

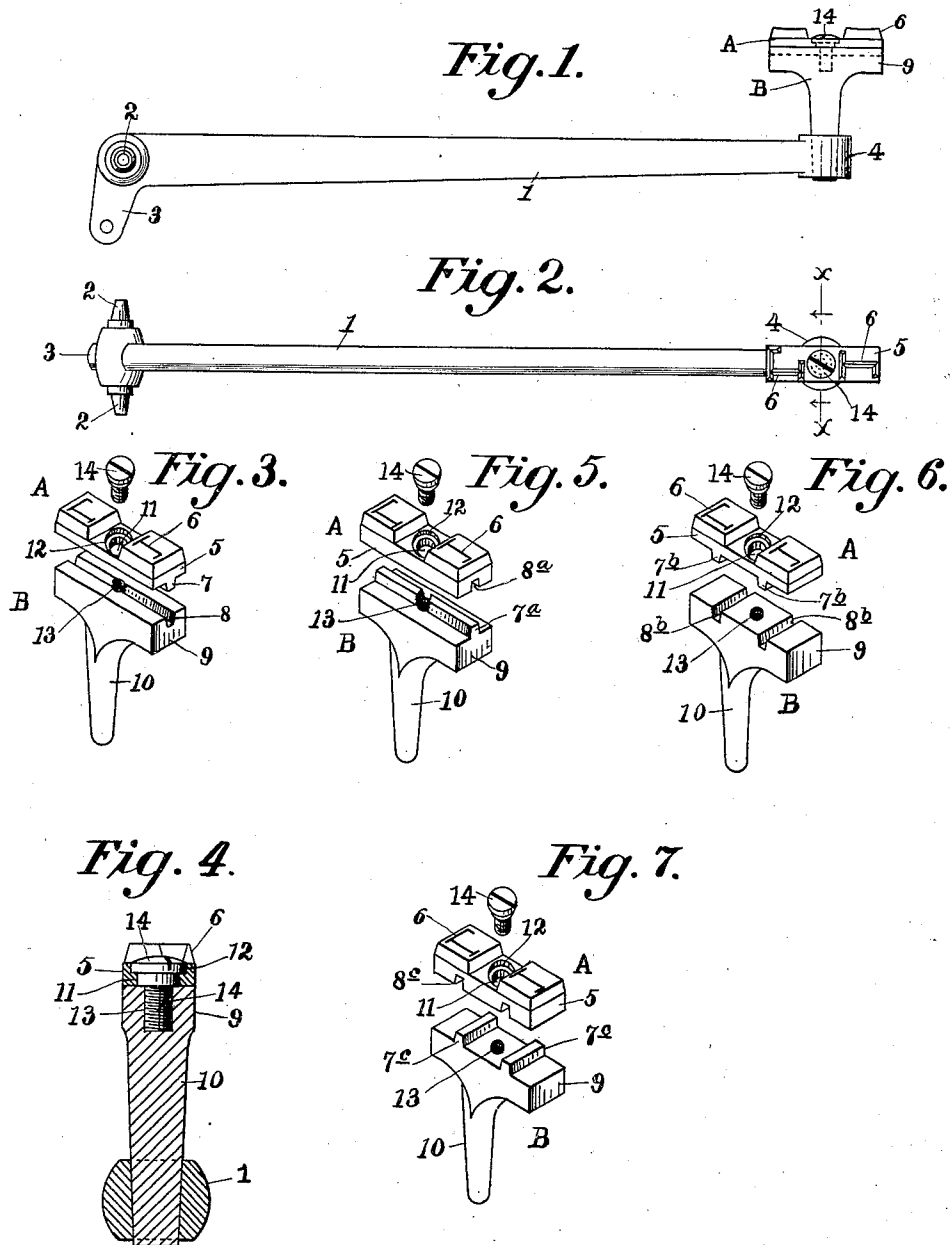
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D. BRIGGS & W. H. SHEPARD.
TYPE BAR FOR TYPE WRITING MACHINES.

(No Model.)

(Application filed June 14, 1899.)



WITNESSES:

H. H. Stubb.

H. V. Donovan.

INVENTORS

Daniel Briggs
William H. Shepard

by Jacob Selbel

THEIR ATTORNEY

UNITED STATES PATENT OFFICE.

DANIEL BRIGGS AND WILLIAM H. SHEPARD, OF NEW YORK, N. Y., ASSIGNORS
TO THE WYCKOFF, SEAMANS & BENEDICT, OF ILION, NEW YORK.

TYPE-BAR FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 660,287, dated October 23, 1900.

Application filed June 14, 1899. Serial No. 720,454. (No model.)

To all whom it may concern:

Be it known that we, DANIEL BRIGGS and WILLIAM H. SHEPARD, citizens of the United States, and residents of the borough of Brooklyn, city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Bars for Type-Writing Machines, of which the following is a specification.

Previous to our invention types for type-writing machines of the bar class have in practice been made of a single integral piece, comprising in some cases the type-face, a body, and a stem or shank, while in others merely a type-face and body or support. These types have in some instances consisted only of a single letter, in others of two letters, as capital and lower case, and in others of three or more letters or characters. Such single-piece or integral types are fitted to, in, or upon the type-bars, and this work requires especially-skilled hands and in some cases special machines or tools in order that the types may be so placed or adjusted as that their characters will all print in alinement. Frequently one or more of the types become battered or worn and have to be removed from the type-bar and replaced by other types, which work requires as much skill as does the work of originally setting and alining the entire type system.

The main object of our present invention is to provide a construction of type whereby changes in the type may be made without loss of alinement and without necessitating the employment of especial skill and tools for such purpose.

In accordance with the main feature of our invention the type is composed of two individual parts, one of which is permanently fixed to the type-bar in the usual manner and the other of which consists of a piece with the type character or characters on it and is removably attached to the piece or part that is permanently placed on the bar, which construction permits of repairs or other changes in types and insures perfect alinement of the types when the faces are removed and others replaced or substituted.

Other features of construction will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is an enlarged side elevation of a type-bar, showing the preferred form of type mounted thereon. Fig. 2 is a plan view of Fig. 1. Fig. 3 is an enlarged perspective view of a type block or body, type-face, and set-screw, the parts being separated. Fig. 4 is an enlarged vertical section on the line *xx* of Fig. 2. Fig. 5 is an enlarged perspective view similar to Fig. 3 and showing a modification of the construction. Fig. 6 is an enlarged perspective view similar to Figs. 3 and 5 and showing a further modification. Fig. 7 is an enlarged perspective view similar to the last-mentioned figure and showing a still further modification.

Referring to Figs. 1, 2, and 4, 1 designates a type-bar of ordinary construction—such, for example, as is used in the "Remington" machine—and having at its rear end lateral conical pivots 2 2 and a crank-arm 3, and at its forward end an eye or circular bearing 4 for the type, which in this instance is made of two parts A and B, the part A having the letter, numeral, or other character, and the part B being adapted to support the part A and itself to be secured in or on the type-bar in proper position to enable the type characters to print in alinement.

The part A comprises a base or plate upon the upper surface of which is formed or produced the letter or letters or other characters 6, in the example shown there being two letters, an upper and a lower case letter. On the under side of the part A and extending longitudinally and centrally thereof is a rib or tongue 7, which is adapted to a groove or seat 8 in the head 9 of the part B, which latter in the present example is provided with a tapering shank or stem 10, adapted to be forced into or otherwise secured in the eye or bearing 4 of the type-bar.

The plate 5 is perforated centrally between the types, as at 11, and is countersunk at 12, and the head 9 is formed with a threaded hole 13. The part A is placed upon the part B, with

the tongue 7 fitting in the groove 8, and for the purpose of holding these two parts firmly together a screw 14 is passed through the perforation 11 and engaged with the threaded hole 13.

The various members of the compound type may in assembling the same at the factory be first put together before the type is mounted upon the type-bar and the type as an entirety subsequently adjusted for alinement. In thus alining the type the part B is adjusted or brought to the proper position relatively to the type-bar and the printing-point, and having once been fixed in this position the part A may be removed therefrom and reattached or another part substituted therefor with ease and despatch, and when reattached or replaced by another part the type characters will come in proper relation to the printing-point and will print in alinement without special adjustment therefor—in other words, the part will be self adjusting or alining. Thus any unskilled person can substitute a new type-face without concern to the matter of alinement, for the part B being properly fixed and the type-face being adapted to be secured to the part A in only one position it follows that the part A will always strike the platen in a way to secure correct alinement. This ability of the ordinary operator or unskilled person to change the types of the machine without sending for a skilled repairer is a great advantage. These type-faces may be made cheaper than the entire ordinary type and may be furnished or sold to operators, as required, for substitution of old or injured types.

Referring to Fig. 5, the only difference in construction is that the rib or tongue (here marked 7^a) is on the part B, while its corresponding groove (here marked 8^a) is on the part A.

Referring to Fig. 6, the main difference in construction lies in the use of two transverse ribs 7^b on the part A and two transverse grooves 8^b on the part B.

The modification shown at Fig. 7 involves merely a reversal of the parts shown in Fig. 6—that is to say, the transverse tongues (here marked 7^c) are on the part B and the transverse grooves (here marked 8^c) are on the part A.

At Figs. 1, 2, and 4 the characters 6 are raised on the type face or plate 5; but in the remaining views the characters are simply represented on square blocks for the sake of convenience of illustration.

It will be seen that the screw 14 draws the tongue into the groove, and also that in each instance the tongue, groove, screw, and perforations 11 and 13 all cooperate to bring the type A to one invariable position upon the support B or, in other words, to render the type self-alining, thus making it possible for the type-writing-machine operator to substitute other types or replace the original types at will. It will also be understood that the

screw 14 not only unites the parts together, but also serves as a dowel-pin for positioning the type A endwise upon the support B, and also that the tongue and groove prevent the type from turning upon said dowel-pin.

Although we have shown the parts B with stems or shanks, these are not essential where the type as a whole is to be attached to the bar in some other way than by the eye or bearing 4 and which is common in other styles of machines.

While we refer to the part B as the “permanently-fixed” part, because after it has once been set in position it need not be disturbed, but may remain always as adjusted, it will be understood, of course, that it may, if desired for any reason, be removed from the type-bar.

Various other changes in details of construction, form, and arrangement may be made without departing from the gist of our invention.

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

1. A type for the type-bars of type-writing machines, consisting of two parts, one adapted to be permanently attached to the type-bar in the proper position to secure alinement, and the other to be detachably attached in one invariable position to the permanently-fixed part.

2. A type for the type-bars of type-writing machines consisting of two parts, one adapted to be attached to the type-bar permanently to secure alinement and the other part carrying the type face or faces and detachably mounted in one invariable position thereon by means of one or more tongues and grooves.

3. A type for the type-bars of type-writing machines, consisting of two parts, one adapted to be permanently attached to the type-bar to secure alinement and the other part carrying a type face or faces and detachably mounted thereon by means of a screw passing through a perforation in the part carrying the type character or characters and engaging a threaded hole in the permanently-fixed part.

4. A type for the type-bars of type-writing machines, consisting of two parts, one adapted to be attached to the type-bar permanently to secure alinement and the other part carrying a type face or faces, one part having one or more tongues and the other part one or more grooves, and a screw for connecting the said parts together and mechanically determining their relative positions.

5. A type-bar provided with a compound type one part of which is permanently fixed thereto in proper position to secure alinement and the other part of which is formed or provided with a type character or characters and is detachably connected in one invariable position to the permanently-fixed part.

6. A type-bar provided with a compound type one part of which is permanently fixed thereto in proper position to secure alinement and the other part of which is formed or pro-

vided with a type character or characters, said parts having intermatching tongues and grooves, and a screw for holding and mechanically positioning the type-bearing part upon the permanently-fixed part.

7. A type-bar provided with an eye or bearing, a part B secured therein in proper position for alinement and consisting of a shank 10, a head 9, and a part A consisting of a plate 5 having one or more characters formed thereon and detachably connected in one invariable position to the part B.

8. A type-bar having an eye or bearing, a part B fixed thereon in proper position for alinement of the type and comprising a shank and a grooved head having a threaded hole; a part A comprising a plate having one or more characters formed thereon and having a perforation and a tongue, and a screw passing through said perforation and engaging said threaded hole.

9. The combination of a type-support, a type, one of said parts having a tongue and the other of said parts having a groove, and

means for drawing said tongue into said groove.

10. The combination of a type-support, a type, and coöperating means provided upon said devices for bringing the type to one invariable position upon said support.

11. The combination of a type-support, a type having a plurality of characters thereon, and means placed between said characters for securing the type to the support.

12. The combination of a type, a support therefor, a pin or screw for positioning the type upon the support, and means for preventing the type from turning upon said pin or screw.

Signed in the borough of Manhattan, in the city of New York, in the county of New York and State of New York, this 13th day of June, A. D. 1899.

DANIEL BRIGGS.

WILLIAM H. SHEPARD.

Witnesses:

K. V. DONOVAN,

HERBERT H. STEELE.