

March 7, 1933.

C. M. WAY

1,900,782

LIGHT PLUG

Filed Nov. 20, 1929

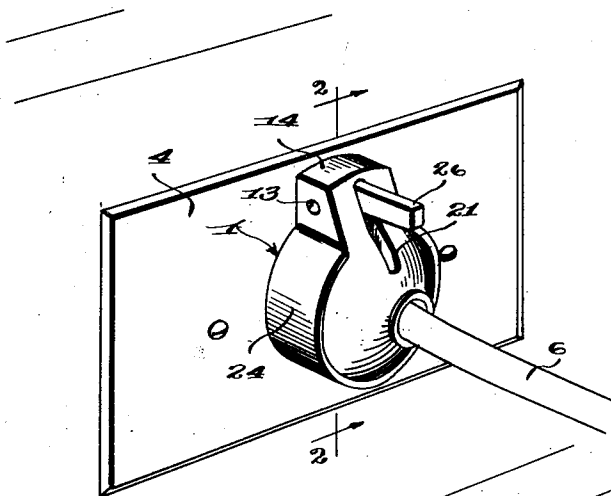


Fig. 1.

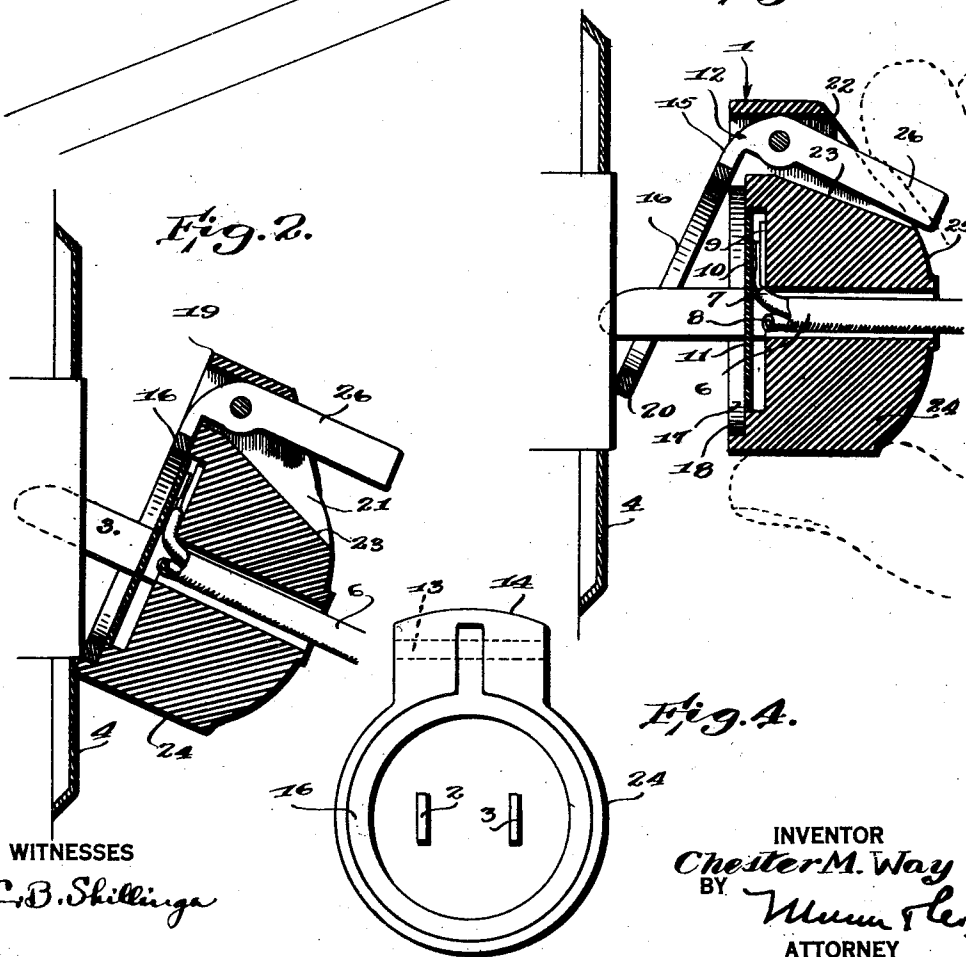


Fig. 2.

Fig. 3.

Fig. 4.

WITNESSES
C. B. Skillinga

INVENTOR
Chester M. Way
BY *Munn & Co.*
ATTORNEY

UNITED STATES PATENT OFFICE

CHESTER M. WAY, OF BURLINGTON, VERMONT

LIGHT PLUG

Application filed November 20, 1929. Serial No. 408,527.

My invention relates to temporary electrical connectors, and more particularly to temporary electrical connectors commonly known as light plugs, wall plugs and floor
5 plugs and consists in the combinations, constructions and arrangements herein described and claimed.

It is common knowledge that the conventional plugs in use today are well adapted
10 for easy insertion into their cooperating sockets but are not fitted for easy withdrawal therefrom, necessitating seizure of the cable in many cases, with consequent strain on the connections of said cable with the plug and
15 rapid deterioration of said cable adjacent the plug. It is therefore an object of my invention to provide a plug that is easily removable from its socket by simple means comprised within said plug, thereby obviating
20 the necessity of straining the cable or awkwardly grasping the body of the plug during this operation.

It is a further object of my invention to provide a plug embodying simple means for
25 removing the same from its socket which does not in any interfere with the insertion of said plug in its socket in the usual and well known manner.

A further object of my invention is to provide a simple mechanism for the removal
30 of plugs from a socket which is adapted for use in any of the usual forms of plugs in use today.

A further object of my invention is to provide a device of the type described which
35 has few parts, is easily manufactured and does not get out of order easily.

Other objects and advantages will appear as the specification proceeds and the invention
40 will be more particularly defined in the appended claims.

My device is illustrated in the accompanying drawing forming a part of the specification in which:—
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Figure 1 is a perspective view showing a plug constructed in accordance with my invention and in operative position.

Figure 2 is a part sectional and part elevational view showing my device in one position.
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Figure 3 is a similar view showing my device in another operative position.

Figure 4 is an elevational view of a plug constructed in accordance with my invention.
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In carrying out my invention, I make use of a plug 1 having contacts 2 and 3 adapted for engagement with suitable slots in a wall or floor socket 4 which may be of any suitable construction.
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As in the usual forms of plugs, this plug member 1 has an axial bore 5 therethrough providing a suitable passage for the communication of cable 6 comprising the circuit
65 cables 7 and 8 with the contacts 2 and 3. These circuit cables 7 and 8 are suitably fixed to plates as indicated at 9 by suitable clamp screws such as those shown at 10. The plates 9 connect to the contacts 2 and 3
70 respectively as is well known to those skilled in the art. Numeral 11 designates an insulating washer, commonly used in these constructions.

For easy withdrawal of the contact members 2 and 3 from their engaging slots in the socket member 4, I provide the member 12 of substantially bell crank formation in cross section pivoted by any suitable means
75 as shown at 13 in the projecting portion 14 of plug 1. The arm 15 of this bell crank lever 12 comprises therein an annulus 16 adapted to seat in the inner periphery 17 of plug 1 engaging shoulder 18 provided therefor, when inoperative. As more clearly appears in Figure 2, this annulus 16 when
80 seated is flush with the end 19 of said plug. The lower portion 20 of this annulus is adapted to engage the light socket 4 below the slots therein, during the operation as more clearly appears in Figure 3. A suitable slot 21 having stops 22 and 23 allows
85 operation of the bell crank lever 12 therein.

From the foregoing description, the operation of my device is readily understood.
90 To insert the plug, the operator simply grasps the same about the periphery 24 thereof or the segment-to-spherically shaped end 25 thereof as desired and forces the contacts 2 and 3 into their slots. This operation is shown most clearly in Figure 2.
100

When the operator desires to remove the plug, he simply engages arm 26 of bell crank lever 12 with his forefinger and the body of the plug by his thumb as shown by the dotted lines in Figure 3, or as desired, and forces said arm 26 of bell crank 12 inwardly. During this operation, the portion 20 of annulus 16 engages the outer surface of the socket 4 as previously set forth, providing leverage for forcing the contacts from their slots as is clearly shown in Fig. 3.

It is thus seen that I have provided a temporary light plug which is easily inserted and withdrawn from a wall or floor socket, without necessitating handling of the cable or straining of the plug with consequent rapid deterioration of the same.

I claim:

1. An electrical connector plug having contacts adapted to frictionally engage contact means in a cooperating socket member, and means for forcibly withdrawing said plug from said socket member to disengage said contacts, comprising a bell crank lever fulcrumed adjacent the periphery of said plug and having one arm adapted to engage the walls adjacent said socket member and another arm adapted to be actuated by an operator, said first named arm comprising an annulus placed about said contacts.

2. An electrical connector plug having contact means adapted to engage contact means in a cooperating socket member, and means comprised in said plug for forcibly withdrawing said plug to disengage said contact means, comprising a bell crank lever having an annular arm adapted to engage the walls of said socket member and an arm adapted to be actuated by an operator, said plug having an annular caved-out portion adapted to seat said annular arm in one operative position of said withdrawing means.

3. An electrical connector plug having projecting contacts adapted to frictionally engage contacts in a cooperating socket member and means in said plug for withdrawing said plug from said socket to disengage said contacts comprising a bell crank lever pivoted adjacent the periphery of said plug and having one arm disposed between said socket member and connector plug and said other arm projecting outwardly of said plug for actuation by an operator.

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CHESTER M. WAY.