

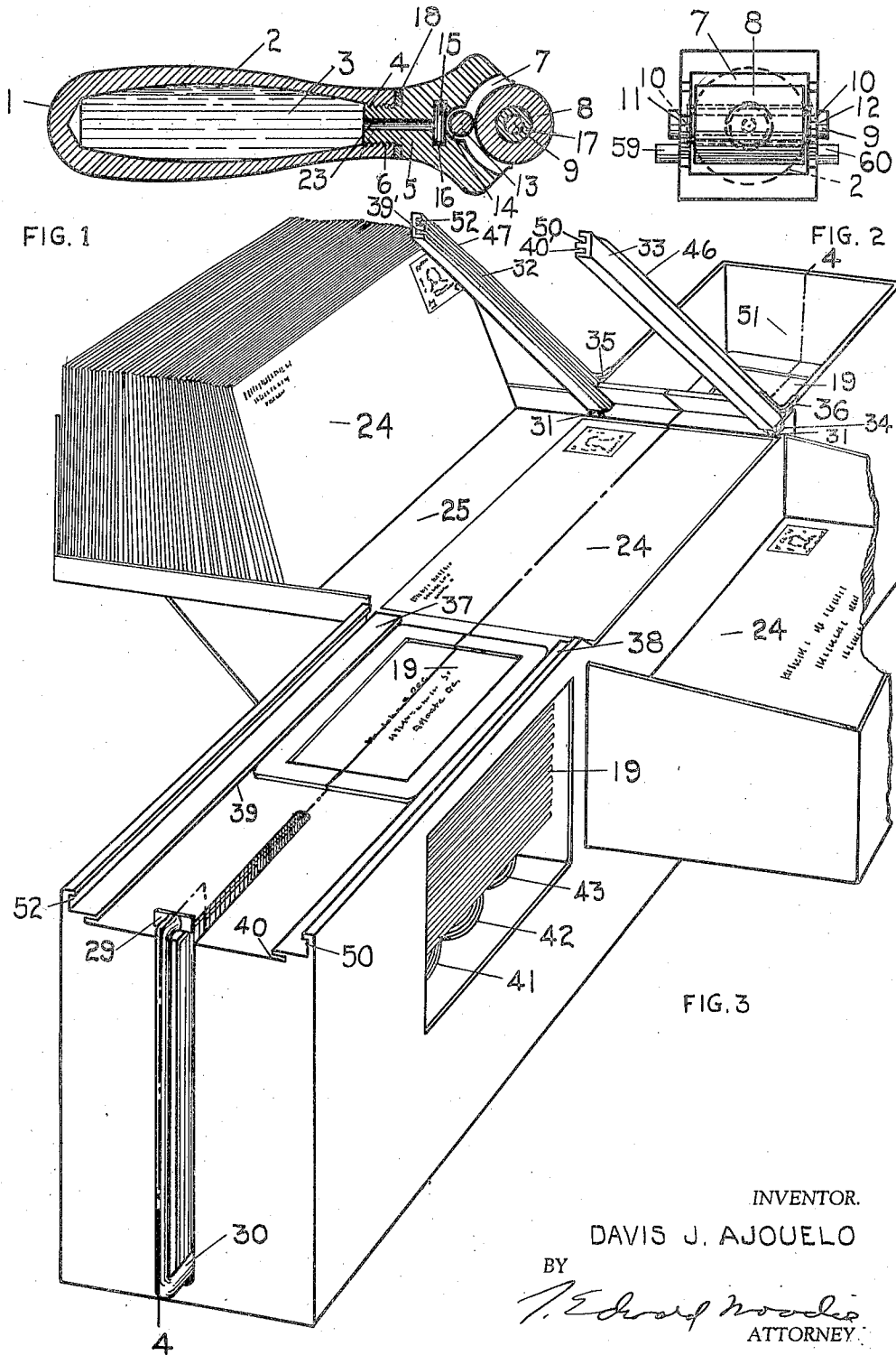
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STENCILING MACHINE

Original Filed Jan. 28, 1936 2 Sheets-Sheet 1



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2 Sheets-Sheet 2

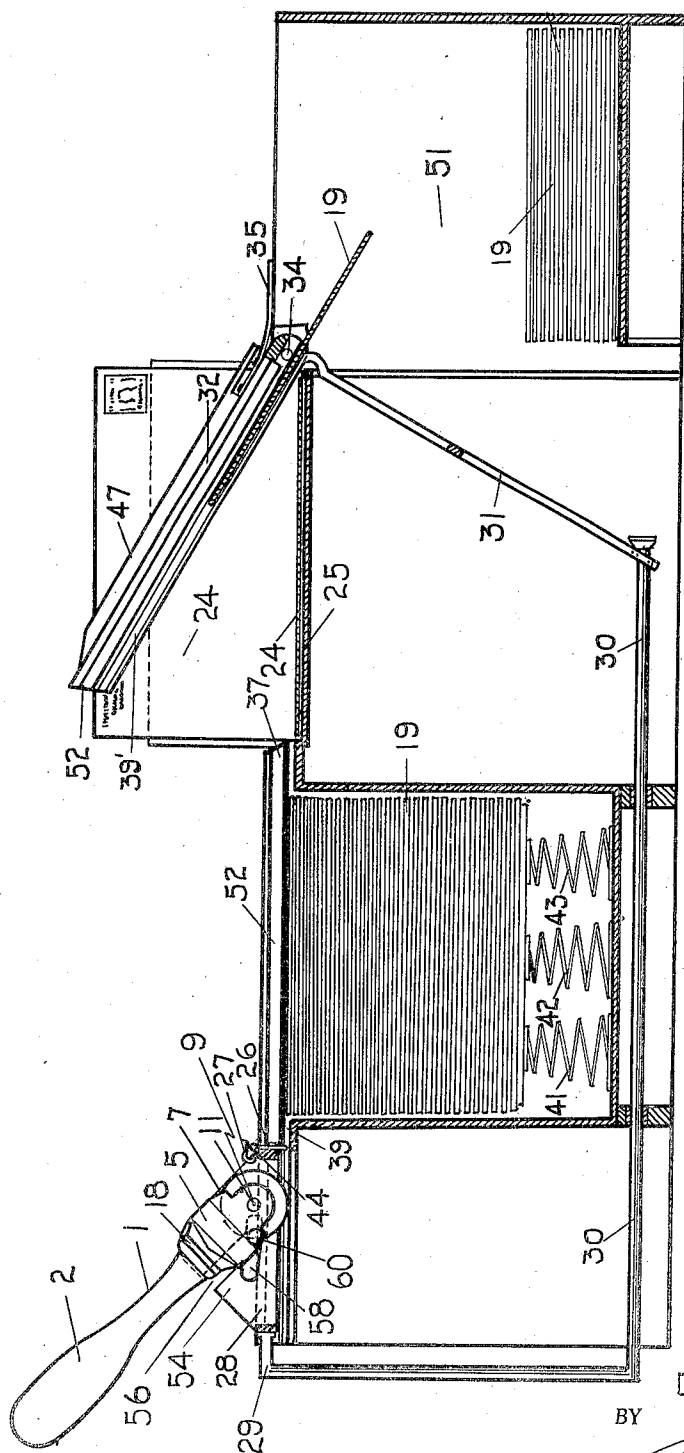


FIG. 4

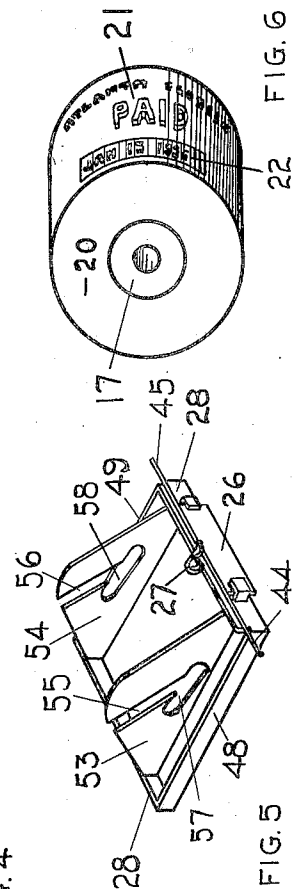


FIG. 5

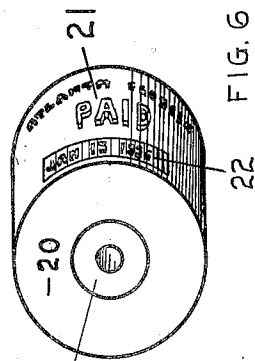


FIG. 6

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STENCILING MACHINE

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5 Claims. (Cl. 101—48)

The purpose of this invention is to provide an automatic manually operated stenciling or cancelling machine of simple and compact construction. The invention is ideally adapted for use by those who have relatively few stencils to transfer and, therefore, do not desire to use a large complicated automatic stenciling machine.

Prior to this invention those who had only a small number of stencils to transfer were forced to transfer these stencils by hand, usually using a brush and a pot of ink, (a slow, messy, and expensive process) or a large complicated and expensive machine of a type entirely unsuited for efficient operation by an unskilled person.

The machine which forms the subject matter of this invention is, however, so compact, simple, and easily operated that it can be efficiently used even by those who have little stenciling and/or cancelling to do and who therefore do not have available a skilled stenciling machine operator.

By reference to the various figures it will be obvious that the invention is so constructed that the inking unit may be removed entirely from the machine and used to transfer stencils directly on packages or other odd shaped objects. The inking unit may also be used as a cancelling device either in connection with the machine or separated therefrom and when so used the inking roller is embossed with suitable letters which may, if desired, be removed in whole or in part.

The operation of the invention will be better understood by reference to the accompanying figures in which like characters of reference refer to like parts throughout the several views.

Fig. 1 is a side sectional view of the removable inking unit.

Fig. 2 is an end view of the removable inking unit.

Fig. 3 is a perspective view of the whole machine showing the envelopes to be stenciled and the stencils in their respective positions on the machine but omitting for the sake of clarity the removable inking unit and the carriage into which this unit fits.

Fig. 4 is a side sectional view of the complete machine showing in this case the removable inking unit and its carriage in position. This section is taken along the line 4—4 Fig. 3.

Fig. 5 is a perspective view of one form of carriage suitable for use on the machine in connection with the removable inking unit.

Fig. 6 is a perspective view of one form of cancelling roller with embossed figures thereon suitable for use on the removable inking unit in

place of the plain rubber stencil roller normally used on this unit. The lower row of letters on the cancelling roller are removable as will be evident by reference to the figure.

Referring now more particularly to the drawings, the removable inking unit 1 consists essentially of a handle 2 in which a large chamber or reservoir 3 is formed for holding the ink or other fluid used by the machine. Formed in one end of the handle 2 are internal threads 4 into which a shank member 5 formed with external threads 6 is fitted. Formed on the other end of the member 5 is a transverse cylindrical socket 7 into which a roller 8 is adapted to fit and be rotatably supported by a journal 9 of any suitable form. The journal 9 is, in the preferred embodiment of the invention, extended through holes 10 in the side faces 11 and 12 of the inking unit and may, if desired, be extended beyond these faces for a purpose which will be hereinafter explained. Mounted just back of the roller 8 is a roller 13 of much smaller diameter. This roller is not normally mounted on a journal but simply fits into a small transverse cylindrical depression 14 formed in the member 5. In the preferred embodiment of the invention the small roller 13 is made of steel or similar material of a hard unyielding texture and the roller 8 is made of soft rubber or similar soft pliable material mounted on a hard core 17 which acts as a bushing. It will be obvious however that for certain operating conditions other materials might be used for the roller 8 and/or 13 without in any way departing from the spirit of the invention.

Just back of the small roller 13 and normally in loose contact with it is a narrow pad 15 of felt or similar fibrous material. The pad 15 has a width equal to or slightly in excess of the diameter of the roller 13. Back of the pad 15 and in direct communication with the center of the transverse opening 16 into which the pad fits is a hole, duct, or passage 23 which communicates directly with the ink reservoir 3.

The operation of the device will be readily understood. After filling the reservoir 3 with ink and screwing the head member 5 into the handle member 2 until sufficient pressure is applied to the washer 18 to prevent leakage, the inking roller is passed lightly over a stencil of any suitable form such as 19. When this operation is performed ink will be spread on the small roller 13 by the pad 15 and this roller will in turn spread the ink evenly over the inking roller 8 and thus over the stencil 19.

If it is desired to use the unit for cancelling or for direct transfer of written matter the roller 8 is replaced by a roller 20 similar to that shown in Fig. 6, which has embossed on its surface 21, or imbedded in suitable sockets 22 formed in its surface a plurality of letters, numerals, or characters of any type or configuration. In this case no stencil is used and a direct and continuous printing operation is performed by the figures formed on or inserted in the roller 20. In this case, as in the case when the device is used in conjunction with a stencil, the roller 20 or 8, as the case may be, is continually supplied with an even flow of ink by the roller 13 and the pad 15.

Consider now the operation of the cancelling machine of which the inking unit forms an integral, although removable, part. The stenciling or cancelling machine which forms the subject matter of this application consists essentially of a table 25 upon which envelopes, cards, or other flat objects 24 may be placed, and a plurality of tracks 32 and 33 which are adapted to fit over this table and guide the stencil 19 and the inking unit 1 over the object 24 upon which it is desired to print the stencil.

In actual operation the carriage 28, to which is attached the inking unit 1 by means which will be hereinafter explained, is pulled by this unit against the trigger 29, thus causing a translation of the rod 30 and a rotation of the actuating arm 31 which in turn causes the track arms 32 and 33 to be rotated about their pivot pin 34 against the action of the springs 35 and 36 thereby permitting an envelope, card, or other flat object 24 to be placed in the proper position upon the table 25. As soon as the envelope 24 is in position the inking unit 1 is pushed forward by the operator thus allowing the springs 35 and 36 to press down the track arms 32 and 33 until they rest in a position of perfect alignment against the abutting fixed tracks 37 and 38 in which position they press down and grip the envelope 24. Further forward movement of the inking unit 1 and the carriage 28 to which it is attached will allow the carriage trigger 26 to engage the edge of a stencil 19 which is held against the upper surface of the lower tracks 39 and 40 by the action of springs 41, 42, and 43. In this manner the stencil 19 is caused to slide in the fixed tracks 39 and 40 and the aligned movable tracks 39' and 40' until it is over the envelope or card 24 at which time the carriage trigger 26 is lifted up against the spring 27 by the action of the carriage trigger extension arms 44 and 45 coming in contact with the cams 46 and 47 formed on the upper surface of the track arms 32 and 33. Further motion of the inking unit 1 combined with a slight uplifting of the handle of the unit will cause the inking roller 8 to come in contact with the stencil 19 which is now motionless due to the raised position of the carriage trigger 26. As the inking roller 8 moves over the stencil 19 and in contact with this stencil an impression will be made by the inked stencil on the envelope or card 24. After the printing operation has been completed the inking unit is returned to the starting position and the cycle is repeated. It will be noted that when the track arms 32 and 33 are lifted the stencil 19 will slide out into the used stencil magazine 51 unless, as is usually the case, it is held in the tracks 39 and 40 due to friction in which case it will be forced out by the next stencil.

Referring now to numerals not previously mentioned, the upper tracks in which the carriage

guides 49 and 48 slide are referred to by the numerals 52 and 50, and the side arms on the carriage are noted by numerals 53 and 54. Cut in the side arms 53 and 54 are aligned sloping slots 55 and 56 which communicate with the longitudinal slots 57 and 58.

The inking unit 1 when used in conjunction with the machine is mounted between the carriage arms 53 and 54 so that the pins 59 and 60 formed on the head 5 of this unit, fit into the slots 57 and 58. Since the pins 59 and 60 are eccentric with respect to the axis of the inking roller 8 it will be seen that the pressure which the roller exerts on the stencil can be varied as desired by simply lifting or depressing the handle of the inking unit slightly. In certain cases it may be desirable to maintain a uniform pressure between the inking roller and the stencil, and in order to accomplish this the journal 9 is extended slightly beyond the sides of the inking unit so that it may be inserted in the slots 57 and 58 cut in the side arms 53 and 54 of the carriage 28. In this case, of course, the pins 59 and 60 are not used and since the extensions of the journal 9 are concentric with the axis of the inking roller the pressure of this roller on the stencil cannot be changed but remains constant throughout the forward stroke of the inking unit.

Having thus described my invention what I claim is:—

1. A stenciling machine comprising in combination a reservoir for stencils, an operating table on which the object to be stenciled is placed, means for holding said object in correct position for stenciling, an inking roller and means for rotatably supporting said roller, said roller supporting means comprising a handle, a slidable carriage, a pivot mounted in said carriage and said handle and eccentric with respect to the axis of said inking roller, said combination of means being so disposed that the handle and the inking roller attached thereto may be tilted as desired by the operator, means actuated by said roller supporting means for pushing the stencil to be operated upon over the object upon which the printing is to be applied, and means for discharging said stencil into a used stencil magazine after the operation is over.

2. A stenciling device comprising in combination a reservoir for stencils, an operating table upon which the object to be stenciled may be placed, means adapted for placing said stencils over said object and stencil inking means adapted for motion over said stencil thereby causing the printing of said stencil upon said object, the combination of means aforementioned including a reservoir for the reception of used stencils, track means for guiding said stencils over said object and thence into said used stencil reservoir, track means for guiding and supporting said stencil inking means, said track means including a lower track for guiding and supporting the stencils and upper track for guiding and supporting said stencil inking means, and means for elevating a section of said tracks to permit the insertion of an object to be stenciled thereunder.

3. A device as in claim 2, including means actuated by the stencil inking means for elevating said track means, thus allowing a used stencil to be expelled therefrom by the action of gravity.

4. A stenciling machine comprising in combination a reservoir for stencils, an operating table on which the object to be stenciled is placed, means for holding said object in correct position for stenciling, an inking roller and means for

rotatably supporting said roller, means directly actuated by said roller supporting means for pushing the stencil to be operated upon over the object upon which the printing is to be applied, and means for discharging said stencil into a used stencil magazine after the operation is over.

5 A stenciling machine comprising in combination a reservoir for stencils, track means for guiding said stencils over the object to be stenciled, inking roller means and means for supporting said roller means, said inking roller supporting means being so disposed and guided that a forward motion thereof will directly cause a stencil to be removed from the stencil reservoir and pushed over the object upon which the stencil is to be printed.

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