L. K. JOHNSON.

TYPE SETTING APPARATUS.

APPLICATION FILED JAN. 10, 1910.

960,096.

Patented May 31, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

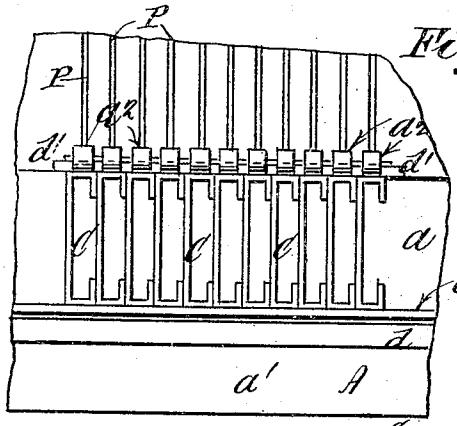
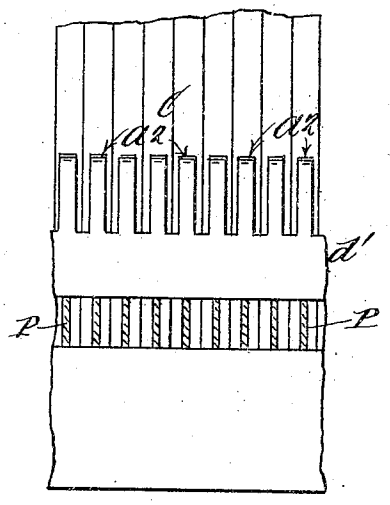


Fig. 3.



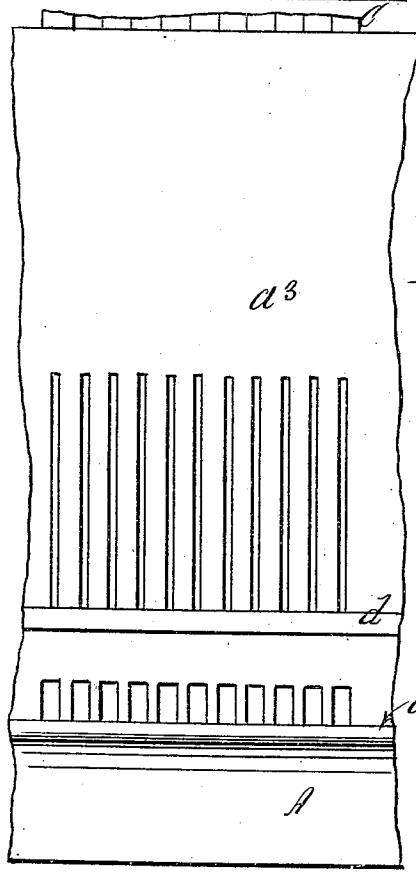


Fig. 2.

Fig. 4. Fig. 5. Fig. 6.

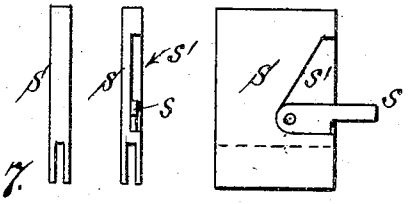


Fig. 7.

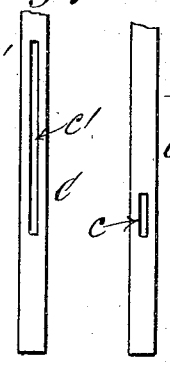


Fig. 8.

Witnesses:

D. W. Gardner.

Inventor:

Louis Kossuth Johnson

By his Attorneys

Geo. Willis

L. K. JOHNSON.

TYPE SETTING APPARATUS.

APPLICATION FILED JAN. 10, 1910.

960,096.

Patented May 31, 1910.

2 SHEETS—SHEET 2.

Fig. 9.

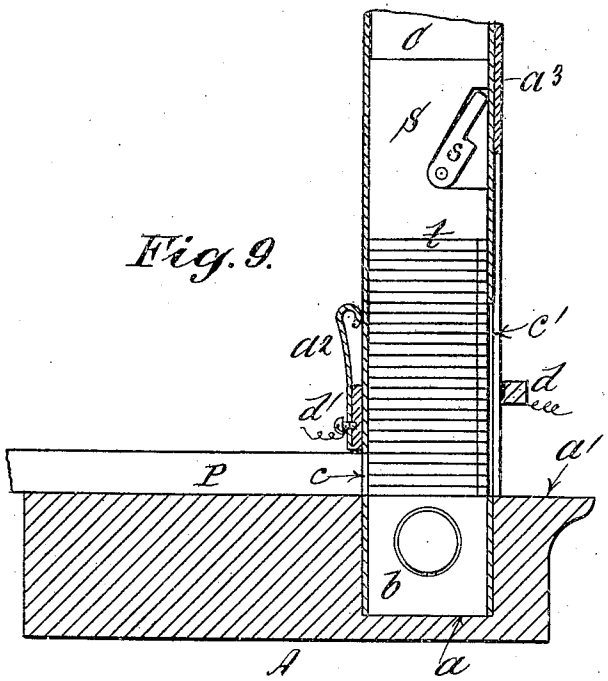


Fig. 10.

Witnesses.

D. W. Gardner.

Inventor:

Louis Kossuth Johnson

By his Attorney

Geo. Wm. Wall

UNITED STATES PATENT OFFICE.

LOUIS KOSSUTH JOHNSON, OF NEW YORK, N. Y.

TYPE-SETTING APPARATUS.

960,096. Specification of Letters Patent. **Patented May 31, 1910.**

Application filed January 10, 1910. Serial No. 537,288.

To all whom it may concern:

Be it known that I, LOUIS KOSSUTH JOHNSON, a citizen of the United States, residing in the borough of Brooklyn, city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Type-Setting Apparatus, of which the following is a specification.

My improvements relate to type setting apparatus in which the types are forwarded from the lower ends of upright type containing channels into which they have been previously introduced by distributing mechanism.

The object of the invention is to afford means for automatically signaling when the types are exhausted from a channel, and the invention consists in the specific construction and arrangement of parts herein shown and described.

In the accompanying drawings, Figure 1, is a plan of a portion of the apparatus sufficient to illustrate the practical application of my invention; Fig. 2, is a front elevation thereof; Fig. 3, a rear elevation; Figs. 4, 5, and 6, are detail views of my signaling type followers; Figs. 7 and 8, elevations of the lower ends of a type containing channel; Fig. 9, is a vertical sectional elevation showing the signaling type follower resting upon a column of type; Fig. 10, is a similar view showing the parts in the position in which the signaling is effected.

I have herein shown my invention as applied to a "setter" in which a plurality of types *t*, *t*, composing a word are forwarded simultaneously from the lower end of a type containing channel, although the invention is equally applicable to setting apparatus in which the types are forwarded singly.

In the drawings A, represents a table or support formed with an elongated socket *a*, in which the lower ends of the type channels C, are supported side by side. The lower end of the spine of each channel is formed with a slot *c*, as herefore for the passage of the reciprocatory pusher P, which is actuated intermittently by mechanism well known in the state of the art. The front edge of each type containing channel is also formed with a slot *c'*, not only to admit of the advance of the type to the type supporting table *a'*, under the action of the pusher P, but also to admit of the protrusion of the gravity contact *s*, on the follower S, as hereinafter set forth.

Previous to its insertion into the socket *a*, a slug *b*, is inserted in the lower end of each type containing channel of a height equal to the depth of the socket *a*. This spring slug *b*, acts as a support for the type column both previous to and after the insertion of the channel in a socket *a*, in which latter case its upper edge coincides with and forms a continuation of the type supporting shoulder *a'*. The slug *b*, is of the usual and well known construction in the art, being formed with a spring that bears laterally upon the side of the channel.

a^2, are springs which hold and press the channel forward against the front plate a^3, of the holder.

The follower S, is inserted in the type containing channel so as to rest upon the top of the type and insure the descent as heretofore. The peculiarity of its construction consists in the fact that it is formed with a recess *s'*, in which is pivotally mounted the gravity contact *s*. This gravity contact *s*, rests against the front wall of the channel, as shown in Fig. 9, until the front slot *c'*, is reached, when it falls forward by its own gravity, contacting with the terminal *d*, of the electrical circuit *e*, in which is interposed an electro magnet signal *f*,— the circuit being completed through the follower S, channel C, and rear of the holder with which the other extremity *d'*, of the circuit *e*, is connected. Thus just prior to the advancement of the last types from the channel an audible warning is given. The protrusion of the gravity contact *s*, indicates visually what particular channel of a series has been exhausted of type.

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

In type setting mechanism of the character described, the combination with channel supporting means, and with type forwarding mechanism, of a metallic type containing channel formed with the rear slot *c*, and the front slot *c'*, the metallic type fol-

lower S, formed with the recess s', the metallic gravity contact s, fitting in said recess and pivotally attached to the type follower S, the electric terminal d, the electric circuit e, the electro magnet signal f, and the electric terminal d', whereby when the gravity contact protrudes through the slot c', it will close the electric circuit in the manner and for the purpose described.

LOUIS KOSSUTH JOHNSON.

Witnesses:
D. W. GARDNER,
GEO. WM. MIATT.