

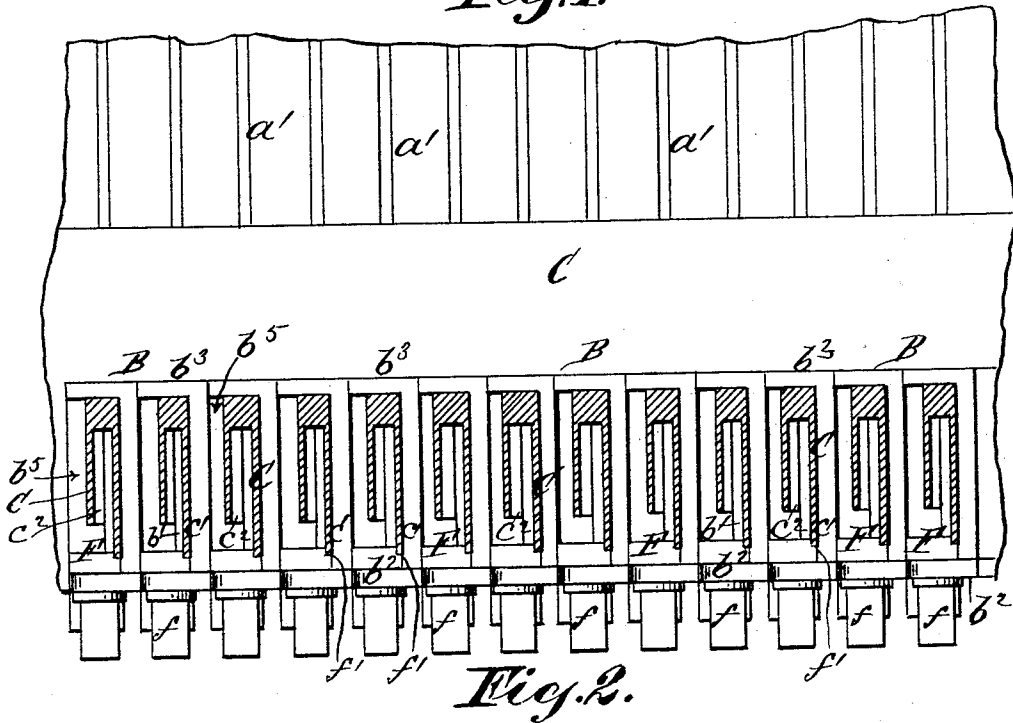
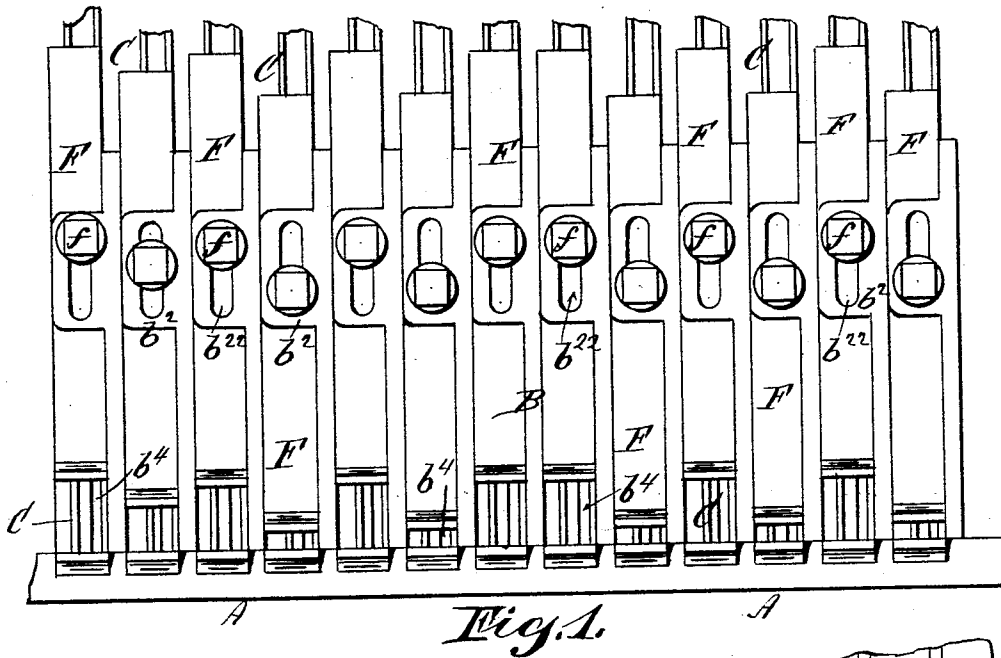
(No Model.)

4 Sheets—Sheet 1

L. K. JOHNSON & A. A. LOW.
TYPE SETTING APPARATUS.

No. 586,237.

Patented July 13, 1897.



Witnesses:
D. W. Gardner.
J. A. Connor

Inventors:
Louis Kossuth Johnson
Abbot Augustus Low
By their Attorney
George William Smith

(No Model.)

4 Sheets—Sheet 2.

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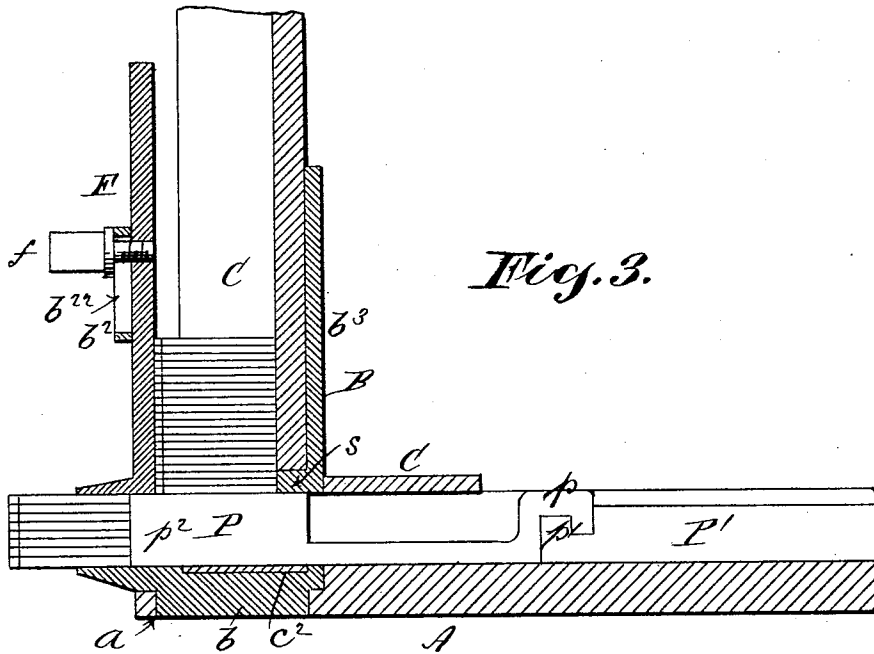


Fig. 3.

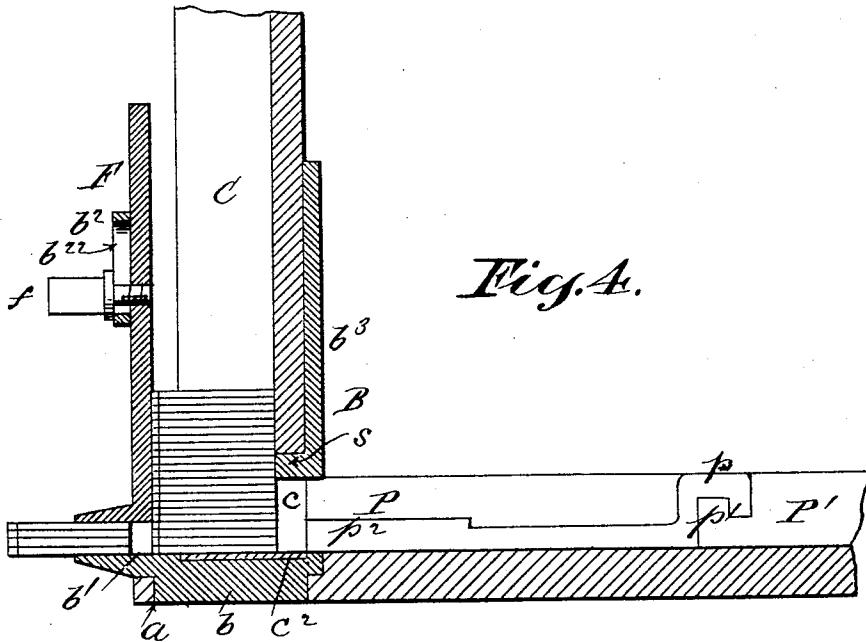


Fig. 4.

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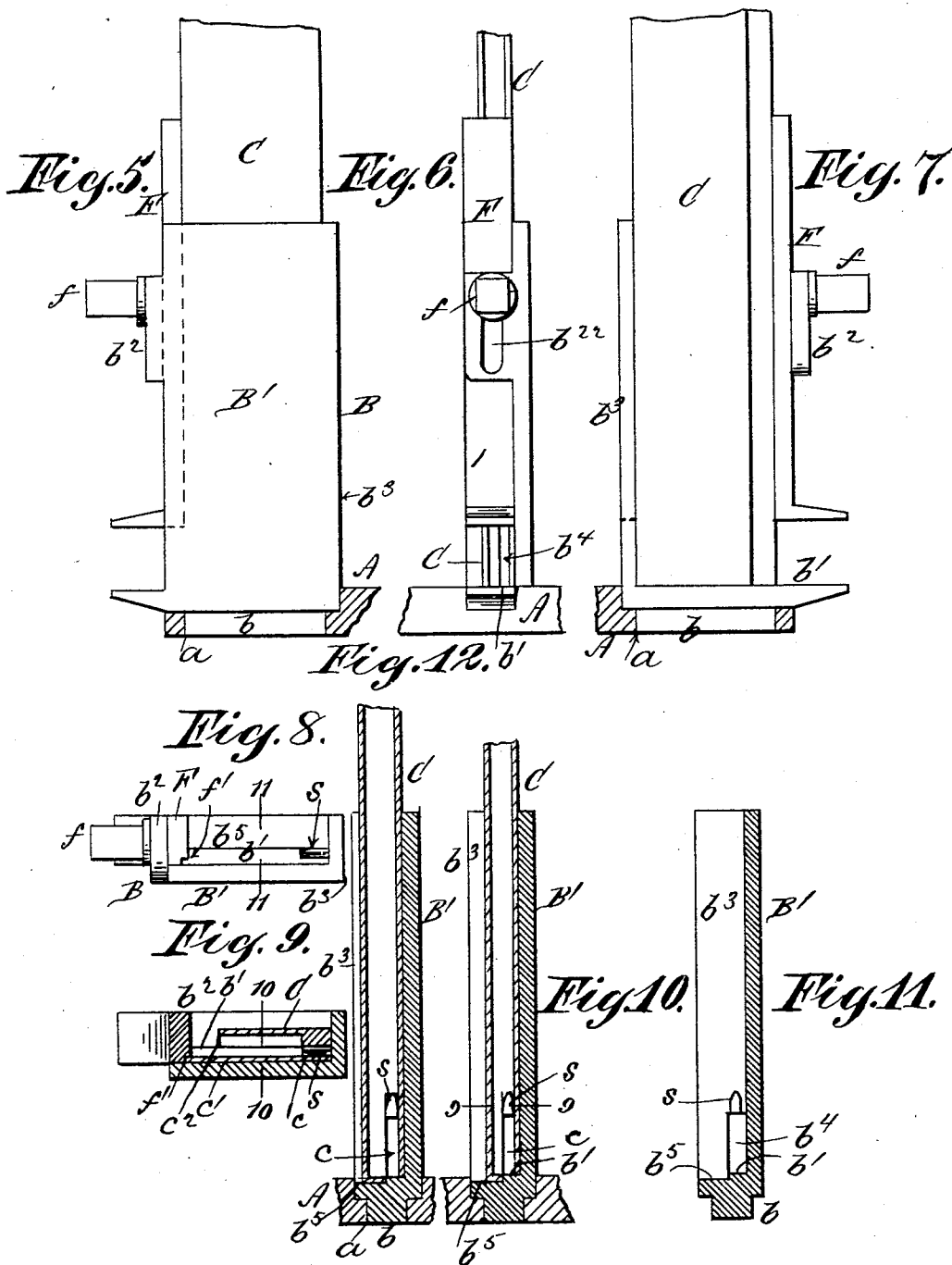
(No Model.)

4 Sheets—Sheet 3.

L. K. JOHNSON & A. A. LOW.
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No. 586,237.

Patented July 13, 1897.



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(No Model.)

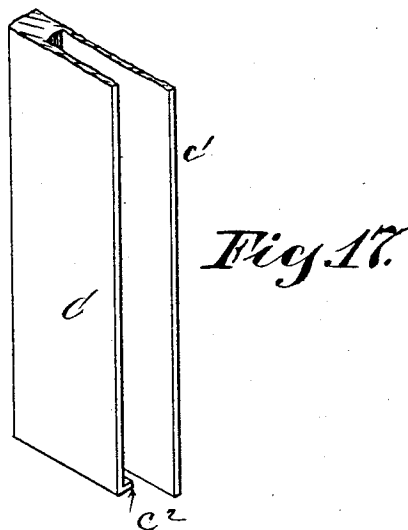
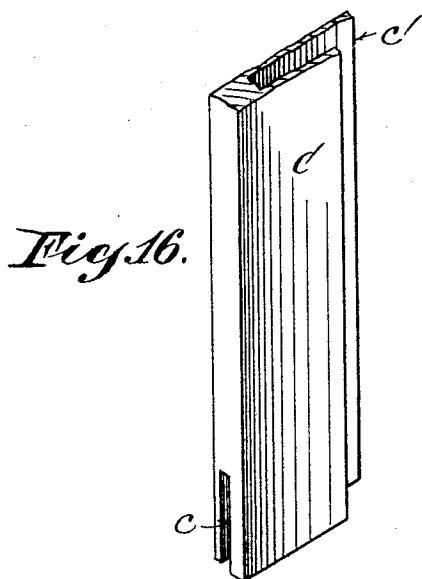
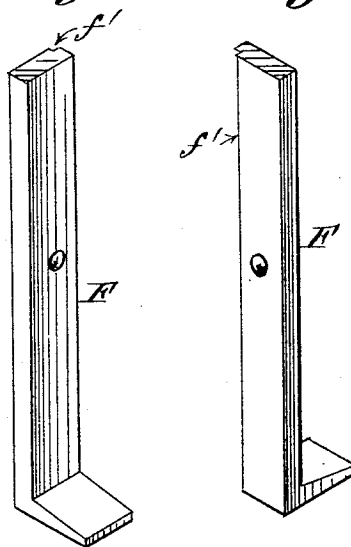
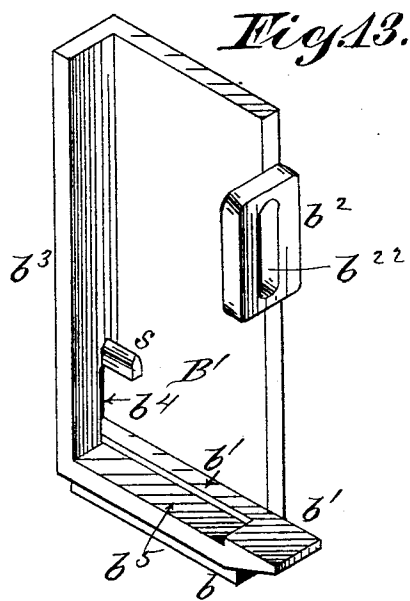
4 Sheets—Sheet 4.

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Fig. 14. Fig. 15.



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UNITED STATES PATENT OFFICE.

LOUIS KOSSUTH JOHNSON AND ABBOT AUGUSTUS LOW, OF BROOKLYN,
NEW YORK, ASSIGNORS TO THE ALDEN TYPE MACHINE COMPANY, OF
SAME PLACE.

TYPE-SETTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 586,237, dated July 13, 1897.

Application filed August 8, 1896. Serial No. 602,136. (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 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 improvements relate to the form of setter-case described in our application filed January 30, 1896, Serial No. 577,440, in which a series of interchangeable holders fit into or upon a common table or support. In that case the holders were designed for a single prescribed size of type-containing channels which alone could be properly used in connection therewith.

In a subsequent application, filed March 3, 1896, Serial No. 581,688, we adapted the holder to type-containing channels of different widths, so as to render the case universal in adaptation, by making the size of the holders adjustable laterally or horizontally with relation to each other as well as vertically. In our last application, filed April 20, 1896, Serial No. 588,275, the holder is made of a standard or maximum width and the variations in the width of the channel are compensated for by yielding springs or cushions on one side wall of the holder, which force the channel over against the opposite side wall of the holder, the position of the pusher being on that side and the spines of all the channels being slotted on that side to allow the pusher to pass.

By our present invention we simplify the construction of parts, dispensing not only with the compensating springs, but also with one side of the holder, at the same time holding channels of all sizes in width firmly in position without alteration or adjustment of the parts.

The invention consists in the special construction and combination of channel and holder substantially as hereinafter set forth.

In the accompanying drawings, Figure 1 is a front elevation of a series of channels and holders constructed according to our in-

vention. Fig. 2 is a top view of the same, the containing-channels being shown in horizontal section. Fig. 3 is a sectional elevation on a vertical plane through one of the holders and type-containing channels, showing the parts adjusted to a word or combination of maximum height. Fig. 4 is a similar view showing the parts adjusted to a word or combination of less than maximum height; Fig. 5, an elevation of the right-hand side of a holder and channel; Fig. 6, a front view thereof; Fig. 7, an elevation of the left-hand side of the holder. Fig. 8 is a top view of a holder without the channel; Fig. 9, a transverse section upon plane of line 9 9, Fig. 10. Fig. 10 is a vertical section through holder and channel on plane of line 10 10, Fig. 9; Fig. 11, a vertical section on plane of line 11 11, Fig. 8; Fig. 12, a view similar to Fig. 10, showing the use of a wider channel. Figs. 13, 14, and 15 are isometrical views of parts of the holder. Figs. 16 and 17 are isometrical views of the lower end of the channel.

The bed-plate or table A may be of any desired length, according to the number of words or combinations to be provided for in a single case. Its front portion is formed with a series of equidistant sockets or mortises *a*, coinciding in size and shape with the tenons *b* on the under side of the holders B. The rear portion of the table A is formed with the parallel grooves *a'* for the reception and guidance of the pusher-blades P and the connecting-blades P', through which the pusher-blades P are actuated by suitable reciprocating mechanism, the forward part of the pusher being held in place by a common cap C.

The rear end of each pusher-blade P is formed to engage with the front end of the reciprocating connecting-blade P' in any suitable manner, preferably by means that will admit of the removal of the pusher-blade by simply lifting it out of engagement, as by the means shown in the drawings, consisting of a hook or loop *p*, fitting over the hook or projection *p'* on the reciprocating blade P'.

The forward portion *p*² of the pusher-blade P, or that portion extending back from the front edge a distance at least equal to that of

the forward stroke of the pusher, is made of a height corresponding to the number of types to be used in a word or combination, as shown arbitrarily in Figs. 3 and 4, in which the largest word or combination is supposed, for the sake of illustration, to consist of eight types. If a particular holder and channel is to be used for a word or combination of a less number of types, as shown in Fig. 4, where four types only are shown, a pusher-blade of less height is substituted. Thus it will be seen that the vertical slots which admit of the passage of the pusher-blade must correspond to the maximum height of the pusher.

The holder B consists of the standard-plate B', formed with the tenon b on its under side below the type-platform b' , and having the rectangular flange b^2 on its front edge projecting transversely across and above the type-platform b' . The rear edge of the standard-plate B' is formed with the transverse flange b^3 , which constitutes the back of the holder.

The rear wall b^3 of the holder is formed with the vertical slot b^4 , adjoining the standard B', to allow the pusher to pass. A corresponding slot c is formed in the channel C, adjoining the wide wall c' of the channel C. This slot c is longer than the slot b^4 in the holder in order to receive and straddle a stud s , which projects inward from the back b^3 a distance not greater than the thickness of the spine of the channel, so as not to interfere with the types in the channel. The slot c extends through the floor c^2 of the channel, so that the latter may be raised and lowered in position vertically.

The type-floor c^2 of the channel does not in this case extend all the way across the latter, but it is countersunk into the type-platform b' , which latter is on a level with the under edge of the pusher. The vertical slot c in the spine of the channel is always formed on the same side adjoining the high wall of the channel, so that the channel will always register with the pusher whether the channel be wide or narrow, the depressed surface b^5 being sufficiently wide to accommodate all sizes of channels.

A simple plain front guard F is used, being secured adjustably to the front flange b^2 by means of a set-screw f , the vertical slot b^{22} in the flange b^2 being of a sufficient length, at least equal to the pusher-slot b^4 in the back flange b^3 .

The main peculiarity of our new face-plate F is that it is formed at one inner edge with a rabbet f' , which fits over the outer front edge of the side wall c' of the channel C, thereby, in conjunction with the stud s , holding the channel positively and firmly against lateral displacement or movement.

It will be seen that we have thus dispensed with one side wall of the holder as well as with the spring and other devices heretofore provided for compensating for variations in the width of the channel. By thus providing for the support of the channel within its own line we are enabled to make the holder of less width, and consequently to accommodate a greater number of characters within a given space in the setter-case.

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

1. In a type-setter case substantially such as described, the combination of a type-containing channel having one wall of greater width than the other of a channel-holder and front guard, the latter formed with a rabbet to receive and retain the front edge of the wide wall of the channel, substantially in the manner and for the purpose described.

2. In a type-setter case substantially such as described, the combination of a type-containing channel having one side wall wider than the other and formed with a vertical slot in its spine of a channel-holder formed with a stud for engaging said slot in the spine of the channel and a front guard upon said holder with a rabbet to receive and retain the front edge of the wide wall of the channel, substantially in the manner and for the purpose described.

3. In a type-case substantially such as described, the combination of the type-channel C, formed with the vertical slot c , in its spine and with a type-floor c^2 , of a holder B, having the standard B', rear flange b^3 , formed with the vertical slot b^4 , and stud s , and with the depressed floor b^5 , for the reception of the floor of the type-containing channel, substantially in the manner and for the purpose described.

4. In a type-setter case, substantially such as described, the combination of a type-containing channel having one wall of greater width than the other and formed with the vertical slot c , in its spine, and with a slotted type-floor c^2 , of the channel-holder B, consisting of the standard B', type-floor b' , with depression b^5 , and tenon b , rear flange b^3 , formed with the slot b^4 , and stud s , the front flange b^2 , formed with the vertical slot b^{22} , the front guard F, secured to the flange b^2 , by set-screw f , and formed with the rabbet f' , for receiving and retaining the front edge of the wide wall of the channel, substantially in the manner and for the purpose described.

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