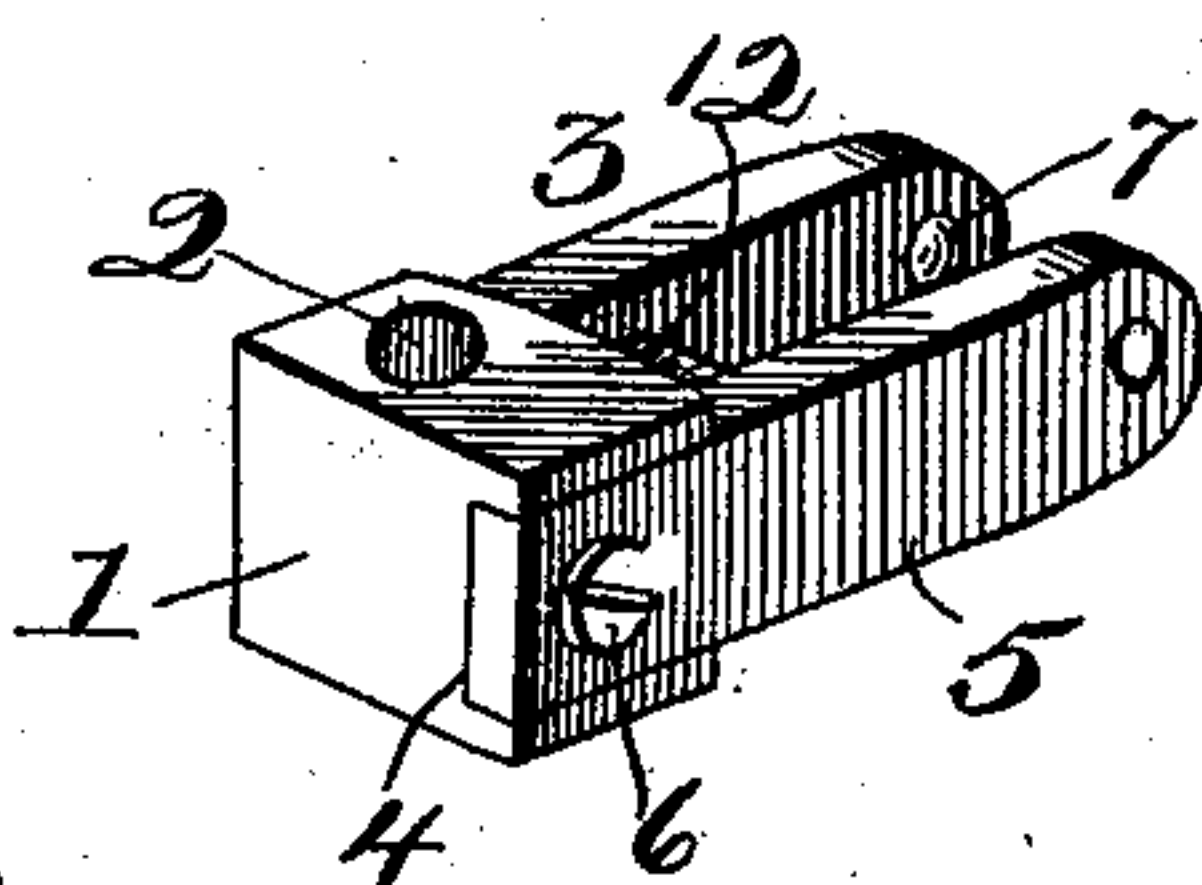
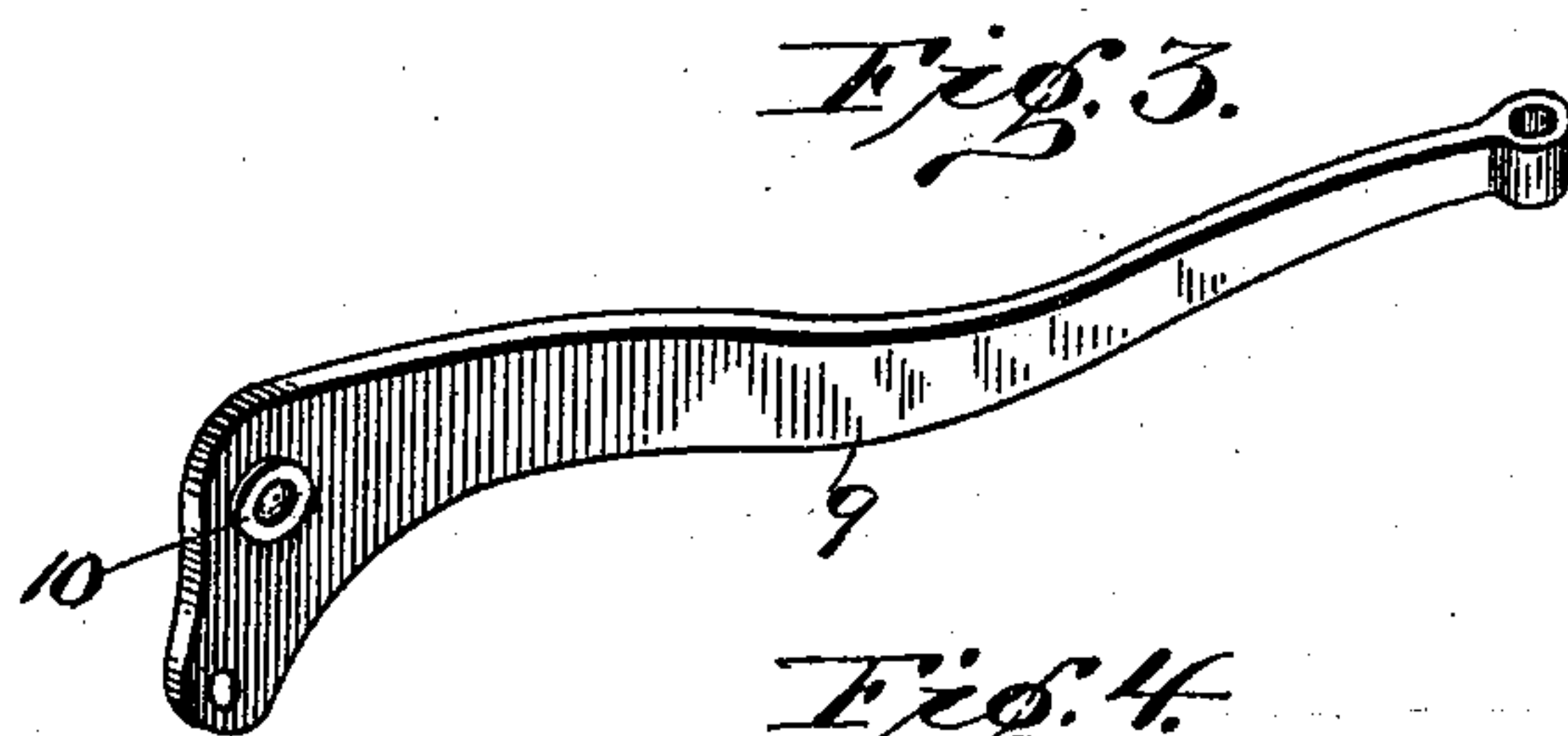
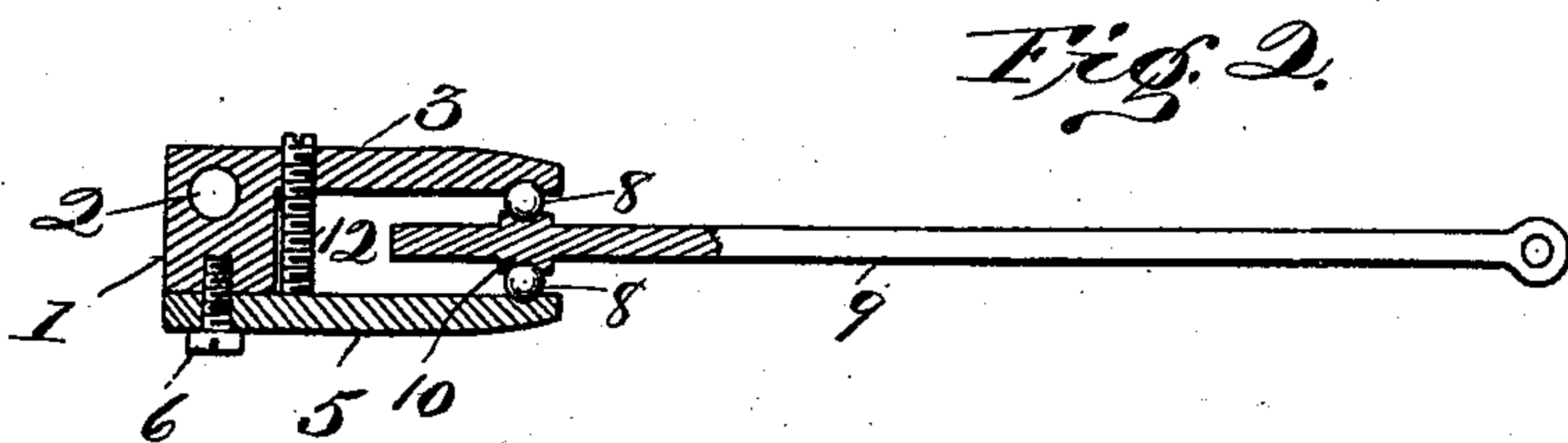
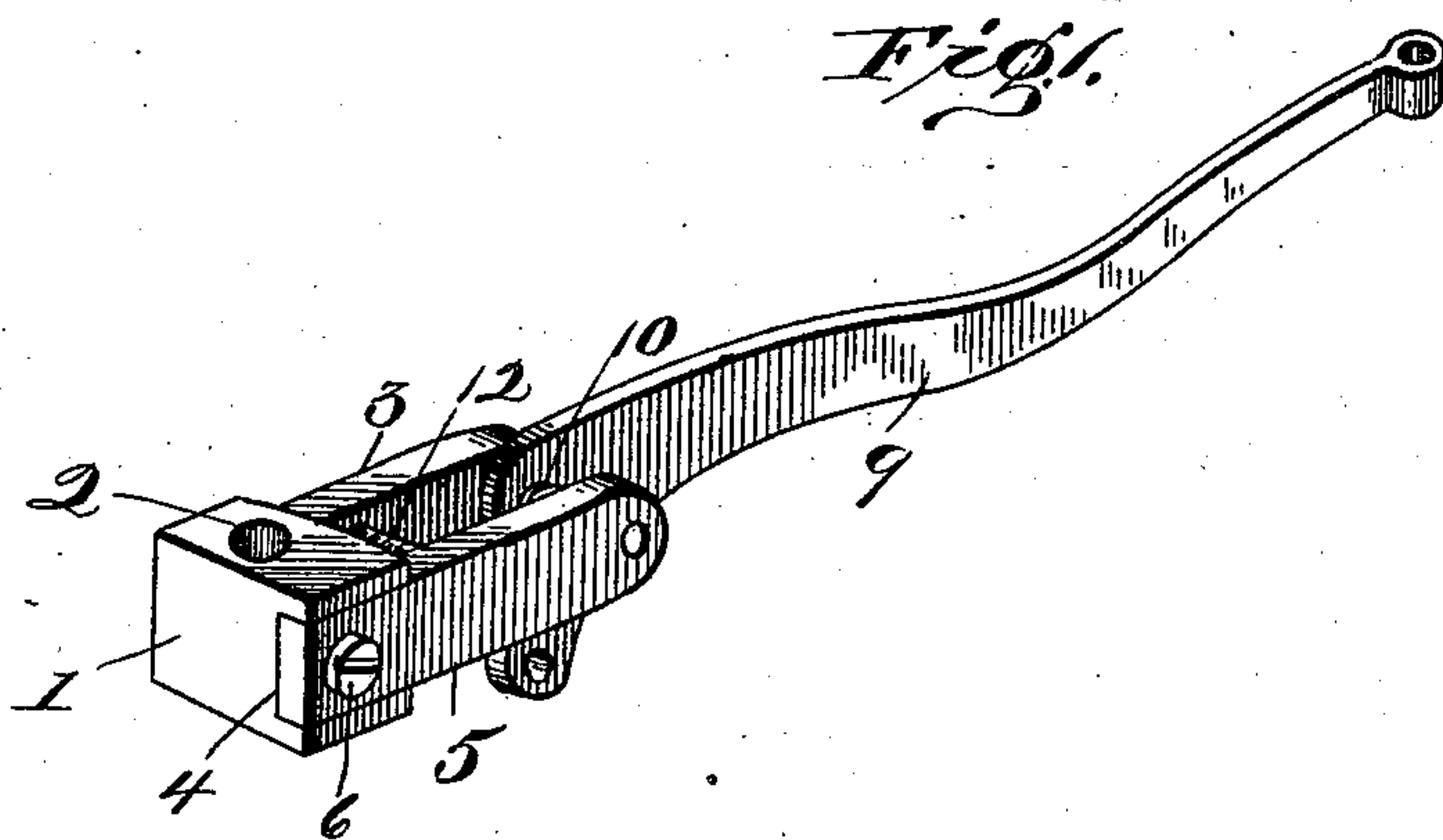


(No Model.)

E. S. SHIMER.
TYPE BAR SUPPORTER.

No. 545,740.

Patented Sept. 3, 1895.



witnesses:

J. M. Fowler Jr.
J. M. L. L. L.

Inventor:

Elmer S. Shimer,
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UNITED STATES PATENT OFFICE.

ELMER S. SHIMER, OF MILTON, PENNSYLVANIA.

TYPE-BAR SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 545,740, dated September 3, 1895.

Application filed June 6, 1895. Serial No. 551,892. (No model.)

To all whom it may concern:

Be it known that I, ELMER S. SHIMER, a citizen of the United States, and a resident of Milton, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Type-Bar Supporters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in the hangers for bar type-writers with which the type-bars are connected, and also to improved means for pivoting the type-bars to the hangers.

In type-writing machines of the class which employ type-levers pivoted at one end, so as to swing and throw the type which is fastened to the free end up against the paper with a sharp stroke, it is essential that they move as easily as possible on the pivot or joint, and yet be held firmly from lateral movement in order to preserve the alignment. The usual method of pivoting the bar is by means of trunnion-journals, one journal on each side of the bar, which in turn are placed in the free ends of a bifurcated hanger-piece sprung together over the trunnion-journals, the ends of the hanger having holes or sockets to receive them. In springing these ends together the journals are often bent or the holes in the hanger-pieces gouged out by the entering journal, so that there is a slight looseness of the bar-joint on one side, while there may be almost a perfect fit on the other. This is caused by the arc or circle upon which the free ends travel when being pressed together upon the straight pin or trunnion-piece in the bar. Again, the ordinary manner of journaling the type-bars by trunnion-bearings is objectionable for the reason that the bearings wear more on the lower circle than on the upper, as the pivot is in a fixed position in the bar, and also causes more wear on the lower wall of the hanger-bearing.

The object of my invention is to obviate the above and other objections; and it consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a type-bar hanger and type-bar constructed in accordance with my invention. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a perspective view of the type-bar detached. Fig. 4 is a similar view of the hanger.

In the said drawings, the reference-numeral 1 designates a cap or head formed with a hole or aperture 2 for the reception of a screw, by which it is secured to the type-ring of a type-writer. Formed with said cap at one side is an arm 3, and in the opposite side of the cap is a groove 4, in which fits an arm 5, which is parallel to the arm 3. This arm is held in place by means of a set-screw 6. Formed on the inner sides of these arms, near the free ends thereof, are circular concave sockets 7 to receive the balls 8.

The numeral 9 designates the type-bar, having its inner end bent downward, and to which is pivotally connected the operating-lever, (not shown,) which is actuated by the depression of a key to throw the type up against the paper, as is well known to those familiar with the art. This type-bar near the inner side is formed with two opposite bosses, formed with circular concave sockets 10, with which the balls 8 also engage.

The numeral 12 designates a set-screw passing through arm 3 and bearing against the inner side of the arm 5.

From the above it will be seen that the hanger is made in two parts—that is, the cap and arm formed therewith form one part and the arm seated in the groove in the cap the other part. By this construction the arms can be brought together upon parallel lines, and thus prevent bending of the joints when trunnion-bearings are employed instead of balls. This will also admit of longer bearings and journals being employed, thus lengthening the life of the same.

I prefer to use balls instead of trunnion-bearings, as they possess superior advantages with respect to efficiency in use, as they adapt themselves readily to the slight variations in workmanship which may occur, and the arms are adjustable, so as take up the wear as often as may be necessary. When the type-bar is in motion, as in writing, the balls do not hold a fixed position as do trunnions, but move in

their sockets, sometimes in the bar-sockets and sometimes in the hanger-sockets, and are thus constantly changing their positions. By reason of this constant change of positions the balls also wear evenly in their sockets and hold to a perfect center. The deeper they wear into their sockets by use and repeated adjustments the better and more perfect the adjustment becomes, and by means of the adjustable arms the bars can be tightened so as to hold their alignment by turning the set-screw, which engages with the arm 5, and loosening the screw 12. By means of this screw 12 the balls may be relieved from part of the tension due to screw 6. By this means the adjustment is made perfect without making use of the resiliency of the arms.

Having thus fully described my invention, what I claim is—

20 1. The combination with the hanger formed with sockets near the free ends, of the type bar formed with corresponding sockets and the loose balls seated in said sockets; substantially as described.

2. The combination with the hanger comprising the cap having a groove in one side, the arm formed integral therewith having a socket near its free end, the arm seated in said groove having a socket near its free end, the set screw and the adjusting screw, of the type bar formed with sockets and the loose balls seated in said sockets; substantially as described.

3. The combination with the hanger comprising the cap having a groove in one side, the arm formed integral with said cap having a socket near its free end the set screw and the adjusting screw, of the type-bar provided with opposite bosses formed with sockets and the loose balls seated in said sockets; substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ELMER S. SHIMER.

Witnesses:

I. J. RINT,

CHARLES S. HESTER.