

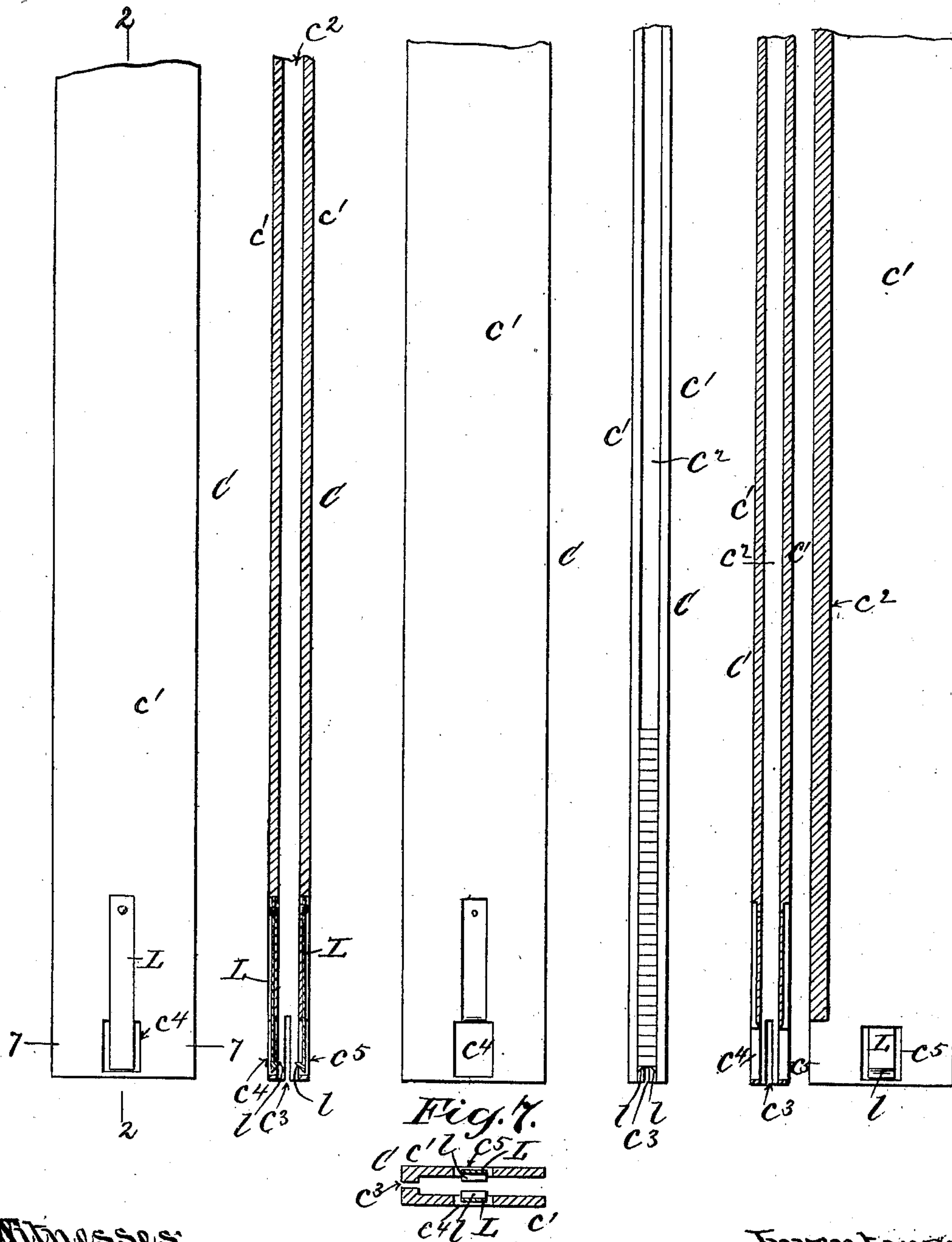
L. K. JOHNSON & A. A. LOW.
TYPE CONTAINING CHANNEL.

(Application filed Apr. 12, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig.1. Fig.2. Fig.3. Fig.4. Fig.5. Fig.6.



Witnesses:
O. W. Gardner.
Henry S. Blackmore

Inventors:
Louis Rosanth Johnson
Abbot Augustus Low
By their attorney
Geo. W. Minto

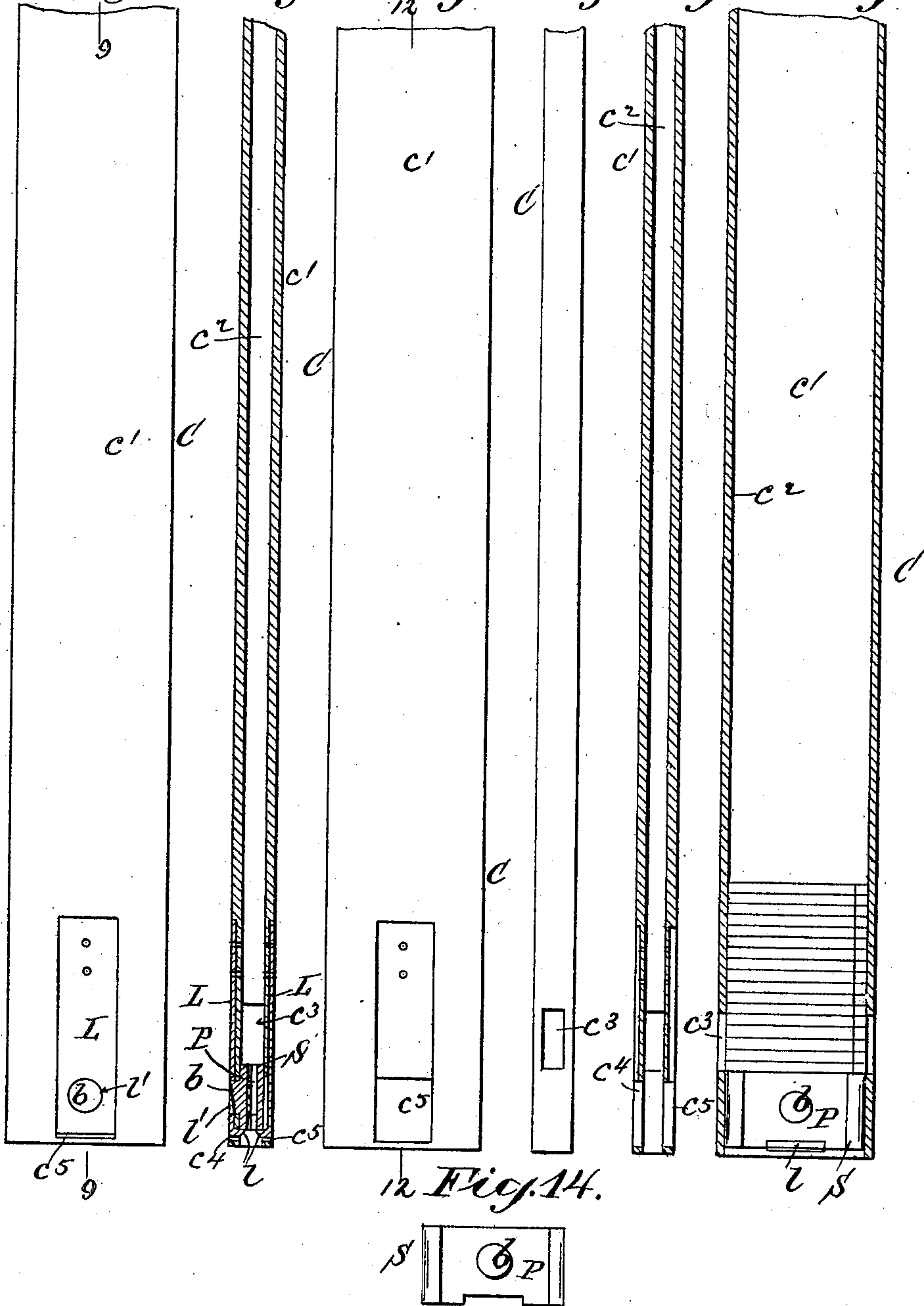
L. K. JOHNSON & A. A. LOW.
TYPE CONTAINING CHANNEL.

(Application filed Apr. 12, 1900.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 8. Fig. 9. Fig. 10. Fig. 11. Fig. 12. Fig. 13.



Witnesses:

Alfred Andrew.

Henry S. Blackwood

Inventors:

Louis Kossuth Johnson

Abbot Augustus Low

By their Attorney

Geo. H. Smith

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. 699,390, dated May 6, 1902.

Application filed April 12, 1900. Serial No. 12,578. (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, 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 invention relates to type-containing channels designed for use in both type-setting and type-distributing apparatus, the type being arranged upon the "flat" in the channel and being inserted or removed therefrom as hereinafter more fully described.

The class of distributor with which our improved channels are used is known as the "Alden," in which the types are raised up into the lower end of the channel, passing between latches, which prevent their return. These latches have heretofore been situated upon the distributing apparatus. A distinguishing feature of our present invention consists in placing these latches upon the type-channel itself, whereby they not only prevent the return of the types to the distributor, but also act as type-shoulders for supporting the type in the setter-case or during transportation or storage.

The form of type-setting apparatus with which our improved channels are used is that heretofore devised and patented by us, wherein the types are removed by hand from the lower end of the type-containing channel, the type being forwarded automatically into position for removal upon the withdrawal of those next preceding, as set forth in the numerous patents heretofore issued to us.

Another important feature of our present invention consists in combining and arranging with the channel and type-latches the special form of type-slug set forth in the application, No. 4,880, of Abbot Augustus Low, filed February 12, 1900, whereby said slug is utilized as an auxiliary to the spring-latches hereinbefore referred to.

In the accompanying drawings, Figure 1 represents an elevation of the lower portion of one of our improved type-containing chan-

nels; Fig. 2, a longitudinal section thereof upon plane of line 2 2, Fig. 1; Fig. 3, a view similar to Fig. 1, the spring-latch being omitted; Fig. 4, a front elevation of the channel; Fig. 5, a view similar to Fig. 2, the spring-latches being omitted; Fig. 6, a longitudinal section through the spine of the channel; Fig. 7, a transverse section upon plane of line 7 7, Fig. 1. Fig. 8 is a view similar to Fig. 1, showing a modified construction of the channel for use in conjunction with a spring-slug. Fig. 9 is a section upon plane of line 9 9, Fig. 8. Fig. 10 is a view similar to Fig. 8, the spring-latch being omitted. Fig. 11 is an edge view of the channel. Fig. 12 is a section upon plane of line 12 12, Fig. 10. Fig. 13 is a longitudinal section showing types and slug in position. Fig. 14 is a view of the spring-slug.

The channel C may be of any ordinary construction, that represented in the drawings by way of illustration being a plain channel. It consists of the side walls c' c' , united by the spine c^2 , which is formed with the slot c^3 at its lower extremity for the admission of the pusher used in our type-setter heretofore referred to. Adjoining the pusher-slot c^3 the side walls of the channel are formed with the recesses c^4 c^5 within which are situated the lower ends of the spring-latches L, the shouldered ends l of which project into the channel on either side, as will be clearly understood by reference to Fig. 2. The side walls of the channel are preferably countersunk to admit the upper portions of the spring-latches L, so that there will be no projection beyond the external surfaces of the channel.

The operation will be readily understood. When it is desired to introduce types into the channel, the latter is inserted directly into the distributing apparatus, and the types are lifted thereby singly into the lower end of the channel, the latches L yielding to admit of this action and then returning into position with their shouldered ends l behind the type and supporting the same. When the desired number of types have been fed into the channel, it is withdrawn, the latches L supporting the column of type during transportation, storage, or transfer to the type-setting apparatus. In the latter the latches perform the function of the type-supporting surfaces here-

tofore especially provided in the apparatus, supporting the types until forwarded under the action of the pusher.

We are enabled thus to simplify the construction of both setting and distributing apparatus, since the latches L take the place of special supports heretofore provided in both said devices and at the same time perform the function of locking and sustaining the types in the channel during transportation or storage.

It will be seen that our improved channel is simple and compact in form, there being no external protuberances of any kind and the internal protuberance of the latches being but slight, although sufficient to support the types firmly at both edges.

In the concurrent application of Abbot Augustus Low, hereinbefore referred to, is described and claimed a type-slug of special construction, which we use in conjunction with our channel, having the lateral latches, as herein set forth. In order to effect this, we form the latches (one or both) with perforations l' l' for engagement with the bolt or boss b upon the movable plate P in the slug S, the said plate P being pressed outward by a spring interposed between said plate and the inner wall of the slug. When the slug is used, the apertures l' l' in the latch L are formed at such distance above the shouldered ends ll that when the boss b is in engagement with one of said apertures the lower edge of the slug will rest against said shouldered ends, thereby supporting the slug in position and adapting it to perform the function of a type floor or support of the full width of the channel.

In using the slug S the types are first fed

into the channel, as hereinbefore described, and the slug is then inserted in position in like manner from below, the shouldered ends of the latches snapping in behind it and securing it in position. The upper edge of the slug affords a broad substantial support for the types, and the engagement of its boss or bolt with one of the holes in the latches insures a more positive locking of the types and of the parts with relation to each other.

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

1. The type-containing channel C, formed with the pusher-slot c^3 , with the lateral openings c^4 , c^5 , in its side walls, and with the spring-latches L, the whole arranged and operating substantially as set forth.

2. The combination of a type-containing channel formed with perforated spring-latches and a slug having a spring-bolt for engagement with said latches, substantially as herein set forth.

3. The combination of the type-containing channel C, the latches L, formed with shouldered ends l , l , and perforations l' , l' , and the slug S, formed with the spring-bolt b , for engagement with said spring-latches substantially as described.

4. The combination of a type-containing channel C, having a spring-latch L, formed with a perforation l' , and a type-slug S, formed with a spring-bolt b , for engagement with said spring-latch, substantially as described.

LOUIS KOSSUTH JOHNSON.

ABBOT AUGUSTUS LOW.

Witnesses:

D. W. GARDNER,

GEO. WM. MIATT.