Aug. 12, 1924. 1,504,822

E. HESS

MEANS FOR MAKING CASTS

Filed Jan. 18, 1923

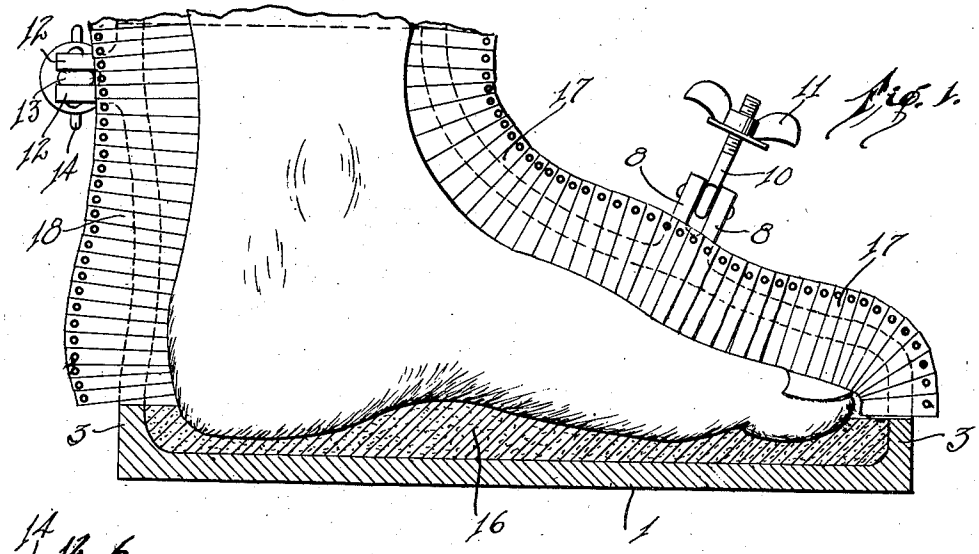


Fig. 1.

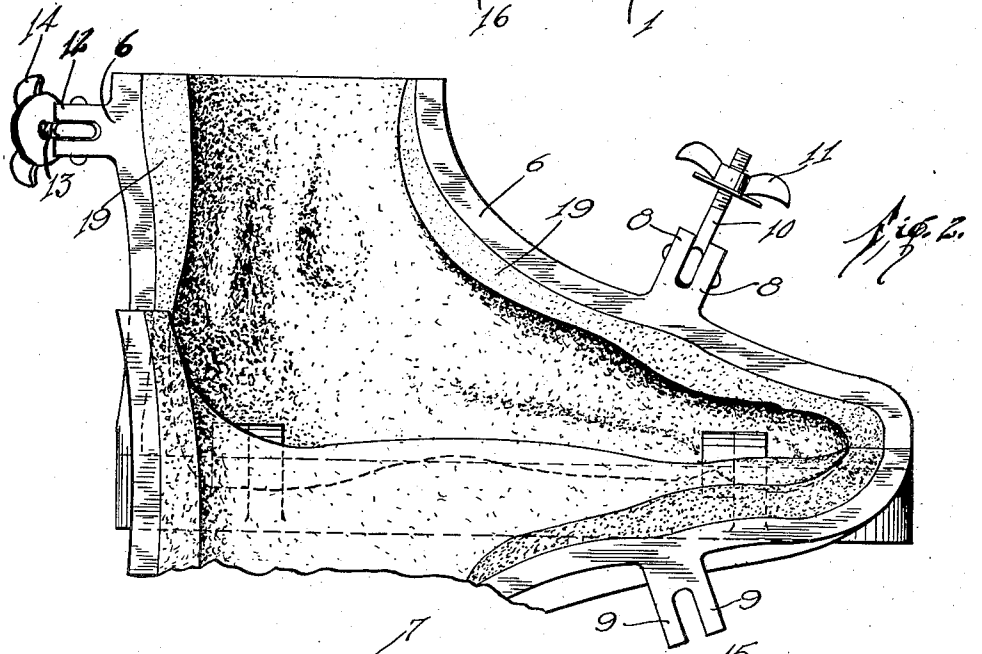


Fig. 2.

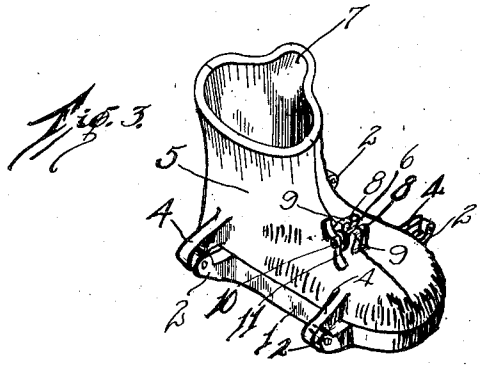


Fig. 3.

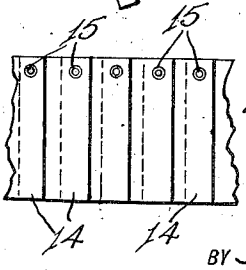


Fig. 4.

INVENTOR
E. Hess
BY Munn & Co.
ATTORNEYS

Patented Aug. 12, 1924. 1,504,822

UNITED STATES PATENT OFFICE.

EZRA HESS, OF WARSAW, INDIANA.

MEANS FOR MAKING CASTS.

Application filed January 18, 1923. Serial No. 613,480.

To all whom it may concern:

Be it known that I, EZRA HESS, a citizen of the United States, and a resident of Warsaw, in the county of Kosciusko and State of Indiana, have invented a new and useful Improvement in Means for Making Casts, of which the following is a full, clear, and exact description.

My invention relates to means for making casts, especially casts of the foot, preparatory to fitting the foot with boots or shoes.

An object of my invention is to provide a mold by means of which a clerk in a retail shoe store or a custom boot and shoe maker can readily obtain a cast of a customer's foot, which cast he can make use of in fitting or making boots or shoes with the utmost accuracy.

A further object of my invention is to provide a device for making casts, which is relatively simple in construction, and by means of which a cast can be readily made.

A further object of my invention is to provide a device of the type described, consisting of a receptacle having hinged sides which form a backing or exterior portion of a mold, the two portions being normally supported when the mold is being made by parting strips which are made of a plurality of hinged sections, so as to follow the contour of the foot and thus permit the mold to be opened up after it has set, so that the foot may be withdrawn therefrom.

A further object of my invention is to provide a novel form of parting strip to be used with molds of the type herein mentioned, which will facilitate the making of the molds.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which—

Figure 1 is a sectional view through a portion of the receptacle, showing the foot in position, with the parting strips in contact therewith,

Figure 2 shows the interior of one-half of the completed mold,

Figure 3 is a perspective view of the receptacle, and

Figure 4 is a detail view of a portion of one of the parting strips.

In carrying out my invention, I make use of a receptacle, such as that shown in Figure 3. This, as will be observed, has the general contour of a shoe. It is preferably made of metal, such as aluminum or the like, and comprises a base portion 1, having laterally extending lugs 2 on each side thereof. The base portion, as will be observed from Figure 1, is provided with an integral flange portion 3 around the periphery thereof. This leaves a dish-like receptacle portion, whose purpose will be explained later.

Hingedly secured to the lugs 2 by means of laterally extending arms 4, is a member 5 which corresponds in shape to one-half of the upper of a shoe. A similar portion 6 constitutes the other half of the receptacle. The member 6 has arms 4 which are hinged to the lugs 2, and at its top is provided with a lip 7. The member 6 is provided with upstanding lugs 8 which are contiguous to similar lugs 9 on the member 5, when the receptacle is closed. A hinged bolt 10 is carried by the lugs 8, and is provided with a nut 11. The receptacle is designed to be locked or clamped in position by means of the nut 11, the bolt 10 entering between the pairs of lugs 8 and 9, as clearly shown in Figure 3. A similar locking means is provided at the rear, where the member 6 has two lugs 12, to which is hinged the bolt 13, bearing a nut 14, the bolt being arranged to swing between two similar lugs (not shown) on the member 5 to lock the rear portion of the member 5 to the member 6.

The parting strips consist of a series of rectangular pieces 14 (see Figure 4) which overlap, one strip being secured to the other by a pivotal connection 15, such as an eyelet. The strips 14 are relatively narrow, and this permits the parting strip as a whole to be bent to follow the contour of the foot.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. In making a cast, the device is placed upon a firm support, such as the floor, and the two side members 5 and 6 are unclamped, opened up, and laid back on the floor. Plaster of Paris is mixed with water to the proper consistency, and is then placed in the dish-like portion 1. The foot, having been treated with some material to prevent the sticking of the plaster to the foot, such as paraffine or the like, is now placed in the plastic mass, and forced downwardly, thus

forcing the excess plaster over the edges of the dish-like receptacle portion 1. The plaster of Paris is allowed to harden, but before it hardens the excess plaster is cut away down to the top of the flanges 3, thus leaving the bottom part of the mold as shown at 16 in Figure 1. The top edges of the flanges are now treated with paraffine or the like, after which, with the foot centrally in position, the sides 5 and 6 are closed. A front parting strip 17 is slipped in between the contiguous edges of the front portion of the receptacle, while a similar parting strip 18 is slipped in at the rear. These parting strips are pushed in as far as they will go, and they follow the contour of the foot, as clearly shown in Figure 1. The members 5 and 6 of the receptacle are now clamped together in the manner already described, the interior of the members 5 and 6 having been previously treated with paraffine or the like to permit an easy separation of the plaster of Paris from the metal, when desired. Plastic plaster of Paris is now poured in at the lip 7 around the foot, until the receptacle is filled to the top. This plaster of Paris is allowed to harden and forms the inner portion 19 of the mold, the outer portion being formed by the members 5 and 6 themselves.

After the plaster of Paris is set, the nuts 11 and 14 are unscrewed, and sides are opened up, and, owing to the use of the parting strips 17 and 18, the mold will be opened up to permit the removal of the foot. A mold will now be made which is capable of reproducing the contour of the foot exactly. All that is necessary to do is to treat the inner face of the mold with the parting material, such as paraffine or grease, and then pour plastic plaster of Paris in the mold, and let it harden. Now, upon opening up the mold, the cast may be removed.

It will be observed that my invention is in the nature of a mold making device. As stated before, the mold consists of two portions, the outer metallic backing or receptacle, and the inner lining of plastic material, such as plaster of Paris.

When it is desired to take the cast of another foot, the inner lining is knocked out, and receptacle is cleaned, and the process may be repeated as above.

The use of this device obviates the necessity of having a plurality of molds, since it permits the making of any number of molds with the use of the one receptacle.

I claim:

1. A mold making receptacle comprising a dish-shaped bottom portion, a pair of side portions hinged to said bottom portion, a flexible parting strip adapted to enter between the edges of said side portions, and means for clamping the side portions and to conform to the contour of an object in said receptacle together to hold said parting strip in position.

2. A mold making receptacle comprising a dish-shaped bottom portion, sides hinged to said dish-shaped bottom portion, a front and a rear parting strip disposed between the edges of the contiguous sides, said parting strips being arranged to engage the exterior of an object within the receptacle and to conform to the contour of said object and a front and a rear clamp for securing said parting strips in position.

3. The combination with a mold making receptacle, having a bottom and sides hinged thereto, of a parting strip, said parting strip comprising a plurality of overlapping members, each of said members being pivotally connected near one end to the adjacent member.

EZRA HESS.