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1,469,295

H. P. DONLE

ADAPTER

Filed Jan. 19, 1920

Fig. 1.

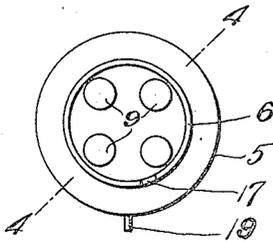


Fig. 2.

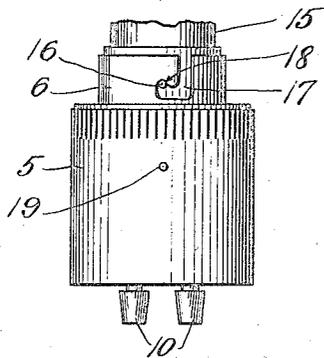


Fig. 3.

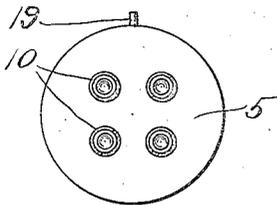
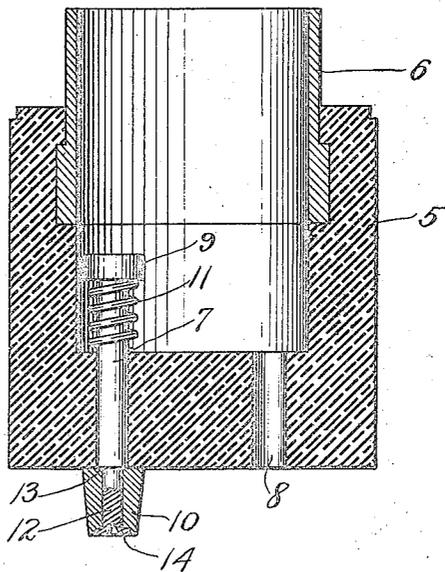


Fig. 4.



Inventor  
Harold P. Donle  
By his Attorneys  
*[Signature]*

# UNITED STATES PATENT OFFICE.

HAROLD POTTER DONLE, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE CONNECTICUT TELEPHONE & ELECTRIC CO., INC., OF MERIDEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

## ADAPTER.

Application filed January 19, 1920. Serial No. 352,310.

*To all whom it may concern:*

Be it known that I, HAROLD POTTER DONLE, a citizen of the United States of America, residing at Meriden, Connecticut, have invented a new and useful Adapter, of which the following is a specification.

My invention relates particularly to an adapter for what are commonly termed wireless valves or tubes.

The main object is to provide a simple and inexpensive form of device adapted to fit in to an ordinary tube socket and to itself receive a smaller sized tube.

In its preferred form it consists of an insulating base with a locking ring and carrying spring pressed plungers adapted to be engaged by the end terminals of a smaller tube.

Fig. 1 is a plan view of a device embodying the improvements of my invention.

Fig. 2 is a side view of the same showing a fragment of a tube in place in the adapter.

Fig. 3 is a lower end view.

Fig. 4 is an enlarged sectional view on the plane of the line 4-4 of Fig. 1, but omitting one of the plungers.

The body of the device 5 is preferably formed of some suitable molded composition into which the socket ring 6 is molded.

The base carries a plurality of plungers such as 7. In this case there are four, each of which is movable longitudinally in a passage such as 8 in the base. Each plunger has a head 9 on the inside of the base adapted to be engaged by one of the end contacts of a tube, and a head 10 on its outer end adapted to engage a contact in a larger socket. A spring 11 surrounds the shank of a plunger 7 between the head 9 and the bottom of the cavity in the base so as to hold the plunger yieldingly in the position shown in Fig. 4. The opposite end 12 of the plunger is smaller in diameter and carries the washer-like head 10 which abuts against the shoulder 13 on the shank of the plunger. The outer end of the reduced extension 12 is riveted or spun over at 14 so as to hold the head 10 securely in place.

The base and ring 6 are adapted to receive the end 15 of a tube which has on it a locking pin 16. The ring 6 has a bayonet slot 17 to receive the pin 16. The parts are so constructed and proportioned that when a tube is inserted as shown in Fig. 2, the contact of the end of the tube with the upper

end of the plunger 9, forces the plunger downward into the position shown in Fig.

2. Each of the plungers thus effects a yielding pressure on the corresponding contact of the tube. This spring pressure tends to hold the tube in place with the pin 16 in the pocket 18 in the inner end of the bayonet slot 17 of the ring 6.

The insulating base or body 5 also has an extending pin or projection 19 adapted to engage in a locking slot of a socket in the same manner as the pin 16 engages in the bayonet slot 17 of the ring 6.

In forming the device, the ring 6 is first made and then placed in the mold with suitable material which is molded to form the base 5 on the end of the ring 6. The passages 8 are preferably formed in the molding process. The plungers 7 are afterwards inserted with the springs 11 and then the washer-like heads 10 are secured in position.

I claim:

1. In a device of the character described, an insulating base, spring pressed plungers having heads outside and inside of said base, a pin projecting laterally from said base, a ring fixedly carried by said base with its opening in line with the inner end of said plungers, said ring having a bayonet slot with its inner end in radial alinement with the pin carried by said base.

2. In an adapter of the character described, a block of insulating material having a cavity therein forming a cup-shaped base, a metallic locking sleeve embedded in the material of said block interiorly of said cavity, said cup-shaped base having a passage extending through the bottom thereof and into the cavity, a contact plunger slidable in said passage, and a spring for urging said contact plunger outwardly in said cavity, said plunger having a contact head on the end within said cavity and a contact head on the opposite end on the outside of said cup-shaped base.

3. In an adapter, a cup-shaped block of insulating material forming a base, a metallic bulb-receiving sleeve embedded in said cup-shaped base block, the bulb-receiving portion of said sleeve being in substantial alignment with the interior of said cup-shaped base block and forming a continuation thereof, said cup-shaped base block having a plurality of passages in and extending through the bottom, contact plungers slid-

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able in said passages, heads on said plungers on the inside and on the outside of said cup-shaped base, and springs for urging said contact plungers outwardly in said cup-shaped base.

4. In an adapter of the character described, a cup-shaped body member, and spring pressed plungers having heads outside and inside of said cup-shaped body member, a pin projecting laterally from said body member, said body having a bayonet slot with its inner end in radial alignment with the pin carried by said body member.

5. In an adapter of the character described, a body member having a cavity

therein forming a cup-shaped base, said cup-shaped base having a passage extending through the bottom thereof and into said cavity, a contact plunger slidable in said passage, and a spring for urging said contact plunger outwardly in said cavity, said contact plunger having a head on the end within said cavity and a head on the opposite end on the outside of said cup-shaped base, said cup-shaped base having locking means for retaining a bulb therein, the bottom and at least a portion of the sides forming the cup-shaped base being formed of insulating material.

HAROLD POTTER DONLE.