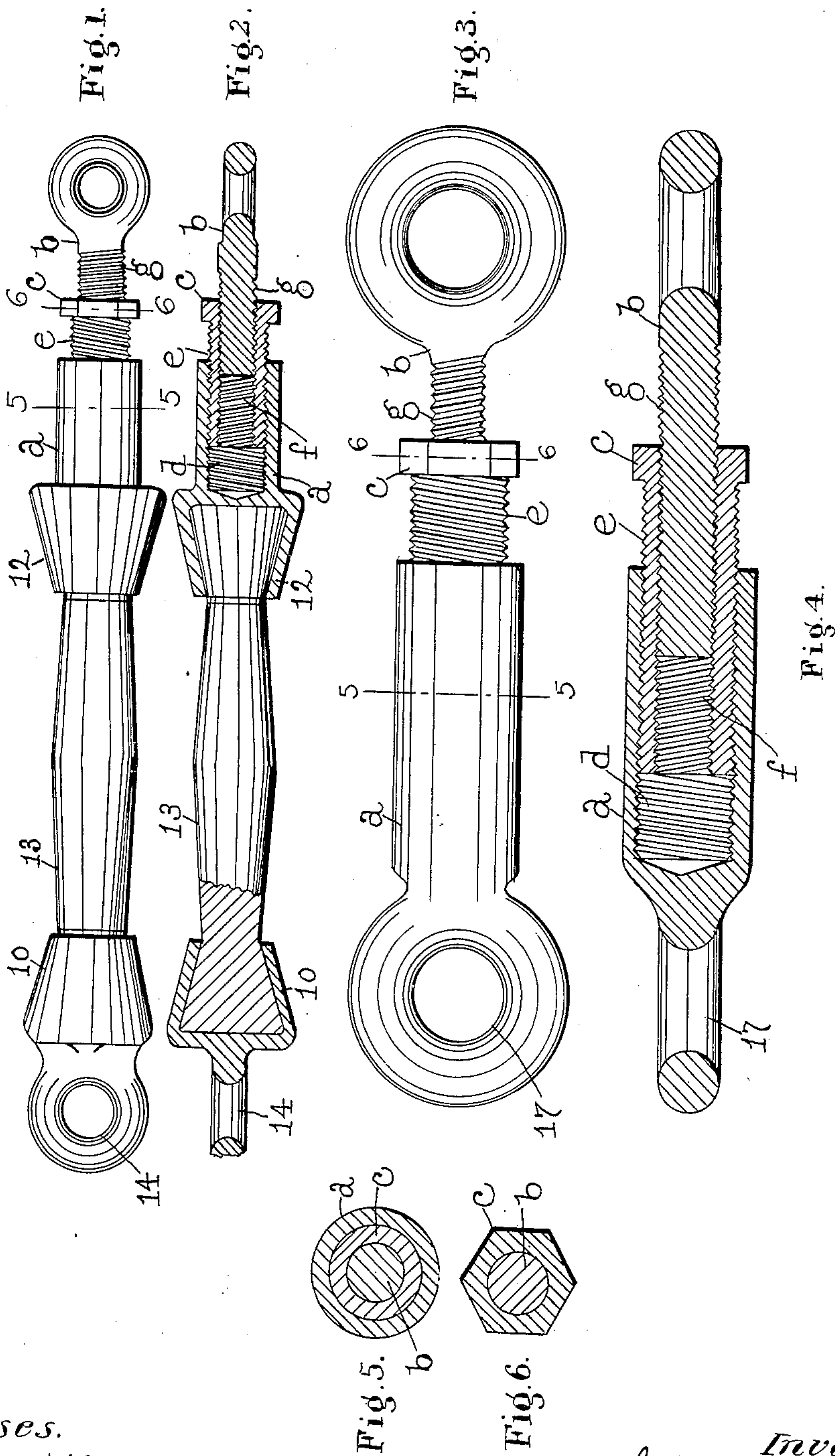


J. P. BOYDEN.
ADJUSTING DEVICE.
APPLICATION FILED APR. 27, 1908.

925,448.

Patented June 22, 1909.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES P. BOYDEN, OF BROOKLINE, MASSACHUSETTS.

ADJUSTING DEVICE.

No. 925,448.

Specification of Letters Patent.

Patented June 22, 1909.

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To all whom it may concern:

Be it known that I, JAMES P. BOYDEN, a citizen of the United States, residing in Brookline, county of Norfolk, and State of Massachusetts, have invented an Improvement in Adjusting Devices, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to an adjusting device especially adapted among other uses to be embodied in insulators employed on overhead electric railway systems. For this purpose the adjusting device comprises one member having a screw-threaded socket, a second screw-threaded member which it is desired to move toward and from the first-mentioned member, and an intermediate sleeve which is provided with screw-threads on its exterior and on its interior, said screw-threads running in opposite directions and engaging respectively the screw-threads of the members of the device, whereby rotation of the sleeve effects longitudinal movement of both of said members simultaneously, as will be described.

Figure 1 represents in elevation one form of insulator provided with an adjusting device embodying this invention. Fig. 2, a partial section and elevation of the insulator shown in Fig. 1. Fig. 3 a modified form of device embodying this invention. Fig. 4 a longitudinal section of the device shown in Fig. 3. Fig. 5, a section on the line 5—5, Figs. 1 and 3, and Fig. 6, a section on the line 6—6, Figs. 1 and 3.

Referring to the drawings *a* represents one member, *b* a second member, and *c* a third member of an adjusting device embodying this invention.

The member *a* is provided with a screw-threaded socket *d*, whose threads run in one direction, and are engaged by screw-threads *e* on the exterior of the member *c*, which is made in the form of a sleeve or nut, having on its interior screw-threads *f*, which run in the opposite direction to the external screw-threads *e*, and are engaged by corresponding screw-threads *g* on the member *b*, which is shown as an eye-bolt.

The sleeve or member *c* is provided as shown with a flange or collar to facilitate turning it by a wrench or other tool.

From the above description, it will be seen that by turning the intermediate member *c*, both of the members *a*, *b*, are moved simultaneously toward or away from each other without rotary movement being imparted to them, which is especially useful, when the adjusting device is embodied in a strain insulator employed in the overhead construction of electric railways.

In Figs. 1 and 2, the adjusting device is shown as embodied in one form of insulator hollow metal end pieces 10, 12, and an interposed piece or bar 13 of wood or other insulating material, the end piece 10 being shown as provided with an eye 14, and the end piece 12 being shown as integral with the socketed member *a* of the adjusting device.

In practice, the eye 14 may have attached to it one portion of a span, guy or other wire (not shown), and the eye bolt *b* may have attached to it another portion of the said wire, and by means of the adjusting device the slack in the said span or guy wire may be taken up in the least possible time after the insulator has been placed in operative position, without twisting either portion of said span or guy wire.

In Figs. 3 and 4, I have shown the invention as embodied in a device in which the member *a* is provided with an eye 17. When the device herein shown is used in an insulator, a compact and neater insulator is obtained.

Claims.

1. In an adjusting device, in combination, a member having at one end a screw-threaded socket, a sleeve or nut provided at one end with external screw-threads which engage the screw-threads of said socket and having at its other end internal screw-threads extended in the opposite direction to said external screw-threads, and a cooperating member provided at one end with screw-threads which engage the internal screw-threads of said sleeve or nut whereby the said sleeve or nut is interposed between said members and coöperates with both, substantially as described.

2. In an adjusting device, in combination, a member having at one end a screw-threaded socket, a sleeve provided at one end with external screw-threads which engage the screw-threads of said socket and having at its other end internal screw-threads extended

in the opposite direction to said external screw-threads, a collar on said sleeve, and an eye-bolt having a threaded shank which engages the internal screw-threads of said sleeve whereby the said sleeve is interposed between said members and coöperates with both, substantially as described.

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

JAMES P. BOYDEN.

Witnesses:

JAS. H. CHURCHILL,

J. MURPHY.