(No Model.) 2 Sheets—Sheet 1.

L. K. JOHNSON & A. A. LOW.

TYPE FONT.

No. 588,996. Patented Aug. 31, 1897.

Fig. 1.

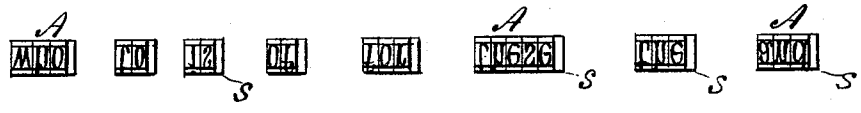


Fig. 2.

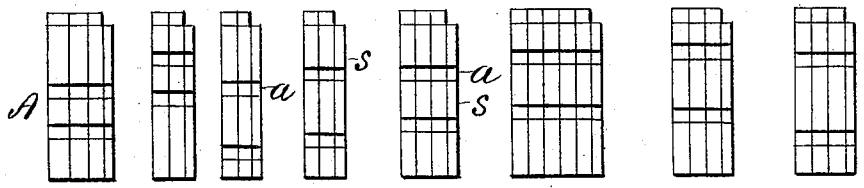


Fig. 5.

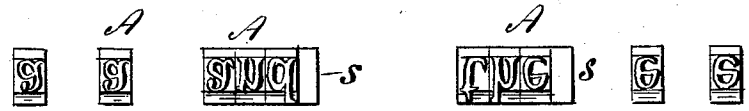


Fig. 6.

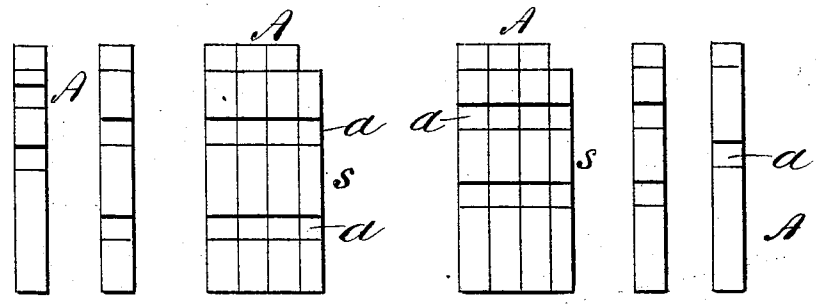


Fig. 3.



Fig. 4.



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(No Model.) 2 Sheets—Sheet 2.

L. K. JOHNSON & A. A. LOW.

TYPE FONT.

No. 588,996. Patented Aug. 31, 1897.

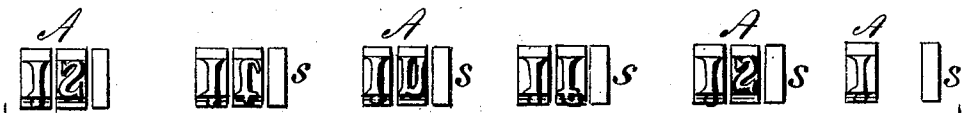


Fig. 7.

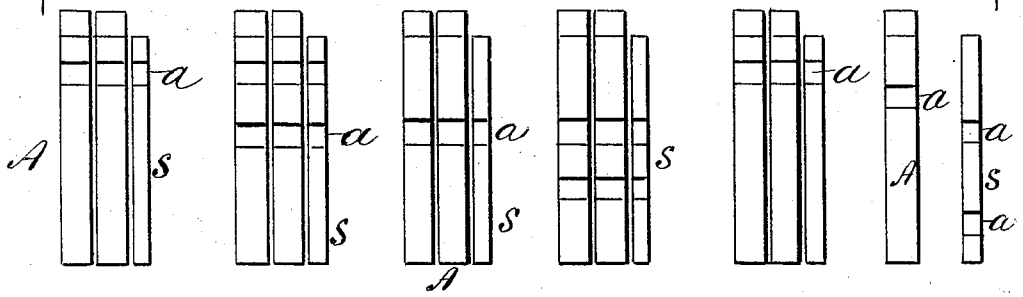


Fig. 8.

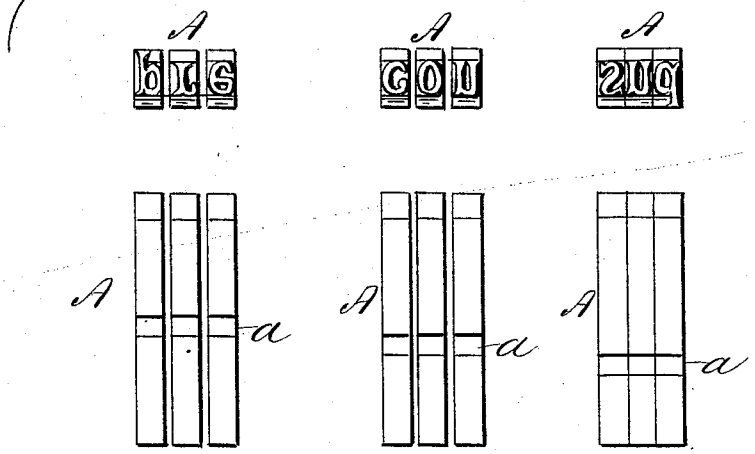
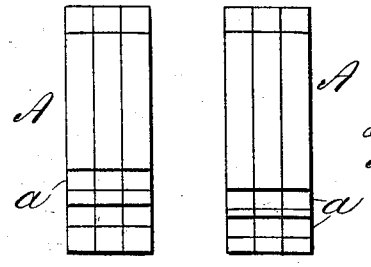


Fig. 9.



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UNITED STATES PATENT OFFICE.

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

TYPE-FONT.

SPECIFICATION forming part of Letters Patent No. 588,996, dated August 31, 1897.

Application filed November 29, 1895. Serial No. 570,335. (No model.)

To all whom it may concern:

Be it known that we, LOUIS KOSSUTH JOHNSON and ABBOT AUGUSTUS LOW, citizens 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 Types, 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.

In our Patents No. 494,573, dated April 4, 1893, and No. 569,337, dated October 13, 1896, we disclose a system of type-setting in which the types are arranged in the type-containing or setter channels in such manner as to form word or other prescribed combinations, the several types composing each combination being forwarded simultaneously for removal by the fingers of the compositor. By this system of composition (grouping types representing words or other combinations occurring most frequently in ordinary or special composition) we have effected a saving in time and labor of composition equivalent to from one-half to four-fifths of the time and labor involved in the composition of the same matter by the old method of extracting the types individually from their channels or compartments; but the distribution of the types into the channels in the form of word or other combinations had to be performed by hand prior to our present invention, which is designed to render such selection and grouping of the types to form words or other combinations automatic, and to thereby overcome the only objectionable feature heretofore attendant upon word or combination setting. In other words, by our present invention we extend and perfect the system of word or combination setting, rendering the gain effected in composition positive and complete, and thereby making the system practicable and applicable upon a larger scale and to various classes of composition, in all of which it could not otherwise be used economically.

Our invention consists, essentially, in forming each of the several sets or duplicates of individual characters or types of which a font is composed with various combinations of feeler-nicks (for effecting their selection in the distributing apparatus) in such manner that certain of the types of a given face or character will be selected automatically to contribute to the formation of a prescribed word or other combination, others of the same given face or character will be selected to contribute to the formation of other words or combinations, and still others of the same given face or character will be selected for individual use, as in ordinary composition, the types entering a prescribed word or combination all being formed with coinciding distributing-nicks, and different distributing-nick combinations being used for each word or combination of types, as well as for the types for individual use, so that each and every type and character in the font will be distributed into a prescribed channel and into no other for use in the setter-case.

In the accompanying drawings, in Figure 1 is represented the faces of types and spaces forming a series of different words of frequent occurrence, and in Fig. 2 the edges of the same types and spaces are shown with the combination nicks formed therein. Figs. 3 and 4 are views of the flat sides of different types, illustrating diagrammatically the difference in the relative positions. Figs. 5 and 6 illustrate, upon an enlarged scale, two word combinations, a character of each combination compared with a like character nicked for another combination or for individual use. Fig. 7 illustrates the nicking of the letter "i" for four combinations and also for individual use. Figs. 8 and 9 illustrate the use of prefix and suffix combinations.

In carrying out our invention the types A, composing a font, are formed with the distributing-nicks *a* or any combination thereof in any suitable or well-known manner, with this difference that all the types of a like face or character in the font are not nicked alike, but, on the contrary, are formed with various nicks or combinations thereof, whereby certain of them are adapted for selection to form words or combinations with other types of different face or character, but formed with coinciding nicks, others in like manner for selection to form other words or combinations, while still others are formed with individual nicks that exclude them from automatic selection for use in the word or

other combinations specifically provided for in the font. In other words, the distributing nick or combination of nicks for each word or group of type is different in position from that for any other word or combination or individual character, the types of a given face or character being variously nicked to meet the requirements of the various words and combinations and to afford single types for use in combination with other types of different face or character and with different distributer-nicks.

Thus in Figs. 5 and 6 the word-letters "a n d" and space *s* are shown as formed with one combination of distributer-nick *a*, the letters "t h e" and space *s* with another combination of distributer-nick *a*, while duplicates of the letter "a" in "and" and of the letter "e" in "the" are formed with distributer-nicks differing from each other and from the word-nicks either for the purpose of adapting them for individual use, as in ordinary composition, or for use in other words or combinations formed with nicks coinciding to their own.

In Fig. 7 duplicates of the letter "i" are shown as formed with five different distributer-nicks, the one on the right being provided with an individual nick, while the others are nicked, respectively, to correspond with the nicks in the letters "s," "f," "n," "t," and accompanying spaces to form the word-combinations "is," "if," "in," "it." In this figure the word-combination "is" and space are duplicated to show a plurality of prescribed word-combinations formed with coinciding distributer-nicks.

Figs. 8 and 9 show type-combinations other than complete words, as the prefixes "pre," "con," "sup," and the suffixes "ing" and "ion," illustrating the application of our invention to frequently-recurring syllables or parts of words themselves uncommon.

Since in the automatic distribution of type the characters in a word or combination naturally pass to the feelers successively and in proper order, it will be seen that by our invention the types of a word or combination will naturally be deposited successively and in order one upon the other in appropriate type-containing channels and that other types, even of a like character, will not be deposited therein, owing to their lack of the specific nick or combination, the presence of which alone admits a type to its particular channel.

The number of words or combinations of types that may thus be formed and arranged for special selection or "setting" into separate containing-channels is practically unlimited and may be adapted to the technicalities of special classes of work or composition.

It is to be understood that while we herein describe our invention as applicable specially for use in connection with our type-cases, in which the types or combinations thereof are removed to the stick by hand, still our invention may be adapted to and used in connection with type-setting apparatus operated by keys or otherwise.

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

As an article of manufacture, a font of type, adapted to be distributed by automatic mechanism into channels for use in a setter-case of the class herein designated, the bodies of the several sets or duplicates of individual types or characters which constitute the font being formed with various combinations of distributing-nicks, so arranged with relation to each other and to the distributing-nicks in the rest of the types composing the font that certain types of a given face or character will be selected automatically to contribute to the formation of a prescribed word or combination of types formed with coinciding distributing-nicks while certain others of the same given face or character will be selected to contribute to the formation of other prescribed words or combinations having coinciding distributing-nicks and still others of the same given face or character will be selected for individual use in combination with other types of the font of different face or character and formed with different distributer-nicks as in ordinary composition, substantially as described.

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ABBOT AUGUSTUS LOW.

Witnesses:
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