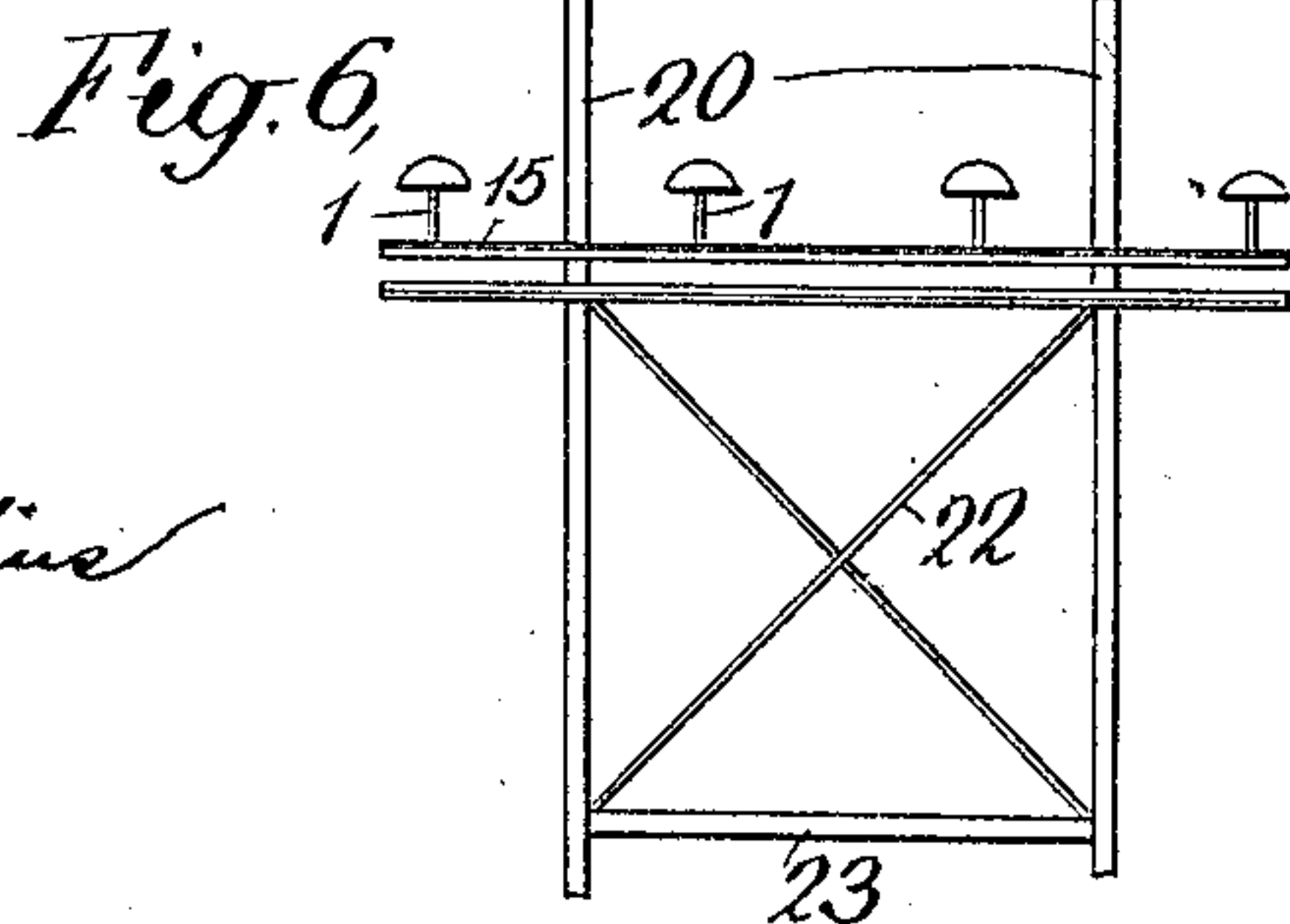
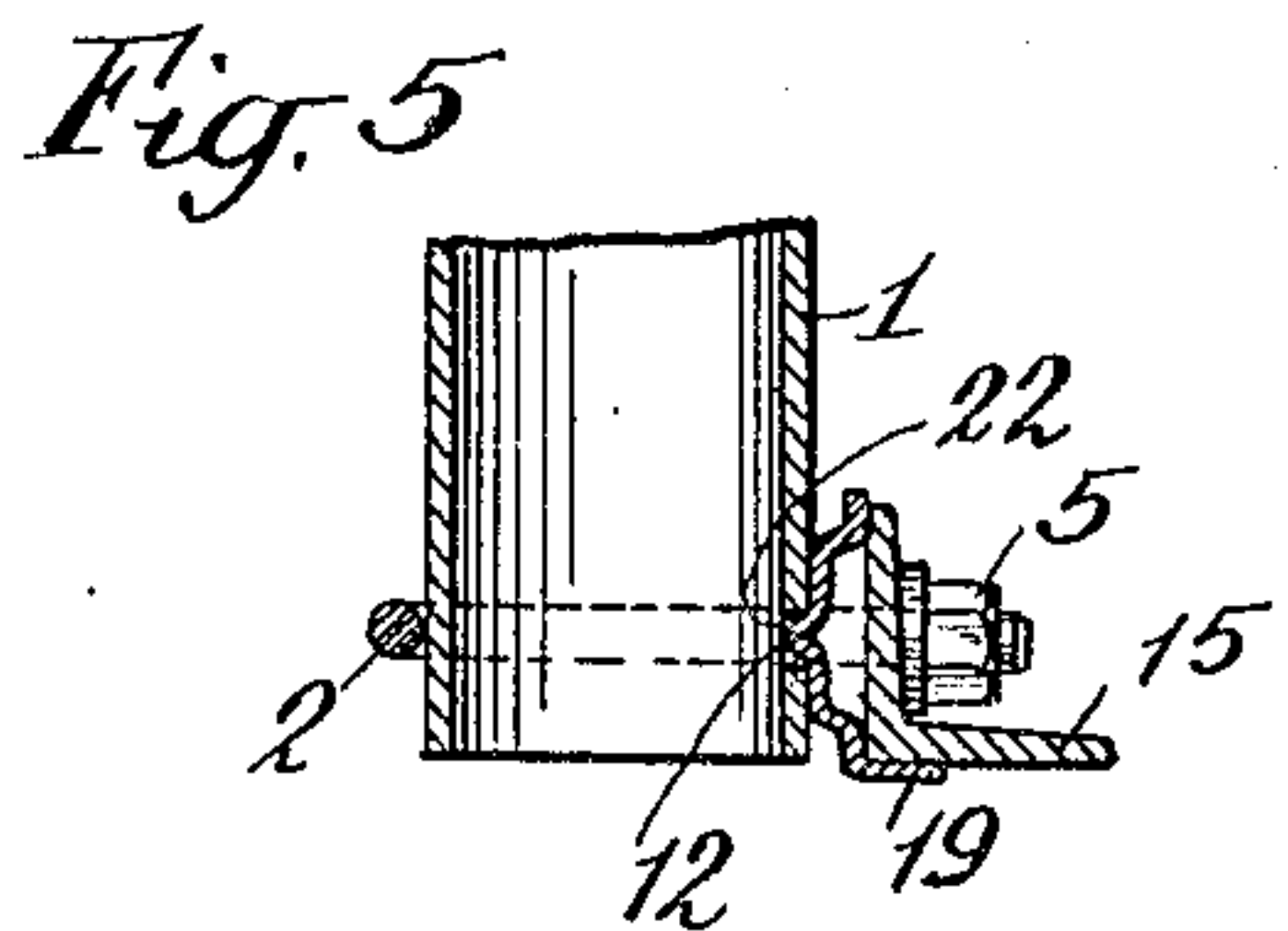
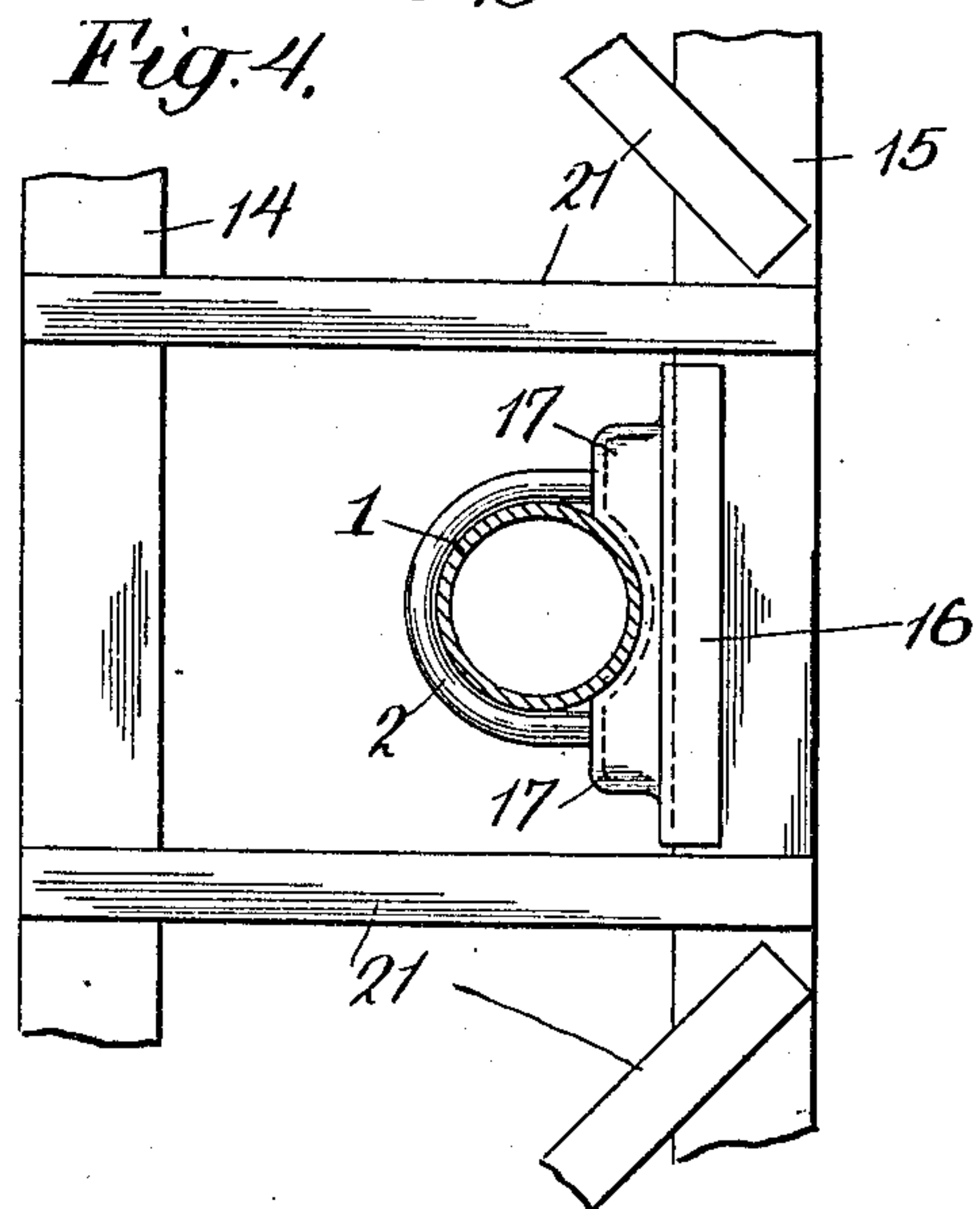
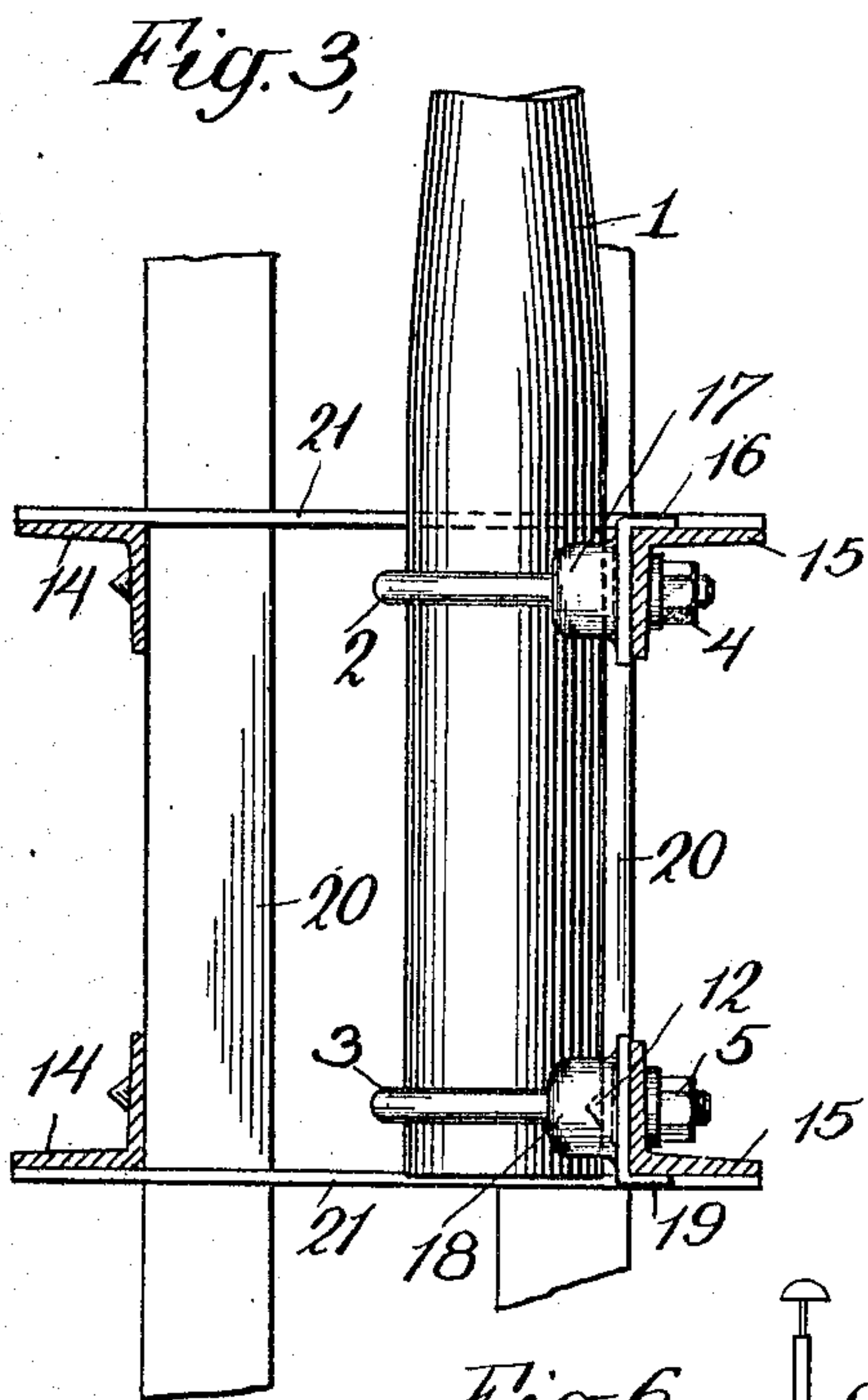
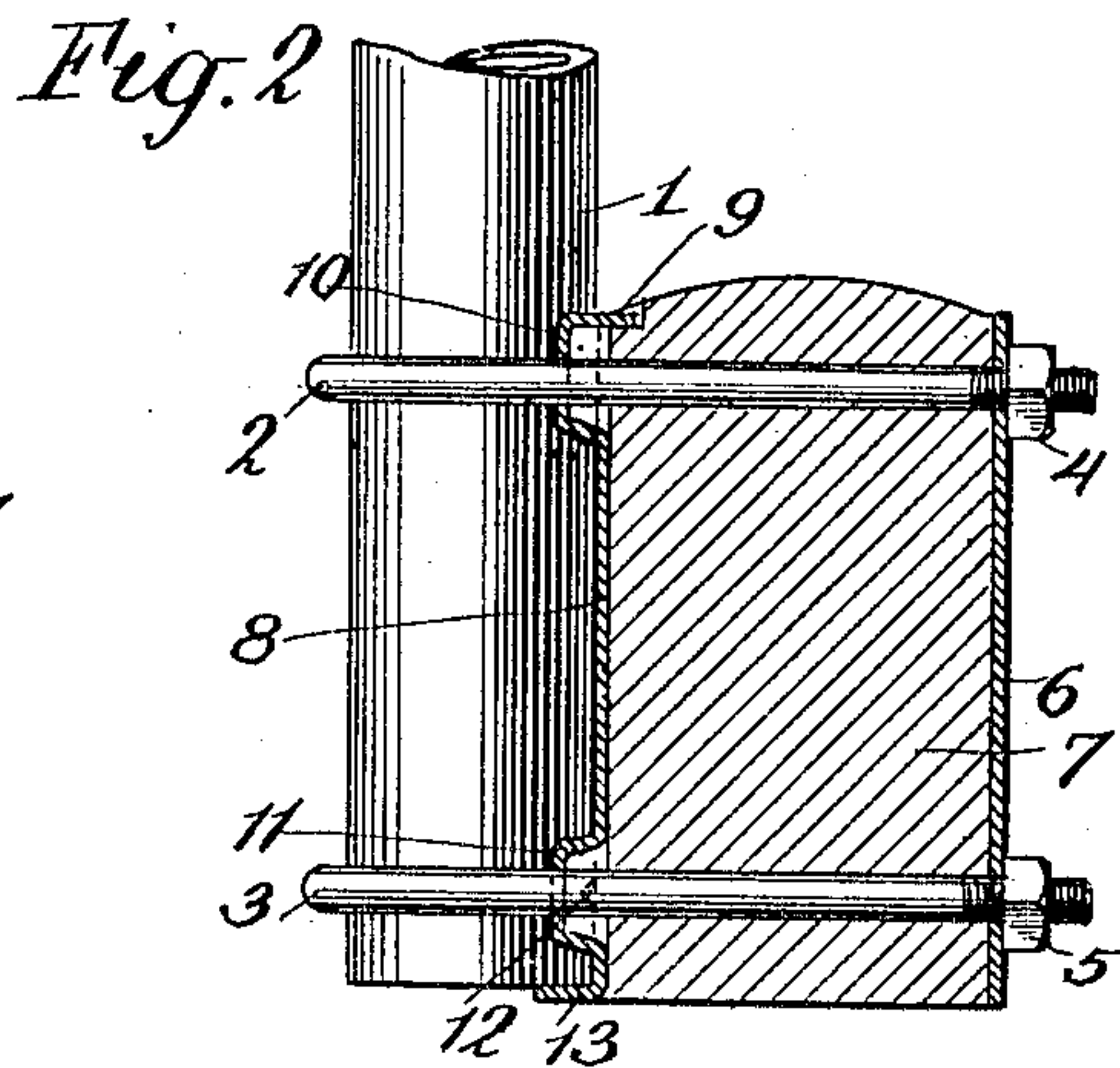
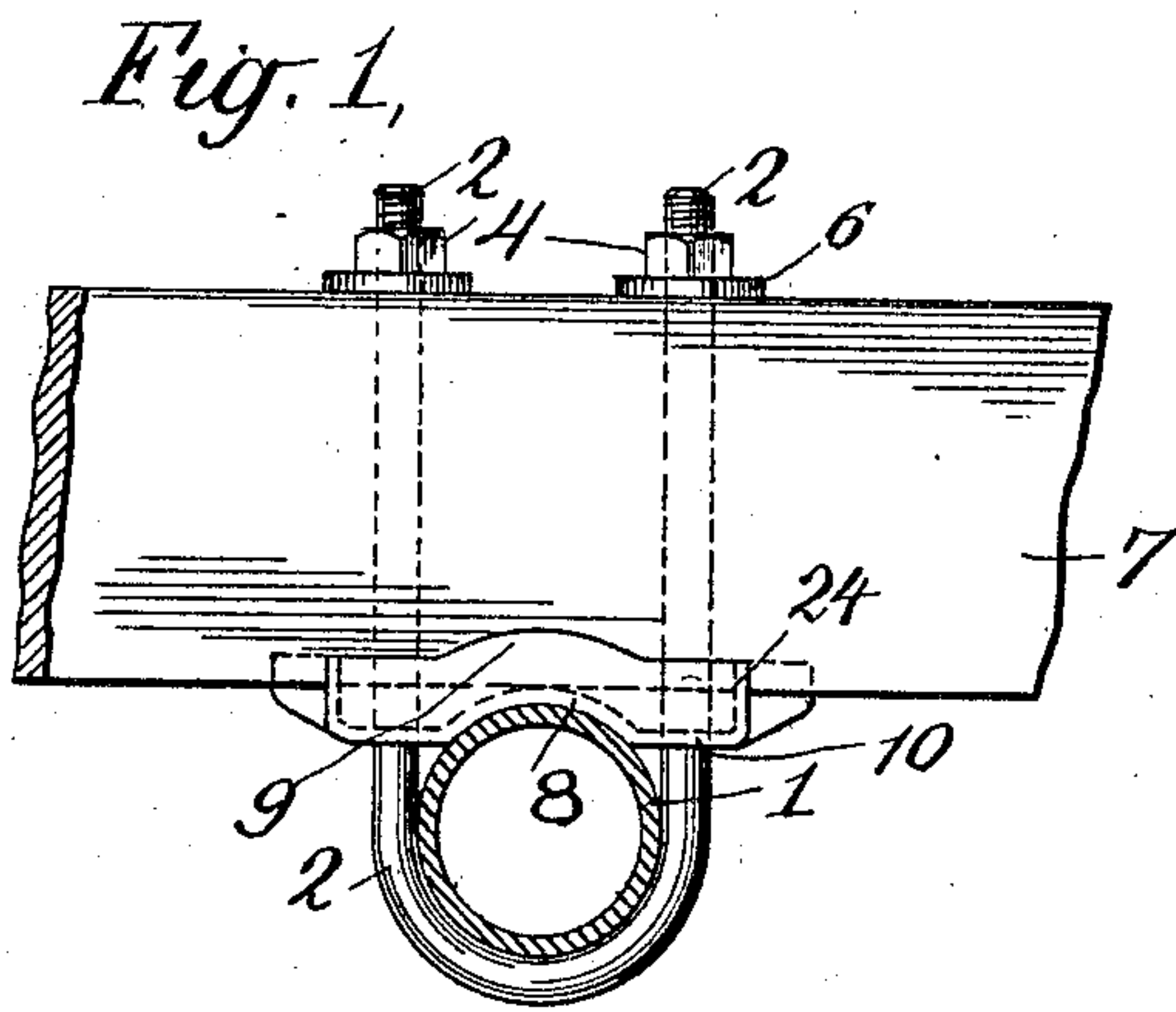


No. 871,490.

PATENTED NOV. 19, 1907.

J. D. E. DUNCAN.  
INSULATOR PIN MOUNTING.  
APPLICATION FILED JAN. 21, 1907.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN D. E. DUNCAN, OF NEW YORK, N. Y.

## INSULATOR-PIN MOUNTING.

No. 871,490.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed January 21, 1907. Serial No. 353,176.

*To all whom it may concern:*

Be it known that I, JOHN D. E. DUNCAN, a citizen of the United States, and a resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Insulator-Pin Mountings, of which the following is a specification, taken in connection with the accompanying drawings.

10 This invention relates to insulator pin mountings, and relates especially to mounting heavy insulator pins such as are used with high tension power transmission insulators, so as to securely and rigidly hold them in position.

15 In the accompanying drawings showing illustrative embodiments of this invention, Figure 1 is a top view, Fig. 2 is a corresponding vertical section, Fig. 3 is a vertical section of another form of the invention, Fig. 4 is the corresponding top view, Fig. 5 is a vertical detail section through the pin, and Fig. 6 shows the general arrangement of such mountings on a skeleton tower.

25 In the illustrative embodiment of this invention shown in Figs. 1 and 2, 1, is the insulator pin which may be of the tubular metallic construction indicated, the insulator being mounted at the top of the pin in a well known manner. The cross-arm 7 may be of wood, if desired, and is preferably formed with a suitable recess to accommodate the flange 9 of the support 8. This support may also be provided with the transverse ribs 24, which may be seated in suitable cooperating depressions in the arm in the form of saw-cuts or the like, and the ribs 24 may diverge downwardly so as to prevent the support moving upwards after the ribs are seated in the arm. The support is preferably provided with a plurality of saddles 10, 11, which may be conveniently stamped up from the rest of the support if it is made of sheet steel or similar resilient material or may be readily formed by casting or in other ways. These saddles are as indicated, curved to form a seat for the pin, the curvature of the saddle being preferably of slightly less radius than the outside of the pin so as to be first engaged by it at two separated points and thereafter the pin may be firmly seated by the slight yielding of this resilient saddle, which thus has a slight gripping engagement with the pin. The lower saddle 55 11 may be provided with a connected bracket

13, to support the bottom of the pin and with a lug 12, to engage a suitable socket 22, in the pin, which may be formed as indicated in Fig. 5.

The support 8, and saddles are first placed 60 in position on the cross arm 7, and the pin 1 arranged in proper position in cooperation therewith. Then the attaching means which may be in the form of the encircling U-bolts 2, 3, are inserted in suitable holes in the saddles 65 and arm and the nuts 4 set home to clamp the parts in position, preferably in connection with suitable vertical straps 6. These U-bolts do not require any aperture in the pin itself or weaken its strength in any way, 70 and in practice may be adjusted so as to cause the resilient saddles to conform properly with the contour of the pin and also to force these saddles and other parts of the mounting into engagement with the arm 75 sufficiently so that the pin is held with a spring action caused by the elasticity of the various parts.

The other figures of the drawings indicate a modification in which the insulator pin is 80 shown applied to a steel tower comprising the pillars 20, secured by the stays 22, 23, having suitable skeleton arms 14, 14 and 15, 15, which may be held in proper position by the lattice bracing 21 indicated. A plurality 85 of resilient saddles 17, 18 are preferably secured to the skeleton arm and may be formed with curved gripping resilient seats of a curvature slightly greater than that of the outside of the insulator pin 1, so as to be depressed at the central point of first engagement and thereafter conform properly to the pin when the parts are clamped together by the nuts 4, 5 on the U-bolts 2, 3, encircling the pin, which are preferably so adjusted as 95 to support the pin with a spring action due to the elasticity of the parts.

If desired, the saddles may be provided with the flanges 16, 19, to engage the arm and maintain alinement therewith, and the 100 flanges may fit between the bracing 21 to prevent horizontal movement on the arm, and with a suitable lug 12, to engage a corresponding socket 22 in the pin 1 to hold it firmly in proper vertical alinement as is indicated in Fig. 5. 105

Having thus described this invention in connection with the several illustrative embodiments thereof, to the details of which it is not of course to be limited, what is claimed 110



as new and what is desired to be secured by Letters Patent is set forth in the appended claims.

1. In insulator pin mountings, a metallic insulator pin provided with a socket, a support provided with a flange and transverse ribs to engage an arm, and having a lug to engage said socket, and having a bracket and a plurality of resilient gripping saddles to conform to said pin, a plurality of U-bolts encircling said pin adjacent said saddles and straps cooperating with said bolts to elastically engage the opposite side of said arm.

2. In insulator pin mountings, an insulator pin provided with a socket, a support having portions to engage an arm a lug to engage said socket and a plurality of resilient gripping saddles to engage said pin and U-bolts encircling said pin to hold the same and said saddles upon said arm.

3. In insulator pin mountings, a plurality of saddles curved to conform to an insulator pin and provided with means to engage an arm, and with a lug to engage said pin and hold it in longitudinal alinement, and U-bolts to hold said pin and saddles upon said arm.

4. An insulator pin support formed of sheet metal having upon its face one or more saddles, a flange at its upper portion to cooperate with the cross arm, and a bracket at the lower end of the support to form a seat for the insulator pin.

5. In insulator pin mountings, a support provided on its face with a plurality of integral saddles and with means to cooperate with means carried by the pin to maintain longitudinal alinement of the insulator pin, said support being also provided with means to cooperate with the cross arm to insure alinement therewith.

6. In insulator pin mountings, a stamped resilient support provided with a plurality of saddles to engage insulator pins, and provided with means to positively interlock with and maintain said pins in longitudinal alinement and provided with portions to engage an arm and maintain alinement therewith.

7. In insulator pin mountings, a metallic insulator pin support having a saddle to engage a pin and projecting means to positively hold said pin in longitudinal alinement.

8. In insulator pin mountings, a support provided with a saddle to engage an insulator pin and provided with means to engage and positively hold said pin in longitudinal alinement, said support having means to engage the cross arm and maintain alinement therewith.

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