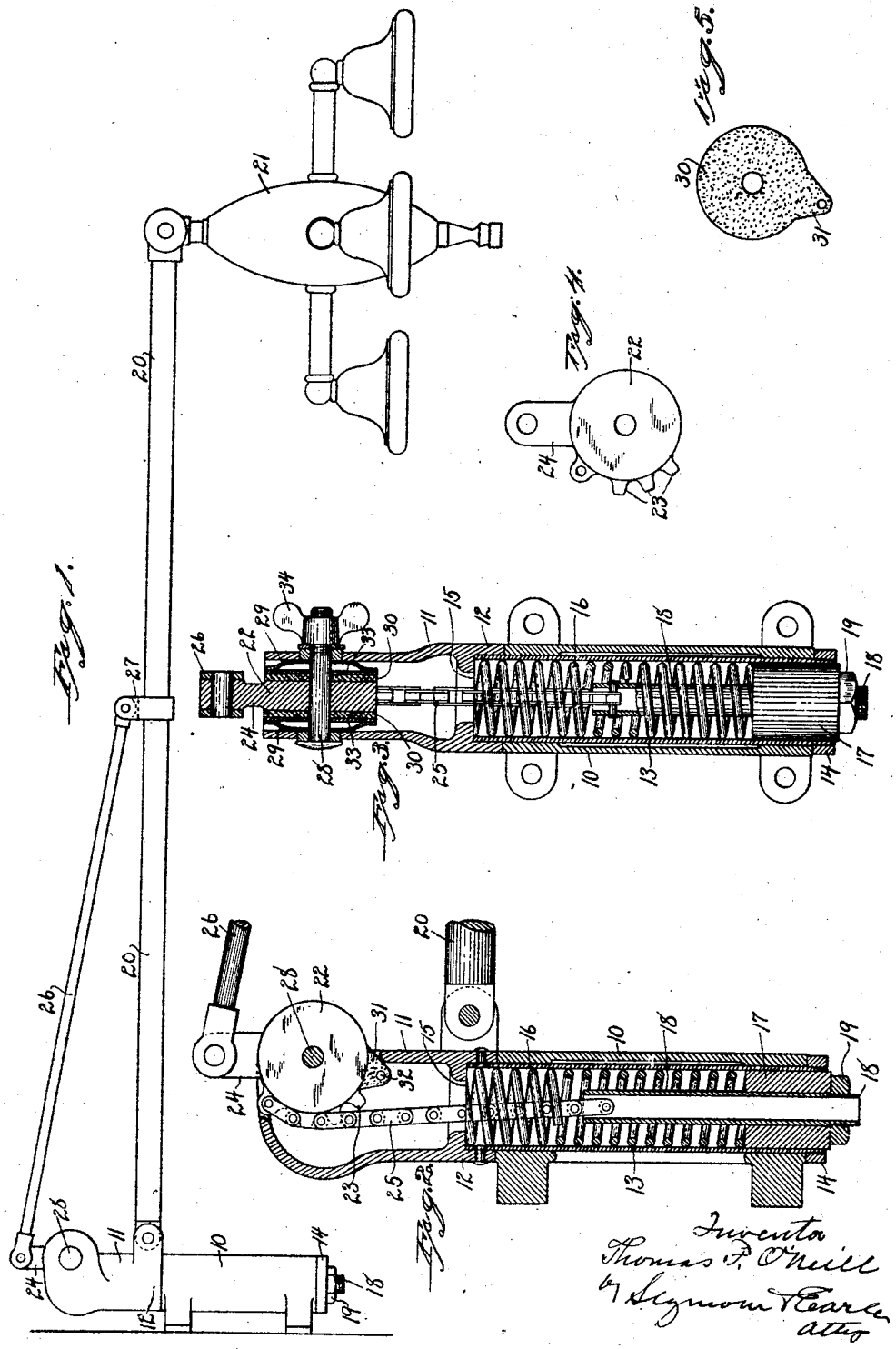
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T. F. O'NEILL

SUSPENSION DEVICE FOR ELECTRIC LAMPS

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SUSPENSION DEVICE FOR ELECTRIC LAMPS.

Application filed June 13, 1925. Serial No. 36,826.

To all whom it may concern:

Be it known that I, THOMAS F. O'NEILL, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Suspension Devices for Electric Lamps; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Fig. 1 a side view of a suspension-device for electric lamps constructed in accordance with my invention.

Fig. 2 a vertical, sectional view through the bracket and head.

Fig. 3 a transverse, vertical section of the same.

Fig. 4 a plan view of the supporting-plate, detached.

Fig. 5 a plan view of one of the friction-disks, detached.

This invention relates to improvement in suspension-devices for electric lamps, and particularly to lamps specially designed for dentists or surgeons, although equally applicable for any purpose where an adjustable lamp-support is desired. The invention is in the type of supports which consist of a bracket, a head swiveled thereon, and a supporting-bar for the lamps, connected with the head, and adapted to be held in different positions of adjustment by means of a spring arranged within the bracket. The object of the invention is to so connect the spring with the lamp-supporting arm that the arm will maintain its different positions of adjustment with less friction and with light springs, and the invention consists in the construction as hereinafter described and particularly recited in the claims.

In carrying out my invention, I employ a tubular bracket 10, adapted to be secured to the wall, or other suitable support. Mounted on the upper end of the bracket, to turn thereon, is a head 11, and preferably the head is mounted in the bracket by attaching to the neck 12 of the head a tube 13, which extends down through the bracket and is externally-threaded to receive a nut 14, by which the head is held against the upper end of the bracket, but free to rotate thereon. The head is formed with an internal, annular shoulder 15, which forms a seat for a spring 16, bearing, at its lower end, on a block 17, adapted to slide in the tube 13, and extending through the block, into the tube 13, is a tubular spindle 18, the lower end of which is threaded to receive a nut 19. Pivotally connected with the neck of the head is a supporting-bar 20, with the outer end of which a lamp-body 21 is pivotally connected. This lamp-body may support a single lamp, or, as shown, a cluster of lamps. The head 11 is open at the front to receive a plate 22 formed with sprocket-teeth 23 and an upwardly-projecting arm 24. A sprocket-chain 25 is connected with one of the teeth 23 and with the tubular spindle 18, and pivotally connected with the arm 24 is a stay-rod 26, pivotally connected at its outer end with a clamping-member 27 secured to the supporting-bar 20. The plate 22 is mounted on a bolt 28 extending through the head, and friction will be applied to the plate by means of spring-washers 29, bearing against friction-disks 30, which are provided with offsets 31, by which these disks may be held against turning by a pin 32. Metal washers 33 may be applied between the spring-washers 29 and the friction-disks 30.

A wing-nut 34 on the bolt 28 will provide the necessary friction for holding the lamp in any position of adjustment. The lamp-body 21 may be raised or lowered as desired. When raised, the spring 16 tends to force the block 17 downward and through the link 25, turning the plate 22, thus moving the stay-rod 26 and tending to lift the outer end of the bar 20. On the other hand, if the lamp is lowered, the rod 26 will turn the plate 22, and hence raise the offset 23, drawing upward on the block 17 and compressing the spring. By providing the plate 22 with the arm 24 and sprocket-teeth 23, a much lighter spring may be used than would be the case if the engagement were made nearer the axis of the plate 22. The lamp is thus counterbalanced by the spring, and will remain in position, to which the lamp is adjusted vertically, and in any position, it can be moved in a horizontal plane, as the head is swiveled in the bracket.

I claim:

1. A lamp-support, comprising a supporting-bracket, a head swiveled thereon, a plate pivotally mounted in the head and formed with an arm, a spring in the bracket con-

nected to said plate, a lamp-bar pivotally connected with the head, and a stay-rod connected with the said arm and with the said lamp-bar, whereby the spring tends to lift the outer end of the lamp-bar.

2. A lamp-support, comprising a supporting-bracket, a head swiveled thereon, a plate pivotally mounted in the head and formed with an arm, a spring in the bracket eccentrically connected with said plate, a lamp-bar pivotally connected with the head, a stay-rod connected with the arm and with the said lamp-bar, whereby the spring tends to lift the outer end of the lamp-bar, and means for applying friction to the said plate.

3. A lamp-support, comprising a tubular bracket, a head mounted thereon and formed with an internal, annular shoulder, a tube connected with said head and extending downward through said bracket, a nut applied to the lower end of the tube, a spring in said tube, a block in said tube, a spindle connected with said block, a plate mounted in said head, and formed with an arm, connection between said plate and the said block, a lamp-bar pivotally connected with said head, and a stay-rod connected with the said arm of the plate and with the said bar.

4. A lamp-support, comprising a tubular bracket, a head mounted thereon and formed with an internal, annular shoulder, a tube connected with said head and extending downward through said bracket, a nut applied to the lower end of the tube, a spring in said tube, a block in said tube, a spindle connected with said block, a plate mounted in said head and formed with an arm and with teeth, a chain connecting said teeth with the said block, a lamp-bar pivotally connected with said head, a stay-rod connected with the arm of said plate and with the said bar, friction-disks on opposite sides of said plate, springs bearing on said disks, and a bolt extending through said head, plate, disks and springs, whereby friction may be applied to said plate for holding it in its various positions of adjustment.

5. A lamp-support, comprising a tubular bracket, a head mounted thereon and formed with an internal, annular shoulder, a tube connected with said head and extending downward through said bracket, a nut applied to the lower end of the tube, a spring in said tube, a block in said tube, a spindle connected with said block, a plate mounted in said head and formed with an arm and with teeth, a chain connecting said teeth with the said block, a lamp-bar pivotally connected with said head, a stay-rod connected with the arm of the said plate and with the said bar, friction-disks on opposite sides of said plate, springs bearing on said disks, and a bolt extending through said head, plate, disks and springs, whereby friction may be applied to said plate for holding it in its various positions of adjustment, said friction-disks formed with offsets and pinned to said head, whereby they are held against rotation.

In testimony whereof, I have signed this specification.

THOMAS F. O'NEILL.