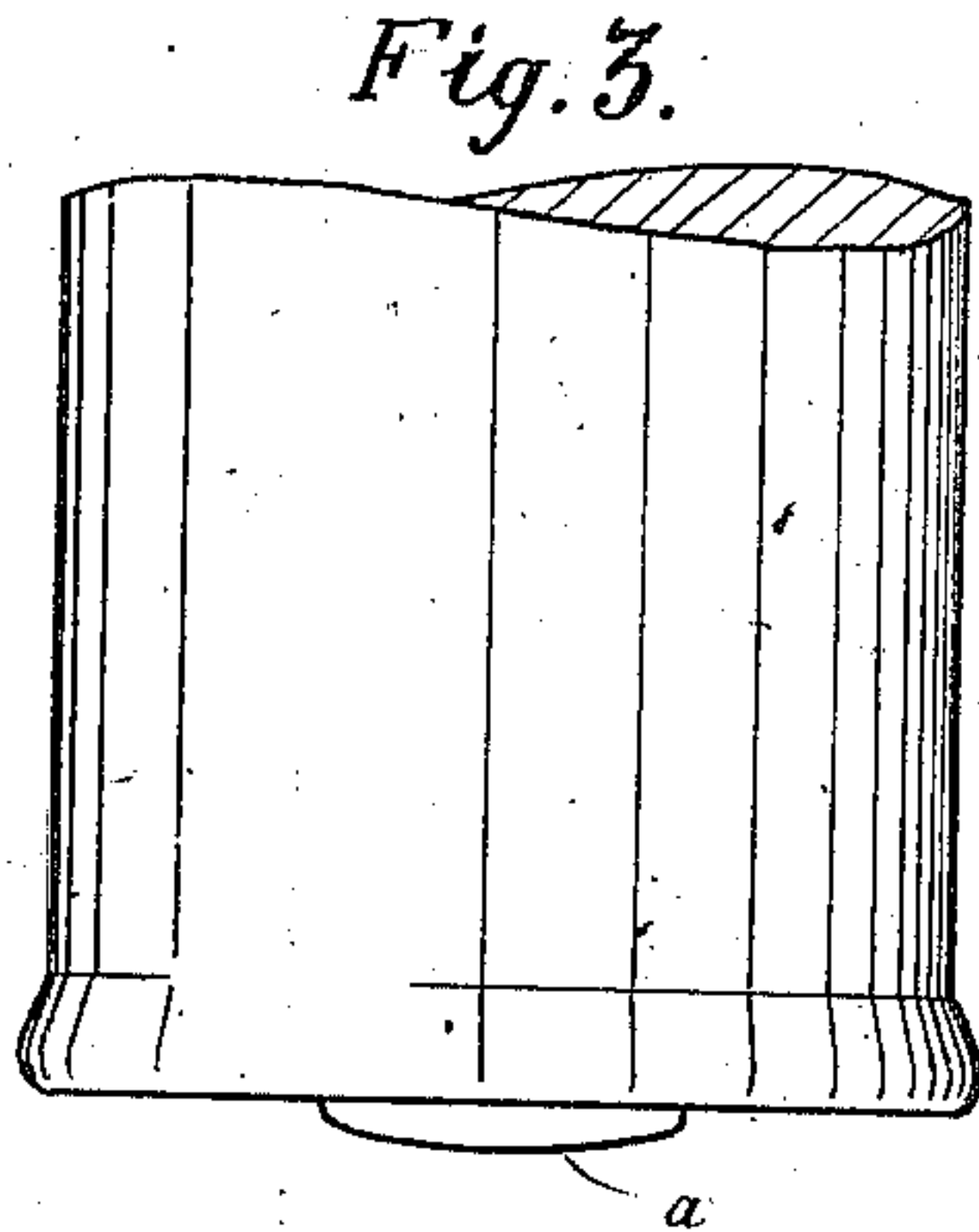
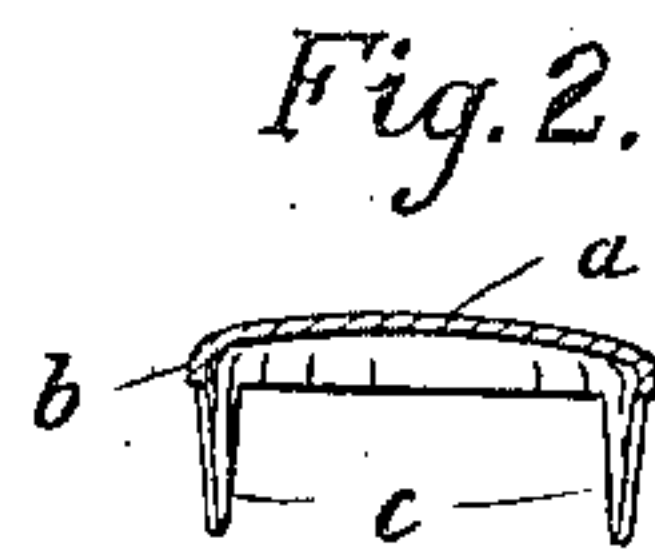
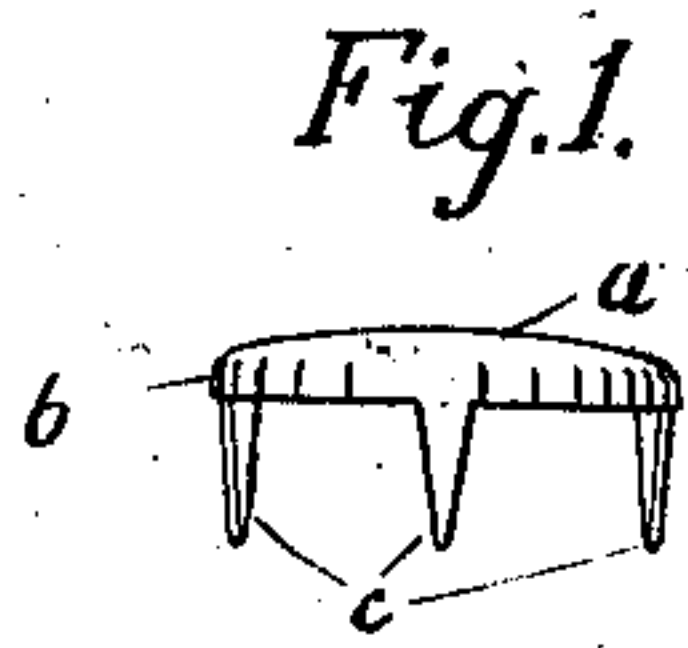


H. M. ALLEYN.
ANTIFRICTION TIP FOR FURNITURE OR THE LIKE.
APPLICATION FILED DEC. 30, 1908.

995,758.

Patented June 20, 1911.



Witnesses:-
C. H. Griesbauer.

Inventor:-
H. M. Alleyn
by A. B. Willson & Co
Attorneys

UNITED STATES PATENT OFFICE.

HENRY MATTHEW ALLEYN, OF LONDON, ENGLAND.

ANTIFRICTION-TIP FOR FURNITURE OR THE LIKE.

995,758.

Specification of Letters Patent. Patented June 20, 1911.

Application filed December 30, 1908. Serial No. 469,983.

To all whom it may concern:

Be it known that I, HENRY MATTHEW ALLEYN, whose post-office address is 45 Pall Mall, London, S. W., England, have invented certain new and useful Improvements in Antifriction-Tips for Furniture and the Like, of which the following is a specification.

My invention relates to tips for use on the legs of furniture and the like, and the object thereof is to provide an anti-friction bearing device which can be cheaply manufactured and easily attached to the object to which it is to be applied, and which will permit the object to easily slide over the surface of a rug, carpet or floor.

It consists in general terms of a stamped or drawn sheet metal shell or disk having a smooth, polished, convex surface and an upturned strengthening rim, provided with a plurality of integral pointed prongs projecting therefrom, and adapted to be driven into a leg or like support of the object to which it is to be applied.

In the drawings, Figure 1 shows my improved tip in elevation; Fig. 2 is a sectional view thereof and Fig. 3 shows the device applied to a table leg.

Similar reference letters are employed to designate corresponding parts in all the views.

The under or bearing surface *a*, of the tip, is slightly convex in contour. The disk at its perimeter is bent abruptly toward its center to form a strengthening rim *b*, and the integral fixing prongs *c*, project from the rim *b*. The convex surface is continuously curved to assist in strengthening it so as to help it perform its functions of supporting the loads it must sustain, of being driven into the wood, and of transmitting the strains from the bearing surface to the prongs.

The device may be easily and quickly attached to the object to which it is to be applied by three or four blows with a hammer, and the strengthening rim *b* prevents the blows from fracturing the tip.

It is essential that the metal from which the tips are made shall be extremely stiff or unyielding so that the tip will not flatten or bend when driven into position; and by the expression "stiff metal" hereinafter used, I intend to have it understood that the metal shall possess sufficient stiffness to permit

the tip to be driven into place without malformation.

One feature of my chair tip is of importance. It should be made hard enough to prevent malformation when it is being driven into the furniture to which it is adapted to be applied, as, for example, the wooden legs of chairs and the like. In a successful tip it is desirable to use this sheet metal with thin, sharp prongs, and a rim adapted to prevent the tip from fracturing, and to transmit the power of a hammer's blow from a spot upon the tip where the striking surface of the hammer hits it to the prongs in such a way that the prongs will be driven into the wood and the tip thus affixed to the leg of a chair or the like without fracture.

It is a further object of my invention to provide a tip that can be driven in by the ordinary hammer used for domestic and carpentry purposes. Such a hammer is provided with a convex striking surface which, when it strikes the convex portion of the tip, engages it at a spot only. It is this fact which renders it essential that the tip should have sufficient resisting power and a sufficiently hard structure as will prevent the hammer from forming dents or bends in the tip, which, by reason of its convex shape, distributes the force of the blows radially outward to the rim, and the rim transmits the force of the blow to the prongs which are thereby driven into the wood. If the prongs were affixed to the rim at an angle, they would break off or be injured under the blows of the hammer. Hence it is necessary to have them disposed at the point of attachment in the plane of the rim. The means by which these tips may be rendered sufficiently hard to prevent them from being malformed in use is well known to those skilled in the art.

My improved tips embody many advantages over the furniture casters now in general use. They can be made and sold at much less cost; they can be quickly applied without any previous preparation of the object to receive them; they permit the object to be moved easily over rugs or carpets without injuring them; they permit the object to move instantly in any direction, while the ordinary caster frequently sets itself against the desired direction of movement, thus necessitating the employment of

considerable force and frequently injuring the fabric of the floor covering; and when applied they are invisible and do not appreciably increase the height of the object to which they are applied.

I claim—

In an article of manufacture, a tip for supporting wooden chairs and the like, adapted for contact with a support therefor, 10 consisting of a continuously curved convex portion of smooth sheet metal having an upturned rim continuously connected to said convex portion around its perimeter, and prongs of said sheet metal integral with said 15 rim, projecting substantially in the plane

thereof at the point of attachment, and adapted to be driven by the blows of a hammer into the wood of the article to be supported, said convex portion, rim and prongs, having a resisting power to the blows of said 20 hammer sufficient to substantially prevent the flattening or breaking thereof, whereby said tips may be attached without malformation or fracture.

In testimony whereof I affix my signature, 25 in presence of two witnesses.

HENRY MATTHEW ALLEYN.

Witnesses:

H. D. JAMESON,

A. NUTTING.