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PATENTED DEC. 17, 1907.

H. T. HALLOWELL & H. F. GADE.

SHAFT HANGER.

APPLICATION FILED MAY 10, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

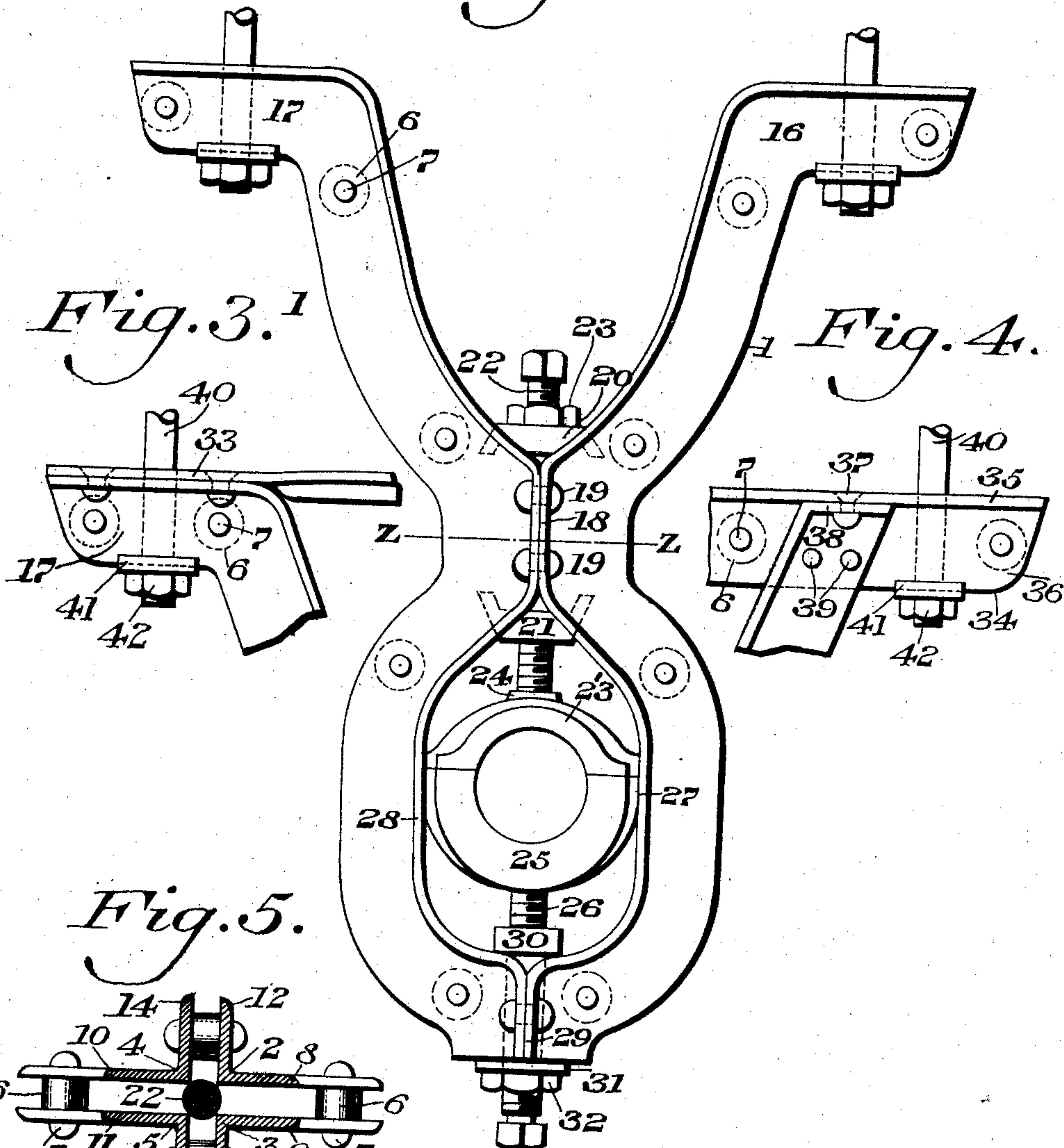


Fig. 3.

Fig. 4.

Fig. 5.

Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 6

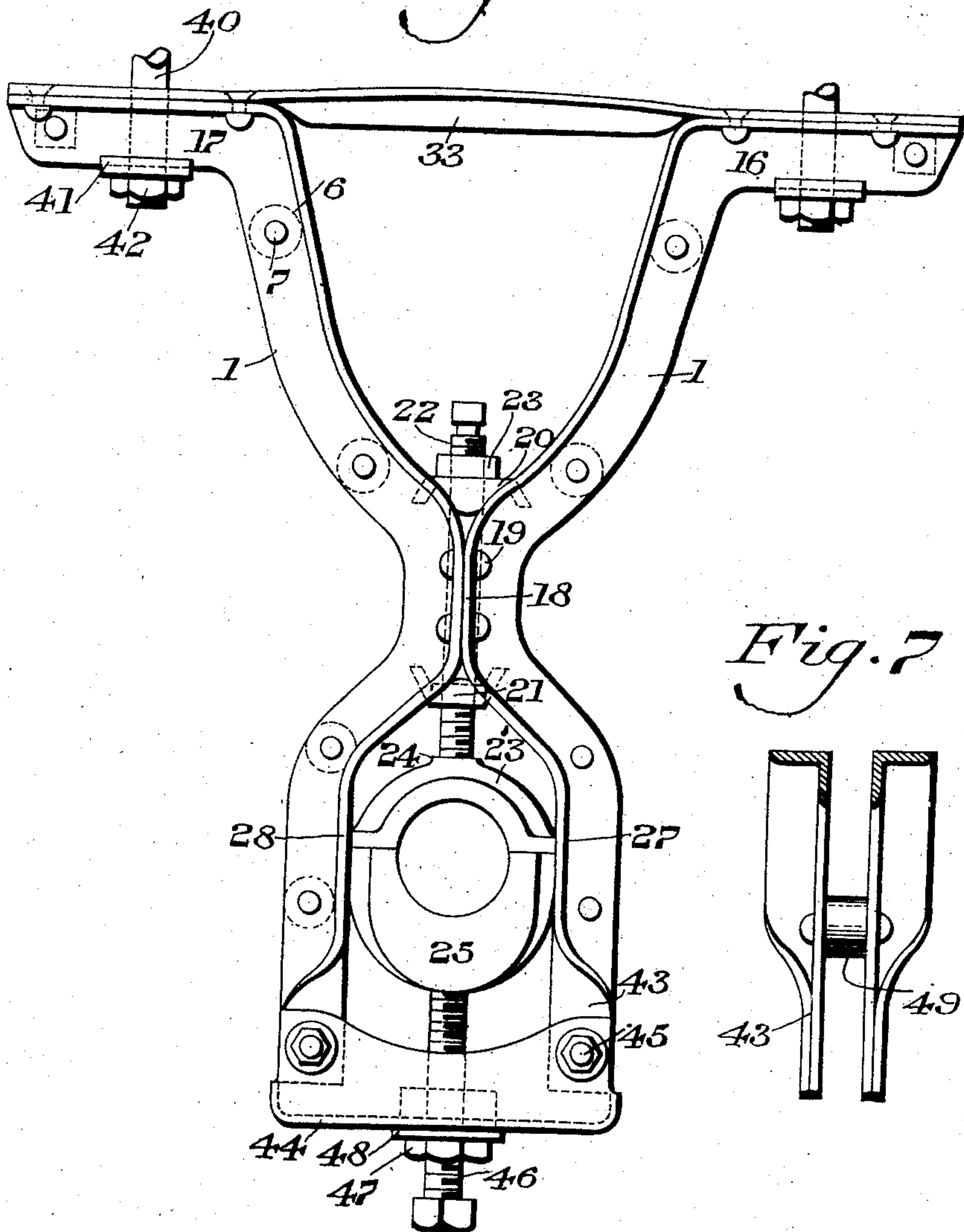
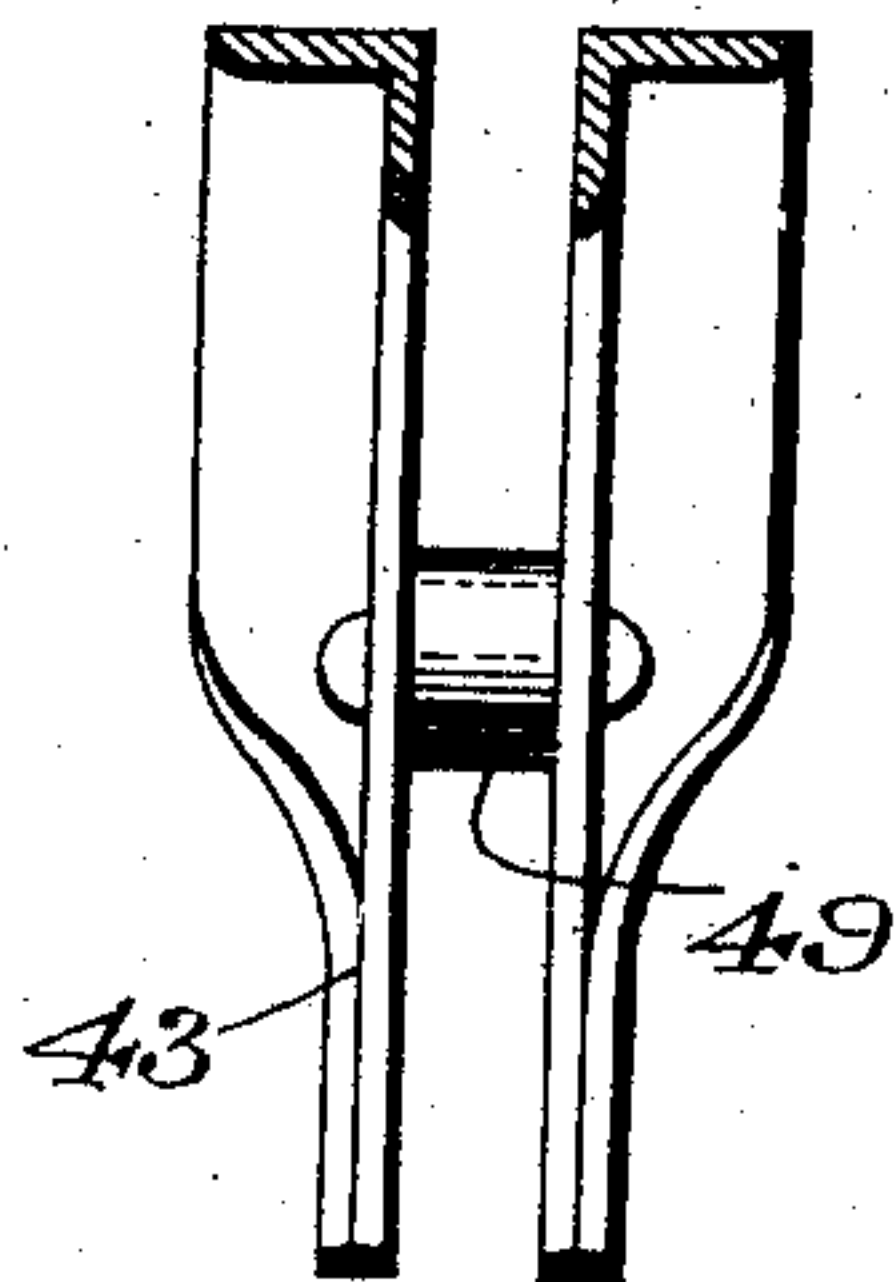


Fig. 7



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UNITED STATES PATENT OFFICE.

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SHAFT-HANGER.

No. 874,067.

Specification of Letters Patent.

Patented Dec. 17, 1907.

Application filed May 10, 1906. Serial No. 316,082.

To all whom it may concern:

Be it known that we, HOWARD T. HALLOWELL and HARALD F. GADE, are citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, and have invented a new and useful Shaft-Hanger, of which the following is a specification.

The purpose of our invention is to provide a novel construction of a hanger characterized by simplicity of construction and minimum number of parts.

A further purpose of our invention is to make possible an angle iron construction in which the legs themselves are used to form an intermediate brace which at the same time supports the upper adjusting mechanism.

A further purpose of our invention is to combine the angle irons in the form of legs themselves forming the entire support for the bearing and without additional uniting braces.

A further purpose of our invention is to so unite angle irons in the form of hanger legs that both flanges on each angle iron shall be used in combination, the flanges in the plane parallel to the axis of the bearing uniting the legs while the other flanges unite to form the individual legs.

A further object of our invention is to secure the advantage of channel construction from angle irons by uniting the parallel flanges corresponding to the said flanges of the channel both in location and function and omitting the intermediate or bottom webbing of the channels.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents an elevation of a construction embodying our invention. Fig. 2 represents a section upon line $z-z$, Fig. 1. Figs. 3 and 4 represent broken elevations of modified forms of our construction in which the feet are connected by strips. Fig. 5 represents a sectional plan view of a modified form of that shown in Fig. 2. Fig. 6 represents an elevation of another embodiment of our invention. Fig. 7 represents an elevation of a portion of Fig. 6.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the legs of a hanger made up of angle irons 2, 3, 4 and 5 respectively, the angles 2 and 3 being spaced by means of sleeves 6 and united by rivets or bolts and nuts 7 to form a preferably parallel arrangement of flanges 8 and 9 of the one pair and flanges 10 and 11 of the other pair of angles. The angles 2 and 3 have their flanges 12 and 13 oppositely directed and substantially in the same plane at any given point. The angles 4 and 5 correspondingly have their flanges 14 and 15 oppositely directed and substantially in the same plane at any given point. The angles 2 and 3 comprising the one leg and 4 and 5 comprising the other leg are bent in the form shown in Fig. 1, beginning at the spaced feet 16 and 17, converging from this point to a point intermediate the length of the legs and shown in the present instance as being approximately the center of the hanger where they are united at 18 by means of rivets or bolts 19 and corresponding rivets or bolts on the side opposite to that shown in Fig. 1 to form a brace at this point. In the space between the angles we provide an adjusting device comprising plates 20 and 21 which are arranged to permit the passage of a bolt 22 which is set or locked in position by means of a lock nut 23, the lower end of this bolt resting against the top 23' of the bearing box at 24. The lower portion of this box at 25 is supported by a bolt 26, as hereinafter described.

Below the point of attachment to form the above described brace, the legs again diverge to provide space for the box itself, forming substantially parallel sides therefor, at 27 and 28 by means of the flanges 12 and 13 upon the one side and 14 and 15 upon the other. Below the position which the box itself is intended to occupy in the form shown in Fig. 1, the legs are again converged and united at 29. Between the flanges of the angles at this lower point of the hanger are located plates or blocks 30 and 31 which are preferably shaped to receive the bolt 26, which latter is held in place by means of a lock nut 32. This bolt provides for the ad-

justment of the journal box. The box is itself guided by the flanges 12, 13, 14 and 15 in the space between the sides 27 and 28 and which form these sides. In the form shown in Fig. 3 we make a slight change from the form shown in Fig. 1 in that we unite the feet by means of a strip 33. In the form shown in Fig. 4, we provide an additional angle 34 comprising flanges 35 and 36, which form the legs upon the opposite side. This form may be provided with the plate 33 to unite the two angles 34 or these angles may be united by spacing collars and bolts 6 and 7 or both of these means of uniting the parts may be made use of. The legs are united preferably to the flanges 35 by means of bolts 37 passing through suitably turned flanges 38, which may be formed from either of the flanges composing the angle in each case.

The legs may evidently be secured to the angles 34 by bolts 39 passing through flanges 36 of these angles.

In each of the forms shown the legs are united at their feet to the support by means of bolts 40 which pass between the angles forming the feet and bear upon the flanges of said angles by means of washer 41 or other suitable cross connection. It will be evident that the nut 42 itself may form a sufficient bearing for the purpose required.

In the embodiment shown in Fig. 5 we have shown the flanges 12 and 14 and the flanges 13 and 15 as being separated by spacing members such as 6 through which the rivets or other fastening devices 7 extend. It is to be noted that in this construction the adjusting screw 22 for the journal box is prevented from improper lateral movement owing to its location between the different angle irons.

In the embodiment shown in Figs. 6 and 7 we have shown a slightly modified construction in which the lower ends of the angle irons instead of converging and being riveted together, as seen in Fig. 1, extend substantially parallel and at their outer ends are flattened or pressed together as seen most clearly in Fig. 7 at 43.

44 designates a block or bracket which is secured to the flattened portions 43 of the angle irons by means of suitable fastening devices such as bolts and nuts 45.

46 designates a screw passing through the brackets having engagement with the block or bracket 44 and passing therefrom, the outer end of said screw engaging the lower portion 25 of the journal box, said screw being also provided with a suitable lock nut 47 and washer 48 whereby the screw 46 may be locked in its adjusted position. As indicated in Fig. 7 the angle irons on each side are separated from each other by means of spacing members 49 through which, in the present

instance, the rivets or other fastening devices pass. The flattened portion of the lower end of the angle irons is formed by bending one of the flanges upon the flange contiguous thereto.

It will be evident that the construction shown is free from unnecessary angles and bends, requires a minimum of material for its construction with a corresponding saving in the operations required to construct the several parts and assemble them and that the resultant structure is simple and rigid.

It will be apparent that while we have shown as our preferred form a construction in which the legs are formed of angle irons, that either channels, angle or tee irons may be employed and still be within the scope of our invention, the essential feature of our present invention being a construction in which the legs are so formed and deflected that a rigid brace is produced. Under some conditions it is more advantageous to employ a construction in which the legs and feet are not integral and in some cases the plate which is employed to reinforce the legs may be omitted and still be within the scope of our invention.

It will be evident that each leg of our hanger is formed of spaced members which have flanges bounding the leg as a whole and permitting its advantageous attachment to the other leg and that at the same time the facing flanges of the structural irons are made use of in the form shown to secure the parts of the individual legs together. The lower ends are spaced and at the same time are reinforced by the reflection of one flange of each structural member.

It will be evident that other forms of spacing than that indicated may be used.

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

1. A shaft hanger made up of two halves, each half forming a leg containing a plurality of angle irons, one angle iron of each leg being connected with the companion angle iron of the same leg, said halves abutting at their intermediate portions forming a rigid brace, and said halves below this portion diverging and forming an aperture for the journal box.

2. A shaft hanger made up of two halves, each half forming a leg containing a plurality of angle irons, one angle iron in each leg being connected to the companion angle iron of the same leg, said halves being spaced apart at their upper portion and having feet, and said halves abutting at their intermediate portion forming a rigid brace and below this point diverging and forming an aperture for the journal box, and means securing them together.

3. A shaft hanger made up of two halves,

each half forming a leg containing a plurality of angle irons, one angle iron of each leg being connected with the companion angle iron of the same leg, said halves being spaced
5 apart at their upper ends and abutting together intermediate their ends, making a rigid brace, means securing these together and said halves diverging forming an aper-

ture for the journal box and abutting beneath said journal box.

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