May 7, 1940.

S. STAMBAUGH

2,199,599

ELECTRICAL CONNECTOR

Filed June 29, 1939

2 Sheets-Sheet 1

Fig. 1.

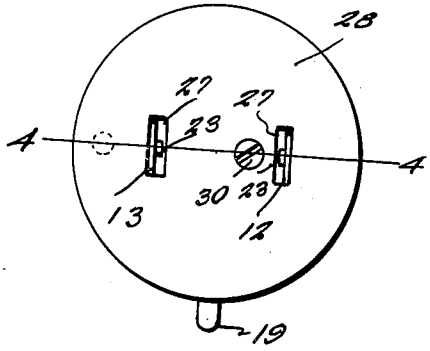


Fig. 2.

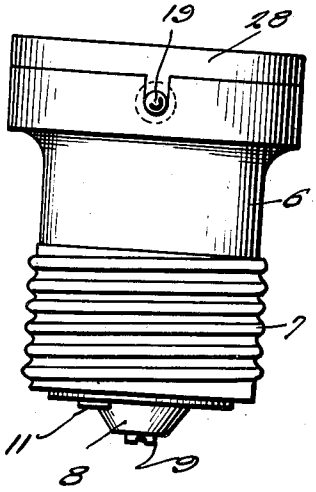


Fig. 4.

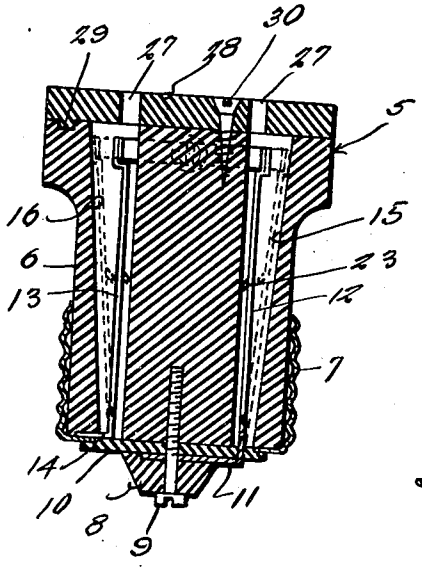
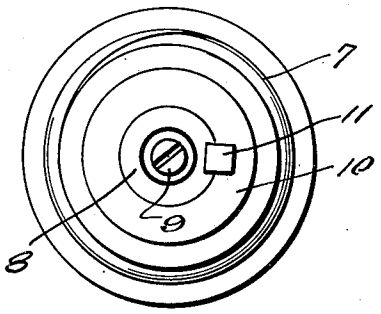


Fig. 3.



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Fig. 5

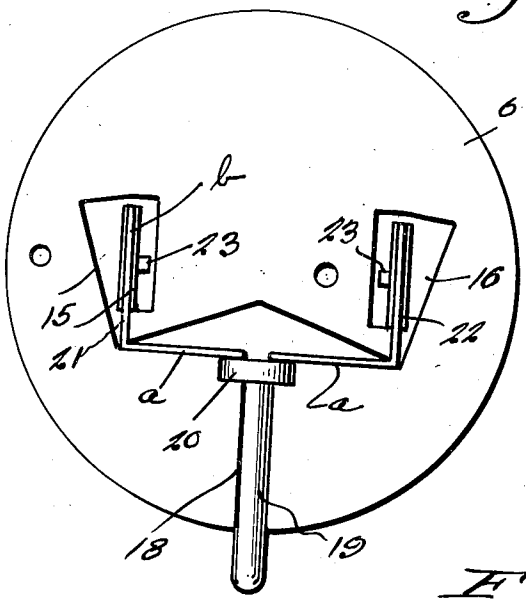


Fig. 6.

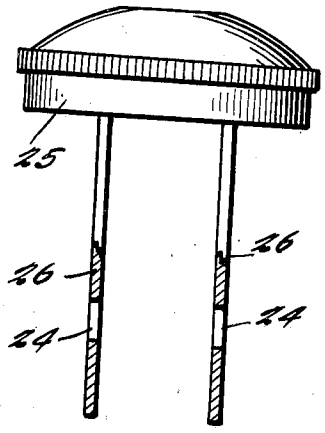
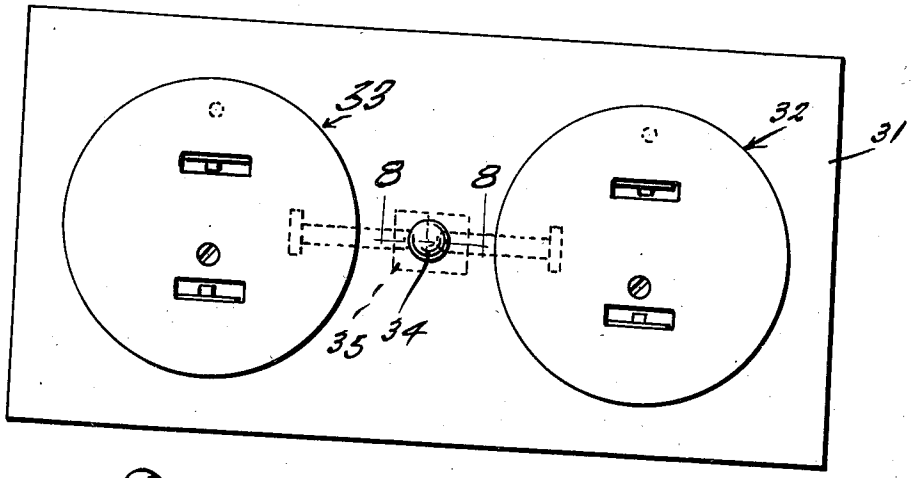


Fig. 7.



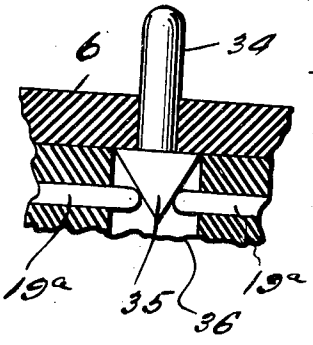


Fig. 8.

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UNITED STATES PATENT OFFICE

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ELECTRICAL CONNECTOR

Sherwood Stambaugh, North Canton, Ohio

Application June 29, 1939, Serial No. 281,946

2 Claims. (Cl. 173—330)

This invention appertains to new and useful improvements in electrical connectors and more particularly to a novel plug structure.

The principal object of the present invention is to provide an electric connector in the form of a screw plug wherein detent means is provided for holding in connection therewith a prong connector firmly until intentionally released.

Another important object of the invention is to provide an electric plug which involves the latch means for engaging and holding the prong members of a pronged plug in an effective manner until intentionally released.

Other objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a top plan view of the plug.

Figure 2 is a side elevational view.

Figure 3 is a bottom plan view.

Figure 4 is a section on the line 4—4 of Figure 1.

Figure 5 is a top plan view of the plug with the cap removed.

Figure 6 is a side elevational view of the pronged plug with its prongs in section.

Figure 7 is a front elevational view of a duplex wall socket construction in accordance with the present invention.

Figure 8 is a fragmentary detailed sectional view through the latch operating means of the plug.

Referring to the drawings wherein like numerals designate like parts, it can be seen that the socket plug is generally referred to by numeral 5 and consists of the body 6 of the general form of a conventional screw type of plug, this body preferably being of insulation and having on its reduced end portion, the screw formed jacket 7. The button 8 is provided at the lower end of the body and a screw 9 serves to hold this button against the washer 10 and to firmly hold the tail piece 11 extending from the spring contact finger 12 in engagement with the said screw 9, the head of which forms the eccentric contact.

As shown in Figure 4 the spring contact finger 13 is connected as at 14 to the screw formed jacket 7.

Upwardly flaring pockets 16 and 16 are provided for the spring contact fingers 12 and 13, respectively.

Extending through a bore 18 in the body 6 is the plunger 19 which at its outer end protrudes beyond the periphery of the body 6. The inner end of this plunger 19 has the head 20 which operates against the opposed ends of the leg portions *a*—*a* of the rockable detents 21 and 22. As shown in Figure 5, the detents 21 and 22 operate in the upwardly flaring pockets 15 and 16, respectively, and these detents are carried by the upper ends of said spring fingers 12 and 13.

A stop lug 23 is carried by the fingers 12 and 13 and normally these studs 23 are sprung, by the force of the spring fingers 12 and 13, into the opening 24 of the pronged plug connector 25 (see Figure 6).

The prongs 26 of the plug 25 are extensible through the openings 27—27 in the cap plate 28 which is secured to the top of the body 6 through a stud and recess connection 29 and the use of a wooden screw 30.

Obviously, when the plunger 19 is forced inwardly, the detents 21 are caused to rock and this results in the moving outwardly of the spring fingers 12—13 and the releasement of the studs 23 from the openings 24 of the plug prongs 26.

A stationary wall receptacle structure is disclosed in Figures 7 and 8, the type shown being of the duplex type and consisting of the usual wall plate 31 having the units 32 and 33 mounted in conjunction therewith.

These units 32 and 33 are constructed in accordance with the plug type, excepting that the contacts 9 and 7 are not used in the same manner.

In carrying out the invention as illustrated in Figure 7, it can be seen that a plunger 34 is operative through an opening in the panel or plate 31. This plunger operates the wedge 35 in the pocket 36 and this wedge is movable against the two plungers 19*a*—19*a*, which corresponds with the plunger 19 of the plug form of the invention shown in Figures 1 to 6, inclusive.

Thus with a single plunger 34, the rockers of both of the units 32 and 33 can be controlled simultaneously.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and material may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

1. A connector of the character described comprising a wall plate, a pair of receptacles on the wall plate, each of the receptacles being provided with latch means for engaging and holding the prongs of pronged plugs, and a single release member for operating the latch means of the receptacle units.

2. A connector comprising a body having a pair of strip spring contact members therein each anchored at one end, a bellcrank-shaped rockable member engaging the remaining end of each of the spring contact members, said bellcrank-shaped rockable members having a pair of their ends terminating in close proximity, and a manually operative plunger adapted to be forced against the said closely related end portions of the rockable members for rocking the same to flex the said spring contact members.

SHERWOOD STAMBAUGH.