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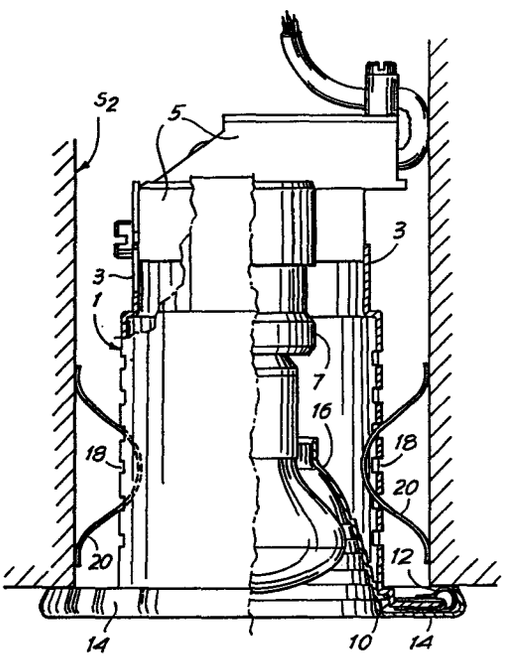
(54) Lamp assembly to be socketed, with tubular body apt to be received in the seat.

(57) A lamp assembly to be socketed into a seat (S2), formed in a wall or in a panel or other, includes a tubular body (1) capable of receiving the lamp-holder (7) or the lamp, and capable of being received into the seat (S2), said tubular body having at the open end an external flange (10) able to engage a finishing frame-like ring (14), while at the opposite side the tubular body has a closing head (3) which engages a connection box (5). On the tubular wall (1) guide means are provided to engage and axially adjust the lamp-holder (7), in particular through pressing-screw means. The frame-like ring (14) is insertable and may be developed to engage a cone inside of the tubular body (1) and the head (3) is applicable to several tubular bodies (1) having different diameters.



EP 0 145 680 A2

DESCRIPTION

The invention has the object to provide a lamp to be socketed into a seat formed in a wall or in a panelling or other, which assembly includes a tubular body able to receive the lamp-holder or lamp, and able to be received into the seat; said tubular body presents at the open end an external flange able to engage a finishing annular frame, while at the opposite side the tubular body presents a closing head.

The closing head may engage a connection box.

On the tubular wall, guide means may be provided for engaging and adjusting the lamp-holder in axial position, particularly through pressing screw means.

In the tubular body, an internal screening cone may be received which can be restrained therein by means of the annular frame.

A same head may be applied to several tubular bodies of different diameters.

The invention will be better understood by a reading of the following description in conjunction with the attached drawing which shows a practical non limitative exemplification of said invention. In the drawing:

Fig.1 shows perspectively three structures for socket-lamps of a series having different dimensions between them and various types of cable clamps;

Fig.2 shows a socket-lamp in section;

Fig.3 shows a cutaway section of a lamp in the arrangement as it is inserted into a seat;

Figs.4 and 5 show the arrangement which the springs assume in order to engage a lamp into a cylindrical seat formed in a wall, and into a through-seat formed by a panel;

Figs.6 and 7 show views taken on line VI-VI of Fig.4 and on line VII-VII of Fig.3.

According to what is illustrated in the attached drawing, a socket-lamp structure comprises a tubular wall body 1, which may have different diameter in order to receive different lamps or, however, to form socketed lamps having visible parts of different diameter; the tubular body 1 has an upper part 3 which is intended for receiving the assembly parts of the lamp-holder like the block 5 embodying the terminal board and carrying the lamp-holder 7. Advantageously, the lamp-holder 7 respectively all the block, may be adjusted in position by providing a longitudinal slit in the wall 3 and/or in the wall 1 to achieve the lamp-holder fastening in a position axially

adjustable along said slit, by means of a pressing screw.

At the bottom end (in the drawing), and any way in the end part of the socketed lamp which is to remain in sight, the tubular body 1 has a flange 10, to which two or more springs 12 are engaged directly on the flange or better in corresponding slits formed in the same flange. The springs 12 allow the flange 10 to be engaged by a seal ring 14 in order to finish the socketed lamp. This ring may also engage a cone 16 which may be requested in some cases in the socket-lamps.

To engage the tubular body 1 into the socket-seat, in the tubular wall of said body two sets of transversal slits 18 may be provided, being longitudinally aligned and stairs-like arranged; the two sets of slits are formed in two diametrically opposite positions. Into pairs of adjacent or non-adjacent slits, a U-shaped spring 20 may be inserted, into each set of slits 18, having the intermediate part 20A in the inside of the tubular body and arms 20 which project outwardly of the tubular body wall. In the rest arrangement, the two arms of the springs 20 tend to open and are forced towards each another to permit the insertion into the predetermined pair of slits 18 from the inside toward the outside. The springs 20 serve to fix the structure of the tubular body 1 with what it includes into the seat receiving it therein.

Upon assembly, the body 1 is engaged into the seat before completing the assembly of the lamp and of the eventual cone as well as the ring, for easily handling the springs. The springs 20 may be inserted only in part into the slits, as shown in Fig.3, where they may be kept by the presence of shapings 20C, more or less marked, and possibly such as to ensure the sliding along the contrast surfaces.

In general, the seats may be of two types: one type S2 (Fig.5) is made up of a dug out hole with cylindrical wall; another type S1 is in the form of a hole passing through a panel P (Figs.3 and 4) the thickness of which may vary. When the body 1 is to be inserted into a seat S2 from the position shown in Fig.3 to the position shown in Fig.5, the springs 20 are arranged as indicated in Fig.5 and biased according to arrows f1 so that to have the assembly inserted into the seat S2 and then make it slide while forcing the spring arms against the wall of seat S2, exerting in this way a friction pressure; alternatively, the springs may be arranged already outwardly projecting and be pressed by opening their upper arms in order to enter the seat and then leave them against it to make them slide in the abutting position of flange 10 against the wall.

When a body 1 is to be inserted into a seat S1 - having

predisposed the springs 20 in a suitable position along the sets of slits 18 according to the thickness of panel P - same springs are settled as shown in Fig.3. After having inserted the body 1 inside the seat S1 in the arrangement of Fig.4, by pushing the spring according to arrow f2 (Fig.4), the arms of said spring are made to open and the lower arm is made to contrast against the inner surface of panel P, which surface is opposite to the one on which the flange 10 rests.

It is clear that the fastening operations of the tubular body 1 result particularly simple and easy.

The construction of the lamp structure as a tubular body offers many advantages: it allows a substantial clogging of the holes making up the seats S2 to make use of the interspace for circulation of air or other; it permits to screen the light directed towards the back part of the headlight; it permits to isolate the light source from the neighbouring environment.

The present headlight has further complementary advantages obtainable through simple constructions, among which: it offers the possibility to adjust the lamp in axial position; the easy replacement of the seal ring; the setting of the connection box; the possibility to make socketed lamps of various sizes with only one head.

C L A I M S

1. A lamp assembly to be socketed into a seat formed in a wall or in a panel or other, characterized by the fact that it includes a tubular body capable of receiving the lamp-holder or the lamp, and capable of being received into the seat, said tubular body having at the open end an external flange able to engage a finishing frame-like ring, while at the opposite side the tubular body has a closing head.

2. An assembly according to the preceding claim, characterized by the fact that the closing head engages a connection box.

3. An assembly according to the preceding claims, characterized by the fact that on the tubular wall, guide means are provided to engage and axially adjust the lamp-holder, in particular through pressing-screw means.

4. An assembly according to the preceding claims, characterized by the fact that the frame-like ring is insertable and may be developed to engage a cone inside of the tubular body.

5. An assembly according to the preceding claims, characterized by the fact that the head is applicable to several tubular bodies having different diameters.

6. An assembly according to the preceding claims,

characterized by the fact that the flange has arcuate springs for release retaining the insertable frame-like ring.

7. A lamp assembly to be socketed, with tubular body apt to be received in the seat; all as described and illustrated.

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Fig.1

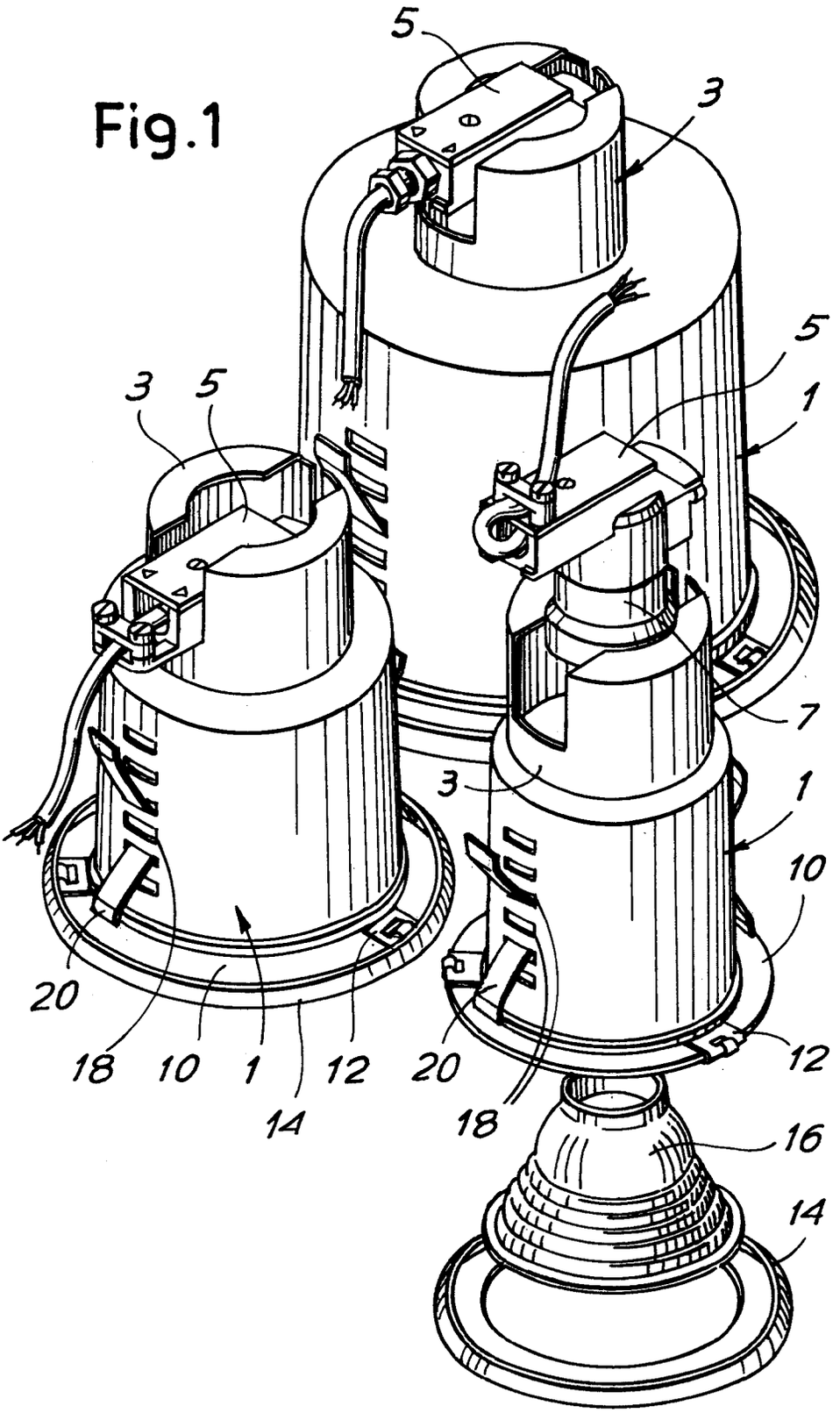

Fig.2

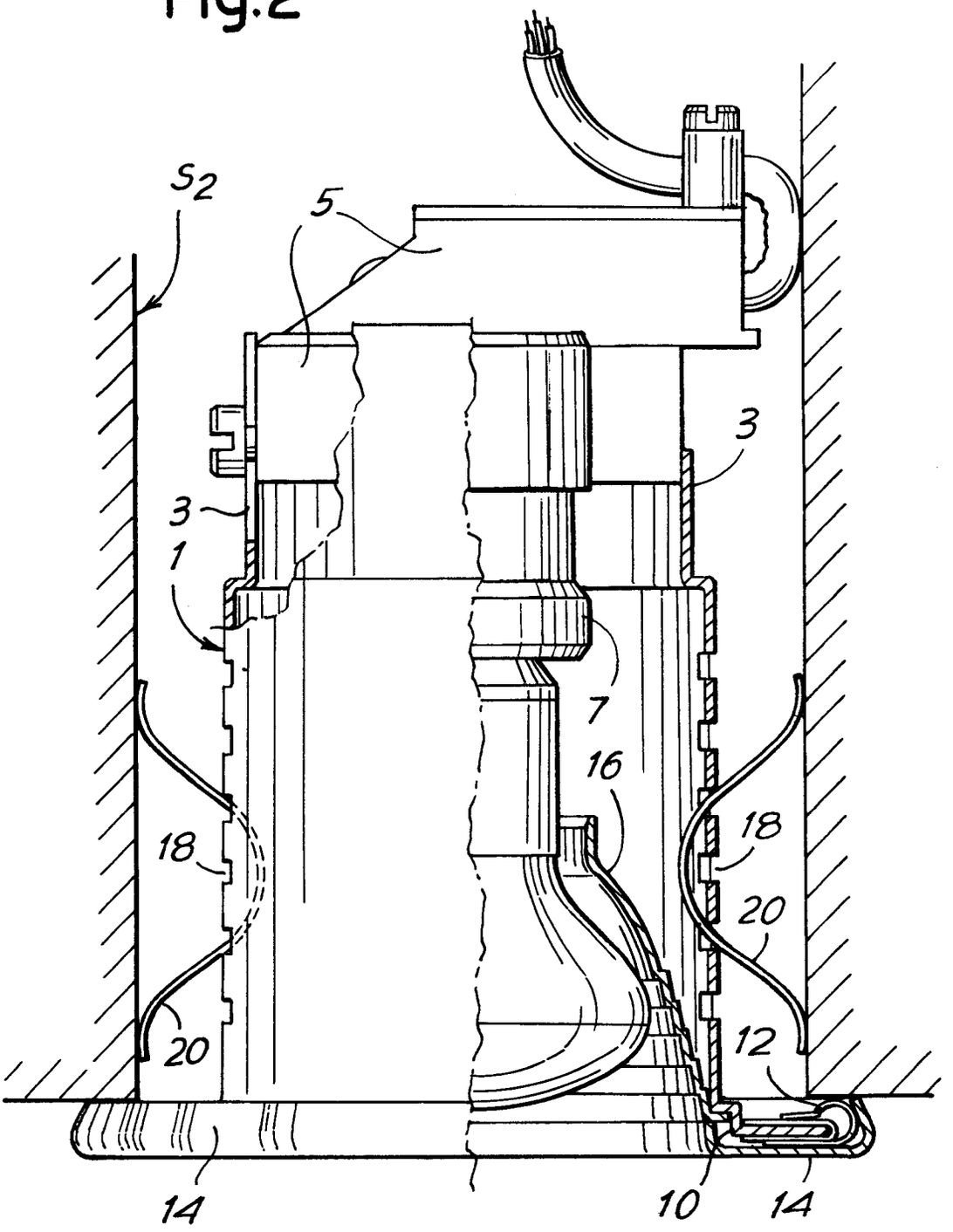

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Fig.5

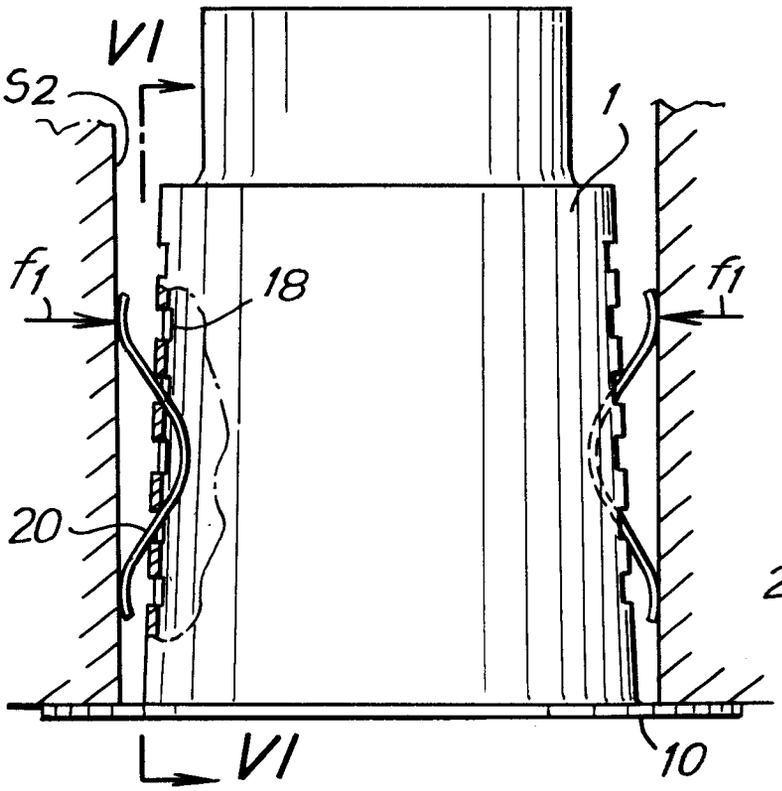
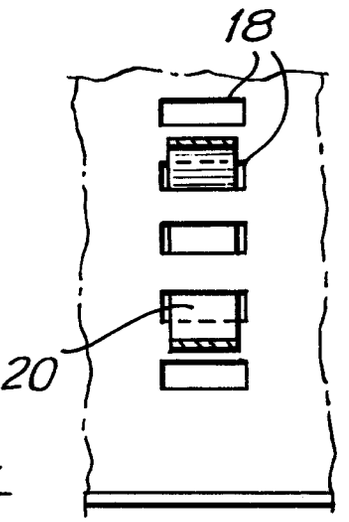


Fig.6



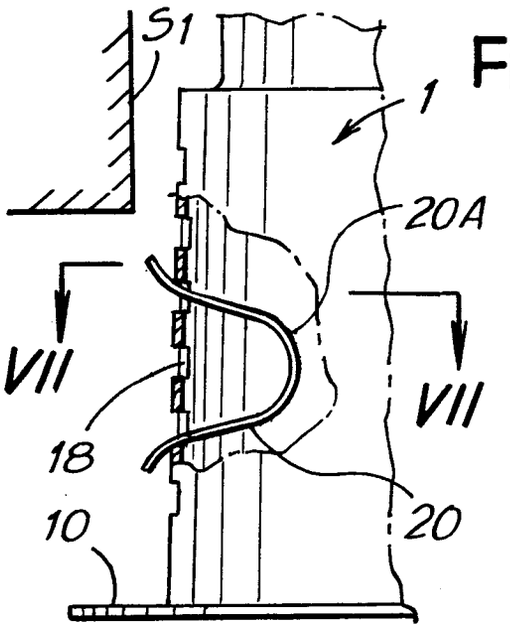
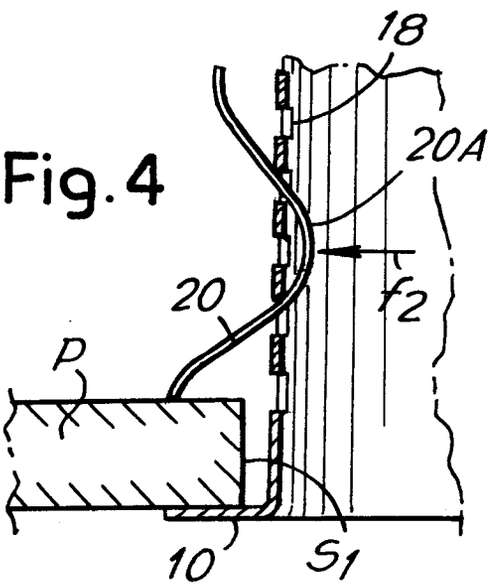


Fig.3

Fig.4



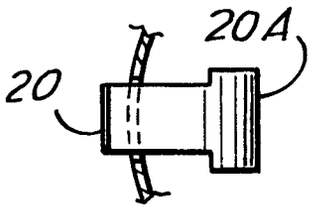


Fig.7