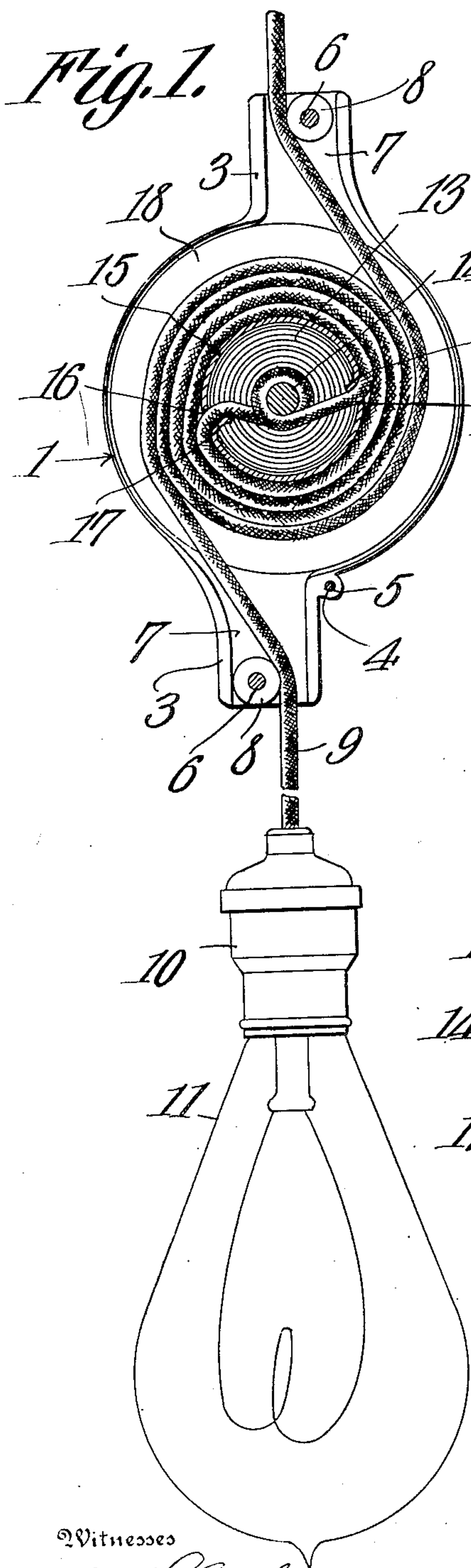


No. 898,083.

PATENTED SEPT. 8, 1908.

W. AMSTALDEN.
ELECTRIC LIGHT FIXTURE.
APPLICATION FILED DEC. 31, 1907.



Witnesses

E. J. Howard

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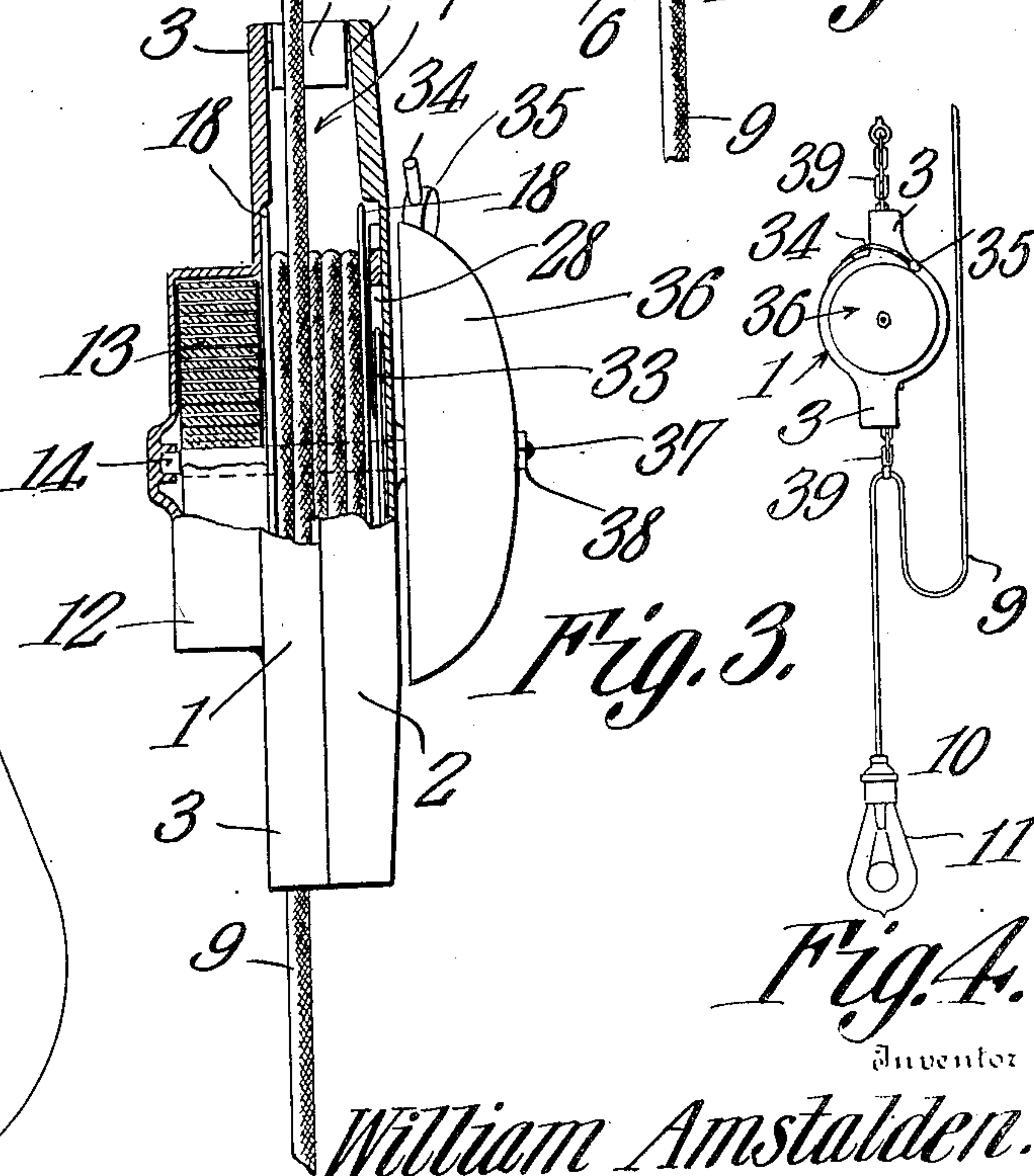
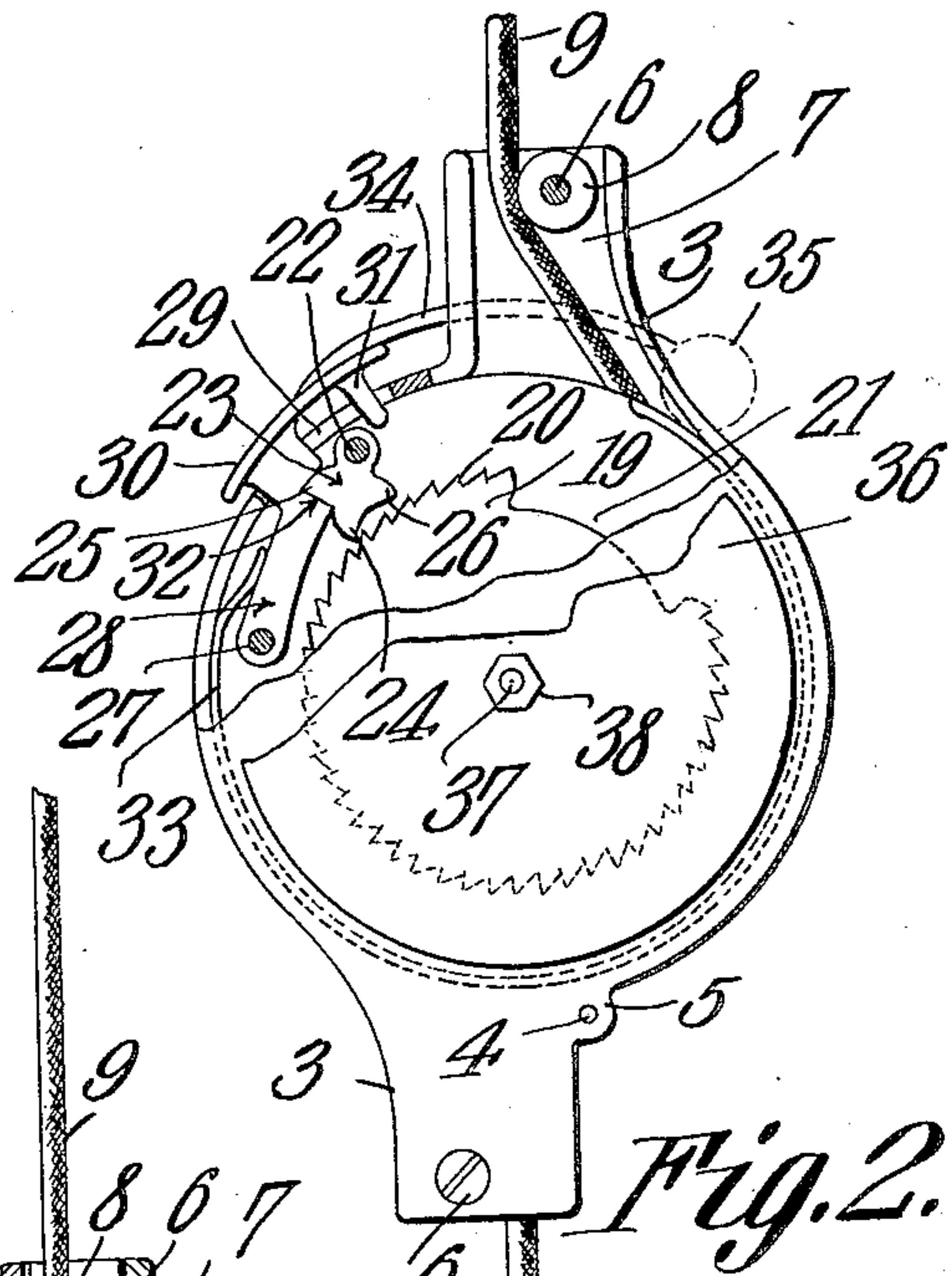


Fig. 4.

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WILLIAM AMSTALDEN, OF AMADOR CITY, CALIFORNIA, ASSIGNOR OF ONE-HALF TO AARON WEIL, OF AMADOR CITY, CALIFORNIA.

ELECTRIC-LIGHT FIXTURE.

No. 898,083.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed December 31, 1907. Serial No. 408,712.

To all whom it may concern:

Be it known that I, WILLIAM AMSTALDEN, a citizen of the United States, residing at Amador City, in the county of Amador and State of California, have invented a new and useful Electric-Light Fixture, of which the following is a specification.

This invention has reference to improvements in electric light fixtures or extensible conductor holders for electric lamps of the incandescent type, and is designed to provide a means whereby a lamp hung from a fixed point, say on the ceiling, may be pulled down closer to the floor or moved upward away from the floor at the desire of the operator, and the conducting cord will be extended 15 from a drum upon which it is wound or will be again wound upon the drum, as desired, a spring being provided in the fixture for the purpose of winding up the cord upon a suitable drum, and this spring is put under tension by the act of unwinding the cord from the drum.

The invention includes an alarm bell carried by the winding drum fixture so that 25 when the cord is unwound from the drum the bell will sound an alarm and the same means for causing the alarm to be sounded also serves to lock the drum against return movement, and this return movement can only be accomplished when the drum is carried to a certain predetermined position by which a locking pawl is so moved as to disengage a ratchet with which it is normally in operative 35 relation.

The invention will be best understood by a consideration of the following detail description taken in connection with the accompanying drawings forming a part of this specification, and in which drawings

Figure 1 is a longitudinal section through the fixture showing the conducting cord and lamp in operative relation thereto. Fig. 2 is a face view of the fixture from the bell side with parts shown in section, and Fig. 3 is an edge view of the fixture with parts shown in longitudinal section at right angles to the section shown in Fig. 1. Fig. 4 is a view illustrating another use of the fixture.

The fixture consists of a casing member 1 and cover 2, both cylindrical in outline and each provided with like extensions 3 from opposite sides of the center. The cover is fixed to the casing by means of a pin 4 extending through matching lugs 5 on the two

members 1 and 2 and by means of screws 6 passing through the extensions 3 and through channels 7 formed in said extensions, and on these screws are journaled rollers 8 within the channels 7 and serving as guides for the cord 9 leading to the socket 10 for receiving the lamp 11. The other end of the cord 9 may lead to a suitable plug or rosette or any other type of permanent fixture.

The casing 1 is provided with an offset 12 housing a spring 13, one end of which is connected to a spindle 14 carrying a sleeve 15 through the diametrically-opposite perforations 16 in which the cord 9 is passed and wrapped around the spindle 14. These perforations are formed with ears 17 in the line of the cord so that the latter is not subjected to any sharp angles, these ears 17 being formed by struck-in portions of the walls of the sleeve 15. The sleeve 15 constitutes the hub of a drum having heads 18 spaced apart by said sleeve and attached to the same, and upon this drum the cord 9 is wound without being broken in continuity. Fast upon the outer face of one of the heads 18 is a ratchet-wheel 19 formed with teeth 20, the periphery of this ratchet-wheel being broken for a distance by a peripheral slot 21. Pivoted upon a pin 22 fast upon the cover 2 is a pawl 23 formed with a tooth 24 normally in operative relation to the teeth 20 and with two oppositely-disposed fingers 25, 26, projecting at substantially right angles to the tooth 24. Also pivotally supported upon a pin 27 fast on the cover 2 is a lever 28 extending through a slot 29 in the peripheral walls of the cover 2, and this lever has an extension 30 normally concentric with and lying outside of the peripheral walls of the cover 2. On the extension 30 of the lever is a tooth 31 extending through the slot 29 into the interior of the cover. The lever 28 adjacent to the pawl 23 is formed with a notch 32 into which normally extends the finger 25 of the pawl 23. The lever 28 is normally urged toward the pawl 23 by a spring 33. The lever member 30 has fast thereon a rod 34 terminating in a bell clapper or hammer 35 in operative relation to a bell 36 mounted upon a stem 37 rising from the exterior of the cover 2, and this bell is held in place by a nut 38 or otherwise. Now let it be assumed that the spring is so adjusted that it will wind up the cord upon the drum 15 between the heads 18, and let it be further assumed that this is the position

of the parts now to be considered. If the user desires to draw the lamp downward for any purpose, then the cord is unwound from the drum in a direction toward the lamp and is likewise unwound from the drum in the opposite direction so that the fixture will follow the lamp as the lamp is pulled away from the fixture but at half the speed so that assuming the remote end of the cord 9 to be fixed in a ceiling plug or some other electric connection, then the fixture will follow the lamp at say half the speed that the lamp is moved away from the point of connection of the cord with the power circuit terminal. As the lamp cord is pulled out of the fixture the rotation of the drum will wind up the spring and at the same time the pawl 23 will ride over the teeth 20 and the finger 25 of this pawl engaging in the notch 32 and acting after the manner of a cam will cause the lever 28 to be moved about its pivot 27 against the action of the spring 33, and the latter will return the lever each time the pawl passes a tooth, so that the hammer 35 is given a vibratory movement thus striking the bell in rapid succession and causing the latter to ring after the manner of an electric trembler bell. Ultimately the recess 21 will come under the pawl 23, and the bell will cease from ringing until the teeth 20 will again be brought under the pawl by the continued rotation of the drum. If it be desired to hold the lamp at any intermediate position of adjustment then the pull on the cord is released and the pawl 23 will be forced, by the spring 33 acting through the lever 32, into engagement with a tooth 20, thus locking the main spring 13 against action, and the rewinding of the cord on the drum is thereby stopped. Should, however, it be desired to rewind the cord upon the drum in order to elevate the lamp, then the lamp is pulled downward until the pawl 23 rests in the recess 21. Now on the return movement of the drum under the action of the spring 13, the corresponding end of the recess 21 will engage the pawl and reverse its position with relation to the teeth 20 so that the pawl tooth 24 will have its rounded face in contact with the teeth 20 and thus fail to engage the same so that the lamp cord will be entirely rewound upon the drum.

The arrangement of the parts is such that when the cord is entirely rewound upon the drum, the pawl 23 will be opposite the recess 21 so that on pulling down the cord the teeth 20 will be forced under the pawl in proper direction to bring the latter into operative relation to the pawl tooth 24. The notch 32 and finger 31 are so related to the fingers 25 and 26 that when the recess 21 is reached the pawl will be centralized between these two parts of the lever and forced directly into said recess by the spring 33, this spring being in effect the spring controlling the action of

the pawl as well as of the bell clapper. The bell will give an audible signal indicating that the lamp is being drawn downward from its normal elevated position. This is useful for various purposes where it is desired to give notification at some distance that the lamp is being used, and such uses where the signal is desirable are very numerous.

In the foregoing description it has been assumed that the lamp cord passes through the fixture. It is possible to use the fixture as supplemental to the cord, as shown in Fig. 4. In this case a chain 39 is substituted for the cord and this chain may be made fast at one end to the ceiling or other fixed point and at the other end may sustain the portion of the conducting cord 9 leading to the lamp, so that the other end of the cord 9 is slack and the lamp may be pulled down or raised to a considerable extent. Of course a non-conducting cord or a flexible wire or strand may be substituted for the chain.

What is claimed is:—

1. An extension fixture for electric lights comprising a spring-controlled drum for a flexible member, a pawl and ratchet detent for the same, and an alarm actuated by the movement of the pawl under the control of the ratchet.

2. In an extension fixture for electric lights a suitable casing, a drum within the casing for receiving a flexible member, a spring within the drum, a ratchet-wheel fast on said drum, a pawl fast on the casing and in operative relation to said ratchet wheel, a bell on the casing, and a clapper or hammer for the bell actuated by the pawl under the impulse of the ratchet.

3. In an extension fixture for electric lights, a spring-controlled rotative drum for a flexible member, a ratchet-wheel on said drum, said ratchet-wheel having a peripheral recess, and a spring-controlled pawl in operative relation to the ratchet-wheel and adapted to enter the peripheral recess therein.

4. An extension fixture for electric lights comprising a spring-controlled drum, a ratchet-wheel with a peripheral recess carried by said drum, a spring-controlled pawl having a tooth arranged for engagement with the ratchet-wheel, and a spring controlling said pawl and tending to move the same into a position substantially radial to the ratchet-wheel when the pawl is coincident with the peripheral recess in said ratchet-wheel.

5. An extension fixture for electric lights comprising a spring-controlled drum for receiving a flexible member, a ratchet-wheel thereon provided with a peripheral recess, a pawl provided with a tooth adapted to engage the teeth of the ratchet-wheel and with diametrically opposite fingers on opposite sides of said tooth, a lever having parts arranged to engage the fingers on the pawl, a

spring maintaining said lever in engagement with the pawl, a bell, and a bell clapper or hammer carried by said lever.

5 6. An extension fixture for electric lights comprising a two part casing having extensions on opposite sides of its center, passages therethrough for a flexible member, guide rollers housed in said passages for directing the flexible member, a drum mounted in
10 said casing and composed of a central sleeve or shell with a slot through its periphery with inturned projections for guiding said flexible member to the interior of said sleeve and heads on said sleeve, a ratchet wheel having
15 a peripheral recess and carried by the drum,

a pawl in operative relation to said ratchet wheel, a spring-controlled lever having members engaging said pawl and tending to move the same to an intermediate position when coincident with the recess, a bell carried by the fixture, and a hammer or clapper carried by the lever in operative relation to the bell.

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

WILLIAM AMSTALDEN

Witnesses:

J. B. BASTIAN,

O. E. MARTIN.