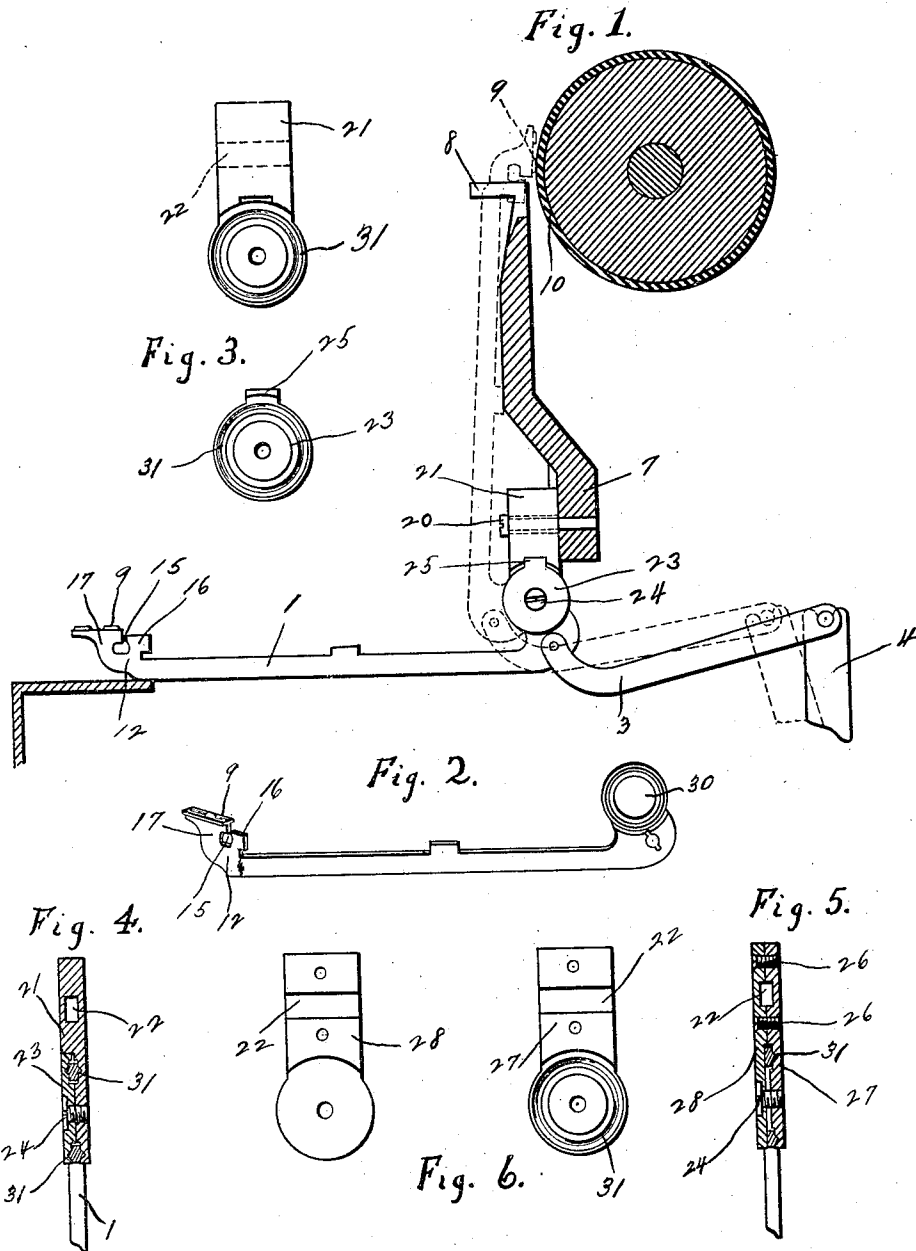


A. SCHNEELOCH & J. L. SMITH.
TYPE BAR FOR TYPE WRITING MACHINES.
APPLICATION FILED DEC. 14, 1905.

1,061,018.

Patented May 6, 1913.



WITNESSES:

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AUGUST SCHNEELOCH AND JOHN L. SMITH, OF SYRACUSE, NEW YORK, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, OF TWO-THIRDS TO E. C. STEARNS & CO., OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK, AND ONE-THIRD TO THE OLIVER TYPEWRITER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TYPE-BAR FOR TYPE-WRITING MACHINES.

1,061,018.

specification of Letters Patent.

Patented May 6, 1913.

Application filed December 14, 1905. Serial No. 291,669.

To all whom it may concern:

Be it known that we, AUGUST SCHNEELOCH and JOHN L. SMITH, citizens of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented new and useful Type-Bars for Type-Writing Machines, of which the following is a specification.

Our invention relates to type-bars of typewriting machines and consists in an improved construction thereof, whereby adjustment is made easier, smooth operation is insured, and danger of displacing the bar and the position of the type in assembling and adjusting is avoided.

Our invention is shown in the drawing herewith in which the reference numerals of the description indicate the corresponding parts in all the figures.

Figure 1 is a side elevation showing our type-bar and hanger as secured on the segment; the segment and the platen are in section. Fig. 2 shows a type-bar in perspective to illustrate the manner in which the heads are bent or inclined with relation to the shank. Fig. 3 is an enlarged elevation of the inner faces of the parts of our improved hanger. Fig. 4 is a vertical cross section of the hanger and end of the type-bar. Fig. 5 is a similar section showing a slight modification in the construction. Fig. 6 is an elevation showing the inner faces of the two side plates of the hanger of Fig. 5.

In the figures, 1 indicates the type-bar hung in a suitable hanger, to be described, and operated by usual link 3, connection 4 and key-lever.

7 is the segment carrying the hangers and type-bars and the single guide 8, for centering and insuring correct engagement of the type 9 with the platen 10.

An important part of our invention relates to the end or head 12 of the type-bar, which is the part on which the type are directly formed or attached, and which is bent more or less with relation to the shank or shaft of the bar, as indicated in Fig. 2, whereby all the type are brought into vertical position when they strike, though the type bars are arranged at different angles, being secured on the arc shaped segment.

It will be seen that this head is divided by rather a deep and enlarged slot 15 into two parts, the guide-piece 16, and the end 17, on which the type are directly secured. The reason for this is that in adjusting, after the parts have been assembled, so that the guide-pieces correctly engage with the guide, it is necessary to offset the type, that is slightly to bend or twist the part of the head carrying the type, to bring them all into perfect alinement, and to correct trifling, unavoidable errors in making these parts in large numbers. By separating the guide-piece and end as far as possible by a deep slot, either of said parts can be offset as may be necessary, without disturbing the position of the other, and preferably by enlarging the inner portion of the slot, "goose-necks" for the parts, particularly the end, are formed, whereby the parts may be bent or twisted easily and separately and are well separated.

The form of type-bar hanger here shown is somewhat improved over the hanger heretofore invented by us. In such old hanger, the type-bar was maintained in position, with great exactness and steadiness by providing a large bearing consisting of a circular ridge on each side of the type-bar heel fitting a corresponding groove in each half of the hanger, but sometimes in tightening the securing screw 20, or otherwise, these two halves were slightly swung, or shifted with relation to each other, tending to bind in the bearing or to throw the type-bar out of true.

In our present construction, we have preserved all the advantages of the large circular bearing, without the aforesaid dangers. We make our hanger of a solid main piece 21, provided with a circular clamping portion 31, and having a hole 22 for the securing screw 20, and secure the type-bar thereto by means of a clamping-plate 23 and screw 24. This screw is preferably made as here shown, with a square, and not a tapering, head and the clamping plate correspondingly countersunk. The parts are maintained in position by tongue 25 on the clamping plate engaging with corresponding notch on the main piece. As shown, the parts of the hanger are formed with circu-

lar grooves fitting circular ridges on the type-bar heel, and preferably with circular shanks fitting hole 30 in the heel.

A simple variation of our invention is shown in Figs. 5 and 6. Here the hanger is composed of two side-plates, secured together by screws 26, side-plate 27 having the before described circular groove to receive corresponding ridge on type-bar heel, and side-plate 28 having a smooth inner surface engaging with a similar surface on the heel, whereby it happens that if the side-plates shift slightly on each other there is no binding effect produced on the type-bar as might be the case, with a circular bearing on each side-plate. One of the parts shown in Fig. 3 could have a smooth face if desired, for a similar reason. In the construction shown in Fig. 5, screw 24 is desirable, but not essential.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. A type-bar for typewriting machines having in combination a shank, an integral head on the end of the shank, a type-bearing end and a guide piece on the head, said type-bearing end having an elongated and widened extremity for the type and said guide-piece having an elongated guiding extremity, said end and said guide-piece being supported on said head by independent goose-necks, and said necks being narrow in comparison to the respective extremities to permit easy bending and angular adjustment of the end and the guide piece, substantially as described and shown.

2. In a type-bar for typewriting machines, the combination of a shank and a head arranged at a suitable angle to the shank, a type-bearing end and an enlarged guide-piece on said head, said end and guide-piece being separated by a slot having an inner enlargement whereby they are separated

from the head by gooseneck portions to facilitate their independent adjustment.

3. In a typewriting machine, the combination with the type-bar, of a hanger therefor, and a segment to support the hanger, said hanger being composed of a solid main piece secured on edge on the segment and having a hole for the securing screw, an integral circular clamping portion, and a corresponding clamping-plate, said clamping portion and clamping-plate having circular grooves to engage with corresponding ridges on the heel of the type-bar, and means to secure the clamping-plate on the main portion.

4. In a typewriting machine a type-bar having a substantially circular heel provided with a central hole and an annular ridge on each side around the hole and a hanger for said type-bar having in combination a main portion provided with a circular clamping portion at one end and a hole in said clamping portion and a circular clamping piece corresponding to said circular clamping portion, said clamping piece having a tongue fitting a slot formed in the main portion and a screw hole corresponding to the clamping piece screw hole, and a screw to secure the clamping plate on the clamping portion with the type bar heel arranged between them, said clamping portion and clamping plate having on their inner surfaces annular grooves fitting the annular ridges on the sides of the heel and circular shanks substantially fitting the hole in the heel substantially as described and shown.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

AUGUST SCHNEELOCH.
JOHN L. SMITH.

Witnesses:

F. E. WELCH,
H. J. PRATT.