E. MOSS.

INKING MEANS FOR USE IN POSTAL FRANKING AND LIKE MACHINES,

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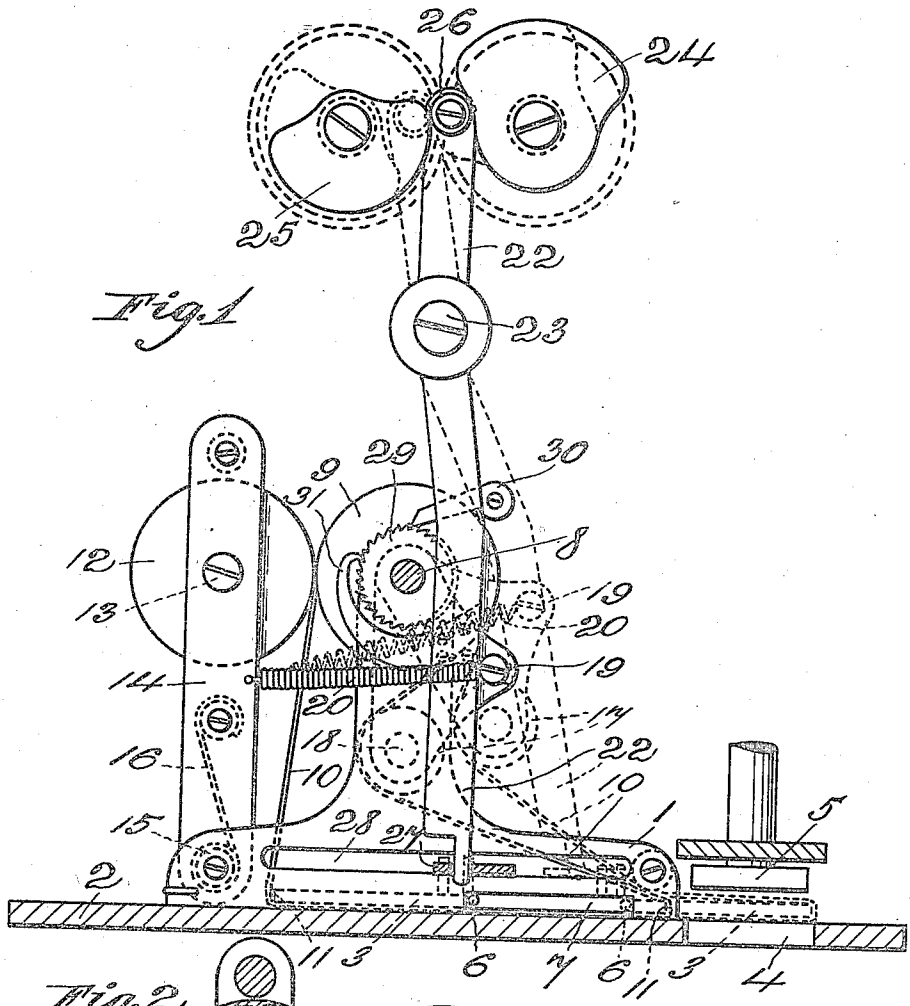


Fig. 1

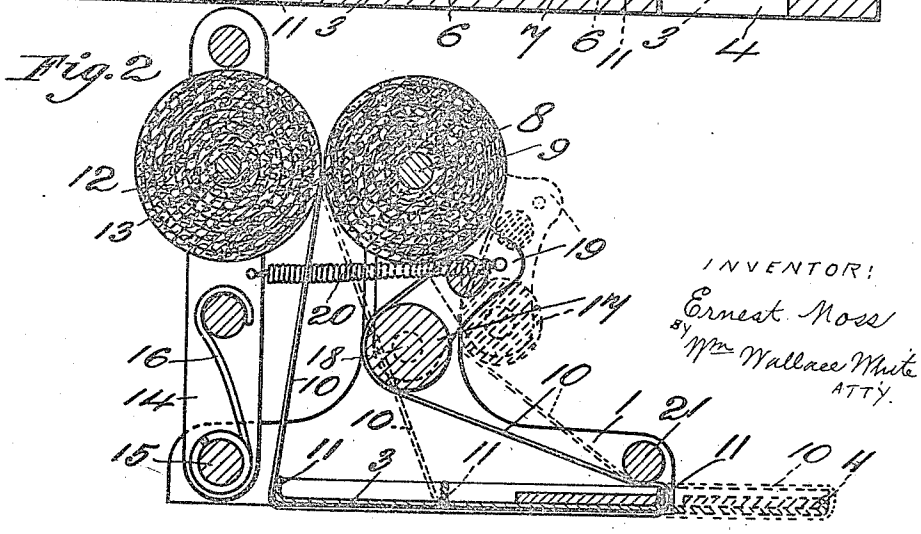


Fig. 2

INVENTOR:
Ernest Moss
BY Wm. Wallace White
ATTY.

UNITED STATES PATENT OFFICE.

ERNEST MOSS, OF CHRISTCHURCH, NEW ZEALAND.

INKING MEANS FOR USE IN POSTAL FRANKING AND LIKE MACHINES.

1,232,831. Specification of Letters Patent. Patented July 10, 1917.

Application filed May 8, 1917. Serial No. 167,342.

To all whom it may concern:

Be it known that I, ERNEST MOSS, a subject of the King of Great Britain, residing at 486 Retreat road, Dallington, Christchurch, in the Dominion of New Zealand, have invented new and useful Improvements in Inking Means for Use in Postal Franking and the like Machines, of which the following is a specification.

This invention relates to postal franking and the like machines of the type wherein the franking or stamping is effected by the depression of a die upon the matter.

In machines of this nature, as hitherto constructed, the inking of the die has been effected either by the employment of a ribbon impregnated with ink or by the use of an ink-pad.

Both of these methods have, however, proved unsatisfactory in practice, inasmuch as the ribbon is apt with use to become depleted of ink and so give a faint or indistinct impression, while the pad is apt to clog the die and so cause the latter to produce a blurred impression.

In machines such as franking machines also, it is essential that the inking of the die should take place immediately before the impression of the latter upon the matter, and that the die, when so inked, should be obscured from the stamping orifice of the machine until such die is raised to a position from which it would be inaccessible from such orifice, as otherwise an impression might be obtainable by fraudulent means.

It is the object of the present invention, therefore to provide a novel construction of inking means in which the disadvantages attaching to both ribbon and ink-pad will be eliminated, while the construction is such also that it will serve to effectually protect the die from attempts at tampering while such die is depressed for inking. A further object of the present invention is to provide the inking means in such form that it may readily be removed from the machine for replenishment of the ink.

In order that the nature of the invention and its construction may be fully understood, reference will now be made to the accompanying sheet of drawings in which:—

Figure 1— is an end elevation of a portion of a franking machine showing the inking means in place therein, and,

Fig. 2— is a cross-section through such inking means.

In carrying the invention into effect, the construction comprises a suitable framework 1, the base of which is adapted to rest upon the lower side 2 of the machine and to be secured in place by means of suitable catches or clips.

Within the lower portion of the frame 1 is mounted a slide adapted to reciprocal movement in a horizontal plane so that its forward portion will be interposed between the stamping orifice 4 of the machine and the die 5, as indicated in dotted lines. The said slide 3 rests upon the lower side 2 of the case, but to guide it in its said movement, the slide is provided with a pair of pins 6 which project one on either side and are slidably received within slots or notches 7 formed in the framework 1.

Revolubly mounted upon an axis 8 carried in an upward extension of the frame 1, is a roller 9 and an endless band or ribbon 10 is provided and adapted to run around this roller 9 and the slide 3 which is provided for the purpose at its extremities with rollers or rounded edges 11, as here shown.

For the purpose of supplying the band 10 with ink, a suitable ink-roller or pad 12 is provided and rotatably mounted upon a spindle 13 carried in an upwardly projecting frame 14, which is pivoted as by means of a rod 15, to the rear portion of the frame 1. The ink-roller 12 is so arranged that its periphery will at all times be in firm contact with the band 10 as it passes around the aforesaid roller 9. For this purpose a spring of any suitable form, as for instance a tension-spring 16 is employed to impart the required tendency to the frame 14.

To provide for tensioning the said band 10 and to allow of the latter performing the required movement with the slide 3, an idler roller 17 is provided and adapted to bear upon the upper surface of the forward portion of the band 10 above the slide 3. The said idler-roller is revolubly mounted upon a spindle 18 carried by a pair of arms 19 which are pivoted in the frame 1 and controlled by means of a spring or springs 20 which cause the roller 17 to bear against the band 10 with the desired degree of pressure.

To cause the forward portion of the band 10 to lie flat upon the upper surface of the

slide 3 when the latter is in the outward or forward position, a roller or rod 21, which may conveniently form one of the cross-stays of the frame 1 is provided in the forward portion of the latter at a point a slight distance above the upper surface of the slide.

To operate the slide, an arm or lever 22 is fulcrumed at 23 to the machine and is caused to rock by means of a cam 24 carried upon the main driving-shaft of the machine, and a cam 25 carried upon the counter-shaft of such machine, both of which cams engage a suitable projection or roller 26 provided at the upper end of the lever 22. It is obvious, however, that the required movement may be imparted to the lever by the operation of the machine in a variety of different ways, and the invention is not therefore, to be confined to this particular method as shown.

The lower end of the lever 22 engages with a horizontally disposed lever 27 fulcrumed upon the lower side of the case of the machine, the other or reverse end of such lever 27 being adapted to project through a slot 28 in the frame 1 and to engage the slide 3.

To cause the band 10 to be fed so as to present a fresh portion to the die each time the machine is operated, a ratchet-wheel 29 is keyed upon the spindle 8 of the roller 9 and in the teeth of which ratchet-wheel is adapted to engage a pawl 31 pivoted upon the lever 22, while to prevent backward movement of such ratchet-wheel, a second pawl 30 is provided and pivoted to a fixed point in the machine.

The inking device is so operated that, at the commencement of the turning of the handle, the slide is caused to move forward so as to interpose the forward portion of the band between the stamping orifice and the face of the die. The latter is then depressed upon the band and so receives a supply of ink and then rises again in readiness to descend upon the matter. During the said upward movement of the die, the slide is returned to its former position, thus leaving the orifice clear for the die to pass when stamping the matter.

From the foregoing description of the construction, it will be seen that the band passing regularly and constantly in contact with the pad will at all times be well supplied with ink, while by passing around the rollers, the band will have its ink thoroughly distributed, and will not therefore be liable to produce clogging of the die.

By the particular movement of the slide, it will be seen that the surface of the die while depressed for inking, will be thoroughly protected from all attempts at fraud by endeavoring to obtain an impression at this stage in the operation.

Again, by reason of the fact that the inking device is such that it may be secured in place by means of a catch or clip, it will be understood that when the ink-pad becomes exhausted, the device may be removed and another inserted in its place, thus simplifying the work of maintaining the machine in working order.

I claim:—

In franking machines and the like of the type wherein the stamping is effected by the depression of a die upon the matter, means for inking such die comprising a framework detachably secured within the machine, a slide mounted in said framework and adapted to perform a reciprocal movement under action of the machine, so that when in the outward position a portion of such slide will be interposed between the face of the die and the stamping orifice of the machine through which such die presses when stamping, a roller revolubly mounted in said framework, an endless band adapted to run around said roller and slide, and to supply ink to the die, tensioning means for said band, a rotatable ink-pad adapted to supply ink to said band as the latter passes around said roller, means whereby the slide will be caused to perform its said reciprocal movement at the required stage in each operation of the machine for the purpose of presenting a portion of the band to the die, and means whereby the said band will be fed at each operation of the machine a sufficient distance to present a fresh portion of its surface for inking the die, substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ERNEST MOSS.

Witnesses:

CYRIL CARLYN COOPER,

SIDNEY JAMES TRELEAVEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."