

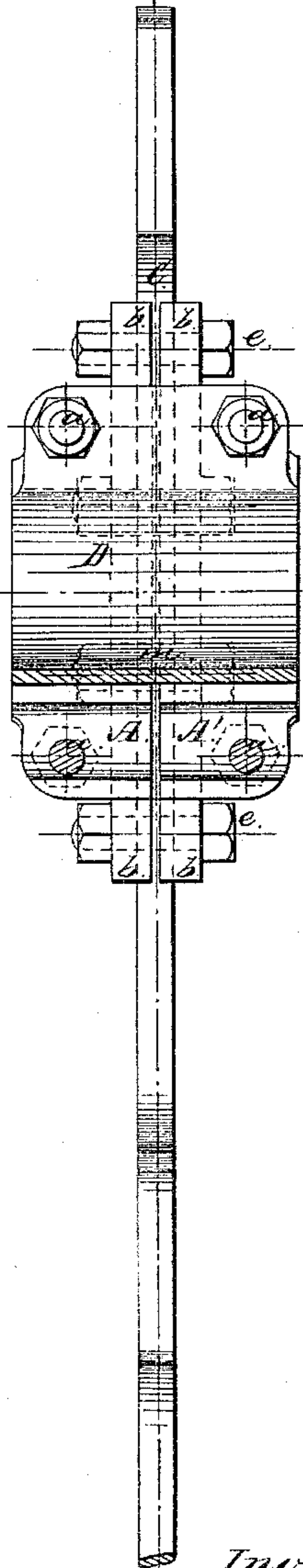
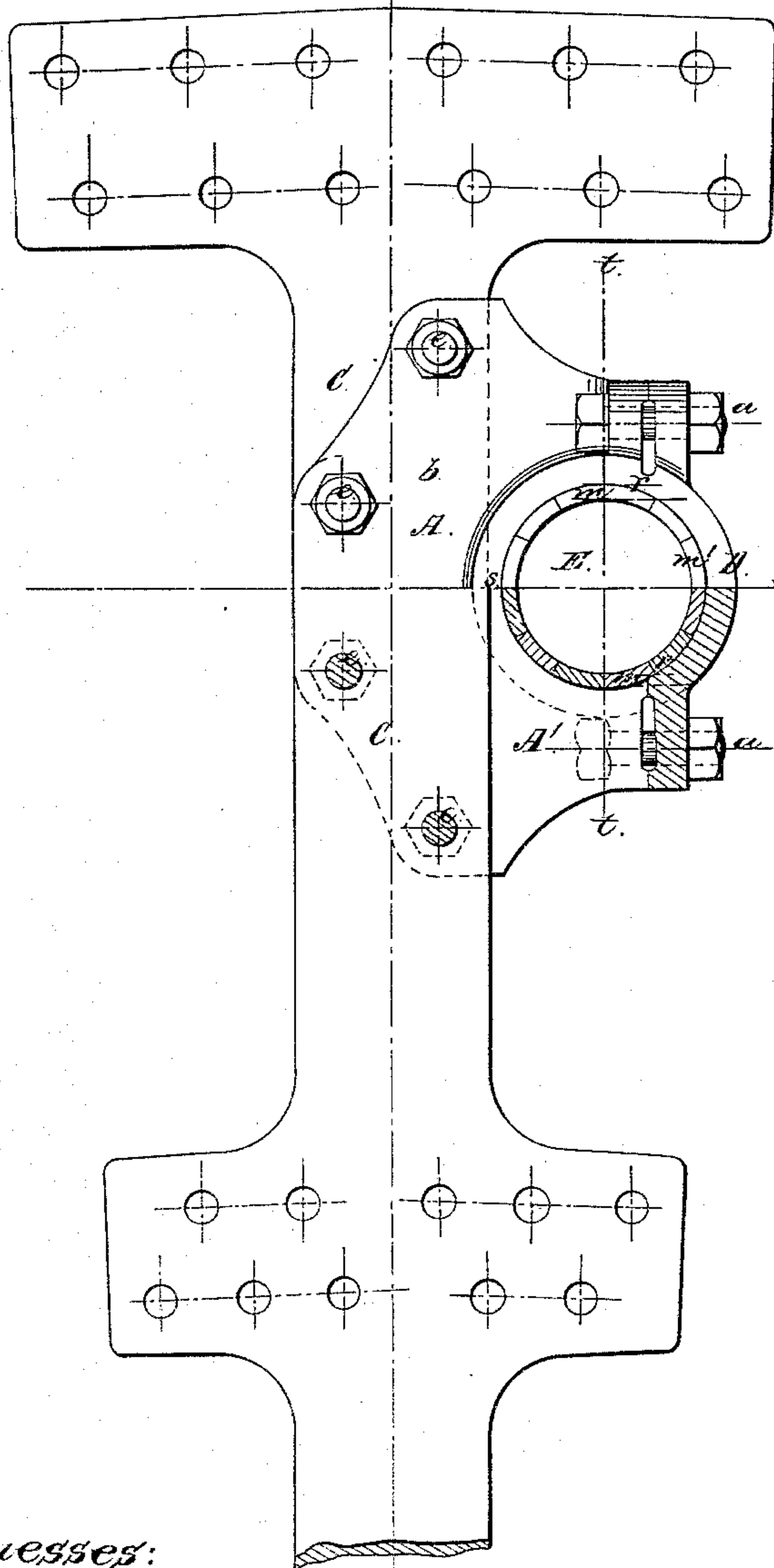
W. R. Manley,  
Shaft Hanger,

No 85,115,

Patented Dec. 22, 1868.

Fig. 1.

Fig. 2.



Witnesses:  
H. L. Bennum.  
John Raiborne Jr

Inventor:  
W. R. Manley  
by his Attorney  
C. S. Renwick

Sheet 2-3 Sheets.

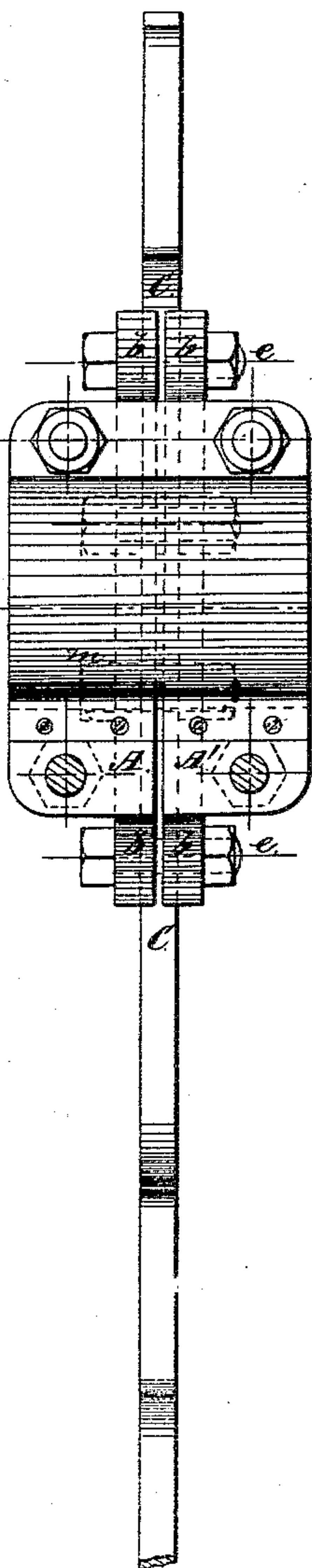
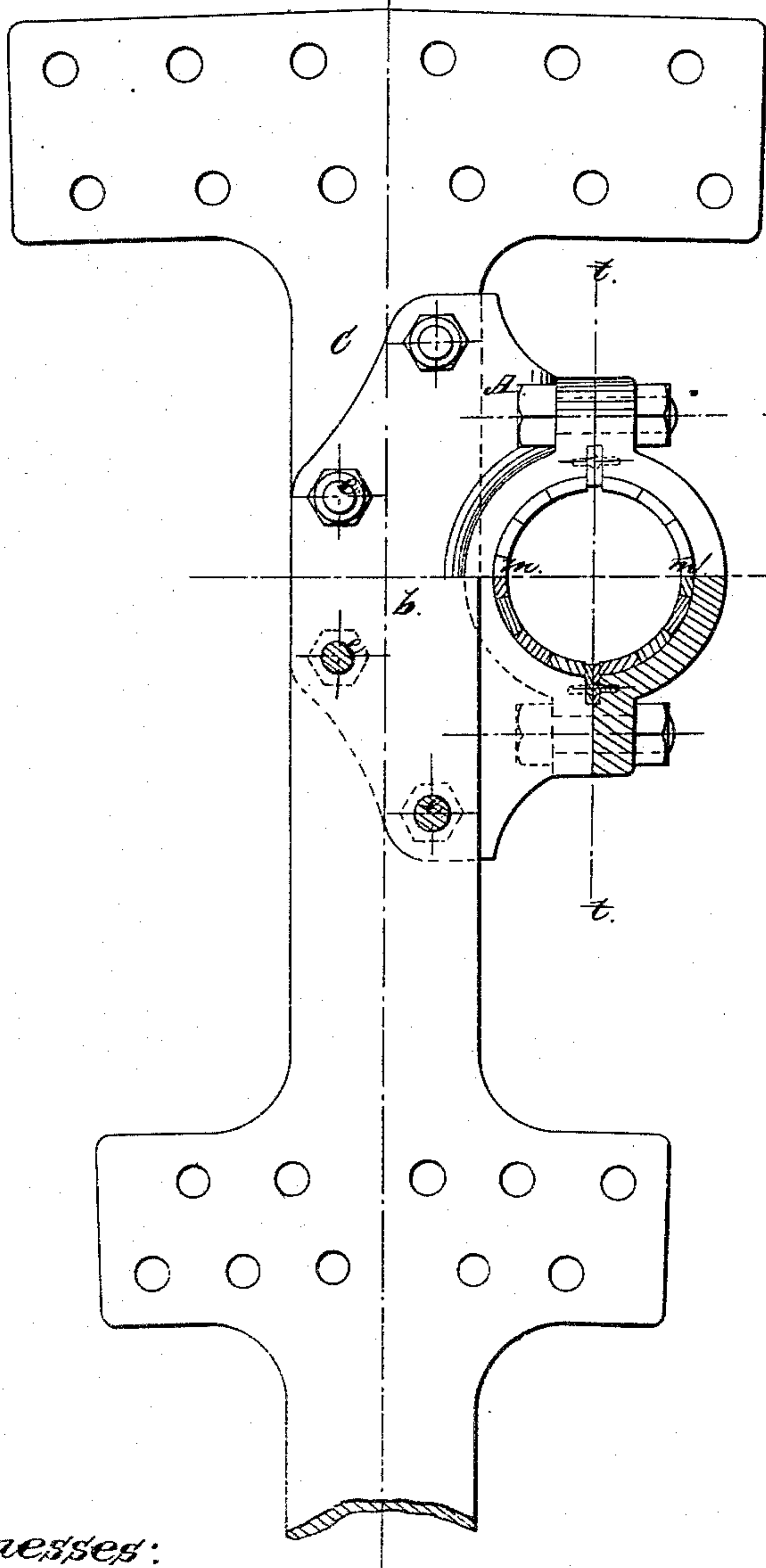
*W. R. Manley,*  
*Shaft Hanger,*

*No 85,115,*

*Patented Dec. 22, 1868.*

*Fig: 3.*

*Fig: 4.*



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Sheet 3-3 Sheets.

W. R. Manley,

Shaft Hanger,

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Fig. 5.

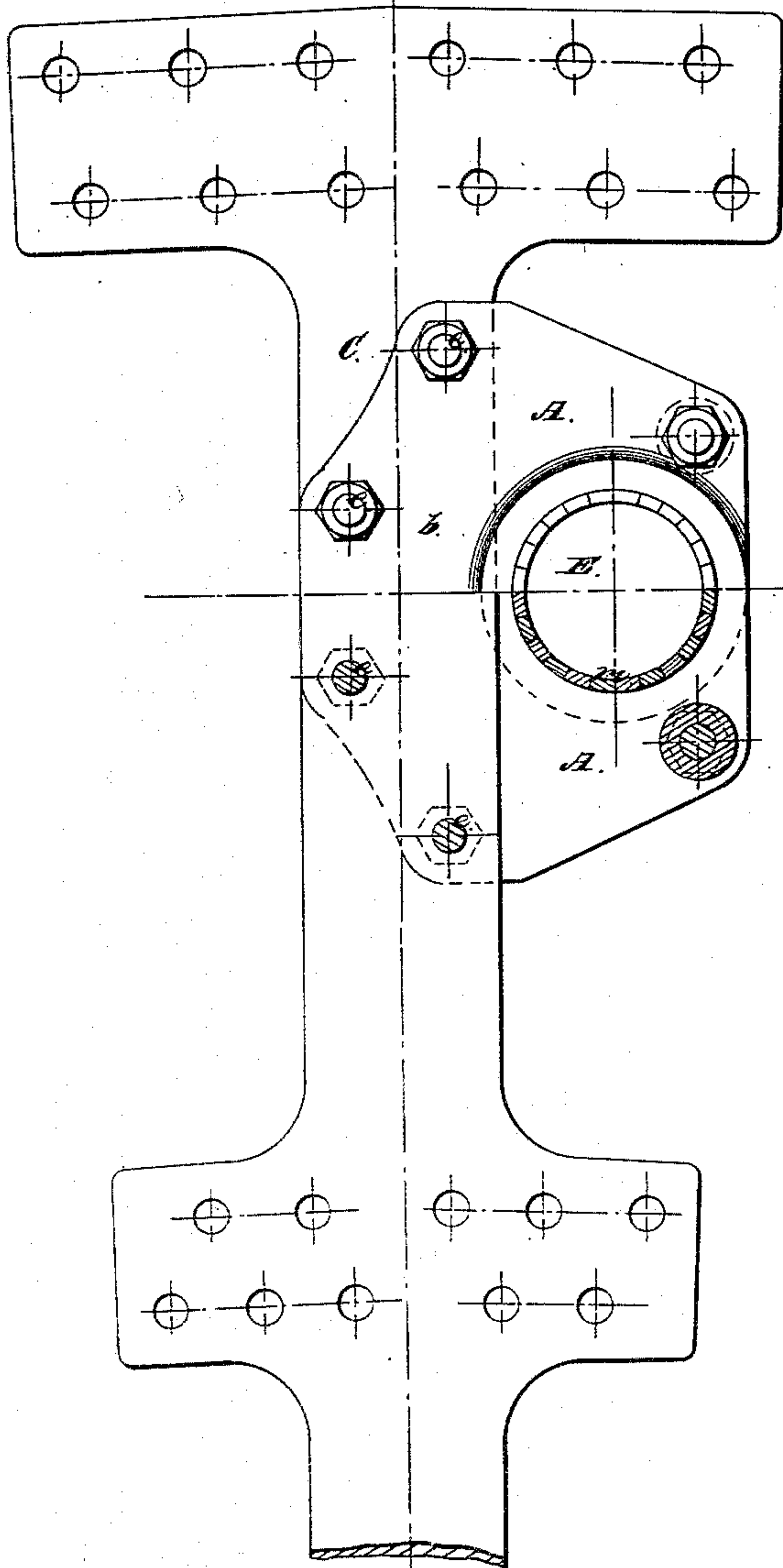
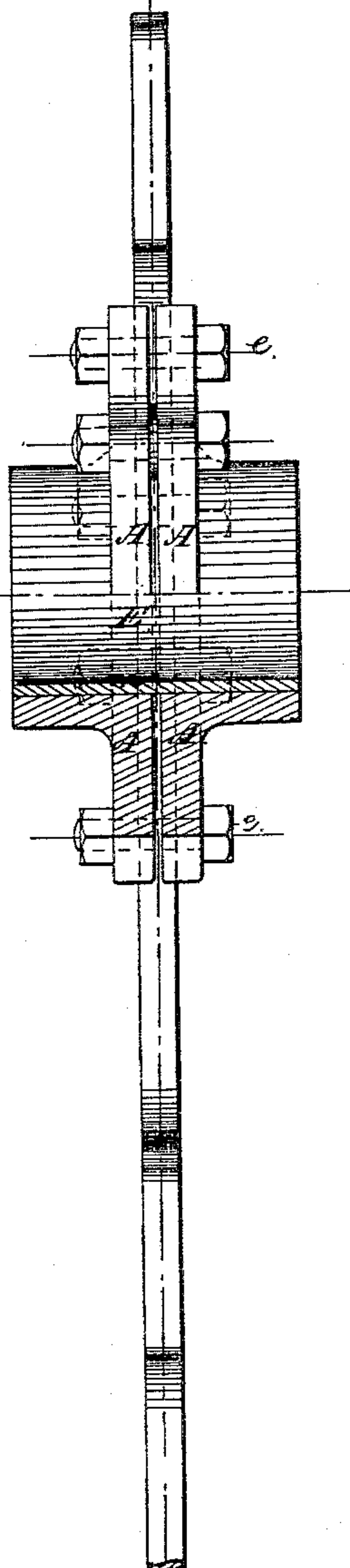


Fig. 6.



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Inventor:

W. R. Manley  
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E. J. Pennington



# United States Patent Office.

WILLIAM R. MANLEY, OF NEW YORK, N. Y.

Letters Patent No. 85,115, dated December 22, 1868.

## IMPROVEMENT IN PILLOW-BLOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, WILLIAM R. MANLEY, of the city, county, and State of New York, have invented certain new and useful Improvements in Pillow-Blocks for the shafts of the paddles of feathering-paddle-wheels for steamers, and for other purposes to which it may be applicable; and that the following is a full, clear, and exact description and specification of my said invention.

The object of my improvements is primarily to enable the pillow block or box-bearing of the shaft of a feathering-paddle-board, or of a similar shaft or gudgeon, to be securely connected with the arm of the paddle-wheel, or with a similar arm or bar.

The object of the second part of my invention is to relieve the cap of the pillow-block and the cap-bolts of lateral strains, although the cavity in which the lining or brass is inserted, is cylindrical. To this end,

My invention consists, first, in constructing the stock of the pillow in two parts, each having a cheek-plate, so that these cheek-plates can be applied to the opposite sides of the arm, and can be secured to each other, and to the arm between them, by through-bolts or rivets passing through both cheek-plates, and through the portion of the arm between them, so as to draw the two parts of the stock closely against the said arm.

The second part of my invention consists in constructing the stock of the pillow-block with a cylindrical bore or cavity for the lining, extending around more than half the box or lining upon which the shaft revolves, and with the orifice of said cavity about the diameter of the shaft to which the pillow-block is fitted.

In order that my invention may be fully understood, I will proceed to describe the pillow-block of one of the paddle-shafts of a feathering-paddle-wheel in which both parts of my invention are embodied.

Figure 1 of the accompanying drawings represents a side view of said pillow-block, with portions removed, and of a portion of the arm of the wheel, and

Figure 2 represents a plan of the same with half of the cap of the pillow-block removed.

In this example the stock of the pillow-block is constructed of two side pieces, A and A', each of which is formed in one piece with a cheek-plate, b, that embraces one side of the arm C, to which the pillow-block is secured.

The two cheek-plates b b are perforated with holes for the bolts e e, by which they are secured to each other, and to the arm C between them. Corresponding holes also are formed in the arm C for the passage of the bolts.

When the two side pieces are applied to the arm, and their cheek-plates are bolted together, staves m, of wood, are driven through both side pieces of the stock of the pillow-block, to form a lining for the shaft to turn in, and the stock thus formed is surmounted by the cap D, which also, in the example represented, is lined with wood, m', and is secured in place by four cap-bolts, a.

The stock and cap are bored out to receive the lining or box m-m', in which the shaft revolves; and in

order that the second part of my invention may be embodied in the pillow-block, the stock is so high that the cylindrical cavity, produced by boring, extends from r to r', by way of s, around nearly two-thirds the circumference of the shaft-opening E in the lining, so that the mouth of this cavity from r, directly across to r', is but little larger than the diameter of the shaft.

By this construction, the advantages due to a bored cylindrical seat for the lining are secured, while, at the same time, the sides of the cavity extend above the diametric line t t, and sustain the lateral strains of the shaft, thereby relieving the cap and cap-bolts of such strains.

The first part of my invention may be used without the second, by constructing the parts of the pillow-block as represented at Figures 3 and 4, where the cap D covers half the shaft-cavity, and divides the lateral strains with the stock.

The stock of the pillow-block in this example is constructed, as before described, of two parts A A', with cheek-plates b b.

In both examples thus described, the pillow-block is formed substantially of three pieces, viz, the two side pieces A and A' and the cap D.

The first part of my invention may, however, be embodied, by constructing the pillow-block of two parts only, as represented at Figures 5 and 6.

In this case, each side piece, A, is constructed so as to form a half cap for the shaft as well as half the stock of the pillow-block, and the lining-staves m may be driven endwise through both side pieces after they are secured to the arm, the shaft being afterwards introduced endwise through the hole or shaft-opening E.

The above-described mode of constructing the stock of the pillow-block in parts, with cheek-pieces, not only affords great facility for securely connecting it with the arm of the wheel, but also enables it to be constructed of wrought-iron, because the parts of the pillow-block are of such shape that they can be readily forged in dies to the desired form.

Having thus described the several modes in which I have contemplated the application of the principle of my invention,

— What I claim as my invention, and desire to secure by Letters Patent, is—

The construction of the stock of a pillow-block, with side pieces provided with cheek-plates, substantially as before described.

Also, the construction of the stock of the pillow-block with a cylindrical cavity for the lining, embracing more than half the shaft, and with a mouth large enough to admit the said shaft, substantially as before set forth.

In testimony whereof, I have hereto set my hand, this 3d day of September, A. D. 1868.

W. R. MANLEY.

Witnesses:

W. L. BENNEM,

JOHN RATHBONE, Jr.