## N.E. & G. W. Marren. Addressing Mach.

Patented Anr. 4 1865 Nº47142. owwww. Fig. 4. Inventors. Witnesses. W. A. Brun Wa. F. Rose

## UNITED STATES PATENT OFFICE.

N. E. WARREN, OF CLEVELAND, OHIO, AND G. W. WARREN, OF HILLSDALE, MICHIGAN.

## ADDRESSING-MACHINE.

Specification forming part of Letters Patent No. 47,142, dated April 4, 1865.

To all whom it may concern:

Be it known that we, N. E. WARREN, of Cleveland, in the county of Cuyahoga and State of Ohio, and G. W. WARREN, of Hillsdale, of Hillsdale county, in the State of Michigan, have invented new and useful Improvements in a Machine for Printing the Directions on Newspapers or Wrappers; and we do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top view. Fig. 2 is a side view. Fig. 3 is an end view, and Figs. 4, 5, and 6 are

sections.

The nature of our invention relates to a press so constructed and arranged that it can be adjusted to print in succession any number of directions addressed to one place; to arrangements and devices for giving a signal at the beginning or end of every post-office list, and to the means employed for moving the case or galley containing the type forward, and the arrangement of quads for that purpose, and also for giving the signal at the end of each list, or at the commencement, as

may be desired.

In the accompanying drawings, A represents a bed or table, which is supported upon legs B. To the top or upper side of this bed-plate A is attached a semicircular double lever, C C', the arm C being above the bed and the arm C' being below. The attachment to the bed is by means of the bearing A' and the screw-points C'' C'', by means of which the lever can be readily adjusted laterally. Upon the end of the arm C of the lever is an adjustable head, D, which turns upon the pivot c, having two faces, d d', one of which is in width equal to one line of type, and the other face has a width equal to two lines of type with the intervening space. Either of the faces can be adjusted to make the impression by turning the head upon the pivot c. The lever C C' is depressed by means of a foot-piece or treadle, E, and connecting-rod E', which latter is attached to the lower arm of the lever C', near the end.

G represents a spring which presses against the back part of the arm C', keeping the lever as a whole in the position seen in Fig. 3, except when depressed by the action of the footpiece E. The lever C C', it will be seen by reference to Fig. 3, has the form of nearly a semicircle, the ends of which approach each other, one above and the other below the bed. Consequently a depression of the arm C' causes a like depression of the arm C, earrying with it the head D with the faces d and d'.

The type from which the names are printed are set up in a stick, case, or galley, H, Fig. 1, and secured by a thumb nut and screw, h. The quads at the head of each name or address are a little higher than the leads or spaces between the lines and lower than the face of the type, forming by this means a kind of ratchet, i, along the front side of the galley H.

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F' represents a pawl which works in the ratchet i, formed by the quads at the head of the lines, as above described. This pawl F' is operated by means of the arm L upon the rockshaft L' in Fig. 2. To the lower end of this rock-shaft is attached a slotted arm, L", which is operated by the rod J, attached to the arm C' at O, Fig. 4. Thus at every depression of the curved lever C C' the pawl F' is drawn to the left over one or two quads or notches, i, upon the front side of the galley or case in which type are set, and when the pressure upon the foot-piece or treadle E is removed the spring G lifts the levers C C' and the pawl F' moves to the right, carrying with it the galley H.

The distance the galley is moved depends upon the adjustment of the outer end of the rod J in the slot of the arm L". Actual trial must determine the exact point at which the rod J is placed in the slot of the arm L".

The type case H is moved forward from the left to the right in a channel, P, in the bed-plate A. This channel, with the type, is covered by the plates P'P", when the machine is in use, there being a narrow space, a, between the plates where the faces d and d' meet the type, and over which the paper is placed to receive the impression.

At the termination of the last name in type to one post office address a quad, n, is placed at the extreme end of the line and next to the i mer edge of the stick, case, or galley H, for the purpose of operating a signal indicating that the list to one post-office is completed. This signal consists of a bell, N, suspended

beneath the bed-plate A. It is also shown in | Fig. 4, which is a section of the part showing the devices for operating the galley H, and also the signal. A lever, M, is placed upon the bed nearly parallel to the channel P and at the left hand of the opening a. The lever M is pivoted to the bed at m, and the short arm curved forward, so as to come in contact with the quads n at the end of the line which terminates the list of names to one postoffice address. The long arm of the lever M is connected to a coiled spring, N', which connects through the shank of the bell N by means of the rod M'. The spring N' draws the long arm of the lever M away from the galley and brings the short curved arm over it, as seen in Fig. 1, and in such position that the forward movement of the galley gives a signal by causing the bell to ring. Any other device may be used in place of a bell by which the required signal is given.

The type constituting the names to whom the papers are addressed are set up in order with the name of the office at the end of the list, a quad being placed at the end of said line to operate the signal, as before described.

A sufficient number of galleys may be used to contain the entire subscription-list arranged and secured as aforesaid, and inked upon a

table and then introduced into the channel P at P' in consecutive order.

The folded paper or wrapper is placed over the opening a, and the operator, with his foot upon the treadle E, makes the impression, and the galley is moved along one or two lines, as desired, by means of the adjustment of the outer end of the rod J in the slot of the arm L, as hereinbefore stated.

What we claim as our invention, and desire

to secure by Letters Patent, is-

1. The curved lever C C', operated by the bent spring G, in combination with the adjustable head D, when arranged and operating as herein set forth.

2. The pawl F', rock-shaft L', slotted arm L'', and adjustable rod J, in combination with the quad-ratchet i, operating as specified.

3. The adjustable head D, with the faces d d', arranged and operated as and for the purpose specified.

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