Oct. 6, 1959 J. H. STIELOW 2,907,271

ADDRESSING MACHINES, OR ADDRESSOGRAPHS

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Fig. 1.

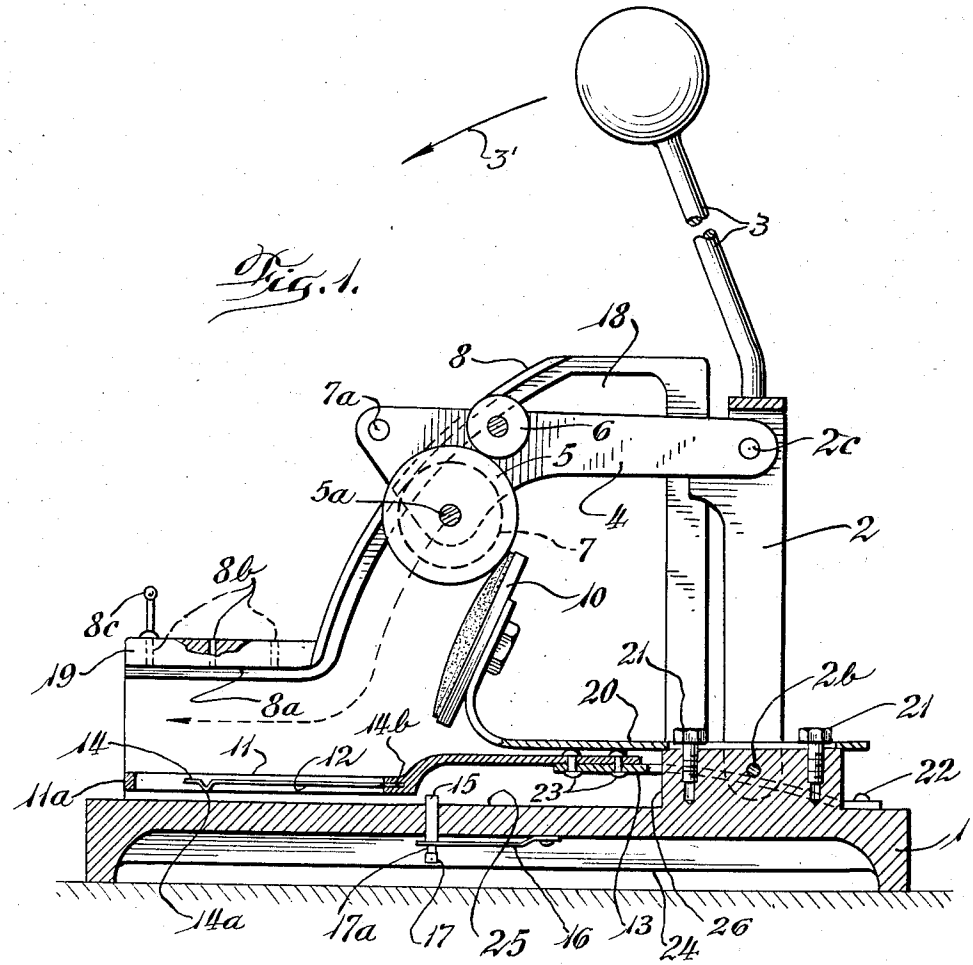
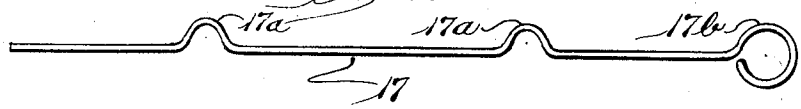


Fig. 2.



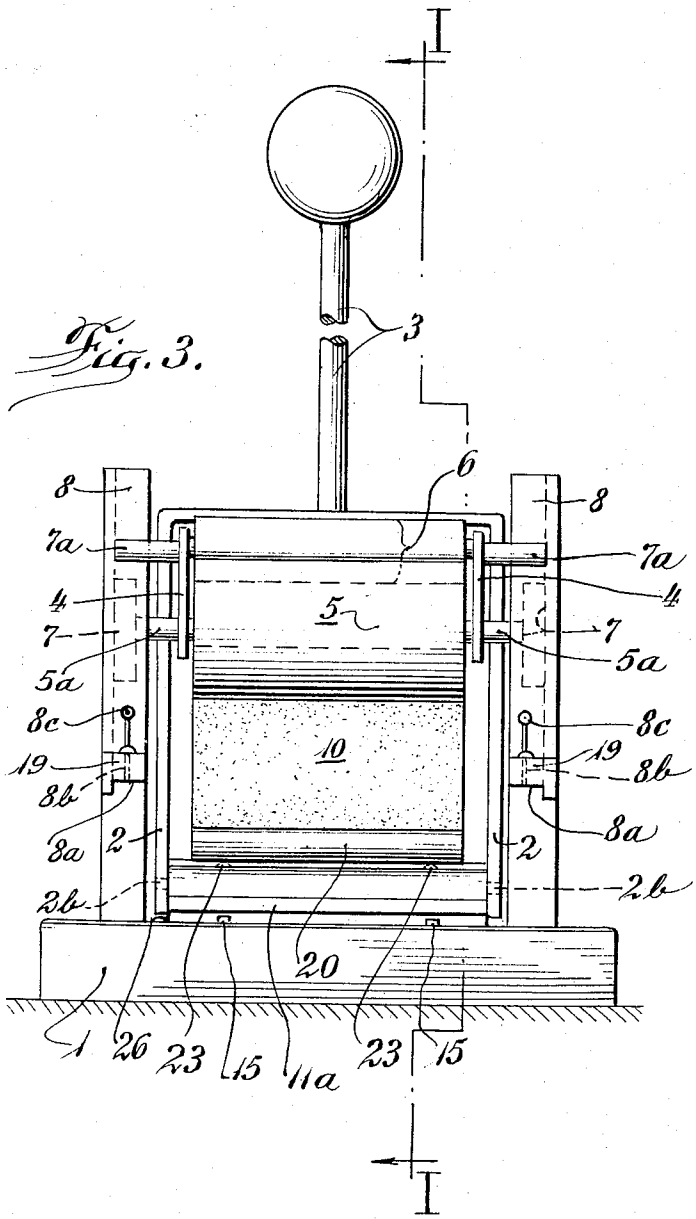
Inventor:
John H. Stielow
By Linzy, Stein & Cullberg
Attorneys

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Fig. 3.



Inventor:
John H. Stielow
By Singer, Stern & Carlberg
Attorneys

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ADDRESSING MACHINES, OR ADDRESSOGRAPHS

John H. Stielow, Hamburg-Langenhorn, Germany

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Claims priority, application Germany September 19, 1956

3 Claims. (Cl. 101—123)

The invention relates to improvements in addressing machines, or addressographs, and more particularly to improvements in machines of the kind indicated which are manually operated.

In known addressographs of the manually operated type the printing roller is generally connected with a hand lever through a linkage system including spring means in such a way that the spring force and thereby also the pressure of the roller against the stencil card varies during the movement of the roller over said card. This produces cards with uneven printing and another disadvantage is that prolonged operation of such a machine is tiresome. The present invention eliminates these and other disadvantages.

Accordingly, an important object of the invention is to provide a machine of the kind indicated in which the use of springs in the linkage system connecting the operating handle with the printing roller is eliminated.

Another object of the invention is to provide a machine of the kind indicated in which the path of movement of the printing roller is positively controlled by means of cam-like guide means.

A further object of the invention is to provide a machine of the kind indicated in which the printing roller is positively guided over the ink pad with light pressure and over the stencil card with proper and unvarying pressure.

Other objects and advantages of the invention will be apparent from the following description in conjunction with the accompanying drawings in which:

Fig. 1 substantially is a vertical cross-section on line I—I of Fig. 3 of an embodiment of the invention,

Fig. 2 is an elevational view of a detail, and

Fig. 3 is a front elevation of the same embodiment as Fig. 1.

In the embodiment shown, a member **2**, substantially shaped as an inverted U, is pivotally connected near the free ends of the legs of the inverted U with a base **1**. The pivot bears the reference mark **2***b* in Fig. 1. By means of another pivot **2***c* at the opposite end of each leg of the inverted U, said leg is pivotally connected with a link **4**. A handle **3** is secured to the web of the inverted U-member at the middle of said web.

A printing roller **5** is rotatably supported by the two links **4** in circumferential engagement with a distributor roller **6** that is also rotatably supported by said links **4**. The shaft **5***a* of the printing roller **5** extends beyond the links **4** at both ends and carries on each extension a cam follower **7** rotatably mounted on said extension of the shaft **5***a*. A transverse pin **7***a* is secured to the free end portion of each of the links **4** and extends outwardly therefrom for a purpose that will presently be explained.

Outside each end of the member **2** a side wall **18** is secured to the base **1**. The upper part of the front edge portion of each side wall **18** is bent inwards to form a concavely curved cam surface **8** for the corresponding cam follower **7**, and said cam surface **8** has a horizontal

straight front extension **8***a* at a distance above the base **1**. A reinforcement element **19** is secured to the top surface of the extension **8***a* and provided with a plurality of vertical holes for selective accommodation of a pin **8***c* in a position to be engaged by the pin **7***a*, as will presently be explained.

An ink pad **10** is secured to the free arm of a slightly flexible, susbtantially L-shaped member **20** that is secured to the base **1** by means of screws **21**. The arrangement is such as to cause the printing roller **5** to roll over the ink pad **10** when the links **4** are moved with the cam followers **7** in engagement with the cam surface **8**.

Adjacent each side edge of the base **1** a spring blade **13** is secured to said base **1** by suitable means, such as screws **22**, and said spring blade **13** extends forwardly above the base **1**. To the front end portions of the spring blades **13** a stencil holder **11** is secured at **23**. The forward portion of the card holder **11** is in the shape of a rectangular frame extending horizontally across the base **1** in close proximity thereto, the front transverse member of said frame being designated **11***a* in Fig. 1. Along each side edge of said frame a blade spring **14** extends which has its rear end secured to the card holder **11** at **14***b* while, at its forward end, said blade spring is provided with a downwardly directed projection **14***a* which forms a front abutment surface for a card **12** of relatively small front to rear dimension, while a larger card would extend below the raised projections **14***a* to the front frame member **11***a*.

Pins **15** are mounted in holes extending through the base **1** somewhat rearwardly of the frame part of the card holder **11** and the lower end of each of said pins is secured to a blade spring **16** fixedly mounted on the bottom side of the base **1** within a bottom recess **24** in said base **1**. A rod **17** is pivotally supported in the base **1** within said recess **24** and extends transversely of the base **1** below said pins **15** and springs **16**. The rod **17** is provided with a crank-like portion **17***a* below each of said springs **16** and also with a handle member **17***b* disposed on the outside of the base **1**. Accordingly, the pins **15** will normally be held by the springs **16** in a low position with the top ends of the pins **15** flush with or below the top surface **25** of the base **1**. When the rod **17** is turned so as to dispose the portions **17***a* upwardly the pins **15** are forced upwardly against the action of the springs **16** to make said pins **15** project above the surface **25**. If desired, more than one transverse row of pins may be provided each with similar operating means.

In operation, when an envelope, a sheet, or the like is to be printed, said article is pushed in below the card holder **11** from the front end of the machine. If of relatively large dimension, said article may be pushed all way back until it abuts the wall **26** at the rear edge of the surface **25** in which case the pins **15** should be in their downwardly retracted position so as not to interfere with the insertion of said article. If said article is of relatively small dimension, the pins **15** are moved to their raised position to form a rear abutment for the article.

With the stencil card **12** placed in the card holder **11** with the front edge of said card against the frame member **11***a* or against the projections **14***a*, depending upon the size of said card, the handle **3** is moved forwardly and downwardly as indicated by the arrow **3'**, thereby causing the printing roller **5** to roll downwardly in engagement with the ink pad **10** and the distributor roller **6**. This movement is guided by the engagement of the cam followers **7** with the cam surfaces **8** and the movement continues forwardly with the cam followers **7** in

engagement with the cam surfaces 8*a* until the pins 7*a* engage the pins 8*c*. The height of the cam surface 8*a* above the surface 25 of the base 1 is such as to cause the printing roller 5 to press the card 12 and card holder 11 downwardly with a uniform pressure during this horizontal phase of the movement, whereby the article on the surface 25 is smoothly and evenly imprinted with the matter on the stencil card. The pressure of the roller 5 on the card 12 is unchanged during the return movement of the printing roller 5.

It is apparent, therefore, that I have provided a simple and inexpensive machine for the purpose indicated which is efficient, easy to handle, and reliable in operation and which produces imprints of excellent quality.

While a preferred embodiment of the invention has been shown and described, many modifications thereof may be made by a person skilled in the art without departing from the spirit of the invention, and it is intended to protect by Letters Patent all forms of the invention falling within the scope of the following claims.

What I claim is:

1. In an addressing machine and the like, a substantially horizontal base having a top surface for supporting an article to be printed, means for supporting a stencil card above said top surface of the base, an ink pad mounted on said base, a printing roller, link means rotatably supporting said printing roller, a hand lever pivotally secured to said base, means pivotally securing said link means to said hand lever at a point thereof spaced from the pivotal connection between the hand lever and the base, cam surface means secured to said base and having a first portion substantially parallel with the ink surface of said ink pad and contiguous with a second portion parallel with the top surface of said base, and cam follower means on said link means for running engagement with said cam surface means during pivotal movement of said hand lever, whereby said printing roller is caused by pivotal movement of said hand lever to roll across said ink pad with slight pressure thereon and to roll across said stencil card with a uniform pressure determined by the distance of said second portion of the cam surface means from the stencil card.

2. The addressing machine as set forth in claim 1, including a pair of side walls secured to said base and extending upwardly therefrom at a distance from the ends of said printing roller, a flange on each of said side walls projecting in the direction towards the opposite side wall and forming said cam surface means, a pivot pin extending from each end of said printing roller through bearing apertures in said link means, and a wheel rotatably mounted on each of said pivot pins to form said cam follower means cooperating with said cam surface means.

3. The addressing machine as set forth in claim 2, in which the portion of said flange that is parallel with said base is provided with a longitudinal row of holes extending through said flange, and a pin selectively insertable through said holes to extend into the path of said wheel and thereby limit the range of movement thereof.

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