

(No Model.)

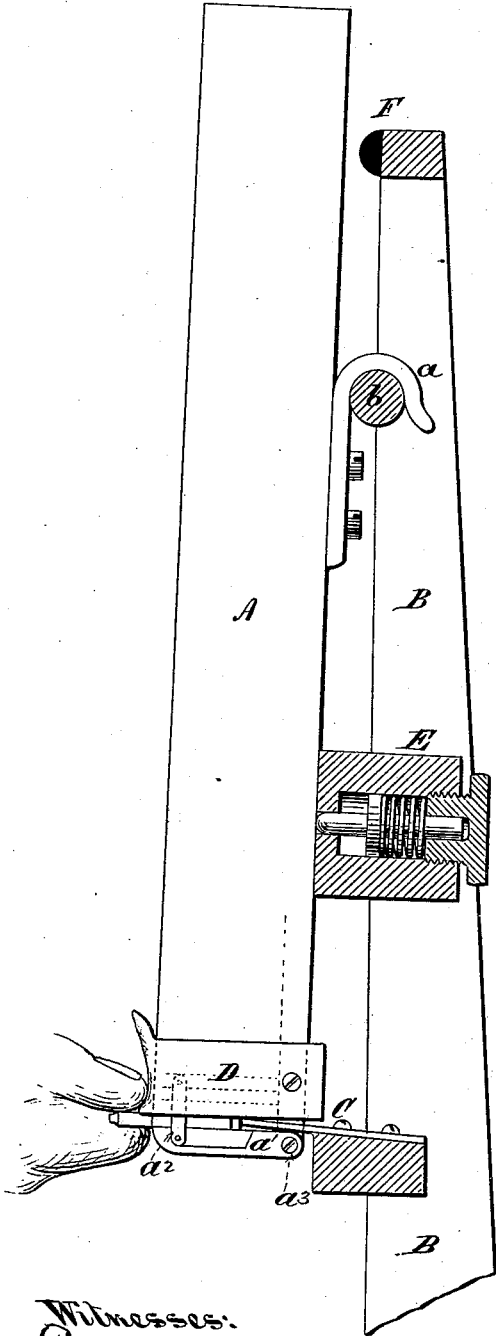
2 Sheets—Sheet 1.

L. K. JOHNSON.  
TYPE SETTING APPARATUS.

No. 264,084.

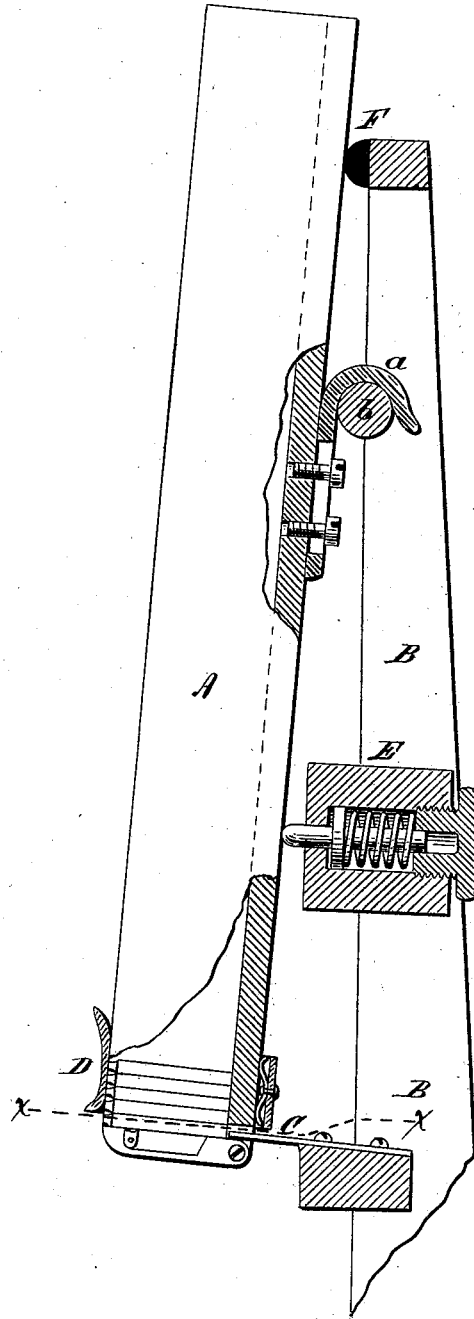
Patented Sept. 12, 1882.

Figure 1.



Witnesses:  
Geo. H. Evans  
Wm. A. Pollock

Figure 2.



Inventor:  
Louis K. Johnson  
By his attorney  
Geo. H. Mott

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Figure 3.

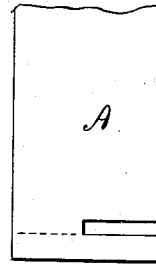
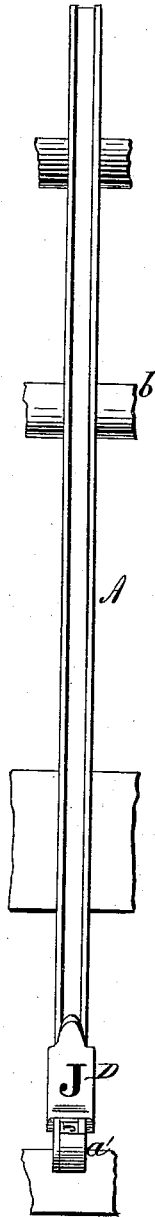


Figure 6.

Figure 5.

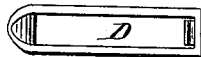


Figure 7.

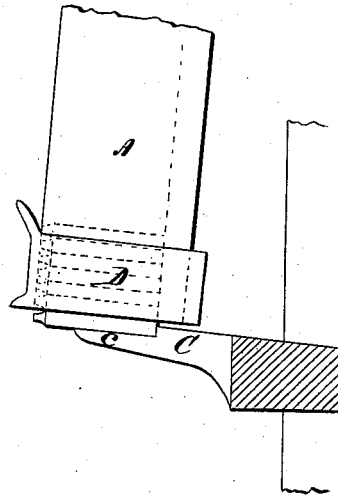
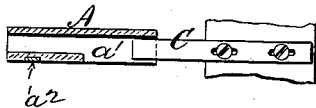


Figure 4.



Witnesses:  
Geo. Evans  
Wm. A. Pollock

Inventor:  
Louis K. Johnson  
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# UNITED STATES PATENT OFFICE.

LOUIS K. JOHNSON, OF BROOKLYN, NEW YORK.

## TYPE-SETTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 264,084, dated September 12, 1882.

Application filed December 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, LOUIS K. JOHNSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Setting Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of type-holders in which the different denominations of type are respectively arranged in prescribed positions in containing channels, from the bottom of which they are removed, one or more at a time, by hand.

My invention consists primarily in a containing channel capable of oscillation, formed at its lower end to receive or move over a stationary shoulder or abutment, before which the lowest type in the column rests when the channel is in its normal position, and by which said lowest type is held stationary while the lower end of the channel is pushed back in order to grasp the type; and, secondarily, in the special construction of the parts hereinafter described for supporting the column of type in the channel, controlling the operation of the latter, and gaging the number of types to be removed at one time.

In the drawings, Figure 1 is a sectional elevation of my arrangement, showing the lower end of the channel depressed or pushed backward, and illustrating the method of grasping the type thus exposed; Fig. 2, a sectional elevation of the same parts in their normal position; Fig. 3, a front view of my oscillating channel; Fig. 4, a plan on line *xx*, Fig. 2; Fig. 5, a top view of the gage; Fig. 6, a side elevation of the lower end of the channel provided with a permanent bottom or type-supporting shoulder; Fig. 7, a sectional elevation, showing the stationary type holder or shoulder adapted to support the column of type independent of its containing channel.

The containing channel *A* is provided near its upper end with a hook, *a*, or other suitable device, for suspending it upon the rod or cross-bar *b* of the frame or support *B*. This suspending device may be made adjustable upon its channel, as shown in Fig. 2, for the purpose

of regulating its position vertically with relation to the stationary shoulder or abutment *C*. This stationary shoulder or abutment *C* occupies a position at the extreme lower end of the containing channel, and acts as a holder to retain the lowest type in the column in its position while the channel and its contents are pressed backward, thus leaving the said lowest type exposed, so as to be easily grasped by the thumb and finger, as indicated in Fig. 1.

The lower end of the containing channel may be either slotted, as shown in Figs. 1, 2, 4, and 6, to receive and pass over the type-holder *C*, or it may be made plain and open without any type-supporting shoulder, as indicated in Fig. 7, in which case the type is supported independently of its containing channel, upon the projection or supporting-shoulder *c* of the type-holder *C*.

Where it is desirable to have a type-supporting shoulder on the containing channel itself, and at the same time provide for the insertion or removal of the type from that end of the channel in a longitudinal direction, I employ the swinging type-support *a'*, pivoted to the back of the channel and capable of being turned so as to close the end of the channel, in which position it is held by a spring-catch, *a<sup>2</sup>*, or other suitable latching device, which enables it to sustain the weight of the column of type. This swinging type-support *a'* is countersunk to receive the head of the pivot *a<sup>3</sup>* and the body of the catch *a<sup>2</sup>*, (which latter also enters a corresponding depression in the side of the containing channel,) so as to present a uniform even surface for the passage of the slide *D*, which is held in place upon the channel, preferably by friction alone. This slide *D* performs the three functions of, first, a gage to prevent the withdrawal or displacement of more than a single type at a time; secondly, of an interchangeable denomination-mark that may be transferred from one channel to another, as from an empty to a full channel; and, thirdly, as a key or finger-rest, by which the lower end of the channel may be conveniently pressed backward, leaving the front end of the lowest type in the column immediately underneath the finger, ready to be grasped between it and the thumb underneath.

In order to return the containing channel to

its normal position after it has been pressed back, as described, I provide a spring-retractor, E; and to counteract the force of the retractor and prevent undue jar, and at the same time  
 5 limit the forward movement of the channel on the opposite side of the point of suspension *b*, I provide an elastic buffer or rest, F.

What I claim as my invention, and desire to secure by Letters Patent, is—

10 1. The stationary type-holder C, in combination with the oscillating type-containing channel adapted to receive or move over it, substantially in the manner and for the purpose described.

15 2. In combination with the oscillating containing channel A and stationary type-holding shoulder *c*, the combined gage-plate, interchangeable denomination-mark, and finger-rest D, arranged and operating substantially  
 20 in the manner and for the purposes herein set forth.

3. In combination with an oscillating type-containing channel substantially such as described, the stationary type-holding abutment

C, formed with the type-supporting shoulder *c*, substantially in the manner and for the purpose described. 25

4. In combination with the oscillating channel A and stationary type-holder C, a retractor, E, for restoring the type-containing channel to  
 30 its normal position when relieved from pressure, substantially in the manner and for the purpose described.

5. In combination with the oscillating channel A, stationary type-holder C, and retractor  
 35 E, the elastic buffer or stop F, arranged and operating substantially in the manner and for the purpose described.

6. In combination with the oscillating containing channel A and stationary type-holder  
 40 C, an adjustable device for suspending the said channel, arranged and operating substantially in the manner and for the purpose described.

LOUIS KOSSUTH JOHNSON.

Witnesses:

GEO. W. MIATT,  
 A. AUGUSTUS LOW.