

(No Model.)

G. W. BAUMHOFF.  
HEADLIGHT.

No. 540,572.

Patented June 4, 1895.

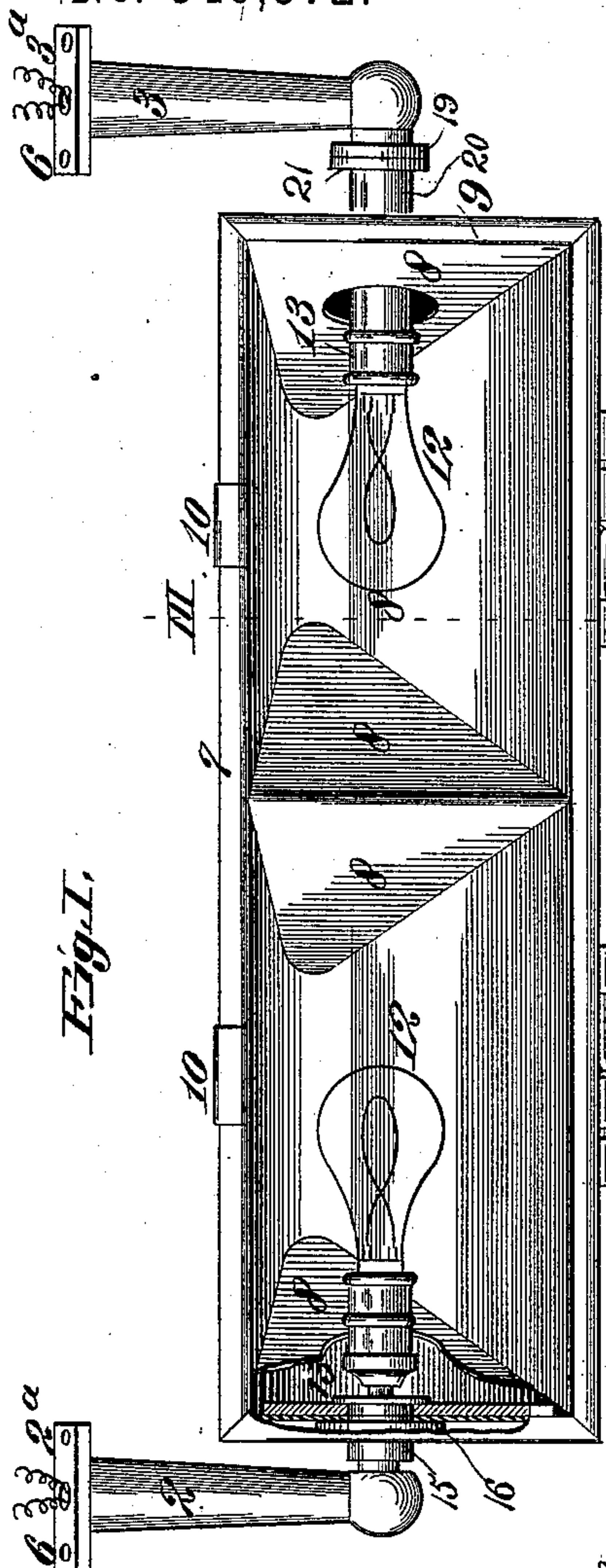


Fig. I.

Fig. VI.

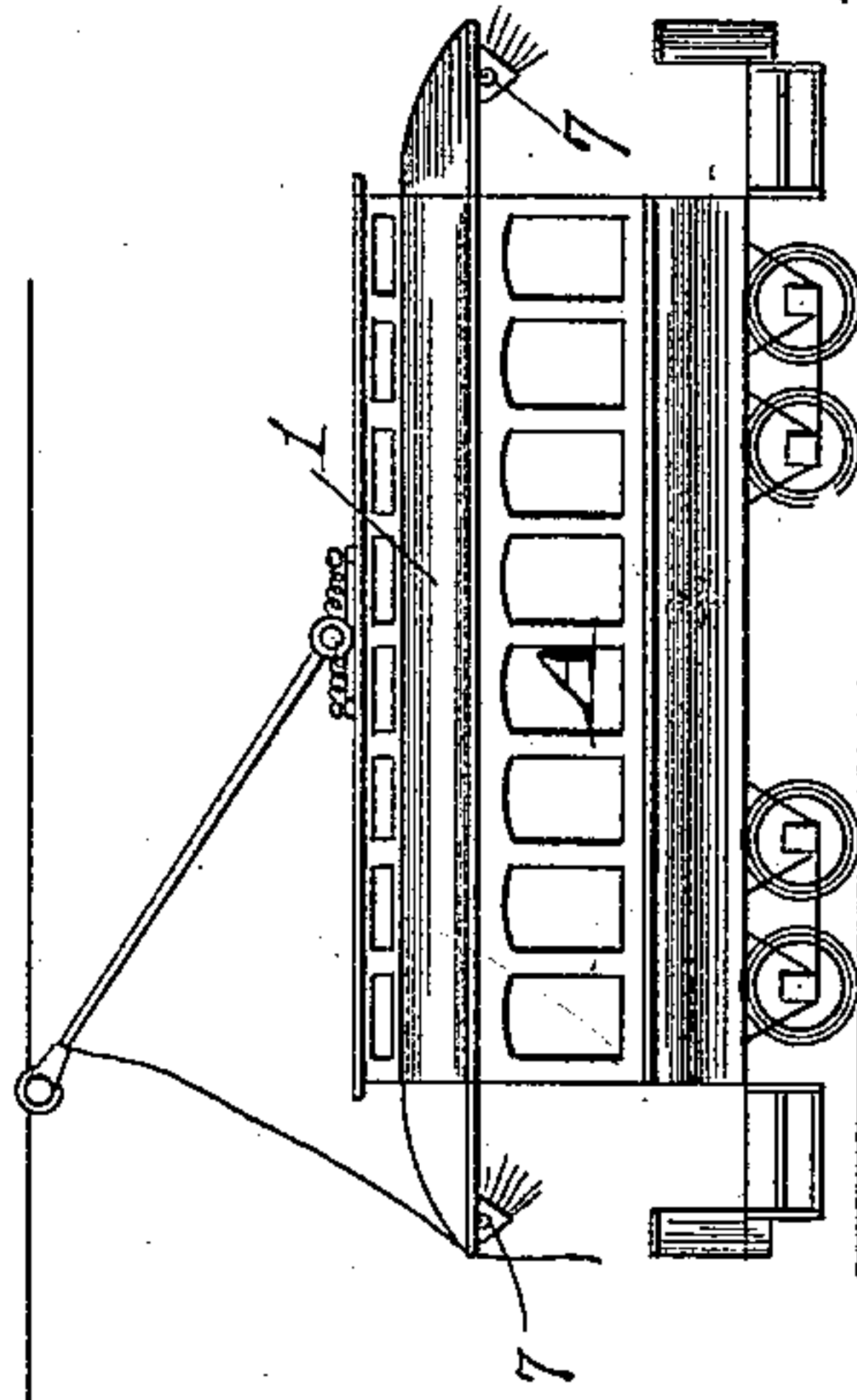


Fig. V.

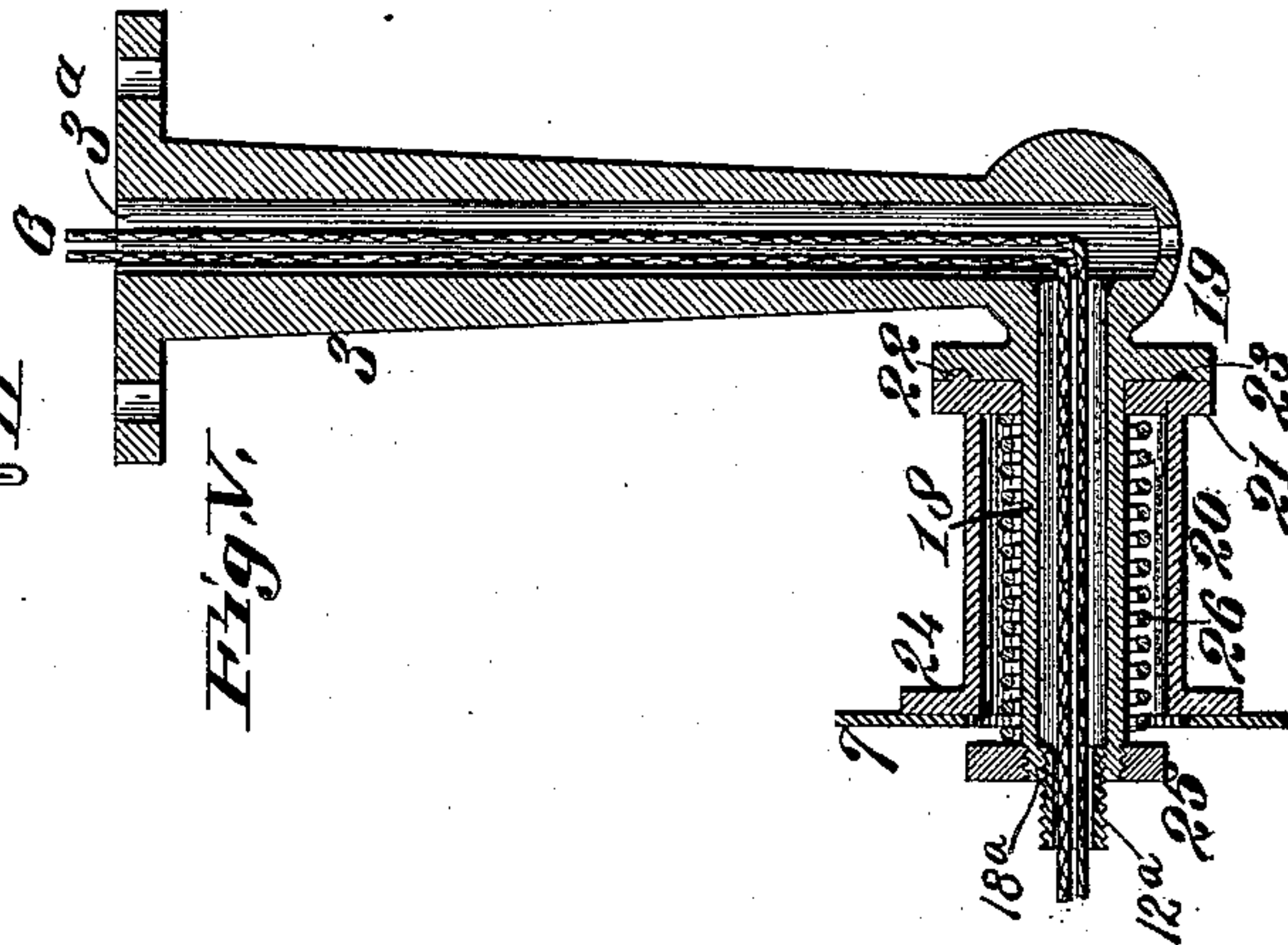


Fig. IV.

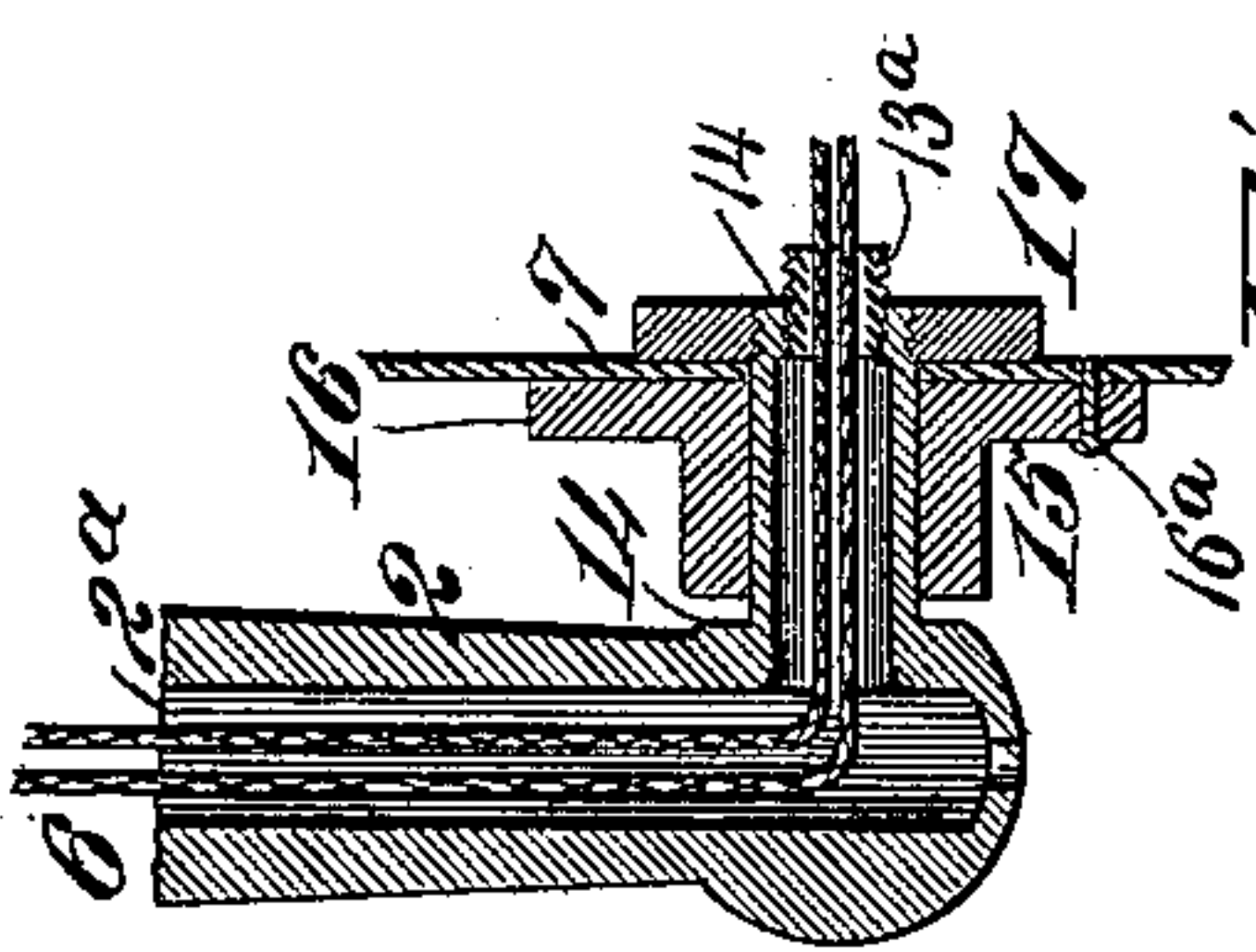


Fig. III.

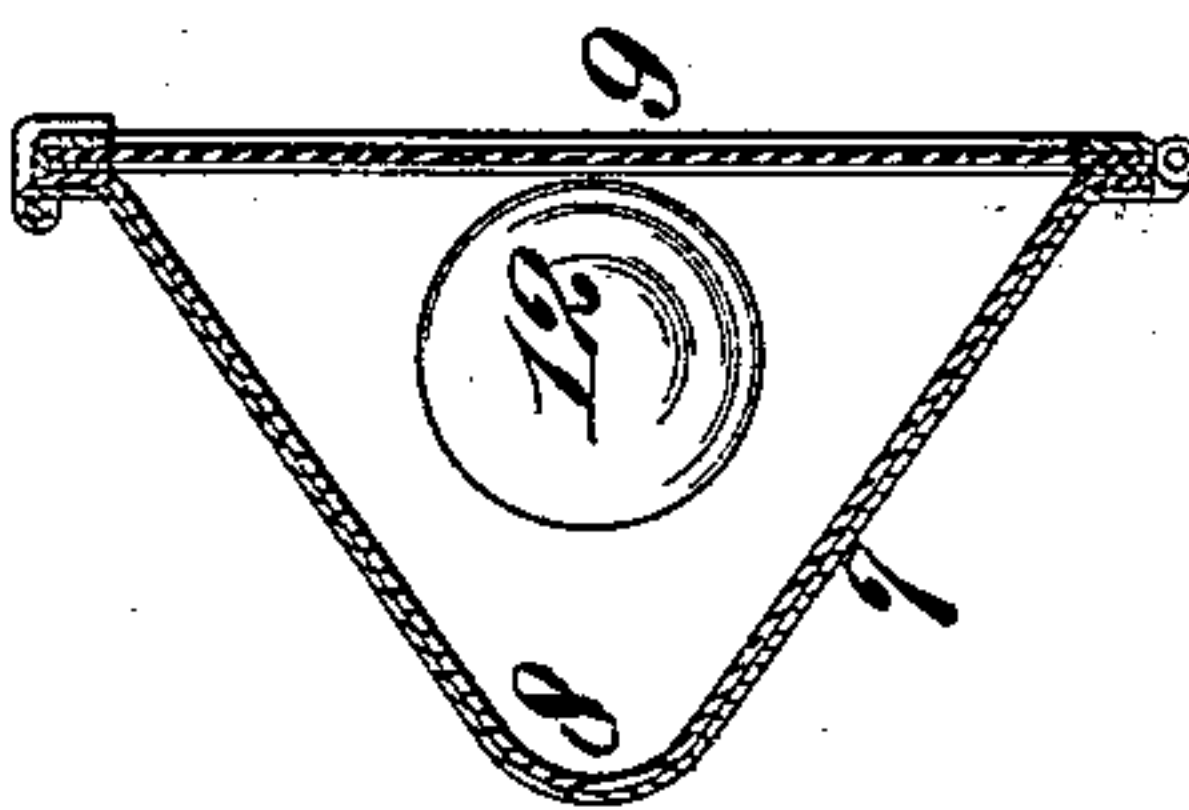
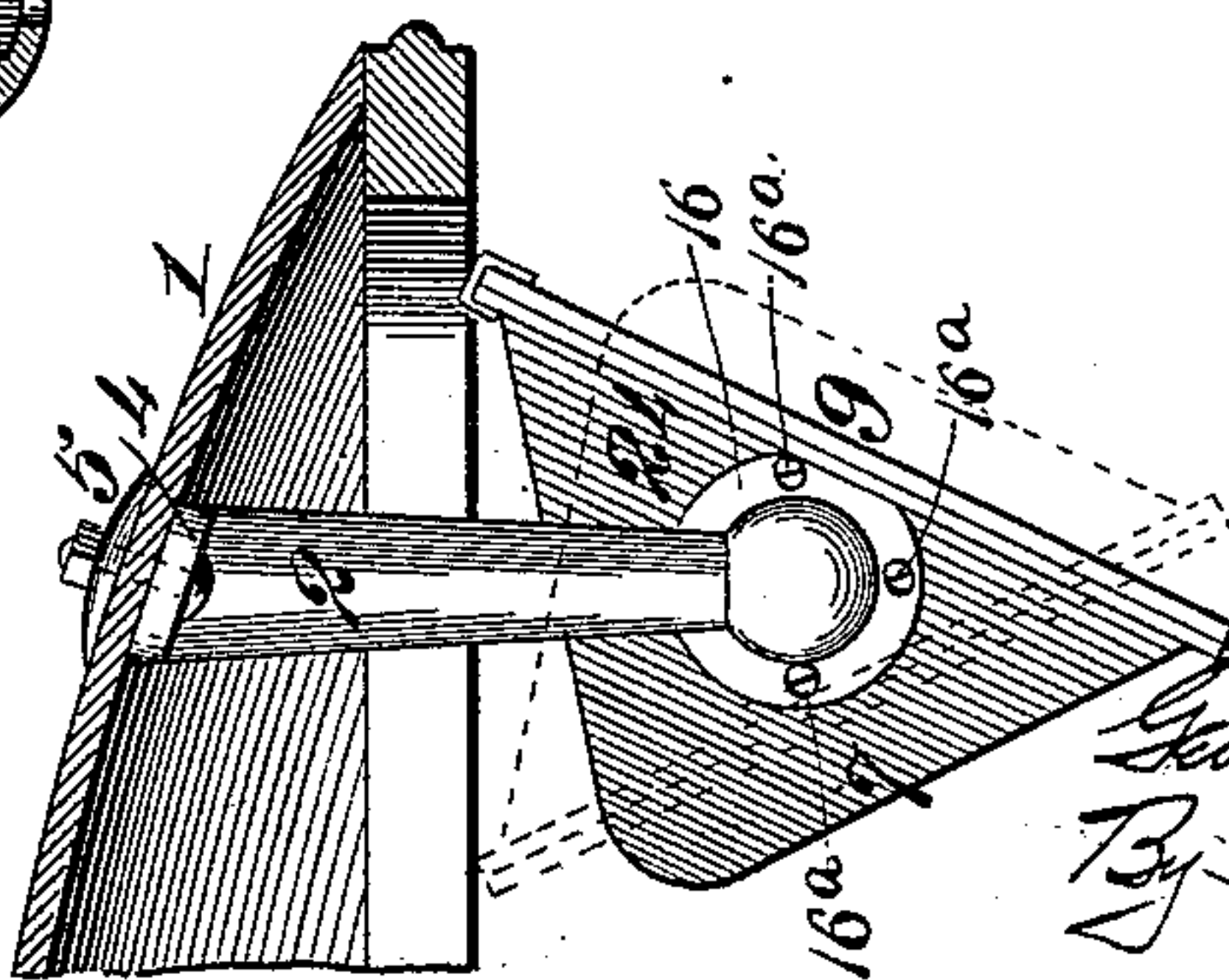


Fig. II.



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# UNITED STATES PATENT OFFICE.

GEORGE W. BAUMHOFF, OF ST. LOUIS, MISSOURI.

## HEADLIGHT.

SPECIFICATION forming part of Letters Patent No. 540,572, dated June 4, 1895.

Application filed August 20, 1894. Serial No. 520,749. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. BAUMHOFF, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Headlights, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a headlight, intended more especially for use upon street cars, and adapted for the use of incandescent lamps, as a lighting medium; and my invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a front elevation of the headlight. Fig. II is an end elevation showing the headlight secured to the roof of a car. Fig. III is a vertical transverse section taken on line III-III, Fig. I. Figs. IV and V are vertical sections taken through the two end supporting-hangers of the headlight. Fig. VI is a view of a car with the headlights connected thereto, showing the forward light turned outward and the rear light turned inward to throw the light onto the platform and into the interior of the car.

Referring to the drawings, A represents a car, and 1 its roof.

2 and 3 are hangers rigidly secured to the roof of the car by bolts 4 passing through the roof and through a washer 5, said hangers being provided with vertical and horizontal passage-ways 2<sup>a</sup> and 3<sup>a</sup> providing concealed conduits for the insertion of electrical wires 6.

7 represents the box of the headlight, provided with a reflector 8 projecting forward to a point at its central portion, and 9 is a glass door connected to the box by hinges 10, and held closed by suitable fastenings 11.

12 represents incandescent lamps, whose sockets 13 have contact connection with the electrical wires 6.

On the lower end of the hanger 2 is a hollow fixed lateral projection or journal 14, formed with a screw threaded end 14<sup>a</sup> and fitting over this projection is a sleeve 15, provided with a flange 16, having suitable fastenings 16<sup>a</sup> and between which and a nut 17 on the screw threaded end one end of the box 7 is held. The sleeve 15 is mounted to turn loosely on the hollow projection 14, thus al-

lowing the turning of the box on the same projection.

13<sup>a</sup> is a short screw threaded tube tapped into the projection or journal and which receives the socket of one of the lamps.

The hanger 3 is provided with a hollow fixed lateral projection or journal 18, having a screw threaded end 18<sup>a</sup> and also with a circular flange 19. Fitting over the hollow projection 18 is a cylinder 20, provided with an outer flange 21, on which is a projection 22, and in the flange 19 are depressions 23, with which the projection 22 is adapted to engage to hold the cylinder 20 from turning. On the cylinder 20 is an inner flange 24, to which one end of the box 7 is riveted or bolted. (See Fig. II.) Tapped into the projection or journal 18 is a short screw threaded tube 12<sup>a</sup> which receives the socket of a lamp. Located around the projection 18 in the cylinder 20, and bearing against the flange at its outer end and against a nut 25, on the end of the projection 18, is a coil spring 26.

The box of the headlight being held, as described, when it is desired to turn the box, to throw the light in the opposite direction, the cylinder 20 is pressed inward with the box, thus disengaging the projection 22 from the depression 23, and allowing the cylinder to be turned until it reaches another depression to stop its movement, and as the cylinder is turned, the box is turned with it, the opposite end of the box offering no resistance, as the sleeve 15 is always loose on the projection 14.

One of my improved headlights is designed to be located at each end of the car, under the roof which overhangs the platform, and the arrangement is such that the forward headlight is turned to project the rays ahead of the car, while the rear headlight is turned to illuminate the back platform and the rear of the car. Then if, at the end of the line, the car is turned end for end, the headlights can be quickly revolved or turned on their bearings, so as to cause the headlight, which will then be in front of the car, to be turned outward, and the other to be turned inward.

The object in forming the reflector 8 with the forward projecting portion at the central portion of its length is to provide a construction in which the entire reflector surface is



utilized, which it would not be were the reflector formed straight from end to end.

I claim as my invention—

1. The combination of the hangers, adapted  
5 to be secured to the roof of a street-car, provided with fixed lateral extensions forming journal-bearings, and the lamp-box provided at one end with a flanged sleeve and at the other end with a flanged cylinder, and a spring  
10 located in the flanged cylinder the hangers and their extensions being formed hollow to permit of the passage of the wires and the lamp-box being mounted upon the extensions so that it can be turned without twisting the  
15 wires; substantially as described.

2. The combination of the hangers adapted to be secured to the roof of a street-car, provided with fixed lateral extensions forming journal-bearings, the lamp-box provided at  
20 one end with a flanged sleeve and at the other end with a flanged cylinder, the short tubes tapped into the extensions and the nuts located on the extensions for securing the lamp-box, the hangers and their extensions being  
25 formed hollow to permit of the passage of the wires therethrough and through the short tubes and the lamp-box being mounted upon the extensions so that it can be turned without twisting the wires; substantially as described.  
30

3. A headlight comprising hangers formed with lateral extensions and passage-ways for

the wires extending through the hangers and through their extensions, a sleeve provided with a flange and mounted on one extension, 35 a flange located on the other extension, a spring around the flanged extension, cylinder formed with inner and outer flanges and surrounding the spring, means for detachably connecting the outer flange of the cylinder 40 with the extension-flange adjacent thereto, a lamp-box secured to the flange of the sleeve and to the inner flange of the cylinder, and nuts for limiting the movement of the box endwise; substantially as described. 45

4. The combination of the hangers adapted to be secured to the roof of a street-car, provided with lateral extensions and forming journal-bearings, a sleeve provided with a flange and mounted on one of the extensions, 50 a flange located on the other extension, a spring surrounding the flanged extension, a cylinder formed with an inner flange, and an outer flange having a projection engaging depressions in the extension-flange, adjacent 55 thereto, a lamp-box secured to the flange of the sleeve and to the inner flange of the cylinder and nuts for limiting the movement of the lamp box endwise; substantially as described.

GEORGE W. BAUMHOFF.

In presence of—

GEO. W. TAUSSIG,  
E. S. KNIGHT.