

No. 631,412.

Patented Aug. 22, 1899.

C. SPIRO.
TYPE BAR BRACKET.

(Application filed Oct. 31, 1898.)

(No Model.)

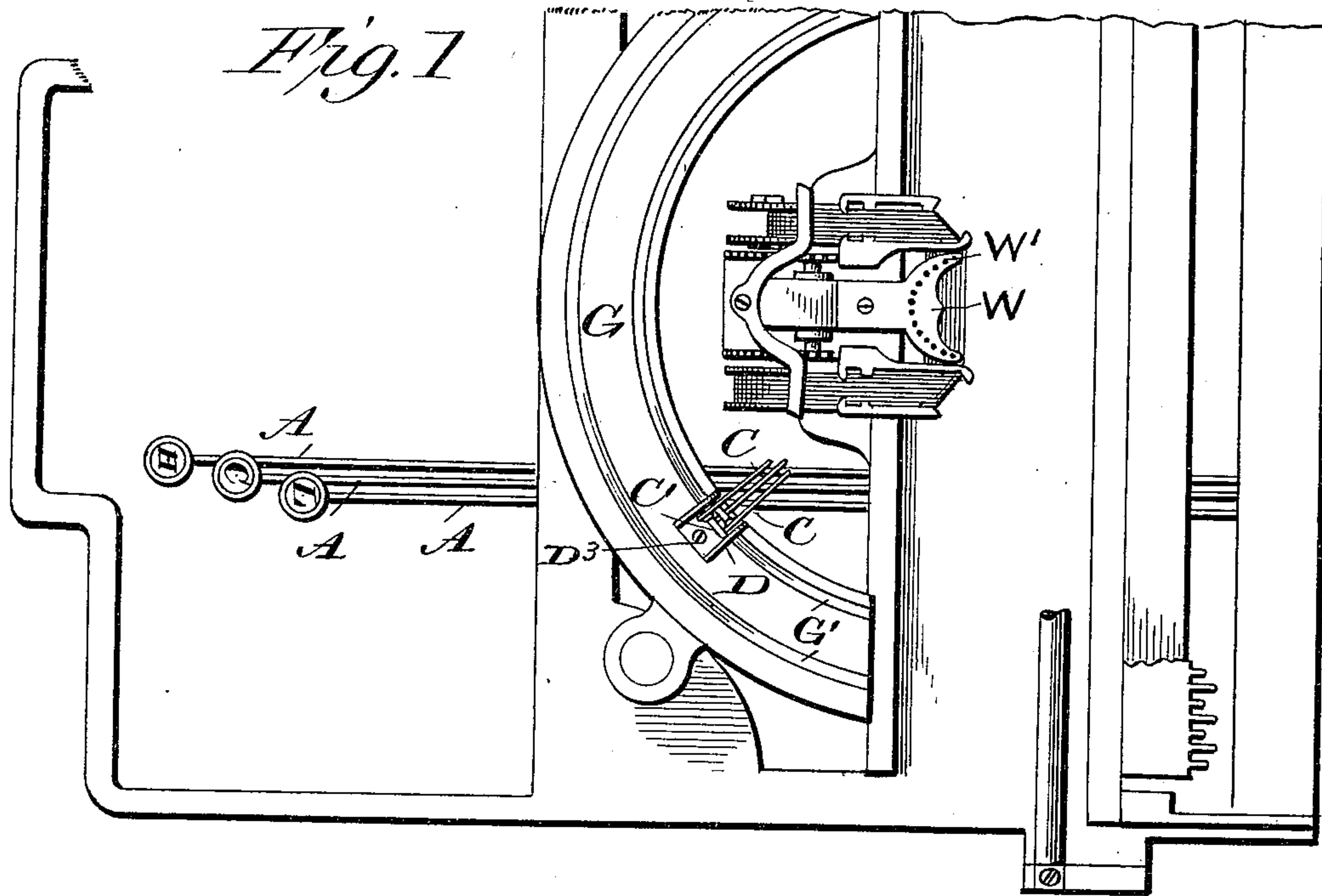
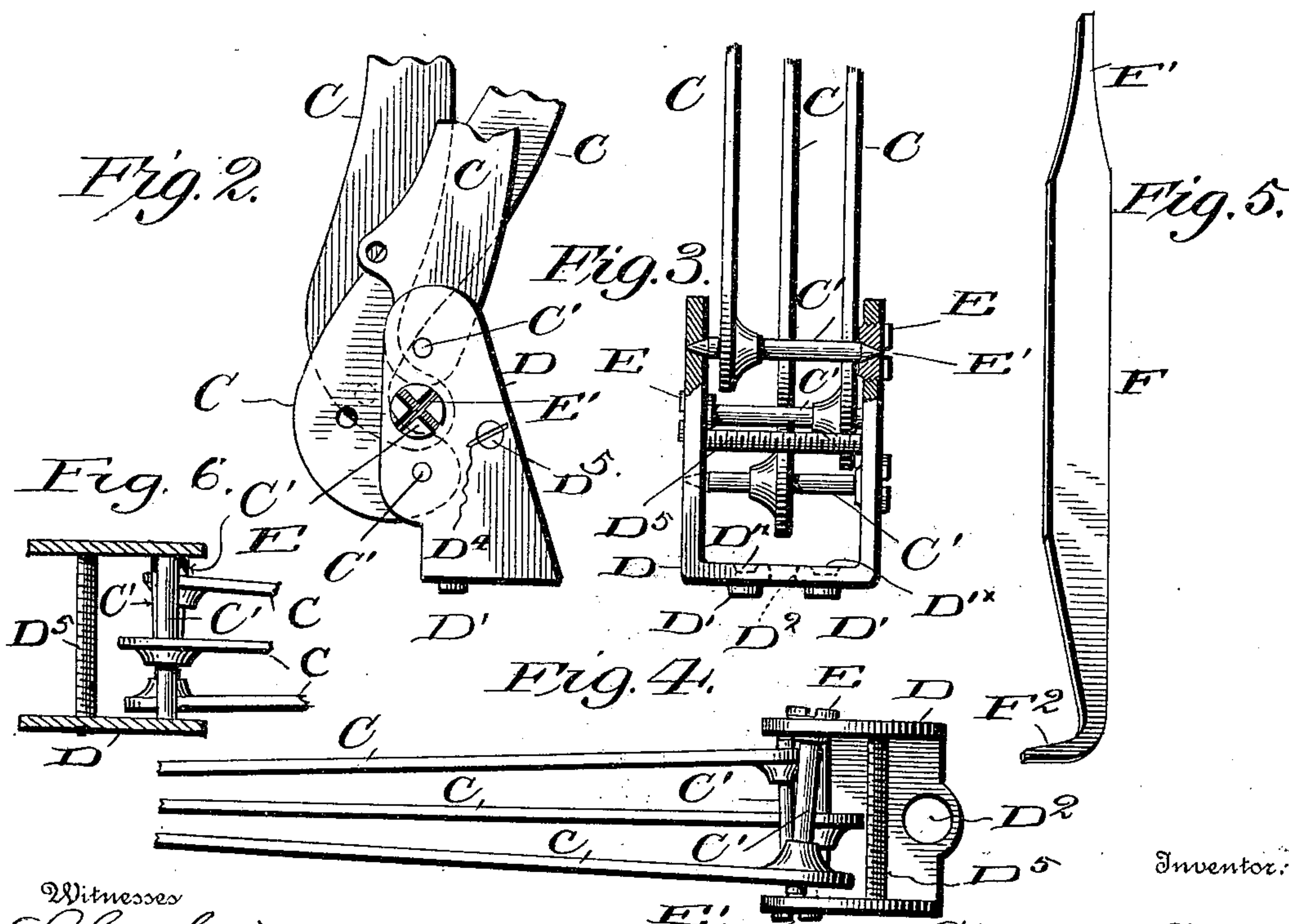


Fig. 2.

Fig. 3.

Fig. 5.

Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

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TYPE-BAR BRACKET.

SPECIFICATION forming part of Letters Patent No. 631,412, dated August 22, 1899.

Original application filed April 9, 1897, Serial No. 631,437. Divided and this application filed October 31, 1898. Serial No. 695,058. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SPIRO, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Type-Bar Brackets, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in type-writers, and particularly to a type-bar bracket disclosed in my prior application, Serial No. 631,437, filed April 9, 1897, of which this application is a division.

The object of the invention is to improve the construction of type-bar brackets and bearings and to facilitate the adjustment of the latter in position in a complete machine—that is, when located closely adjacent to other brackets.

Other objects and advantages of the invention will hereinafter appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a detail plan view illustrating the angular arrangement of the type-bars. Fig. 2 is a side elevation of one of the brackets. Fig. 3 is an end elevation with parts in section. Fig. 4 is a top plan of a bracket. Fig. 5 is a detail perspective of the tool for adjusting the cone-bearings of the brackets, and Fig. 6 is a bottom plan of the bracket and type-bar pivots with the base of the bracket removed.

Like letters of reference indicate like parts throughout the several figures of the drawings.

The letter A represents the key-levers of a type-writer, which are suitably connected with the type-bars C, which bars are mounted in groups in brackets D. Each type-bar is provided with a transverse bearing-shaft C', the ends of which are coned, as shown, and take bearing at one end in the wall of a bracket D and at the other end in a cone-bearing E, screw-threaded in the opposite wall of the bracket. The bearing E is slotted, as at E', for the reception of a lever F, one end of which is tapered to fit the slot E', as at F', and the other end of which tool is tapered and bent,

as at F², to fit the slot E' and to be placed within the slot when the same is inaccessible to the opposite end F' by reason of the position of the slot. In the completed machine the type-bar brackets are arranged very closely together, rendering it difficult to get access to the adjustable bearing of the type-bar. Now by providing the cone-bearing with one or more slots or grooves the same is accessible for the operation of a tool for adjusting the bearing; but the bearings being so closely assembled in the machine the tool must necessarily be thin, and therefore if entered in the slots flatwise it would readily bend, but being tapered and entered edgewise greater strength is given to the tool, while at the same time accessibility to the parts is retained.

The base of the bracket is provided with two lugs D' and an aperture D² for the reception of the bracket-retaining screw D³, Fig. 1, by which the brackets are secured to the bridge G, the lugs D' resting in the groove G' of the bridge. Instead of inserting pins in the base of the bracket to perform the function of the lugs B', I form them by forcing down the metal of the base by suitable dies, forming depressions D^x, as shown by dotted lines in Fig. 3. This gives a cheaper and stronger construction than forming the lugs of separate pieces.

To prevent the spreading of the walls of the bracket in an adjustment of the type-bar bearings, I employ a screw-threaded tie-bar D⁵, which is threaded into the walls at each end, cut off flush with the outer surface of each wall, and then is set against withdrawal and against rotation by the formation, with any suitable tool, of a depression D⁴, extending across the rod and for a distance beyond the same into the surface of the wall, as clearly illustrated in Fig. 4. This depression D⁴ necessarily mars the threads in the wall and on the rod, thereby locking the latter against rotation, while the adjacent threads, seated in the wall, prevent the spreading of the walls. This construction is preferable to countersinking the outer faces of the walls and riveting or upsetting the ends of the tie-rod within the countersink, as this work has a tendency to bend the rod or otherwise throw the walls out of parallelism. The screw-

threaded rods permit easier, more accurate, and cheaper assembling of the parts.

In referring again to the type-bar bracket D it will be noticed, more clearly in Fig. 1, that the shafts C' of the several type-bars mounted in a single bracket are arranged out of parallelism with each other. The object of this arrangement is to bring the type of each of the three bars assembled in a single bracket to one common printing-point. The shaft of the central bar is practically parallel with the base of the bracket, while the shafts of the other bars are at an angle to a vertical line bisecting the base parallel with the side walls of the bracket.

The type-bars and brackets constituting the complete series employed in a machine will be so disposed by the location of their shafts that the bars will be brought between the proper pins W' of the bar-lock W of the machine. By this construction less dependence is placed upon the sidewise springing of a type-bar when it enters the bar-lock and heavier material may be employed by the bar. The provision of an embossed projection upon the bracket forms an integral rigid projection for holding the bracket in proper position, so that it cannot be bent out of its proper alinement. The threaded tie-bar used likewise holds the walls of the bracket in positive alinement irrespective of the adjustment of the bearings, which is accomplished entirely

through the cones. These cone-bearings are nested very closely together, and the plurality of slots at an angle to each other provided therein permits the insertion of a tool at any position in which the slot may stand and the consequent convenient and rapid adjustment of the bearings whenever necessary.

It is obvious that changes may be made in the details of construction and configuration of the several parts without departing from the spirit of this invention as defined by the appended claims.

What I claim is—

1. A type-bar bracket having integral walls extending at an angle to an apertured base, the material of which base is embossed to form depressed lugs; substantially as specified.

2. A type-bar bracket provided with a tie-bar screw-threaded at each end into the wall of the bracket and secured against rotation by a depression in the end of the bar; substantially as specified.

3. A tie-bar for a type-bar bracket screw-threaded in one direction throughout its length; substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES SPIRO.

Witnesses:

MICHAEL P. CORRIGAN,
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