

Aug. 3, 1943.

G. BAUMBACH
ELECTRON TUBE MOUNTING
Filed Oct. 30, 1941

2,325,825

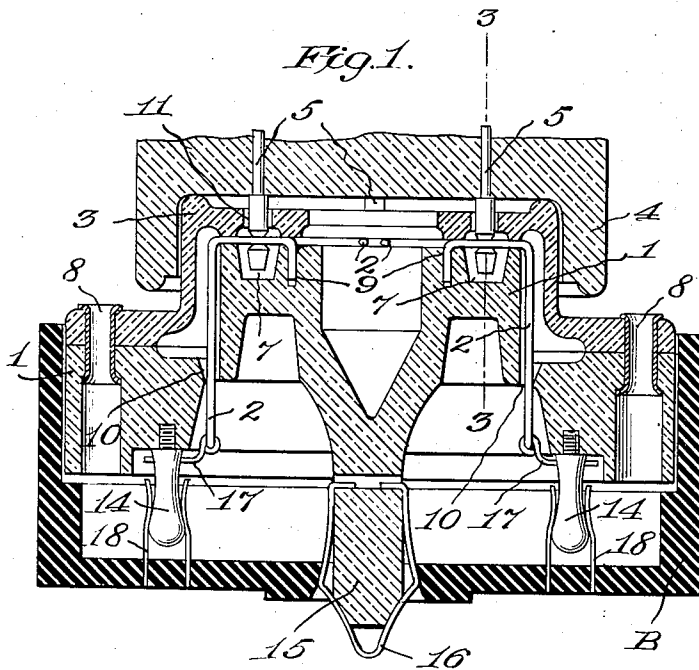


Fig. 3.

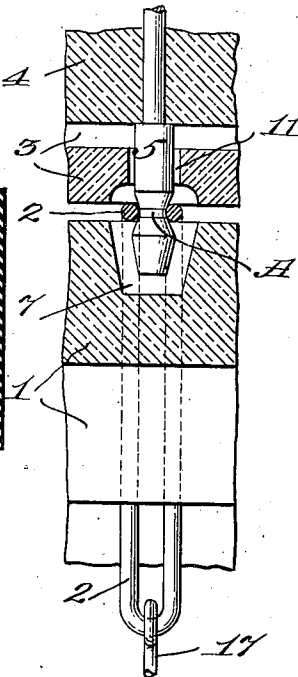


Fig. 2.

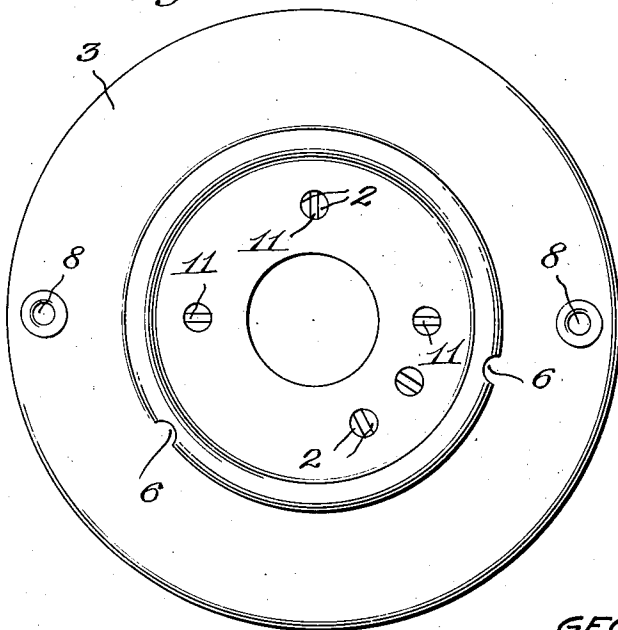
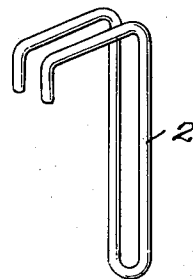


Fig. 4.



INVENTOR.
GEORG BAUMBACH
BY
James H. Curtis
ATTORNEY

UNITED STATES PATENT OFFICE

2,325,825

ELECTRON TUBE MOUNTING

Georg Baumbach, Berlin, Germany; vested in
the Alien Property CustodianApplication October 30, 1941, Serial No. 417,088
In Germany July 2, 1940

3 Claims. (Cl. 173—344)

The present invention is a continuation in part of that described in my prior application Serial No. 389,293, filed April 19, 1941, issued as Patent 2,297,449 on Sept. 29, 1942, which shows a novel construction and arrangement of the contact springs forming part of the sockets for electron tubes.

According to the prior invention, the contact springs consist of a springy wire bent at its mid-point to form a hairpin-shaped loop which is again bent so as to form an approximately J-shaped contact member. The short limbs are seated in bores or slots of a bottom part of the socket. The long shanks extend through the bottom part and serve as soldering tabs. The contact springs so carried by the bottom part are held in position by a cap which also serves to cover them.

According to the invention described hereafter a construction of this kind is employed as an intermediate socket, that is, a contact device intervening between the respective electron tube and a second or outer socket. An intermediate socket so constructed may be made to be small in height, because the long limbs of the spring wires may be directly joined to contact studs with which the intermediate socket is fitted in order to engage contact springs of the second socket.

In the drawing, Fig. 1 is a sectional view showing an example of the intermediate socket, one form of a second socket and the base of an electron tube, Fig. 2 is a plan view of the intermediate socket, Fig. 3 represents a fragmentary section on line 3—3 of Fig. 1, and Fig. 4 shows a spring in perspective.

The intermediate socket comprises a bottom part or base member 1 and an upper part or cap 3. The contact springs 2 are carried by part 1 and are clamped fast and covered by the cap 3, the parts 1, 3 being firmly held together by tubular rivets 8 or by screws or other fastening means.

The springs 2 consist of a springy wire bent to form a loop having two shanks which are parallel to one another and are in the shape of a J. The short limbs are seated in bores or slots 9 of part 1. The long limbs extend through openings 10 of part 1. 4 denotes the base of an electron tube. The electron tube is inserted with base 4 over cap 3 and has contact studs 5 which are each to engage with the two shanks of one of the springs 2. Part 1 has recesses 7 for the free end of the studs 5, while cap 3 is provided with bores 11 for these studs.

The contact studs 5 may have an annular groove A in order to provide for an accurate position of the studs 5 with respect to the springs 2.

The cap 3 may have notches 6 or ribs for engagement with ribs or notches, respectively, of the part 4 in order to guide the parts 3, 4 with respect to each other.

Part 1 is so constructed that it may be inserted in a socket B to engage with contact means thereof. To such end, part 1 has contact studs 14 for engagement with contact springs 13 of the socket B. The studs 14 are joined to the springs 2 by connectors 17. A central projection of part 1 carries a spring 16, or several such springs, arranged to engage with the bottom of socket B and to hold the intermediate socket and socket B together.

What is claimed is:

1. A socket adapter for electron tubes and the like comprising a pair of insulating members, one of said members being a base member and the other a cap member therefor, said base member being formed with an upwardly projecting mid-section having a substantially flat upper surface, said cap member having a recess formed in the underside thereof adapted to receive the upwardly projecting mid-section of said base member, said cap member being further shaped to engage the top of said base member near the outer portion of its upper surface, a plurality of radially disposed channels formed in the mid-section of said base extending only part way toward the center of said mid-section, each channel terminating in a relatively deep recess, channels formed in the under surface of said cap member in register with the first mentioned channels, there being one of said radial channels for each prong of an electron tube, a plurality of contact members, one for each of said channels, each of said contact members being formed from a single wire bent at its mid-section to form two parallel spring members of approximately hairpin-shape, said parallel members being further bent into substantially J-shape, adapted to be secured in said channels with the shorter arms of the contact members each depending into a recess at the end of the respective channels, other substantially vertical channels formed between said base and cap members to receive the longer arms of the contact members, contact prongs adapted to fit an electronic tube socket secured in the under surface of said base member, connections between the respective contact prongs and corresponding ones of said contact members, a plurality of openings in

said cap members communicating with said channels for receiving the terminals of an electronic tube and a cavity formed in said cap and base members in the areas adjacent each of said holes to make room to permit the parallel wire sections of the respective contact members to spread apart when engaged by tube terminals inserted in said holes thereby permitting the tube terminals to extend between the wire sections and thus be gripped thereby.

2. An adapter according to claim 1, in which the cap and base members are fastened to each other by means disposed in an area adjacent their outer edges.

3. The combination according to claim 1, in which said base member is provided with downwardly projecting resilient holding means adapted to engage an opening in a socket to releasably hold the adapter in place.

GEORG BAUMBACH.