

No. 648,750.

Patented May 1, 1900.

L. K. JOHNSON & A. A. LOW.

TYPE SETTING APPARATUS.

(Application filed May 9, 1898.)

(No Model.)

4 Sheets—Sheet 1.

Fig. 1.

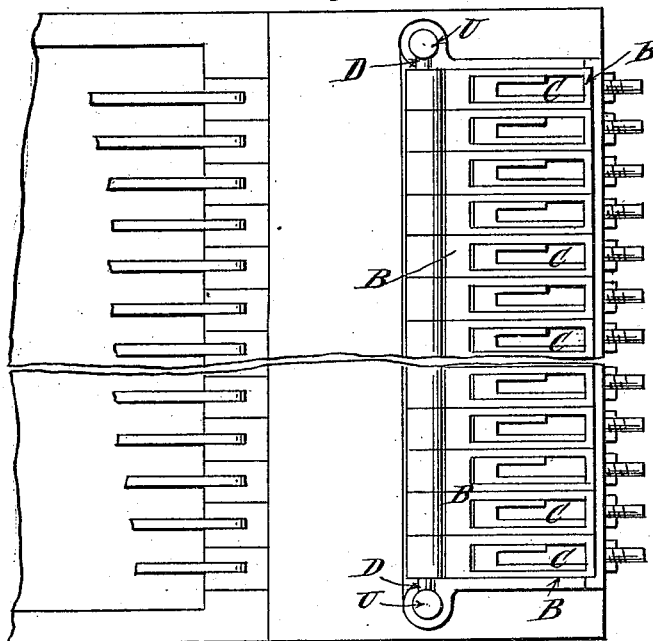
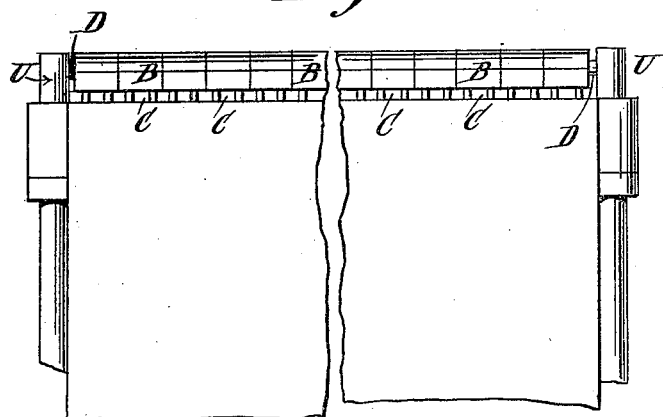


Fig. 2.



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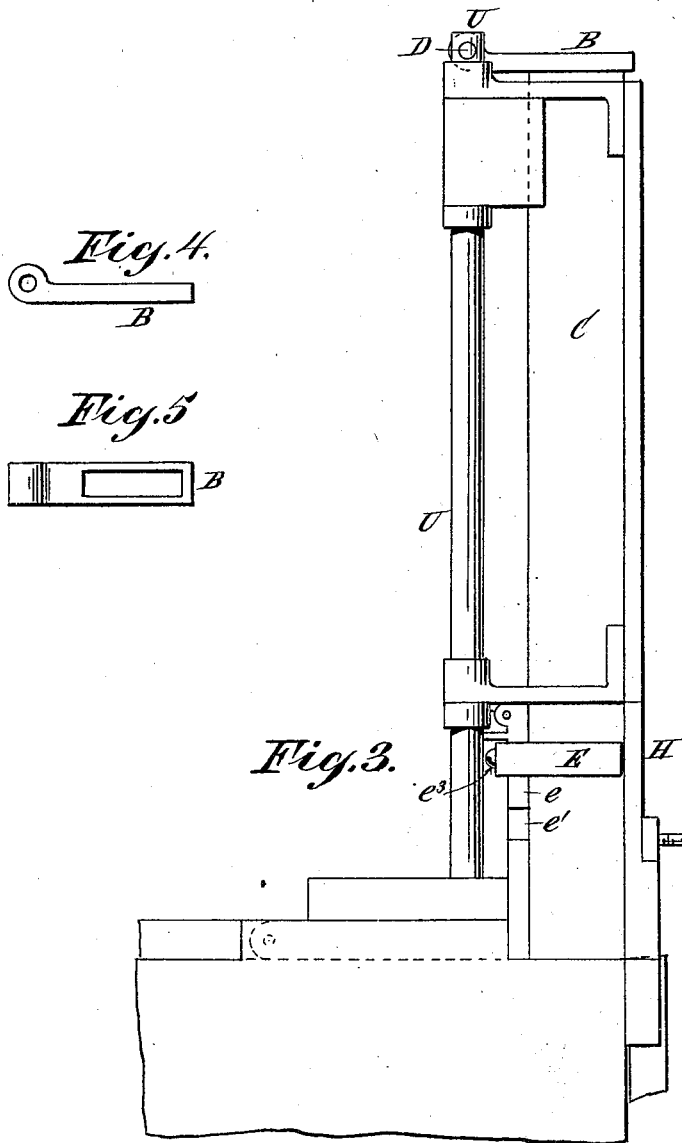
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4 Sheets—Sheet 3.

Fig. 6.

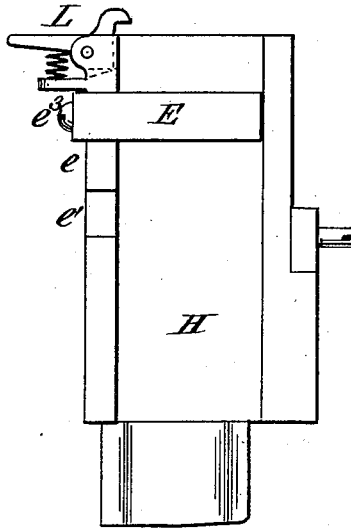


Fig. 11. Fig. 12.

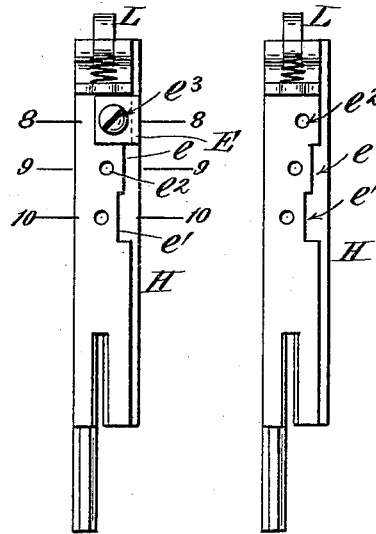


Fig. 7.

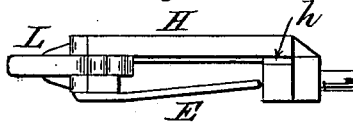


Fig. 13.

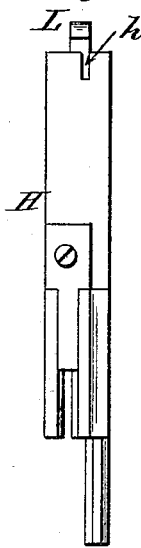


Fig. 8.

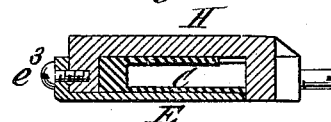


Fig. 9.

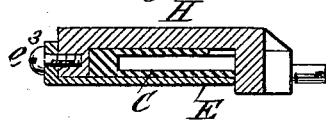
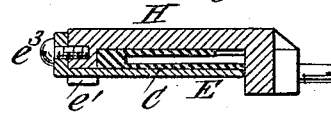


Fig. 10.

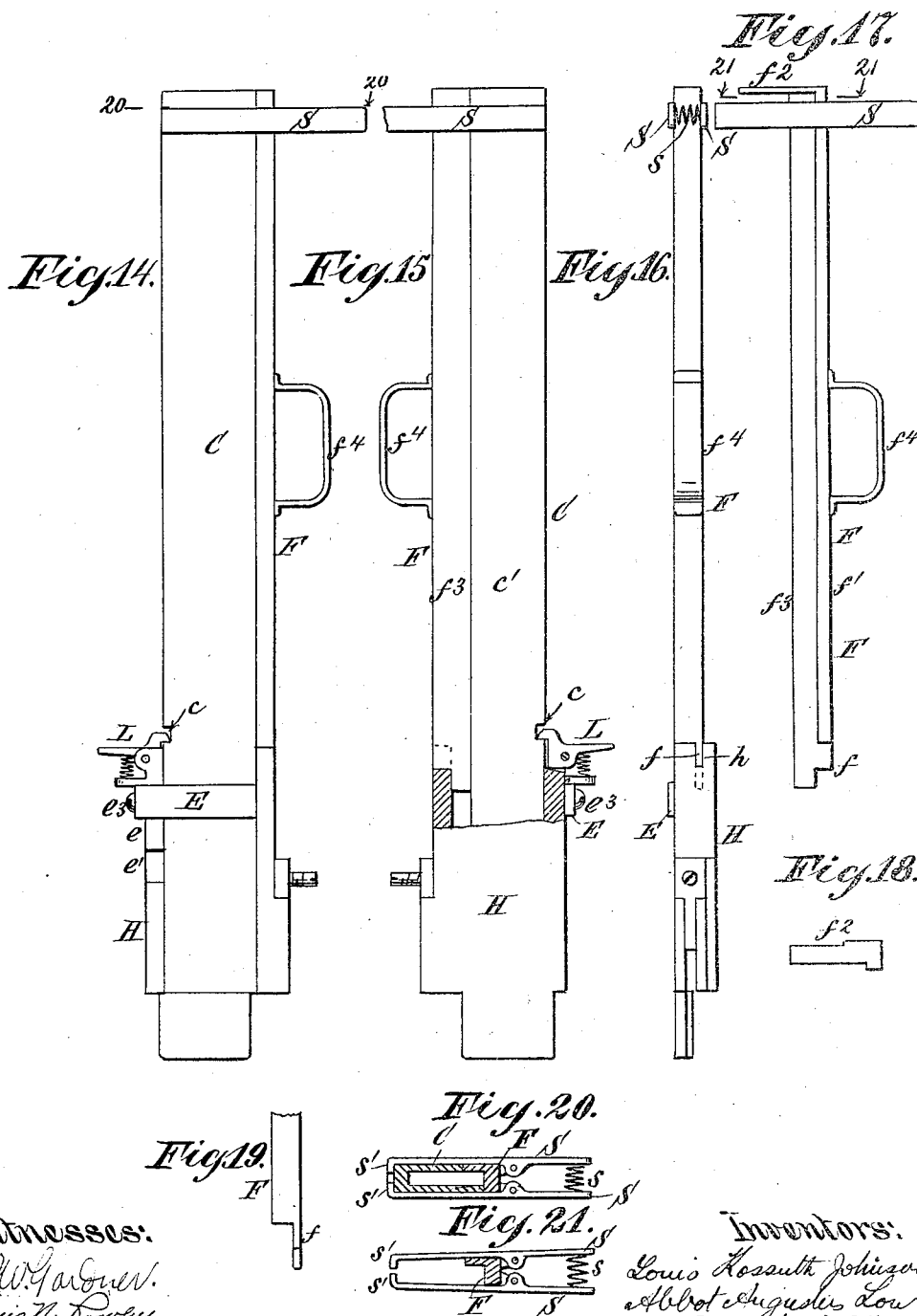


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UNITED STATES PATENT OFFICE.

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ASSIGNORS TO THE ALDEN TYPE MACHINE COMPANY, OF SAME PLACE.

TYPE-SETTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 648,750, dated May 1, 1900.

Application filed May 9, 1898. Serial No. 680,102. (No model.)

To all whom it may concern:

Be it known that we, LOUIS KOSSUTH JOHNSON and ABBOT AUGUSTUS LOW, citizens of the United States, residing in the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Setting Apparatus, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

Our present improvements relate to the class of type-setting apparatus in which the type are forwarded automatically from the lower ends of type-containing channels into position to be withdrawn by hand, as set forth in prior applications.

The objects of our present invention are to simplify the construction of the channel-holder, provide suitable means for positively locking the channels in the holders, to adapt the holders to channels of three or more sizes, to steady the upper ends of the type-containing channels by suitable means, to provide for the convenient removal of the channel and holders either individually or collectively, and to afford a convenient means for locking the types in the channel and holder when desired for transportation or storage.

In the accompanying drawings, Figure 1 is a top view of our improved case, the central portion being broken away. Fig. 2 is a front view of the upper portion of the same. Fig. 3 is a side elevation of the case; Figs. 4 and 5, detail views of the individual channel-holders. Fig. 6 is a side elevation of our improved form of holder; Fig. 7, a top view thereof. Figs. 8, 9, and 10 are sectional views taken upon corresponding lines on Fig. 11, showing the adjustment of the lateral spring-arm of the holder to different sizes of channels. Fig. 11 is a rear view of the holder. Fig. 12 is a rear view of the holder without the lateral spring-arm. Fig. 13 is a front view of the holder. Figs. 14 and 15 are elevations of the opposite sides of the holder, the holder being partly broken away in Fig. 15. Fig. 16 is a front view of the holder and channel. Fig. 17 is a side elevation of the type-channel guard. Fig. 18 is a plan of the upper end of the type-channel guard. Fig.

19 is a detail view of the lower front end of the type-channel guard. Fig. 20 is a sectional view on plane of line 20 20, Fig. 14. Fig. 21 is a sectional view upon plane of line 21 21, Fig. 17.

Our improvements relate specially to the form of apparatus set forth in our concurrent application, Serial No. 676,619, filed April 6, 1898. In the present case the supporting-bed is formed with sockets for the reception of the tenons of the channel-holders in a manner similar to that heretofore described, and the type-forwarding mechanism is essentially the same.

The channels are positively locked in the holders by means of a spring-latch L, mounted on the rear of the holder, said latch engaging with a shoulder c, formed on the spine of the channel C. The holder is open on one side, excepting for the presence of an arm E, by which the channel is supported on that side. In order to render the holder adjustable to three or more sizes of channels, three or more seats are provided on the rear of the holder for this lateral supporting-arm E, as will be readily understood by reference to Figs. 11 and 12, by which it will be seen that the offsets e e' are provided for the accommodation of the thickness of the arm E, additional screw-holes e² being also provided for engagement with the set-screw e³. By this means the holder may be readily adapted for the reception and support of channels containing types of various fonts.

The front of the holder H is formed with the recess or slot h at its upper edge for the reception of the lower edge f of the front guard F.

The front guard F consists of the cover-strip f, extending upward from the top of the holder to the top of the channel, at which point it is formed with a rearwardly-projecting tongue f², which fits inward between the side walls of the channel, thereby closing the latter. It is also formed with a side plate or flange f³, which coincides with the short wall c' of the channel and forms a continuation thereof, thereby affording a continuous surface for the types upon both sides of the channel.

The front guard F is secured to the chan-

nel at its upper end by means of spring-clamps S, arranged in any suitable manner upon the guard. Thus in the drawings the springs *s* force the forward ends of the clamps outward, so that their inner ends *s'* engage with the rear end of the spine of the channel. Each holder is preferably provided with a handle *f*⁴ for convenience in manipulation.

The upper ends of the type-containing channels are supported and locked in position each by a hinged loop or coupling B, a series of these being supported pivotally upon the horizontal bar D, extending between the up-rights U on the frame of the machine. These loops B encircle the upper end of the channel upon all sides when lowered into position over the upper end of the latter, but may be quickly and conveniently swung backward and out of the way when it is desired to gain access to the channels for the purpose of removal or otherwise.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a type-case substantially such as described, the combination with a holder H, provided with a spring-latch L, of a type-containing channel C, formed with a shoulder *c*, for engaging said spring-latch, substantially in the manner and for the purpose described.

2. In combination with a type-case substantially such as described, a type-containing channel C, and front guard F, formed with the channel-closing extension *f*², substan-

tially in the manner and for the purpose described.

3. In a type-case substantially such as described, the combination with the type-containing channel C, having one short wall, of the front guard F, formed with the flange *f*³, coinciding with and forming a continuation of the short wall of the channel, substantially in the manner and for the purpose described.

4. In a type-case substantially such as described, the combination with the type-containing channel C, of the holder H, formed with the recess *h*, and the front guard F, formed with the tongue *f*, for engaging with said recess, substantially in the manner and for the purpose described.

5. In combination with a type-containing channel a holder H, provided with a lateral arm E, and formed with a series of offsets *e*, *e'*, for rendering the said lateral arm adjustable with relation to the width of the channel, substantially in the manner and for the purpose described.

6. In a type-case substantially such as described, the combination with the type-containing channel, of a hinged looped coupling for engaging and supporting the upper end of the channel, substantially in the manner and for the purpose described.

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