

T. H. BRADY.
PULL SOCKET.
APPLICATION FILED MAR. 18, 1909.

973,747.

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Fig. 1.

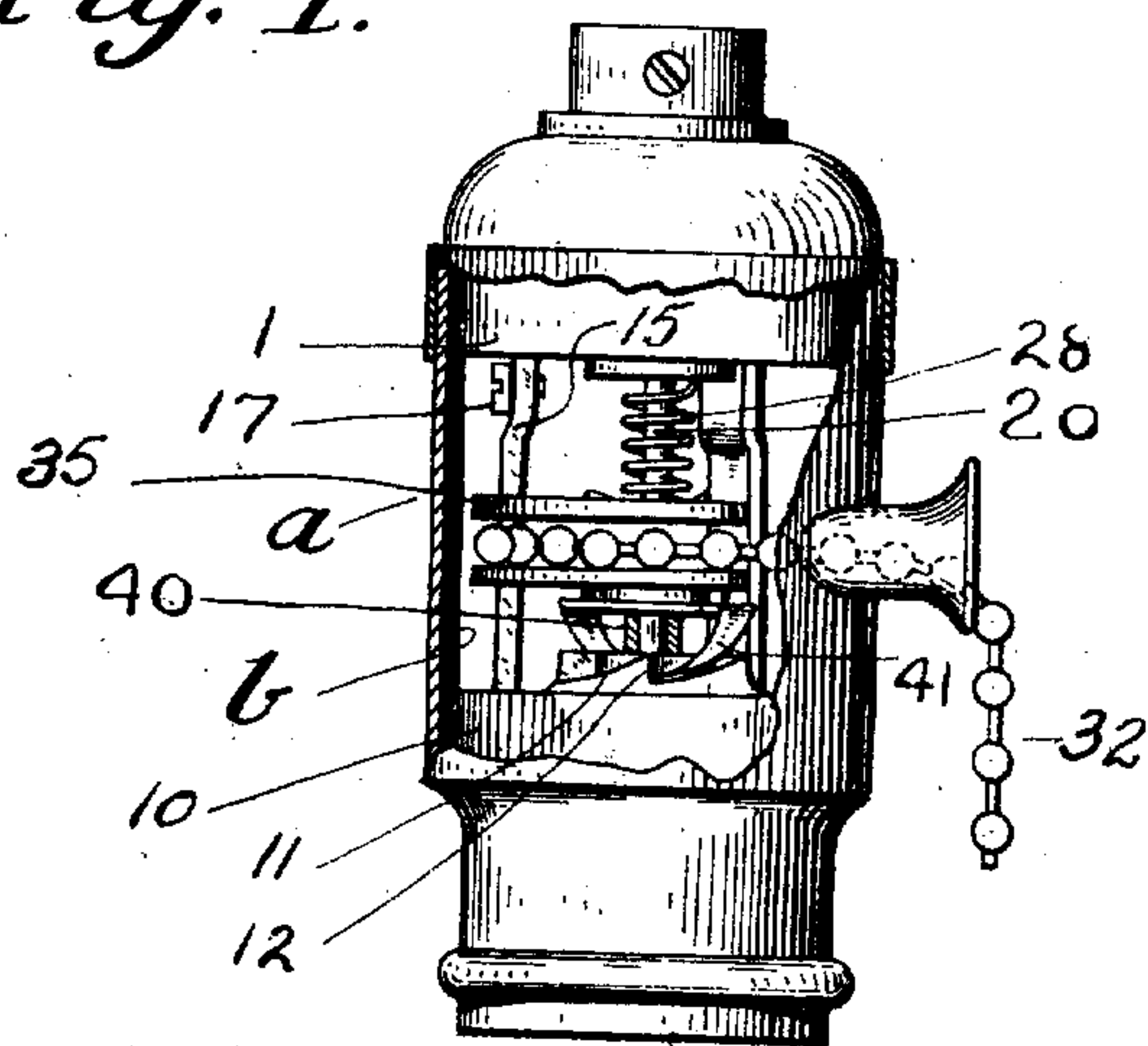


Fig. 2.

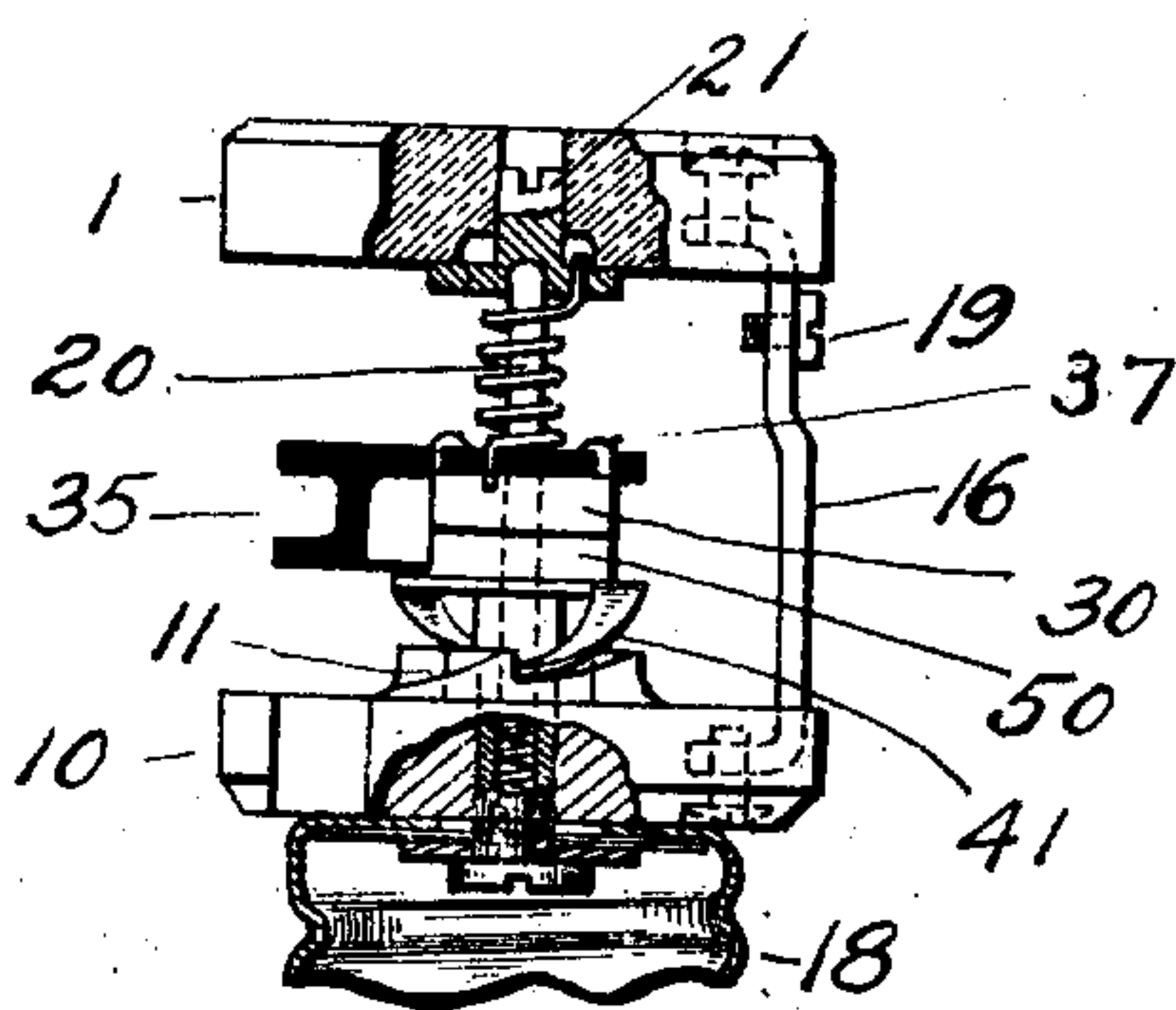


Fig. 6.

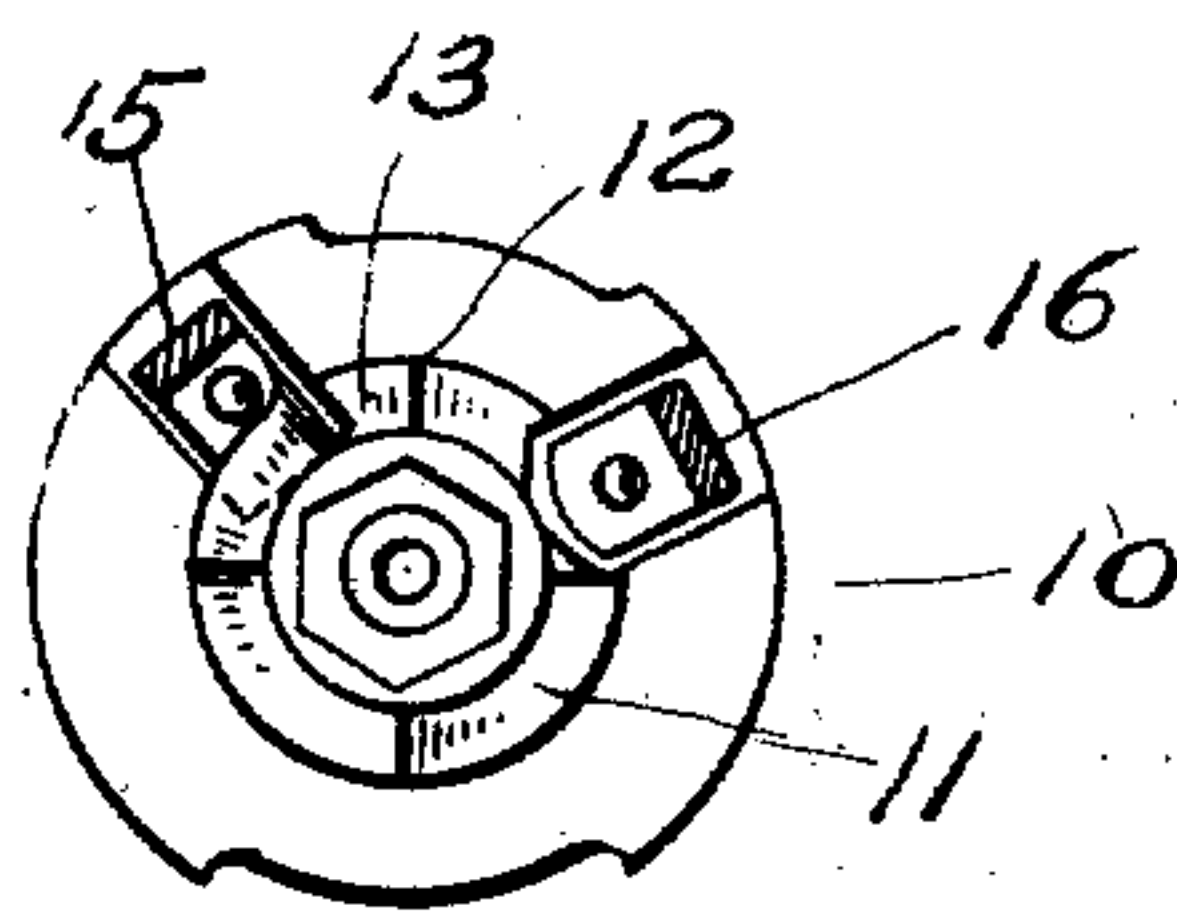


Fig. 3.

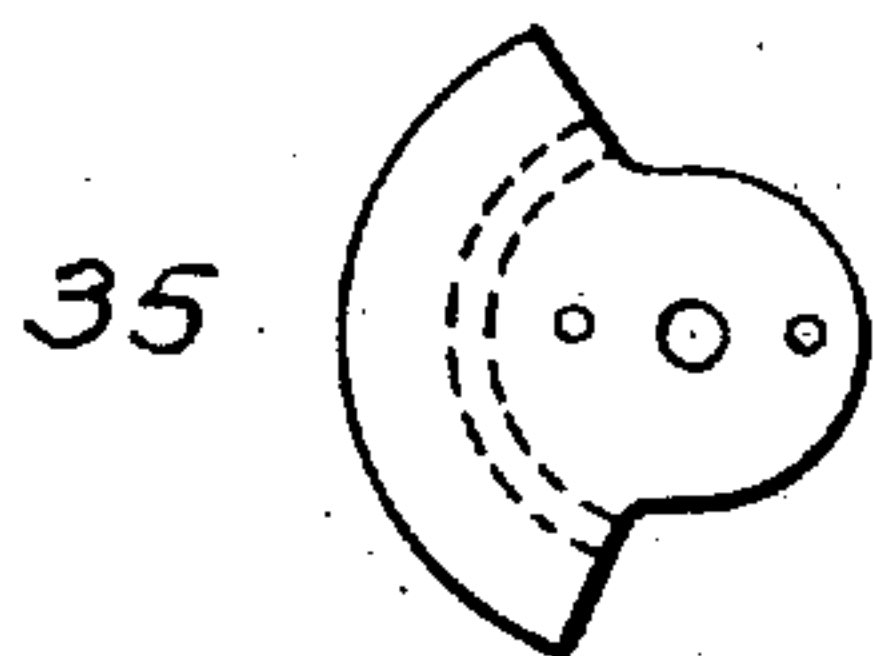


Fig. 5.

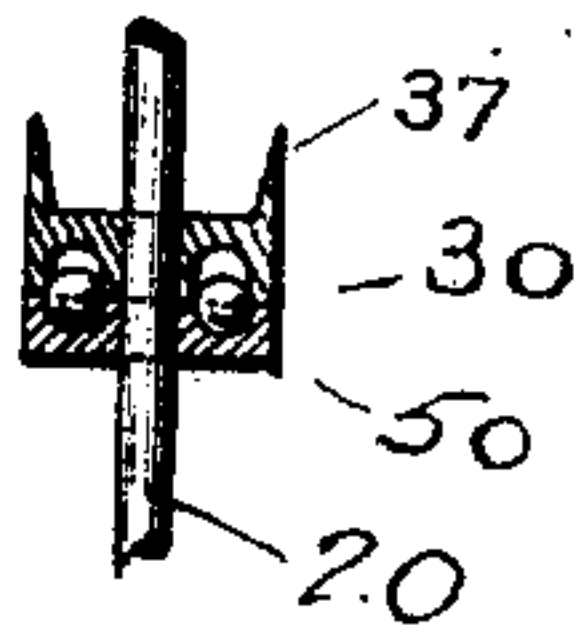


Fig. 4.

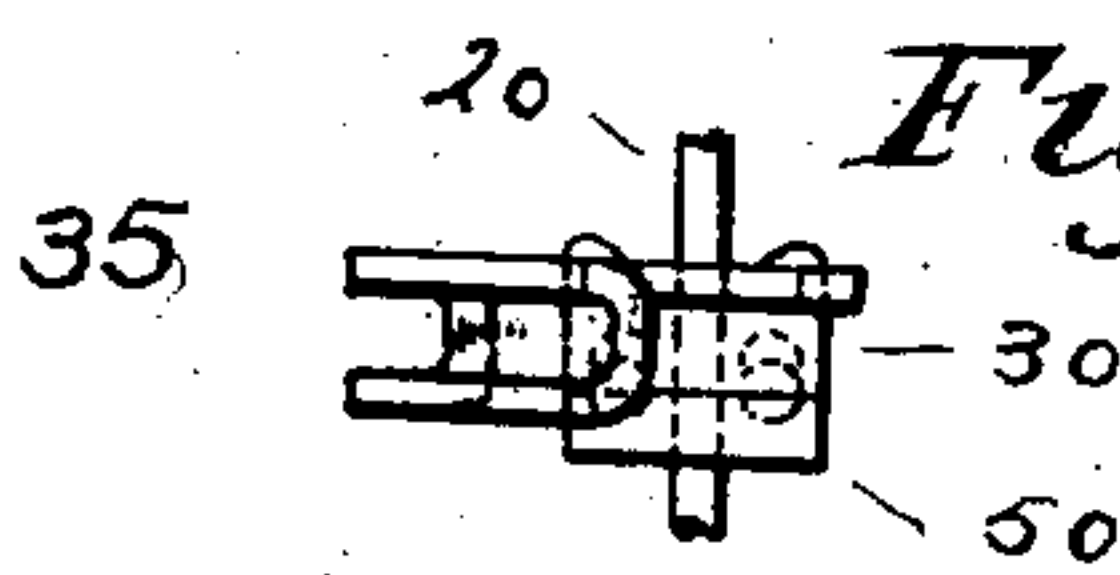
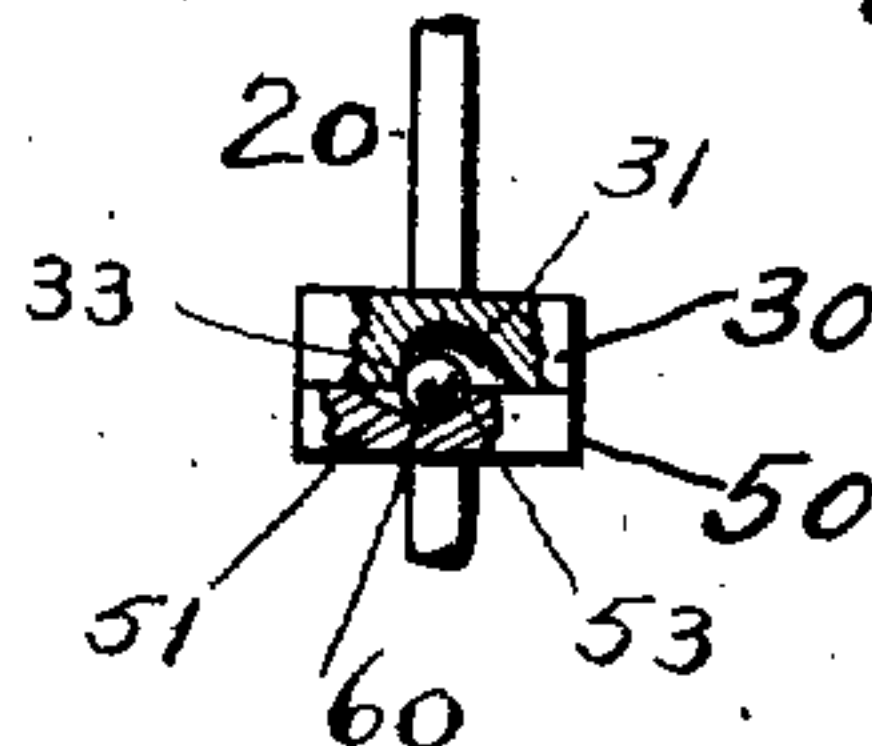


Fig. 7.



Fig. 8.



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PULL-SOCKET.

973,747.

Specification of Letters Patent.

Patented Oct. 25, 1910.

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To all whom it may concern:

Be it known that I, THOMAS H. BRADY, a citizen of the United States, and a resident of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Pull-Sockets, of which the following is a specification.

The object of the invention is to produce a device of the character described having features of novelty and advantage and has particular reference to the construction of the operative parts for the movable member.

Referring to the drawings—Figure 1 is a side elevation of a pull-socket embodying my invention with parts broken away to show construction. Fig. 2 is a detail side elevation of the same with the shell removed and parts broken away to show construction. Fig. 3 is a plan view of the operating member for the movable contact. Fig. 4 is a side view thereof. Fig. 5 shows in central vertical section the driving connection between the operating member and the movable contact. Fig. 6 is a plan view of the base. Fig. 7 is a plan view of the rotating member of the driving connection. Fig. 8 is a detail side elevation of the driving connection, parts being broken away to show the operation of the device.

Referring to the drawings *a* is the shell having an insulating lining *b*. Within the shell are located a pair of insulating blocks 1—10, connected together by suitable struts or standards 15—16. The upper surface of the lower insulating block 10 is provided with four inclines, indicated at 11, each terminating in an abrupt shoulder 12; one of the inclines has a metal plate 13 electrically connected with one of the standards 15, which is provided with a binding-screw 17; the other standard 16 is in electrical contact with the shell 18 of a lamp-receiving socket of usual construction and is provided with a binding-screw 19. Supported between the upper and lower insulating blocks is a spindle 20, its upper end being centered in a recess in a cap 21 which is located in the under side of the upper insulating block 1. Fixedly secured to this spindle is a driving member 30 having integral pins 37 which pass through the hub of an operating member 35 and are then bent down to secure the operating member to the driving member. Some device, such as a chain 32, is secured to the driving member and extends outside

of the shell which incloses the mechanism. A spring 28 surrounds the spindle above the member 30, one end of the spring being secured in the cap 21, the opposite end in the member 30. As the member 30 is rotated the spring is wound up and when it has reached the limit of its movement the spring returns it to its normal position. A driven member 50 is mounted free to turn on the spindle, being held against the driving member 30 as by a sleeve 40, and carries on its under side spring-fingers 41, which cooperate with the inclines 11 on the base and are adapted to close the circuit when one of them lies on the metallic plate 13 connected with the standard 15.

In the abutting surfaces of the driving and driven members 30—50 are recesses 31—51 having oppositely disposed shoulders 33—53 between which a ball 60 is engaged to complete the driving connection between the two parts when the driving member is rotated in one direction. The bottoms of the recesses are oppositely inclined, the recess 31 in the driving member 30 being of slightly greater depth than the diameter of the ball so that as said driving member 30 is moved in the opposite direction under the influence of the spring 28 the ball will run up into said recess 31 and so permit this reverse movement of the driving member. Figs. 5, 7 and 8 clearly show this construction. The engagement of the spring fingers with the shoulders 12 prevents the rearward movement of the driven member. By this construction I am able to provide a pull socket with a positive connection between the oscillating member and the continuously rotating member, these members being held against any vertical movement. The spring 28 has but a single duty to perform, and that is to return the upper member 30 to its normal position. The standards 15—16 limit the amount of rotary movement of the operating member.

This invention provides a device having a simple construction, positive in its action and having few parts likely to become broken or displaced.

I claim:—

1. In a pull socket the combination with an insulating block having a contact, a rotatable spindle mounted in the block, an oscillatory driving member fixed to said spindle, an operating member fixed to the driving member, a rotary driven member, means

for holding the driven member in operative relation with respect to the driving member, means interposed between the driving and driven members for coupling the members together when the driving member is oscillated in one direction, resilient contact fingers carried by the driven member in operative relation with respect to said contact, and means for returning said driving member to normal position.

2. In a pull socket the combination with an insulating block having a contact, a rotatable spindle mounted in the block, an oscillatory driving member fixed to said spindle, an operating member fixed to the driving member, a rotary driven member, means for holding the driven member in operative relation with respect to the driving member, means interposed between the driving and driven members for coupling the members together when the driving member is oscillated in one direction, resilient contact fingers carried by the driven member in operative relation with respect to said contact, and a spring having one end fixed and its other end connected to the operating member for returning said driving member to normal position.

3. In a pull socket the combination of an insulating block having a contact, a rotatable spindle mounted in said block, an operating member surrounding the spindle and provided with a series of openings, an oscillatory driving member fixed to said spindle and provided with pins extending through said openings and engaging the operating member for fixedly-securing the two members together, said driving member having its lower face recessed, a rotary driven member having its upper face recessed, means for holding the driven mem-

ber in operative relation with respect to the driving member, means mounted in the recessed face of the driven member and extending in the recesses of the driving member for coupling the said members together when the driving member is oscillated in one direction, resilient contact fingers depending from the driven member in operative relation with respect to said contact, and means for returning said driving member to normal position.

4. In a pull socket the combination of an insulating block having a contact, a rotatable spindle mounted in said block, an operating member surrounding the spindle and provided with a series of openings, an oscillatory driving member fixed to said spindle and provided with pins extending through said openings and engaging the operating member for fixedly-securing the two members together, said driving member having its lower face recessed, a rotary driven member having its upper face recessed, means for holding the driven member in operative relation with respect to the driving member, means mounted in the recessed face of the driven member and extending in the recesses of the driving member for coupling the said members together when the driving member is oscillated in one direction, resilient contact fingers depending from the driven member in operative relation with respect to said contact, and a spring surrounding said spindle and having one end fixed and its other end fixed to said operating member for returning said driving member to normal position.

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