

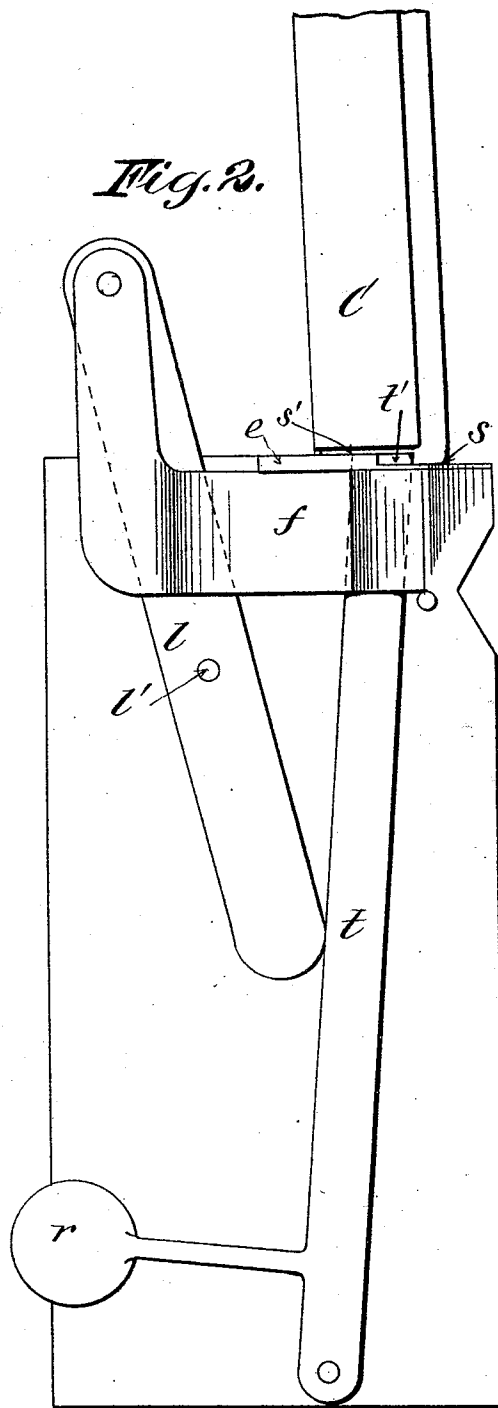
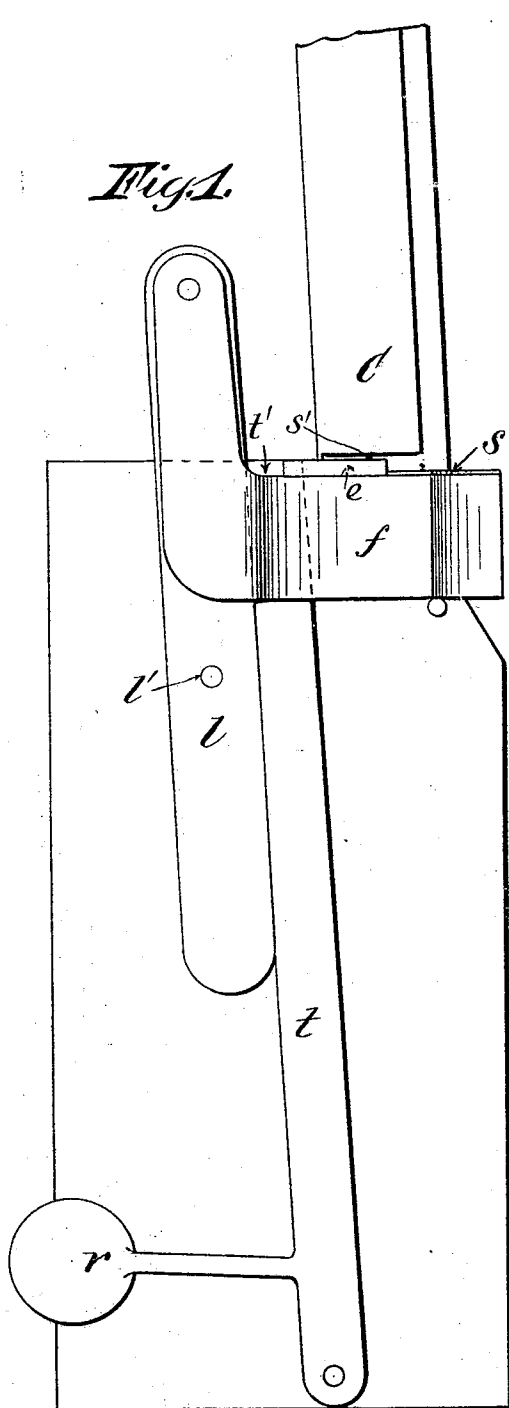
(No Model.)

3 Sheets—Sheet 1.

L. K. JOHNSON.
TYPE SETTING APPARATUS.

No. 517,144.

Patented Mar. 27, 1894.



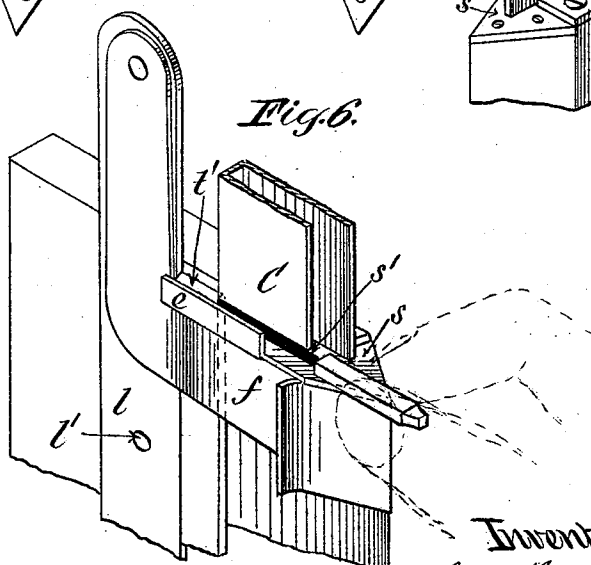
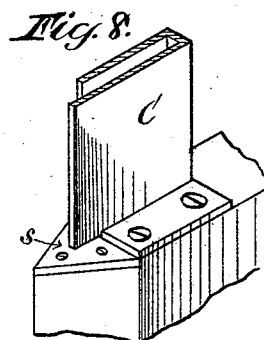
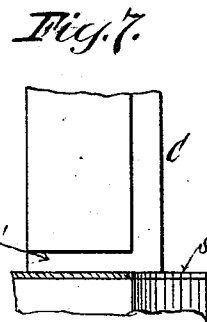
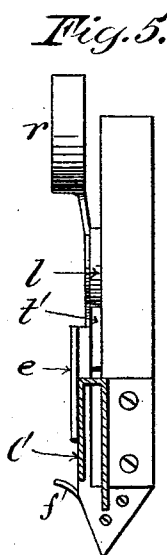
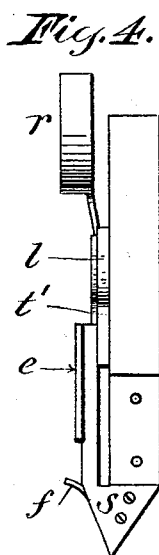
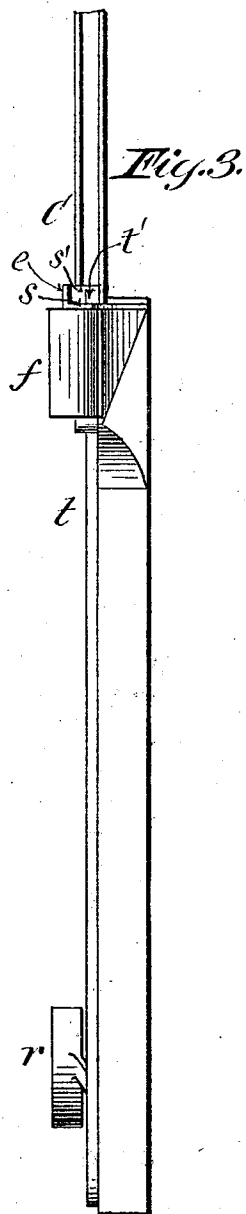
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O. W. Gardner.
G. J. Smith

Inventor:
Louis K. Johnson
By his Attorney
George William Smith

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TYPE SETTING APPARATUS.

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Witnesses:
D. W. Gardner
G. J. Mink

Inventor:
Louis K. Johnson,
By his Attorney
George William Mink

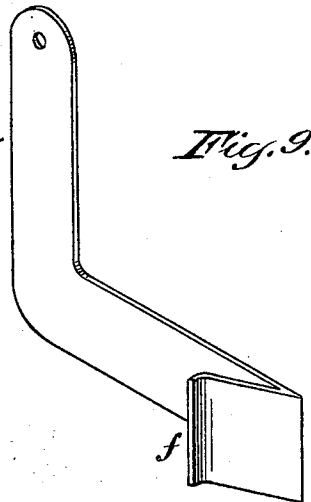
(No Model.)

3 Sheets—Sheet 3.

L. K. JOHNSON.
TYPE SETTING APPARATUS.

No. 517,144.

Patented Mar. 27, 1894.



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UNITED STATES PATENT OFFICE.

LOUIS K. JOHNSON, OF BROOKLYN, ASSIGNOR TO THE ALDEN TYPE MACHINE COMPANY, OF NEW YORK, N. Y.

TYPE-SETTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 517,144, dated March 27, 1894.

Application filed March 13, 1893. Serial No. 465,697. (No model.)

To all whom it may concern:

Be it known that I, LOUIS K. JOHNSON, a citizen 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-Setting Apparatus, 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 means for partially ejecting types from their containing channels in such manner that they may be readily grasped between the thumb and finger of the compositor and withdrawn for transfer to the stick.

The essential feature of the invention consists in operating an automatically retracting type lever or pusher by means of a finger push piece and intermediate mechanism whereby the act of pressing inward the push piece with the thumb or finger causes the lowest type or types in the column to protrude sufficiently to permit of their being conveniently grasped and withdrawn.

In the accompanying drawings, Figure 1, is a side elevation of the mechanism, at rest; Fig. 2, a similar view of the parts in the position which they assume when the push piece is pressed inward; Fig. 3, a front view of the parts shown in Figs. 1 and 2; Fig. 4, a top view of the type and channel support with the channel removed; Fig. 5, a similar view showing the channel in position and in transverse section; Fig. 6, an isometrical view of the channel and type support and adjoining parts; Fig. 7, a side elevation of the lower end of the channel and type support with the side flange *e*, broken away; Fig. 8, an isometrical view of the opposite side of the type channel and support. Fig. 9, is an isometrical view of the finger push piece.

The type channel *C*, is supported in any suitable or convenient manner above the type supporting shoulder *s*, side slot *s'*, being left or formed between the type shoulder *s*, and the front portions of the lower side walls of the type channels *C*. At the rear of the type

supporting shoulder *s*, is situated the push lever or type separator *t*, by the upper end *t'*, of which the lowest type or types in the column are projected forward upon the type shoulder *s*, in such position as to be easily grasped or removed by and between the thumb and finger of the operator, as will be seen by reference to Fig. 6. In its normal position the upper end *t'*, of the type lever *t*, rests at the rear of the type column. The type lever *t*, tends constantly to assume this normal position by reason of the counterweight *r*, or equivalent mechanism. It is obvious that a spring or other mechanism may be substituted for the counterweight *r*, and effect the same result. The type lever *t*, is forced forward, to separate and project the lower type, by means of a push piece *f*, which rests against or is pivotally connected with an intermediate lever *l*, pivoted to a stationary portion of the apparatus at *l'*. It will be seen that the act of pushing backward the finger piece *f*, causes the lower end of the lever *l*, to push the type lever *t*, forward against the resistance of the retracting mechanism *r*. Upon the withdrawal of the fingers the parts assume their normal position automatically, and fresh types descend successively into position upon the shoulder *s*, as often as the operation is repeated.

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

The combination of the type containing channel *C*, the type supporting shoulder *s*, the sliding finger piece *f*, situated below the said type supporting shoulder *s*, the intermediate lever *l*, pivoted to the inner end of the push piece *f*, and to the frame of the machine and having its lower end resting against the type separating lever *t*, and said separating lever and means for retracting it automatically, the whole arranged and operating substantially in the manner and for the purpose described.

LOUIS K. JOHNSON.

Witnesses:

D. W. GARDNER,
GEORGE WILLIAM MIATT.