

No. 709,533.

Patented Sept. 23, 1902.

H. G. BREITWIESER.
ADJUSTABLE ELECTRIC LAMP HANGER.

(Application filed Nov. 20, 1901.)

(No Model.)

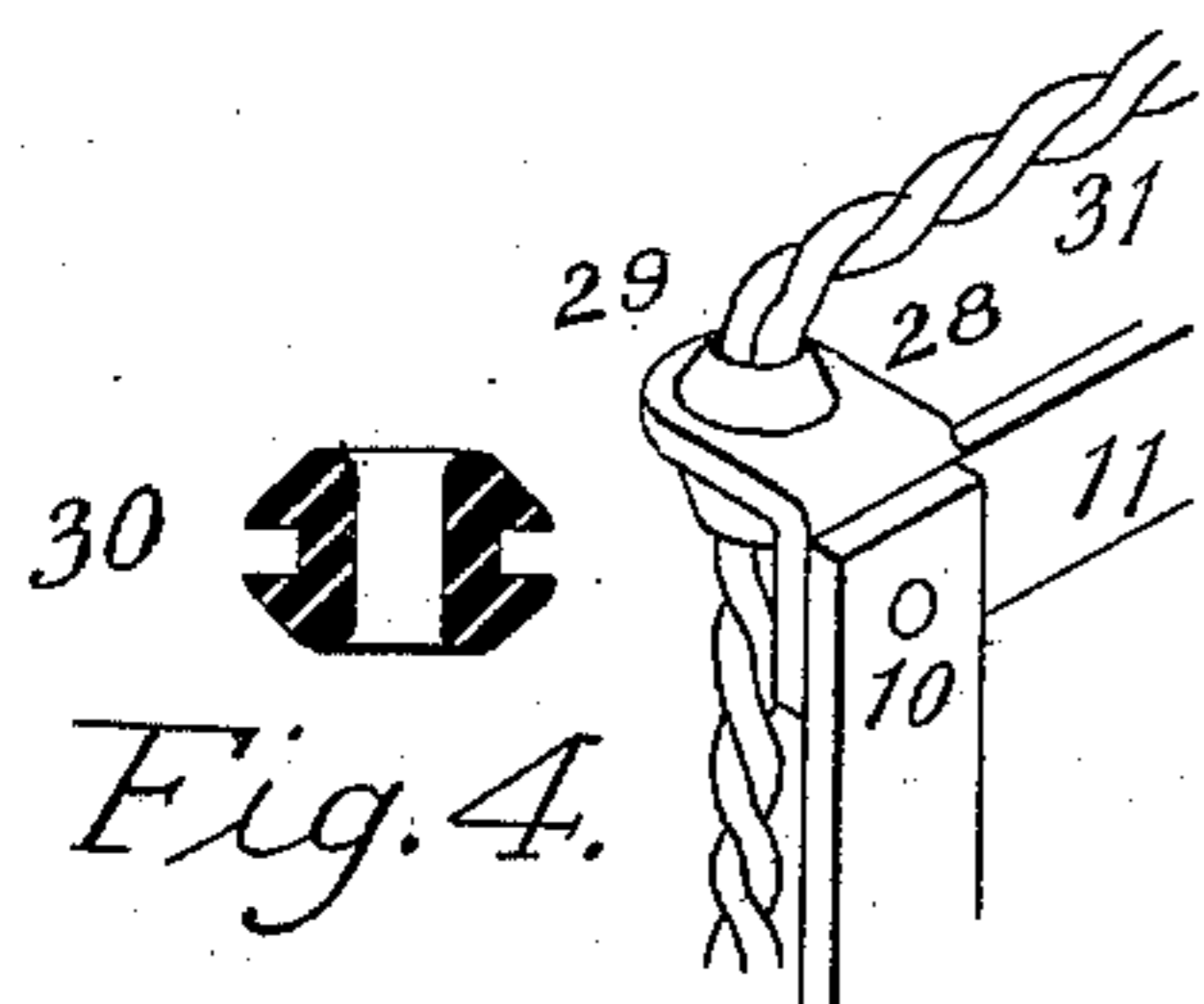


Fig. 4.

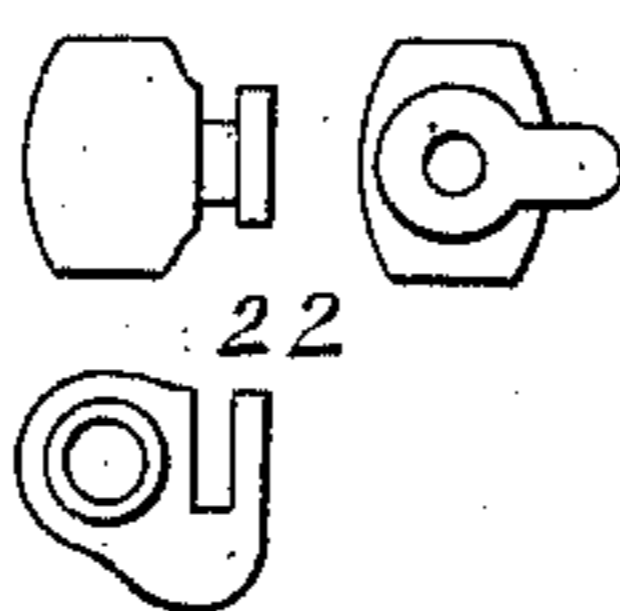


Fig. 2.

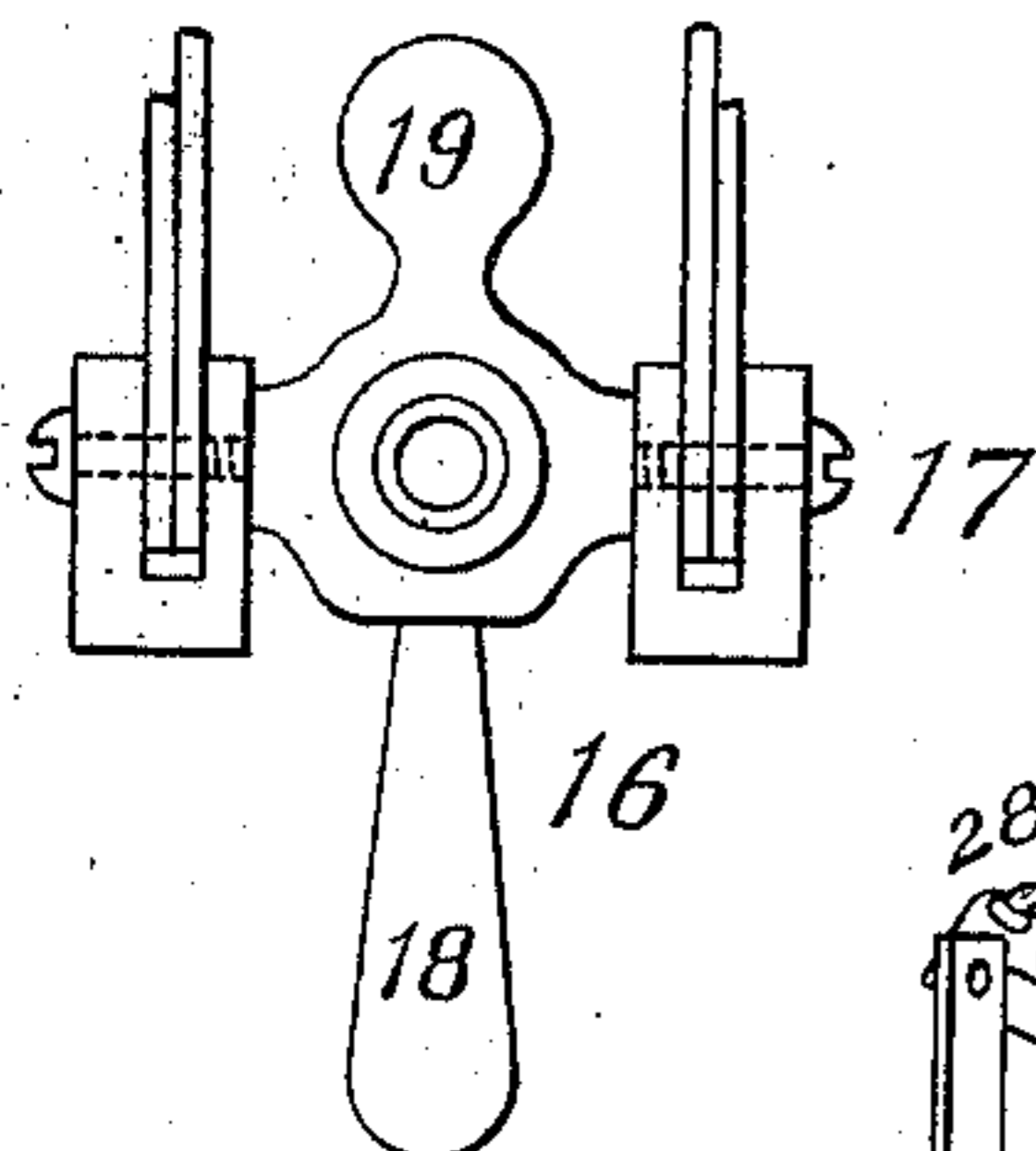


Fig. 3.

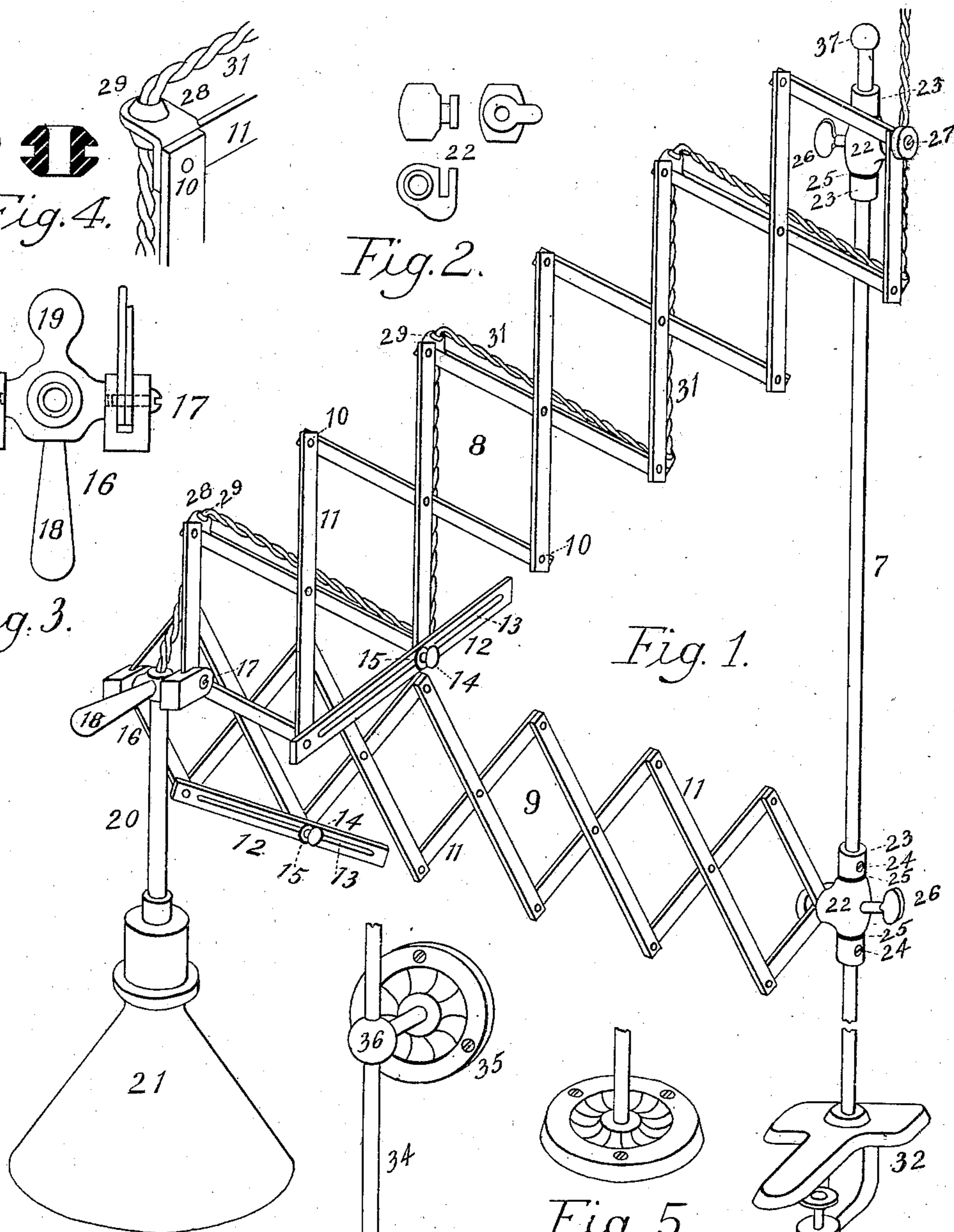


Fig. 1.

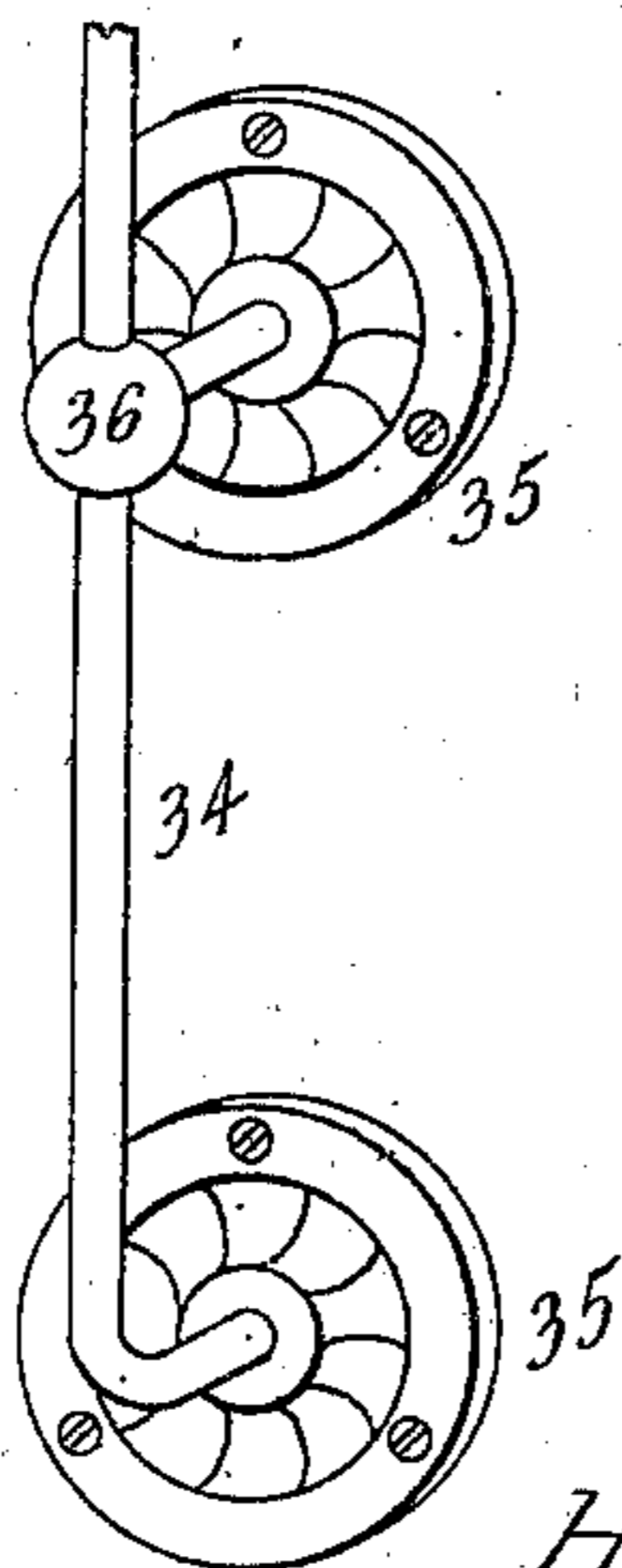


Fig. 5.

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Fig. 6. *Hubert F. Breitwieser.*
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HERMAN G. BREITWIESER, OF BROOKLYN, NEW YORK.

ADJUSTABLE ELECTRIC-LAMP HANGER.

SPECIFICATION forming part of Letters Patent No. 709,533, dated September 23, 1902.

Application filed November 20, 1901. Serial No. 83,025. (No model.)

To all whom it may concern:

Be it known that I, HERMAN G. BREITWIESER, a citizen of the United States, residing in the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Adjustable Lamp-Hanger, of which the following is a specification.

My invention relates to improvements in adjustable electric-lamp hangers or brackets; and the objects of my improvement are, first, to provide a strong and easily-adjustable hanger or bracket which will allow an electric lamp to be placed securely and safely at any desired point, either over a desk or table or at any portion of a room; second, to provide a hanger such that the lamp can be removed rapidly from one position to another, and, third, to provide an adjustable lamp-hanger in which the electric wires are compactly and neatly arranged in such a manner that they are out of the way and need not be handled while adjusting or readjusting the hanger. I attain these objects by the apparatus illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of the entire hanger with an ordinary electric lamp attached; Fig. 2, three different views of the casting 22; Fig. 3, a view of the iron block 16. Fig. 4 shows the manner in which the wires are fixed to the frame. Fig. 5 and Fig. 6 show two additional modes of attaching the hanger to a wall or table.

Similar numbers refer to similar parts in the several views.

The apparatus consists of a cylindrical vertical metal rod 7, about which revolve simultaneously two arms 8 and 9, each constructed on the principle of the lazy-tongs or what is also known as the "pantograph" system of levers. Each lazy-tongs arm is made up of strips 11 of sheet-iron, plain or enameled, or brass, riveted loosely together by rivets 10, which act as pivots. Each arm is provided with an adjusting-strip 12, having cut into it a slot 13, which allows the strip to shift back and forth on the thumb-screw 14.

15 represents washers.

The upper and lower arms of the hanger are both secured to the iron block 16 by means of screws, as shown at 17. This block is provided

with a handle 18 and has running through it a brass pipe 20, to the end of which is attached an ordinary electric lamp with shade 21. The ball 19 serves as a counterpoise-weight.

Number 22, and represented also by three views in Fig. 2, represents castings, which revolve about the vertical rod 7 and which are connected with the two arms of the hanger. These two castings are kept in place by the iron collars or shoulders 23, which are fastened to the upright rod by means of set-screws 24. Rubber washers 25 are placed between the castings and the collars for the purpose of reducing freedom of motion at this point, and thus prevent the hanger from swinging too easily around the vertical axis. A machine-screw 27, passing through a portion of casting 22, forms a bearing for each lazy-tongs arm. These castings 22 may be fastened securely to the vertical rod by turning the thumb-screws 26. When these thumb-screws are loose, the entire hanger can be revolved completely about the vertical rod, and thus may be made to take any desired direction with respect to this rod which forms its axis.

The principle on which the two arms of the lamp-hanger are constructed allows each to be extended or shortened to any convenient length. When the thumb-screw 14 of the upper arm 8 is tightened, the length of the arm becomes fixed, and the same is true in the case of the lower arm. The length of neither arm is in any way dependent upon the length of the other. The two arms, together with the vertical rod, form the three sides of a triangle, which can be made to assume any desirable shape. The block 16 may therefore be placed in any position, at any desired distance from the vertical rod, and at any height above the table or floor, limited only by the size of the hanger. In order to adjust the hanger with the lamp in any desired position, the block 16 is pulled or pushed into the position wanted with one hand, whereupon the thumb-screws 14 and 26 are tightened with the other, the hanger thus becoming entirely rigid and as secure as a bracket or hanger that is not adjustable.

The thumb-screws 26 could be omitted; but they are useful when it is desired to fix the hanger in some permanent position with reference to its vertical axis. If the lamp must

be frequently moved, both screws 26 might be left loose, which would, however, not prevent the lamp from remaining in any position in which it might be placed. The screws 17, which fasten the two arms to the block 16, serve also the purpose of connecting the last strips of the lazy-tongs in each arm, as shown in Fig. 3.

The electric current is carried to the lamp by means of the twisted wires 31, which follow the course of the strips of the arm and are kept in position by passing through holes in the ears 28, which are of the same piece of metal as the strip and are bent over at right angles to the strip. Into the holes in these ears are inserted rubber bushings 29, (shown in cross-section at 30,) which serve the purpose of insulation. This arrangement of the wires allows them to be extended without necessitating a shifting or stretching of the same. In fact, no attention need be paid to the wires at all while adjusting the hanger to a required position of the lamp. The wires pass through the tube 20 to the lamp.

The vertical rod may be fastened to a required place in various ways. The cast-iron transferable base 32, with a screw 33 for clamping it to a table or desk, may be used, or the upright can be screwed permanently to a desk, bench, or table by using the cast-iron base, Fig. 5. Fig. 6 represents an arrangement for fastening the hanger to a wall. The rod 34 is securely fastened to the bases 35 and has at its upper end a ball 36. The ball has a hole in it into which can be screwed the vertical rod of the hanger, or the hanger may be attached to the ceiling by substituting for the small ornamental ball 37 at the top of the

vertical rod a casting, such as shown in Fig. 5, which may be screwed to the ceiling while the ornamental ball is attached to the lower end of the vertical rod.

I claim as my invention, and desire to secure by Letters Patent, the following:

In an adjustable electric-lamp hanger, the combination of: a cylindrical vertical rod 7; two lazy-tongs arms 8 and 9 each pivoted and supported at one end on pivot-blocks 22 attached pivotally to the vertical rod; a cross-head block 16 to which the other ends of the two lazy-tongs arms are pivotally connected, said last aforesaid pivotal connections forming one and the same horizontal axis; two slotted adjusting-strips 12 one connected with each lazy-tongs arm near the cross-head block, one end of each of said adjusting-strips being riveted loosely together with two adjoining strips of lazy-tongs arms, a thumb-screw 14, provided with washer 15, passing through the slot in said strip and into the next two adjoining strips of the lazy-tongs arm; and a pair of insulated wires passing along the successive strips of one of the lazy-tongs arms and attached thereto by passing through holes provided with rubber bushings in ears 28, which ears form part of the metallic strips of the lazy-tongs, for the purpose specified and substantially as shown.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HERMAN G. BREITWIESER.

Witnesses:

HARRIS J. RYAN,
FRED. D. BROWN.