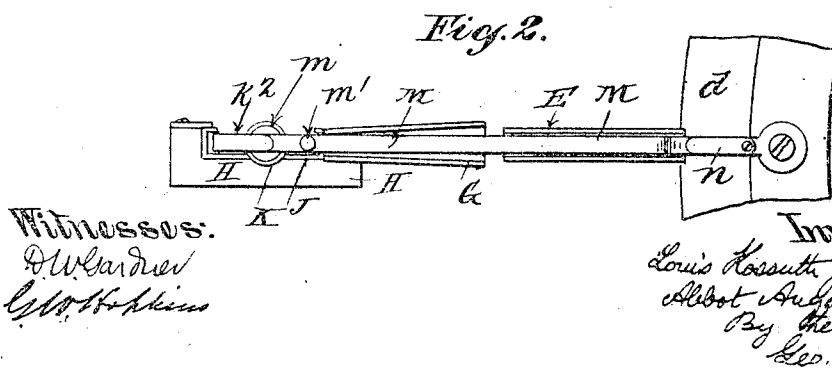
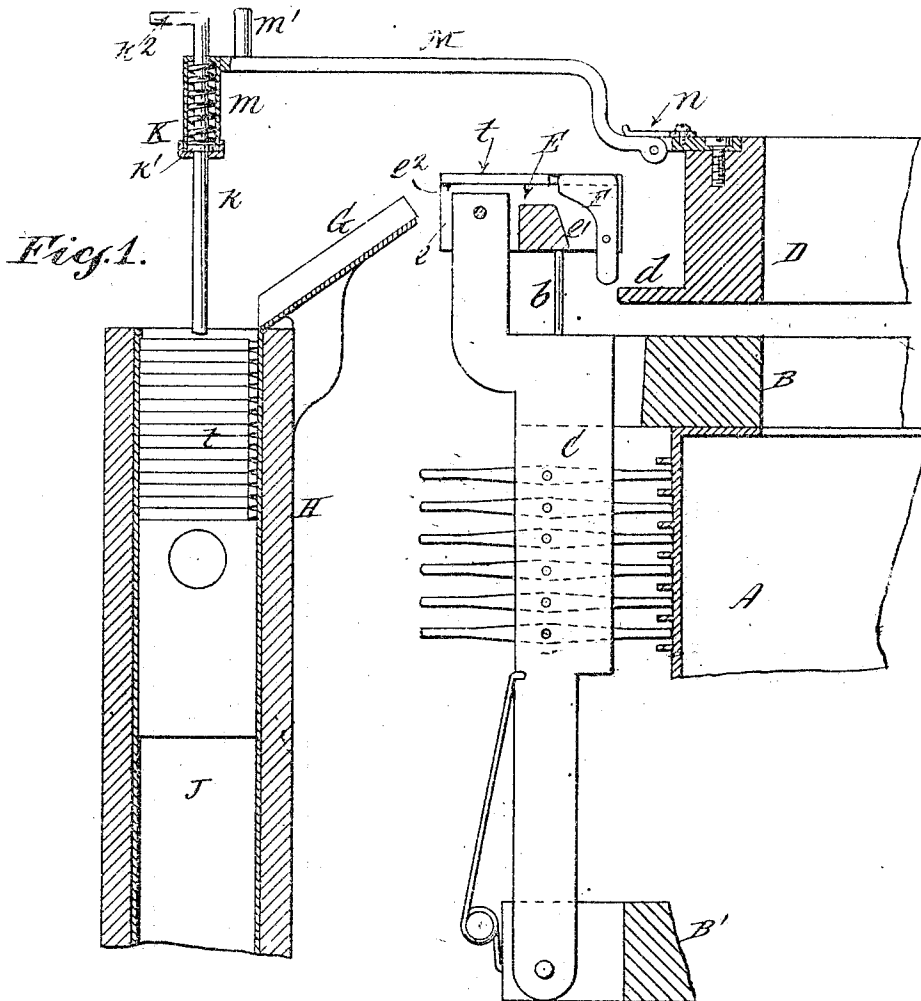


L. K. JOHNSON & A. A. LOW.
TYPE DISTRIBUTING APPARATUS.
APPLICATION FILED MAY 24, 1909.

946,443.

Patented Jan. 11, 1910.

3 SHEETS—SHEET 1.



L. K. JOHNSON & A. A. LOW.
 TYPE DISTRIBUTING APPARATUS.
 APPLICATION FILED MAY 24, 1908.

946,443.

Patented Jan. 11, 1910.
 3 SHEETS—SHEET 2.

Fig. 3.

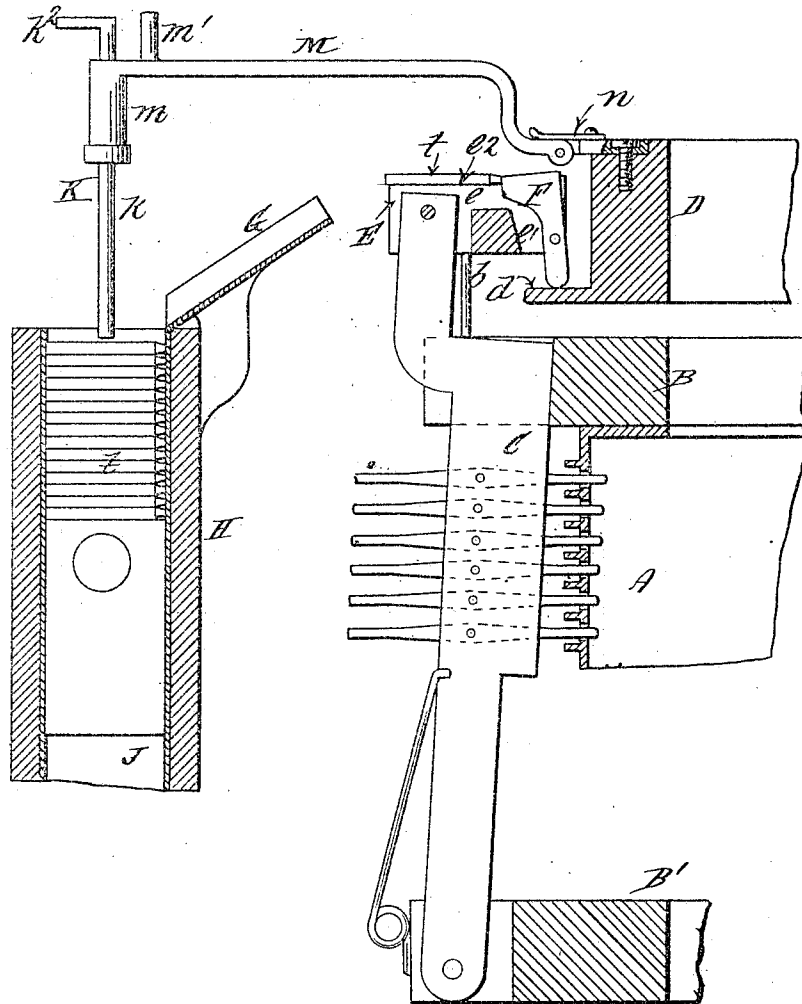


Fig. 4.

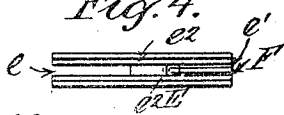


Fig. 5.

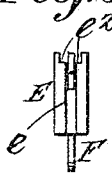
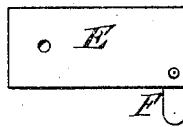


Fig. 6.



Witnesses:
 R. W. Gardner
 L. H. Hopkins

Inventors:
 Louis Rosenth Johnson
 Albert Augustus Low
 By their Attorney
 Geo. W. Munn

L. K. JOHNSON & A. A. LOW.
 TYPE DISTRIBUTING APPARATUS.
 APPLICATION FILED MAY 24, 1909.

946,443.

Patented Jan. 11, 1910.

3 SHEETS—SHEET 3.

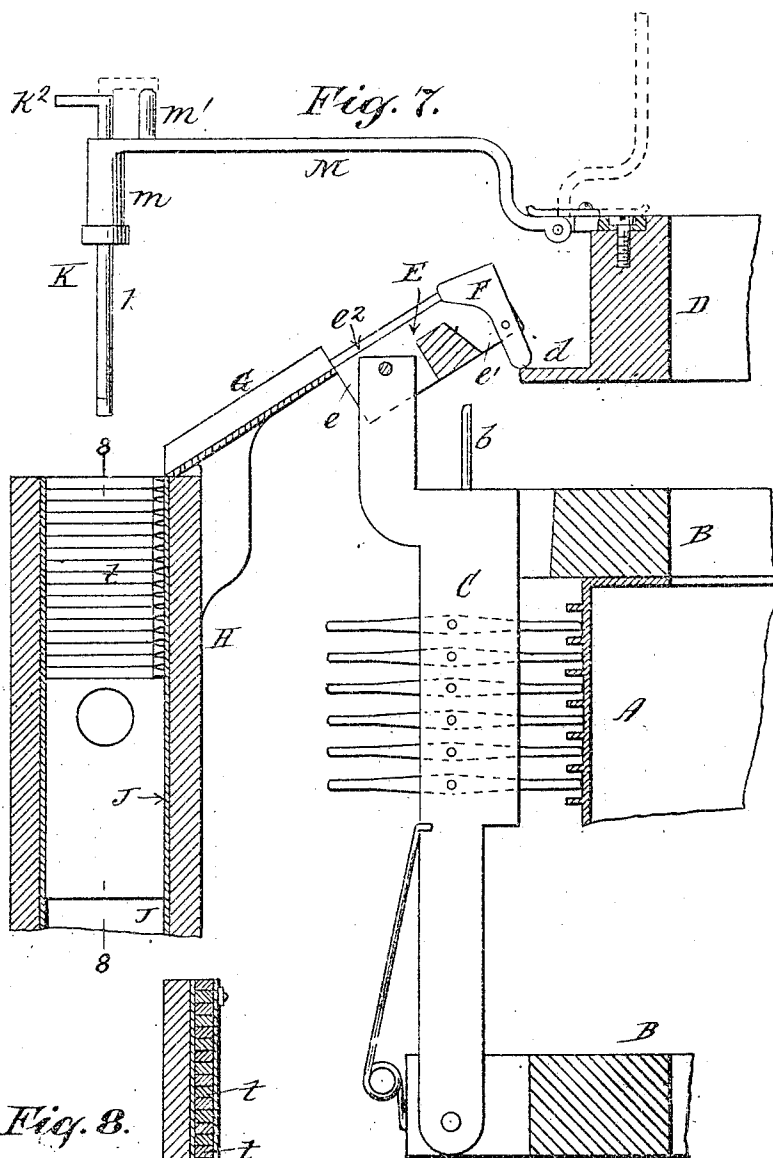
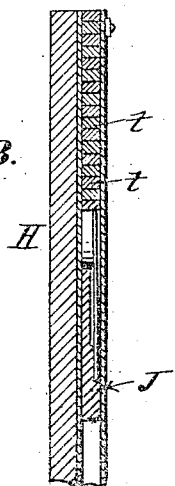


Fig. 8.



Witnesses:
 O. W. Gardner
 L. W. Hoffman

Inventors:
 Louis Kossuth Johnson
 Albert Augustus Low
 By their Attorney
 Geo. W. M. Smith

UNITED STATES PATENT OFFICE.

LOUIS KOSSUTH JOHNSON, OF NEW YORK, AND ABBOT AUGUSTUS LOW, OF HORSESHOE, NEW YORK, ASSIGNORS TO ALDEN TYPE MACHINE COMPANY, OF NEW YORK, N. Y.

TYPE-DISTRIBUTING APPARATUS.

946,443.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed May 24, 1909. Serial No. 497,908.

To all whom it may concern:

Be it known that we, LOUIS KOSSUTH JOHNSON and ABBOT AUGUSTUS LOW, citizens of the United States, residing, respectively, in the city of New York, borough of Brooklyn, county of Kings, and State of New York, and at Horseshoe, St. Lawrence county, State of New York, have invented certain new and useful Improvements in Type-Distributing Apparatus, of which the following is a specification.

Our improvements relate to the class of automatic type distributing mechanism known as the "Alden," in which the types by feeling and setting mechanism are deposited successively on individual type holders from which they are transferred to the proper type containing channel.

Heretofore the types have been raised from the individual holders into the bottom of the type containing channels through latches. This necessitates the lifting of the whole column of type in each containing channel whenever a fresh type was inserted therein, which creates considerable frictional resistance and necessitates the use of a maximum of power to effect the running of the apparatus. It is also injurious to the type and more or less uncertain in result, because the latches do not always work and the type are liable to become twisted and displaced. By our present invention we obviate these difficulties by transferring the type to the upper ends of the type columns in the containing channels, substantially as hereinafter described and claimed specifically, thereby obviating the need of raising and vibrating the whole column of type every time a type is inserted in a channel and utilizing the weight of the type itself to gravitate the type downward, the only resistance to be overcome being that of the friction slug at the lower end of the column.

In the accompanying drawings, Figure 1, is a sectional elevation of adjacent portions of the distributing apparatus, sufficient to illustrate the practical application and working of our invention, the parts being shown in the untripped position; Fig. 2, is a plan of the parts shown in Fig. 1; Fig. 3, is a view similar to Fig. 1, showing the beginning of the tripping operation; Figs. 4, 5 and 6, are respectively top, end, and side

views of the individual type support; Fig. 7, is a view similar to Fig. 1, showing the completion of the tripping movement; Fig. 8, a section on plane of line 8—8—Fig. 7.

A, represents the usual stationary ward drum, and B, B', the upper and lower rotatable supports for the ward levers, C, which parts B, B', are so connected as to rotate in unison as heretofore. These and the wards C, are of the usual construction, and with the lifting ring D, need no description, as they are common to this class of type distributing apparatus.

Each ward lever C, is provided with a pivoted individual type support E, which however is of special construction as will be seen by reference more particularly to Figs. 4, 5 and 6. It is preferably formed of a single piece with the recess *e*, for the reception of the upper end of the ward lever C, to which it is pivoted. It is also formed with the recess *e'*, in which is pivoted a tripper F, and with shoulders *e''*, for the support of the type, the latter being deposited on said shoulders as heretofore by the pushing mechanism peculiar to this class of type distributing apparatus. The trippers F, are preferably counterweighted at the bottom so as to hang vertically when not in contact with the flange *d* on the lifting ring D.

G, is an inclined transfer conduit into which the types *t*, are received from the individual type supports E, when the parts are rocked into position as shown in Fig. 7. These intermediate transfer conduits G, are supported on the back of the channel holder H, in which the type containing channels J are inserted. The types *t* descend through the transfer conduits G, by gravity and rest upon the top of the column of preceding types.

The column of types is depressed within the type containing channel by a depressor K, mounted upon the lifting ring D, so that the depressor is raised and out of the way at the time the type descends through the transfer conduit G, into the type containing channel. As shown in the drawings this type depressor K, consists of a rod *k*, formed with a flange *k'*, resting in a box *m*, rigid upon the arm M, which is pivotally supported upon the lifting ring D,—a spring being interposed between the shoulder *k''*,

and the upper end of the box *m*, as shown in Fig. 1, so as to afford a yielding resilient downward pressure. The upper end of the depressor *K* is also formed with a shoulder *k*², which may be turned over onto a raised support *m'*, upon the arm *M* when it is desired to put the depressor out of commission temporarily. In fact in this connection provision is made for swinging the depressor *K* and arm *M*, back out of the way, as indicated in dotted lines in Fig. 7, when desired for the purpose of giving access, or for other reasons, the said depressor *K* and arm *M*, being otherwise held in their normal position by a button *n*, or equivalent mechanical expedient as shown in Figs. 1, 3 and 7.

A rod or support *b*, upon the movable member *B* sustains the individual type support *E*, in a substantially horizontal position when the tripper *F*, is out of contact with the flange *d*, on the lifting ring *D*.

The tripper *F*, not only tilts the individual type support *E*, when tripped by the shoulder *d*, on the lifter *D*, but it also positively pushes the type longitudinally a slight distance as shown in Fig. 3, sufficient to counteract any tendency of the type to stick upon the type support *E*, thereby insuring the descent of the type into the transfer conduit *G*, when the type supporting shoulders *e*², upon the individual type support are in alinement with the floor of the transfer conduit *G*, as shown in Fig. 7.

By this construction and arrangement of parts we not only obviate the difficulties heretofore mentioned, but also greatly simplify and cheapen the structure of the apparatus, at the same time rendering the type containing channels and the operative parts more accessible, which is a feature of especial importance in the practical operation of mechanism of this kind.

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

1. In type distributing mechanism of the class designated, the combination of a ward lever, an individual type support pivotally connected thereto, a projection on the lifting ring arranged to trip said individual type support, an inclined conduit arranged to receive the type from the individual type support when tripped, and a type containing channel arranged to receive the type from said transfer conduit, for the purpose described.

2. In type distributing mechanism of the class designated, the combination of a ward lever, an individual type support pivotally connected thereto, a projection on the lifting ring arranged to trip said individual type support, an inclined conduit arranged to receive the type from the individual type support when tripped, and a type containing

channel arranged to receive the type from said transfer conduit, and a depressor mounted on the lifting ring and arranged to depress the column of type within the type containing channel against the resistance of a slug, for the purpose described.

3. In type distributing mechanism of the class designated, the combination of a ward lever, an individual type support pivotally connected thereto, a projection on the lifting ring arranged to trip said individual type support, an inclined conduit arranged to receive the type from the individual type support when tripped, a type containing channel arranged to receive the type from said transfer conduit, and a yielding resilient depressor mounted on the lifting ring and arranged to depress the column of type within the type containing channel against the resistance of a slug, for the purpose described.

4. In type distributing mechanism of the class designated, the combination of a ward lever, an individual type support pivotally connected thereto, a projection on the lifting ring arranged to trip said individual type support, an inclined conduit arranged to receive the type from the individual type support when tripped, a type containing channel arranged to receive the type from said transfer conduit, a yielding resilient depressor mounted on the lifting ring, means for holding the depressor out of contact with the type column, for the purpose described.

5. In type distributing mechanism of the character designated, the combination of a ward lever, an individual type support pivotally connected thereto, a projection on the lifting ring arranged to trip said individual type support, an inclined conduit arranged to receive the type from the individual type support when tripped, a type containing channel arranged to receive the type from said transfer conduit, a depressor mounted upon the lifting ring by means which admit of its being turned over upon the latter, and means for holding and supporting said depressor in its normal position during use, for the purpose described.

6. In type distributing mechanism of the character designated, the combination of a ward lever, an individual type support pivotally connected thereto, a trip pivotally connected to said individual type support, a projection on the lifting ring arranged to engage said trip, an inclined conduit arranged to receive the type from the individual type support when tripped, and a type containing channel arranged to receive the type from said transfer conduit, for the purpose described.

7. In type distributing mechanism of the character designated, the combination of a ward lever, an individual type support piv-

otally connected thereto, a projection on the
ward lever support arranged to sustain said
individual type support in its normal posi-
tion, a projection on the lifting ring arranged
5 to trip said individual type support, an in-
clined conduit arranged to receive the type
from the individual type support when
tripped, and a type containing channel ar-

ranged to receive the type from said transfer
conduit, for the purpose described.

LOUIS KOSSUTH JOHNSON.
ABBOT AUGUSTUS LOW.

Witnesses:

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