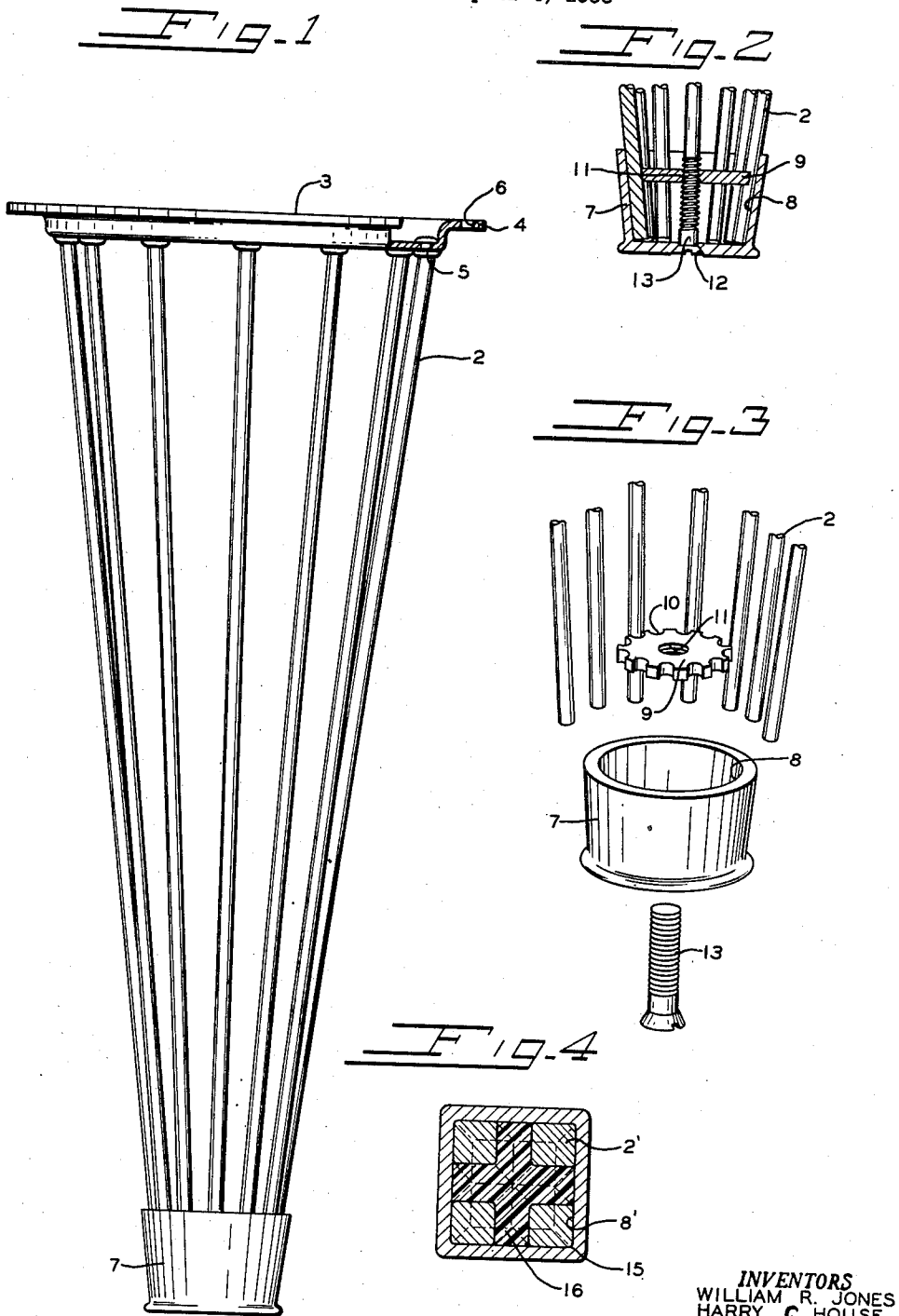


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MULTI-ROD LEG SUPPORTS

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MULTI-ROD LEG SUPPORTS

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This invention relates to multi-rod leg supports, and more particularly to multi-rod supports suitable for chair and table legs in which the bottom ends of the rods comprising the support are secured in assembled relation by a common means that also secures a foot to the assembled rod ends of said multi-rod support.

Heretofore, the bottom ends of the rods comprising the multi-rod supports have been first secured, as by welding, in assembled relation and thereafter secured to the foot, rather than being arranged in assembled relation by the foot and so held by the foot or the securing of the foot. Consequently, the foot on the bottom ends of the rods of the multi-rod support has not been integrated into a unitary construction with the foot, if a foot be attached to the already united bottom ends of the rods. The means for attaching the ends of the rods has been combined with the foot attaching means, each being entirely separate and independent.

Accordingly, one of the main objects of the invention is a multi-rod support in which the foot is a means for assembling the bottom ends of the rods.

Another object of the invention is a multi-rod support in which the foot is adapted for receiving the bottom ends of any selected number of rods.

Another object of the invention is a multi-rod support in which the rods may be advantageously arranged in different geometrical designs and held in such arranged relation by the foot and the foot securing means.

Another object of the invention is a multi-rod support in which the rods are easily and efficiently assembled and fastened at their opposite ends to a securing fitting and a foot.

Further objects, and objects relating to details of construction and economies of operation, will readily appear from the detailed description to follow. In one instance, the objects of the invention have been accomplished by the device and means set forth in the following specification. The invention is clearly defined and pointed out in the appended claims. Structures constituting preferred embodiments of this invention are illustrated in the accompanying drawings, forming a part of this specification, in which:

Fig. 1 is a side elevation of a support embodying the invention.

Fig. 2 is a cross-sectional view of the foot portion of the support.

Fig. 3 is an exploded view of the bottom end of the support and foot.

Fig. 4 is a cross-sectional view of the bottom end of another embodiment of the invention.

Referring specifically to the drawings (Fig. 1-3), there is disclosed a support comprised of a plurality of rods 2 with one end of each rod attached to a securing fitting 3 in the form of an annular ring provided with a flange or web 4. One end of each of the rods is inserted into a perforation 5 in the ring, and other perforations 6 are formed in the web or flange 4 to receive a screw or bolt

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for securing the fittings to the member to be supported, such as a chair or table. These upper ends of the rods may be secured to the ring by being press-fitted into the perforations 5, welded therein, or otherwise secured.

The opposite or bottom ends of each of the rods 2 are secured and fastened to a foot 7 which is in the form of a cap provided with a socket 8 on one side into which the secured ends of the rods are inserted and fastened. A common means is employed for assembling and securing the bottom ends of the rods and fastening them to the foot 7, this means being a disc 9 with any number of separate recesses 10 formed in its peripheral edge and preferably conforming to the configuration of the rods 2 which are shown to be cylindrical. Hence the recesses 10 are arcuate with a radius slightly less than the radius of the rods.

Since the bottom ends of the rods 2 are brought closer together than their opposite or top ends to give the support a conical configuration, the socket 8 of the foot 7 may advantageously be conical also.

The disc 9 is provided with a central perforation 11, preferably screw-threaded, and the closed end of the foot 7 is provided with a central perforation 12. With the disc 9 disposed as a hub for the bottom ends of the rods and the rod ends inserted in the socket 8 of the foot 7, a screw 13 is inserted through the foot perforation 12, with its free end screw-threaded into the screw-threaded perforation 11 of the disc 9, to clamp the rod ends against the inside wall of the web socket and in spaced relation by the means of the arcuate recesses 10 into which the ends of the rods fit. The arcuate recesses 10 could, of course, be formed in the side wall of the foot 7 in addition to or in lieu of being formed in the disc 9.

These recesses 10 are desirable as a convenient means for spacing apart the bottom ends of the rods 2. If, however, the bottom ends of the rods were brought into contact, they would automatically space themselves, and the recesses could then be dispensed with. Moreover, the foot does not necessarily need to be tapered to conform to the taper of the inclined rods. With the bottom ends of the rods inclined, they would be clamped against the side wall of the socket, whether or not the wall of the socket in the foot were inclined.

The rods may be disposed to form a round support, as shown, at its bottom end, or any other geometrical figure, such as a square or triangle, with the shape of the foot corresponding thereto, and the disc would be changed to conform therewith. The support fitting for the top ends of the rods is preferably of the same shape and design as the foot, except larger in size, although they could be of different shape and design than the foot.

In the modification of Fig. 4, the rods 2' are disposed in the form of a square with the foot 8' of the same configuration and the bottom ends of the rods 2' fitted in abutting relation into the foot 8' with a leg in each of the four corners 15 thereof. With the bottom ends of the rods 2' properly assembled in abutting relation, and so secured in the socket of the foot 8', the foot is secured by the adhesive means 16 adapted to be poured into said foot socket and with the assembled bottom ends of the rods imbedded to be anchored in the adhesive filling. Any suitable adhesive can be used, such as one which is normally liquid and is poured in place to be subsequently hardened by exposure to the air. A plastic resin is particularly suitable.

From the foregoing description, the construction of the support with the rods arranged in different geometrical figures, as desired, is obvious. These supports are especially suitable for chair and table legs. Whatever the arrangement of the rods, the bottom ends of the

rods are assembled and secured by the foot and a common fastening means.

There may be various changes in details of construction without departing from the spirit of the invention, and, therefore, the invention is claimed broadly as indicated by the appended claims.

Having thus described the invention, what is claimed as new and useful and desired to be secured by United States Letters Patent, is:

1. A leg support comprising a plurality of rods interposed between a support fitting on one end of said rods and a foot mounted on their opposite ends, said foot having a socket in which the bottom ends of the rods are inserted, and a common means within the socket for securing the foot to the bottom ends of the rods and maintaining said bottom ends of the rods in assembled relation in said foot.

2. The leg support of claim 1 in which said common means clamps the inserted ends of the rods against the side wall of the socket.

3. The leg support of claim 2 in which the common means is a disc which is clamped against the rods by means of a screw connected to the foot.

4. The leg support of claim 3 including means for holding inserted end of the rods in spaced apart relation in the socket of the foot.

5. A leg support comprising a plurality of rods interposed between a support fitting on one end of said rods and a foot mounted on their opposite ends, said foot having a socket in which the bottom ends of the rods

are inserted, and common means contained within the socket in which the inserted bottom ends of the rods are anchored in the socket of the foot and secured thereto.

6. A leg support unit comprising a plurality of rods interposed between a support fitting on one end of said unit and a hollow foot mounted on the opposite end of said unit, said foot having a common opening providing a walled socket in which the bottom ends of the rods are inserted, a disc disposed between the rods at one end of the unit for spreading the ends of the rods against the socket wall, means for clamping the disc to the foot, and means for circumferentially spacing the ends of the rods within the socket.

7. A leg support comprising a plurality of rods interposed between a support fitted on one end of said rods and a foot mounted on their opposite ends, said foot having a socket in which the bottom ends of the rods are inserted, and hardened adhesive means within the socket in which said bottom ends of the rods are embedded for anchoring them therein.

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