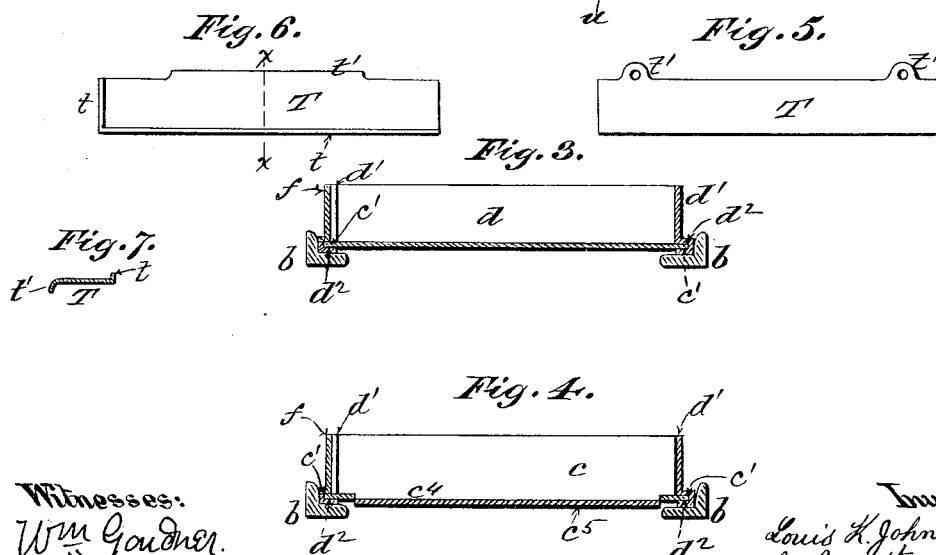
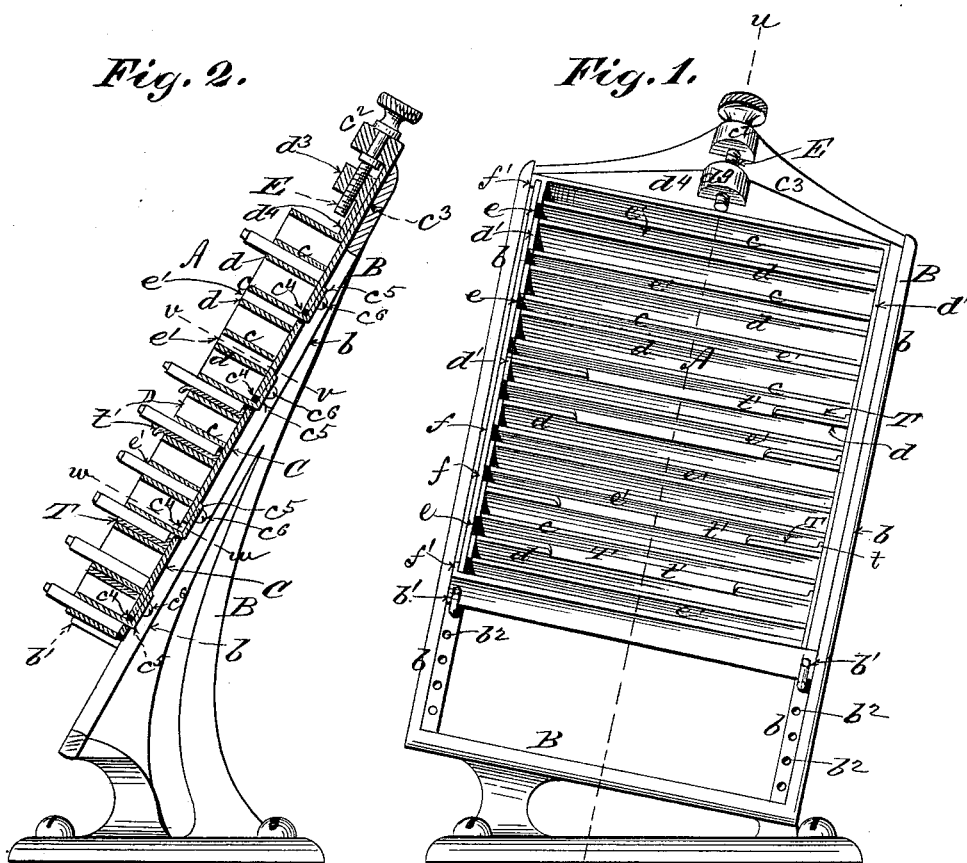


2 Sheets—Sheet 1.

TYPE LINE HOLDER.

Patented July 24, 1888.



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Inventors:  
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(No Model.)

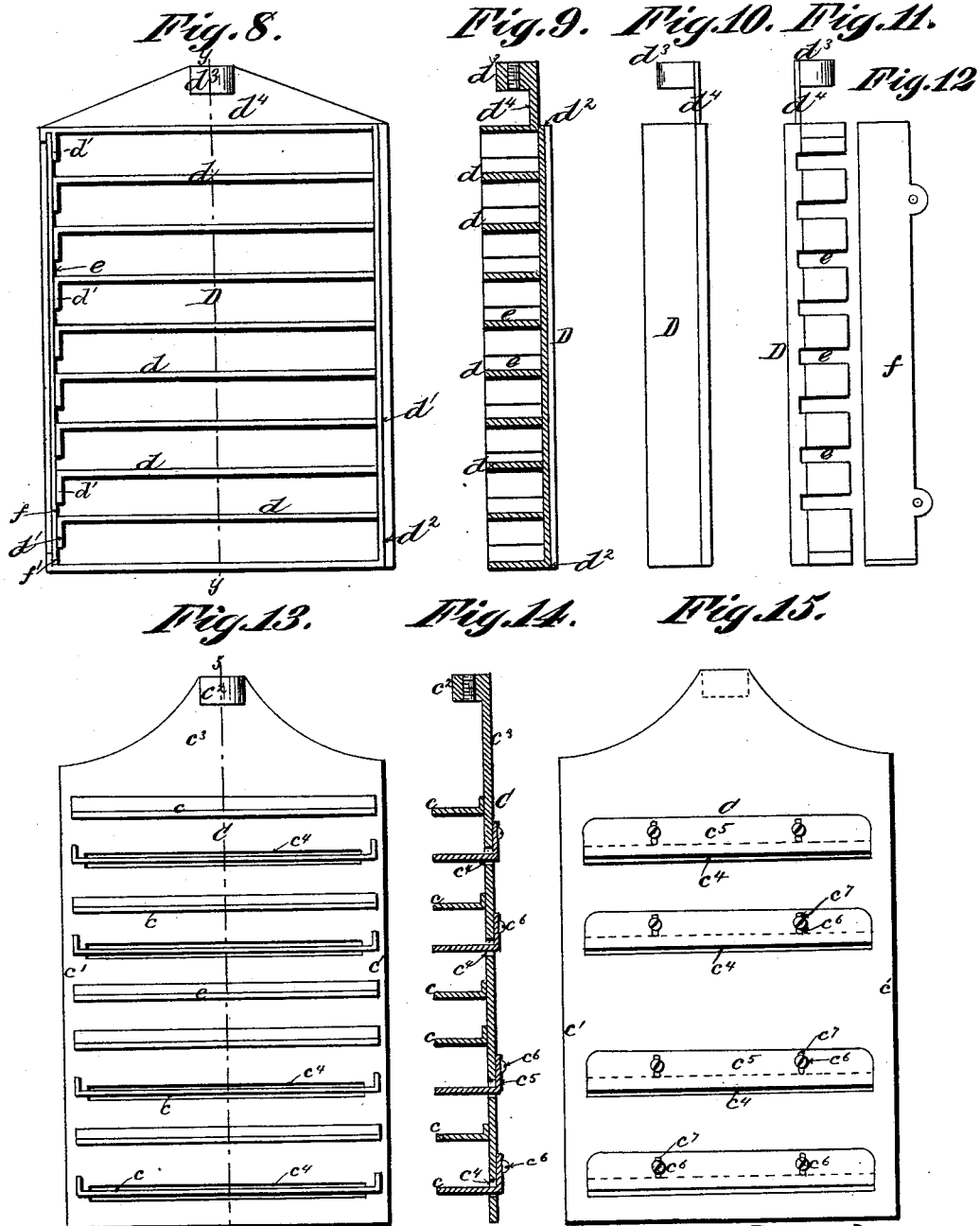
2 Sheets—Sheet 2.

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

TYPE LINE HOLDER.

No. 386,783.

Patented July 24, 1888.



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# UNITED STATES PATENT OFFICE.

LOUIS K. JOHNSON AND A. AUGUSTUS LOW, OF BROOKLYN, ASSIGNORS TO  
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## TYPE-LINE HOLDER.

SPECIFICATION forming part of Letters Patent No. 386,783, dated July 24, 1888.

Application filed October 21, 1886. Serial No. 216,903. (No model.)

*To all whom it may concern:*

Be it known that we, LOUIS K. JOHNSON and A. 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-Line Holders, of which the following is a description sufficient to enable others skilled in the art to make and use the same.

10 The object of our invention is the production of a case for holding lines of type for the purpose of facilitating the operations of either "setting" or "distribution"—one that may be used either as a temporary holder for odd lines  
15 or words of type during distribution, as a convenient means for storing such odd sorts when not in use, as a composing-stick for "job" composition, or as a setter-case.

The invention consists, first, in an inclined  
20 case formed with a series of transversely-inclined type-shelves, each of which is provided with an upper parallel guard or type-confining plate, which insures the position and alignment of the types resting upon the shelf below;  
25 and, secondly, in the combination therewith of means, substantially such as described, for varying the width of the type-channels thus formed by and between the shelves and their shield-plates for the purposes of adapting the  
30 case to types of different widths, and for more effectually holding or locking the types therein. In the latter connection our invention includes means for simultaneously and uniformly adjusting the width of all the type channels or  
35 grooves, and also for independently adjusting the width of the type channels or grooves individually. The separate adjustment for each type-groove adapts the device for use as a convenient temporary "stick" for setting up and  
40 arranging job-work, as well as for a temporary holder or case for types of different sizes.

A third feature of our invention consists in forming one end (preferably the upper) of each type groove or channel with an aperture  
45 through which words or whole lines of types may be inserted or withdrawn longitudinally, provision being made, preferably, though not always necessarily, for closing the said charging or discharging apertures when not in use.  
50 This feature is equally advantageous when the

device is used either as a receiver for distributed types—in which case the contents of the grooves when full may be transferred bodily to the storage or setter channels used in conjunction with our special form of setter-case  
55 described in Patents Nos. 230,784, 271,711, and 336,719—or when used simply as a type holding and presenting case or "setter," in which case the lines of types may be transferred directly from the type-containing channels as  
60 they are taken from the distributing apparatus.

Although we show and describe herein specific means for carrying out our invention, it is to be understood that we do not limit ourselves to the identical form and configuration  
65 of parts set forth, as various and obvious modifications in form and arrangement of details may be substituted therefor without deviating from the spirit of our invention.

In the accompanying drawings, Figure 1 is a front elevation of our improved type-holder;  
70 Fig. 2, a longitudinal section upon plane of line *u u*, Fig. 1, showing also certain types in position; Fig. 3, a transverse section upon plane of line *v v*, Fig. 2; Fig. 4, a similar section upon plane of line *w w*, Fig. 2; Fig. 5, a plan of one of the plain type-transfer shelves or trays; Fig. 6, a similar view of a flanged type-transfer tray; Fig. 7, a transverse section of the same upon plane of line *x x*, Fig. 6. Fig.  
80 8 is a front elevation of the type-supporting shelves and frame; Fig. 9, a longitudinal section of the same upon plane of line *y y*, Fig. 8; Fig. 10, an elevation of the left-hand side, and Fig. 11 an elevation of the right-hand side, of  
85 same; Fig. 12, an elevation of the aperture-closer removed; Fig. 13, a front elevation of the back plate carrying the upper type-shields; Fig. 14, a longitudinal section of the same upon plane of line *z z*, Fig. 13; and Fig.  
90 15, a rear elevation of the back plate.

The case A, as an integrity, is supported upon a suitable frame or standard, B, of any desired form or material, provided it is formed with the inclined seats or flanges *b b*, upon which  
95 the edges of the sides of the case A rest. In order to render the case adjustable in height to suit the convenience of the operator, its lower front edge is caused to rest upon movable pins *b'*, which may be inserted in any of  
100

the holes  $b^2$ , formed for the purpose in the flanges  $b$   $b$ ; or other equivalent or well-known means of adjustable support may be employed in lieu thereof.

5 The seats or bearings  $b$   $b$  upon the frame B are preferably arranged so as to incline the case when resting thereon slightly toward the right-hand side as well as backward, as will be understood by reference to Figs. 1 and 2.  
10 By this means a double inclination is imparted to the type-channels, which tends constantly to sustain the types in the requisite position by gravity.

The case A consists substantially of a bottom or base plate, C, from which the type-shields  $c$  project, and a shelf frame, D, provided with the transverse type-supporting shelves  $d$   $d$ .

20 The shelf frame D rests upon the front of the base-plate C, the shield-pieces upon which latter project upward between the shelves  $d$  and the side pieces,  $d'$   $d'$ , of the frame D. As shown in the drawings, the lower edges of the side pieces,  $d'$   $d'$ , are bent over after the frame D has been placed upon the base-plate C, so as to form longitudinal grooves  $d''$   $d''$ , in which the edges  $c'$   $c'$  of the plate rest, although other means of attaching the plates loosely together may be substituted, the essential feature being  
30 a connection between the two parts which will admit of their adjustment longitudinally with relation to and upon each other. In fact, the shelf-frame D might simply rest loosely upon the base-plate C were it not that it is preferable to have a positive connection between the parts for convenience in handling and transportation.

35 The adjustment of the frame D and base C with relation to each other may be effected by the employment of any suitable or well-known means, a simple form of device being shown by way of illustration in the drawings, consisting of a worm screw, E, which is seated in a lug,  $c^2$ , formed upon the upper extension,  $c^3$ , of the plate C, and engaging a female screw-thread formed in the lug  $d^3$ , formed upon the upper extension,  $d^4$ , of the frame D. The effect of rotating the worm-screw E will obviously be to increase or diminish the distance between  
50 the shelves  $d$  and the shields  $c$ , according to the direction in which the worm is rotated. This adjustment of the shelves  $d$  and shields  $c$  with relation to each other is uniform throughout the series; but for the reasons hereinbefore indicated it is sometimes desirable that a particular shield,  $c$ , be individually adjustable with relation to the particular type-supporting shelf  $d$  above which it is situated, and for  
55 this reason we make a suitable number of the shields  $c$  independently adjustable upon the base-plate. Thus certain channels may be made to accommodate sizes of types larger or smaller than those occupying the other channels in the case, the object of the shields  $c$  in any event  
65 being to properly confine and protect the types

against vertical looseness or displacement, and also to "lock up" or tightly bind the types in place when necessary.

We do not confine ourselves to any special form of individual adjustment of the shield-pieces  $c$ , since it is obvious that other means than those shown may be employed with like effect. In the drawings the movable shield-pieces project upward through the transverse slots  $c^4$ , formed in the base plate C, and are provided with the rectangular flanges  $c^5$ , which project upon the back side of the said plate and are secured thereto by set-screws  $c^6$   $c^6$ , which pass through elongated slots  $c^7$  in the flanges  $c^5$ , and engage with female screw-threads formed in the plate C. By loosening the screws  $c^6$   $c^6$  the shield-plate may be raised or lowered, so as to rest upon the upper edges of types of the desired thickness placed upon the type-supporting shoulder below, when the set-screws may again be tightened.

One side wall  $d'$  of the shelf-frame D, (preferably the upper or left-hand one, as shown in the drawings,) is formed with slots  $e$ , which coincide with the ends of the type-channels  $e'$ , formed by and between the type-supporting shoulders  $d$  and their shields  $c$ . These slots  $e$  are to afford a means for charging or discharging the type-channels  $e'$  either from or into other suitable storage or distributor channels.

Ordinarily, when the case is in position upon the frame B, the inclination of the type-supporting shelves, &c., would prevent the unintentional escape of the types through the slots  $e$ ; but in order to render their safety certain, especially during handling and transportation, we provide a secondary side wall or partition,  $f$ , which when in position covers and closes the slots  $e$ . This slot-closer  $f$  may consist of a simple strip of sheet metal, as shown in the drawings, which slides in between and is held in position by the end flanges,  $f'$   $f'$ ; or other suitable means may be used for closing the slots  $e$  when not in use.

110 Transfer shelves or trays T are provided for use in conjunction with the fixed type-supporting shelves  $d$ , upon which they rest when in position to receive the types, and they afford a convenient means for the withdrawal or insertion of whole words or lines of type bodily from or into the front of the grooves  $e'$  when desirable during the use of the case as a temporary display and trial stick. These transfer-shelves T may consist of a plain strip of metal or other suitable substance, as shown in Fig. 5, or they may be provided with small rectangular flanges  $t$  at the back and one end, as shown in Fig. 6, to assist in holding and steadying the types during transfer, and with a protruding edge or handle,  $t'$   $t'$ , to facilitate their withdrawal from the grooves  $e'$ .

It will be seen that ample provision is made for the insertion or removal of the types under all conditions of use, and also that the case  
130

itself may be removed bodily and used for storage purposes when full and another like case substituted in its place.

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

1. In combination with a type-holder, A, substantially such as described, a supporting-frame, B, formed with the inclined flanges or seats *b b*, for supporting the sides of the case A, and with means, substantially such as described, for adjusting the height of the case thereon, substantially in the manner and for the purpose described.

2. A type-holder substantially such as described formed of a shelf-frame provided with transverse shelves and of a base-plate provided with transverse shields, the two parts fitting together and being movable upon and with relation to each other, substantially in the manner and for the purpose described.

3. In a type-holder substantially such as

designated, the combination, with the shelf-frame provided with transverse shelves, and with the base-plate formed with transverse shields, said parts being superposed substantially as described, of the adjusting-screw E, for effecting the adjustment of the frame D with relation to the base-plate C, substantially in the manner and for the purpose described.

4. In a type-holder substantially such as described, the combination, with the series of inclined transverse type-channels *e'*, formed with the apertures *e* at their upper ends, of the secondary wall or partition *f*, arranged substantially in the manner and for the purpose described.

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