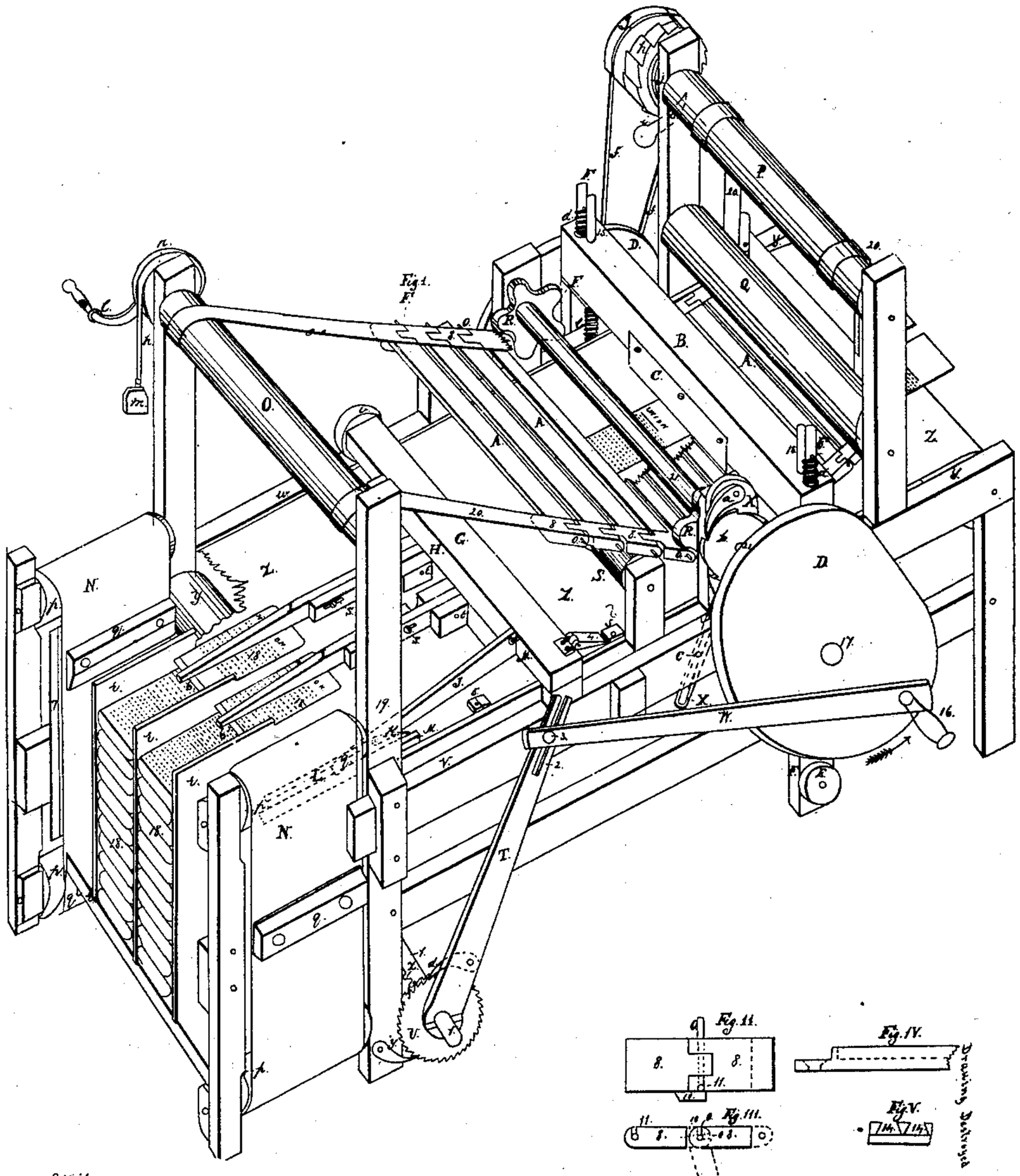
J. BATLEY.

ADDRESSING MACHINE.

No. 26,827. Patented Jan. 17, 1860.

Fig. I.



Witnesses.
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JESSE BATTEY, OF HONEOYE FALLS, NEW YORK.

MACHINE FOR DIRECTING NEWSPAPERS, &c.

Specification of Letters Patent No. 26,827, dated January 17, 1860.

To all whom it may concern:

Be it known that I, JESSE BATTEY, of the village of Honeoye Falls, in the county of Monroe and State of New York, have invented a new and useful Machine for Printing the Adress on Newspapers and Other Periodicals, which I style "Self-Feeding Director;" and I do hereby declare that I consider the following description sufficiently full, clear, and exact to enable any person skilled in the art to construct and operate the same, reference being had to the annexed drawings, and to the characters of reference marked thereon, making a part of this specification, in which—

Figure I is a perspective view. Figs. II and III, are enlarged views of sections of the type chain. Fig. IV is a side view of the type box and Fig. V an end view of the double type box, the single ones having but one groove.

The construction is as follows: The framework is made of either wood or iron at the option of the builder or operator, the form and dimensions of which will be readily understood by any skillful machinist, from the following description of said machine.

The endless apron Z passes around drums Y, Y, which are placed at such distance from each other as to give ample opportunity to rectify any mistake that might occur in feeding on the papers, before said papers reach the pressure bar B. This apron Z is supported from the underside, by a table or platform to keep it from sagging.

5, 5, are cleats attached to the apron Z for the purpose of operating the same, which is done by means of the click 4, which is secured to the bar G. The bar G is fastened at one end to slide bar V, and supported at the other by roller *v* running on track *w*. The bar G should be about two inches above the apron Z. The rakehead H is attached to the bar G by hinges *u*.

The finger bars I, I are made in two pieces, and are fastened together by screws in slots *s*, *s* as shown in Fig. I, so that they may be lengthened or shortened to suit papers of different length. These finger bars have a pin or spur *b* on the underside near the point, of the right length to take but one paper at a time, for the purpose of drawing in papers 18 as shown. Said spurs should just clear the outer end of papers 18 in their drop motion. Said finger bars are hung on pins *t t*, in such manner that they will not fall below a horizontal position with the upper surface of rakehead H, either by letting the lower corner strike rakehead H, or otherwise, for support. The arm J is firmly fastened to the end of rakehead H in such position that when pin 9 rests on bar M, the under side of the points of the finger bars I will be on a level with apron Z, for the purpose of raising and lowering finger bars I; by means of pin 9, click K, and bars L and M; the portions of these which are hid by post 19 and belt N are shown by dotted lines. The exact length of the arm J is not essential; it may be longer or shorter according to convenience. In order to have this part of the machine work easy and right, the back and forth motion of bar G, should be about two inches more than the length of the longest papers to be addressed, which is obtained by placing the pin or crank 16, at a distance from the center of the shaft 17, equaling the amount of one inch, and half the length of the longest papers; said pin 16 operating pitman W, which is connected to slide bar V by pin 3. The upper surface of bar M should be as high as the hinge *u*, and, of sufficient length to prevent the pin 9 from running off at either end. The bar L should be fully as long as the longest papers to be addressed, and placed high enough above bar M to raise the points of finger bars I two inches or more above the level of apron Z, and far enough out to have the pin 9 just clear it in its outward motion. The click K is hung on the end of bar L, in such manner that the pin 9 will pass smoothly over it, and, that the point will drop on to bar M and of such length that the pin 9 will just clear it by its return motion. This arrangement will insure the finger bars I rising to their full height, before reaching the ends of the papers next the machine, which it is necessary to have them do.

r, *r* is the box in which the papers to be addressed are placed, and from which they are fed to the machine. This box has partitions which cause the papers to be placed in tiers. I use more or less tiers of papers and a corresponding number of finger bars, and names on slats A A, according to size of machine required. Cleats *q q* are fastened to belts N, N for the purpose of elevating boxes *r*, *r* which are placed upon them as fast as the papers are taken out of said boxes. The height of these boxes and the distance be-

tween the cleats *q*, are so arranged that the second box may be placed on the second set of cleats at the bottom, and that when the first one is empty, the top of the lower one which just clears the one above it, will be a trifle above the level of apron Z.

The belts N, N pass around the drums *p*, *p*, *p*, *p*, and each belt has a support 7, to keep it from sagging from boxes *r*, *r*. The two lower drums *p*, *p*, have each a cog wheel Z attached, driven by pinions on shaft 1, said shaft being turned by lever T and clicks H and *y*, working on ratchet wheel U, *y*, holding what is gained by H. Pin 3 working in slot 2, drives lever T, giving it a back and forth motion, by means of said pin's connection with slide bar V and pitman W. The raising or lowering of pin 3 in slot 2, diminishes or increases the motion of box *r*, *r*. The teeth on ratchet wheel U, should be as fine as will work well, in order that its speed may be well regulated. Pitman W drives slide bar V, being connected to it by pin 3.

The type for the full address are set up in the double type box, Fig. V, the name in one groove, and the post office and State in the other. The single boxes are used, when only the person's name is wanted. One end of these grooves is closed to prevent the type from sliding through, and at the other the type are kept in place by wedge block 13, and screw 12 Fig. IV; by means of the bevels of each, as shown; the bodies of said type being made to fit in grooves 14 Fig. V. These type boxes are fastened to the under side of slats A A by screws or otherwise, in such situation that the papers on apron Z will come directly under them, and; the names for each post office may be arranged in bodies together, the first may indicate by figures the number of papers to that office, and the last may bear the full address, so that they may be readily separated after being addressed. These slats have each of them a chain link fastened to each end which are connected successively together by pins *o*, as shown in Figs. I and II. One end of each of the belts 20 is fastened to the ends of chains 8 8, the other to the drum O or P. The slotted lever X X works loose on shaft 21 as a fulcrum.

j is a coil spring, one end of which is fastened to the shaft of drum P, the other to the ratchet pulley *g*, *h*, which turns on the shaft of drum P. Click *i* prevents pulley *g h* from turning backward. The pressure bar B is for the purpose of pressing the type upon the paper, having a smooth flat surface on the under side. Said bar has two holes in each end, through which rods F, and standards 15 work.

d d are spiral springs, the object of which is to adjust bar B to different thicknesses of paper, giving when the papers are very thick. The spiral springs *e e* raise bar B between the operations of cam wheel D upon it.

15, are standards, keeping bar B in its proper position. Rods F have a long slot, through which shaft 17 passes, and, work in boxes below said shaft. The opening in slots A A shows the position of the papers under bar B. Under apron Z directly under bar B is a bed piece with a thick covering of rubber, yielding so as to adjust the papers to the type, when said papers are not folded even. The head of pin *o* is formed by binding a portion at right angle with the body of the pin. Each chain link 8, has a slot 11, Figs. II and III for the reception of the head of pin *o*, and a lip 10, to keep said pin in place, in the next link therewith connected.

In order to take the chain apart, it is bent as shown by dotted lines, Fig. III, which bring the head of pin *o* from under lip 10, so that the pin may be drawn out. The links are not brought into this position in working the machine. Each of these chain links has a groove for the reception of a slat A; said links being made of iron or other metal, and, a little thicker than the whole thickness of slat A, and type combined; to prevent the slats A from pressing on the face of the type, when wound up on the drums. The type are made as short as can be used handily, in order to take up as little room as possible on the drums, and also to save weight.

The operation of the machine is as follows: The type apron being wound up on drum O by crank *l*, is passed down over the ink roller S far enough to bring the first pin *o* into the cogs of wheels R. The ink roller should be taken out before winding the type on drum O. The spring *j* is sufficiently tightened by turning pulley *g h*, to take up the type apron (composed of slats A A) and keep it from sagging. It is afterward kept tight by means of belt *f f*, which is operated by a small pulley on shaft 17, and the type is kept from unwinding too fast from drum O by means of weight *m*, and belt *n*, on friction pulley *k*. The papers are packed in a uniform position in boxes *r r* with the side up, and end toward the machine, designed for the impression.

The machine is driven by crank 16 or, by a driving pulley on the opposite end of shaft 17, in the direction of the arrow. The type are moved under bar B one slot at a time, by means of pins, *o*, cog wheels R, ratchet wheel *b*, click *a*, and lever X X, operated by pin *c* on slide bar V, in the following manner: The pin, *c*, is attached to the slide bar V, and works in the slot in the lever X X as shown in Fig. 1, driving said lever backward and forward by the motion of

said slide bar. Said pin, *c*, is placed at such distance from the shaft 21 on which lever X X works loose as a fulcrum, that the outward movement of the slide bar V, will cause the click, *a*, to recede from one notch on the ratchet wheel *b*, to the next one back of it, and, that the return movement of said slide bar, will cause click *a* to drive the ratchet wheel *b* and cog wheels R R, one notch forward, all of said wheels being secured on the shaft 21. This movement carries another set of names under the bar B by means of the pins, *o o*, and cogs in wheels R R. The number of cogs on each of the wheels R R is the same as the number of notches on the wheel, *b*. The click, *a*, should be of such length, and so placed, on the lever X X, as to carry the slats A exactly under the bar B. The type are kept as near the apron Z by cog wheels R and drum Q, as will admit of a clear passage of the papers under them. Pin 9 by its inward motion, is brought clear of the point of click K, in its outward motion, it passes up over click K, raising finger bars I, and passing out over the end of bar L, lets them fall upon papers 18.

One half revolution of cam wheel D, carries out the finger bars I by means of slide bar V and pitman W, and lets them fall upon the papers 18, the same half revolution raises the box, *r*, *r*, by means of lever T, click H, ratchet wheel U, pinions on shaft 1, cog wheels Z, drums *p*, *p*, belts N and cleats *q* as before described, and the type are pressed upon the papers by bar B, by means of the cam wheels D, operating on pulleys E which are connected with bar B by rods F F. The plates C on each side of bar B, pass down between slats A A, pressing down the papers to prevent them touching any other type than the ones designed for the impression. Said half revolution, also lets bar B rise to its full height, being entirely clear of slats A A. The crank 16 is placed so that it commences its inward motion at the same time that the cam of wheel D entirely clears roller E. The other half revolution brings another set of papers into the machine, and also, another set under bars B by means of click, 4, moving apron Z, and also another set of names under bar B by cog wheels R, operating as before described and so on successively.

I claim—

1. The arrangement of type on slots connected together so that they may be moved successively through a machine in the manner and for the purposes herein described and set forth, or any arrangement involving substantially the same principles.

2. The combination and arrangement of lever X X, click, *a*, and ratchet wheel, *b*, with cog wheels R R, for the purpose of moving slats A A, in the manner, and for the purpose specified, or any arrangement accomplishing substantially the same thing.

3. The arrangement and combination of spring *j*, pulley *g*, *h*, and belt *f*, *f*, for the purpose of taking up slats A A on drum P as specified, or its equivalent.

4. The adjusting springs, *d*, *d*, for the purposes specified.

5. I do not claim the pin *o* or lip 10 separately, but I claim their combination and arrangement in the manner and for the purpose herein specified.

6. Moving apron Z, by means of cleats 5 and click 4 in the manner, and for the purpose herein specified, or, any arrangement substantially the same.

7. Drawing or moving newspapers or other similar documents into a machine by finger bars II, and spurs 6, in the manner herein specified, or any arrangement accomplishing substantially the same thing.

8. The arrangement and combination of arm J, pin 9, click K, and, bars L and M in the manner, and for the purpose herein specified, or any arrangement substantially the same.

9. The arrangement and combination of lever T, clicks H′ and *y*, ratchet wheel U, pinions on shaft 1, cog wheels Z, drums *p*, belts N, cleats *q* &c, for the purpose of elevating by boxes *r*, *r*, in the manner, and for the purpose herein described and set forth, or any arrangement accomplishing substantially the same thing.

10. I claim the method herein described of securing type, in type boxes, by means of screw 12 and wedge block 13 as shown Fig. IV.

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