

(No Model.)

A. A. LOW.  
TYPE CONTAINING CHANNEL.

No. 445,702.

Patented Feb. 3, 1891.

Fig. 1.

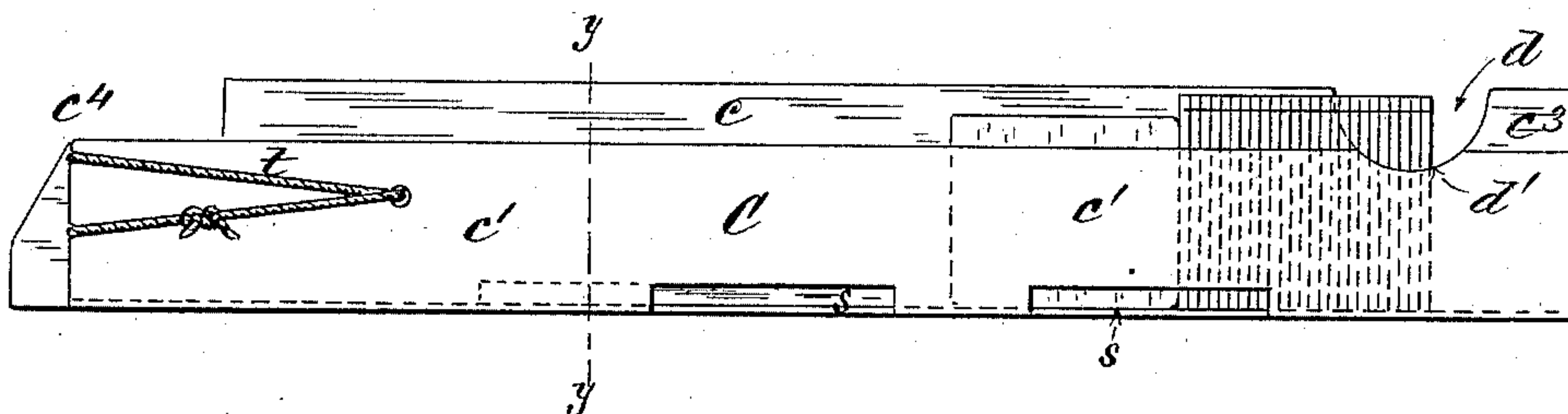


Fig. 2.

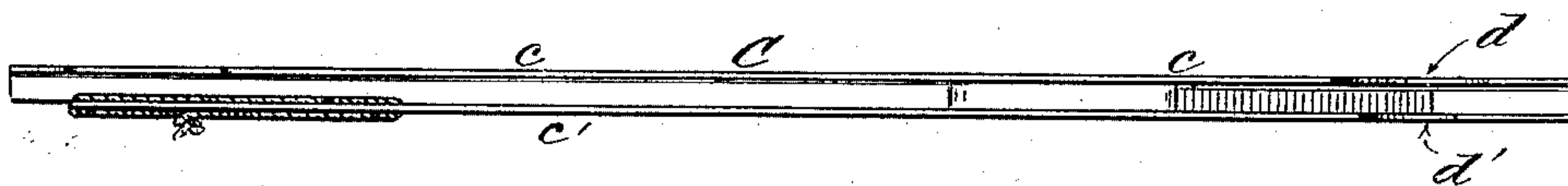


Fig. 3.

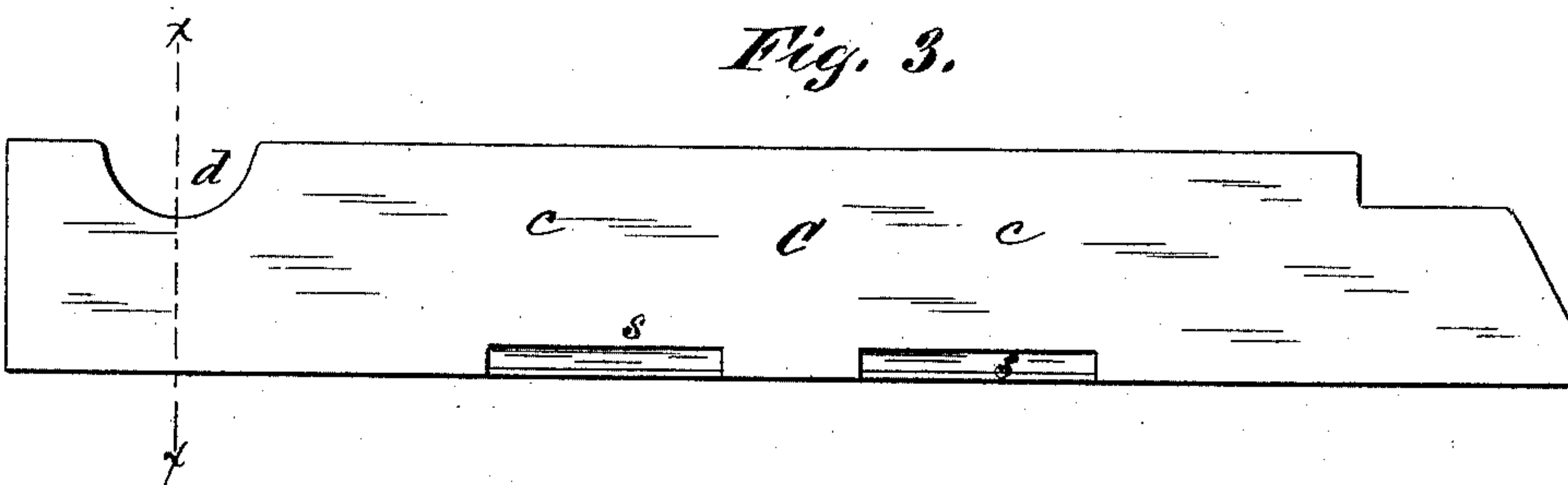


Fig. 4.

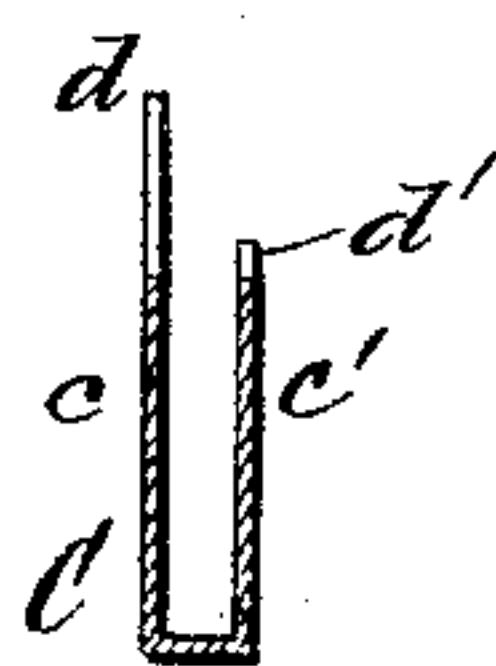


Fig. 5.



Fig. 6.

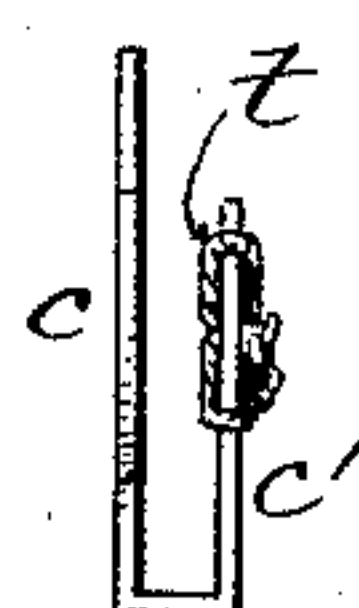
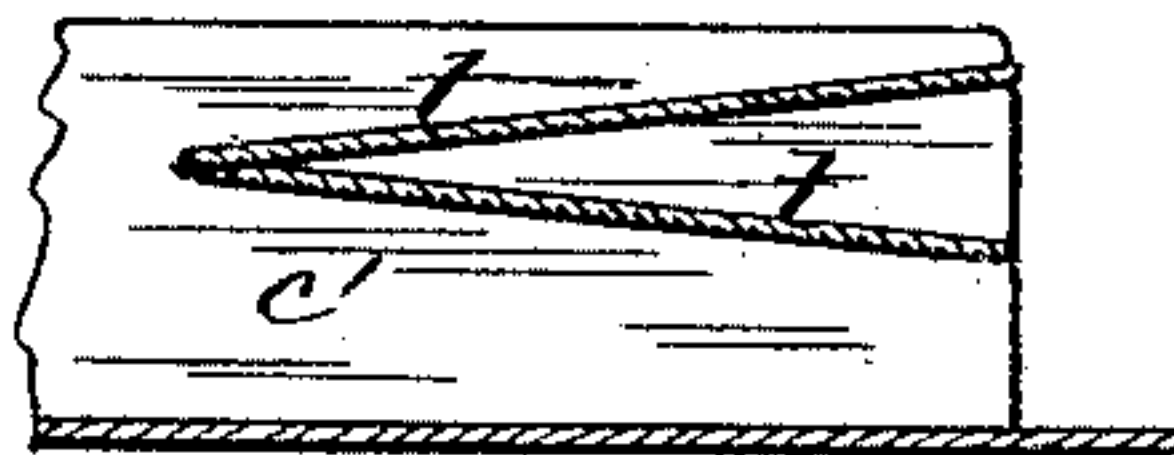


Fig. 7.



Witnesses:  
D. H. Gardner  
G. J. Mink

Inventor:  
Abbot Augustus Low,  
By his Attorney,  
Geo. H. Mink

# UNITED STATES PATENT OFFICE.

ABBOT AUGUSTUS LOW, OF BROOKLYN, ASSIGNOR TO THE ALDEN TYPE MACHINE COMPANY, OF NEW YORK, N. Y.

## TYPE-CONTAINING CHANNEL.

SPECIFICATION forming part of Letters Patent No. 445,702, dated February 3, 1891.

Application filed February 16, 1889. Serial No. 300,178. (No model.)

*To all whom it may concern:*

Be it known that I, ABBOT AUGUSTUS LOW, a citizen 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.

My invention relates to the construction of type-containing channels for use in connection with the type setting and distributing cases of which those set forth in Letters Patent Nos. 230,784, 254,019, 263,707, 277,711, 264,085, 337,406, and 340,127 are examples of a class adapted to hand setting and distribution. By reference to said patents it will be seen that the type-containing channels occupy substantially horizontal positions in the distributing apparatus, while they are held in nearly perpendicular positions in the setter-case when transferred to the latter.

My invention consists in so constructing the channel as to facilitate the removal of types that actually fall to the floor of the channel from any cause. For instance, in the case of the thinner denominations of types, a type will sometimes fall edgewise in a line parallel to the side walls of the channel and between one of the side walls and the line of types contained in the channel, this being possible from the fact that the channels in practice are necessarily slightly wider than the types, especially where one series of channels is used for more than one style of type, as is frequently the case. Some of the types are also liable to fall flat upon the bottom of the channel under certain conditions of handling and transportation. In case of the fall or displacement of types in either of the ways indicated their removal or readjustment is difficult in the old form of channel, owing to the depth and narrowness of the channels and to the smallness and lightness of the types. Therefore, instead of resorting to the use of type-pliers or other devices for the purpose of raising or removing the fallen types as heretofore, I construct my improved form of channel with lateral type exits or slots, through

which the delinquent types may be readily shaken or otherwise removed by hand.

In the accompanying drawings I illustrate the practical construction of a type-containing channel embodying my improvements, although I do not wish to confine myself to the identical form of parts shown since it is obvious that various modifications may be made in the construction without deviating materially from the essential features of my invention.

Figure 1 is an elevation of my improved channel upon the front or short wall side. Fig. 2 is an elevation of the channel looking toward its open edge; Fig. 3, an elevation of the high or rear side of the channel; Fig. 4, a transverse section upon plane of line  $xx$ , Fig. 3; Fig. 5, a transverse section upon plane of line  $yy$ , Figs. 1 and 3; Fig. 6, an elevation of the delivery end of the channel; Fig. 7, an elevation of the inner side of a portion of the front or short wall adjoining the delivery end of the channel.

The channel C, in general construction, is substantially the same as those heretofore used, being preferably formed of sheet metal struck up into the required shape. It is also preferably, though not necessarily, formed as heretofore with a comparatively-high rear wall  $c$  and a low wall  $c'$  upon the opposite or front side, for the purpose of exposing the ends of the types and rendering them accessible when in the setter-case. At the receiving end  $c^3$  the side walls  $c c'$  of the channel C are formed with the open recesses or depressions  $d d'$ , for the purpose of giving access upon both sides of the channel to the types at that point, as hereinbefore referred to.

It is obvious that the depression  $d'$  in the short side wall  $c'$  may be dispensed with, if preferred, the essential feature of my invention in this respect consisting in the formation of the channel in such manner as to permit of the upper ends of the types at this point being grasped between the thumb and finger for the purpose of "breaking" or adjusting them.

Longitudinal exit-slots  $s s$  are formed in one or both side walls  $c c'$  of the channel C to permit of the removal of fallen types later-



ally. These lateral exits *s s* preferably ad-join the floor of the channel, and are made of sufficient length and width to allow the types to pass through them freely.

5 The delivery end *c<sup>4</sup>* of the channel is formed with a type-bearing surface *t* upon one side wall for the purpose of insuring the descent of the types against the opposite side wall during setting. This type-bearing surface *t*  
10 is preferably arranged upon the low front wall *c'*, so as to steady the types as they descend against the rear high wall *c*, and it may consist of a section of cord or fibrous matter applied to the channel substantially as shown,  
15 or of a section of any other suitable material arranged to protrude into the channel to retard and control the descent of the types.

The type-bearing surface not only controls the descent of the types, but it also prevents

their wobbling or disturbance during the re- 20  
moval or cutting off of the lowest type from the column during the operations of type-setting.

What I claim as my invention, and desire to secure by Letters Patent, is— 25

As an article of manufacture, a type-containing channel formed of a single piece of sheet metal with side walls *c* and *c'* of different widths, and with one or more longitudinal slots *s* in said side wall or walls immediately 30  
adjoining and parallel with the floor or spine of the channel, for the purpose and substantially in the manner described.

ABBOT AUGUSTUS LOW.

Witnesses:

G. T. MIATT,  
GEO. W. MIATT.