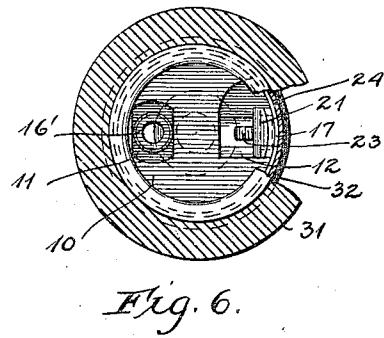
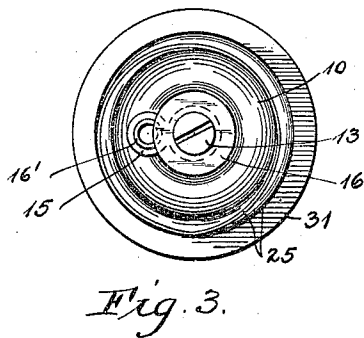
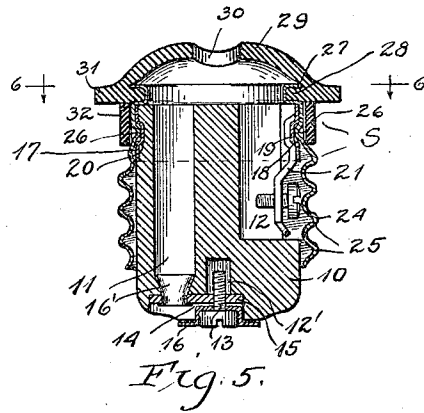
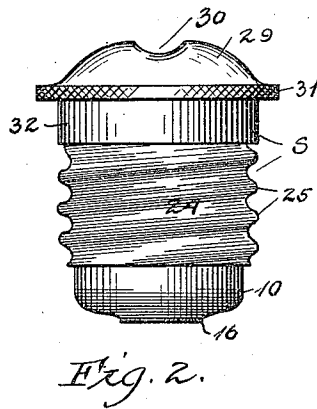
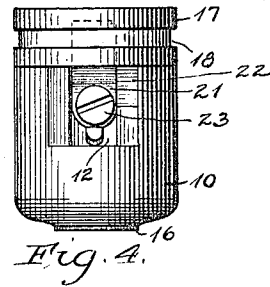
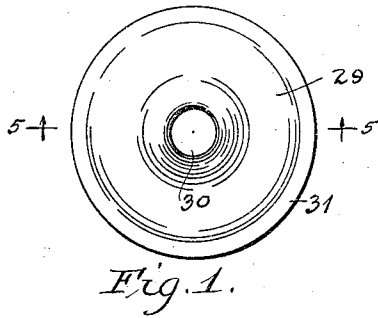


M. HERSKOVITZ.
ELECTRIC ATTACHMENT PLUG.
APPLICATION FILED JUNE 14, 1912.

1,042,348.

Patented Oct. 22, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

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ELECTRIC ATTACHMENT-PLUG.

1,042,348.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Application filed June 14, 1912. Serial No. 703,738.

To all whom it may concern:

Be it known that I, MAX HERSKOVITZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Electric Attachment-Plugs, of which the following is a specification.

My invention relates to electrical attachment plugs and contemplates improved and more desirable construction.

My invention concerns particularly that class of plugs which comprise a body carrying conductor terminals, and a threaded sleeve rotatable on the body and in electrical connection with one of the terminals. As heretofore constructed, the body has a threaded neck extending through the head of the sleeve to be engaged by a threaded cap through which the circuit conductors enter to connect with the terminals on the body, this cap then locking the sleeve to the body but allowing rotation of the sleeve to enable it to be screwed into a socket without causing turning of the body. In practice, however, these caps are apt to bind on the sleeve to prevent rotation thereof, and turning of the sleeve is also apt to wear on the conductor insulation. The cap, being of rubber, its threads are easily broken or distorted so that the cap will no longer fit. It also requires time to apply or to remove the cap. Again, in this prior form of plug, the sleeve does not have the most efficient electrical contact with its conductor terminal.

Among the objects of my invention are to provide a construction and arrangement which will dispense with the threaded neck on the body and with the separate cap; to provide a construction in which the sleeve is freely rotatable on the body but is always in efficient electrical connection with its conductor terminal; to provide a construction in which no turning of parts is necessary to connect the sleeve and body and in which the sleeve spring clamps to the body, this being obtained by providing a peripheral groove on the body and tongues or projections on the sleeve to snap into the groove to lock the sleeve to the body but to permit free rotation of the sleeve; and in general, to provide a more simple and more desirable and efficient plug.

In the accompanying drawings:—Figure 55 1 is a top view; Fig. 2 is a side elevation; Fig. 3 is a bottom view; Fig. 4 is a side elevation of the body; Fig. 5 is a section on line 5—5, Fig. 1; and Fig. 6 is a section on line 6—6, Fig. 5. 60

The body 10 is a cylinder of porcelain or other suitable insulating material and has the longitudinal passageway 11 for one circuit conductor and the longitudinal pocket 12 for the other conductor. In the base of the body is a pocket 12' for receiving the binding screw 13, and the countersink pocket 14 for receiving the terminal plate 15, the washer 16, and the head of the screw. A tubular rivet 16' is anchored in the lower end of passageway 11 and holds the plate 15 in place, the conductor passing through the passageway and rivet to be clamped between the plate and the washer. 65 70

Surrounding the upper end of the body is a sheet metal ring 17 having the peripheral groove 18 and ridge 19, the ridge engaging in a groove 20 in the body to thus secure the ring to the body. A terminal plate 21 is secured to the ring 17 and extends downwardly into pocket 14, a passageway 22 adjacent the pocket allowing the circuit conductor to be clamped to terminal plate 21 by the screw 23. 75 80

The sleeve part-S comprises the cylindrical sheet metal shell 24 having the threads 25, the shell being deflected inwardly at various points near its upper end to form tongues or ridges 26 for engaging in the groove 20 of the body. The shell is sufficiently springy so that the ridges will readily pass over the ring and will snap into the groove to then lock the sleeve in firm electrical engagement with the ring while at the same time the sleeve can freely turn on the body to be screwed into a socket. 85 90 95

The upper edge of the shell is deflected inwardly to lie against the upper edge of the ring, and is then deflected upwardly and outwardly to form the peripheral groove 27 for clamping the inner flange 28 of the cap 29. This cap is of insulating material and has the central opening 30 for the circuit conductors and is sufficiently raised over the body 10 to allow knotting of the conductors if desired, or application of a cord grip for relieving the body terminals of all strain. The periphery of the outer flange 31 on the 100 105

cap is knurled so that the sleeve structure can be readily turned to secure the shell in a socket.

In Fig. 4, the body is shown alone. When the plug is to be assembled, the circuit conductors are passed through the cap opening 5 30 and then into the passageways of the body and secured to the terminal plates. The sleeve structure is then slipped over the 10 body and pressed down until the ridges 26 snap into the groove 18, the sleeve structure being then in firm electrical connection with the ring 17 and with the terminal plate 21 extending therefrom. The sleeve structure 15 being freely rotatable on the body after clamping thereto, the shell 24 can be readily screwed into a socket to engage one terminal thereof and to carry the body end terminal into engagement with the other ter- 20 minal of the socket.

To disconnect the sleeve structure and body they are merely pulled apart and no relative turning is necessary. In order to insulate the outer end of the shell which will 25 be outside of the socket, an insulating ring 32 may be applied and held in place between the shell threads and the cap. Insertion of the plug into a socket can thus be safely accomplished.

I thus produce a simple yet substantial 30 plug having a minimum number of parts and having a most efficient electrical arrangement.

I do not desire to be limited to the exact 35 construction and arrangement shown as modifications are possible which would still come within the scope of my invention.

I claim the following:

1. In an electrical attachment plug, the 40 combination of a cylindrical body having a peripheral groove, and a sleeve having projections for engaging in said groove to normally hold the body and sleeve together but to allow free relative rotation thereof, said 45 groove and projection connection being yielding to allow the parts to be separated by abnormal pull thereon.

2. In an electrical attachment plug, the 50 combination of a cylindrical body of insulating material, contact terminals on said body, a ring surrounding said body and having a peripheral groove and a threaded

metallic sleeve fitting over the body and having a projection for engaging in said 55 groove to lock the sleeve to the body but to allow it to rotate thereon, said ring being electrically connected with one of said contact terminals.

3. In an electrical attachment plug, the 60 combination of a cylindrical body carrying terminal contacts and having a peripheral groove in a plane at right angles to the body axis, and a threaded metallic sleeve fitting over said body and having a projection for 65 cooperating with said body groove to lock the sleeve to the body but to allow free rotation thereon, said sleeve when applied being in electrical engagement with one of 70 said terminal contacts.

4. In an electrical attachment plug, the 70 combination of a cylindrical body of insulating material, an end contact and a side contact carried by said body, a metallic head for 75 said body having a peripheral groove concentric with the body axis, a threaded cylindrical shell receiving said body and having inner projections for engaging in said 80 groove to lock the shell to the body but to allow free rotation thereof on the body, said shell when applied to the body having elec- 85 trical connection with said side contact on the body.

5. In an electrical attachment plug, the 85 combination of a cylindrical body part, a cylindrical threaded sleeve part, one of said parts having a groove in a plane at right 90 angles to its axis and the other part having a projection for engaging at any point in said groove to lock said parts together but to allow relative rotation thereof, said 95 sleeve part forming one electrical terminal of the plug and said body mounting the other terminal of said plug, and a cap rigid with the sleeve covering the outer ends of said sleeve part and plug and having an 95 opening for circuit conductors.

In witness whereof I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

MAX HERSKOVITZ.

Witnesses:

R. J. JACKER,
M. J. MCKENDRY.