 with the type-holder up and over to the left (Fig. 1) and to press the block with the types 36 down against the can 5. As soon as the can has received the impression, it is removed, and while the type block is carried over to the ink pad 4, another can ready to be stamped is put in its place. The pad 4 may be a metal disc with or without an aborbent layer or cushion. At 51 is a leaf spring, secured to the upright 3 by a screw 52, to bear on the circumference of the ink pad and hold it against movement when the pawl 41 moves anti-clockwise in Fig. 3.

The upright 3 may be mounted so that it can be adjusted up and down with respect to the bracket 6 and for this purpose the bracket may have a vertical slot 53. Hence by loosening the bolts 7 the member 3 can be shifted and by tightening the bolts it is secured in the desired position.

To the frame 6 I may also attach a shelf 54 on which the cans are successively placed as they are stamped and this shelf may be made fast by bolts 55.

The gear 14 and the shafts 16 may be mounted by means of ball bearings as indicated in Fig. 1, and washers or other spacing members one of which is indicated at 56 between the end of the rod 22 and the arm 20, may be employed wherever necessary.

By means of this device the cans can be printed by stamping any inscription desired upon them. All of the parts of the machine are actuated by the rod 22 and the operator is required only to put a can upon the shelf 54 and take it off and replace it with another after the stamping has been accomplished. The machine operated at convenient speed and on account of the simplicity of the construction requires very little attention except the usual slight lubricaton for all apparatus of this class.

I claim:—

1. A stamping machine for storage vessels comprising a holder bearing characters to be inscribed on a vessel, a carrier therefor, an inking pad, a support upon which the inking pad is rotatably mounted, cranks connected to the carrier and mounted on the support, gearing connected to each of said cranks, a segment gear having an arm projecting therefrom, a rod connected to said arm to reciprocate and actuate the segment gear in reverse directions to cause the carrier to move the

holder toward the pad and then away from same to imprint a storage vessel, a ratchet connected to the inking pad, a disc bearing a pawl to engage the ratchet and give one way rotary movement to the pad, a lever connected to said disc, and a hook on the segment gear for intermittent operation of the lever.

2. A machine for stamping storage vessels comprising a supporting framework including a pair of uprights one at the front and one at the back of the machine, a journal between said uprights and supported at its ends therein, a hub carrying a segment gear freely mounted on said journal, the hub having an operating arm projecting from one end, a reciprocating rod connected to said arm, the front upright having a pair of bearings, shafts in said bearings, gears connecting said shafts to the segment gears, cranks on said shafts, a carrier connected to said cranks, a holder for the characters to be imprinted on the storage vessels mounted on the carrier, an inking pad rotatably supported by the front upright, the carrier movable by the gears and cranks towards the pad and then in the opposite direction towards a vessel to be printed, and connections comprising a pawl and ratchet together with a lever, and a hook on the segment gear to engage and oscillate the lever and thus cause the inking pad to be intermittently rotated in one direction.

3. A stamping machine including a holder for impression producing characters, an inking pad, and means for moving said holder to engage said characters with the inking pad or with an impression receiving surface, said means comprising a member fulcrumed intermediate of its ends for oscillatory motion, spaced parts rotatably mounted and connected with said holder, means operatively connecting said member at its opposite ends with the respective spaced parts to rotate the latter, and means for actuating said member.

4. A stamping machine including a holder for impression producing characters, an inking pad, and means for moving said holder to engage said characters with the inking pad or with an impression receiving surface, said means comprising a member fulcrumed intermediate of its ends for oscillatory motion, a carrier for said holder, spaced rotatably mounted crank arms connected with said carrier, means operatively connecting said oscillatory member at its opposite ends with the respective crank arms to simultaneously rotate the latter, and means for actuating said member.

5. A stamping machine including a holder for impression producing characters, an inking pad, and means for moving said holder to engage said characters with the inking pad or with an impression receiving surface, said means comprising a member fulcrumed intermediate of its ends for oscillatory motion, said member having rack teeth on its opposite ends, a carrier for said holder, spaced crank arms connected at one of their ends with said carrier, gears connected with the other ends of said crank arms and in constant mesh with the rack teeth on the opposite ends of said oscillatory member, and means for actuating said member.

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

WILLIAM H. BROOKS.