Bed Stirrup for Pelvic Examinations

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ABSTRACT

A restraining device for keeping the thighs and knees far apart and enabling an efficient pelvic examination of a patient in a home or hospital bed without the use of an examining table with stirrups specifically means for that purpose.

10 Claims, 9 Drawing Figures

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BED STIRRUP FOR PELVIC EXAMINATIONS
This invention relates generally to obstetric devices and more particularly to a restraining device which maintains the lithotomy position and facilitates an efficient examination of the pelvic organs of a human female in a home or hospital bed.

At the present time, pelvic examinations in bed are often unsatisfactory to the patient and to the doctor because of the inability of the patient to relax her abdominable muscles. To lie in bed with hips and knees flexed requires a great deal of effort to prevent the feet from slipping out and away from the body, thus bringing the thighs together and making an examination all but impossible. To eliminate this problem, the patient is often told to put the soles of her feet together with her knees far apart. The feet still tend to slip forward, and, because of the muscular effort needed, there is at least moderate tension on the abdominal muscles, detracting from the efficiency of the examination.

The insertion of a dilating instrument such as a "Graves Speculum" into the vagina is painful because the handle is deflected by the mattress, and the speculum cannot be inserted into the vagina along its normal axis. Currently, to enable the speculum to be inserted along the axis, the buttocks of the patient are placed on an upside down bedpan which is not only unsteady but muscular effort must again be exerted by the patient to keep herself in place.

Accordingly, the chief object of the present invention is to provide a device for keeping the knees far apart with the abdominal muscles relaxed so that a good pelvic examination may be had in a home or hospital bed without requiring transfer to a table provided with stirrups specifically meant for that purpose.

An important object of the present invention is to provide a readily portable device for keeping the knees far apart and the feet together adjacent the buttocks without exerting the patient so as to ensure an efficient pelvic examination.

Another important object of the present invention is to provide a device of the type described which is readily adjustable for use with different size patients and which will facilitate the use of a light therewith and the elevating of a patient’s buttocks.

A further important object of the present invention is to provide an improved device of the type described which is simple to use, is susceptible of ready and economical manufacture, and will be of long life in use.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the drawings, I have shown two embodiments of the invention. In these showings:

FIG. 1 is a top plan view of one embodiment of the invention showing the bed stirrup holding the knees of a patient in spread apart position by holding the feet together close to the buttocks;

FIG. 2 is a top plan view of the adjustable strap about to be fastened about the waist of a patient;

FIG. 3 is a perspective view of another means for holding the feet together as shown in FIG. 1;

FIG. 4 is a top plan view of another form of the bed stirrup comprising the present invention showing the means for elevating the hips and for holding the knees apart but to a lesser degree;

FIG. 5 is a fragmentary side elevational view thereof showing a patient in position thereon;

FIG. 6 is a vertical, transverse sectional view thereof taken on the line 6–6 of FIG. 4, parts being shown in elevation;

FIG. 7 is a vertical sectional view of one of the foot restraining loops taken on the line 7–7 of FIG. 4;

FIG. 8 is a fragmentary top plan view similar to FIG. 4 showing the foot restraint similar to that of FIG. 1 adjustably positioned thereon for holding the knees further apart; and

FIG. 9 is an end elevational view of the foot restraint.

Referring to the drawings, numeral 10 designates as a whole the bed stirrup or restraining device of FIGS. 1 to 3 which broadly comprises means for holding the feet at such a distance from the buttocks as to hold the knees in a spread apart position to facilitate a pelvic examination or to maintain the lithotomy position. This comprises a foot restraint or stirrup 12 having a D-ring 14 positioned at the heel for the reception of a pair of straps 16 having pressure relieving slides 17 and which pass under the thighs of a patient, over the hips, and are adaptively connected over the pubis as by a D-ring, buckle, etc. 18.

The foot restraint 12 may employ a pair of slippers 20 disposable or reusable, whose soles are suitably united to the restraint 12 as by stapling, an adhesive, etc., and whose uppers are at least simple loops 22. Optionally, the pair of united, sole-to-sole slippers 20 may form the entire foot restraint or stirrup as shown in FIG. 3, and a single adjustable strap running from D-ring 14, under one thigh back to the D-ring 14 could be employed. The insertion of a patient’s feet into the foot restraint 12 or slippers 20 and the passing of the strap about the patient’s body is readily accomplished.

When a pelvic examination involves the use of a speculum, the embodiment of the invention shown in FIGS. 5–8 is employed and includes a rigid, easily cleanable plate 26 of any suitable, lightweight material which is placed under a patient and extends above the hips as shown. The patient’s buttocks will rest on a contour shaped, inclined support 28 with the highest portion facing toward the feet. The support 28 is pivoted to the plate 26 as at 30 so that wedges or any handy objects (not shown) may be placed under the highest portion to vary the height of the buttocks. The plate 26 is provided with an aperture 32 adjacent the buttocks supporting portion of the support 28 to accommodate the handle of a speculum (not shown).

A foot restraint or double stirrup 34 similar to that shown in FIG. 1 is adjustably positioned in spaced apertures 36 formed in the plate 26 by means of spaced prongs 38 (FIGS. 4, 8 and 9) and is provided with foot receiving loops 40 to retain the patient’s feet in substantial sole-to-sole position to obtain a maximum spreading of the knees. Where less spreading of the knees is necessary for an efficient pelvic examination, additional and individual foot restraints are provided and are adjustably positioned in spaced apertures 44 positioned along the sides and at the foot of the plate 26 by the depending prongs 46 of U-shaped members 48 to which a foot retaining loop 50 is secured (FIGS. 4, 5, 7 and 8). To aid in the examination, a portable flashlight 52 may be suitably mounted on the plate 26 as shown.

It will now be readily apparent that the weight of a patient’s buttocks in the contoured support 28 together with the foot restraints 34 or 50, will retain the feet at a desired distance from the buttocks and ensure that
the knees and thighs are retained in a spread apart position. A pair of D-rings 54 are mounted at opposite sides of the plate 26 at its upper or left end (FIG. 4) for the reception of restraining straps 56 which may be positioned about the shoulders or body of a patient to offset any tendency she might have to push downwardly on the foot restraints and thus displace her buttocks from the inclined and contoured support 28. If cushioning is desired thereon, a strip 58 (FIG. 4) of non-skid tape may be used to enable a cushioning pad (not shown) to be used without slipping.

It is to be understood that the forms of the invention herewith shown and described are to be taken as preferred examples of the same and that various changes in the shape, size, and arrangement of parts may be resorted to without departure from the spirit of the invention or the scope of the subjoined claims.

What is claimed is:

1. A portable, lightweight device for facilitating the pelvic examination of a human body comprising, in combination, a stirrup for receiving and restraining the feet of the body in substantially sole-to-sole position, and means connected with said stirrup and engageable with the body adjacent its buttocks for maintaining the thighs in a spread apart condition with the feet positioned adjacent the buttocks of the body.

2. The combination recited in claim 1 wherein said connected means comprises at least one strap.

3. The combination recited in claim 1 wherein said connecting means comprises a molded support for receiving the buttocks and a plate supporting said support and said stirrup.

4. The combination recited in claim 3 wherein an aperture is formed in said plate between said stirrup and said support to receive the handle of a speculum.

5. The combination recited in claim 3; and restraining strap means mounted on said plate and engageable with said body to maintain the feet adjacent to the buttocks.

6. The combination recited in claim 3 wherein said molded support is inclined to elevate the buttocks.

7. The combination recited in claim 6 wherein said molded support is hinged to said plate to enable adjustment of the height of the buttocks.

8. A portable, lightweight device for facilitating a pelvic examination of a human body comprising, in combination, a rigid plate adapted to be placed under the body; a contoured support for receiving the buttocks mounted on said plate; and a pair of foot-receiving stirrups mounted on said plate adjacent said support to maintain the feet in sole-to-sole relation and the thighs in spread apart position.

9. The combination recited in claim 8 wherein said contoured support is inclined to elevate the buttocks.

10. The combination recited in claim 8; and restraining strap means mounted on said plate and engageable with said body to maintain the feet adjacent to the buttocks.

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