

(No Model.)

2 Sheets—Sheet 1.

J. EDGAR.
WHIFFLETREE.

No. 483,604.

Patented Oct. 4, 1892.

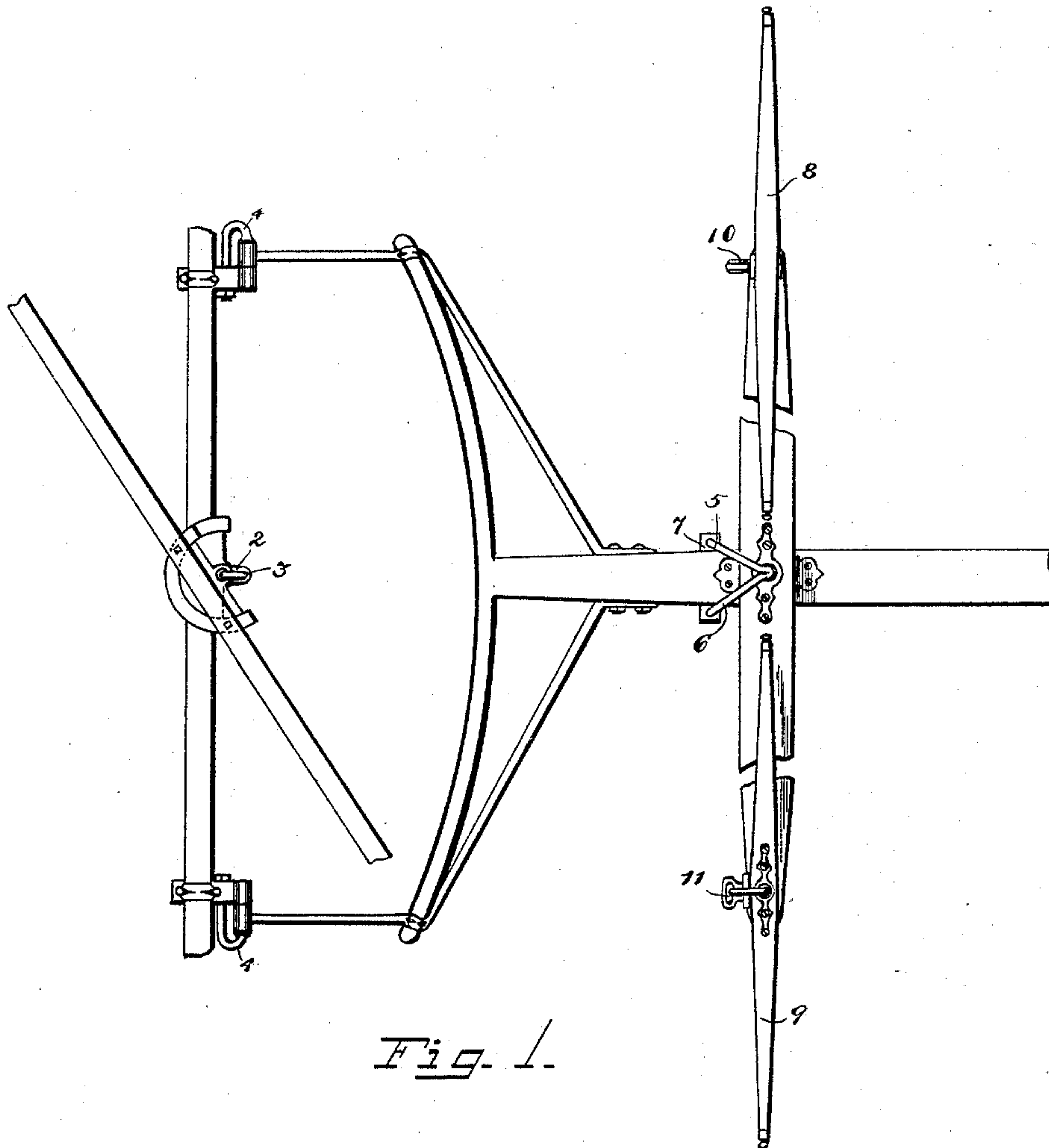


Fig. 1.

Witnesses

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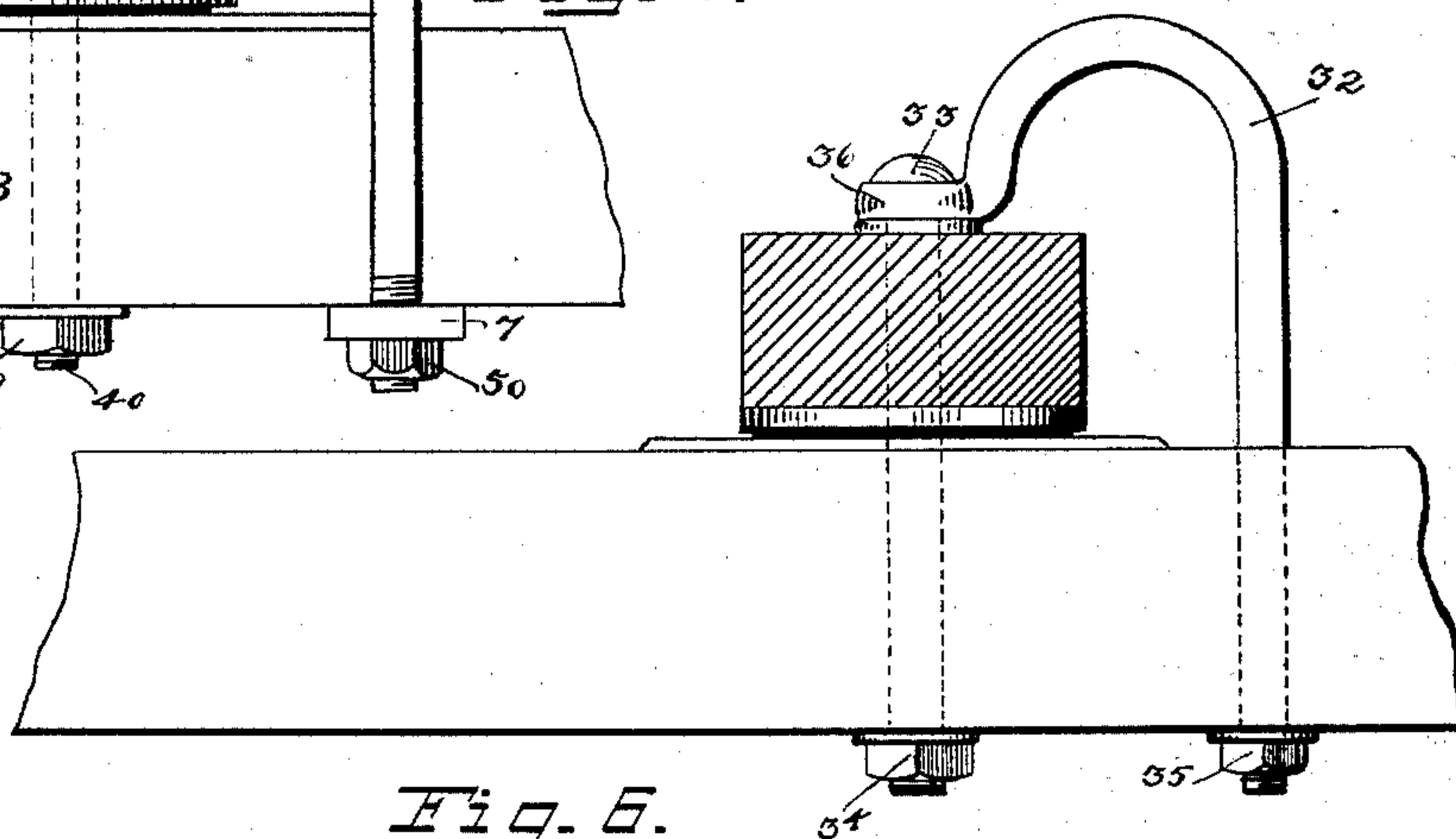
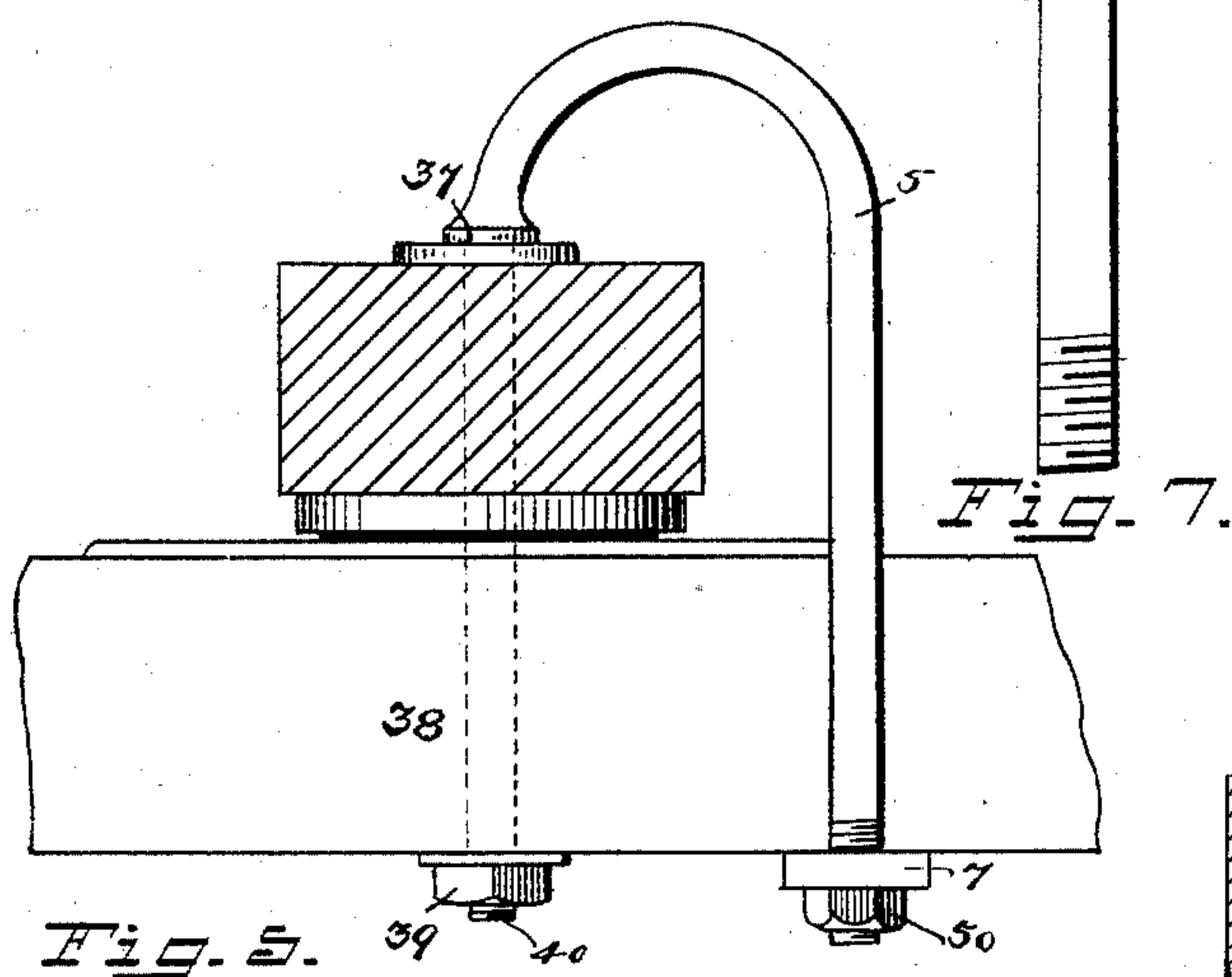
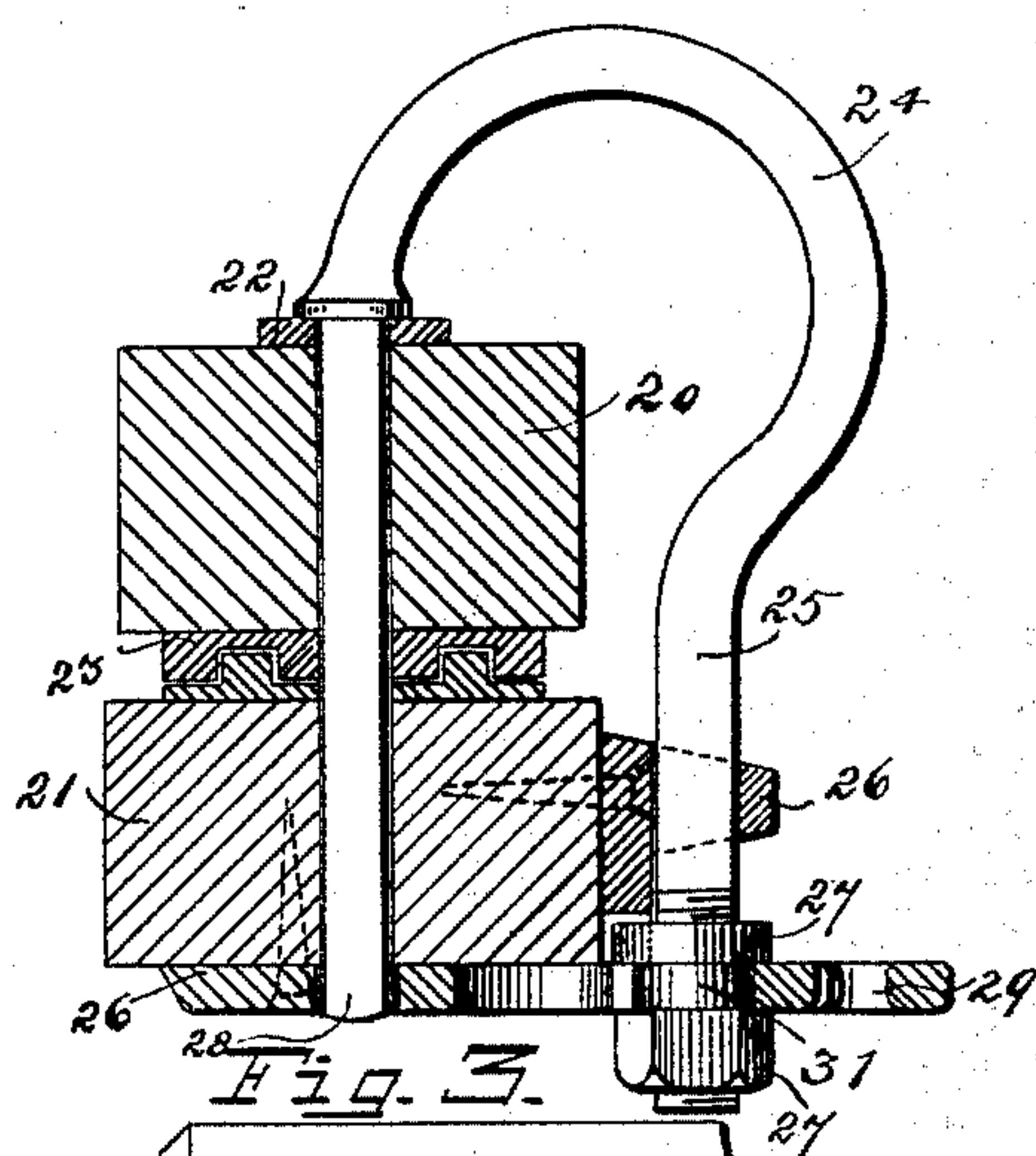
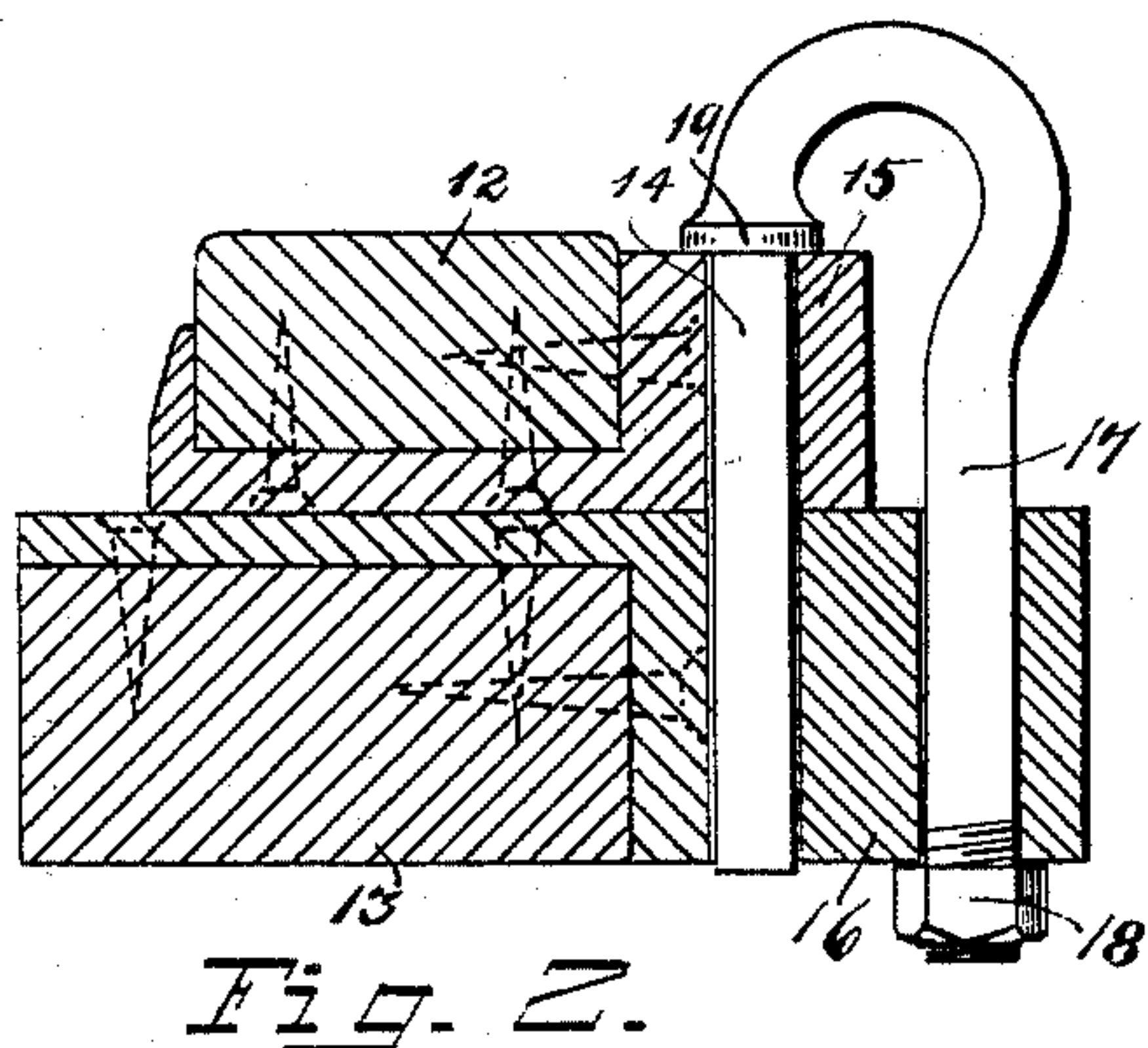
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2 Sheets—Sheet 2.

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Inventor.
John Edgar.
By Paul & Co. Attys

UNITED STATES PATENT OFFICE.

JOHN EDGAR, OF ROCHESTER, MINNESOTA.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 483,604, dated October 4, 1892.

Application filed October 28, 1890. Serial No. 369,569. (No model.)

To all whom it may concern:

Be it known that I, JOHN EDGAR, of Rochester, in the county of Olmsted and State of Minnesota, have invented certain Improvements in Reinforced Center-Pins, of which
5 the following is a specification.

My invention relates to improvements in center-pins having reinforcing parts substantially parallel therewith in connection with
10 means for fastening the same in place; and the object which I have in view is to provide a center-pin for pivoting the whiffletree and evener or the evener and the pole upon one another securely and in such a manner that
15 one part may be adjusted upon the other to any degree desired to prevent tilting of the parts and the consequent uneven wear of the bearing-surfaces.

To this end my invention consists, in general, in the construction and combinations
20 hereinafter described, and particularly pointed out in the claims, and the invention will be more readily understood by reference to the accompanying drawings, in which—

25 Figure 1 is a general plan view showing the different applications of my newly-invented device, several forms of the same being embodied therein. Fig. 2 is a sectional elevation showing an evener and whiffletree or an
30 axle and fifth-wheel pivoted one upon the other by a center-pin embodying my invention. Fig. 3 shows an evener and a whiffletree connected by a pin of a somewhat different form and application, my safety-nut
35 being there shown in use. Fig. 4 is a detail view showing the construction of the slotted casting by which the reinforcing leg or bolt is held. Fig. 5 is a side view illustrating the form of pin preferably used to connect the
40 evener with the tongue of the wagon. Fig. 6 is a modified form of the same. Fig. 7 illustrates the manner of strengthening the crown of the loop or band between the two portions of the pin.

45 As indicated in Fig. 1, my device admits of various modifications and uses, the fifth-wheel 2 being pivoted by such a pin 3, the thills 4 4, connected with the axle by a modified form of the same, the tongue and evener
50 pivoted together by a center-pin provided with two legs or bolts 5 and 6, secured in the plate 7 beneath the tongue, and each whiffletree 8 9 being pivoted on the evener by different forms 10 and 11 of my center-pin. All

of these forms, however, are substantially the same and rightly spring from a common idea, and I therefore include them all in my description and claims.

In Fig. 2 I have shown a device such as I preferably use upon newly-equipped vehicles, while in Fig. 3 I have shown a form of my pin readily applicable to vehicles as heretofore constructed for use with the common center-pins.

In Fig. 2 I have shown the whiffletree 12 pivoted upon the evener 13 by the center-pin 14, passing through the concentric openings in the castings 15 and 16, independently secured upon the whiffletree and the evener, respectively. As shown, the pin 14 is formed
65 in the same piece or rod with the parallel leg or bolt 17, made by bending around the upper end of the center-pin and provided with the threaded portion adapted to receive the locking-nut 18. The shoulder 19 is adapted to
70 engage the small washer-casting upon the whiffletree to hold the whiffletree against the evener when the nut 18 is tightened against the lower side of the casting 16, in which the bolt 17 is secured. A plan view of this device is shown in Figs. 1 and 2. The same devices are also shown at the thill-couplings, the only difference being that the relative positions of the castings 16 and 15 are reversed.
85

In Fig. 3 the whiffletree 20 is shown pivoted upon the evener 21 by the center-pin extending through the same and through the ordinary castings 22 and 33. The reinforcing portion of the pin, however, is of a different
90 form, being provided with the larger crown 24 and bent back in toward the evener 25, where the lower end of the same is secured in the casting-angle 26 by the safety-nut 27. This casting 26 not only extends up the back of
95 the evener, as shown, but projects across beneath the same to embrace the lower end 28 of the center-pin and the shank 31 of the safety-nut. The stay-strap loop or ring 29 is an integral part of this casting at the rear
100 end thereof. In this lower end of the casting 26 I provide the slot or opening 30, having its larger portion beneath the evener large enough to permit of the passage of the top ring or shoulder of the safety-nut through the same
105 before the casting is applied to the evener. The safety-nut is pushed up through the same and then pushed back into the narrow por-

tion of the slot, which is just large enough to receive the shank 31 of the safety-nut 27. The slot may extend to the outer edge of the casting, in which case it may be throughout its length of the width of the shank 31. The casting is now secured upon the evener by suitable screws, as shown by the dotted lines, when it will be seen that it is impossible for the nut to lose out. The bent pin may now be placed in position, the center-pin being passed through the concentric opening in the whiffletree and the evener and the reinforcing-pin being passed through the opening in the upper part of the casting 26 and through the safety-nut 27 by turning the safety-nut so as to draw the lower end of the pin through the same, which will at the same time bring the head of the center-pin down firmly against the top of the evener.

In Figs. 5 and 6 I have shown two forms of my center-pin, that shown in Fig. 6 being practically the same, except that it is made in two pieces, consisting in the two bolts 32 and 33. The bent bolt 32 and the carriage-bolt 33, as shown, are secured by nuts 34 and 35, provided upon the threaded lower ends thereof. The bent bolt 32 is provided with the eye 36, through which the carriage-bolt 33 is inserted, and serves to prevent the pulling or tilting of the evener and to strengthen the bolt 33.

In Fig. 5 I have shown a side elevation of the center-pin used in Fig. 1 to attach the evener upon the tongue. In this case one of the legs 5 and 6 extends down on either side of the tongue close to the same and is provided with a threaded end held by the bar 7 and the nut 50, thus firmly drawing the shoulder 37 down against the plate upon the top of the evener and holding the same firmly upon the tongue 38. I preferably provide a nut 39 upon the lower end 40 of the center-pin as an additional pressure device. For the tongue and evener a pin with two legs, both passing through the tongue one behind the other, will do.

In order to strengthen and make more rigid the crown of the "bent pin," as I have called the two pins together, I sometimes flatten the crown, as shown in Fig. 7.

In all forms of my device this feature will be noticed—viz., that the tightening of the burrs or nuts on the lower end of the reinforcing-legs not only draws down the center-pin vertically, but pulls the same slightly back at the upper end and tilting the center-pin a little in that direction, thereby overcoming whatever tendency there may be for the whiffletree to tilt over. Speaking generally, I provide a center or pivot pin of a neat, cheap, compact, strong, and durable structure, which allows perfect freedom of movement, which is very easily uncoupled from the pivoted parts, and in the use of which, owing to the safety-nut device, no inconvenience or damage results by the loosening or loss of locking-nuts.

In the use of my center-pin for the fifth-wheel of a vehicle I have found it desirable to provide three or more of the reinforcing-pins forms in connection with the center-pin, so to speak, forming spider-legs around the same, thereby strengthening the center-pin against lateral pull in any direction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with an evener with a whiffletree or pole, of the rod bent upon itself and forming a center-pin and a reinforcing leg or bolt therefor, a nut on the end of said leg, said nut provided with enlarged parts and a contracted part between the same, and a fixed plate embracing the said contracted part of the nut and securing said nut in place, substantially as described.

2. The combination, with the whiffletree or evener and its support, of the center-pin, the reinforcing-pin secured thereto, the plate through which said pins extend, and the locking-nut arranged in the slot in said plate and engaging the threaded end of said reinforcing-pin, substantially as described.

3. The combination, with the whiffletree or evener, of the center-pin extending through said whiffletree or evener and through its support, a shoulder or collar upon said center-pin, adapted to bear upon the upper surface of the whiffletree or evener, a reinforcing-pin formed integrally with said center-pin and extending parallel therewith, a plate or support through which both center-pin and reinforcing-pin pass, and a nut arranged upon said reinforcing-pin beneath said plate or support by which nut said reinforcing-pin may be drawn through said plate or support, bringing the shoulder or collar upon the center-pin to bear upon the upper surface of the whiffletree or evener and limited in passing through said plate only when said shoulder or collar comes to its bearing and whereby said center-pin may be drawn down and tilted backward to counteract the forward tilt of the whiffletree or evener.

4. The combination, with the evener, of the center-pin extending through said evener and through its support, two reinforcing-pins formed integrally with said center-pin and extending parallel therewith and arranged in the rear of said evener, and oblique arms connecting said pins, the plate through which said reinforcing-pins extend, and the locking-nuts upon said pins, adapted to bear against said support, whereby said center-pin may be drawn downward and may also be tilted backward or sidewise by tightening the nuts upon said reinforcing-pins, substantially as described.

In testimony whereof I have hereunto set my hand this 3d day of October, 1890.

JOHN EDGAR.

In presence of--

R. H. GOVE,
H. LOOMIS.