T. E. MURRAY.

HOUSING FOR UNIVERSAL JOINTS.

APPLICATION FILED NOV. 20, 1917.

1,267,252. Patented May 21, 1918.

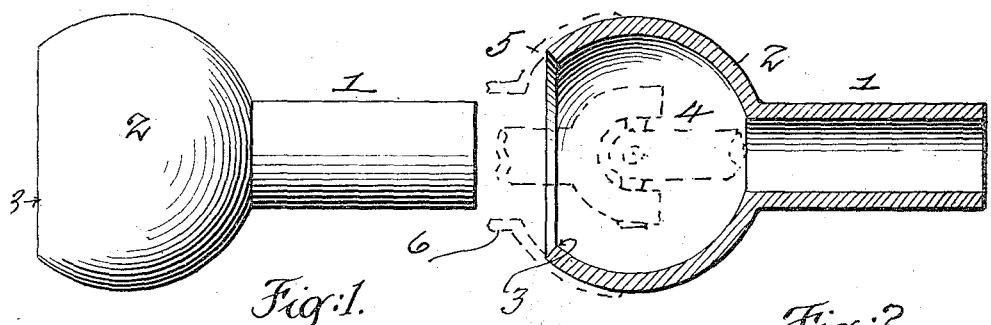


Fig. 1.

Fig. 2.

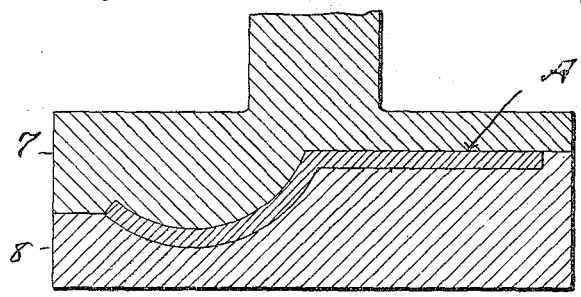


Fig. 3.

Fig. 4.

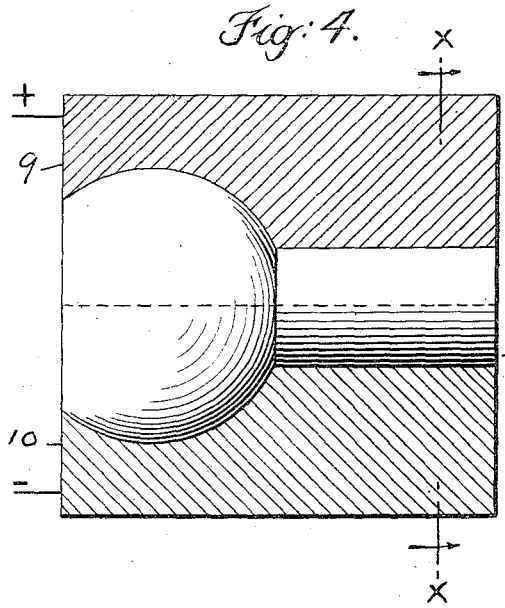
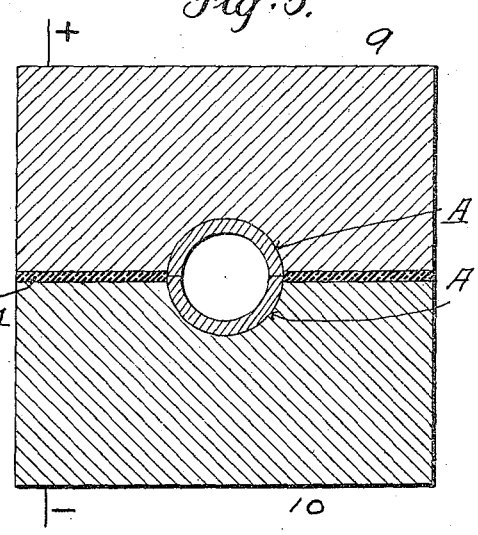


Fig. 5.



INVENTOR

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HOUSING FOR UNIVERSAL JOINTS.

1,267,252. Specification of Letters Patent. Patented May 21, 1918.

Application filed November 20, 1917. Serial No. 202,951.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Housings for Universal Joints, of which the following is a specification.

The invention is a housing for universal joints. The housing consists in a tube open at one end and at the other end having a cup-shaped enlargement, the rim of which is of greater diameter than said tube and concentric therewith. Said housing is ordinarily used to inclose a universal joint, and the shafts thereto connected, and is provided with a cup-shaped cover which fits over the rim of the cup-shaped enlargement aforesaid.

Housings of the present shape are commonly produced by numerous drawings of a sheet metal blank, and with intervening reheatings made necessary by the working of the metal. This is slow, expensive and costly. I obviate all of these difficulties. My housing is made of seamless longitudinal half sections precisely alike and each made at a single operation by simply pressing the blanks in suitably formed dies. Any quantity of these unit half sections may be made, and any two of them put together longitudinally edge to edge to form the housing. In order to unite said half sections, I seat them in correspondingly formed recesses in electrodes, and establish a welding current between said edges brought into contact. The resulting housing is of homogeneous metal throughout, and practically in one piece; and it is made far more rapidly and at a large reduction in expense as compared with housings produced by drawing and reheating, as before described.

In the accompanying drawings—

Figure 1 is an elevation of my housing. Fig. 2 is a longitudinal section thereof, the housing cover and the inclosed universal joint being shown in dotted lines. Fig. 3 is a longitudinal section, showing the dies for producing a unit half section of the housing, with said unit half section in place. Fig. 4 shows two half sections forming the housing in elevation and disposed between the welding electrodes shown in section. Fig. 5 is a transverse section on the line x, x of Fig. 4.

Similar numbers and letters of reference indicate like parts.

The completed housing comprises integrally a tube 1 and a cup-shaped enlargement 2 on one end of said tube, the opposite end of said tube being open. The rim 3 of the enlargement is of greater diameter than said tube and is concentric therewith. This housing is commonly used to inclose a universal joint, shown in dotted lines at 4, Fig. 2, and is provided with a receiving cup-shaped cover 5 which carries a tube 6, said tube inclosing one of the joint shafts, the other shaft passing through tube 1.

In making this housing, I proceed as follows:

I prepare a plurality of seamless longitudinally divided half housing sections A. These unit half sections may be made in any numbers, and as they are all exactly alike, any two of them may be assembled to form the housing. To accomplish this, I make each unit half section by pressing a blank of sheet metal between suitably formed dies 7, 8, Fig. 3. Two of the unit half sections thus produced are placed between the electrodes 9, 10, Fig. 4, in each of which is a recess conforming to the shape of a unit half section. In these recesses the unit half sections are seated, with the longitudinal edges of one unit half section facing the longitudinal edges of the other unit half section. Between the opposing faces of said electrodes, outside of the half sections, may be interposed a layer 11 of insulating material. The welding current when established is caused to pass transversely across the joint between the housing sections. Said electrodes may be pressed together during the passage of the welding current, whereby the contacting edges of said housing sections become united, and a housing of homogeneous metal is finally produced.

I claim:

As a new article of manufacture and sale, a housing for a universal joint, consisting

of a tube and a cup-shaped enlargement at one end thereof, the rim of said enlargement being of greater diameter than said tube and concentric therewith, the said parts being formed in two similar longitudinal seamless half sections disposed edge to edge and electrically welded together.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS E. MURRAY.

Witnesses:
GERTRUDE T. PORTER,
MAY T. MCGARRY.