

No. 652,480.

Patented June 26, 1900.

C. D. HUGHES.
CARRIER FOR TYPE DISTRIBUTING MACHINES.

(Application filed Nov. 6, 1899.)

(No Model.)

Fig. 1.

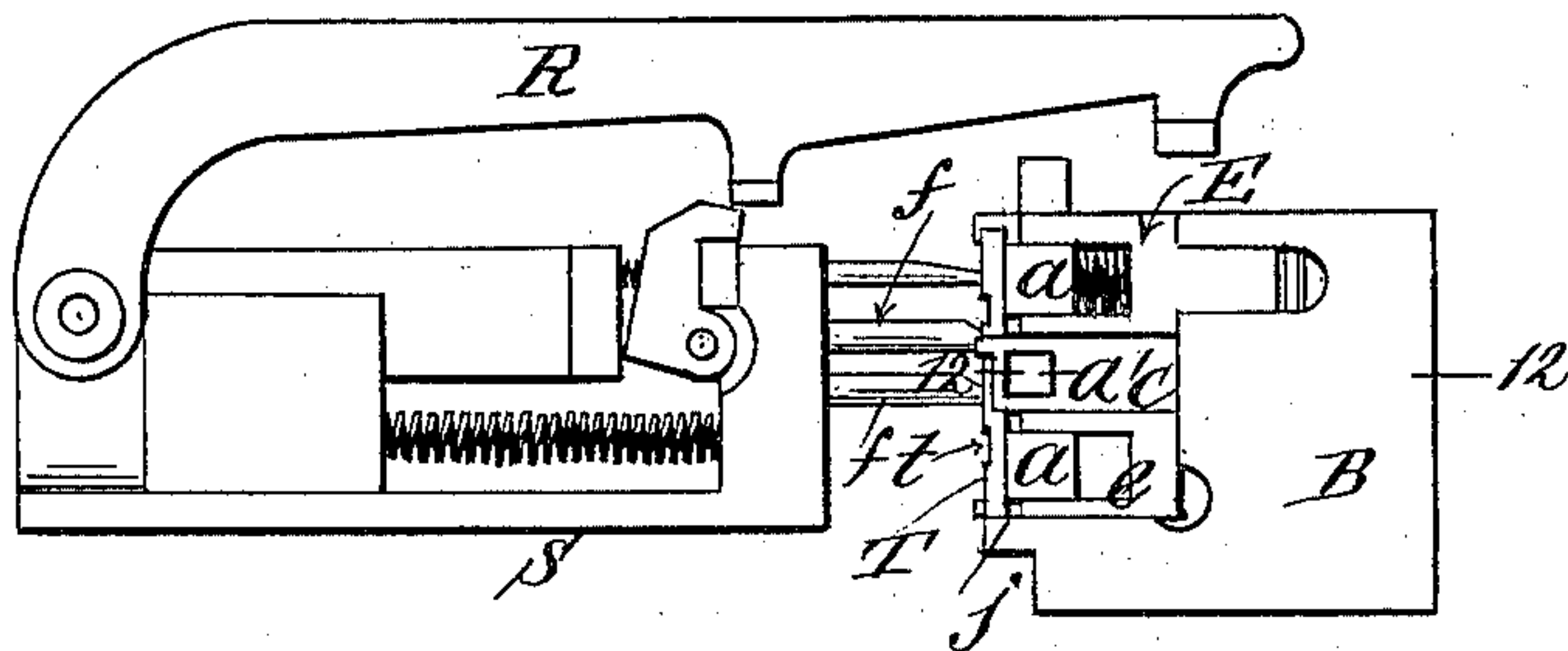


Fig. 2. Fig. 3. Fig. 4. Fig. 5.

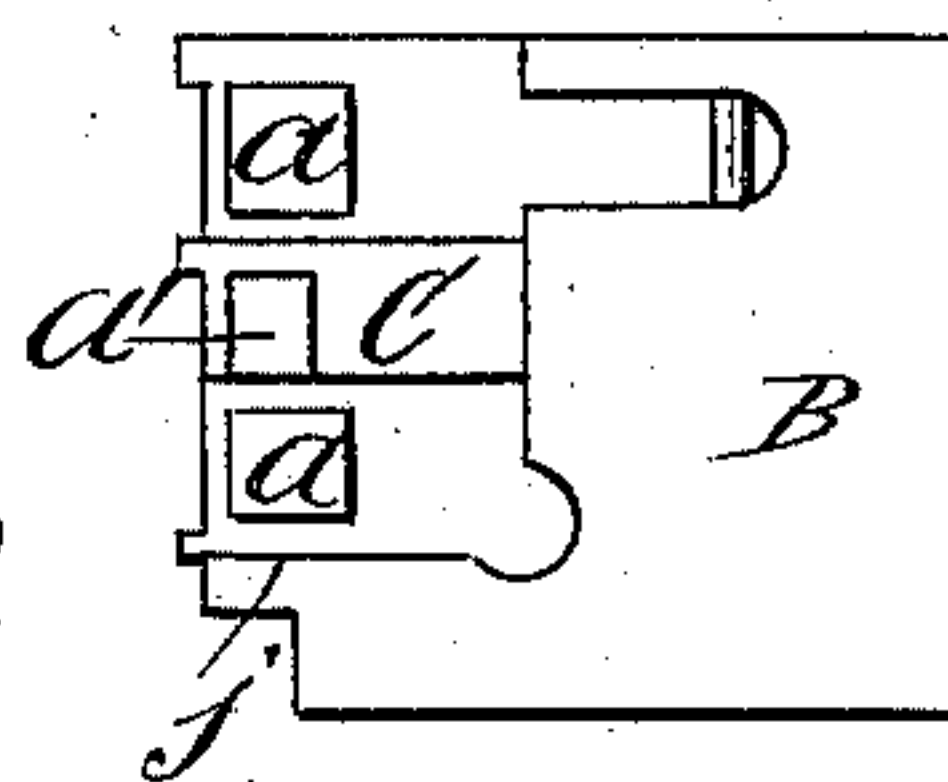
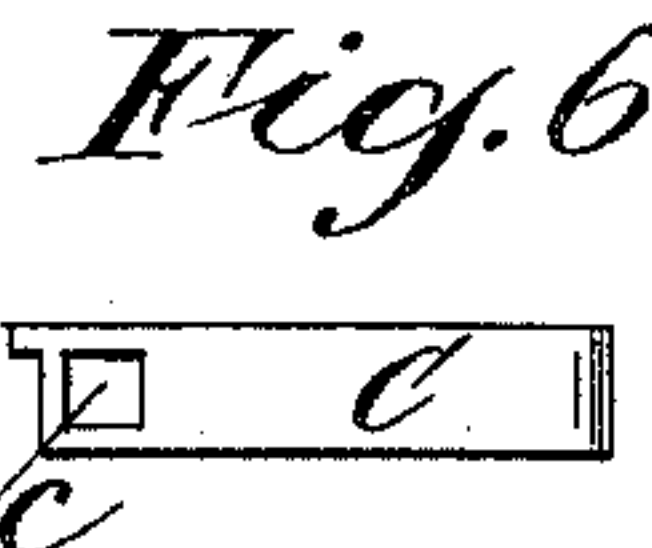
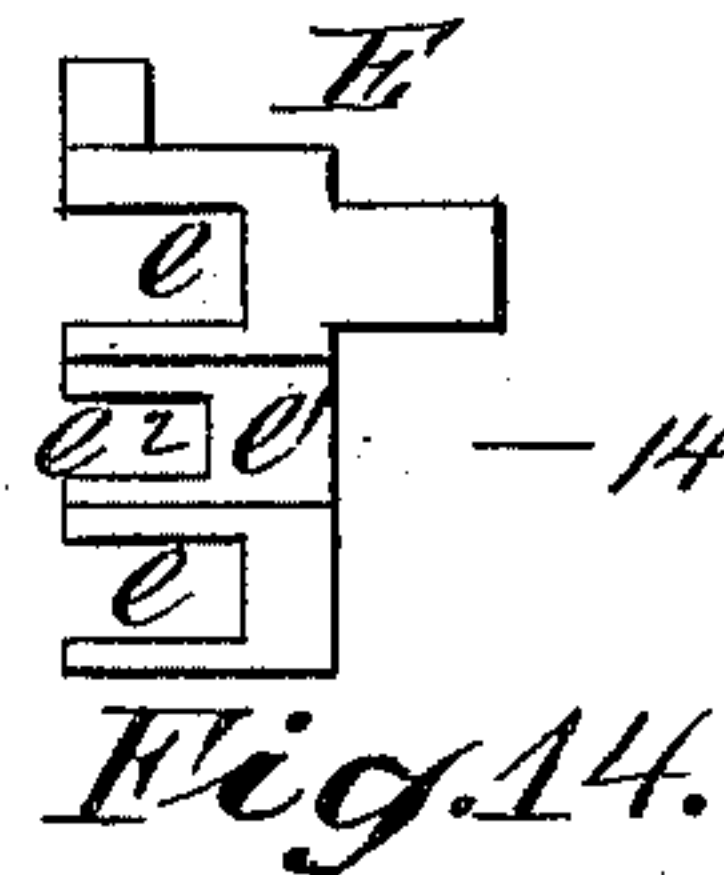
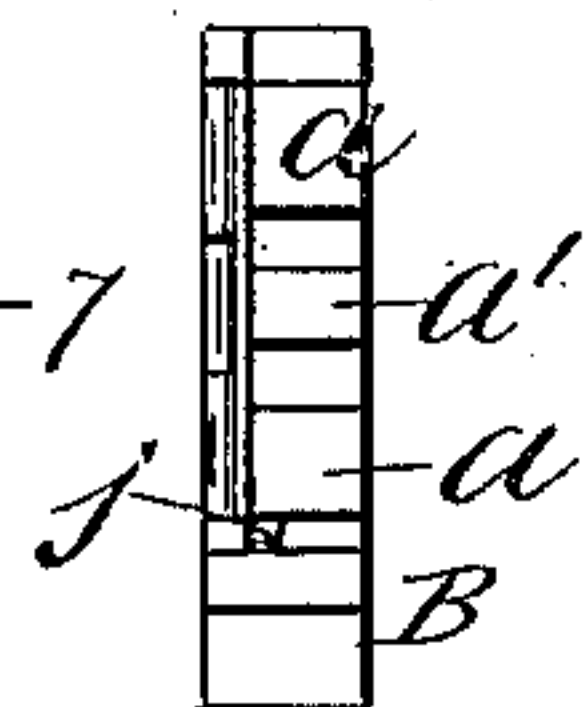
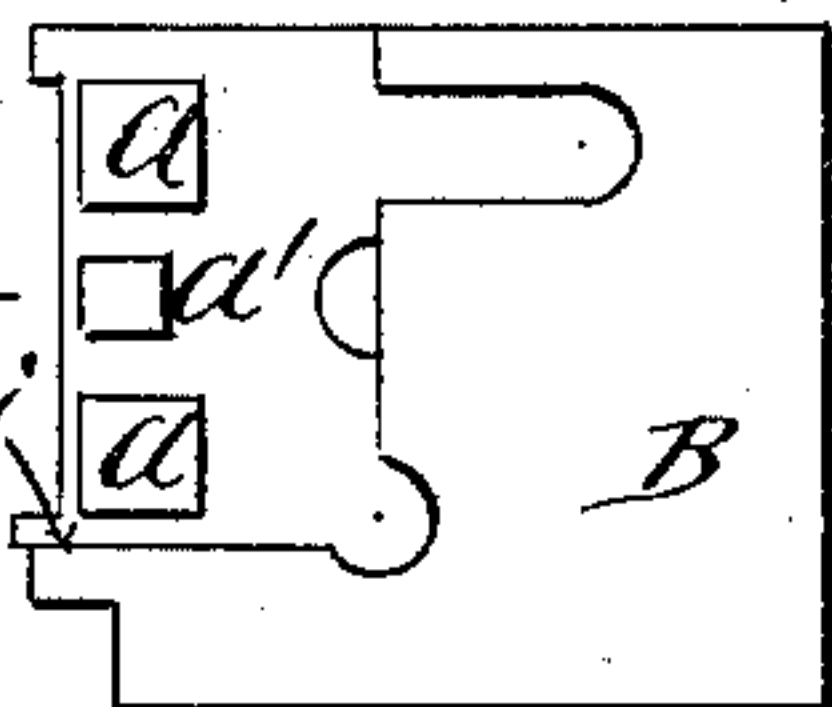
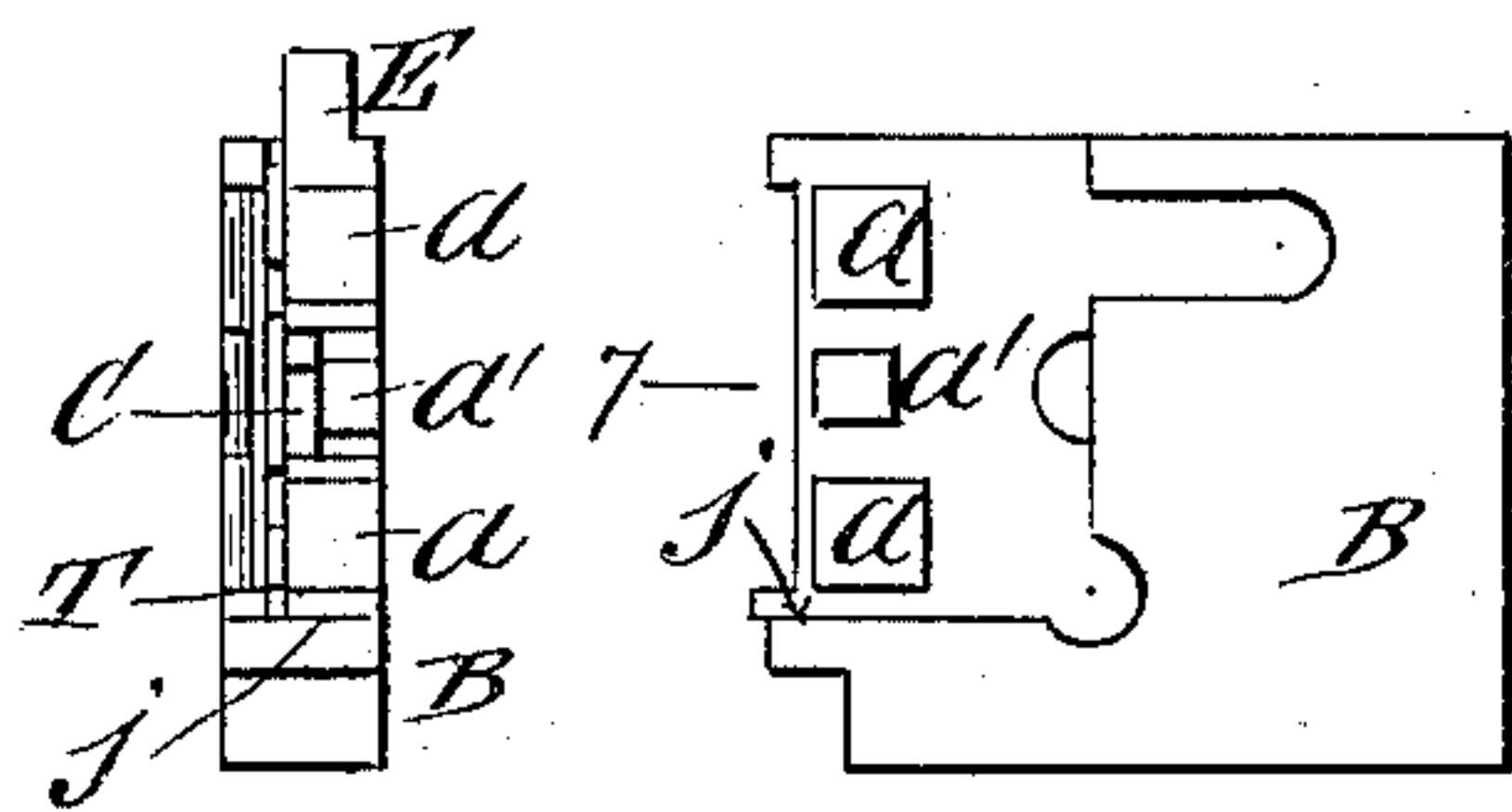
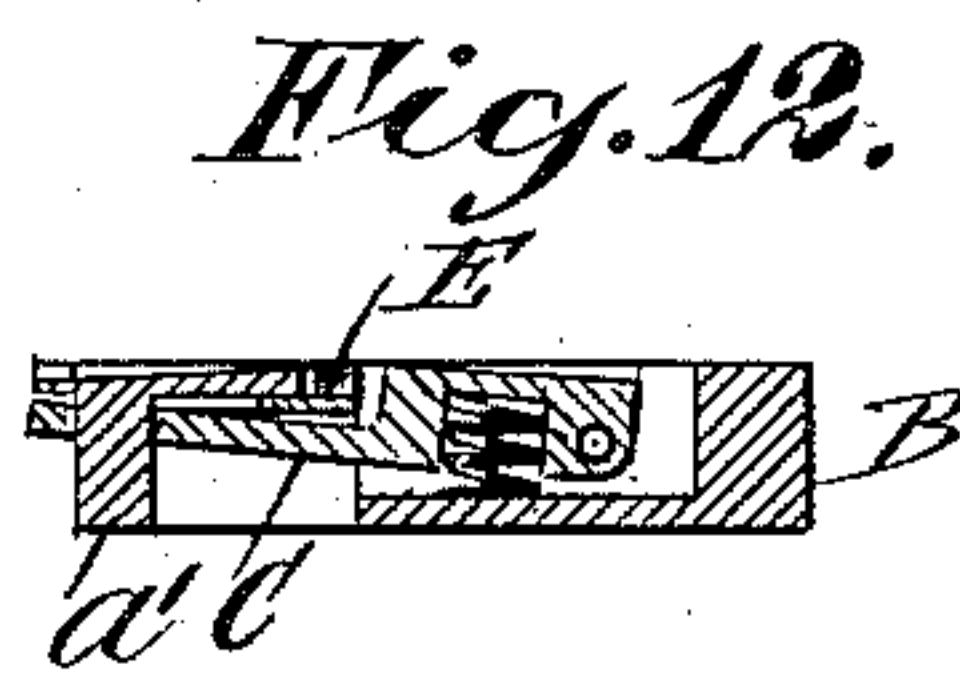
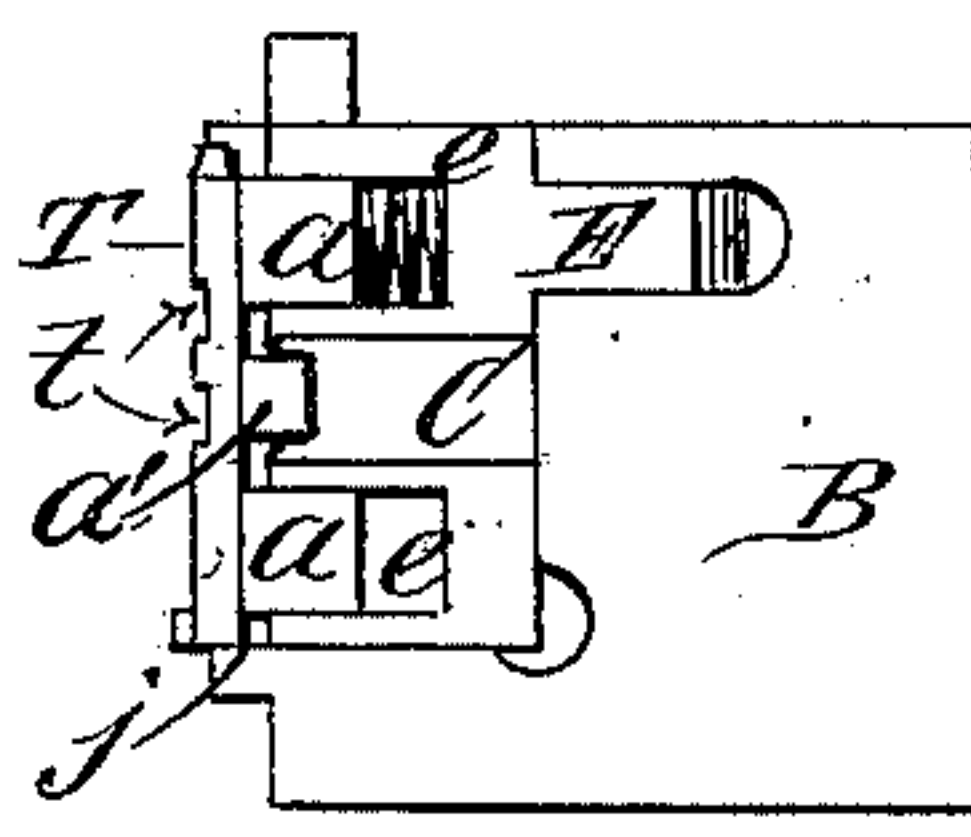
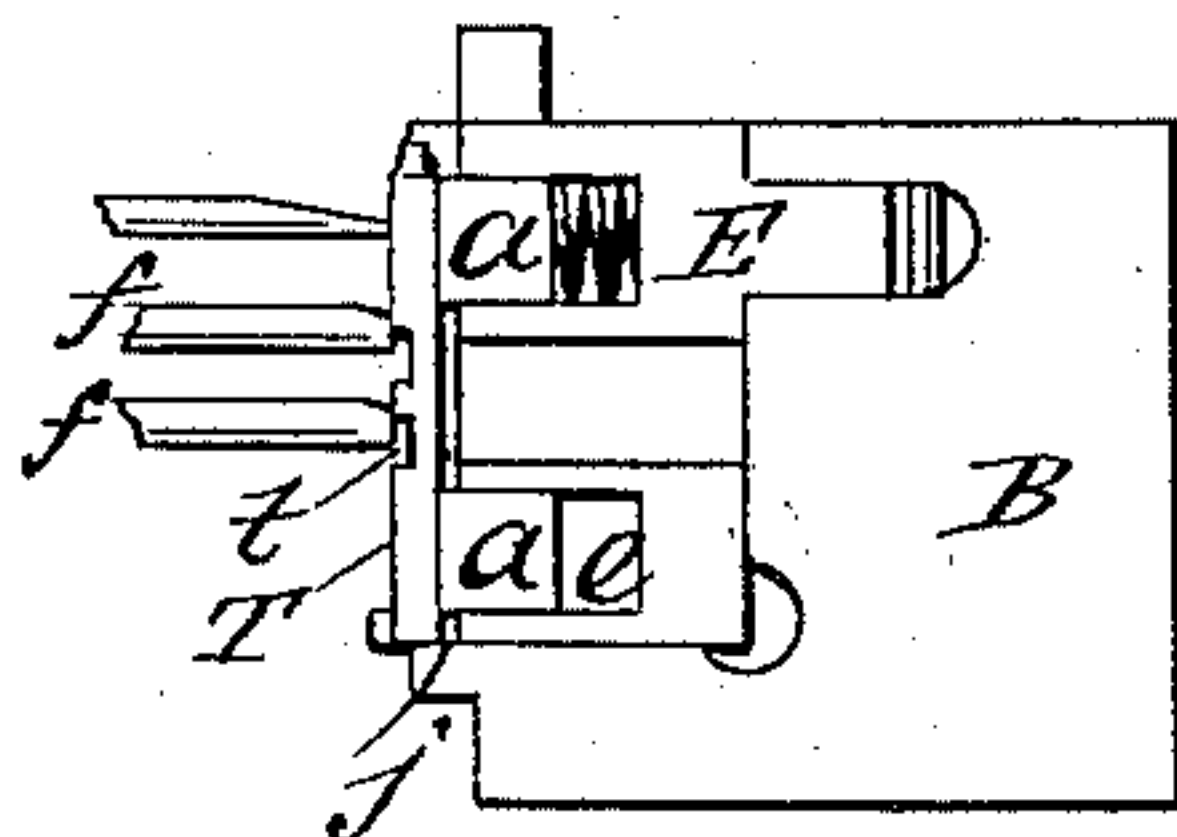


Fig. 13.

Fig. 9.



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UNITED STATES PATENT OFFICE.

CHARLES D. HUGHES, OF NEW YORK, N. Y.

CARRIER FOR TYPE-DISTRIBUTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 652,480, dated June 26, 1900.

Application filed November 6, 1899. Serial No. 735,859. (No model.)

To all whom it may concern:

Be it known that I, CHARLES D. HUGHES, a citizen of the United States, residing in the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Carriers for Type-Distributing Machines, 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 improvements relate to type-carriers of the class shown and described in Letters Patent to L. K. Johnson, dated July 19, 1881, No. 244,721, and to W. A. Lorenz, E. G. Parkhurst, and L. K. Johnson, dated July 19, 1881, No. 244,724, from which the nicked types are ejected by a lever tripped by the entrance of reciprocating feelers into the nicks. In order to afford the necessary number of feeler combinations for the different characters of a font of type, the nicks have to be formed in various portions in the edges of the types, some of the combinations necessitating the formation of the nicks at or near the middle of the types. As a result the smaller types are materially weakened, especially when both combination nicks are formed approximately midway of the length of a type, and such types are bent or broken under the impact of those feelers which do not coincide with the nicks.

The object of my invention is to obviate this difficulty; and the invention consists, essentially, in the combination, with the ejector and with the clutch of a carrier by which a type is held therein, of an abutment which sustains and reinforces the types midway, or approximately so, of their length, so that the impact of the reciprocating feelers is met and resisted without injury to even the weakest types.

In the accompanying drawings, Figure 1 is an elevation of a carrier and of a "feeler-slide." Fig. 2 is a front view of the carrier; Fig. 3, a side view of the body of the carrier, the ejector, &c., being omitted. Fig. 4 is a front view of Fig. 3. Fig. 5 is an elevation of the ejector; Fig. 6, an elevation of the clamp; Fig. 7, a horizontal section upon the plane of line 7 7, Fig. 3; Fig. 8, an elevation of the carrier, showing a modification of structure;

Fig. 9, an elevation of the carrier, the forward end of the clamp being broken off to show the relation of the nicks in the type to the reinforcing abutment or block. Fig. 10 is an elevation of a modified form of clamp, in which the outer end is bifurcated to straddle the intermediate abutment. Fig. 11 is a similar view of the form of clamp shown in Fig. 8. Fig. 12 is a horizontal section upon plane of line 12 12, Fig. 1. Fig. 13 is a view illustrating the action of the feelers on a type in an old form of carrier. Fig. 14 is a section taken upon plane of line 14 14, Fig. 5.

S represents one of the reciprocating slides carrying feelers *ff*, a rest-lever *R*, and tripping mechanism arranged and operating after the manner disclosed in the patent to Johnson hereinbefore referred to.

B is the body of the carrier, recessed to receive the ejector *E* and clamp *C*.

a a are the usual upper and lower abutments or type-rests embraced by the bifurcated arms *ee* of the ejector *E*.

j is the type floor or support for the heel of the type *T*.

A third or intermediate abutment *a'* is formed upon the body of the carrier, as will be seen more distinctly by reference to Fig. 3, its front edge or surface being in line with the bearing-surfaces of the other abutments *a a*. The central web *e'* of the ejector *E* is formed with the slot or recess *e²* to admit the intermediate abutment *a'* and allow the ejector to be drawn forward by the lever *R*, when the latter is tripped by the entrance of the ends of the feelers *ff* into nicks *tt* in the types when the said nicks coincide therewith. The clamp *C* is also so formed as to receive and embrace the intermediate or central abutment *a'*, as by the formation of a slot or recess *c*, through which the said central abutment *a'* projects.

The nature and object of my invention will be understood by reference to Fig. 3, which shows a narrow centrally-nicked type in an old form of carrier. It will be seen that the full impact and pressure exerted by the feelers *ff* has to be sustained by the central and weakest portion of the type, which is practically unsupported between opposed edges of the upper and lower abutments *a a*. As a

result narrow small types, and even those of larger size, which are nicked centrally, are bent or broken by the impact of successive feelers before the feelers coinciding with their nicks are reached and the type extracted. This has been a serious practical disadvantage in the operation of distributors of this class which it has been sought for years to overcome and which I obviate entirely by my construction of ejector and central intermediate abutment on the carrier-body, as herein set forth, whereby the thrust of the feelers is directly opposed and the types fully sustained under all conditions of size and nicking.

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

1. In combination with type feeling and extracting mechanism, a type-carrier formed with a central abutment for sustaining the type against the direct thrust of the feelers, an ejector formed to straddle said central abutment, and a clamp also formed to strad-

dle said central abutment, substantially as herein set forth.

2. In combination with type feeling and extracting mechanism, the carrier B formed with central abutment a' , the ejector E formed with the slot or recess e^2 , and the clamp C formed with the slot or recess c , for the purpose and substantially in the manner described.

3. In combination with type feeling and extracting mechanism, the carrier B formed with the upper and lower type abutments, aa , and the intermediate abutment a' , the ejector E formed with the bifurcated arms e, e , and the web e' , having the slot or recess e^2 , and the clamp C formed with the slot or recess c , for the purpose and substantially in the manner set forth.

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