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APPARATUS FOR ATTACHING A MANOMETER TO A HOSPITAL BED

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Fig. 1

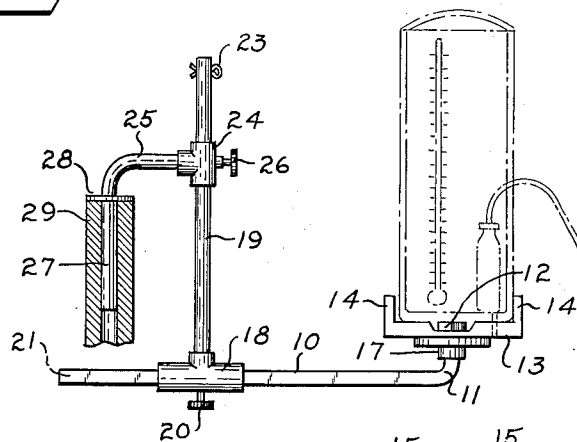


Fig. 2

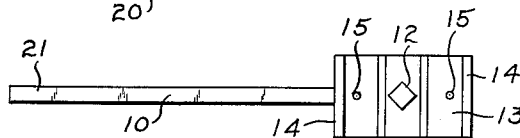
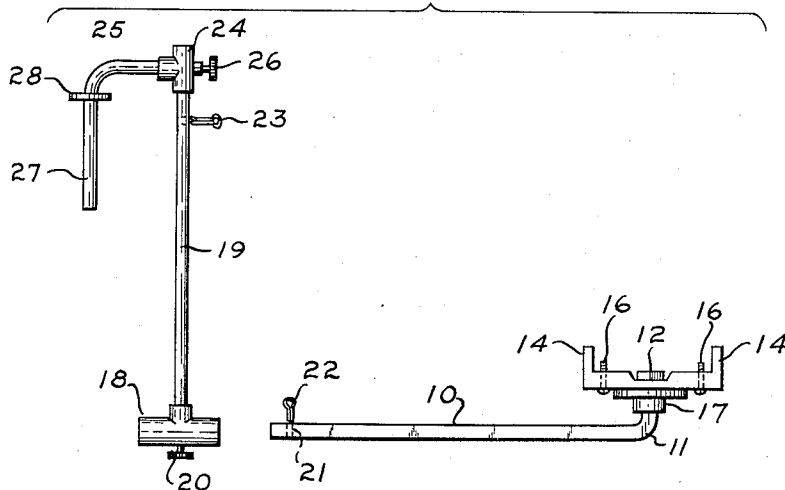


Fig. 3



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2 Claims. (Cl. 5—317)

This invention relates to a portable apparatus to facilitate repeated syphygomanometric blood pressure determinations at the bedside.

The blood pressure determination for evaluating the condition of patients is one of the most valuable single guides that we have at our disposal. Every surgical patient's blood pressure is routinely recorded on physical examinations, as well as before anesthesia, at regular intervals throughout anesthetic administration, and surgery, especially the post operative period. A permanent record for subsequent reference is obtained therefor. The evaluation of anti-hypertensive therapy also requires accurate, well documented blood pressure determinations over a long period of time.

The relative merits of various syphygomanometers have been the subject of numerous reports, the consensus being that both mercurial and aneroid types are capable of correct readings. The present invention provides an apparatus which is used as an adjunct to a standard mercury hospital manometer, which enables the nurse or other person to obtain accurate blood pressure determinations frequently with a minimum of trouble and inconvenience to the nursing personnel. The standard mercury hospital manometers in use today are in a flat case having a cover thereon, the cover opening up to form a 90° angle with the base, said cover having attached thereto the mercury manometer. This is usually set on the bed, chair, table or other nearby support, and the readings are taken. Due to the overbalancing or topheaviness of the cover when in open position, the device is difficult to maintain in proper position on the bed or other support, it tends to fall over while readings are being taken.

There have been devices in the past which are affixed to the bed in the nature of clamps, etc., to hold the manometer, but these are unsightly and expensive as each bed has to have an individual attachment thereon.

The present device is used with standard hospital mercury manometers and is applicable to standard hospital beds without interfering with the normal operations and function of the bed and the nurses.

The primary object of my invention therefore, is to provide a portable supporting means for a standard hospital mercury manometer.

A further object is to provide an adjustable device of this type which can be quickly adjusted to standing, sitting and recumbent blood pressure determinations of patients.

A still further object is to provide a device as described which can be attached and removed from any hospital bed in a moment.

A still further object is to provide a device as described which can be rotated out of the way or moved with the bed as desired.

A still further object is to provide a support for a manometer which can be easily attached and removed from the manometer, so that the manometer can be replaced in its case.

A still further object is to provide a support which gives excellent visibility and stability to a manometer permitting freedom of both hands to palpate the pulse and handle the bulb and valve simultaneously.

These objects I accomplish by means of such structure and relative arrangement of parts thereof, as will fully

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appear by a perusal of the description below and by various specific features which will be hereinafter set forth.

To the above cited and other ends and with the foregoing and various other novel features and advantages and other objects of my invention as will become more readily apparent as the description proceeds, my invention consists in certain novel features of construction and the combination and arrangement of parts as will be hereinafter more particularly pointed out in the claims hereto annexed and more fully described and referred to in connection with the accompanying drawings wherein:

FIG. 1 is a plan view of the support means shown inserted into an upright of a bed.

FIG. 2 is a top plan view of the manometer supporting portion of the device and the shaft attached thereto.

FIG. 3 is an elevational view showing the parts disassembled.

In the above mentioned drawings annexed hereto and forming a part of this specification, I have shown but one embodiment of my invention which is deemed preferable, but it is to be understood that changes and modifications may be made within the scope of the appended claims without departing from the spirit of the invention.

Referring now to the different drawings more in detail, in which similar characters of reference indicate corresponding parts in all the figures and referring more particularly to the preferred form of my invention selected for illustrative purposes, numeral 10 represents a bar member which is preferably square in cross section but may be hexagonal or any other suitable shape for a purpose to be described later. One end of said bar member 11 is formed into a cylindrical shape and bent at a right angle to the main portion and is threaded at its tip for engagement with a nut 12. Mounted for rotation on the end 11 is a manometer supporting member 13, having integral ears 14 perpendicular thereto. The supporting member 13 has bores 15 drilled therein to allow bolts 16 to pass therethrough and engage corresponding threaded bores in the manometer itself and hold the manometer and supporting member together. The supporting member 13 has a recessed portion in its center for the nut 12 so that the top portion of the supporting member 13 will have a plane surface and not interfere with the manometer when the device is assembled.

Beneath the manometer supporting member 13 and also mounted on the upturned end 11 is a stabilizing support 17. This may either rotate with the manometer support 13 or be fixed on the end 11 of the bar, and is for the purpose of giving more stability to the supporting member 13. If desired, ball bearings may be placed between the support 17 and the manometer supporting member 13 for smoother rotation.

Supporting the bar member 10 is a T-shaped member compressing a crosspiece 18 and an upright portion 19. The crosspiece 18 has a bore therethrough to receive the bar 10, said bore being of the same configuration as the bar so as to mate therewith and prevent rotation of said bar 10. A thumbscrew 20 is threaded and engages a threaded bore in the crosspiece 18, said thumbscrew when tightened, holding the bar 10 immovable in relation to said crosspiece. A transverse bore 21 in the end of the bar remote from the manometer holder receives a pin 22 to prevent removal of the crosspiece from the bar in normal usage.

The vertical portion of the T is cylindrical in shape and has a transverse bore in the end remote from the crosspiece 18. A pin 23 engages the bore for a purpose to be later described.

A second T-shaped member comprising a crosspiece 24 having a cylindrical bore therethrough and a vertical portion 25 is slidably mounted on the cylindrical portion 19 of the first named T-shaped member. In contrast to the

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first T-shaped member, the second T-shaped member is adapted for sliding and rotative motion on the vertical member 19. A thumbscrew 26 on the T-shaped member 24 locks the member 24 in any desired position on the vertical member 19. The end 27 of the vertical member 25 remote from the T is bent at a right angle to the portion adjacent the T. A flat plate 28 is attached to the end 26 and allows the end 26 to be positioned in a bed post 29 (shown fragmentarily).

In use, the manometer is removed from its case and attached to the supporting member 13 by the bolts 16. The end 26 of the T-shaped portion 24 is inserted into the bed post, then the vertical member 19 is moved up or down and rotated until the desired height and position is reached, then thumbscrew 26 is tightened to hold the parts in position. The bar 10 is then slid within T-shaped portion until the proper position is reached, when thumbscrew 20 is tightened. Due to the square, hexagonal or other shape of the bar 10 and the mating shape of the bore in the T-shaped portion 18, there is no rotation of bar 10, the manometer therefore, always being in an upright position.

Endless variations and modifications in size and shapes of my invention may be made to meet various needs, and I herein claim all such variations and modifications insofar as they fall within the reasonable spirit and scope of my claim, although I show only one example to disclose my invention.

It should, therefore, be understood that the particular embodiment of my invention disclosed herein is illustrative only, that my invention is not limited thereto, and that changes and variations in the size, shape, and location of elements, etc., etc., may all be resorted to without departing from the spirit of my invention and the scope of my claim. For to others skilled in the art it will appear from my invention and disclosure that many variations and modifications may be made without copying the specific structure shown. Therefore, I claim all such varia-

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tions and modifications insofar as they fall within the reasonable spirit and scope of my appended claims.

What is claimed is:

1. A device for attaching a manometer to a bed of the type having hollow end posts open at the top, comprising a cylindrical rod bent at a right angle and having a hollow T on one end and bed engaging means comprising a short length of said cylindrical rod having a stop plate thereon adapted to be positioned in the hollow end of said post on its other end, a second cylindrical rod being straight and having a hollow T on one end, and a third rod of polygonal shape having a right angle portion on one end thereof, and a rotatable manometer supporting platform on said end, said first named T slidably and rotatably mounting said second named rod therein, and said second named T slidably mounting said third named polygonal rod therein, each of said T's having a clamping thumbscrew thereon, whereby said rods may be slidably moved in said respective T's until the desired horizontal and vertical position of said manometer supporting platform is attained and said thumbscrews tightened.

2. A device as set forth in claim 1, said rotatable platform having manometer fastening means thereon said fastening means on said platform comprising integral ears on the sides and bolts extending through the bottom thereof, said bolts adapted to mate with corresponding bores in said manometer, whereby movement of said manometer in relation to said platform will be prevented in both vertical and horizontal directions.

References Cited in the file of this patent

UNITED STATES PATENTS

462,319	Loehner et al. -----	Nov. 3, 1891
1,550,981	McGarritty -----	Aug. 25, 1925
2,026,011	Wright -----	Dec. 31, 1935
2,492,383	Jones -----	Dec. 27, 1949
2,535,112	Woody -----	Dec. 26, 1950