

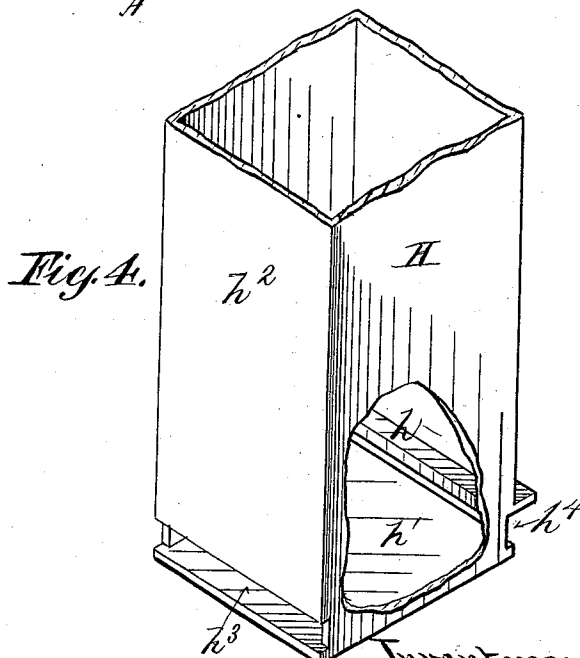
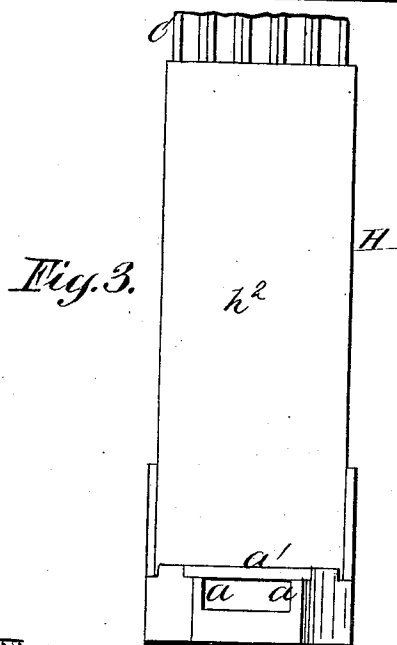
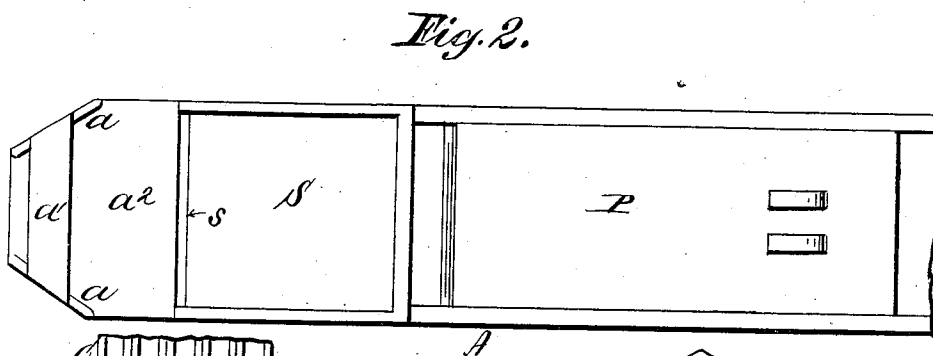
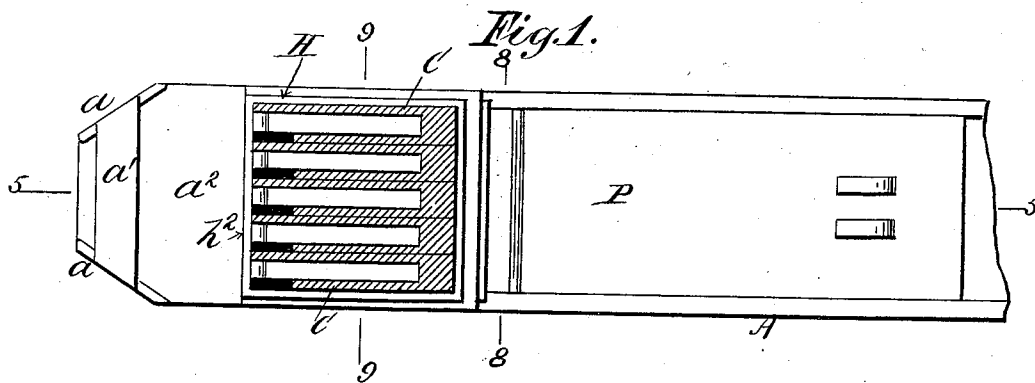
(No Model.)

3 Sheets—Sheet 1.

L. K. JOHNSON & A. A. LOW.
TYPE CONTAINING CHANNEL.

No. 562,079.

Patented June 16, 1896.



Witnesses:
O. W. Gardner.
G. T. Malt

Inventors:
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By their Attorney
George William Malt

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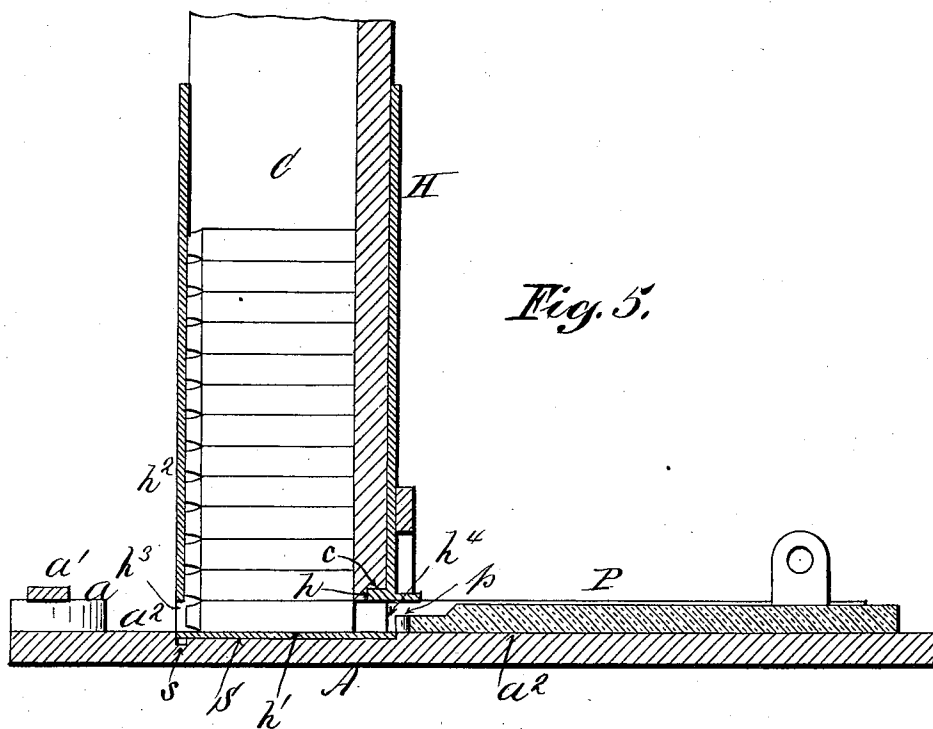


Fig. 5.

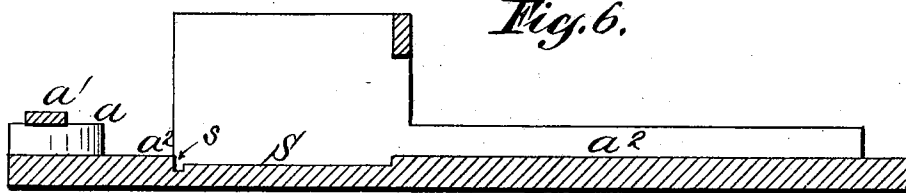


Fig. 6.

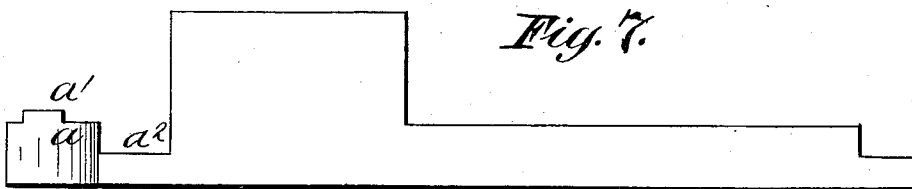


Fig. 7.

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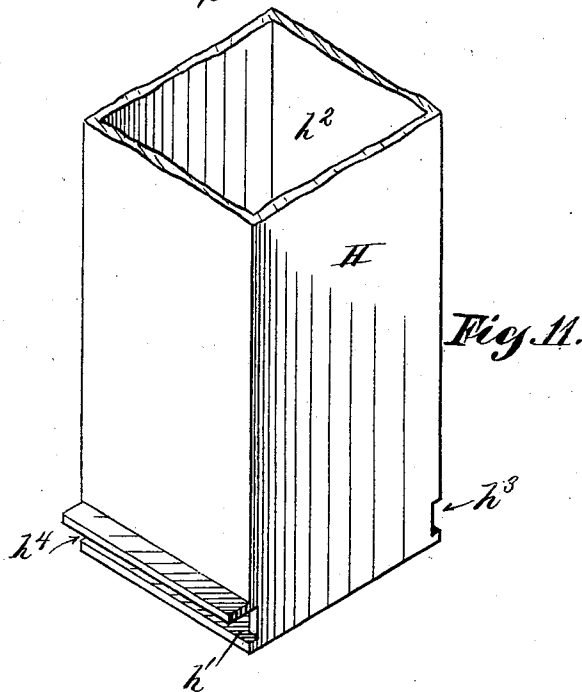
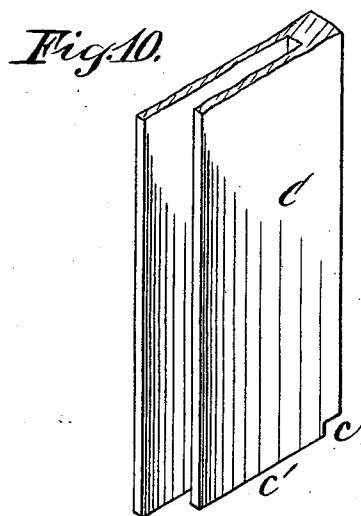
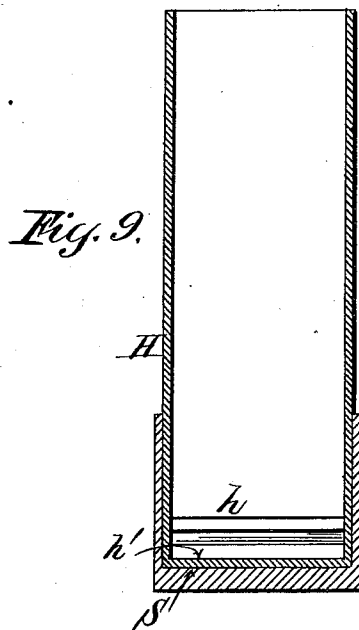
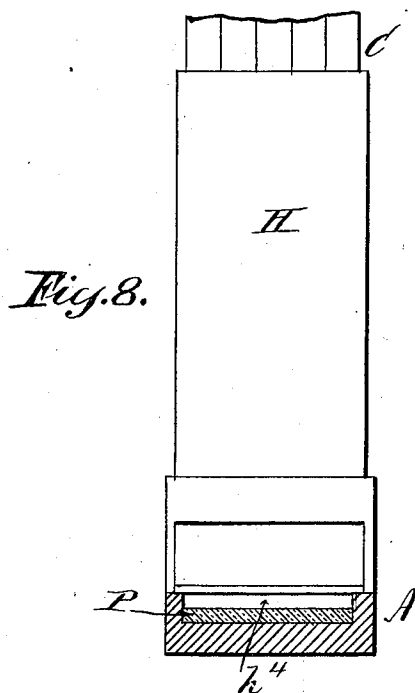
(No Model.)

3 Sheets—Sheet 3.

L. K. JOHNSON & A. A. LOW.
TYPE CONTAINING CHANNEL.

No. 562,079.

Patented June 16, 1896.



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UNITED STATES PATENT OFFICE.

LOUIS KOSSUTH JOHNSON AND ABBOT AUGUSTUS LOW, OF BROOKLYN,
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OF NEW YORK, N. Y.

TYPE-CONTAINING CHANNEL.

SPECIFICATION forming part of Letters Patent No. 562,079, dated June 16, 1896.

Application filed July 8, 1895. Serial No. 555,322. (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-Containing Channels, 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 means for supporting and handling type-containing channels such as those used in type setting and distributing apparatus, especially the type-setting cases heretofore invented by us, in which the lower types are forwarded from the type-containing channel into position to be removed by hand. We have heretofore made provision for grouping the channels so as to form words or other combinations of types, which are forwarded simultaneously into position to be grasped between the fingers of the compositor.

Prior to our present invention we have supported the type-containing channels in channel-holders forming a permanent part of the setter-case.

A distinguishing feature of our present invention consists in supporting the type-containing channel in a removable channel-holder adapted to be seated in the type-case in such manner that when in position it forms practically an integral part thereof in so far as the construction and operation of the parts are concerned. By this means we are enabled to substitute a series of type-containing channels representing a word or other combination of characters quickly and conveniently by simply lifting out the holder containing the exhausted channels and replacing it by one in which the channels are filled. Thus any number of word combinations may be prepared and stored ready for immediate transfer and use, the removable holder being adapted for economical storage as regards space and being well suited to protect and sustain the channels during handling and transportation. In this connection our invention includes the formation of the channel-holder

with a permanent stationary face-plate, thereby simplifying and cheapening the construction of the device. At the same time it is to be understood that we do not limit ourselves to this construction, since the movable and adjustable face-plate heretofore invented by us may be used, if preferred, upon our interchangeable channel-holders.

Another important feature of our present invention consists in making our detachable channel-holders with a permanent type-floor below a support for the type-containing channels and in countersinking the floor of the type-case to receive this type-floor, so as to render it flush with the type-platform over which the types are advanced by the type-pusher.

An incidental feature of our invention consists in making the seat in the type-platform of the case formed for the reception of the lower end of our channel-holder with a groove or depression at the front edge for the double purpose of facilitating the introduction of the channel-holder from the front of the case, and acting as a temporary receptacle for dust or dirt that might otherwise be carried in between the upper surface of the type-platform and the under surface of the type-floor on the holder. We thus avoid any interference with the alinement of the holder and channel with relation to the type-platform in type-forwarding mechanism.

In the accompanying drawings, Figure 1 is a top view of a portion of a type-case sufficient to show the practical application of our invention, one of our removable channel-holders being shown in place and the channels themselves being shown in horizontal section. Fig. 2 is a similar view, the channels and channel-holder being omitted. Fig. 3 is a front view showing one of our transferable holders in position; Fig. 4, an isometrical perspective of the lower portion of one of the channel-holders, partly broken away to show the interior. Fig. 5 is a central vertical section upon plane of line 5 5, Fig. 1; Fig. 6, a similar view, the channel-holder and channel and the type-pusher being omitted. Fig. 7 is a side view of the portion of the setter-case to which our removable channel-holders are

applied. Fig. 8 is a transverse section upon plane of line 8 8, Fig. 1, looking toward the rear of the holder. Fig. 9 is a vertical section upon line 9 9, Fig. 1, the type-containing channels being omitted. Fig. 10 is an isometrical perspective of one of the type-containing channels; Fig. 11, an isometrical perspective of the lower portion of one of our transferable channel-holders.

10 In the drawings, A represents a type-platform forming a part of a type-setting case, such as that heretofore referred to, in which the types are assembled and presented in groups or words for the simultaneous removal
15 by hand. The type-platform A is formed with the usual converging side walls a a and with an upper guard A' , these parts being symbolical representations of the structure heretofore invented and patented by us for performing
20 the function of insuring the assembling and alinement of the types.

P is the type-pusher of any ordinary or desired form, the front edge p of which may be curved, if desired, to facilitate the converging
25 of the types during the operation of forwarding them.

The type-containing channels C C are of ordinary construction, except that their lower rear edges are preferably, though not necessarily, formed with a jog or offset c , corresponding in size and shape to the shoulder h
30 in the interior of the holder H, upon which the type-containing channels are supported, so as to suspend their lower edges c' above the type-floor h' , which forms the bottom of the holder H.
35

It will be seen that the front walls h^2 of the holder H, as shown in the drawings, form a permanent rigid part of the structure, and that a slot h^3 or opening is left between its lower edge and the type-floor h' . As before
40 stated, a removable or adjustable face-plate may be substituted for the front wall h^2 , if preferred. As constructed, however, as shown
45 in the drawings, our transferable holder consists simply of a plain rectangular box closed on four sides with a plain bottom h' , the only openings at the bottom being the slot h^3 in front and the slot h^4 at the rear, both of said
50 slots being made to admit of the reciprocation of its pusher P underneath the type-containing channels C.

The type-platform A is formed with a seat S, which is preferably countersunk for the
55 reception of the lower end of the type-holder

H. The depth of the seat S is preferably equal to the thickness of the type-floor h' , so as to bring the upper surface of the latter flush with the upper surface a^2 of the type-platform. Thus when in position the type-floor h' practically forms a part and continuation of the type-platform, leaving the latter free and unobstructed for the passage of the type-forwarder.

The front edge of the seat S is preferably formed with a groove or recess s , of greater
65 depth than the countersunk seat itself, so that the front edge of the floor h' may be depressed slightly while placing the holder in position or removing it therefrom, and so that any
70 dust or dirt scraped along the type-platform by the front edge of the type-floor h' will drop into this recess s , and will not interfere with the perfect seating and alinement of the holder.

In addition to its simplicity of form and structure our removable holder possesses the merit of compactness and safety during both handling and transfer and for purposes of storage. By it we obviate the necessity for
80 placing the channels individually one by one in position in the type-case itself, an item of no small importance in our system of plural type-setting or the setting of movable types in words or groups.
85

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 the type-platform A, formed with the converging side walls a , a , and countersunk seat S, the type-forwarder P, and the channel-holder H, formed with the type-floor h' , shoulder h , and slots h^3 , h^4 , substantially in the manner and for the purpose described.
95

2. In a type-setter case substantially such as described the combination of the type-platform A, formed with the converging side walls a , a , countersunk seat S, and recess s , the type-forwarder P, the channel-holder H, formed with the type-floor h' , shoulder h , and slots h^3 , h^4 , and a plurality of type-containing channels formed with the offsets c , substantially in the manner and for the purpose described.
100

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Witnesses:

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