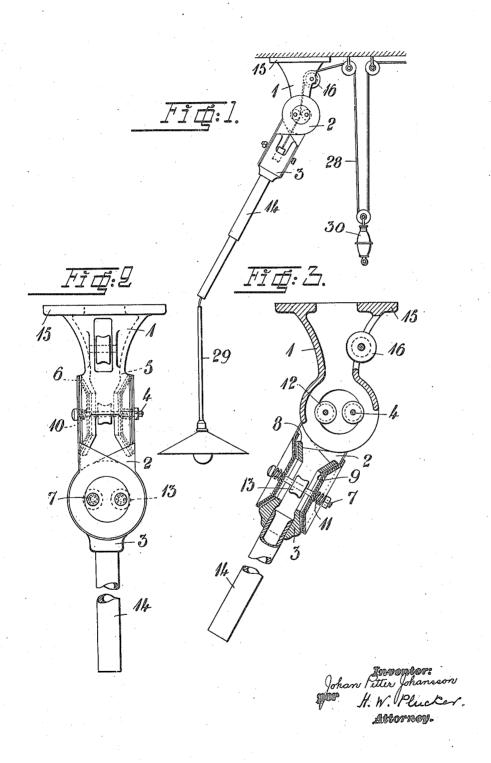
## J. P. JOHANSSON. ADJUSTABLE SUPPORT FOR ELECTRIC LAMPS. APPLICATION FILED JAN. 2, 1917.

1,254,697.

Patented Jan. 29, 1918.



## UNITED STATES PATENT OFFICE.

## JOHAN PETTER JOHANSSON, OF FAUNA, ENKÖPING, SWEDEN.

## ADJUSTABLE SUPPORT FOR ELECTRIC LAMPS.

1.254,697.

Specification of Letters Patent.

Patented Jan. 29, 1918.

Application filed January 2, 1917. Serial No. 140,297.

To all whom it may concern:

Be it known that I, Johan Petter Johansson, a subject of the King of Sweden, residing at Fauna, Enköping, Sweden, have invented new and useful Improvements in Adjustable Supports for Electric Lamps, of which the following is a specification.

The present invention relates to adjustable supports for electric lamps which can be readily turned to any desired angular position by means of joined supporting parts, movable in different planes. The object of the invention is to provide a simple, strong and compact structure of this kind comprising a flexible electric conductor from which the lamp is suspended and a jointed support for said conductor, the arrangement being such that the support may be swung through any desired angle and the conductor drawn to the desired extent through its support, without liability to damage or unduly wear the conductor.

In the accompanying drawing Figure 1 illustrates a complete side view of an ad-25 justable support constructed according to this invention, and Figs. 2-3 are detail views illustrating the joints and the guiding-rollers, partly in section.

ing-rollers, partly in section.

The upper part of the support, illustrated in Figs. 2-3, consists of three parts 1, 2 and 3, the parts 1 and 2 of which are movably joined together by means of the friction-surfaces 5, 6, while the parts 2, 3 are movably joined together by means of the friction surfaces 8 and 9. The friction surfaces may consist of plates of lead, asbestos or other suitable material and are pressed against each other by means of springs 10, 11 arranged around bolts 4, 7, which are placed on both sides of the center of the friction-surfaces, in such a manner that a free passage for the conducting wires is obtained in the parts 2, 3. For facilitating the conduction of the wire or wires through the parts and 45 for preventing the said wire or wires from becoming rapidly worn the bolts 4 and 7, according to the present invention, are provided with guiding rollers 12 and 13 and for the introduction of the wire or wires in

50 the part 1 also this part may be provided with a suitable roller. Connected to part 3

is a tubular stem 14 which is preferably telescopic, and through this tube the conducting wire passes to the electrical lamp or lamps at the end of the tube. The upper portion 55 of the part 1 is provided with a plate 15, as shown in Fig. 1, by means of which the support may be fixed to a roof, a wall, etc., as illustrated in Fig. 1. According to this figure the conducting wire 28 passes from the 60 weight 30 of a gravity take-up, through the support 1, 2, 3 and its telescopic tube 14. According to a modification of the invention the outmost part 29 of the telescopic tube, which is connected to the lamp, is ar- 65 ranged in such a manner, that it can be completely detached from the other parts of the said tube 14, so that the lamp by means of the tube 29 (so far the length of the wire permits) can be moved to any desired part 70 of the room or place, which normally is not

illuminated by the lamp.

Having now particularly described the nature of my invention and the manner of its operation, what I claim is:

1. An adjustable support for electric lamps comprising a flexible electric conductor, a bracket, a friction joint pivotally connected to said bracket, a second frictional joint pivotally connected to the first mensioned joint and perpendicular thereto, a rigid stem pivotally connected to the second joint, said bracket, joints and stem being hollow to permit of the passage of the conductor therethrough, said joints being capable of accommodating rollers on both sides of said conductor, guiding rollers arranged in pairs in said joints, an electric lamp attached to the free end of said conductor, and a weight for taking up slack 90 in the conductor.

2. An adjustable support for electric lamps comprising a flexible electric conductor, a bracket, a friction joint pivotally connected to said bracket, a second frictional 95 joint pivotally connected to the first mentioned joint and perpendicular thereto, a stem pivotally connected to the second joint, said bracket, joints and stem being hollow to permit of the passage of the conductor 100 therethrough, said joints being capable of accommodating rollers on both sides of said

conductor, said stem being made of a plurality of telescopic parts, the outermost part being detachable, guiding rollers arranged in pairs in said joints, an electric lamp attached to the free end of said conductor, and a weight for taking up slack in the conductor.

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

JOHAN PETTER JOHANSSON.

Witnesses:
M. A. MILLAR, GRETA PRIEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."