May 31, 1960 M. E. HINSHAW 2,938,696

HOSPITAL BED-RAIL HOOK

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FIG. 1

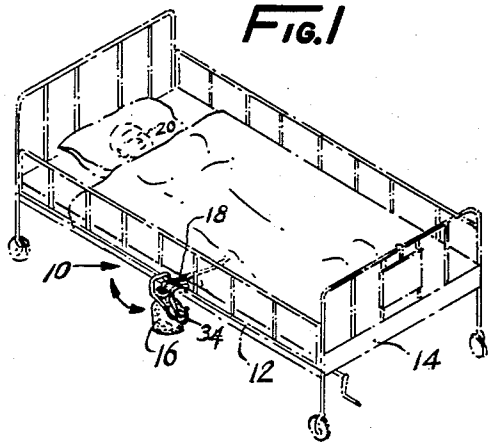



FIG. 2

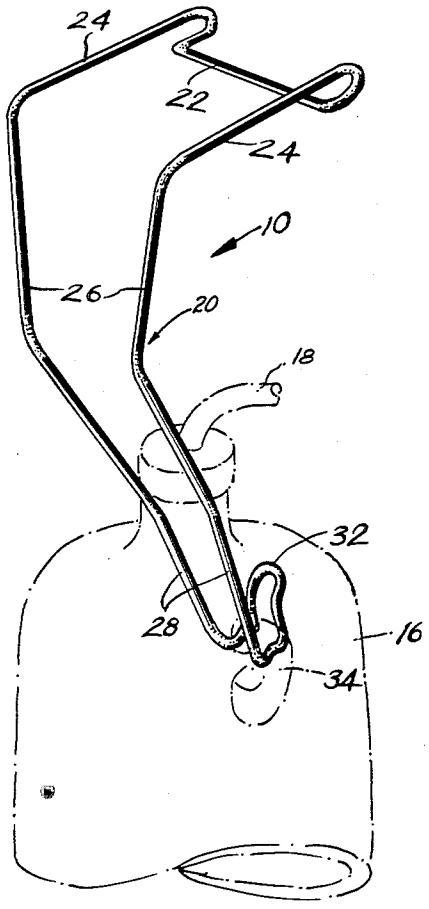
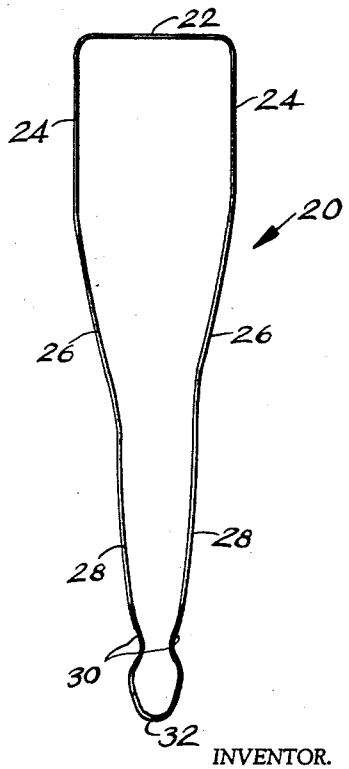



FIG. 3




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FIG. 4.

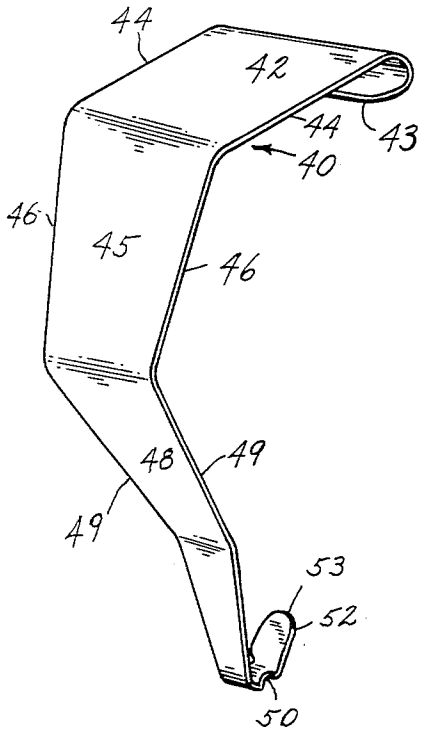
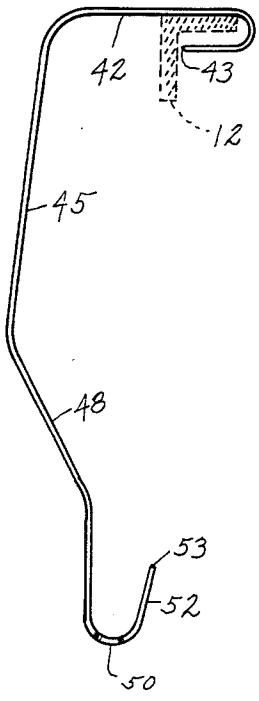



FIG 5.




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# HOSPITAL BED-RAIL HOOK

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3 Claims. (Cl. 248—215)

This invention relates to hopsital equipment and more particularly to a device for supporting a liquid storage vessel upon a bed rail.

It is the object of the present invention to provide an extremely simple and efficient hook for conveniently supporting a liquid storage vessel upon a side rail of a bed without the need for trying or otherwise further securing a storage vessel to the bed structure.

Another object of the present invention is to provide a bed rail hook of the above type that is entirely constructed from one piece of flat metal formed in the shape of a hook.

Still another object of the invention is to provide a bed rail hook of the above type that is entirely formed from a completely closed irregular wire frame of unusual weight supporting and shape retaining characteristics.

Other objects of the invention are to provide a hospital bed rail hook bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

Figure 1 is a perspective view of a hospital bed rail hook made from wire in accordance with the present invention in operative use;

Figure 2 is an enlarged perspective view of the bed rail hook shown in Figure 1;

Figure 3 is a plan view of a wire frame from which the bed hook made in accordance with the present invention is constructed;

Figure 4 is an enlarged perspective view of a bed rail hook, similar to the one shown in Figure 2, but formed of a single piece of flat metal stock, and

Figure 5 is a side elevational view of the flat metal type hook shown in Fig. 4 and in accordance with this invention, a portion of a bed frame shown dotted and arranged therewith.

Referring now more in detail to the drawing, a hospital bed rail hook **10** made in accordance with the present invention is shown in operative use supported upon the side rail **12** of the bed **14** for supporting a liquid storage vessel **16** directly therefrom. The liquid storage vessel **16** is of the type ordinarily used to store urine delivered thereto through a conduit **18** from a patient **20** that is bedridden.

As is more clearly shown in Figure 3 of the drawing, the hook **10** is entirely formed from a completely closed irregular shaped wire frame **20** having a substantially straight base end **22** with a pair of spaced apart parallel sides **24** that continue into a pair of converging central side arms **26** that are adjacent to a pair of slightly tapered side arms **28** immediately adjacent to the restricted segment **30** of a fingerlike terminal section **32**. It will be noted that this frame **20** is completely symmertical about a longitudinal central axis. The finished hook **10** illustrated in Figure 2 of the drawing is formed from the wire frame **20** by bending the fingerlike end **32** backwardly and upwardly toward the opposite base end **22** thereof. The base end **22** is, in turn, folded backwardly and downwardly into spaced apart parallel relationship with the parallel side element **24** to define a hanger portion for releasable supported engagement upon the side rail **12** of the bed. The section of the wire frame **20** intermediate the hanger portion and the finger portion is then bent to form the shape illustrated in Figure 2, such that the liquid storage vessel **16** carried upon the finger portion **32** which extends through the finger receiving loop **34** of the vessel, is disposed beneath the underframe of the bed **14**, out of the sight of the patient and out of the way of nurses, cleaning women, and other hospital attendants. It will be noted that both the finger portion **32** and the hanger portion **22** are offset laterally from the general plane of the central section of the device, both in the same direction so as to provide for this underslung type of support.

As clearly shown in Figures 4 and 5 of the drawing, the hook **10** is entirely formed from one piece of flat sheet metal stock producing a frame **40** having a base portion **42** embodying a terminal end portion **43** and spaced parallel sides **44**, said base continuing into an inwardly tapered arm **48** with sides **49** formed with a restricted portion **50** adjacent a finger like terminal portion **52** with curved end **53**. This frame **40** is also completely symmertical about a longitudinal contral axis. The finished hook **10** illustrated in Figures 4 and 5 is formed from thin sheet metal stock by bending the fingerlike end **52** backwardly and upwardly toward the opposite base end **42** thereof. The base portion **42** is, in turn, folded downwardly and backwardly into spaced apart parallel relationship to define a larger portion for releasable supported engagement upon the side rail **12** of the bed. The hook is so shaped with the finger portion **52** to extend through the finger receiving loop **34** of the vessel shown in Figures 1 and 2 and keep the vessel beneath the underframe of the bed **14**. This smooth, sheet metal type bed rail hook embodies at least one feature of improvement over the wire type in that the rollers on the lower side of the bed springs will roll over the base portion **42** with less trouble if the hook was so located to encounter a roller.

This device is preferably formed from stainless type metal of high strength characteristics so as to be completely durable and dependable in use.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What I claim as new and desire to protect by Letters Patent of the United States is:

1. A hospital bed rail hook for supporting a liquid storage vessel by its integral finger receiving handle comprising, an endless one piece closed irregular wire frame, said frame having a substantially straight rectangular shaped base portion with a pair of spaced apart parallel side rails, the rear end portions of said rails curved downwardly and forwardly and transversely forming a horizontal U-shaped hook portion arranged in parallel spaced relationship with said base portion for attachment to a bed rail, the forward end portion of said rails curved downwardly, forwardly and toward each other forming a tapered central portion with tapered side members, the lower ends of said tapered side members extending downwardly and rearwardly and toward each other forming a tapered arm portion with tapered arms, the terminal end portions of said tapered arms extending horizontally and rearwardly and upwardly toward said base portion forming a finger terminal portion with closed and

curved end, said horizontal portion adjacent said finger terminal portion being formed with a restricted segment, said segment forming means whereby the insertion of said finger terminal portion through the handle of the storage vessel will allow said restricted segment to support said vessel beneath said base portion of the hook when attached to a bed rail.

2. A hospital bed rail hook for supporting a liquid storage vessel by its integral finger receiving handle comprising, a one piece relatively thin and narrow strip of metal of substantially uniform thickness, the upper end of said strip of metal forming a rectangular shaped base portion and being extended rearly and horizontally, the rear terminal end portion of said base portion being curved downwardly and forwardly in parallel spaced relation therewith thereby forming a hook means for attachment to a bed rail, the forward end portion of said base portion extending downwardly and angularly outwardly forming a tapered central key-stone shaped central portion smaller at the bottom than at the top thereof, the lower end of said central portion extending downwardly and inwardly forming an inwardly tapered arm portion,



the lower terminal end of said arm portion extending upwardly and rearwardly toward said base portion forming a finger terminal portion with a curved end, a restricted portion arranged between said lower terminal end of said arm portion and said finger terminal portion forming a restricted means whereby when said finger terminal portion is inserted through the finger receiving handle of the storage vessel it will allow the restricted means to support said vessel beneath said base portion of said hook when attached to a bed rail.

3. The combination according to claim 2 wherein the metal frame is substantially symmetrical to a center longitudinal axis, the finger portion comprising a pointed tapered section, said tapered section being angularly related ot the plane of a central portion of said frame.

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