

O. H. MARSCHUETZ & W. G. PROBST.

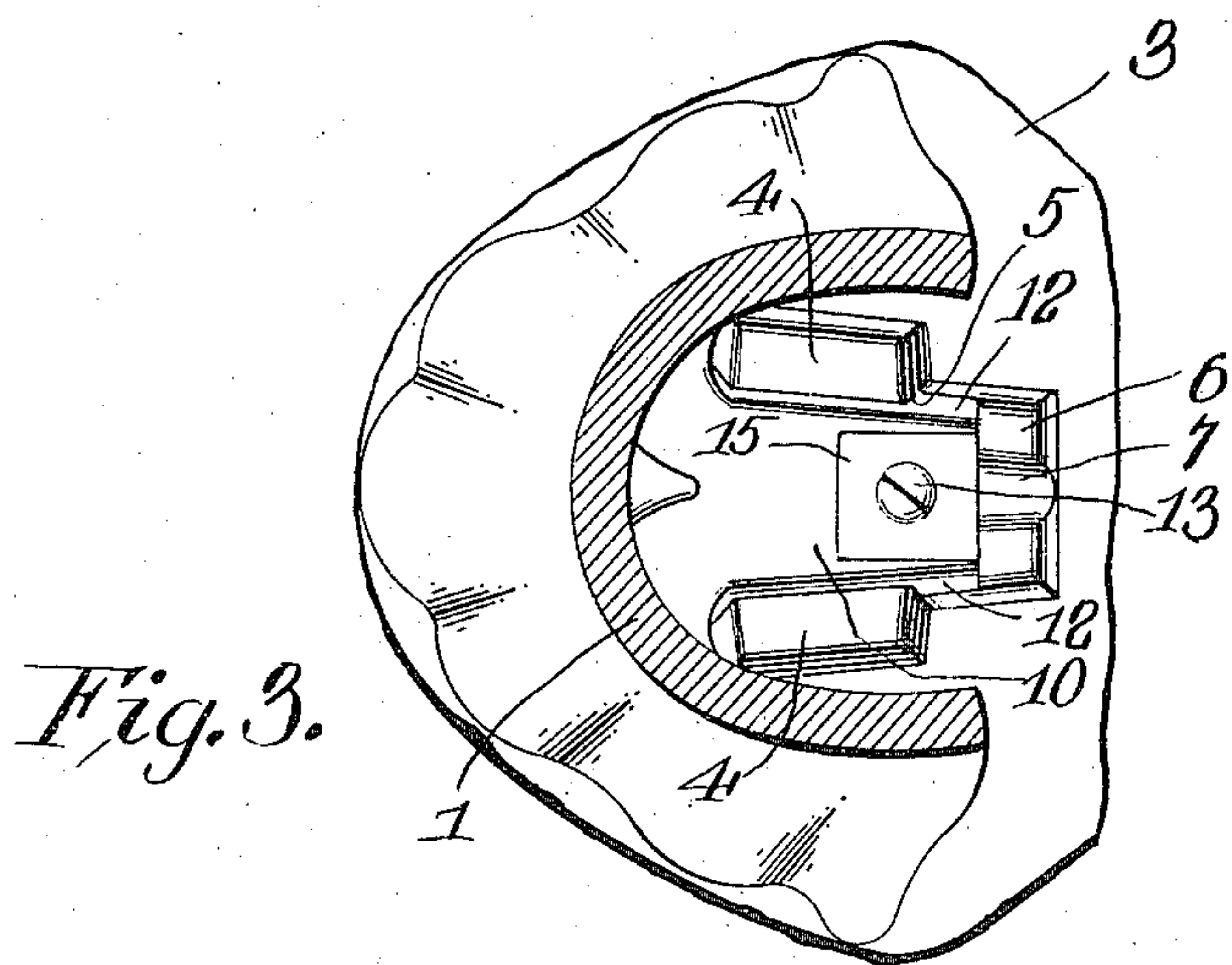
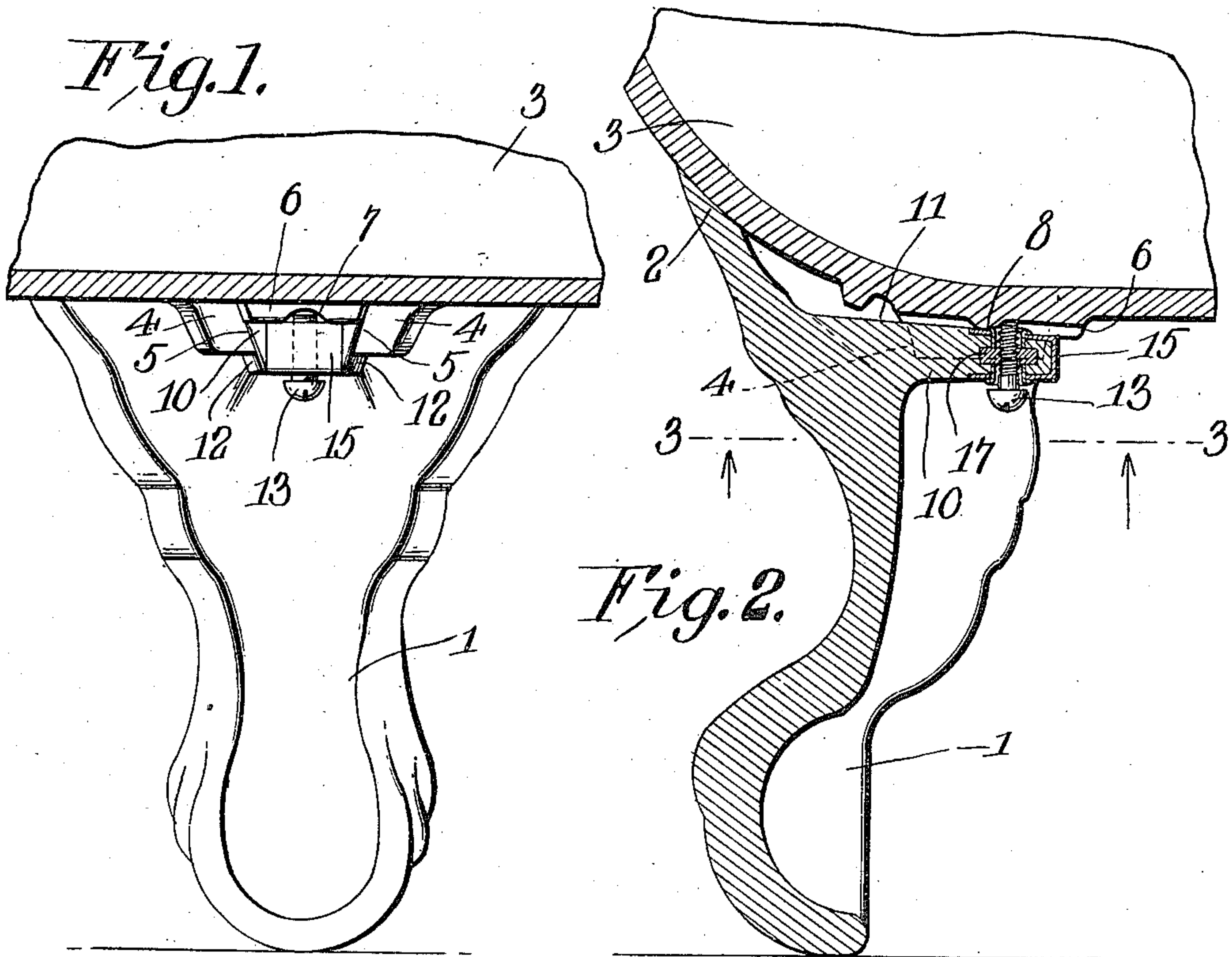
MEANS FOR ATTACHING FEET TO TUBS, &c.

APPLICATION FILED OCT. 12, 1907.

975,881.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 1.



Witnesses

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Fig. 3.^a

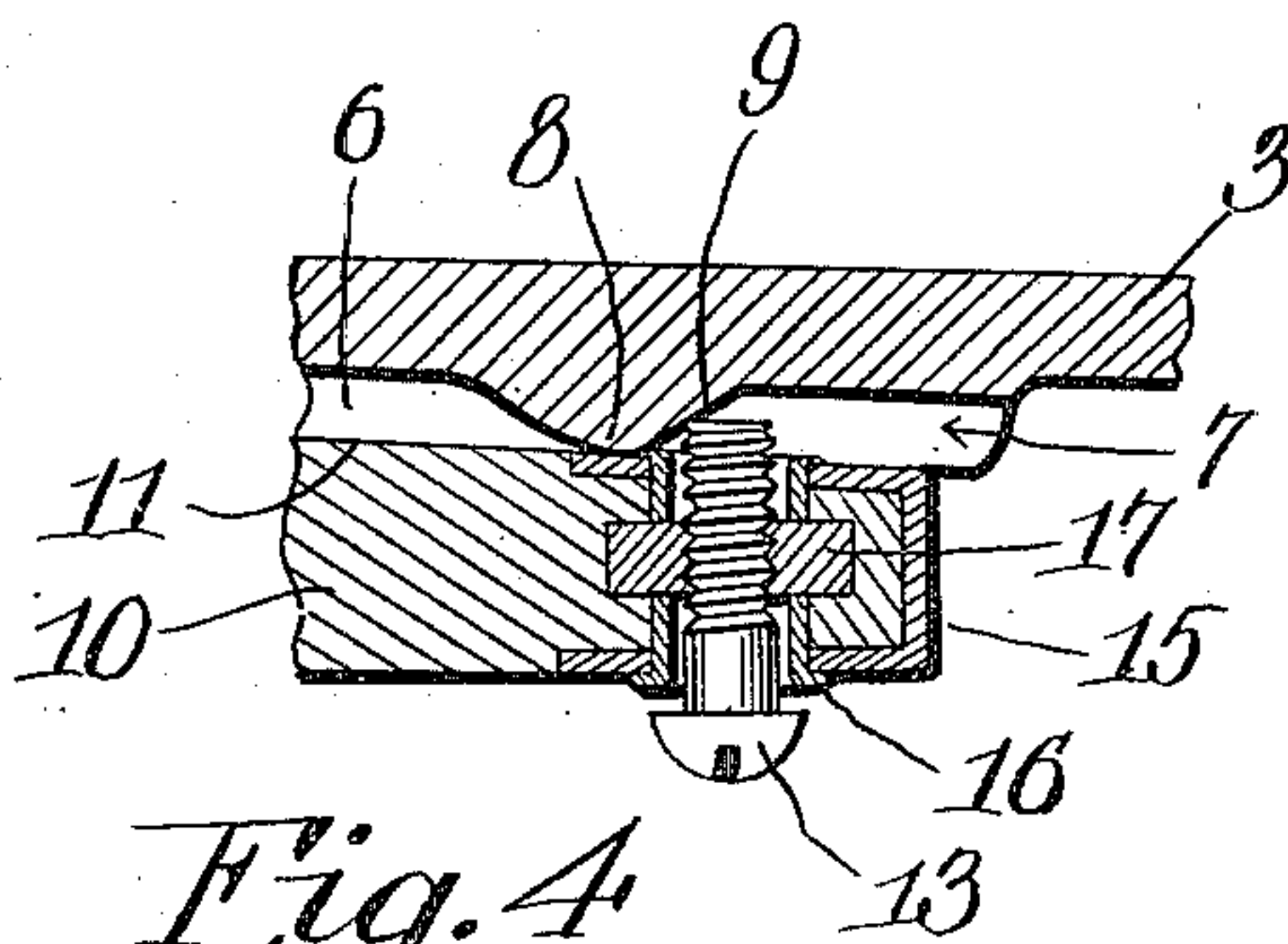
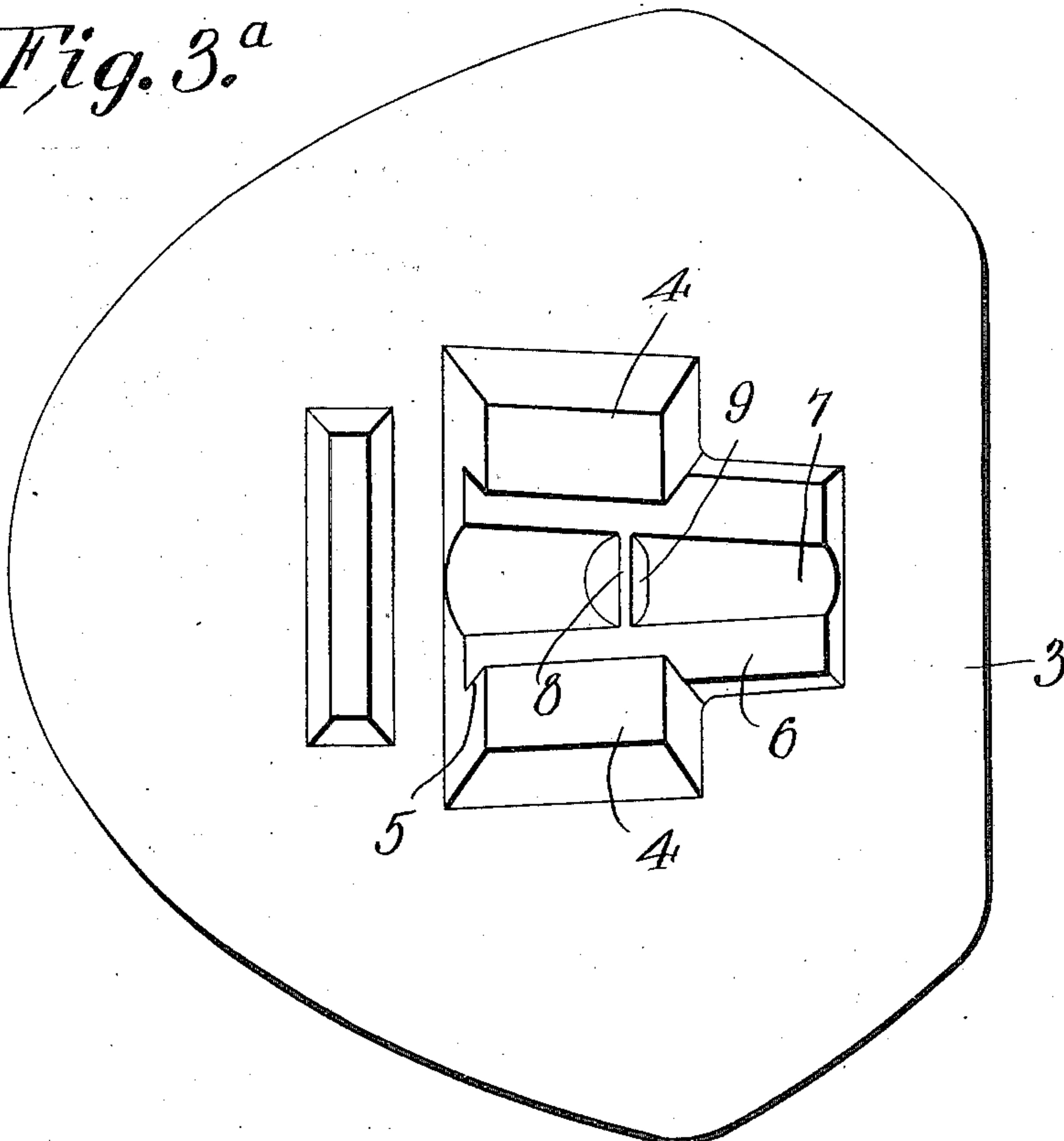


Fig. 4

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UNITED STATES PATENT OFFICE.

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MEANS FOR ATTACHING FEET TO TUBS, &c.

975,881.

Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed October 12, 1907. Serial No. 397,217.

To all whom it may concern:

Be it known that we, OSCAR H. MARSCHUETZ and WILLIAM G. PROBST, citizens of the United States, and residents of Louisville, in the State of Kentucky, have invented certain new and useful Improvements in Means for Attaching Feet to Tubs, &c., of which the following is a specification.

Our invention consists in means for attaching feet or legs to bodies, such as tubs, both the feet and the tubs being usually of metal.

The invention is applicable to attachments for stove legs, and other uses which will be apparent after reading the specification.

Metal tubs are generally coated with vitreous enamel at a comparatively high temperature, lower, however, than that at which the metal melts. The feet for such tubs are formed separately, and in order to attach them to the tubs the metal of the relatively thin walls of the latter must be thickened more or less at one or more points. If too great a mass of metal is formed on the tub for this purpose, the tub is affected injuriously either before or after enameling or both, by warping or by cracking or "crazing" of the enamel. If the mechanical devices employed to secure the feet to the tub are such that considerable strains are set up in the tub-body similar injurious effects upon the enamel are liable to be created.

Our invention has for its object the prevention of the injurious effects upon the tub or enamel resulting from the thickness of metal on the tub-body or from the mechanical means used to attach the feet.

Another object of the invention is to provide a mechanically efficient attachment which will hold the feet on the tub-body with great rigidity and security from displacement.

A preferred construction embodying the invention comprises, among other details, projections termed "doves" on the tub-body, the opposing faces of which are shaped to form a doubly-tapered socket; a beveled bar on the tub between the doves; a dove-tail on the foot shaped to fit the socket; and a screw in the dove-tail engaging the beveled bar so as to urge the dove-tail into the socket.

The invention is capable of embodiment in widely differing structures. One structure

constituting an exemplification of the invention, which is the best we have at the present time devised, will now be described in detail with reference to the accompanying drawing.

In the drawing: Figure 1 is a rear elevation of a foot and a section of a tub; Fig. 2, a vertical section through the foot and the tub; Fig. 3, a bottom view of the foot and attaching means, the foot being cut away below the tub; Fig. 3^a, a bottom view of a section of a tub showing the doves and other attachment members carried by the tub; and Fig. 4, a detail sectional view of the bar, the end of the dove-tail and the screw.

Reference numeral 1 designates a foot; 2, the upper end thereof suitably shaped to receive the tub; 3 is a segment of a curved tub bottom. On the outside of the tub for each foot are cast two projections or doves 4. The confronting faces 5 of the doves are beveled so that they form a doubly-tapered socket decreasing in size from the outside toward the center of the tub and from the top toward the bottom. Between the doves and projecting beyond them toward the middle of the tub, rails with flat bottoms 6 forming a base for a dovetail are cast on the tub. The rails are separated by a groove 7. A cross-bar 8 crosses groove 7 at any suitable point, conveniently somewhere between the doves. This cross-bar has a beveled rearwardly presenting face 9.

Near the top, foot 1 is provided with an inwardly projecting dovetail 10. The top 11 of the dovetail is flattened to slide freely on the rail 6 in attaching the foot and the slides 12 of the dovetail are tapered to conform with the taper of the socket formed between doves 4. The dovetail is provided with a screw 13 arranged so that its end will engage beveled face 9 of cross-bar 8 after the foot has been put in place, as will be described.

Assuming the foot to be detached, it is connected to the tub by placing one end of the dovetail in the socket between the doves 4 and shoving the foot back until the end of screw 13 is opposite the bevel 9 on cross-bar 8. The screw is then set up and by engagement with the bevel tends to further force the dovetail into the socket. In addition to its tendency to force the dovetail into firm engagement, the engagement of the screw

with the cross-bar also positively prevents removal of dovetail from its socket until the screw is backed out. The beveled face 9 of the cross-bar may therefore be omitted and the bar used simply to form, together with the screw, a positive lock for the foot.

In some cases, a double-tapered socket and dovetail would form a sufficient foot attachment if the dovetail were driven tight into the socket, but such driving is apt to set up strains in the tub-body which cause crazing of the enamel. The provision of the cross-bar and the screw obviate the necessity for excessively tight driving and at the same time form a very secure attachment. The tub feet may be made of any suitable metal.

Ordinarily, it would be necessary to bore and tap each dovetail for the reception of the screw 13. To avoid the expense of this operation and to provide a substantial and durable seat for the screw, we employ the following expedient in forming the feet: Numeral 15 designates a sheet metal clip bent substantially in U-shape. Two short tubes 16 are inserted one in each side of clip 15 so as to leave an opening between them large enough to receive a steel or iron nut 17. The clip with the nut in place is put in place in the mold for the foot by suitable means which do not form a part of the present invention. Upon pouring the foot the fluid metal fills clip 15, as seen in Fig. 4, surrounding the nut and holding

it firmly in position. Metal is prevented from entering the bore of the nut during pouring by the tubes 16. After the metal hardens the foot becomes substantially an integral structure with a threaded hard metal nut in place ready to receive the screw 13 without any machine operation. It is to be understood that the feet and the parts formed on the tub are to be duplicated to correspond with the number of feet required on the article.

The attachment means described herein are particularly adaptable to such bodies as tubs, in which it is desired, generally, to attach the feet to curved portions of the body. However, by obvious changes, the invention can be adapted to the attachment of feet or legs to flat bodies, such as stove bottoms, etc.

We claim:

As a new article of manufacture, a metal foot for tubs or the like, comprising a dovetail, a clip, co-axial tubes secured to the clip, and a threaded nut between the tubes; the nut and tubes being surrounded and held in operatively integral relation with the dovetail by the homogeneous metal substance of the foot.

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