April 2, 1940. E. F. TOWNSEND 2,195,546

ELECTRIC PLUG

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Fig. 1.

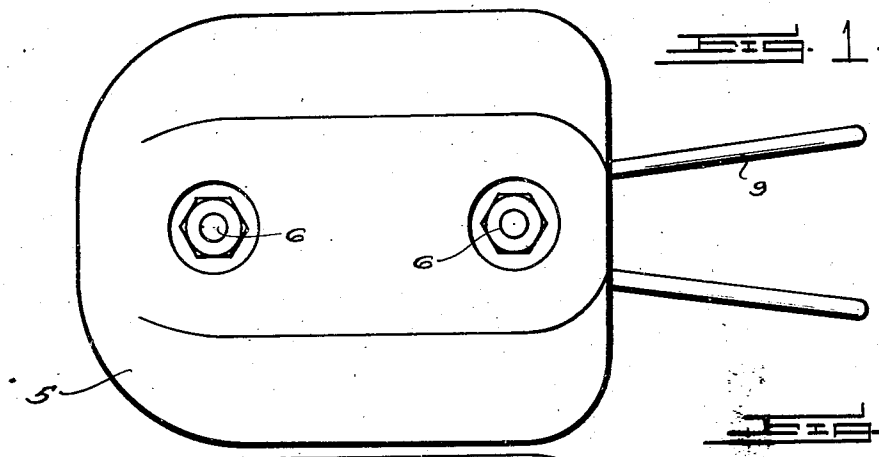
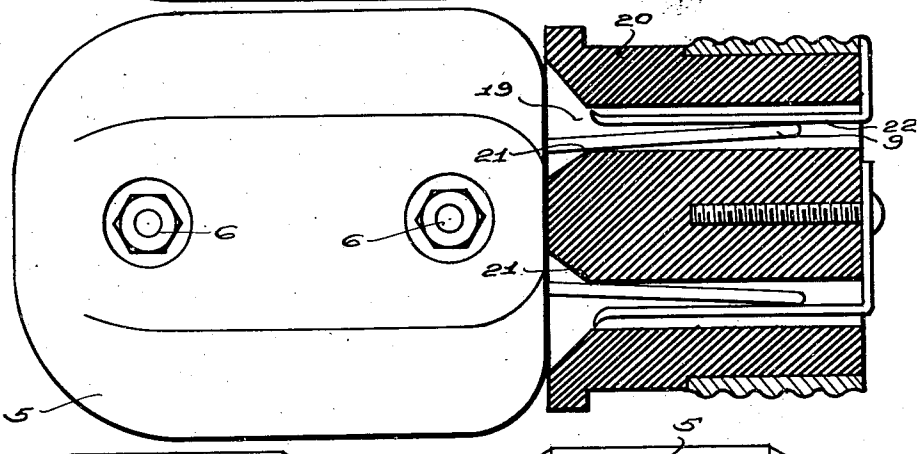


Fig. 2.



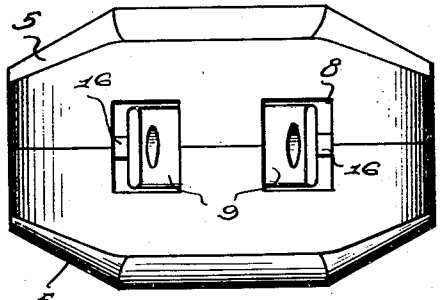


Fig. 3.

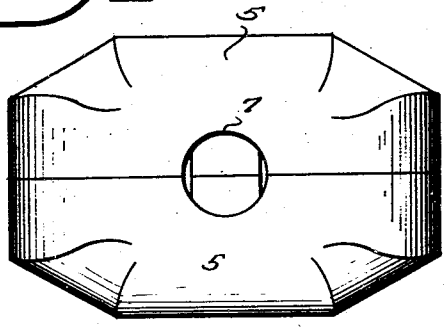


Fig. 4.

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ELECTRIC PLUG

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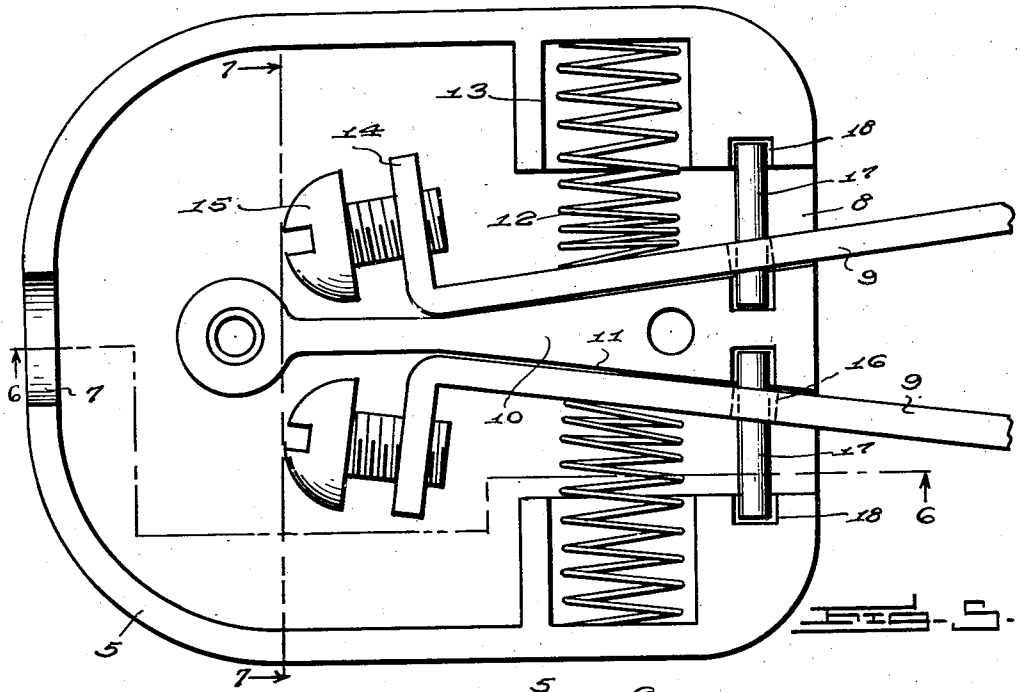


Fig. 5.

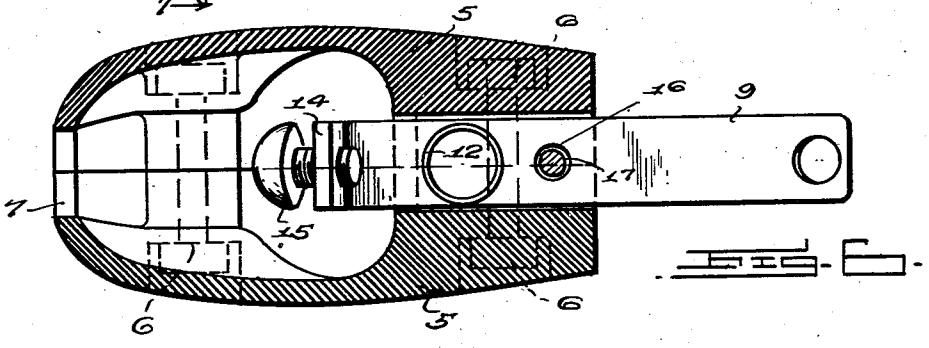


Fig. 6.

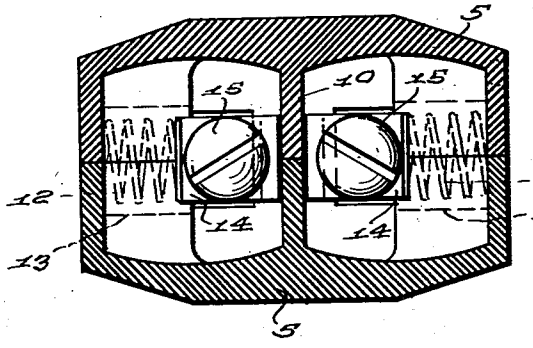


Fig. 7.

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Patented Apr. 2, 1940 2,195,546

UNITED STATES PATENT OFFICE

2,195,546

ELECTRIC PLUG

Edward F. Townsend, San Antonio, Tex.

Application January 14, 1939, Serial No. 251,012

1 Claim. (Cl. 173—361)

The present invention relates to electric attachment plugs and has for its primary object to provide a yieldable mounting for the prongs of the plug whereby the prongs are held in a diverging projecting position, the prongs being mounted for slidable lateral movement against the tension of a coiled spring engaging the inner ends of the prongs whereby the outer ends of the prongs, when inserted in a receptacle, will have a binding engagement with the walls of the receptacle as well as with the contacts thereof.

A further object is to provide an attachment plug of this character of simple and practical construction, which is strong and durable, efficient and reliable in performance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which—

Figure 1 is a top plan view.

Figure 2 is a similar view showing the plug engaged with a receptacle, the latter being shown in section.

Figures 3 and 4 are end elevational views showing the opposite ends of the plug.

Figure 5 is a plan view with one of the sections of the shell of the plug removed.

Figure 6 is a longitudinal sectional view taken substantially on a line 6—6 of Figure 5.

Figure 7 is a transverse sectional view taken substantially on a line 7—7 of Figure 5.

Referring now to the drawings in detail, the numeral 5 designates the shell of the plug which is formed of a pair of insulation sections of substantially flat formation and detachably connected to each other by means of a pair of bolts 6. An opening 7 is formed in the rear end of the shell for receiving the usual circuit wires and a pair of openings 8 are formed in the front end of the shell through which the prongs 9 project. The prongs 9 are maintained in spaced diverging relation by a longitudinally extending rib 10 formed in the abutting face of each section of the shell and having oppositely inclined side faces 11 against which the prongs normally lie, as clearly illustrated in Figure 5 of the drawings.

Each of the prongs is yieldably held against the rib 10 by a coiled spring 12 extending laterally of the shell and having one end seated in a recess 13 formed therein. The inner end of each of the prongs is formed with a lateral extension 14 within which a terminal screw 15 is threaded for attaching the circuit wires thereto.

Each of the prongs are provided with an opening 16 through which a pin 17 is inserted to provide for the free sliding movement of the prong on the pin, the ends of the pins being seated in recesses 18 in the opposite walls of the openings 8, the pins being positioned outwardly with respect to the springs 12 as clearly illustrated in Figure 5 of the drawings.

From the foregoing construction it will be apparent that when the prongs 9 of the plug are inserted in the recesses 19 of a threaded receptacle 20 that the plugs will bind against the edges of the recesses at the point indicated at 21 causing the spreading of the prongs against the tension of the springs 12 while the extremities of the prongs will bind against the contacts 22 of the receptacle. The prongs therefore will be maintained in tight contact with the contacts 22 of the receptacle and will also be held in binding engagement with respect to the edges of the recesses of the receptacle to prevent accidental withdrawal of the plug.

It is believed the details of construction of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention, what I claim is—

An electric connecter plug comprising a shell composed of a pair of duplicate shell sections, each section including a central rib having outwardly diverging side walls and forming a partition in the section to define a pair of passages communicating with the interior of the shell and having outer ends opening through one end of the shell, recesses in the opposed walls of the passages adjacent their outer ends, pins bridging the passages and having their ends loosely seated in said recesses, a conductor prong freely positioned in each passage and slidably mounted on each pin with one end projecting outwardly of the shell, recesses in the walls of each section inwardly of the pins and a coil spring seated in each of said recesses and bearing against the prongs to yieldably urge the prongs against opposite sides of the ribs.

EDWARD B. TOWNSEND.