No. 708,645. Patented Sept. 9, 1902.

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

TYPE CONTAINING CHANNEL.

(Application filed Jan. 18, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

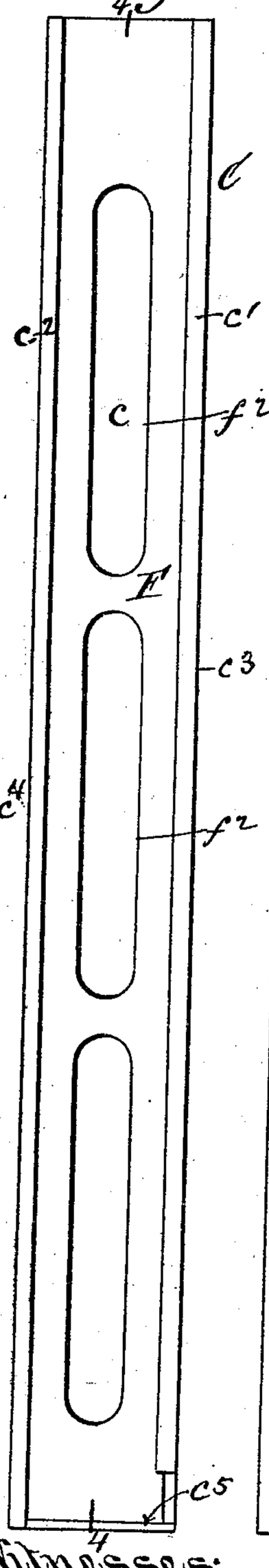


Fig. 2.

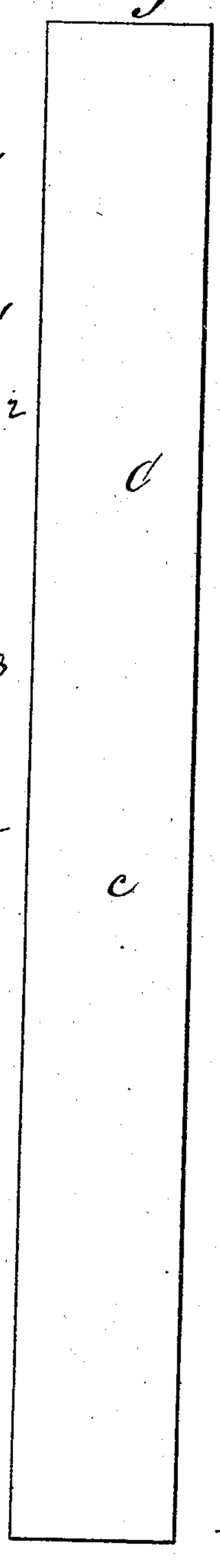


Fig. 3.

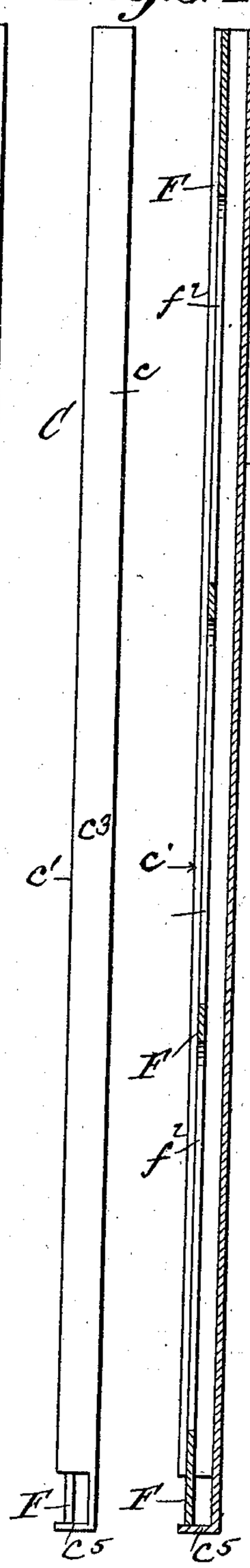


Fig. 4.

Fig. 5.

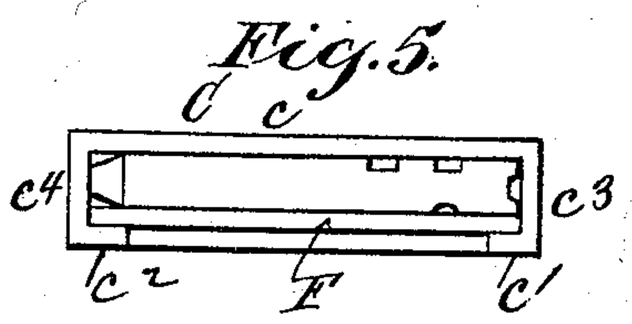


Fig. 6.

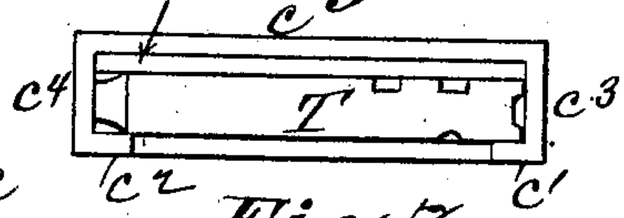


Fig. 7.

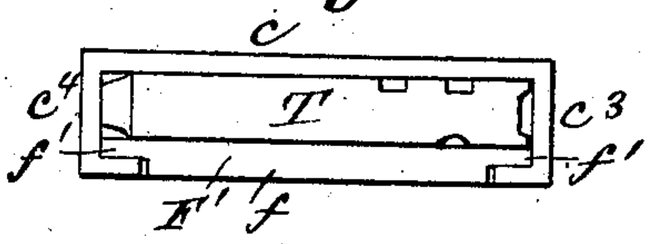


Fig. 8.

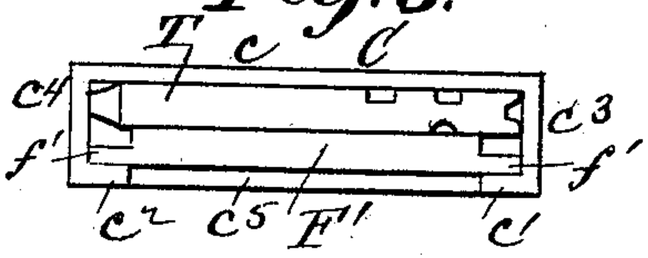
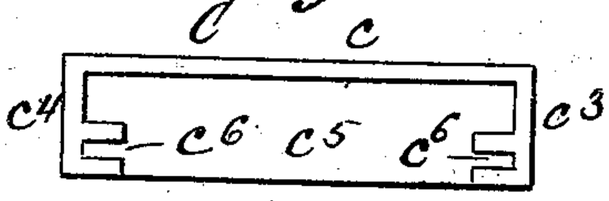


Fig. 9.



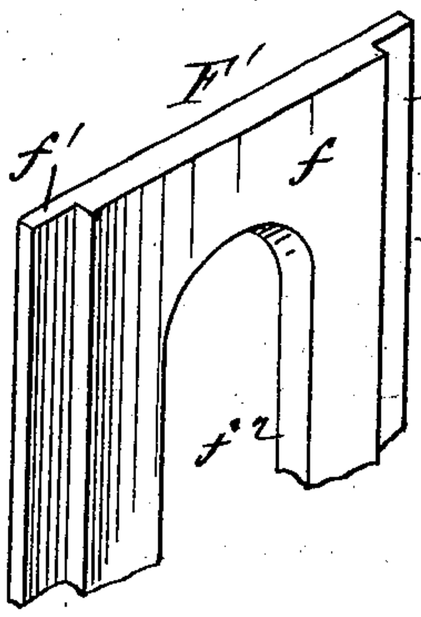


Fig. 10.

Witnesses:
D. V. Gardner.
Belle Kavanaugh

Inventors:
Louis Kossuth Johnson,
Abbot Augustus Low
By their attorney
George William Mott

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 708,645. Patented Sept. 9, 1902.

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

TYPE CONTAINING CHANNEL.

(Application filed Jan. 18, 1899.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 11.

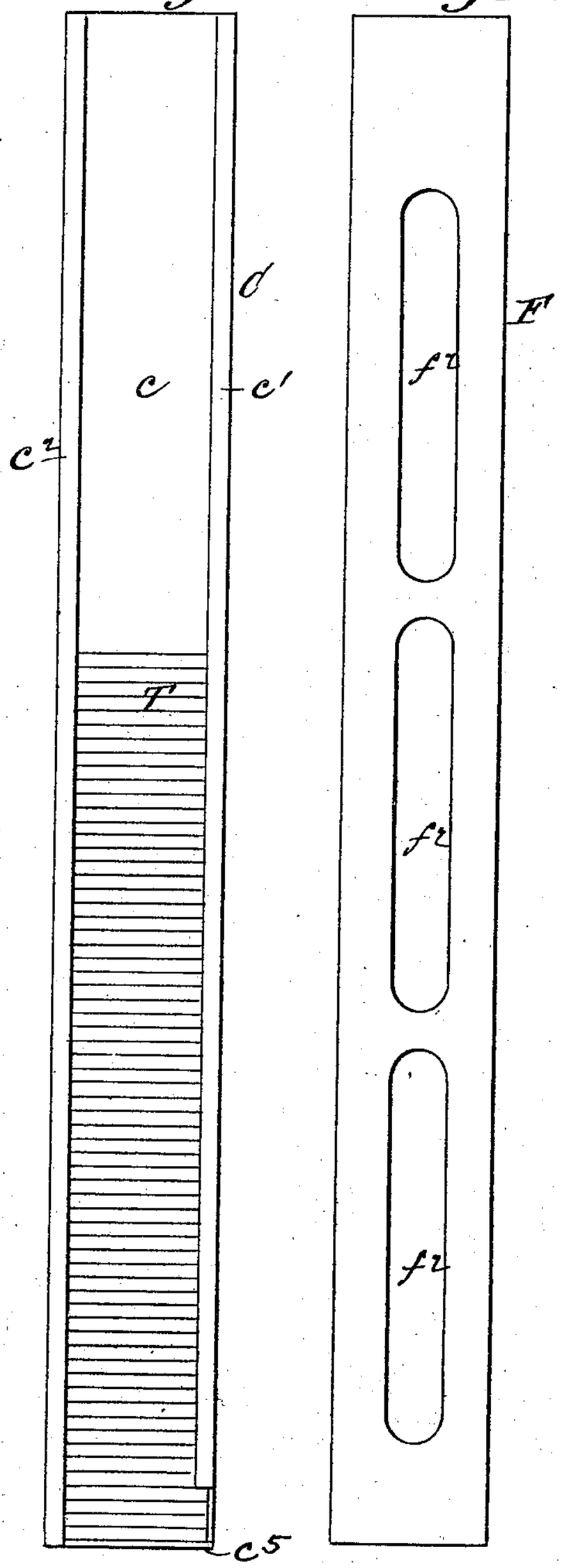


Fig. 12.

Fig. 13.

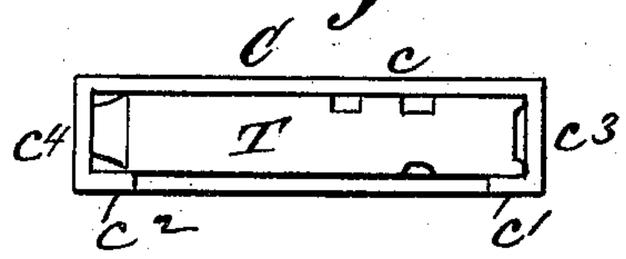


Fig. 14.

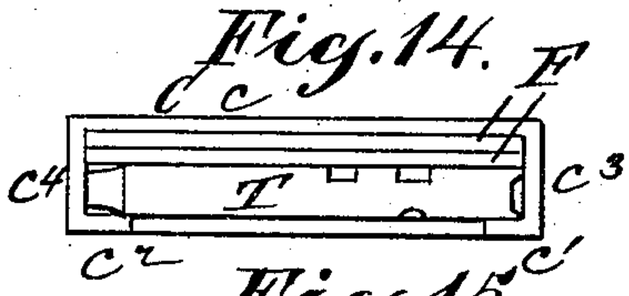


Fig. 15.

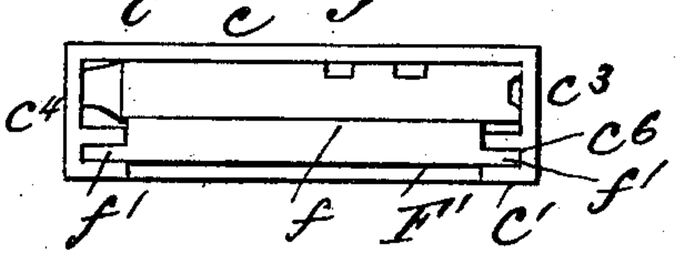
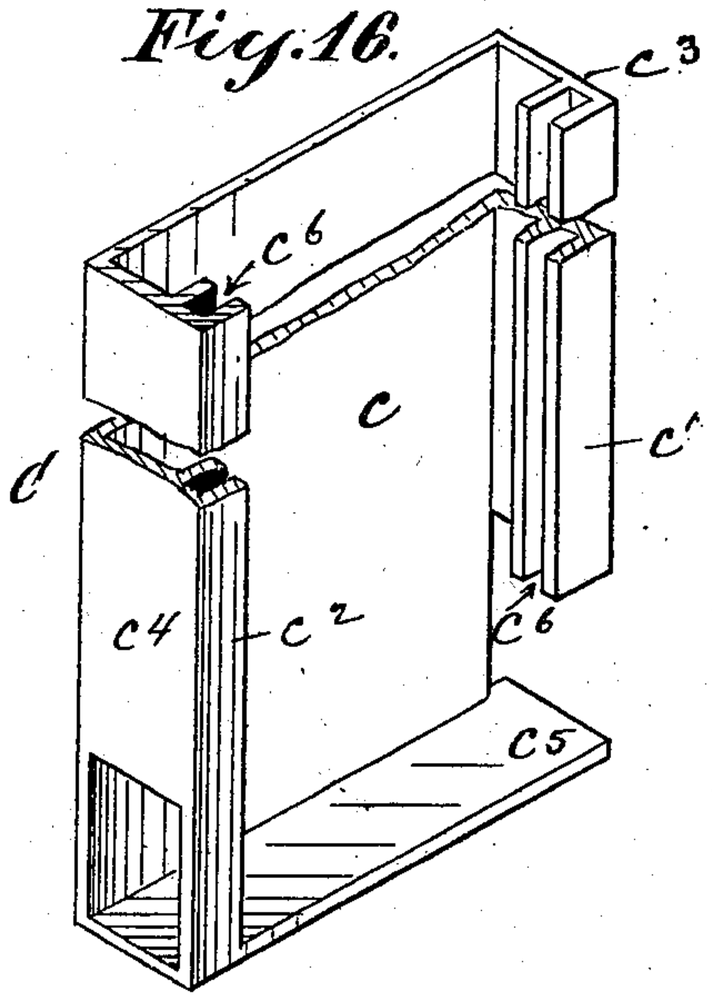


Fig. 16.



Witnesses:
D. W. Gardner.
Belle Cavanaugh.

Inventors:
Louis Rossuth Johnson
Abbot Augustus Low
By their Attorney
George William Elliott

UNITED STATES PATENT OFFICE.

LOUIS KOSSUTH JOHNSON AND ABBOT AUGUSTUS LOW, OF BROOKLYN, NEW YORK, ASSIGNORS TO ALDEN TYPE MACHINE COMPANY, OF NEW YORK, N. Y.

TYPE-CONTAINING CHANNEL.

SPECIFICATION forming part of Letters Patent No. 708,645, dated September 9, 1902.

Application filed January 18, 1899. Serial No. 702,518. (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 borough 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 type-containing channels generally, but more particularly to those designed for use in type apparatus in which the types are arranged upon their flat sides, as in the numerous type-setter cases heretofore patented to us, in which the types are forwarded successively from the lower end of a channel by a reciprocating pusher into position to be conveniently removed by the hand of the compositor.

The main object of our present invention is to adapt a single type-containing channel to various fonts or sizes of types in a simple manner; and it consists, primarily, in the use of a channel entirely open on one side, excepting that it has inwardly-projecting or return type-retaining flanges; secondarily, in the use in connection with such open channel of compensating strips or fillets which adapt the channel to the smaller sizes of types, and, finally, in certain other special features of construction hereinafter set forth.

In the accompanying drawings, Figure 1 is an elevation of the open side of our improved type-containing channel with a fillet in position therein; Fig. 2, an elevation of the reverse side thereof; Fig. 3, a rear elevation; Fig. 4, a longitudinal section upon plane of line 4 4, Fig. 1, showing one of the compensating fillets in the channel. Fig. 5 is an end view, upon an enlarged scale, illustrating the use of a fillet in front of the type; Fig. 6, a similar view illustrating the use of a fillet behind the type. Figs. 7 and 8 are similar views illustrating the use of a double fillet; Fig. 9, an end view of a channel showing grooves in the return type-retaining flanges. Fig. 10 is an isometrical perspective of one end of a double fillet. Fig. 11 is an elevation of the open side of the channel, showing types in position. Fig. 12 is an elevation of a single fillet. Fig. 13 is an end elevation illustrating the use of the channel without fillets; Fig. 14, a similar view illustrating the use of two fillets in the channel. Fig. 15 is an end view of the channel provided with grooves and illustrating the use of a double fillet. Fig. 16 is an isometrical view of the channel provided with grooves in the type-retaining flanges, the main portion of the channel being broken away.

The distinguishing feature of our new form of type-containing channel C, may be said to consist in the fact that it is practically open on one side, having only one side wall or plate *c*, the types T being supported upon the other side by return-flanges c' c^2, either directly or through the medium of one or more fillets, as hereinafter described. The opposed return-flanges c' c^2 project inward toward each other, respectively, from the spine c^3 and the front wall c^4 of the channel, so as to overlap the faces and heels of the types contained therein when said types occupy their normal position transversely in the channel. A type-supporting shoulder c^5 may be provided at the lower end of the channel as heretofore and the lower end of the spine formed to admit the reciprocating pusher in the usual way, although these features of construction form no part of the present invention. The channel C is made of maximum size—that is to say, it will accommodate the largest-sized type to be used in connection therewith, as illustrated in Fig. 13, the inner surfaces of the return-flanges c' c^2 being separated from the inner surface of the side or plate *c* a space equal to the greatest width of type. The channel C is adapted to the requirements of the smaller sizes of type by means of compensating fillets F, consisting, preferably, of comparatively thin strips of metal or other suitable material. These fillets F may be used in two ways with equal effect. They may be placed in the channel so as to rest against the inner side of the wall or plate *c*, as in Figs. 6 and 14, or they may be placed to rest directly against the return-flanges c' c^2, as in Figs. 5, 7, 8, and 15. In either case they compensate for the difference in width

of a smaller type as compared with the maximum size to be used in the channel taken in the channel loose and ungovernable. It is designed to form a channel that will be available for eight different sizes or fonts of type, and this may be done by the use of but four fillets of appropriate thickness, one fillet being used for two fonts. It is obvious, however, that instead of using comparatively thick single fillets for the smaller sizes of types two or more fillets may be used together to attain a like result, as indicated in Fig. 14, or a fillet having a double thickness, as illustrated in Figs. 7, 8, 10, and 15, may be used, being reversed in position for a larger or a smaller type, as the case may be. This modification of fillet is formed by making the middle portion *f* thereof of greater thickness than the edges *f' f'*, as will be understood by reference to Fig. 10. Where the double fillet F' is used, we prefer to form grooves c^6 c^6 in the inner edges of the return-flanges c' c^2, as shown in Figs. 8, 9, 15, and 16, in which the marginal edges *f' f'* of the fillet F' fit. The fillets F F', as well, may be formed with longitudinal slots f^2, respectively, for the purpose not only of lightening the metal, but also of affording a view of and access to the types in the channel.

It is obvious that one or more fillets may be used in connection with an ordinary type-channel (closed on both sides) for the purpose of compensating for variations in the width of types, and we do not confine ourselves strictly to the use of the open channel in so far as the fillets are concerned. In like manner the open channel is not dependent upon the use of the fillets, as it can be made of different sizes for prescribed sizes of types and used as shown in Fig. 13.

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

1. The combination of a type-containing channel, a fillet fitting therein and adapted to compensate for variations in the width of the fonts of types to be used, substantially in the manner and for the purpose described.

2. The combination with a type-containing channel formed on one side with the opposed return-flanges for retaining the types but otherwise open upon that side of a fillet fitting therein and adapted to compensate for variations in the width of the fonts of types, to be used, substantially as set forth.

3. The combination with a type-containing channel formed on one side with opposed return-flanges for retaining the types, but otherwise open upon that side, of a fillet fitting therein, said fillet being made of two thicknesses for the purpose and substantially in the manner set forth.

4. The combination with a type-containing channel formed upon one side with return-flanges having grooves in their opposed edges, of a fillet fitting in said grooves, said fillet being made of two thicknesses, substantially in the manner and for the purpose set forth.

LOUIS KOSSUTH JOHNSON.
ABBOT AUGUSTUS LOW.

Witnesses:
D. W. GARDNER,
GEO. WM. MIATT.