Aug. 12, 1941. E. V. NYBERG 2,252,469

LETTER-STAMPING MACHINE

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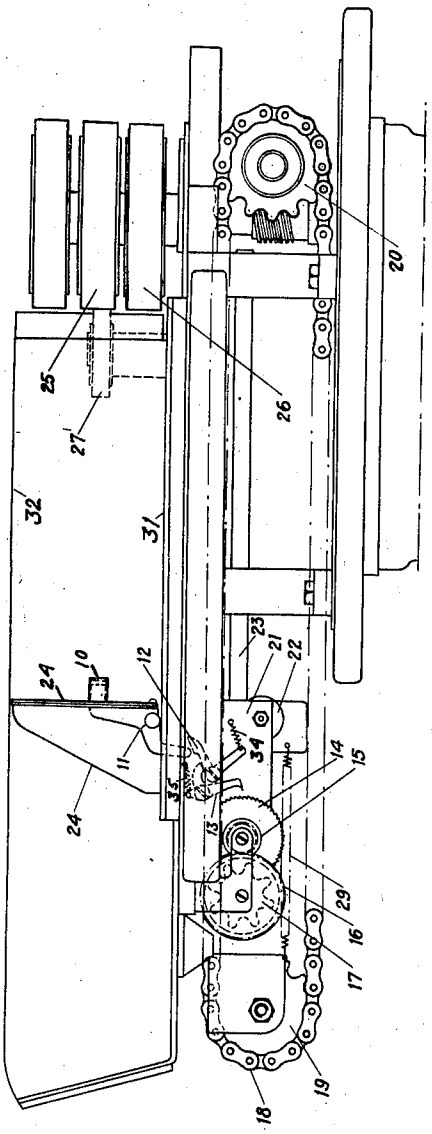


Fig. 1

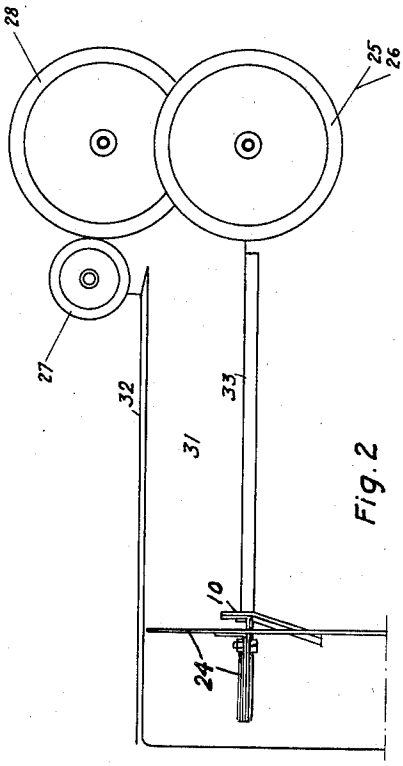


Fig. 2

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LETTER-STAMPING MACHINE

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4 Claims. (Cl. 271—62)

The present invention relates to machines for letter-stamping of the kind in which a bundle of letters or postcards by means of a transport arrangement is moved against rotating rollers or the like which perform the further transport of the separate letters to a stamping arrangement. The object of the invention is to obtain an uncomplicated controlling arrangement in connection with the transport arrangement which firstly automatically starts the transport arrangement when letters are placed in same, and secondly stops it immediately and returns it to the starting position as soon as all letters are despatched to the stamping arrangement. According to the invention this is made possible by the fact that the transport arrangement is provided with a lever against which the letters are placed which lever is so arranged that it firstly by the pressure on the lever caused by the bundle of letters acts upon a driving mechanism which starts the transport arrangement, and secondly as soon as the pressure from the letters ceases, stops the transport arrangement and brings it back to the starting position.

The invention will now be further explained and reference is made to the drawing enclosed which illustrates an example of the use of the invention in a letter-stamping machine. Fig. 1 is a side view of a transport arrangement for letters with belonging driving mechanism. Fig. 2 shows a detail of the transport arrangement, seen from above. On the drawing 24 is the upper part of a transport arrangement or carriage. Against the right, perpendicular, place surface of this carriage the letter-bundle is placed, so that for example the stamped side of the letters is placed against this surface. The lower edge of the letters will thereby rest against a plane horizontal surface 31, along which the upper part of the carriage is arranged to be able to glide in the direction of two rotating rollers 25, 26. The letters are during the transport guided laterally by a wall 32. The carriage, which pushes the letters, is guided firstly by a flute 33 in the before-mentioned plane surface 31, and secondly by its lower part 21 which by means of a wheel 22 by the movement of the carriage moves along a rail 23. When a bundle of letters is placed against the right edge 24 of the carriage, the bundle of letters will press against the upper part 10 of a lever made to turn around a shaft 11. This shaft is placed in the removable part 24 of the carriage. The upper part of the lever is turned to the left on account of the pressure of the letters which causes the lower part of the lever to turn to the right. This latter part operates thereby another small lever 12 which is bent downwards. The arm 12, which is arranged normally to be held in the position shown on the drawing by means of a spring 34, is arranged to prevent a pawl or locking device 13 to be brought against a toothed wheel 14 placed in the lower part of the carriage. Both the small levers 12 and 13 are also placed in the lower part of the carriage. When the lever 12 no longer stops the pawl 13, this will be brought against the toothed wheel 14 and pawl this under the influence of the power from a spring 35.

When the toothed wheel 14 is pawled, the carriage 21, 24 will be coupled to the upper part of a chain 18, which is permanently driven by a chain wheel 20 on a worm gear over another chain wheel 19. The coupling of the carriage 24 to the chain 18 takes place over a chain wheel 17 arranged in the back part of the carriage 21, which constantly gear into the chain 18. This chain wheel 17 is coupled to the toothed wheel 14 over two cog-wheels 16, 15. When the latter wheel 14 is not pawled, the wheels 17, 16, 15, 14 rotate driven by the chain, and the carriage 21, 24 stands still. As soon as the toothed wheel 14 is pawled, the wheel 17 is held which causes that the wheel 17 and thereby also the carriage 21, 24 together with the letters are brought against the rubber-covered rollers 25, 26. In the moment when all letters have been despatched by these rollers, the pressure of the letter against the arm 10 ceases, whereby the arms 12 and 13 on account of the power of the spring return to the position shown on the drawing. When the pawl of the toothed wheel 14 ceases, the wheel can turn freely. Thereby a spring 29 returns the carriage 21, 24 to the starting position shown on the drawing.

As soon as a bundle of letters has been placed in the carriage against the arm 10, the speed of the carriage will be fixed by the speed by which the rollers 25, 26 together with the rollers 27, 28 despatch the letters to the stamping arrangement. To make this possible the chain 18 is arranged to be driven over a friction coupling of known kind not shown.

By the mentioned embodiment the lever 10 influences the toothed wheel 14 by means of two pawls or levers. Such a double pawl arrangement makes it possible that the upper part 24 of the carriage together with the lever 10 can be lifted and removed without the wheel 14 being pawled. Further the pawl 13 pawls the wheel 17 over a cog-wheel 15, 16 and not directly. The

gearing between the cog-wheels makes it possible that the pressure on the pawl **13** is reduced, thereby preventing it from being held by the toothed wheel **14**.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. Arrangement for letter-stamping machines in which a bundle of letters by means of a transport arrangement is brought against rotating rollers which perform the further despatch of the letters to a stamping arrangement, characterized in that the transport arrangement **24**, for example a carriage, is provided with a lever **10** against which the bundle of letters is placed, which lever is so arranged, that it firstly by the pressure on the lever caused by the bundle of letters acts upon a driving mechanism **18** which starts the transport arrangement, and secondly as soon as the pressure from the bundle of letters ceases, disconnects the transport arrangement, whereby this is brought back to the starting position.

2. Arrangement according to claim 1, characterized in that a driving mechanism **18** is a chain constantly driven over a friction coupling.

3. Arrangment according to claim 1, characterized in that the driving mechanism **18** is in the form of a chain constantly driven over a friction coupling and in that the transport arrangement is provided with a chain wheel **17** which constantly gears into the chain **18** and which is arranged to be pawled by means of the lever **10**, whereby the transport arrangement is brought with the chain.

4. Arrangement according to claim 1, characterized in that the driving mechanism **18** is in the form of a chain constantly driven over a friction coupling and in that the transport arrangement is provided with a wheel chain **17** which constantly gears into the chain **18** and is arranged to be pawled by means of the lever **10** whereby the transport arrangement is brought with the chain, and the lever **10** being arranged to effect the pawl of the chain wheel **17** over two separate pawls and levers **12, 13**.

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