

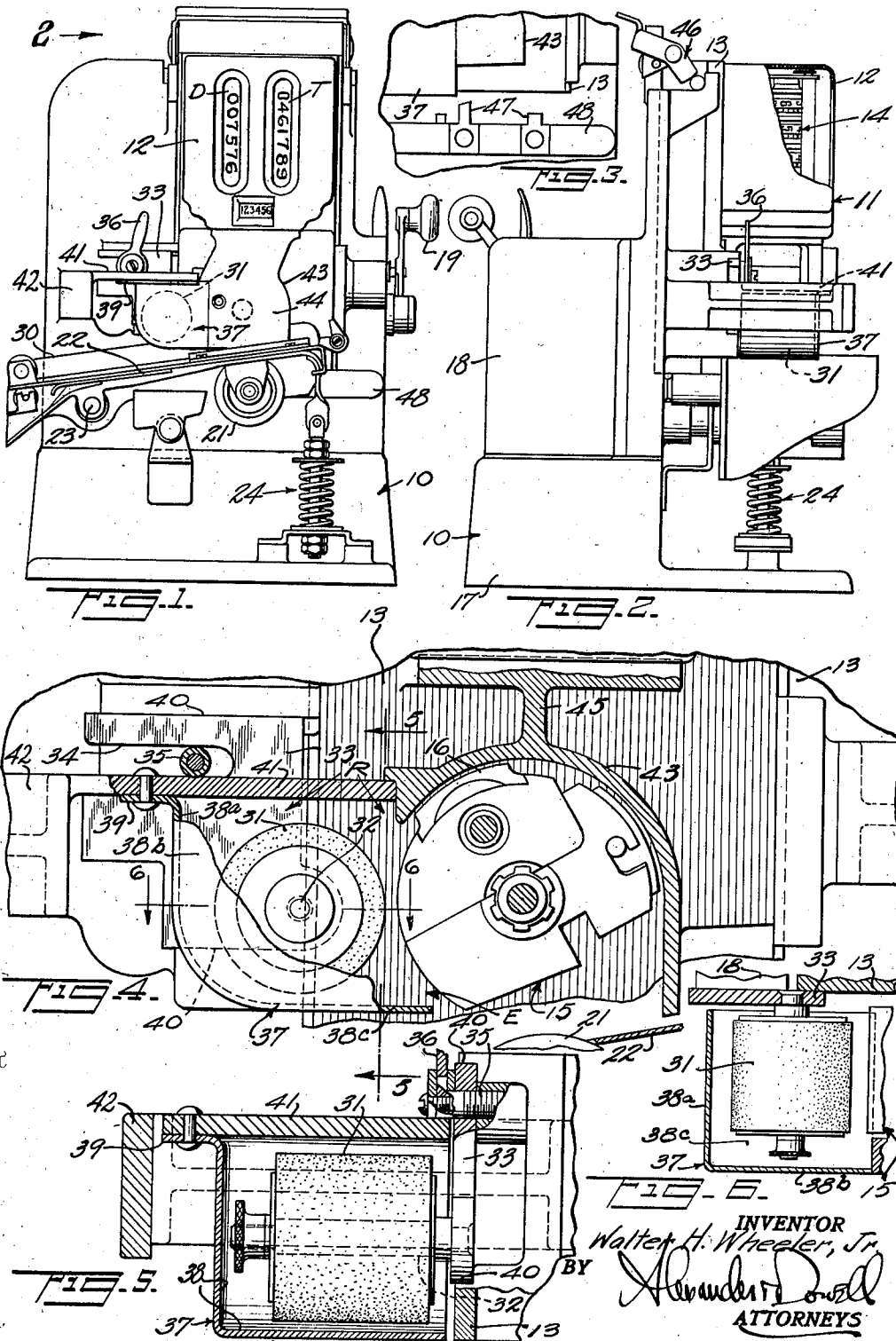
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DIE PROTECTOR

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DIE PROTECTOR

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This invention relates to a metered mailing machine having a detachable meter in which means is included for printing a stamp on letters and for registering the money value thereof, and is more particularly related to a stamp printing die protecting means which is arranged to enclose the space at the position where a removable inking member is engaged by the printing member when being inked, the purpose of said protecting means being to prevent access to said inking space if, after removing the inking member, the meter unit is replaced in operating position with the intention of taking fraudulent unregistered impressions from within said inking space.

The meter unit is provided with locking devices, whereby the printing means is locked in a concealed non-printing position when the meter is removed from the machine, which locking devices are released upon placing the meter in an operating position within the machine.

In machines of this character the inking member is detachably mounted on the machine base, and is arranged so as to be engaged by the printing dies before each stamp impression is made.

Before a protecting device for the space surrounding this inking position was provided it was found, after removal of the meter unit, that by removing the inking member, then replacing the meter unit, it was possible, after moving the printing die to the inking position, to take fraudulent impressions particularly on strip material.

It is the principal object of this invention therefore, to provide means whereby the taking of fraudulent impressions, at the space normally occupied by the inking member, is prevented.

It is a further object to provide a protective housing for an ink roll which is mounted in a non-removable position or forms a part of the base portion of the machine, said device being formed to cooperate with a detachable meter unit when mounted on said base, to enclose the space immediately surrounding the position of the inking member or where the printing member normally engages the inking member.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described.

A preferred embodiment of the invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a front elevational view of one type of a metered mailing machine, showing a detachable meter unit in operating position thereon and showing the protective device of this invention covering the ink roll;

Fig. 2 is a side elevational view looking in the direction of arrow 2 of Fig. 1;

Fig. 3 is a fragmentary detail view showing the lower end of the meter partly removed from its seat on the machine base;

Fig. 4 is an enlarged front view with parts broken away and parts in section, showing the position of the protective device in its relation to the printing member when the meter unit is mounted in the machine;

Fig. 5 is a vertical sectional view taken along the line 5—5 of Fig. 3 with parts broken away; and

Fig. 6 is a sectional plan view taken along the line 6—6 of Fig. 4, on a reduced scale.

Since the invention herein disclosed relates particularly to a printing die protecting device, the mechanism and operation of a metered mailing machine, upon which the device of this invention is used, will only be briefly described.

Referring to Figs. 1 and 2 of the drawing, the reference numeral 10 indicates a base unit upon which a portable meter unit 11 is adapted to be detachably mounted.

The meter unit generally comprises a sealed casing 12 fixed to a support 13, a registering mechanism 14 enclosed within the casing 12, and a printing member 15, rotatably mounted on the support 13.

The registering mechanism 14 includes two counters, one indicated at T being a total or ascending counter, while the other counter indicated at D is a descending or subtracting counter. The descending counter D, is provided as a means to designate the amount of unused postage remaining in the machine and upon reaching zero or a value less than the lowest value of the denomination of the printing die, the meter will be automatically locked out and the further operation thereof discontinued.

The meter, upon being locked out is removed from the base 10 and brought to the post office, where a normally sealed door positioned near the descending counter is opened by an authorized person at the post office, and the descending register is reset to a value corresponding with the amount of postage it is desired to purchase. The total counter remains undisturbed by this setting operation, and will thus continue to further increase its total in accordance with the

decrease in total of the descending counter when the meter is replaced on the base unit and further stamps are printed.

The printing member 15 is provided with a stamp printing die 16 having either a single or a multiple denominational value, and is adapted to be rotated once for each cycle of the machine to print the die value and other indicia on whatever matter is passed therebeneath, and the said die value is automatically registered in the registering mechanism.

The base unit 10 generally comprises a bed 17 and a meter unit supporting head 18, Fig. 2, within the interior of which head is mounted the general driving and operating mechanism (not shown), which drive may be power operated or hand operated as by means of a crank handle 19.

Beneath the printing member is an impression roller 21 which is rotatably supported on an impression bracket 22.

The impression bracket is preferably non-removably mounted on a stub shaft 23, projecting from and fixed to the base head 18, and has one end yieldably supported on a spring biased structure indicated generally at 24.

The inking means comprises an ink roll 31, rotatably mounted on a stud 32 fixed in a supporting plate 33, which plate is slidably and removably mounted in guide ways 40 in the supporting head 18. A locking clamp screw 35, positioned within a portion of the supporting head 18 is adapted to engage a slot 34 in the plate 33 as shown in Figs. 4 and 5, and when the plate 33 is adjusted to a desired position, it is clamped by means of a locking handle 36.

The indicia and value printing dies are inked during each revolution of the rotary printing member, when said dies engage the ink roll. Reinking of the said ink roll 31 is accomplished by removing the ink roll support plate 33 with the ink roll thereon, and rolling said ink roll over an inked surface.

While the device as described is particularly adapted for use in printing stamps on letters and similar articles, it is also adapted for printing on tape or strip material when supplied with a tape attachment of the type disclosed in Patent 1,958,355 or the like, a portion of which is indicated at 30 in Fig. 1 of the drawing.

The protective means provided according to this invention, comprises a housing 37 which, in cooperation with parts of the machine and meter wall surfaces, is adapted to envelope the ink roll 31. Said housing is preferably fixed to the base unit 10, such as for example, by riveting a flanged portion 39 on the walls 38 thereof to the lower surface of a wing 41 extending from an arm 42, which arm forms a non-removable part of the base unit. The said housing may be formed as an integral part of the base if desired, however. The walls of the housing 37 enclose that section occupied by the ink roller 31 along one side 38a, front 38b and bottom portion 38c, while the wing extension 41 provides an upper enclosing wall. Part of the rear meter wall also part of the ink roll supporting plate surfaces, provide for the rear wall of the housing as indicated generally at R Fig. 4 to complete the enclosure, when the meter unit is mounted on the machine base.

One end of the housing indicated generally at E, Fig. 4, adjacent the meter unit, is left open to allow the printing die to wipe over the ink

roll 31 and to provide for the removal of said ink roll when the meter is removed.

The meter unit also has a die guard arranged thereon, as indicated in Fig. 4, which comprises a hood 43, formed on a bracket 45 extending from the meter support 13, and which covers the upper portion of the printing member 15 from a point adjacent the wing 41, around the lower portion of the printing member to a point adjacent the impression bracket 22. A front wall 44, best shown in Fig. 1, and extending downward from the bracket 45, further cooperates in completing the die protection.

It is to be particularly noted that the housing 37 is riveted to a part of the base and that other parts, such as the impression bracket 22, are mounted in a nonremovable manner to fixed extensions or parts of the base, and further that the meter also fits within and is clamped to the same base structure by the clamping means indicated generally at 46, and that the key structure indicated at 47, Fig. 3, which controls the releasing of the printing member locking devices in the meter, is fixed to an extension 48 which is also a part of the same base structure. By thus fixing the parts mentioned to the same base structure on which the meter is mounted, access to the stamp die 16, by removing certain parts or attachments from the machine base for the purpose of taking fraudulent impressions, is prevented.

Having described the invention, I claim:

1. In a device of the class described, a base unit, a detachable meter unit, a printing member carried by said meter unit and adapted to print indicia having a value registerable within the meter unit upon each printing operation thereof, a removable inking member carried by said base unit and adapted to ink said printing member, and protective means associated with said base unit and cooperating with said meter unit to provide an enclosure for said inking member, whereby the taking of unregistered impressions from the printing member at the inking position after the inking member is removed, is prevented.

2. The combination with a meter unit having a printing member associated therewith and detachably mounted on a machine base, of a removable inking member associated with the machine base, and an enclosure for said inking member cooperating with said base and meter unit when the meter is attached to the base, whereby, when said inking member is removed, the taking of unregistered impressions at the point of inking with the meter unit in its operative position in the machine, is prevented.

3. The combination with a meter unit having a rotary printing member associated therewith and detachably mounted on a machine base, of an inking member removably mounted on the machine base in a position adjacent said printing member when the meter is mounted on the base, and a housing associated with said machine base to provide an enclosed compartment at the point of inking when the meter is mounted on the base, whereby, when said inking member is removed, the taking of impressions at the said point of inking, with the meter unit in its operative position in the machine, is prevented.

4. In a device of the class described, a base unit having a detachable meter unit mounted thereon, a printing member associated with said meter unit and adapted to print indicia having

a value registerable within the meter unit upon each printing operation thereof, removable inking means associated with said base unit and adapted to ink said printing member, and a housing for said inking means associated with said base unit, said housing having an opening adjacent the meter unit to provide for the removal of the inking means when the meter unit is removed from the machine, said opening being closable to provide an enclosed compartment when the meter unit is mounted on the base unit, to thereby prevent the taking of unmetered impressions at the point of inking when the meter unit is mounted on the base unit.

5. In a metered mailing machine, the combination with a base unit, a meter unit detachably mounted on said base unit, a rotary stamp printing member carried by said meter unit, registering means within said meter and adapted to register the value of each stamp printed by said printing member; of an ink roll removably supported on the base unit and adapted to ink said printing member upon each revolution thereof, and a non-removable housing associated with said base unit and arranged to enclose the location of the ink roll to thereby prevent access to the space ordinarily occupied by the ink roll when the ink roll is removed, whereby the taking of unregistered stamp impressions through said space is prevented when the meter unit is mounted in an operating position on the base unit.

6. The combination with a metered mailing machine having a base unit, a detachable meter unit, a rotary printing member associated with said meter unit, and an inking member detachably mounted on the base unit which is adapted to ink the printing member when the meter unit is in operative position on the machine base unit; of means arranged to enclose the location of the inking member when the meter unit is in said operating position on said base unit, whereby access to the printing member at the position where it engages the inking member is obstructed and the taking of fraudulent impressions is prevented.

7. The combination with a metered mailing machine having a base unit, a detachable meter unit, a rotary printing member associated with said meter unit, and an inking member detachably mounted on the base unit which is adapted to ink the printing member when the meter unit is in operative position on the machine base unit; of means including a housing associated with the base unit and having walls arranged to enclose the location of the inking member when the meter unit is in said operating position on said base unit, whereby access to the printing member at the position where it engages the inking member is obstructed and the taking of fraudulent impressions is prevented.

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