

983,350.

Patented Feb. 7, 1911.

3 SHEETS-SHEET 1.

Fig. 1

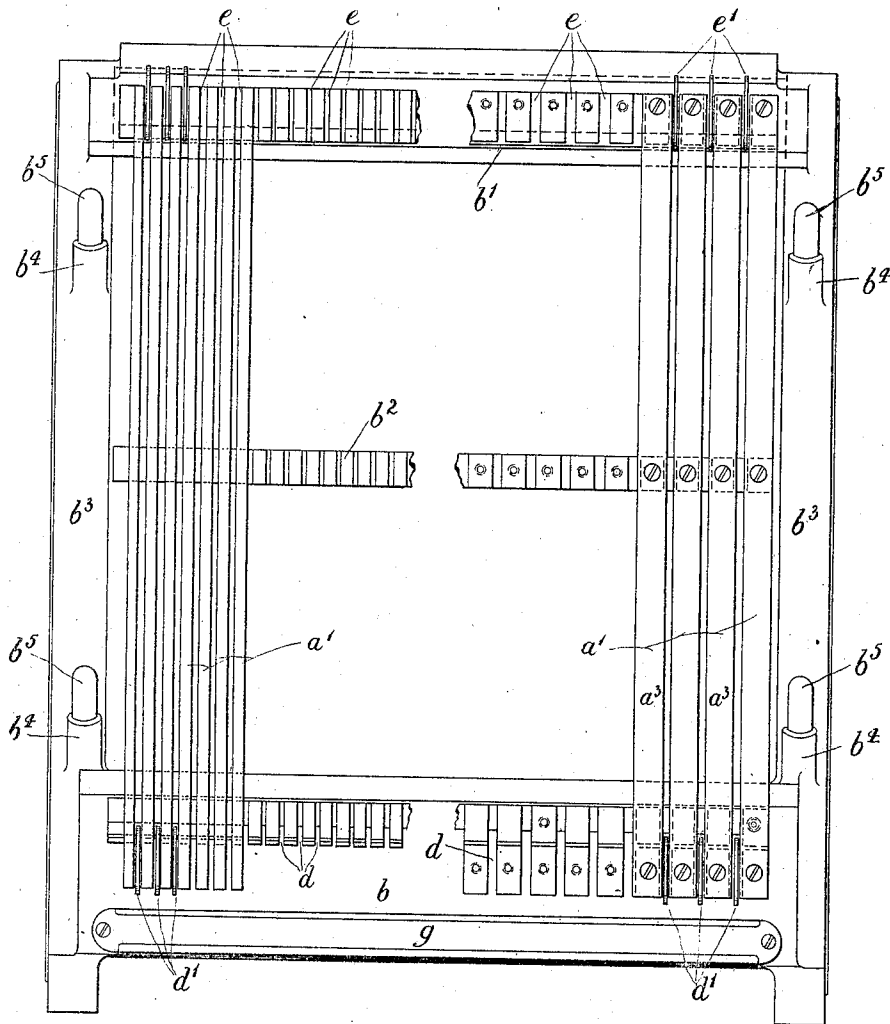
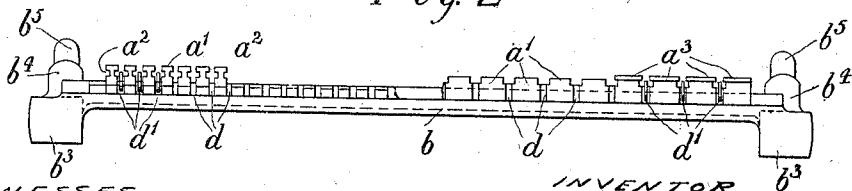


Fig. 2



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TYPE CASE.

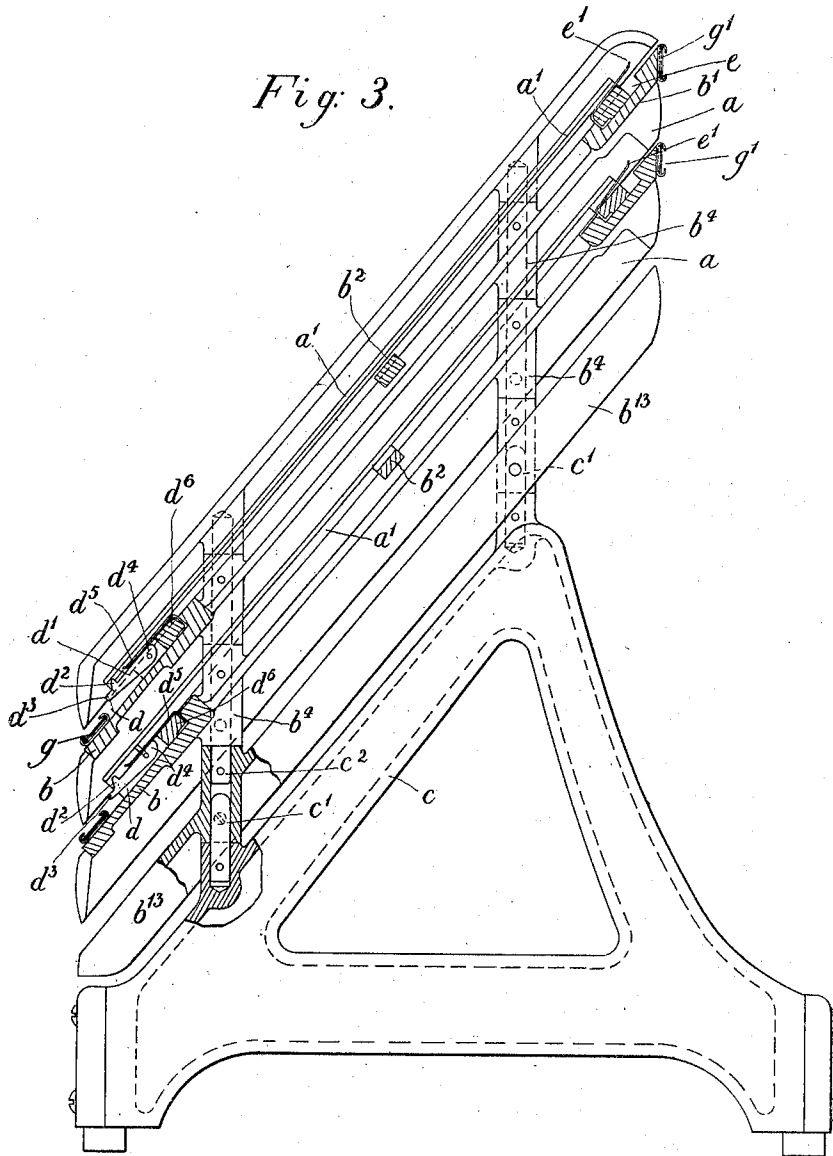
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3 SHEETS—SHEET 2.

Fig. 3.



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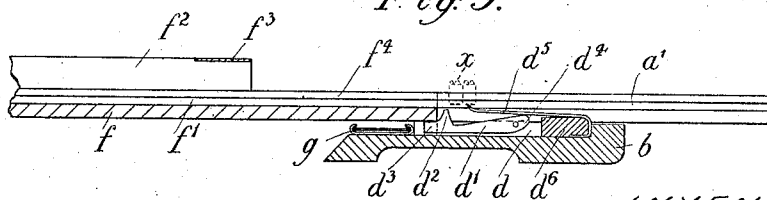
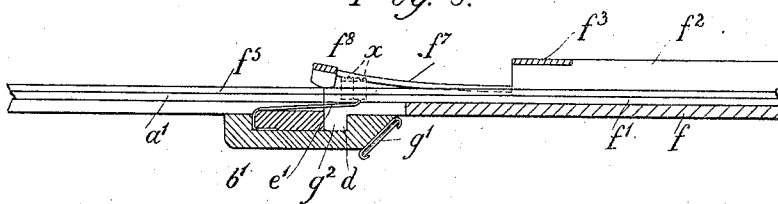
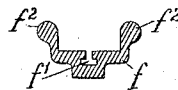
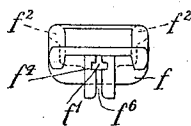
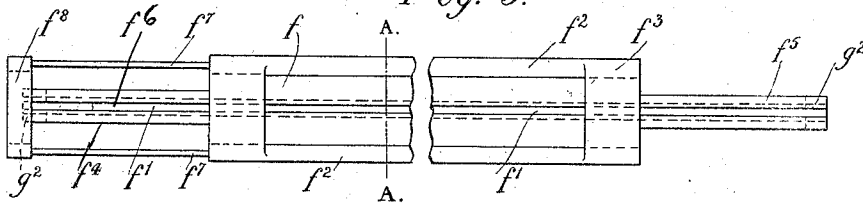
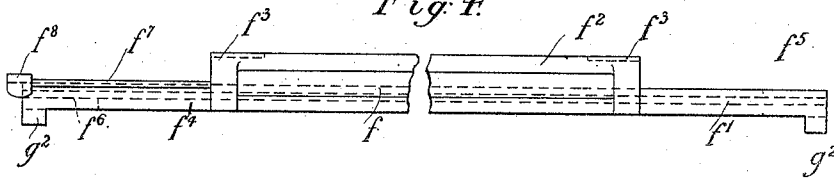
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TYPE CASE.

983,350.

3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

WALTER CHIPPERFIELD, OF ROMFORD, ENGLAND.

TYPE-CASE.

925,350.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed July 1, 1910. Serial No. 569,928

REISSUED

To all whom it may concern:

Be it known that I, WALTER CHIPPERFIELD, a citizen of Great Britain, residing at Romford, Essex, England, have invented
5 new and useful Improvements in Type-Cases, of which the following is a specification.

This invention relates to improvements in and relating to type cases, and it refers
10 to cases for the reception of type designed for use with flexible type carriers or chases in which the type retaining bars are provided with longitudinal slots engaged by
15 projections upon the type.

The present invention has for its object to provide an improved construction and arrangement of type case whereby the capacity of the case may be readily increased
20 in order to permit it to accommodate a greater quantity of type.

In order that the invention may be the better understood, drawings are appended in which:—

Figure 1 is a front elevation of a type
25 case constructed in accordance with the present invention. Fig. 2 is an end view of one of the sections comprising the case. Fig. 3 is a side elevation partly in section. Fig. 4 is a side view of the composing stick.
30 Fig. 5 is a plan. Fig. 6 is an end view of the composing stick. Fig. 7 is a transverse section on line A A Fig. 5. Fig. 8 is a side view partly in section showing the upper end of one of the frames with the type being
35 transferred from the composing stick to the case. Fig. 9 is a similar view showing the type being transferred from the case to the composing stick.

A type case constructed in accordance
40 with the present invention comprises a number of supports for banks of type indicated generally by *a*, the supports being superposed and inclined at such an angle to the horizontal as will cause the type therein to
45 slide in the type carrying bars by gravity. Each bank comprises a series of type bars *a'* slotted at *a''* and so pitched or spaced as to permit the type to slide readily between them, the said type being supported by projections which engage the slots *a''* aforesaid
50 and which are formed in the sides of the bars *a'*. The bars *a'* are formed integral with, or they may be formed separated from and be secured in any suitable manner to the transverse members *b*, *b'*, *b''* Figs. 1, 2
55 and 3, the transverse members *b*, *b'*, being

attached to side members *b''*. The members *b''* are disposed at a right angle to the members *b*, *b'*, *b''* and formed upon members *b''* *b''* are bosses *b''* which project from the upper and lower faces of the said members and
60 which bosses are bored to form sockets designed to receive the pins *b''* which are secured in the upper ends of the bosses in any suitable manner. The lower ends of each of the bores of the bosses are left free so that when
65 superposed the projecting pins may enter the said bores and the supports be supported one upon the other as shown in Fig. 3. The lowermost support is supported upon a
70 frame *c* having projecting pins *c'* designed to engage the sockets on a bottom section *b''* having bosses thereon and pins *c''* engaging the sockets on the said lowermost support.

Although as aforesaid the type carrying
75 bars *a'* may be slotted to receive the projections on the slides of the type, I may in some instances employ bars such as those shown to the right of Figs. 1 and 2, in which case the said bars are of inverted T shaped
80 cross sectional outline and the channels therein are formed by securing to the upper ends plates *a''*.

d, Figs. 1, 2, 3 and 9, indicates slots or recesses formed in the lower transverse member *b* of the supports *a* and within each of which slots is pivotally mounted a lever *d'* having at its lower or outer end a hook shaped portion *d''* provided with an extension *d'''*. The opposite end of the lever
85 is provided with an extension *d''*. The lever *d'* is under the influence of a spring *d''* by which it is caused to normally occupy a position such that the hook shaped extremity normally lies in the path of the type, the
90 said extremity thus forming a stop against which the lowermost type abuts and which stop is depressed when the type is required to be removed. The spring *d''* acts upon the end *d''* as shown in Figs. 3 and 9, so that the
100 depression of the outer end of the lever is opposed by the said spring. The spring *d''* is conveniently secured by means of a bar *d''* around which the end of the spring is bent and the bar itself is secured in a recess
105 formed in the transverse member *b* by means of screws.

e, Figs. 1, 3 and 8, indicates slots formed in the transverse member *b'*, a slot being
110 disposed at the end of each of the type channels. Arranged within the slot is a spring *e'* secured in the same manner as the

spring d^5 already referred to. The spring e^1 projects beyond the end of the type way as shown in Figs. 1, 2 and 8, and as will be presently described, it enters the type way in the composing stick and holds the main body of the type back while the first type is being transferred to the case.

The composing stick as shown in Figs. 4 to 9 comprises a channeled body f presenting a cross section as shown in Fig. 7, having formed in it a type way f^1 in which the type are assembled. The stick is provided with tubular or solid side members f^2 connected at each end by transverse members f^3 and it has at each end channeled extensions f^4 f^5 , the extension f^4 being slotted at f^6 as shown in the drawings Figs. 4, 5, 6 and 8. Secured in any suitable manner to the ends of the members f^2 are the ends of springs f^7 , to the outer ends of which is secured a bridge piece f^8 which normally forms a gate for the end of the type way and prevents the passage of the type when the stick is inclined or held in a vertical position. The ends of the composing stick are each provided upon the underside with projections g^2 which, when the stick is in use, are caused to engage recesses in the respective upper and lower transverse members of the support for the bank so that the type channels in the support for the bank and the composing stick are in proper alignment.

In use when composing the type, the end of the composing stick is placed in alignment with the particular channel in the support for the bank containing the desired letter or character to be transferred to the stick. When the end of the stick is placed in position it comes into contact with the extension d^3 on the lever d^1 in Fig. 9. The lever is thus depressed against the action of the spring d^5 and the projection thereon is withdrawn, thereby allowing a clear passage for the type x which thereupon is free to slide into the type way of the composing stick. When the parts are in the position just described, the end of the spring d^5 is raised by the depression of the lower end of the lever d^1 and bears against the underside of the second type within the case as shown and which type is thus held against movement and forms a stop preventing the movement of the rest of the type until such time as the composing stick is removed and the type free to slide until checked by the projection on lever d^1 .

When the type is distributed the opposite end of the composing stick is placed in position opposite the type channel in the case proper to the particular letter or character which at the time is at the end of the stick. In placing the stick in position the gate at the end of the stick is raised and the type way is clear for the passage of the type.

Simultaneously with the raising of the gate the end of the spring e^1 comes into contact with the underside of the second type in the stick and presses same upward so that it is not only held against movement itself but is held with sufficient firmness to prevent it from being pushed out by the weight of the type behind it. The outermost type falls by gravity into its type way in the case. In order to facilitate the distribution or setting up of the type an index may be provided at each end of the bank as shown at g and g^1 Figs. 1, 3, 8 and 9.

Obviously with a case constructed in accordance with the present invention the capacity of the said case may be readily varied as desired and various kinds of type may be assembled in one frame. Again the distribution and setting up of the type may be performed with a minimum of labor and with much greater certainty than with cases and sticks in which the type are assembled by hand.

Obviously the means of connection for the respective banks is capable of considerable variation, as also the minor details of construction of the different parts.

Claims.

1. A type case comprising a plurality of inclined supports for banks of type each having a pin and socket connection whereby they are supported one on the other, spring controlled means at one end of each typeway adapted to be actuated by a composing stick for releasing the end type and holding back the second of said type when composing and spring actuated means at the other end for holding the second type in a composing stick when distributing.

2. A type case comprising a plurality of inclined supports for banks of type each formed of a number of bars having typeways in their adjacent faces, a pin and socket connection whereby the supports are supported one on the other, spring controlled means at one end of each typeway adapted to be actuated by a composing stick for releasing the end type and holding back the second of said type when composing and spring actuated means at the other end for holding the second type in a composing stick when distributing.

3. A type case comprising a plurality of inclined banks of type each formed of a number of bars having typeways in their adjacent faces, said bars being supported by intermediate and end supports arranged at a right angle to the line of the bars and connected to end members parallel with said bars, pin and socket connection upon the end members whereby the banks are supported one on the other, spring controlled means at one end of each typeway adapted to be actuated by a composing stick for releasing the end type and holding back the second of said

type when composing and spring actuated means at the other end for holding a second type in a composing stick when distributing.

4. A type case comprising a plurality of
5 inclined banks of type each formed of a
number of bars having typeways in their
adjacent faces, said bars being supported
by intermediate and end supports arranged
10 at a right angle to the line of the bars and
connected to end members parallel with said
bars, pin and socket connections upon the
end members whereby the banks are support-
ed one on another, a catch located at one end
15 of each of the typeways, a spring member
actuated by said catch and designed to lock
the second type within the typeways, said
catch being adapted to be actuated by the
end of a composing stick when same is po-
sitioned to receive the type, a spring at the
20 opposite end of the type way for holding
back the second type within a composing
stick when the same is positioned to dis-
charge the type into the case.

5. A type case comprising a plurality of
25 inclined banks of type each formed of a

number of bars having typeways in their
adjacent faces, said bars being supported by
intermediate and end supports arranged at
a right angle to the line of the bars and con-
nected to end members parallel with said
30 bars, pin and socket connections upon the
end members whereby the banks are support-
ed one on another, a catch located at one end
of each of the typeways, a spring member
actuated by said catch and designed to lock
35 the second type within the typeways, said
catch being adapted to be actuated by the
end of a composing stick when same is po-
sitioned to receive the type, a spring at the
opposite end of the type way for holding
40 back the second type within a composing
stick when the same is positioned to dis-
charge the type into the case.

In testimony whereof I have signed my
name to this specification in the presence of
45 two subscribing witnesses.

WALTER CHIPPERFIELD.

Witnesses:

A. B. MEES,
G. A. TAYLOR.