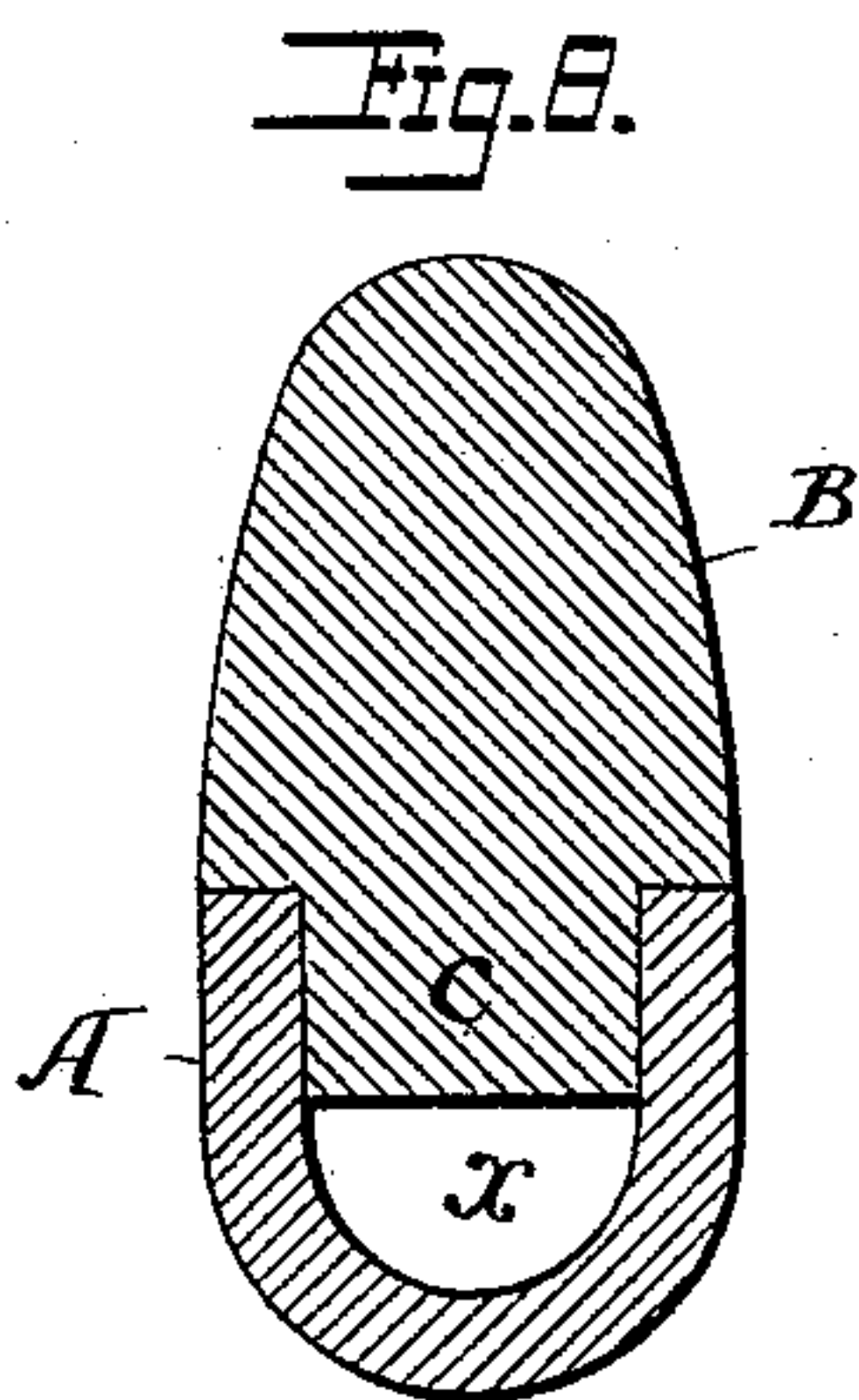
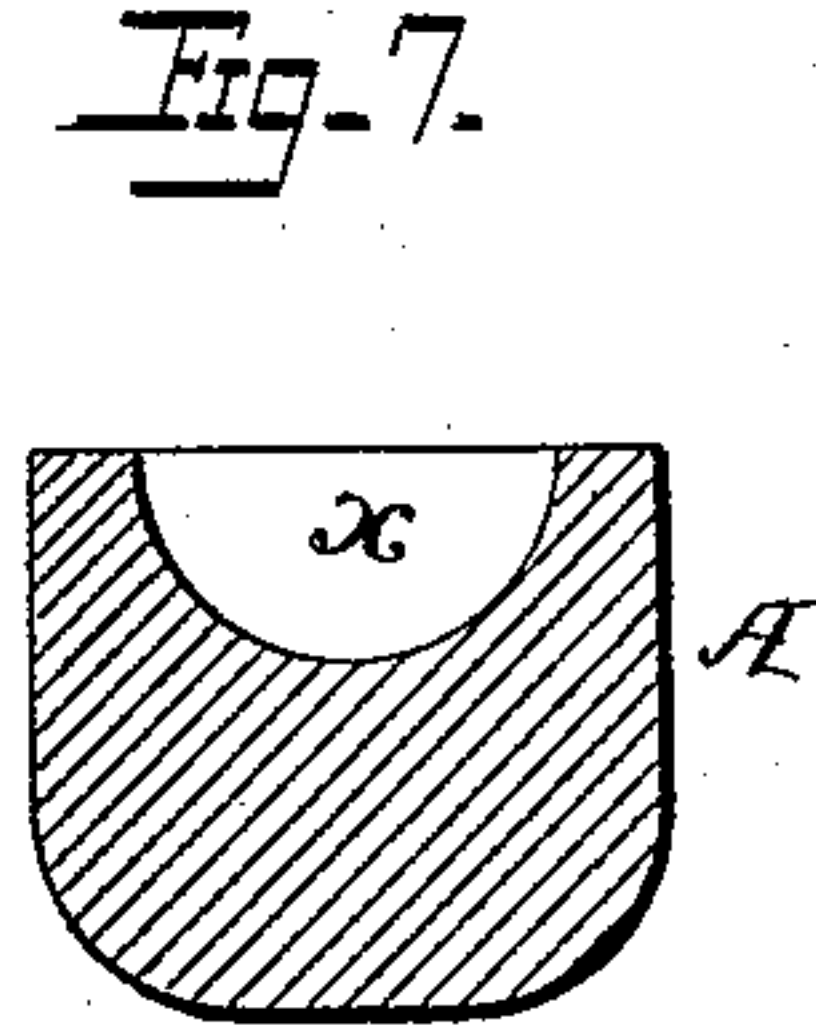
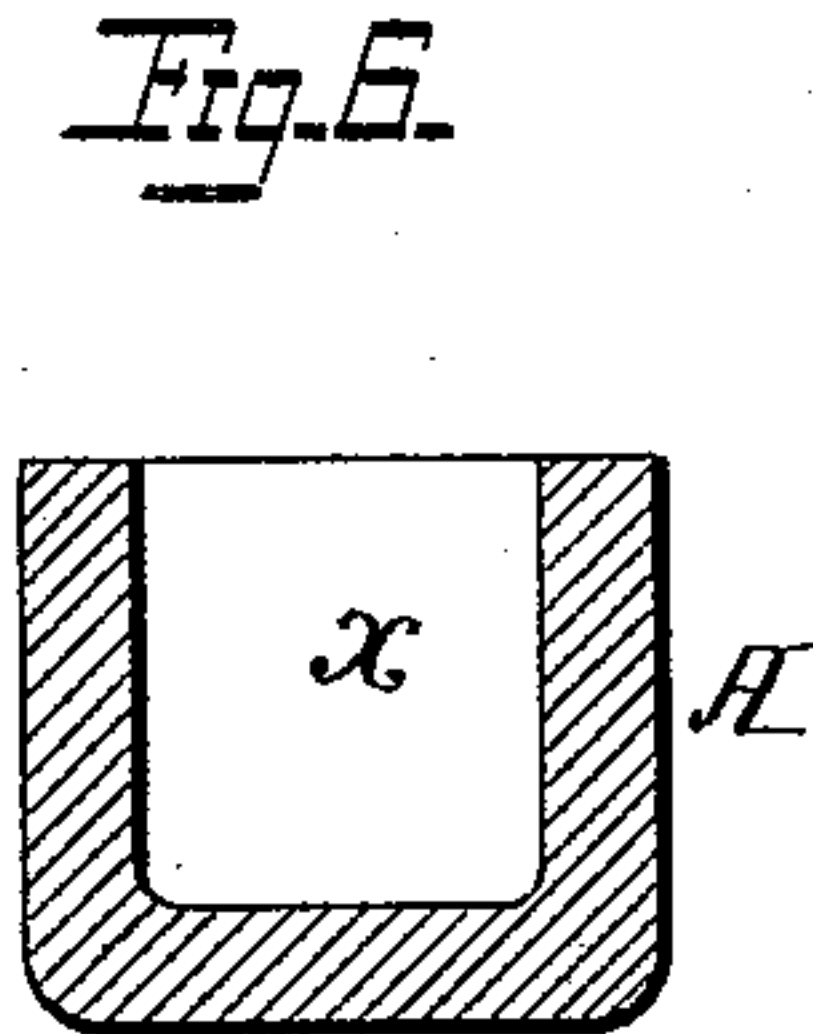
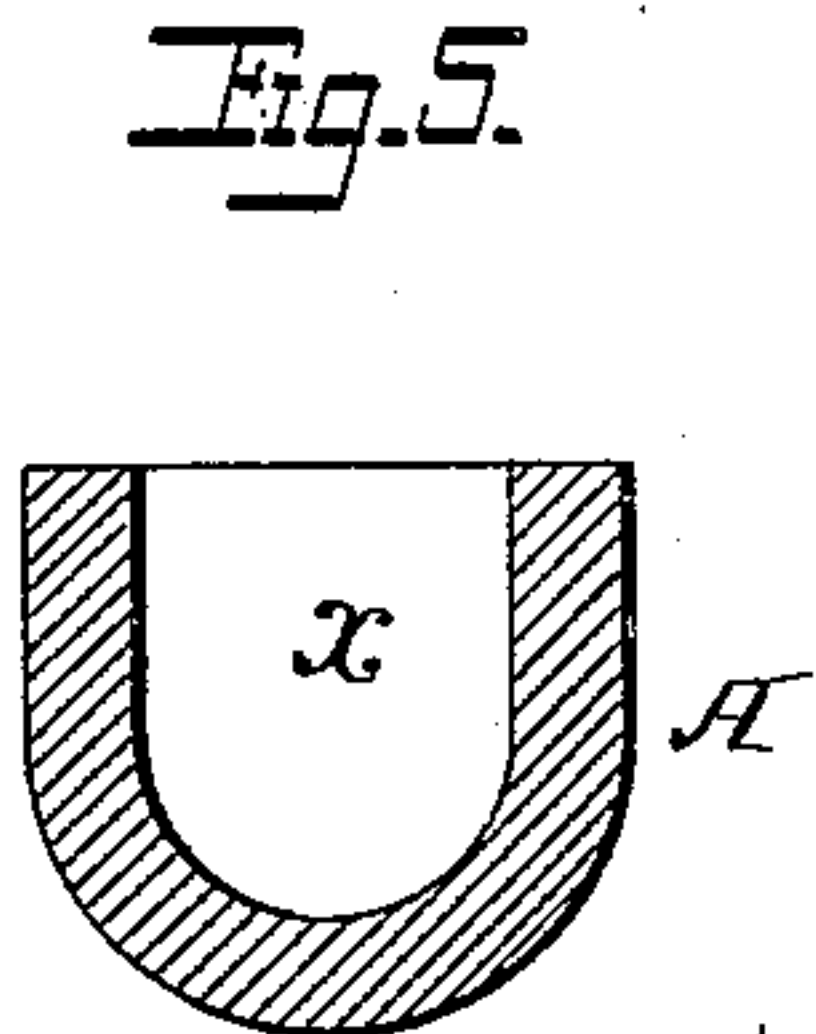
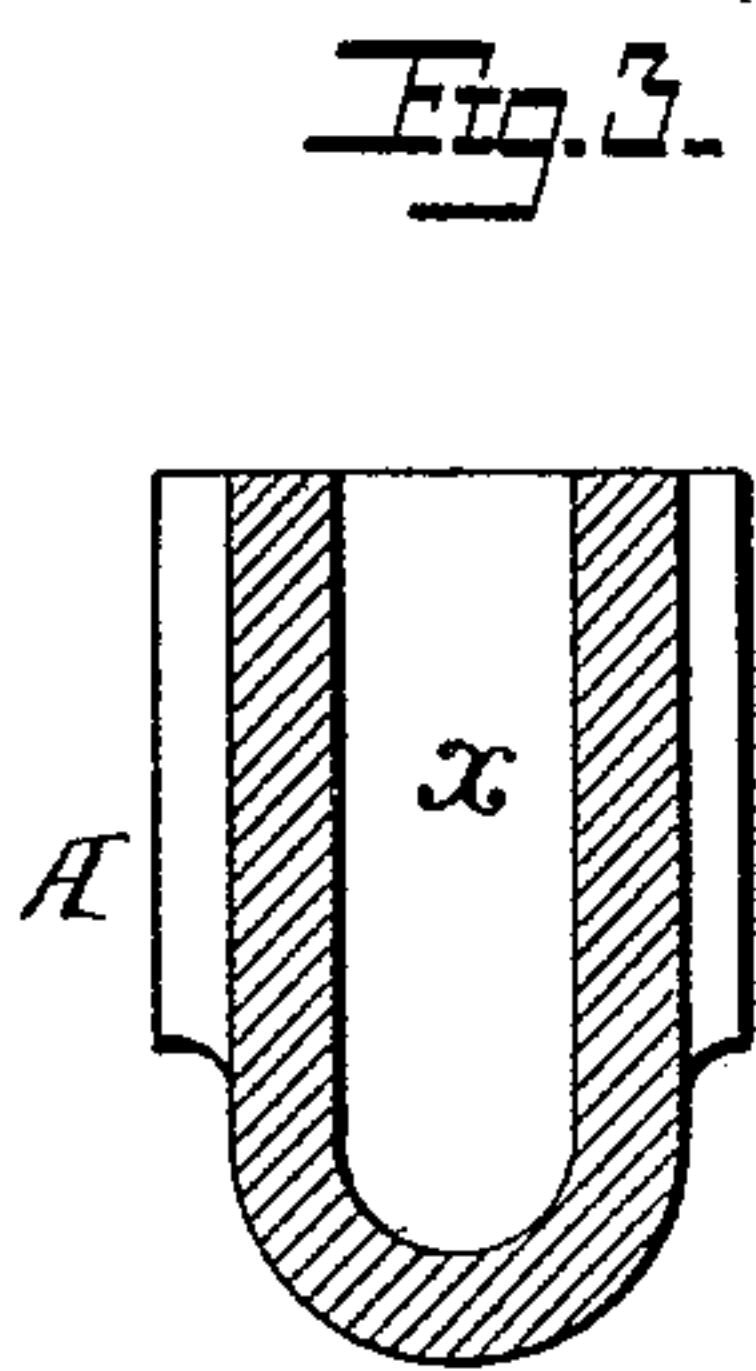
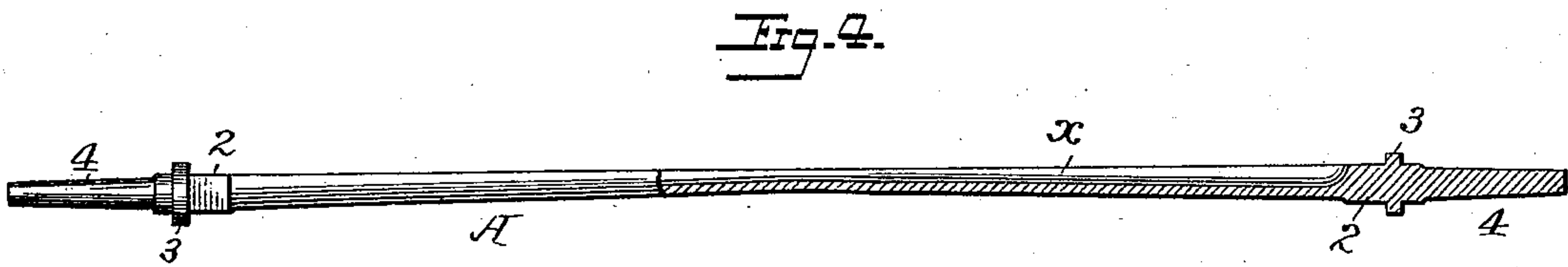
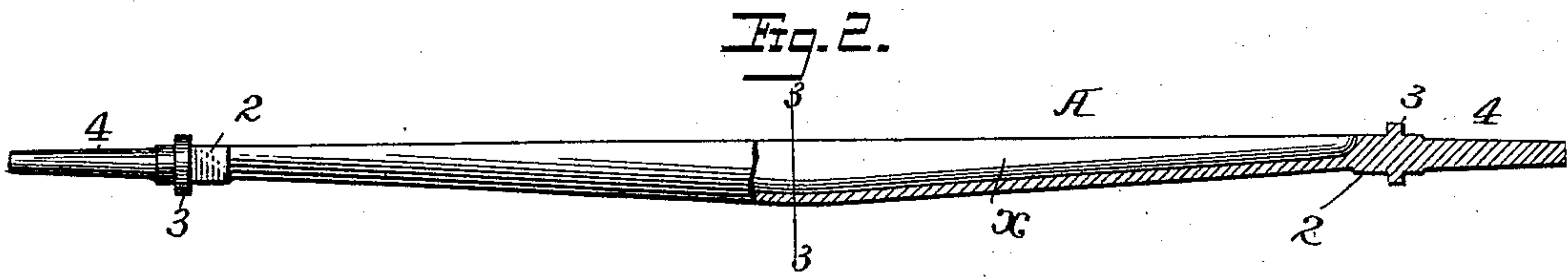
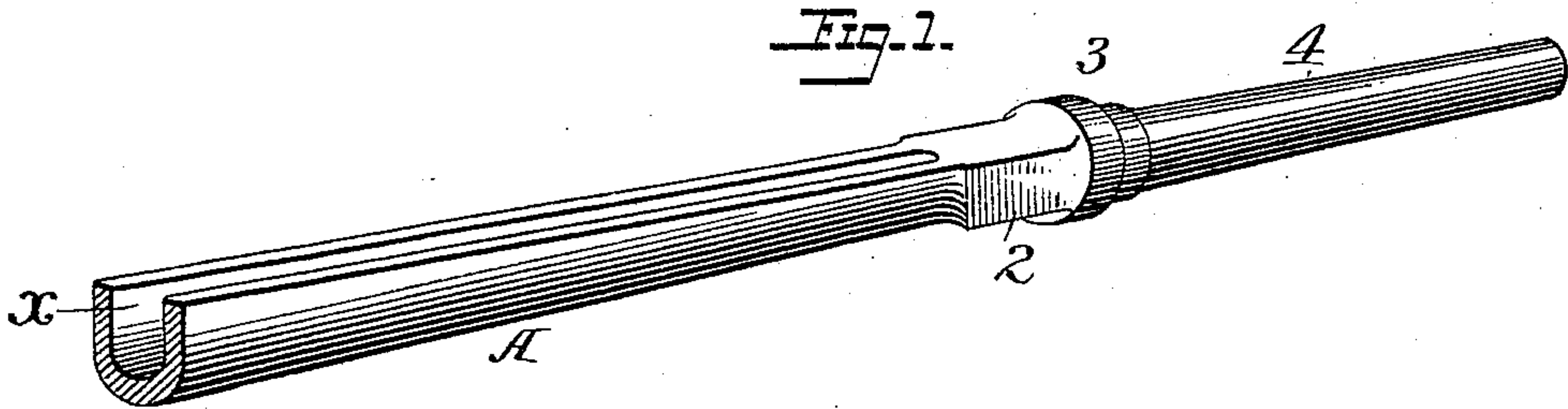


(No Model.)

O. C. HALL.
CHANNELED AXLE BAR AND BLANK.

No. 492,553.

Patented Feb. 28, 1893.



Witnesses
Geo. H. H. H.
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UNITED STATES PATENT OFFICE.

ORLANDO CLIFFORD HALL, OF AUBURN, NEW YORK, ASSIGNOR TO THE
SHELDON AXLE COMPANY, OF WILKES-BARRÉ, PENNSYLVANIA.

CHANNELED AXLE BAR AND BLANK.

SPECIFICATION forming part of Letters Patent No. 492,553, dated February 28, 1893.

Application filed January 11, 1892. Serial No. 417,731. (No model.)

To all whom it may concern:

Be it known that I, ORLANDO CLIFFORD HALL, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in the Manufacture of Channeled Axle Bars and Blanks, of which the following is a specification.

My invention relates to metallic axle bars or blanks and consists in constructing such a bar or blank with a longitudinal channel as fully set forth hereinafter and as illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view illustrating one-half of an axle blank constructed in accordance with my invention. Figs. 2 and 4 are side views in part section showing my invention in connection with axles of different forms. Fig. 3 is a section on the line 3—3, Fig. 2. Figs. 5, 6 and 7 illustrate in cross-section different forms of axle embodying my invention. Fig. 8 is a cross-section of an axle and wooden top piece embodying my invention.

The general form and outline of the axle bar or blank may accord with that of any of the axles in use, but differs therefrom in having a groove or channel at one side, preferably the top side. Thus, as shown in Fig. 1, the axle bar has a longitudinal groove *a*, extending nearly the entire length of the upper surface, the end portions 2 adjacent to the collars 3 being flattened for the attachment of clips, braces or other parts of the running gear. This groove may be formed in any suitable manner as in the process of rolling the bar or blank from a solid rectangular bar, either to spread or contract it toward the center, the rolls at the same time forming the groove and rounding the underside, or the groove or channel may be formed by bending up a flat plate or strip in the process of making the axle bar or blank, or in any other suitable manner.

Where the axle bar or blank is deeper in the center than at the ends, as shown in Fig. 2,

the groove is narrow and deep as shown in the cross-section Fig. 3, and becomes shallower toward the rectangular portions 2. Where the bar is practically uniform in thickness the cross-section, if the bar is rounded, will be that illustrated in Fig. 5, or if the bar is square that illustrated in Fig. 6.

It is not essential that the bar be uniform in thickness as the curve or outline of the groove may differ from that of the exterior of the bar, as shown in Fig. 7.

An axle formed with a groove as above described is stronger in proportion to the weight of metal and lighter in proportion to its strength than those of ordinary construction and in some forms may be more readily rolled or worked into shape and is especially adapted for connecting it with the wooden top piece B, which may be provided with a central rib or tongue *c*, extending into the groove of the axle to which it is clipped or secured in any suitable manner.

The journals 4 and the collars 3 are formed upon the bar in any of the usual ways and the bar may be made from a continuous piece of metal or from two sections welded together at the center, as is common in this class of manufactures.

Without limiting myself to the proportions and form of axle shown, I claim as my invention—

1. A fan tail axle with a bed widest at the center and provided with a groove along its length and with journals and collars in one piece with the bed, substantially as described.

2. An axle bar or blank having a longitudinal channel collars and rectangular sections 2, adjacent to the collars, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ORLANDO CLIFFORD HALL.

Witnesses:

DORA M. FORREST,
WM. H. DALTON.