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BED BACK REST

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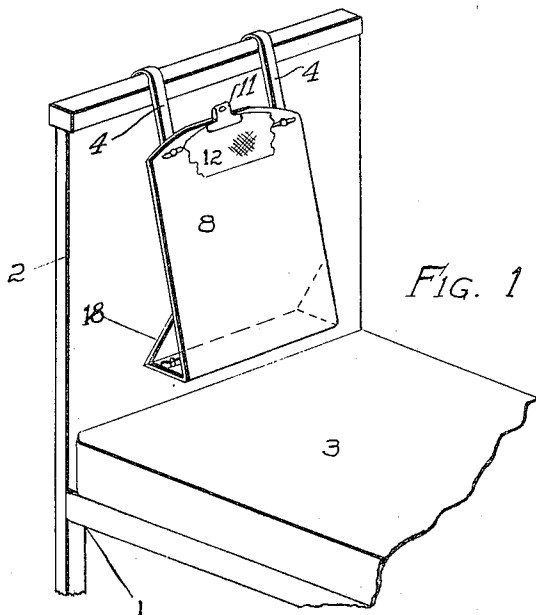


Fig. 1

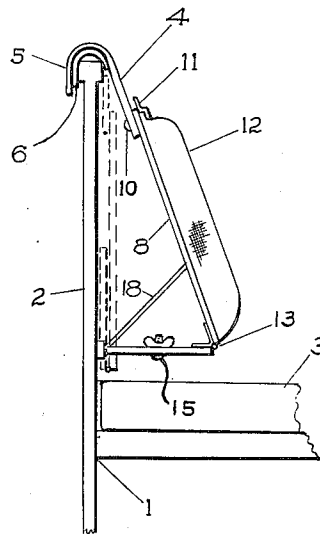


Fig. 2

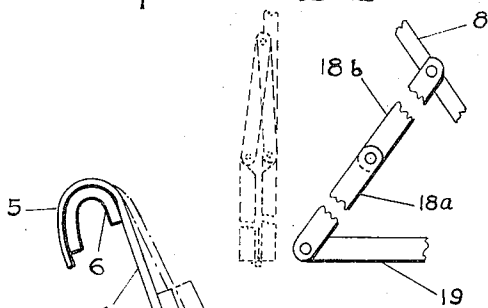


Fig. 3

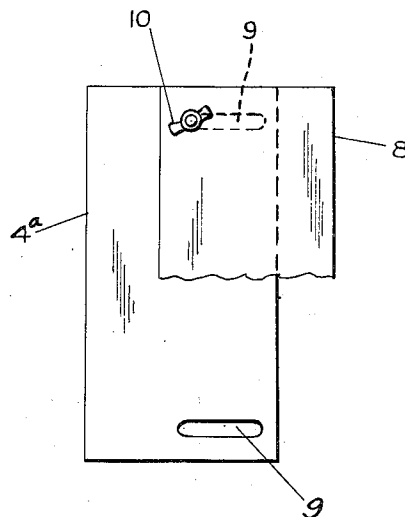


Fig. 4

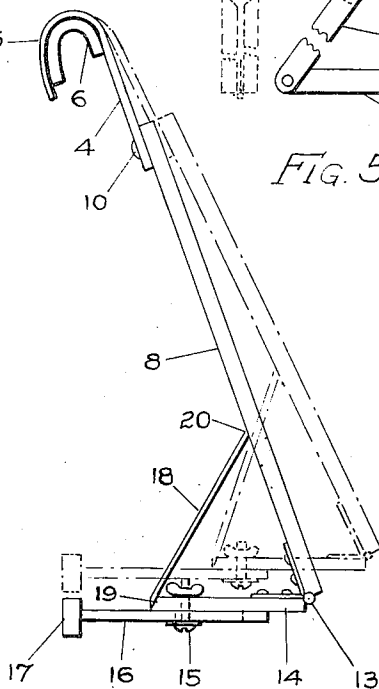


Fig. 5

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BED BACK REST

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4 Claims. (Cl. 5-71)

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My origination pertains to a bed back-rest, intended, for instance, to contribute toward convenience and comfort while reading in bed.

One object of my invention has been the design of a structure which is durable, readily manipulated, adjustable not only to formation of various angles with the end panel of the bed, but to varying elevations clear of the bedding, while being sufficiently economical of manufacture.

Another object has been an added facility in attaching to or detaching from the bed.

A further object has been to provide a yielding connection between my appliance and the bed, which will not mar any polished surface of the latter and which will permit of a limited range of adjustment of obliquity of the back-rest proper.

Other objects have been; provision of a unitary assembly; adaptability to a folded arrangement of compact compass, whether attached to the bed or removed therefrom; simplicity of operation and brevity of the time required to accomplish a shifting either to its functioning or to its inutility position.

Another object has been the provision of a structural assembly or arrangement which will permit of its folded retention against a bed panel when not in use, with the back-rest proper and connections therewith in juxtaposition, without interfering with sleeping comfort and which is readily unfoldable by a mere outward pull of the lower end of the constantly suspended back-rest to allow another member gravitationally to fall to a predetermined position and to serve as a strut between the back-rest and bed panel.

Upon future consideration, it is to be realized that the scope of my invention comprehends many equivalent constructions and that the showing of the drawings and of specific descriptions are intended merely to exemplify a plurality of mechanical embodiments and arrangements.

Advertising to the drawings:

Figure 1 is a perspective view of one end of a bed showing my originated appliance in functioning position thereon.

Figure 2 is a side elevation of Figure 1, but also showing certain parts in an alternative (folded) position, by means of dot and dash marks.

Figure 3 is an adequately enlarged view of certain adjustably connected parts, corresponding to Figure 2 as to their full-line illustration, but with an extended adjustment of one of two duplicated extensible and contractible connections and also, by dot and dash position, an adjustment in obliquity of the back-rest proper which is accomplished by the adjustment of the length of the strut.

Figure 4 is a still further enlarged showing turned through an angle of ninety degrees, as a broken plan view, of a common slot and wingnut adjustment means.

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Figure 5 is a view of a modification as an equivalent of one, not indispensable, detail in full and in dot-and-dash line positions.

An appliance of the character to be next described as to the details of its exemplifying structure, should greatly increase the comfort and therefore the satisfaction to be derived from reading or working in bed. My design is light in weight hence easily handled, may be quickly mounted in place and readily folded and displaced against the head panel of the bed preparatory to reclining for sleeping or, if desired, entirely removed from the bed with equal facility. It should also be adjustable as to one dimension and should have stability of any selected angular relationship of its back-rest proper with respect to the head panel of the bed. The mentioned list of preferable features are all supplied by my construction which is shown associated with a bed frame 1, comprising a head panel 2 and mattress 3. The primary support of my appliance is to be by suspension from the upper edge of the head panel and the variant design of the latter is of no consequence to the universal applicability of my invention, presupposing the adjustments which I have provided to be of sufficient range in the commercially adopted arrangement.

The back-rest frame, as shown in Figure 1 comprises a pair of spaced hangers 4 which may be composed of any suitably strong material, metal or perhaps plywood. Each hanger 4 terminates above as a hook 5 having a bight of adequate width for straddling varying thicknesses of upper edges of head panels, is of inherent resiliency and desirably carries, on the inner side of its hook, a felt pad 6 or any other cushioning element adapted to prevent marring of any polished surface of the engaged bed portion. Besides its frictional hold, the inherent resiliency of the hook will exercise an additional function to be hereinafter explained. Each of the hangers 4 is provided near its lower end with an elongated slot 9, or alternatively a single hanger has spaced slots as most clearly shown in Figure 4 though turned there through an angle of ninety degrees and modified by showing a single hanger 4a.

A back-rest proper 8 is supplied near its upper edge with a pair of holes which are correspondingly spaced as, and adapted to register with, the slots 9 respectively, whereby the common extensible and contractible connection may be effected through the agency of bolt and wingnut combinations 10, as will be readily understood for accommodation of overall distances between the top of the head panel and the cushioned upper surface of beds. A clasp 11 is carried by the back-supporting panel 8 midway of the hangers 4 and detachably suspends an ordinary bed pillow 12.

The lower edge of the panel 8 is hinged at 13

to a member 14 which is one of a pair of parts of a composite strut, the member 14 being adjustably connected by bolt and wingnut combinations 15 to a complementary strut member 16 which terminates as a cushion of felt or the like 17. The end 17 is intended and adapted to abut the head panel of the bed as disclosed in several of the figures whereby, when the composite structures 14, 15, 16 and 17 are in the positions shown in Figures 1 to 3, the function of the composite strut 14-16 may be exercised to maintain the chosen obliquity of the panel 8. Manifestly, as the composite strut is lengthened the resiliency of the hooks 5 along with the yield of the cushions 6 become brought into play.

Finally, a lower, triangular connection is effected by an upholding strap or tie 18 attached at its lower end at 19 to the composite strut 14-16 and at its upper end at 20 to the panel 8 a suitable distance from the hinges 13 respectively. The purpose of the strap 18 is to uphold the free end of the composite strut when in its functioning position. As an obvious equivalent of the flexible strap 18, a linkage comprising, for instance, a pair of links, 18a and 18b pivotally connected end to end may be employed. They are pivotally connected, one additionally with the member 14 and the other pivotally connected with the panel 8. In either case, a foldable arrangement is provided whereby the appliance in its entirety may assume the dot and dash position indicated in Figure 2 which is its inutile arrangement.

In substitution for the strap 18 or equivalent links, 18a-18b, there might be either a stop-hinge limited in its opening movement to the angle preferred between the back-rest and strut or a frictional resistance might be established at the pivot point 13 adequate normally to hold the strut in its desired position.

Subject only to commercial feasibility, the entire assembly, excepting the tie 18 and any cushions, might be molded as an integral unit, whether of some suitable plastic or of plywood, though, of course, the desirable adjustability and folding features would then not be present.

I claim:

1. A bed back-rest comprising a back-rest structure including means for suspending it from a bed panel, spacing means hingedly connected to the lower end of said back-rest, said means comprising longitudinally adjustable sections and holding means connecting the back-rest structure and the spacing means adapted to limit the hinge-opening movement, said spacing means acting to space the lower edge of said back-rest structure from said bed panel and to hold said back-rest in an oblique position

2. In an appliance of the class described intended to have its upper end merely hooked over, and to have its lower end in contact only with, the head panel of a bed; the combination of a back-rest structure having hooks attached to the upper end thereof for engaging the bed panel, a strut having its one end hingedly connected with the lower end of said back-rest structure and adapted, while constantly elevated above the bedding, alternatively to have its other end buttress against the head panel or to fold against the latter and a flexible-strap connection between said back-rest structure and strut, both points of connection of said strap being spaced from the hinged connection whereby to limit the hinge-opening movement.

3. In a bed back-rest, the combination of a

pair of members pivotally connected to each other adjacently their ends, one of said members being upright and having means at its upper end serving to hang it from a bed panel to adapt it as a back-rest, the other one of said members adapted to serve as a compression member extending rearwardly between the lower end of the back-rest and bed panel and stop means carried by one of said members to limit the angular movement therebetween, the arrangement being such as to permit the structure to be retained at the bed panel and folded against the latter when not in use without interfering with sleeping comfort and being readily unfoldable by a mere outward pull of the lower end of the constantly suspended back-rest to allow the compression member gravitationally to fall as limited by said stop means whereby to serve as a strut.

4. In a bed back-rest, the combination of an upright member including means at its upper end adapting it to be hung from a bed panel and to serve as a back-rest, a second, rearwardly extending member having one end pivotally connected with the lower portion of the back-rest member and having its other end adapted to abut the bed panel thereby being a compression strut between the back-rest member and bed panel and a strap having its ends connected to said back-rest and to said strut respectively and having each of its ends a certain distance from the pivotal connection between said members, said strap being adapted, while in tension, to limit the movement in one direction between said back-rest and strut, the entire structure being intended to be hung above the bedding so as constantly to be independent of movements to which the bedding is subject, whether folded against the bed panel or unfolded by gravitational release of said strut to its functioning position as limited by said strap upon manual withdrawal of the lower end of the back-rest away from the bed panel.

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