Nov. 2, 1943. J. LIMMER 2,333,481

MEANS FOR MAKING FOOT IMPRESSIONS

Filed Oct. 2, 1942 3 Sheets-Sheet 1

Fig. 1.

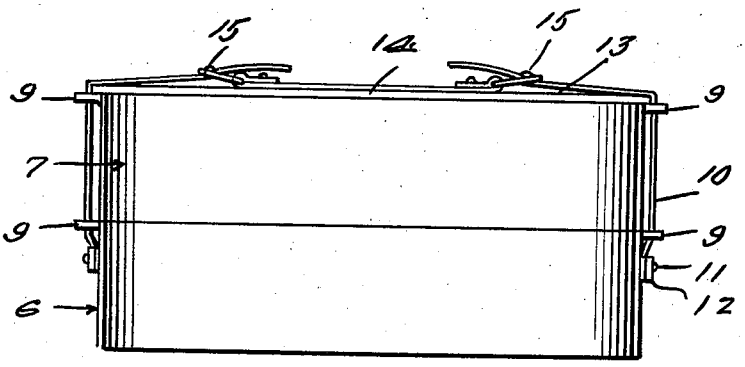
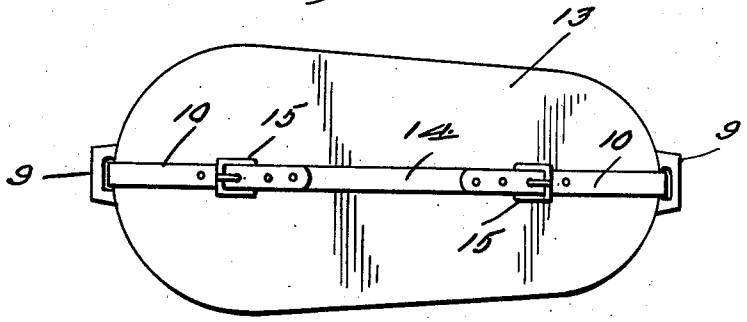
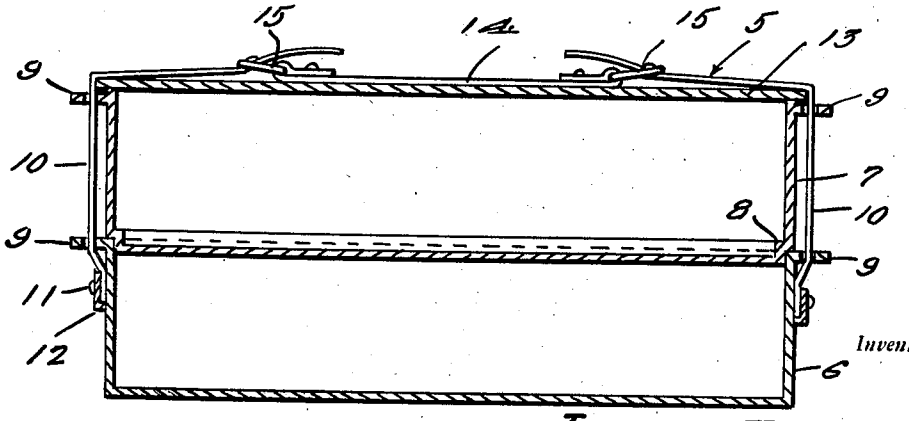


Fig. 2.





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Fig. 3.

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Nov. 2, 1943. J. LIMMER 2,333,481

MEANS FOR MAKING FOOT IMPRESSIONS

Filed Oct. 2, 1942 3 Sheets-Sheet 2

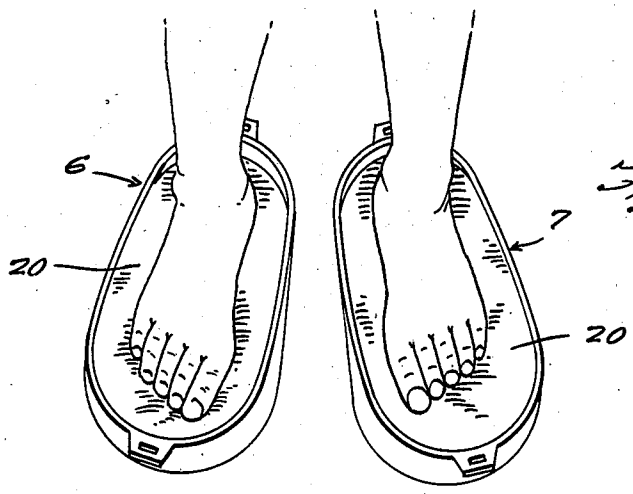


Fig. 4.

Fig. 5.

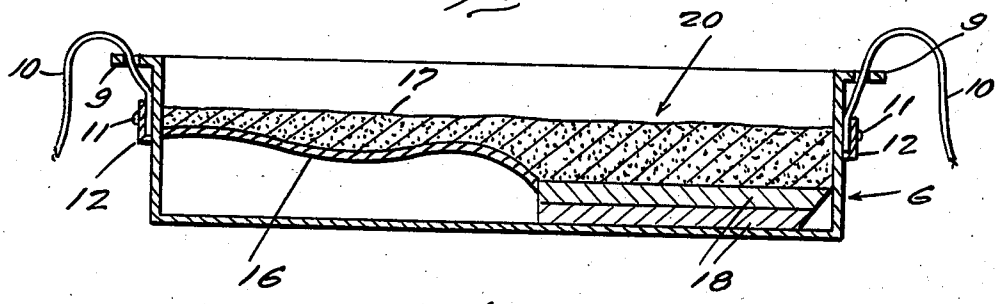
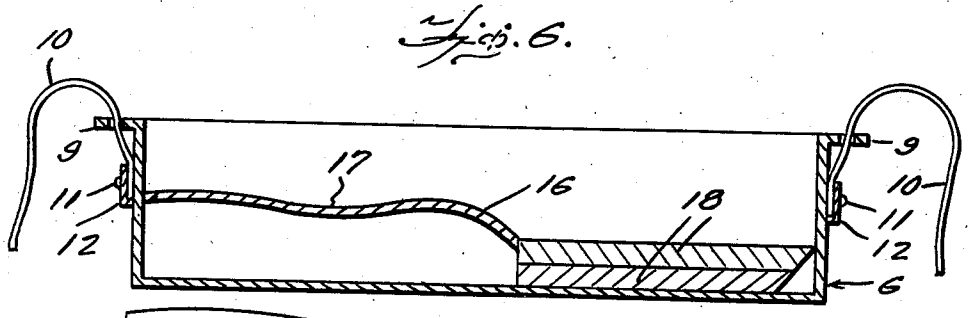


Fig. 6.



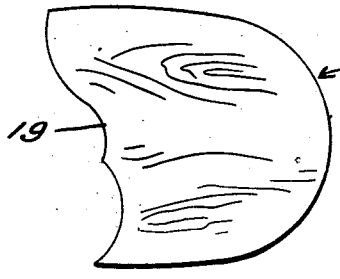


Fig. 7.

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Nov. 2, 1943. J. LIMMER 2,333,481

MEANS FOR MAKING FOOT IMPRESSIONS

Filed Oct. 2, 1942 3 Sheets-Sheet 3

Fig. 8.

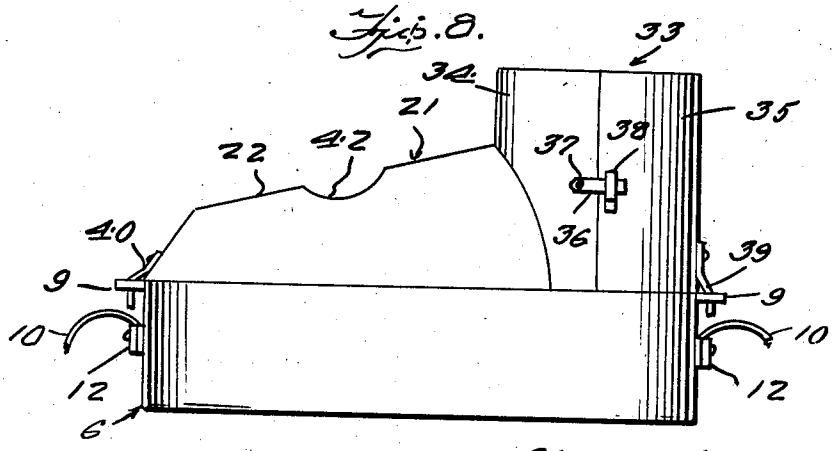


Fig. 10.

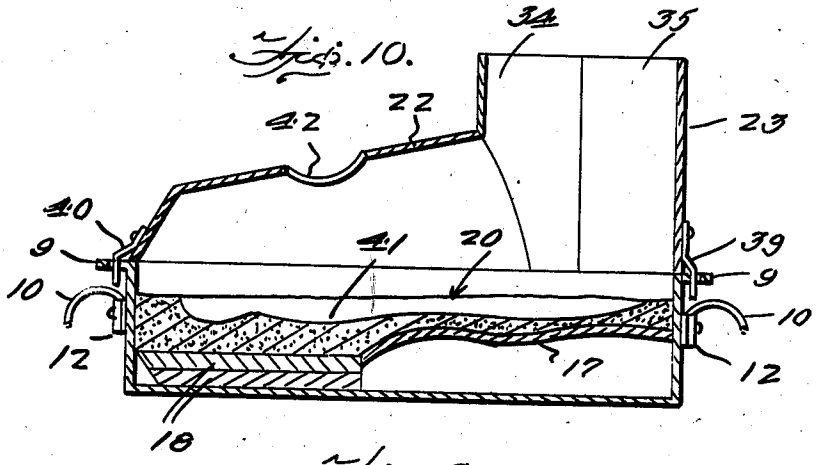


Fig. 9.

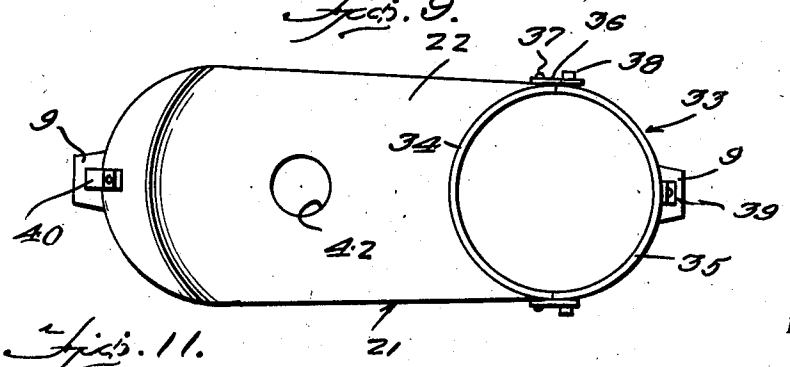
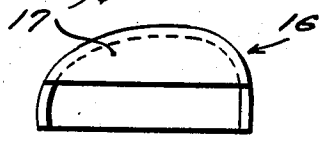


Fig. 11.



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UNITED STATES PATENT OFFICE

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MEANS FOR MAKING FOOT IMPRESSIONS

Joseph Limmer, Newburgh, N. Y.

Application October 2, 1942, Serial No. 460,572

1 Claim. (Cl. 18—5)

The invention relates to improved means for facilitating the taking of impressions and making casts of the feet, the primary object of the invention being to provide means of this character whereby the impressions may be taken very quickly and easily and without necessitating either shaving or oiling of the feet of which impressions are to be taken.

Another important object of the invention is to provide apparatus of the character indicated in a compact and portable form whereby the operations effecting impressions and making casts therefrom can be performed efficiently and easily at any desired place.

Other important objects and advantages of the invention will be apparent from a reading of the following description taken in connection with the appended drawings, wherein for purposes of illustration preferred embodiments of the invention are shown.

In the drawings—

Figure 1 is a general side elevational view showing the left and right hand impression boxes in nested assembled relation for carrying or storage.

Figure 2 is a top plan view of Figure 1.

Figure 3 is an enlarged longitudinal vertical sectional view taken through Figure 1.

Figure 4 is a top perspective view showing impressions being taken of the left and right feet, utilizing the left and right boxes of the invention.

Figure 5 is an enlarged longitudinal vertical sectional view taken through one of the boxes and showing the impression taking material therein as well as a multiple heel lift.

Figure 6 is a view similar to Figure 5 but with the impression taking material removed.

Figure 7 is a top plan view of one of the heel lifts.

Figure 8 is a general side elevational view showing the casting hood in place on one of the impression taking boxes.

Figure 9 is a top plan view of Figure 8.

Figure 10 is a longitudinal vertical sectional view taken through Figure 8.

Figure 11 is an end elevational view of one of the removable arch plates which are used in the impression taking boxes.

Referring in detail to the drawings, the numeral 5 generally designates the assembled article consisting of a lower impression taking box 6 which is of an elongated oval form and which may be either the left or the right foot impression taking box, and the upper impression taking box 7 having a peripheral groove 8 formed in the lower edge thereof to provide a portion telescoping into the upper end of the lower box 6 and a shoulder resting upon the upper edge of the lower box as indicated in Figure 3 of the drawings, whereby the boxes are securely assembled. Both boxes have at their opposite ends slotted ears 9 to pass the assembling straps 10 which are tethered by fastening means 11 at their lower ends in brackets formed on and spaced from the ends of the lower box 6. The straps 10 pass upwardly through the slots of the ears 9 and then longitudinally inwardly along the flat cover plate 13 which rests on the upper end of the upper box 7, where the connecting strap 14 having buckles 15 at its opposite ends adjustably connect the straps together in stretched relation.

Removably mounted on the bottom and between the sides of each impression box is a hollow inverted preferably metal heel and arch support element 16 whose upper wall 17 is contoured to accommodate the heel and arch formations of the foot. As seen in Figure 9 the element 16 extends for only a portion of the length of the depression box. The space between the end of the element 16 and the adjacent end of the impression box provides location for one or more height adjusting blocks 18 which are rounded to fit the adjacent end of the box and have their opposite ends 19 convoluted to conform with the curvatures of the fore-part of the element 16. As indicated in the drawings the top of the uppermost lift 18 is constantly below the elevation of the arch and heel support 16.

When it is desired to take an impression of a foot, the impression box corresponding to the foot is arranged as described above and then a body 20 of compressible impression taking material, similar to putty, is introduced and spread upon the heel and arch support 16 and upon the toe lifts 18 and between the sides and ends of the box as illustrated in Figure 5 of the drawings, with the upper surface thereof comparatively level. The foot of which an impression is to be taken is then placed upon the impression taking body 20, by having the person stand in the box as illustrated in Figure 4 of the drawings. It is not necessary to either shave or oil the feet, the only preparation for the procedure of the present invention being the removal of the shoes and stockings or socks. The impression is complete and set in one or two minutes and the person then steps from the impression box.

The hood which is generally designated 21 in Figures 8, 9 and 10 is then or later placed successively on each one of the impression boxes in

the manner indicated in the drawings, the hood having the general plan shape of the upper edge of the corresponding impression box so that its lower edges rest upon the upper edges of the impression box as shown in Figure 10 of the drawings. The hood comprises a forwardly declining transversely rounded portion 22 which overlies the instep and toe portion of the impression box, and the ankle and heel receiving portion 23, which surrounds the ankle and heel portion of the foot and is connected to the portion 22. The heel and ankle portion 23 comprises the forward semi-circular stationary part 32 and the rearwardly removable section 35, the sections being assembled with respect to each other by means of latches 36 pivoted as indicated by the numeral 37 on the forward part 34 and engageable with keepers 38 on the removable section 35. The removable section has at its lower end an outwardly and downwardly projecting rigid finger to engage in the slot of the ear 9 of the impression box, while the forward terminus of the portion 22 of the hood has a generally similar rigid finger 40 for engaging in the slot of the remaining ear on the impression box.

The hood 21 is not utilized where only an impression of the bottom of the foot is desired. The hood is used only where a cast of the instep and/or ankle portions or heel portions of the foot are to be made, although if desired the hood may be utilized to protect and confine the pouring of the plaster of Paris or the like into the mold defined by the impression 41 made in the body 20, and the sides and ends of the box, even when taking only impressions of the bottom of the foot. In this case or in the case of making a cast of the bottom as well as other portions of the foot, the plaster of Paris is introduced through the opening 42 formed in the forwardly defining portion 22 of the hood, following which the hood is removed and the cast itself is removed to dry and harden.

After removal of the plaster of Paris cast the putty or similar body 20 may be reworked and smoothed out for another impression taking operation.

One suitable putty-like material for use in the device of the invention consists of a mixture of substantially

	Per cent by weight
Whiting	65
Sand	25
Cottonseed oil	8
Betanaphthol	2

Although there are shown and described herein preferred embodiments of the invention it is to be definitely understood that it is not desired to limit the application of the invention thereto except as may be required by the scope of the subjoined claim.

Having described the invention, what is claimed as new is:

Apparatus for taking impressions of and forming casts of feet, said apparatus consisting of a left and right impression box, each consisting of a pan-like form, one of said boxes having a laterally reduced portion to telescope into the upper end of the companion impression box in the assembled portable relation of the boxes, and means releasably securing the boxes in assembled relation, each box having a removable heel and arch support lying on the bottom thereof, and a vertically adjustable toe lift, and a body of putty-like impression taking material overlying said heel and arch support and said toe lift.

JOSEPH LIMMER.