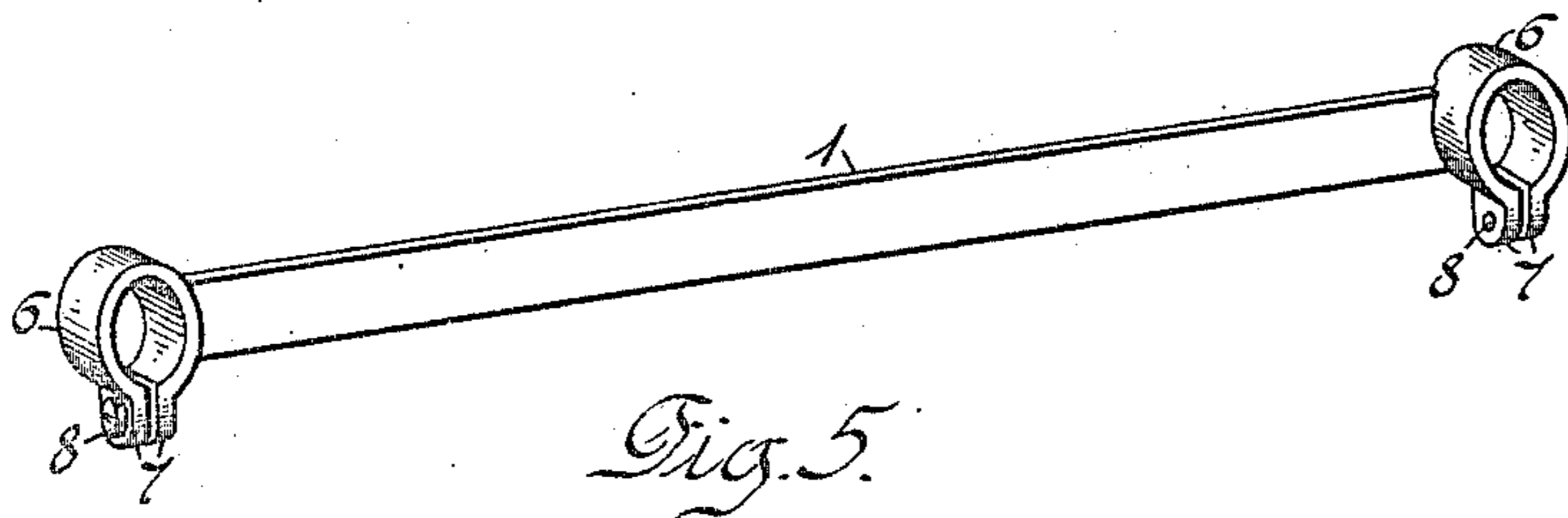
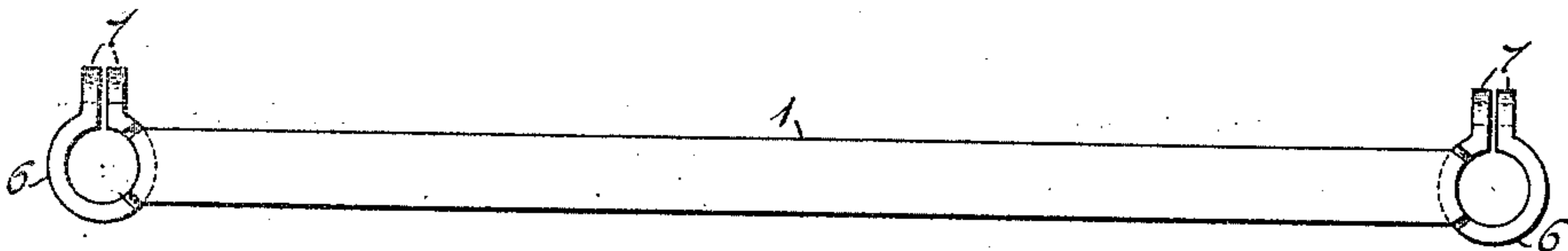
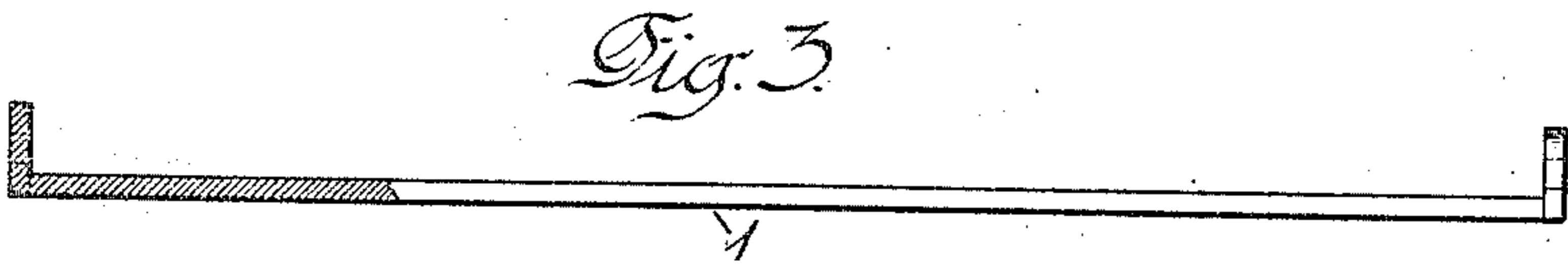
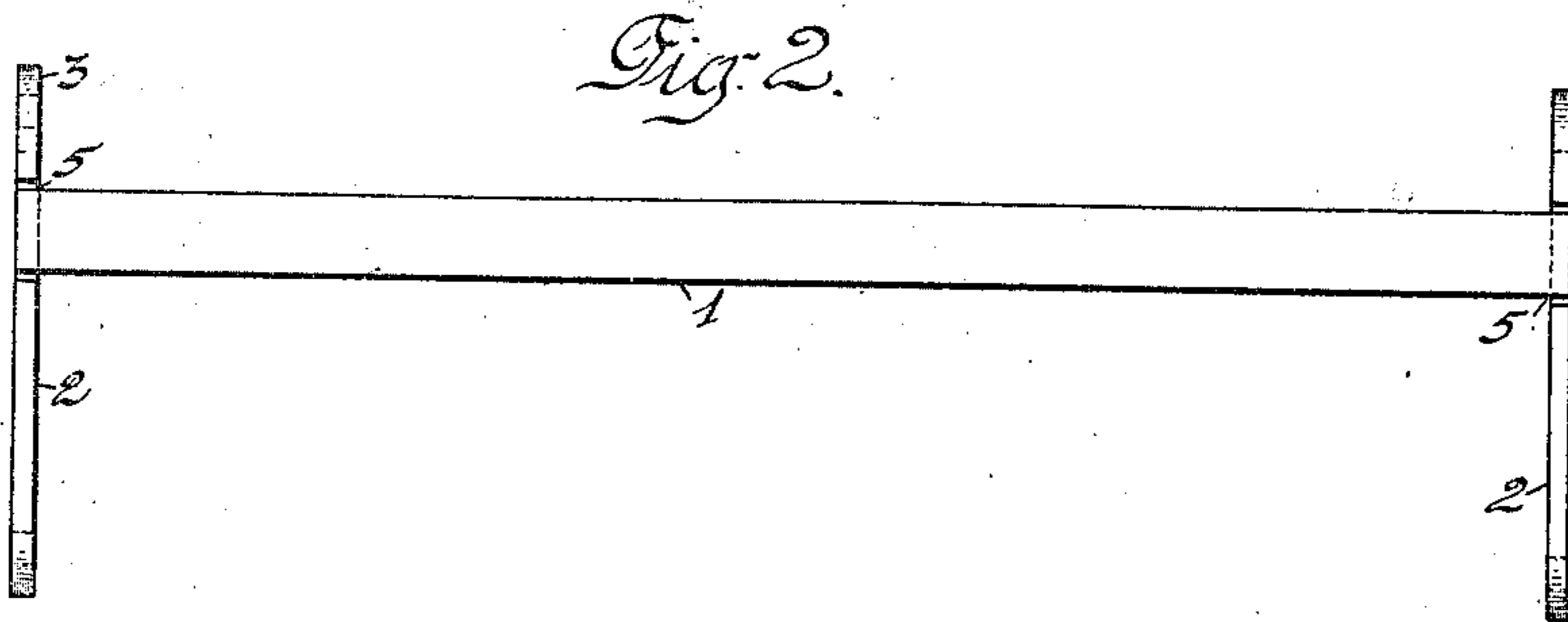
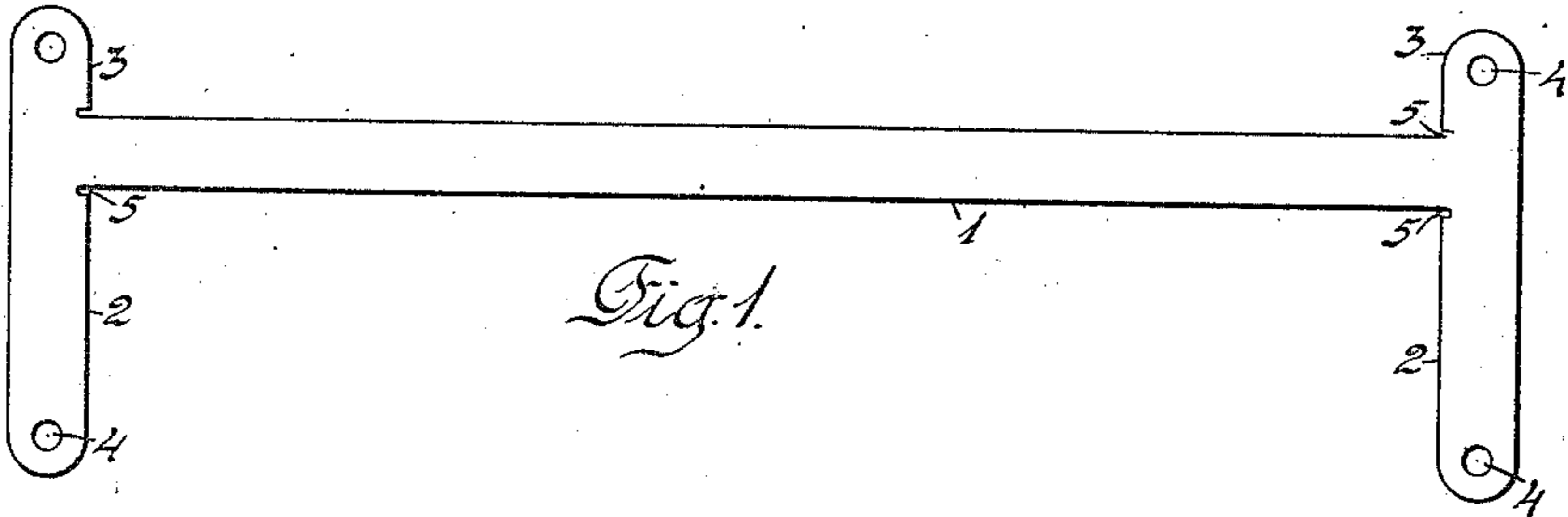


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PITMAN.

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998,758.

Patented July 25, 1911



WITNESSES

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# UNITED STATES PATENT OFFICE.

HERMANN EICHHORN, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, A CORPORATION OF NEW JERSEY.

PITMAN.

998,758.

Specification of Letters Patent.

Patented July 25, 1911.

Application filed October 19, 1908. Serial No. 458,360.

*To all whom it may concern:*

Be it known that I, HERMANN EICHHORN, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Pitmen, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has for its object to provide an effective and inexpensive construction for machine elements of that class involving a stem with an eye or yoke adapted to embrace and afford an operative connection with another relatively movable element disposed crosswise thereof as, for instance, a crank-and-pitman connection.

15 In certain light-running machines constructed to operate at comparatively high speeds, and containing pitmen connecting rapidly reciprocating parts, it is of great importance that the pitmen be constructed of extreme lightness consistent with the requisite strength and stiffness for performing their functions, so as to avoid pounding and consequent noisy action and lack of durability; and the present invention is designed to provide a pitman with these qualities at a cost not materially exceeding that involved in production by casting and considerably less than by drop-forging. By the foregoing methods of construction, lightness was sacrificed for reduction of cost in the casting processes, while a considerable increase of production was involved in the drop-forging processes.

20 According to the present invention a machine element of the character described is formed of a sheet metal blank comprising a stem and an integral cross-member, the latter being bent with its face in crosswise relation with that of the stem and again in substantially the plane of the stem into the desired form, as an eye for embracing a rotating crank-pin such as the connecting rod of the sewing machine loop-taker mechanism forming the subject of the United States patent to P. Diehl and A. Grieb, No. 663,696, of December 11, 1900. In order to insure that the connected end of the eye shall be flush with the opposite face of the stem from which such member projects, it is desirable to form the cross-member at opposite edges of the stem with notches of a depth substantially that of

the thickness of the sheet metal, in order that the cross-member may be bent upon a line beyond the edge where it would otherwise join the stem; and the cross-member preferably projects farther from one edge than the other of the stem in order that when rolled into circular form with its ends turned outwardly to form spaced ears for a clamping and an adjusting screw, such ears will be disposed laterally thereof rather than in alinement with the stem.

25 In the accompanying drawings, Figure 1 is a face view of a sheet metal blank suitable for producing a pitman with eyes at opposite ends to embrace cylindrical pins upon relatively movable parts of a train of mechanism which the pitman is designed to operatively connect. Fig. 2 is a similar view of said blank with the cross-members at the ends of the stem bent at right angles to the latter, and Fig. 3 is an edge view of the blank in the same stage of its formation, with one end portion in section. Fig. 4 is a face view of the blank with the cross-member bent into cylindrical eyes disposed transversely of the face of the stem and provided with lateral ears for application of clamp-screws. Fig. 5 is a perspective view of the pitman with the clamp-screws applied to its eyes or sockets.

30 The blank is stamped from sheet metal, and is therefore of uniform thickness throughout, and is composed of a stem 1 and a cross-member at each end comprising the longer arm 2 and shorter arm 3, both having at their outer ends apertures 4 for the clamp-screw or bolt in the finished article. The cross-member is provided adjacent its junction with the stem 1, and at opposite edges of the latter, with the cuts or notches 5 of a depth corresponding substantially with the thickness of the blank.

35 In producing the finished machine element, each end is first bent transversely of the face of the stem 1 upon a line joining the inner ends of the notches 5, whereby the adjacent edge of such cross-member is permitted to assume a flush relation with the face of the stem opposite which the body of the cross-member is bent. The cross-member is then rolled into cylindrical form in a plane parallel with that of the stem to form the eye 6, with the end portions of the parts 2 and 3 turned outwardly and spaced apart slightly to form the parallel ears 7 whose

apertures are brought into alinement to receive the clamping screw or bolt. As represented in Fig. 5, a clamp-screw 8 is inserted through one of such apertures and tapped into the other to serve as the clamping and adjusting means for the eye 6.

It is evident that the comparative lengths of the parts 2 and 3 of the cross-member may be varied to suit the position for which the element is designed, as also the shape into which the cross-member is rolled or bent, which is determined in practice by the use for which the article is designed.

Having thus set forth the nature of the invention, what I claim herein is:—

A machine element composed of a flat sheet metal blank and comprising a flat stem with an integral cross-member extending

laterally from said stem in both directions and bent from one face thereof and at right angles thereto and again at right angles to the first bent portion and concentrically with a transverse axis to form a split eye and then outwardly to form parallel spaced ears, one extremity of said eye being flush with the face of the stem opposite that from which it projects, and means for drawing said ears together.

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

HERMANN EICHHORN.

Witnesses:

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H. J. MILLER.