H. S. HERR.
Addressing-Machine.

No. 163,774. Patented May 25, 1875.

Fig. 3.

Fig. 1.

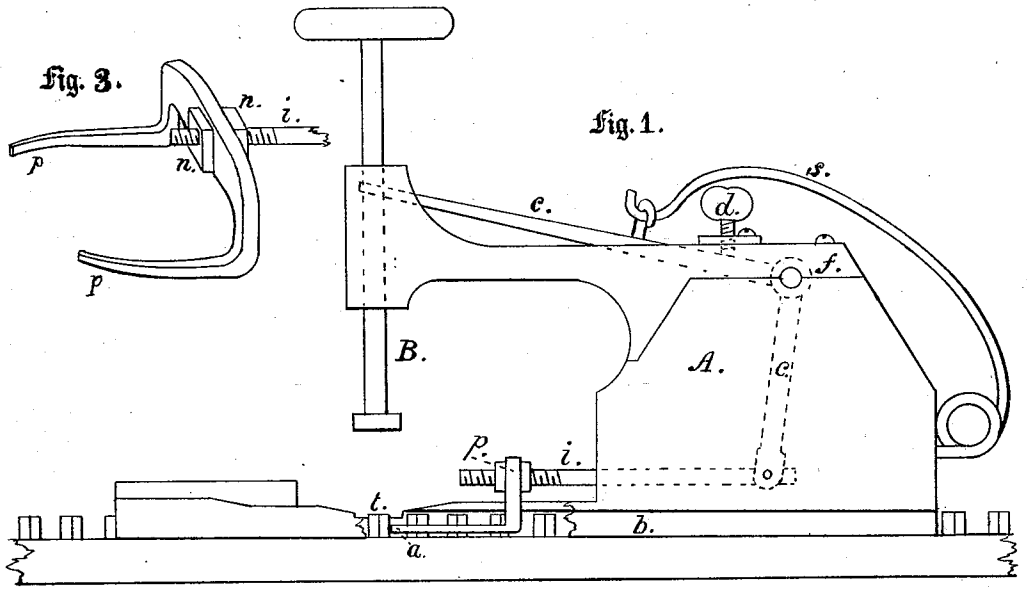


Fig. 2.

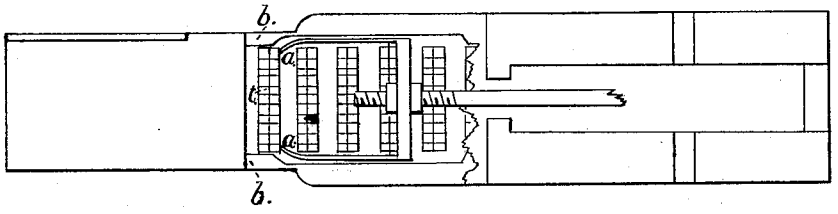
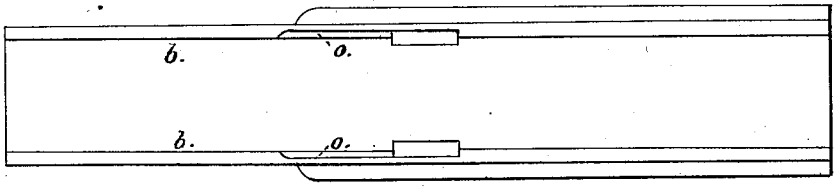


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY S. HERR, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN ADDRESSING-MACHINES.

Specification forming part of Letters Patent No. **163,774**, dated May 25, 1875; application filed April 2, 1874.

To all whom it may concern:

Be it known that I, HENRY S. HERR, of the city of Indianapolis, State of Indiana, have invented an Improvement in Addressing-Machines, of which the following is a specification:

My invention retates to that class of machines for printing addresses upon newspapers, which are constructed and arranged to move automatically over the types constituting a series of names or addresses arranged in one or more columns; and it consists in an improved construction and arrangement of, and means of adjusting, the feed-pawl for moving the machine from line to line, so that the machine is moved from address to address by the action of the feed-pawl directly against the sides of the types without passing over their face.

Figure 1 is a side elevation of an addressing-machine embodying my invention, with a portion of one side removed to show the feed-pawls, and in which A is a casting forming the main body of my machine, having two longitudinal bars or guides, *b b*, extending downward for supporting the machine upon strips placed upon each side of or between, the columns. B is a plunger, working vertically over an opening in A, for the purpose of pressing the paper down upon the type forming the names or addresses, as they may appear in succession beneath the opening. C is a bent lever having its fulcrum at *f*, the longer arm of which is connected with the plunger B and the shorter arm with a rod, *i*, to which is attached a pawl, P, having a pair of spring-points, shown in detail with a portion of the rod *i* in Fig. 3. S is a spring for raising the lever C and plunger B. *d* is a set-screw for governing the length of movement of the bent lever C and feed-rod *i*.

Fig. 2 is a plan with the upper portion removed, showing the operation of the spring-points *a a* against the sides of the types *t*.

Fig. 3 is an enlarged detail view of the feed-pawl, and shows the manner of its adjustment on the feed-rod *i* by means of the check-nuts *n n*. The object of this adjustment of the pawl on the feed-rod *i* is that, when the full stroke of the feed-rod has been accomplished, the curved ends of the pawl may always be so adjusted as to come to the same point in relation to the opening in the casting A, through which the paper is pressed upon the type whether the stroke be long or short.

Fig. 4 is a plan of A from underneath, showing the recesses *o o* in the bars or guides *b b* in which the spring-points of the pawl work. The object of the recesses *o o* is to form a space for the pawls to work in while passing the lines of type, and at the same time admit of the guides *b b* fitting quite closely to the column.

In this class of machines, as heretofore constructed, the feed pawl or pawls have been so constructed and arranged as to pass, in moving from one address to another, over the face of the types, or of quads set at the ends of the lines to form ratchets for the pawl to work against.

In my device the pawl is arranged to pass along and operate against the sides of the types without passing over their face, thus avoiding the danger of injury to the face of the types from the pawl passing over them or the necessity of providing special pieces for the pawl to operate on.

The pawl, as shown, is so formed as to operate against the type at each end of a name or address, thus insuring an easy movement of the machine without a tendency to bind against the sides of the column.

The operation of my device is as follows: Supposing the column to contain names requiring one line of type only to each name, the set-screw *d* having been set to allow the requisite amount of movement to the lever C, and thus to the feed-rod *i*, and the pawl having been so adjusted upon the rod that its points will be just seen through the opening in A, through which the impression is made, and a line of type being exposed, the paper is laid over the type and the plunger forced down, moving the lever C and carrying back the rod *i* and pawl P until the spring-points of the pawl pass the next line of type. Upon releasing the plunger, it and the lever are drawn upward until stopped by the set-screw *d*. The points of the pawl engaging the next line of type, and the types being immovable, the machine is moved over the types until another name is exposed.

In case two or more lines of type are used to form one name or address the set-screw *d* is adjusted to allow a longer stroke, and the pawl is moved back upon the rod *i* until the points occupy the same place in relation to the opening as before.

I claim as my invention—

1. In combination with the plunger B, bent lever C, rod *i*, spring *s*, adjusting-nuts *n n*, and casting or frame A, in an addressing-machine, the pawl *p*, provided with the two spring-points *a a*, constructed and arranged to operate, as shown and described, along the perpendicular sides of a column of type forming a series of names or addresses, and for the purpose set forth.

2. In combination with the set-screw *d*, bent-lever C, rod *i*, and pawl *p* in an addressing-machine, the adjusting-nuts *n n*, for the purpose of adjusting the pawl *p* upon the rod *i*, as shown and described, and for the purpose set forth.

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Witnesses:
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