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E. A. BOHLMAN ET AL

1,671,760

SOCKET

Filed Jan. 11, 1926

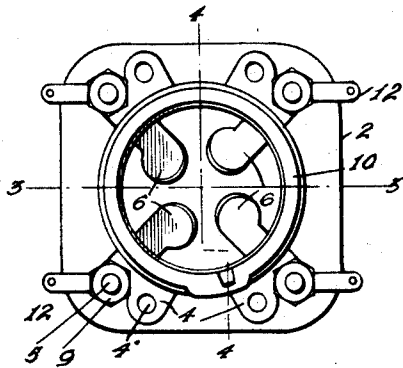


Fig. 2.

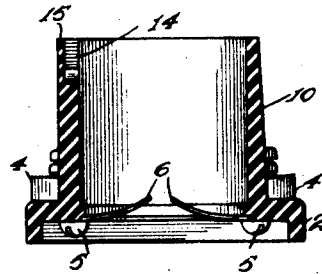


Fig. 4

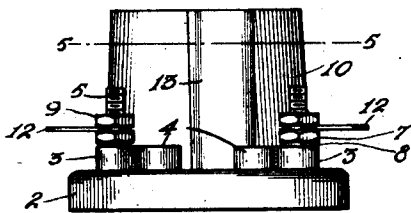


Fig. 1.

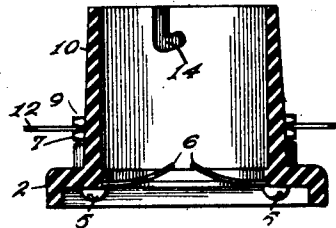


Fig. 3.

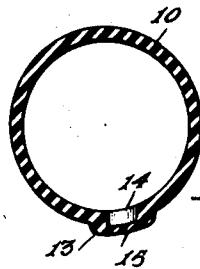


Fig. 5.

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SOCKET.

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Our invention relates to sockets and has to do more particularly with sockets such as are used in radio work for holding a standard four-prong base vacuum tube.

The vacuum tube, in addition to having four prongs has a pin extending radially from the side of the base which is adapted to be inserted into a bayonet slot in the socket to hold the tube against displacement and at the same time hold the prongs firmly in engagement with the terminal springs provided in the socket. Many of the sockets now in use are constructed of some suitable moulded non-conducting compound and it has been found that care must be exercised when inserting the tube into or removing it from the socket that no undue pressure or pull is applied to the tube as there is danger that the wall of the socket around the bayonet slot will be cracked or broken and thus render the socket useless.

The main object of our invention is the provision of a moulded socket which will overcome this objectionable feature and provide an improved and more durable tube socket structure.

One of the features of our invention is the provision of a re-enforcing wall formed integrally with the wall containing the bayonet slot so that the bayonet slot will not extend entirely through the wall of the socket.

Another feature resides in the construction whereby the socket is provided adjacent to the edge with the depression forming the bayonet slot, but below or beyond the slot the inner cylindrical surface of the socket is uninterrupted.

For a more complete understanding of our invention reference may be had to the accompanying drawing in which:

Fig. 1 is an elevation of the tube socket of our invention.

Fig. 2 is a plan view of Fig. 1.

Fig. 3 is a sectional view along the line 3-3 of Fig. 2.

Fig. 4 is a sectional view along the line 4-4 of Fig. 2.

Fig. 5 is a sectional view along the line 5-5 of Fig. 1.

Referring now to the drawings in which like reference characters in the several views denote like parts. Our improved tube socket comprises a suitable base 2, having the upwardly extending cylindrical socket wall 10

formed integrally therewith. It is to be understood that the base 2, socket 10 and all parts integral therewith, are formed of some suitable insulating compound which may be moulded.

The base 2, is also provided with the integrally formed lugs 3, having suitable openings through which extend screws or bolts 5, by means of which the spring contact terminals 6 are secured to the base, nuts 7 and lock washers 8 being positioned on the upper ends of the screws above lugs 3. Threaded on the upper ends of the bolts or screws 5 are the knurled nuts 9, by means of which the terminal strips 12 are secured to the screw 5, or if the terminals 12 are not used, nuts may be used to secure conductors directly to the screws 5.

Integral with the base 2, are the lugs or enlargements 4, provided with the openings 4', adapted to receive screws or other suitable means for fastening the socket to a base board.

The socket wall 10 is provided with a reinforcing portion 13 at one side thereof, in order to increase the thickness of the socket wall at the point where the bayonet slot 14 is provided, so that the slot will extend into, but not through, the wall of the socket. The reinforcing portion 13 is provided only in the region of slot 14 and tapers in thickness from the top, or free edge of the socket, downwardly to the base inversely as the socket wall tapers from the base upwardly to the free edge, the reinforced portion being of substantially uniform thickness throughout.

Referring now to Figs. 4 and 5, it will be seen that the bayonet slot 14 extends into the socket member to a depth substantially equal to the thickness of the wall of the socket 10, but the reinforcing portion 13 provides a portion 15 which overlies and bridges the slot 14; thus greatly reducing the danger of the socket becoming broken in the vicinity of the slot. Referring further to Fig. 4, it will be noted that the inner surface of the socket 10, below the slot 14, is uniformly cylindrical.

The structure above described, in addition to providing a very strong and durable socket, due to the reinforced portion overlying the slot, avoids the use of an insert at the slot, and thus reduces the cost of moulding the sockets.

While we have illustrated and described a particular embodiment of our invention, it is to be understood that we do not desire to be limited to the exact structure as shown and described, but intend to cover all such changes and modifications as come within the spirit and scope of the appended claims.

Having described our invention what we claim as new and desire to secure by Letters Patent is:

1. In a moulded tube socket of the character described, a cylindrical member for receiving a tube base, said member being provided adjacent to the edge thereof with a bayonet slot adapted to receive a pin laterally projecting from the said base, the inner surface of the said cylindrical member below or beyond said slot being formed as an uninterrupted cylindrical surface, and a reinforcing portion formed integrally with the said cylindrical member and adapted to strengthen the said member in the region of said slot, said reinforcing portion being heaviest at the top of said cylindrical member and extending in a tapering manner the full length thereof thereby reinforcing said cylindrical member in varying amounts throughout its length.

2. In a moulded tube socket of the character described, a cylindrical member for receiving a tube base, said member being provided adjacent to the edge thereof with a bayonet slot, the inner surface of the said cylindrical member below or beyond said slot being formed as an uninterrupted cylindrical surface, and a reinforcing portion formed integrally with said cylindrical member said portion being heaviest at the upper end and extending in a tapering manner longitudinally the full length thereof in the

region of and overlying said slot, thereby reinforcing said cylindrical member in varying amounts throughout its length.

3. In a moulded tube socket of the character described, a cylindrical wall for receiving a tube base, a reinforcing portion at one side of said wall and formed integrally therewith, said wall having a bayonet slot or groove formed in the inner surface thereof, said inner surface below and beyond said slot being formed as an uninterrupted cylindrical surface, said reinforcing member overlying and bridging the said slot, and extending in a tapering manner from its thickest portion on the upper edge of the cylindrical member the entire length of the cylinder thereby reinforcing the cylindrical member in varying amounts throughout its length.

4. In a moulded tube socket of the character described, a cylindrical wall for receiving a tube base, a reinforcing portion at one side of said wall and formed integrally therewith, said wall having a bayonet slot or groove formed in the inner surface thereof adjacent to the edge of said wall, said reinforcing member overlying and bridging the said slot and extending in a tapering manner from its thickest portion on the upper edge of the cylindrical member the entire length of the cylindrical member thereby reinforcing said member in varying amounts throughout its length, the inner surface of the said cylindrical wall below or beyond said slot being formed as an uninterrupted cylindrical surface.

In testimony whereof we have signed this specification.

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