

Jan. 19, 1943.

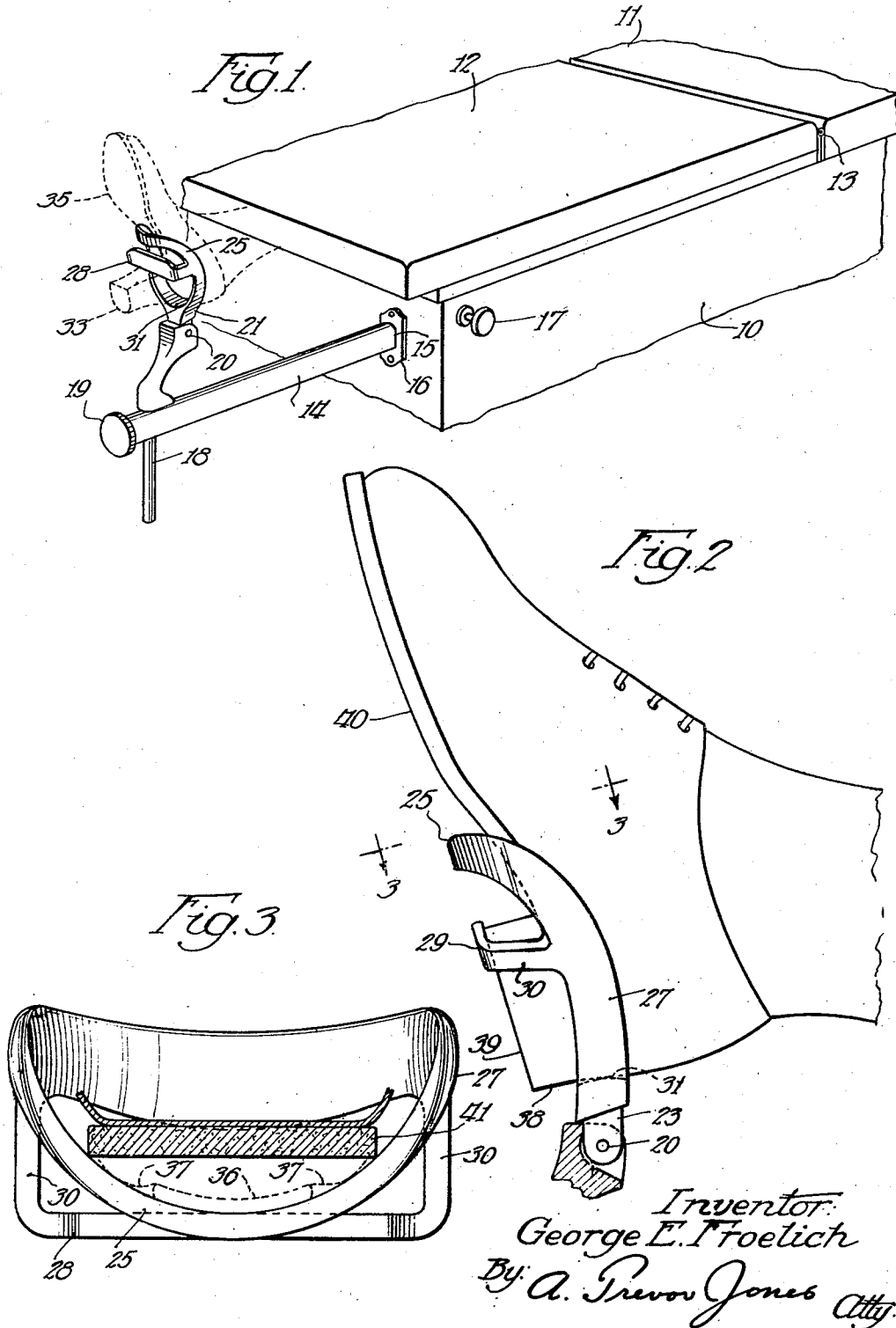
G. E. FROELICH

2,308,747

STIRRUP FOR PHYSICIANS EXAMINING TABLES AND THE LIKE

Filed April 20, 1942

2 Sheets-Sheet 1



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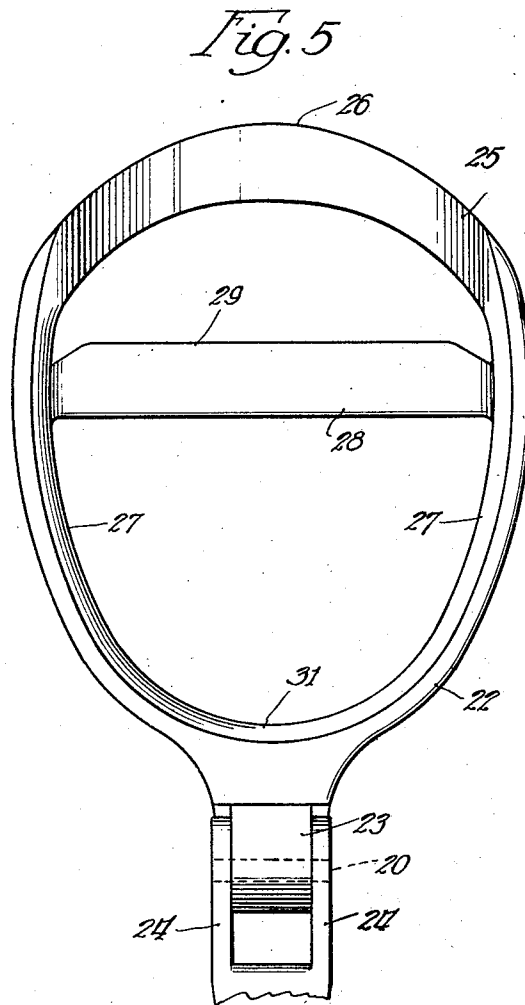
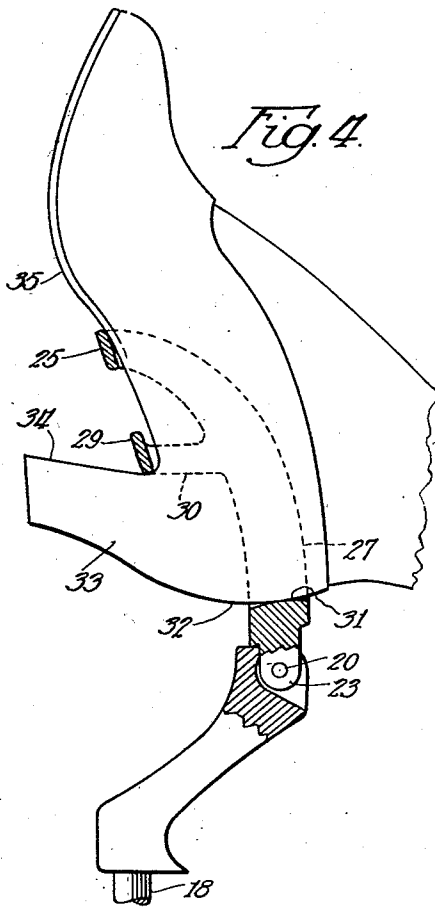
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UNITED STATES PATENT OFFICE

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STIRRUP FOR PHYSICIANS' EXAMINING
TABLES AND THE LIKE

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Application April 20, 1942, Serial No. 439,686

2 Claims. (Cl. 311—11)

This invention relates to improvements in stirrups for physicians' examining tables and the like of the type in which the stirrup is provided by a rigid loop usually of metal disposed in upright position when in use generally on a stirrup rod mounted on an extension arm slidable toward and from the foot end of the table, there being a stirrup at each side of the table for each foot of the patient.

One of the difficulties with such stirrups in the past has been that the same stirrup is not suitable to receive both a man's shoe and a woman's shoe interchangeably, and that if the stirrup is made of a size sufficiently large to receive a man's shoe it will permit a woman's shoe to slip there-through. Furthermore, even if made large enough to receive a man's shoe, the ordinary loop stirrup is one which merely braces the foot and requires the patient, either man or woman, more or less consciously to hold the foot in position to be so braced. It will be understood that in the use of the examining tables of this type, customarily it is not necessary for the patient to remove the shoes from the feet when using the table.

Among other objects, the present invention aims to provide an improved stirrup of this type which is self-adapted to receive either a woman's shoe or a man's shoe without permitting the shoe to slip there-through. Furthermore, the present improved stirrup itself dictates the different respective positions for a man's shoe or a woman's shoe received therein and makes it unnecessary for the patient to consciously hold the foot in such position that the shoe is so received so as to provide the maximum comfort to the patient.

These and other objects and advantages will be apparent from the following description, taken together with the accompanying drawings, in which—

Figure 1 is a perspective fragmentary view of one corner of the foot end of such an examining table with which a stirrup embodying the present invention is associated, in this instance a woman's shoe being shown received therein;

Figure 2 is an enlarged elevational view of the same stirrup receiving a man's shoe therein;

Figure 3 is a further enlarged plan view of the stirrup and being an enlarged section taken on the line 3—3 of Fig. 2, with Fig. 3 rotated ninety degrees, showing in full lines a section of a man's shoe and instep and in dotted lines indicating the somewhat different position which a cross-section of a woman's shoe and instep may occupy;

Figure 4 is a view somewhat similar to and on

the scale of Fig. 2 but showing a vertical section of the stirrup instead of a side elevation and indicating in side elevation how a woman's shoe may be received therein; and

Figure 5 is a rear elevational view of the stirrup itself on the scale of Fig. 3.

Referring in detail to the drawings, 10 is the body, in this instance of cabinet form, of an examining table, the upper surface of which supports the padded rest members 11 and 12 and upon which the patient reclines. These rest members may be hinged together as at 13 and one or both of them may be elevatable from the table top on this hinge by means which is well known to the art and need not be here described. The stirrup arm 14 may be slidable in and out of the table body 10 through a slot 15 in the plate 16, and the table may carry an adjustable gripping means 17 for frictionally retaining the arm 14 in selected in or out position as desired, for example, as shown in my prior Patent No. 2,223,784 of December 3, 1940. Also as shown in that patent, the arm 14 carries a stirrup rod 18 which is adjustable vertically on the arm as by a hand clamp 19 and at the upper end of the rod 18 is pivoted as at 20 the stirrup proper 21, this being pivoted at 20 so that it is limited in its forward movement to a somewhat vertical position as shown in the drawings but when not in use may be dropped rearwardly and when the arm 14 is fully retracted toward the cabinet, the stirrup proper 21 may lie somewhat horizontally underneath the elevatable padded rest member 12, which may be recessed upwardly on its under side for this purpose, thus concealing the stirrup and minimizing the mechanical aspect of the examining table so as desirably to put the patient more at ease.

In accordance with my present improvement and turning first to Fig. 5, I have shown the stirrup as comprising a loop member 22 conveniently formed of metal and having the lug 23 at its bottom which is received between the plural jaws 24 at the upper end of the rod 18, the pivot 20 being provided by a pin passing through the jaws 24 and lug 23. The upper or bight portion 25 of the loop member 22 is desirably tapered in oval form to come somewhat to a peak as at 26 for a purpose presently more particularly pointed out. As shown in the drawings, the bight is desirably arcuate both in an up and down direction as well as from front to rear. Further in accordance with the present invention, the sides 27 of the loop member 22 are connected by an auxiliary cross-piece 28.

As best seen in the other figures of the drawings, the bight portion 25 of the stirrup loop member 22 is offset forwardly of the loop sides 27, and following the present invention, the web portion 29 of the stirrup cross-piece 28 is also offset forwardly of the plane of the loop sides into the region of the bight, the cross-piece 28 thus having the right-angularly bent fillet portions 30 at each end which connect the web portion 29 with the loop sides (Fig. 3). Thus, when a shoe is received in the stirrup member with, say, the back of the heel resting in the bottom 31 of the loop, the sides 27 of the loop limit lateral movement of the shoe while the heel is supported against further forward movement by the cross-piece 29 and the sole is comfortably and snugly received in the bight portion 25. For this purpose, my improved stirrup is self-adapted equally to various types of shoes and particularly the quite different types generally worn by men and women respectively, as next more specifically described.

Considering particularly first the adaptability of the present device for a woman's conventional high-heeled shoe, it will be seen from the drawings and particularly Fig. 4 thereof how the back 32 of the heel 33 of the shoe may rest in the bottom of the stirrup loop while the heel itself passes between the loop bottom and the cross-piece 28 but is limited in its forward movement by the web 29 of the cross-piece, which, in some instances, may abut the forward surface 34 of the heel adjacent where the heel merges into the sole 35 of the shoe. At the same time, for further comfort and security of repose the sole in-step as indicated at 36 (Fig. 3) is received in the bight 25 of the stirrup loop with the woman's foot generally extending laterally somewhat wider than the shoe instep itself, as indicated diagrammatically by the broken lines 37. Since the bight of the loop is somewhat ovally peaked as at 26 as already indicated and is arcuate in two directions, the bight adapts itself to various widths of insteps while providing the high degree of prevention against lateral movement of the foot and thus a maximum of comfort.

Turning now to the consideration of the adaptability of the device for a man's shoe and as shown in Fig. 2, the back 38 of the man's heel 39 may rest in the bottom of the stirrup loop and the man's heel 39, larger than the woman's heel, instead of passing between the sides 27 and the cross-piece 28, may rest on the web 29 of the cross-piece, while the sole 40 of the man's shoe is received in the bight 25 of the loop. Here again, because of the desirably arcuate oval peaked form of the bight as at 26, the wider man's shoe, as best seen in Fig. 3, has its instep 41 describing a

larger chord of the bight but still contacting it for lateral support and comfort. Because of the desirable conformation of the bight already referred to, both the instep of the man's shoe and the instep of the woman's shoe, although describing chords of different length, both contact laterally with the sides of the bight and are thus supported against lateral movement.

So constructed and arranged, equally in the case of either a man's or a woman's shoe, the patient is relieved of the necessity of holding the foot consciously in the stirrup in a given position therein or, unless that is done, experiencing a feeling of slipping. Instead, in this instance, the stirrup itself dictates the position of the shoe without conscious effort and the enhanced support prevents any feeling of slippage, thus contributing to comfort and relaxation of the patient which facilitates the work of the examining physician.

Having described my invention, what I claim is:

1. A stirrup for physician's examining table or the like embodying a loop member having a bight portion at its upper end against which the sole of a patient's shoe may rest, said bight portion being offset forwardly from the plane of the sides and bottom of the loop and formed at the top into an oval peak arcuate both up and down and from front to rear, the said sides being adapted to lap the shoe sides to limit lateral movement of the shoe, and a cross-piece extending between the sides connected to said sides and having a web portion also offset forwardly of the plane of the sides of the loop into the region of the bight whereby a shoe heel of larger size may rest against said web portion of the cross-piece while the back of the heel rests in the bottom of the loop and the sole rests against the bight portion and a shoe heel of smaller size may pass freely between the bottom of the loop and the cross-piece while the back of the heel rests upon the bottom of the loop and the sole against the bight portion to provide self-adaptation of the stirrup to men's and women's shoes.

2. A stirrup for physician's examining table or the like embodying a loop member having a bight portion at its upper end against which the sole of a patient's shoe may rest, said bight portion being offset forwardly from the plane of the sides and bottom of the loop, the said sides being adapted to lap the shoe sides to limit lateral movement of the shoe, and a cross-piece extending between the sides connected to said sides and having a web portion also offset forwardly of the plane of the sides of the loop into the region of the bight.

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