Dec. 20, 1927. 1,653,029

E. E. YAXLEY

SPRING JACK

Filed Oct. 17, 1925

Fig. 1.

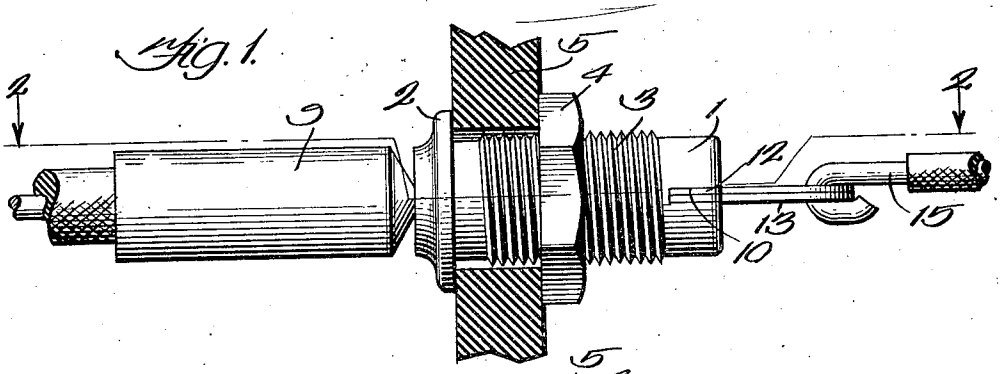


Fig. 2.

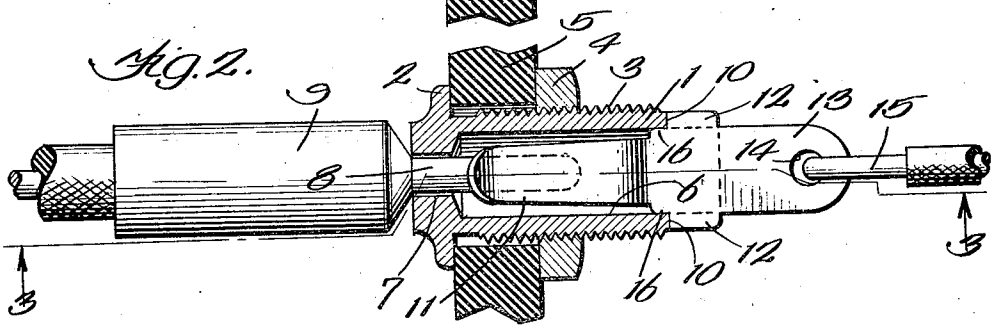


Fig. 3.

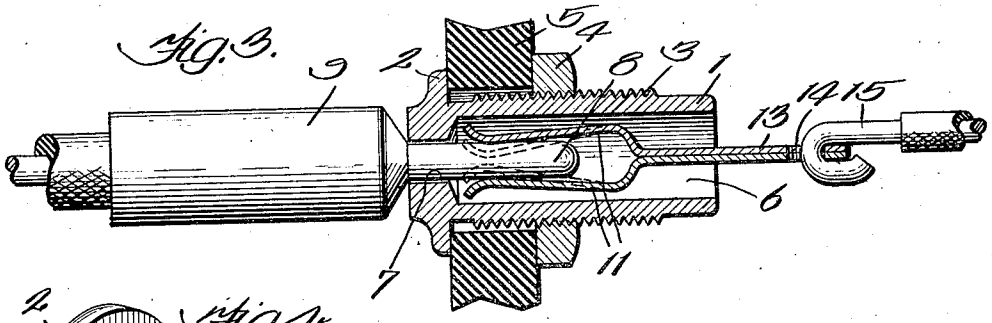


Fig. 4.

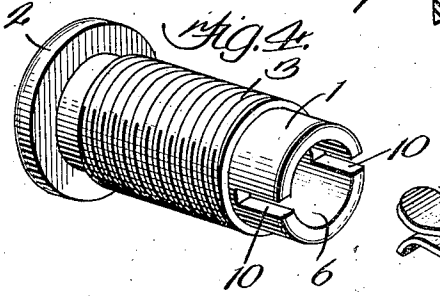
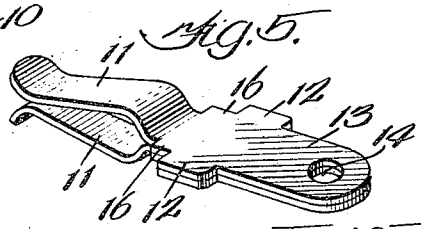


Fig. 5.



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Patented Dec. 20, 1927. 1,653,029

UNITED STATES PATENT OFFICE.

ERNEST E. YAXLEY, OF CHICAGO, ILLINOIS.

SPRING JACK.

Application filed October 17, 1925. Serial No. 63,010.

My invention relates to spring jacks and has for its object the provision of a much simplified and improved structure of this class.

The jack of my invention includes a shell housing the jack spring or springs, the bore of the shell being reduced at the front end to receive a connecting plug, and a leaf spring or springs, each anchored to and within the shell and projecting from the anchorage toward the front of the shell and having a plug engaging contact portion at its front end in register with the reduced plug receiving portion of the shell bore.

In the preferred embodiment of the invention, the shell is cylindrical, has a flange formation at its front end, and is provided with an exterior thread to receive a nut to clamp a support for the jack between the flange formation and nut. The shell desirably has a slitted formation at its rear end which receives the rear end of the jack spring.

The invention will be more fully explained in connection with the accompanying drawing in which Fig. 1 is a side view of a spring jack, as I preferably construct it, shown clamped to a panel board, this figure also illustrating a connecting plug inserted within the jack and circuit wires connected with the plug and jack; Fig. 2 is a view on line 2—2 of Fig. 1; Fig. 3 is a view on line 3—3 of Fig. 2; Fig. 4 is a perspective view of the shell; and Fig. 5 is a perspective view of a pair of jack springs preferably employed in the jack.

The shell 1 is preferably cylindrical. It is provided with a shoulder 2 that is preferably in the form of a flange, at the front end of the shell, and integrally formed with the shell. The shell is exteriorally threaded as indicated at 3 to receive a nut 4 which may be clamped against the rear face of a panel board or other support 5 which is thereby clamped between the nut 4 and the shoulder 2. The bore 6 of the shell has a reduced portion 7 at the front end of the shell to receive the current conducting metallic stem 8 of a connecting plug 9. The shell is formed with slits 10 at its rear end, these slits being arranged upon a diameter of the shell and extending longitudinally of the shell. A pair of contacting jack springs 11 is anchored at the rear end within said slits, the jack springs having laterally extending arms 12 which have driving fit within these slits. The springs have rear extensions 13 projecting rearwardly beyond the shell and formed with holes 14 to receive a current conducting wire 15. The springs are formed with body portions 16 that engage the interior surface of the shell and which serve to align the springs in the shell. The portions of the springs which project forwardly beyond the body portions 16 are of reduced width so as to clear the springs from the sides of the shell to permit them to be readily flexed apart without interference from the shell when the plug is inserted between the springs, the forward plug engaging and contacting end portions of the springs being in register with the reduced plug receiving portion of the shell bore when the plug is withdrawn, as shown by dotted lines in Fig. 3.

Changes may be made without departing from my invention.

Having thus described my invention, I claim:

A spring jack comprising a cylindrical shell having a bore and a shoulder and formed with an exterior thread to receive a nut to clamp a support between the shoulder and nut, the bore of the shell being reduced, at the front end of the shell, to receive a connecting plug, the shell having a slitted formation at its rear end; and a leaf spring within the bore of the shell and anchored at its rear end in the slitted formation and projecting toward the front end of the shell and having a plug engaging contact portion at its front end in register with the reduced plug receiving portion of the shell bore.

In witness whereof, I hereunto subscribe my name.

ERNEST E. YAXLEY.