

No. 657,423.

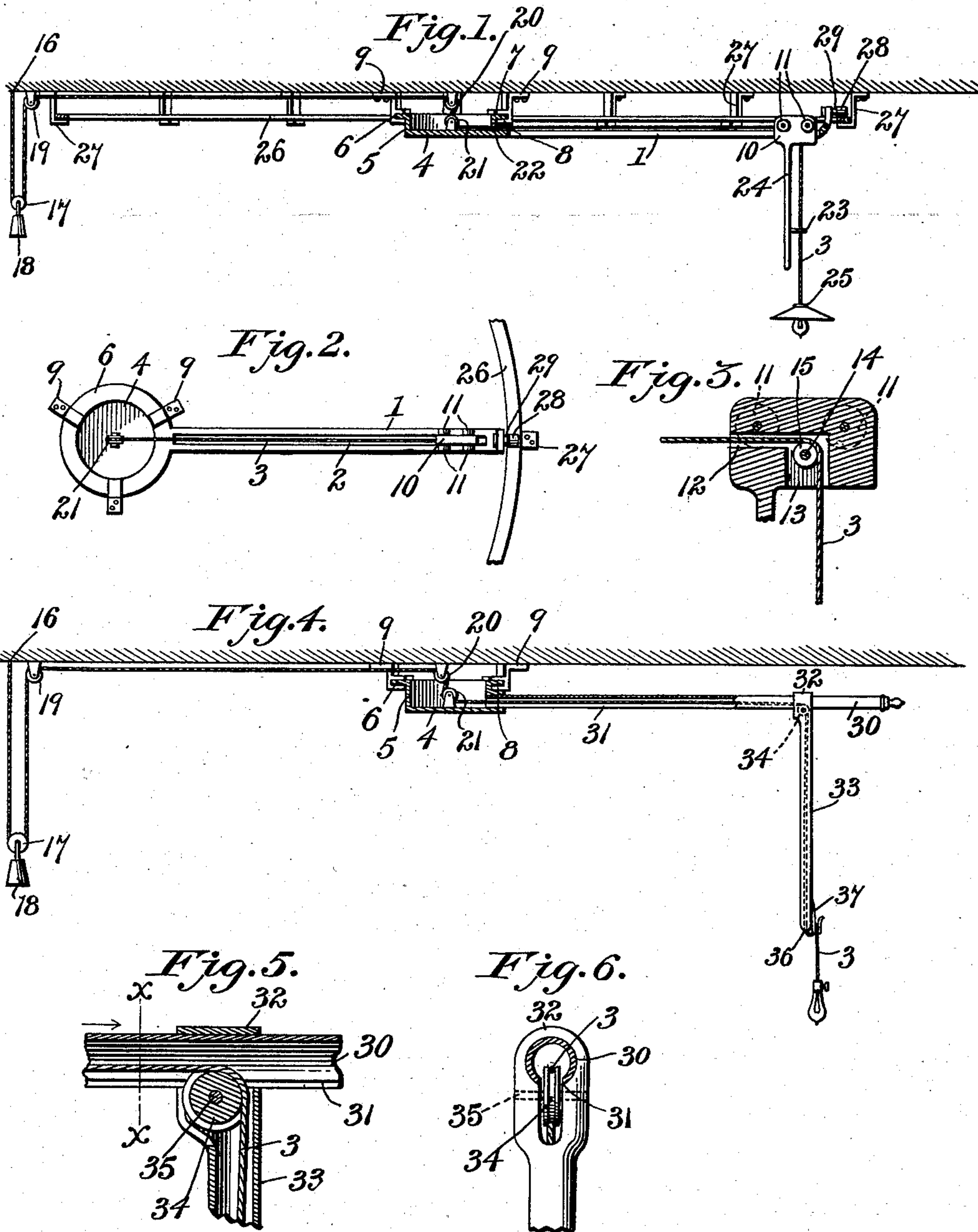
Patented Sept. 4, 1900.

B. F. KENT.
LAMP BRACKET.

(Application filed Sept. 28, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Benjamin F. Kent Inventor

Witnesses
Harold A. Simms By *E. G. Singer* Attorney
R. M. Smith.

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Fig. 7.

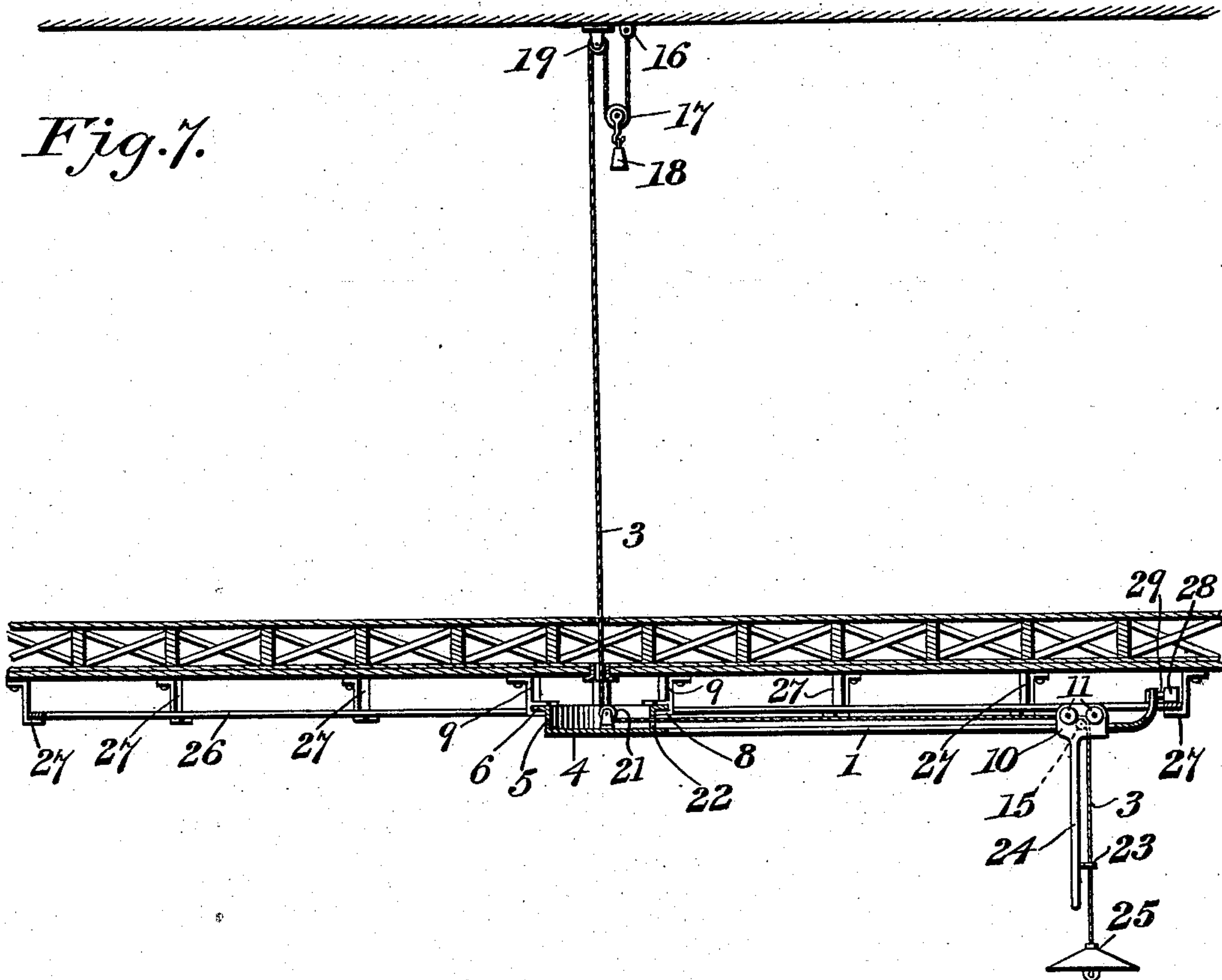
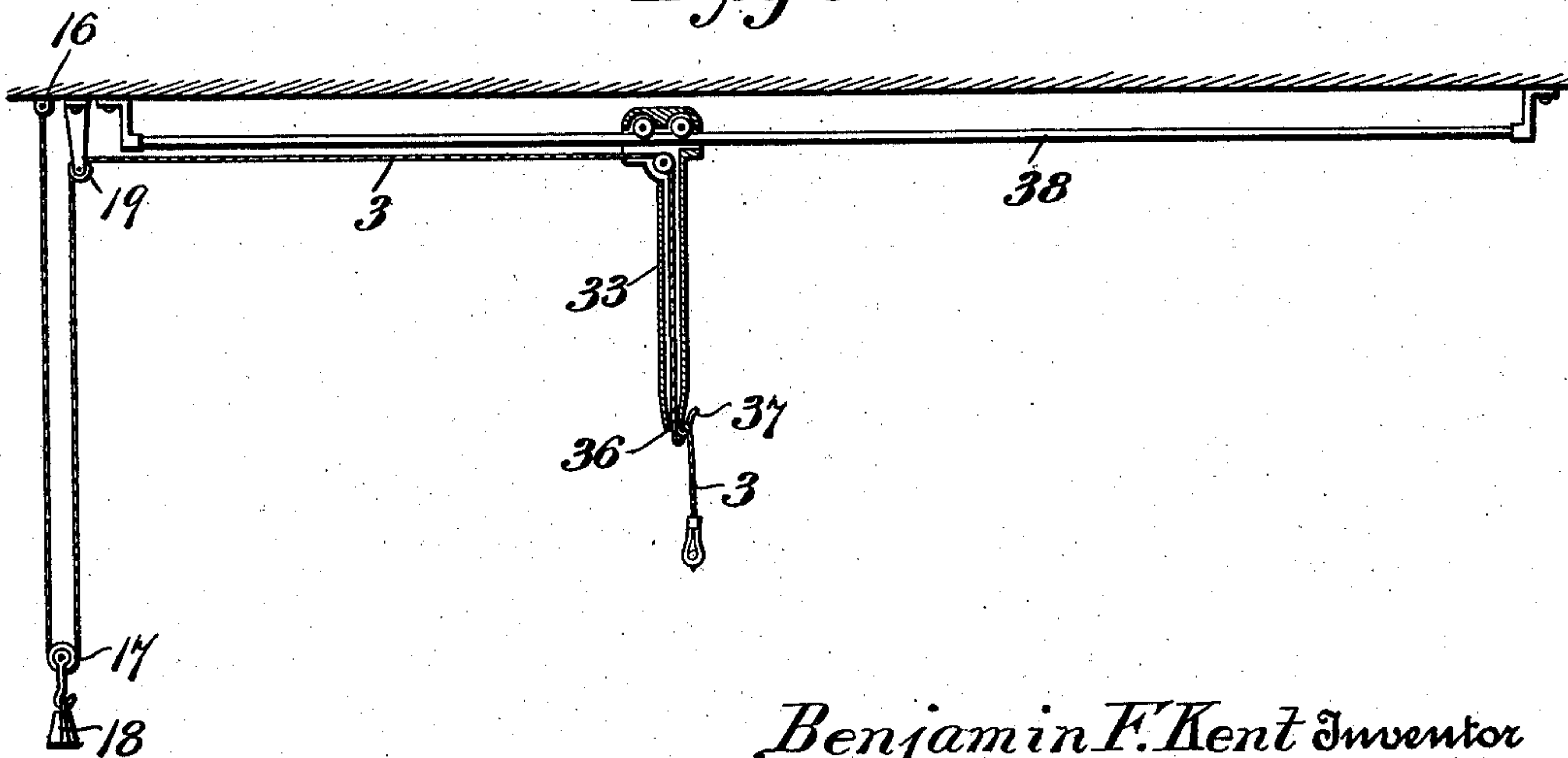


Fig. 8.



Benjamin F. Kent Inventor

Witnesses
Edwin J. McKee,
R. M. Smith.

By *E. J. Siggers* Attorney

UNITED STATES PATENT OFFICE.

BENJAMIN F. KENT, OF EUGENE, OREGON.

LAMP-BRACKET.

SPECIFICATION forming part of Letters Patent No. 657,423, dated September 4, 1900.

Application filed September 28, 1899. Serial No. 731,958. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. KENT, a citizen of the United States, residing at Eugene, in the county of Lane and State of Oregon, have invented a new and useful Lamp-Bracket, of which the following is a specification.

This invention relates to lamp-brackets, and is designed for supporting from a ceiling or other overhead support gas, oil, or electric lamps.

One object of the invention is to provide a bracket which will readily permit of the adjustment of the lamp in a horizontal plane as well as in a vertical plane, thus enabling the lamp to be carried to different points in the room and to be raised or lowered at the will of the operator.

Further objects and advantages of the invention will appear in the course of the subjoined description.

The invention consists in a lamp-bracket embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional elevation of a lamp-bracket constructed in accordance with the present invention and shown applied to a ceiling or other overhead support, showing also an annular track for supporting the outer end of the swinging arm. Fig. 2 is a plan view of the bracket detached, showing also a segment of the annular track. Fig. 3 is an enlarged detail vertical longitudinal section through the carrier. Fig. 4 is a sectional view similar to Fig. 1, showing the bracket-arm and a hanger of tubular construction. Fig. 5 is a detail vertical section taken through the carrier and a portion of the bracket-arm. Fig. 6 is a section taken on the line $x x$ of Fig. 5. Fig. 7 is a vertical sectional view showing the take-up device arranged above the ceiling or overhead support for the bracket. Fig. 8 is a similar view showing the carrier mounted on a stationary rail or track for use in stores or rooms of considerable length.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

The bracket-arm is indicated at 1 and may be either of slotted or tubular construction, as shown, respectively, in Figs. 2 and 4. In Figs. 1 and 2 the bracket-arm is shown as having a longitudinal slot 2, in and along which the conductor 3 for the illuminating agent is adapted to move. The arm 1 is provided at its inner end with a hollow circular hub comprising a disk-shaped bottom 4 and a cylindrical flange 5, extending upward therefrom. The flange 5 is provided at its upper edge with a horizontally-disposed circumferential flange 6 adapted to engage between the parallel lips 7 and 8 of a plurality of clips or hangers 9, secured, by means of suitable fasteners, to the ceiling or other overhead support. The hangers 9 are arranged equidistant from each other, as shown in Fig. 2, and a sufficient number of said hangers is employed to enable the flange 6 of the hub 4 to revolve and work freely between the lips 7 and 8 when the arm 1 is swung through a portion of a circle in a horizontal plane.

Mounted to move longitudinally on the arm 1 is a carrier 10, provided with rollers or wheels 11, which traverse the upper side of the arm. The carrier is also provided with a horizontal opening or passage 12, which communicates at its inner end with a vertical passage 13, and near the junction of said passages is arranged a pin or axle 14, upon which is journaled a pulley 15, around which the conveyer or conductor 3 passes.

The conveyer or conductor 3 for the illuminating agent may enter the room at any point, as indicated at 16, whence it passes beneath a pulley 17, having an attached weight 18. The conductor then passes upward over a pulley 19, connected with the overhead support, and thence partially around another pulley 20, connected with the overhead support centrally above the hub 4 of the bracket. The conveyer or conductor 3 passes thence downward under a pulley 21, mounted within the hollow hub 4, and thence outward through an opening 22 in the flange 5 of the hub and along the arm 1. The conveyer 3 passes thence over the pulley 15 of the carrier 10 and downward through a guide in the form of an eye 23, projecting laterally from a pendent hanger or operating-arm 24, connected rigidly at its upper end to the carrier 10, the lamp

(indicated at 25) being suspended from the extremity of the conductor or conveyer 3, as shown in Fig. 1. The weight 18 should be just sufficient to counterbalance the lamp 25, so that when the arm 24 is grasped and the carrier 10 moved lengthwise of the bracket-arm said weight will move up and down on the conductor and take up slack therein at all times. In this manner the lamp may be moved from a point adjacent to the vertical line of the hub outward in any direction radially therefrom to the extent of the length of the arm 1, and by grasping the lamp or the conductor just above the lamp the latter may be raised and lowered and brought to any desired elevation.

In cases where a heavy lamp is employed, such as a coal-oil lamp, which would bring considerable weight upon the outer end of the bracket-arm, I employ a circular or annular track 26, the radius of which is slightly greater than the length of the bracket-arm. This track or rail is supported at required intervals by means of pendent brackets 27, secured to the overhead support, as shown. In connection with the bracket I employ an antifriction-roller 28, which is journaled on a stud-shaft 29, projecting outward longitudinally from the extremity of the arm 1. It will thus be seen that the roller 28 may travel freely around the track, which is concentric with the axis of movement of the arm, and the bracket is thus rendered capable of supporting a lamp of considerable weight without bending or breaking the bracket-arm. In case a coal-oil lamp is supported by the bracket a cord, rope, or chain will be substituted for the conductor or conveyer 3, which when it is used to support an electric lamp will consist of the usual flexible insulated wire. It will also be understood that in case a gas lamp or burner is employed the conveyer 3 will consist of a flexible tube, through which the gas may pass to the burner.

By reference to Figs. 4, 5, and 6 it will be seen that it is within the scope of this invention to substitute for the slotted arm 1 a tubular arm 30, provided along its under side with a longitudinal slot 31, corresponding with the slot 2 of the arm 1 and for a similar purpose. The carrier 32 in this instance will consist of a sleeve which embraces and slides upon the arm 30 and which is provided with a pendent tubular hanger 33, through which the conveyer or conductor passes. A pulley 34 is journaled on a horizontal axle 35 in the carrier and enters the slot 31 in the tubular arm 30, the conductor or conveyer 3 passing through the tubular arm 30 and hanger 33, over the pulley 34, and out of the lower end of the hanger 33, as shown at 36. It is also desirable to apply to the lower end of the hanger 33 a spring hook or clip 37, over and in which the conveyer 3 may be caught to insure the lamp being retained at the desired elevation, no matter to what point the lamp may be adjusted in a horizontal plane.

Where there is a vacant space above the overhead support or ceiling, the conductor 3 may be carried upward through the ceiling or support, immediately above the hub 4, and the take-up device may be associated therewith, so as to obviate placing the weight 18 and the pulleys 17 and 19 within the room. This arrangement will be understood without additional description and is illustrated in Fig. 7.

In stores or rooms of considerable length it may be desirable to substitute for a revolving bracket-arm a stationary track or rail 38 of any desired length upon which the carrier may be moved for adjusting the position of the lamp carried thereby, as shown in Fig. 8. It will be apparent that the means for taking up slack in the flexible support or conductor or conveyer for the lamp will be just as effective under this arrangement as where it is employed in connection with a revolving bracket-arm.

It will be understood that the lamp-bracket hereinabove described is susceptible to changes in the form, proportion, and minor details of construction, which may accordingly be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a horizontal carrier-support, a carrier adapted to traverse the same in a horizontal path and provided with a guide, a flexible lamp-support extending lengthwise of the carrier-support and over the guide on the carrier, whereby the lamp may be raised and lowered, and a gravity take-up engaging with the lamp-support and operable to automatically take up slack therein, substantially as described.

2. The combination with a lamp-bracket arm, of a carrier arranged to traverse said arm and provided with a pulley, a flexible lamp-support extending lengthwise of the arm, and over the pulley on the carrier to permit the lamp to be raised and lowered, a weight adapted to traverse a portion of said support for taking up slack therein when the lamp is adjusted up or down, and a pendent operating-arm and hanger on the carrier, substantially as described.

3. A lamp-bracket consisting of a hub rotatably supported, an arm extending outward therefrom, a carrier traversing said arm, a flexible lamp-support passing over said carrier and along the bracket-arm, means for adjusting said carrier, and means for taking up slack in said flexible support, substantially as described.

4. In a lamp-bracket, a pivoted horizontal bracket-arm movable in a horizontal plane, in combination with a carrier adapted to traverse said arm longitudinally, a pulley mounted on said carrier, and a flexible lamp-support passing from the pivoted end of the

arm lengthwise thereof, and over the pulley on the carrier, substantially as described.

5. In a lamp-bracket, a pivoted arm adapted to swing in a horizontal plane, means for suspending a lamp from said arm, and an annular track upon which the free end of the arm rests and travels, substantially as described.

6. In a lamp-bracket, a bracket-arm pivoted and adapted to swing in a horizontal plane, an annular track forming a support for the free end of said arm, and an anti-friction-roller journaled on the end of the arm and moving in contact with said track, substantially as described.

7. In a lamp-bracket, a pivoted bracket-arm adapted to swing in a horizontal plane, a hollow hub for said arm, a pulley arranged centrally of said hub, a carrier movable lengthwise of the arm, and a flexible lamp-support extending lengthwise of the arm and engaging said pulley, substantially as described.

8. In a lamp-bracket, a tubular bracket-arm having a slot in its lower side, a carrier embracing and slidable on said arm, and a flexible lamp-support passing through said tubular arm and supported by the carrier, and working through a slot in the bracket-arm, substantially as described.

9. In a lamp-bracket, a tubular bracket-arm mounted to swing in a horizontal plane, and having a slot in its lower side, a carrier embracing and slidably mounted on said arm, to move lengthwise thereof, a pulley journaled in said carrier, and a flexible lamp-support passing through the tubular arm, the slot therein, and over the pulley on the carrier, substantially as described.

10. In a lamp-bracket, the combination with a tubular arm mounted to swing in a

horizontal plane, and having a longitudinal slot in its lower side, of a carrier slidably mounted on said arm, a tubular hanger depending therefrom, a hook or clip connected to said hanger, and a flexible lamp-support passing through the tubular arm and hanger, and through the slot in the bracket-arm, substantially as described.

11. A lamp-bracket comprising a tubular arm mounted to swing in a horizontal plane, and provided with a longitudinal slot in its lower side, a carrier embracing said arm and adapted to slide lengthwise thereof, a pulley journaled on said carrier and projecting through the slot in the bracket-arm, and a flexible lamp-support passing through the tubular arm and over the pulley on the carrier, substantially as described.

12. The combination of a carrier-support movable in a horizontal plane around a vertical axis, a carrier mounted to traverse the support in a horizontal path, and a pliable lamp-support guided on the carrier-support and the carrier to depend for a part of its length from the latter, as set forth.

13. The combination of a carrier-support movable in a horizontal plane around a fixed vertical axis, a horizontally-movable carrier traversing the carrier-support, a pliable lamp-support guided on the carrier, and a self-adjusting take-up engaging with said pliable lamp-support, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

BENJAMIN F. KENT.

Witnesses:

S. E. WILLIAMS,

NELLIE F. WILLIAMS.