

Feb. 25, 1941.

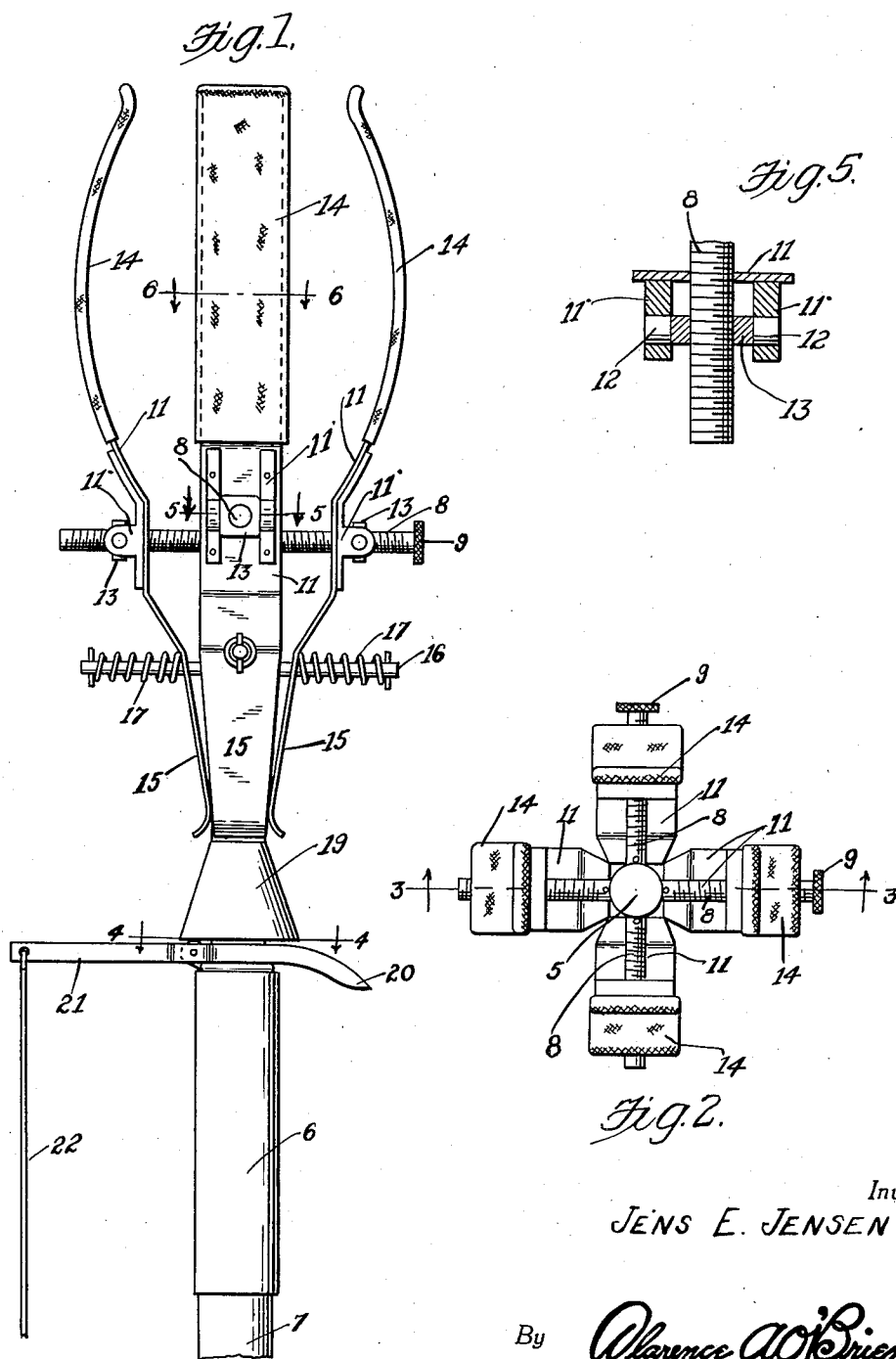
J. E. JENSEN

2,233,212

ELECTRIC LAMP TOOL

Filed July 24, 1940

2 Sheets-Sheet 1



Inventor

JENS E. JENSEN

By

Clarence A. O'Brien

Attorney

Feb. 25, 1941.

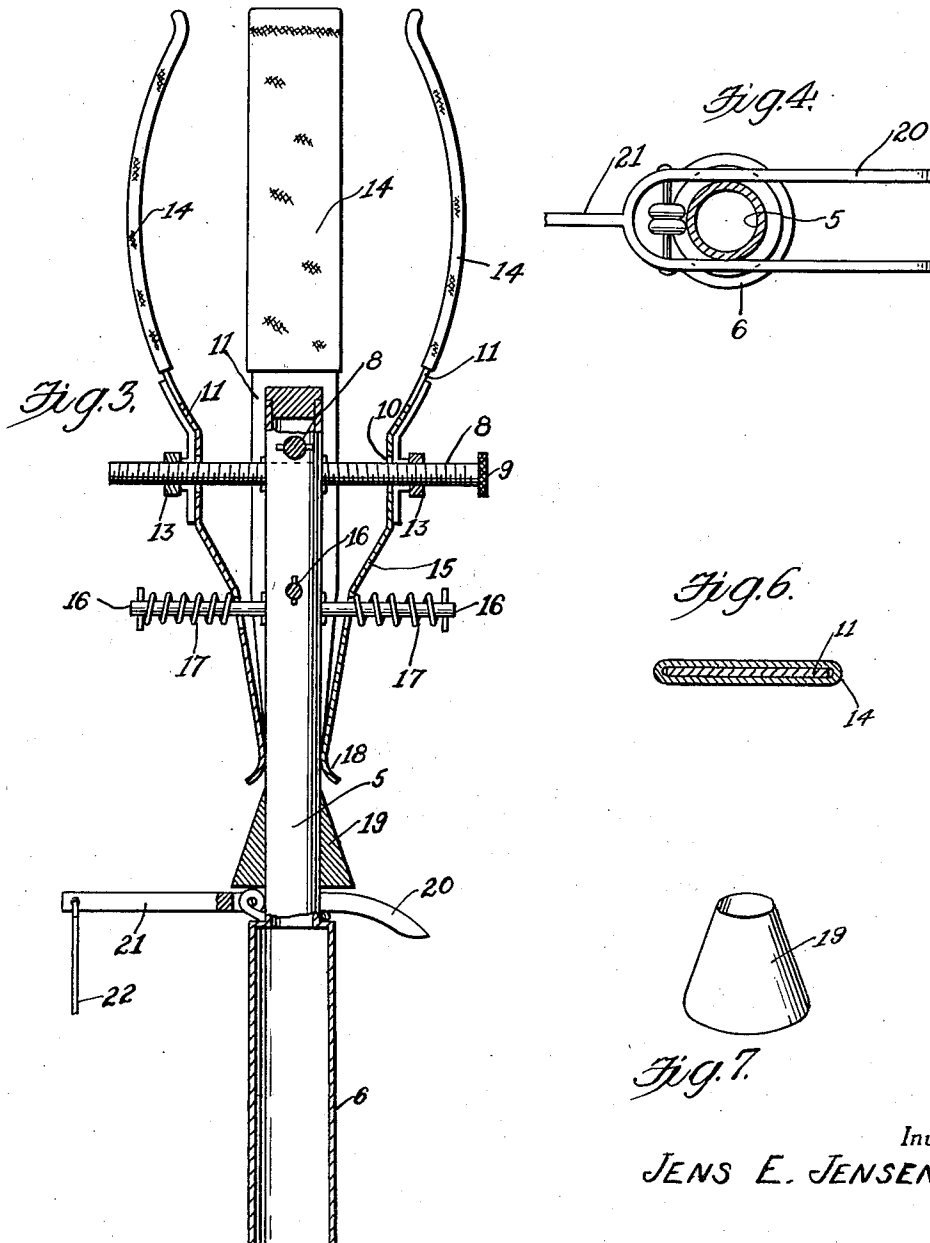
J. E. JENSEN

2,233,212

ELECTRIC LAMP TOOL

Filed July 24, 1940

2 Sheets-Sheet 2



Inventor
JENS E. JENSEN

By *Clarence A. O'Brien*

Attorney

UNITED STATES PATENT OFFICE

2,233,212

ELECTRIC LAMP TOOL

Jens E. Jensen, Waupaca, Wis.

Application July 24, 1940, Serial No. 347,279

5 Claims. (Cl. 294—20)

This invention relates to an electric lamp tool especially adapted for removing and replacing electric lamps in electric fixtures which are inaccessibly located, and has for the primary object the provision of a device of this character which will obtain a firm grip on an electric lamp or the glass bulb thereof without danger of breaking the latter to permit a person to easily and quickly apply and remove the electric lamp from the fixture located a considerable distance from the person and which may be readily adjusted to grip electric lamps of different sizes and may have its gripping action on the lamp increased by the person standing at the operating end of the device.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which Figure 1 is a fragmentary side elevation illustrating an electric lamp tool constructed in accordance with my invention.

Figure 2 is an end elevation illustrating the gripping device of the tool.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a detail sectional view taken on the line 5—5 of Figure 1.

Figure 6 is a detail sectional view taken on the line 6—6 of Figure 1.

Figure 7 is a perspective view illustrating an adjusting cone-shaped element.

Referring in detail to the drawings, the numeral 5 indicates a tubular supporting post having integral with one end a sleeve 6 acting as a ferrule for detachably mounting the post on a pole 7 of a selected length.

The post adjacent its free end is provided with pairs of screw threaded openings in which are journaled adjusting rods 8 each provided with a finger piece 9 and right and left hand screw threads. The adjusting rods 8 are arranged at right angles to each other and extend through openings 10 provided in spring gripping fingers 11.

Pairs of apertured brackets 11' are secured on the spring fingers and have journaled therein the reduced ends 12 of feed nuts 13 threaded

on the adjusting rods. The spring gripping fingers 11 are arranged in opposed pairs and each pair being threaded on an adjusting rod of the construction described will permit the gripping fingers to be spread apart or contracted for the purpose of adjusting said spring fingers to electric lamps of different sizes.

The spring fingers each includes an arcuately curved gripping portion over which is positioned a protective covering 14 constructed of any material suitable for the purpose. The spring fingers further include converging portions 15 apertured to receive guide pins 16 carried by the post 5 and arranged at right angles to each other. Tension springs 17 are mounted on the guide pins and bear against the converging portions 15 of the spring fingers to urge them into engagement with the post. The free ends of the converging portions 15 of the spring fingers are curved outwardly, as shown at 18, to engage with a cone-shaped spreading element 19 slidably mounted on the post 5 and which rests upon a forked portion 20 of an operating arm 21. The operating arm 21 is pivotally mounted on the post 5, as clearly shown in Figures 3 and 4, and has connected thereto a flexible pull cord 22 of a length that it may be easily reached by the operator gripping the end of the supporting pole. A pull on the flexible element 22 will impart to the spreading element 19 a sliding movement upwardly on the post 5 forcing the converging portions 15 of the spring fingers outwardly against the action of the springs 17 and bringing about a contraction of the arcuately curved portions of the spring fingers to tightly grip the glass bulb of an electric lamp.

In operation, it is to be understood that the adjusting rods 8 permit the operator or user of the device to adjust the spring fingers relative to each other for gripping a selected size of electric lamps and as the spring fingers may flex to some extent they may be readily shoved over the glass bulb of the electric lamp and to increase their gripping action on the electric lamp a pull is made on the flexible element. The electric lamp may then be threaded into or out of an inaccessibly located electric fixture without danger of breaking the bulb of the lamp.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim is:

1. In a device of the character described, a post, means for connecting a pole to said post, a pair of adjusting rods journaled in said post and arranged at right angles to each other, spring gripping fingers loosely receiving said adjusting rods, said adjusting rods having right and left hand screw threads, feed nuts threaded on said rods and pivotally connected to the spring fingers, and means for contracting the spring fingers.
2. In a device of the character described, a post, means for connecting a pole to said post, a pair of adjusting rods journaled in said post and arranged at right angles to each other, spring gripping fingers loosely receiving said adjusting rods, said adjusting rods having right and left hand screw threads, feed nuts threaded on said rods and pivotally connected to the spring fingers, said spring fingers including arcuately curved gripping portions and converging portions, and a spreading means to engage the converging portions.
3. In a device of the character described, a post, means for connecting a pole to said post, a pair of adjusting rods journaled in said post and arranged at right angles to each other, spring gripping fingers loosely receiving said adjusting rods, said adjusting rods having right and left hand screw threads, feed nuts threaded on said rods and pivotally connected to the spring fingers, said spring fingers including arcuately curved gripping portions and converging portions, coverings for the gripping portions of said fingers, a cone-shaped element slidable on said post to engage the converging portions to spread the latter and bring about contraction of the gripping portions of the fingers, and means for imparting movement to the cone-shaped spreading elements.
4. In a device of the character described, a post, means for connecting a pole to said post,

a pair of adjusting rods journaled in said post and arranged at right angles to each other, spring gripping fingers loosely receiving said adjusting rods, said adjusting rods having right and left hand screw threads, feed nuts threaded on said rods and pivotally connected to the spring fingers, said spring fingers including arcuately curved gripping portions and converging portions, coverings for the gripping portions of said fingers, a cone-shaped element slidable on said post to engage the converging portions to spread the latter and bring about contraction of the gripping portions of the fingers, a forked lever pivotally mounted on the post and engaging the cone-shaped spreading element, a flexible element connected to said lever for imparting pivotal movement thereto.

5. In a device of the character described, a post, means for connecting a pole to said post, a pair of adjusting rods journaled in said post and arranged at right angles to each other, spring gripping fingers loosely receiving said adjusting rods, said adjusting rods having right and left hand screw threads, feed nuts threaded on said rods and pivotally connected to the spring fingers, said spring fingers including arcuately curved gripping portions and converging portions, coverings for the gripping portions of said fingers, a cone-shaped element slidable on said post to engage the converging portions to spread the latter and bring about contraction of the gripping portions of the fingers, a forked lever pivotally mounted on the post and engaging the cone-shaped spreading element, a flexible element connected to said lever for imparting pivotal movement thereto, guide pins carried by said post and extending loosely through the converging portions of the gripping fingers, and spring means carried by said guide pins and engaging the converging portions of the spring fingers to urge them in the direction of the post.

JENS E. JENSEN.