Sept. 28, 1937. J. H. GILBAUGH 2,094,209

PRAYER BENCH

Filed Jan. 15, 1935

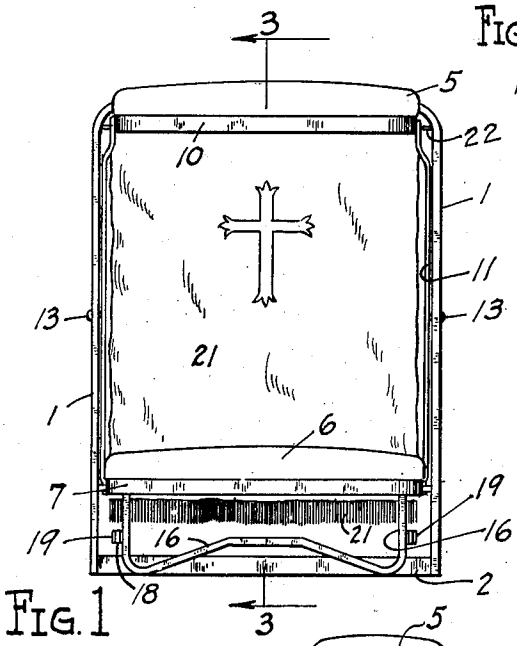


FIG. 1

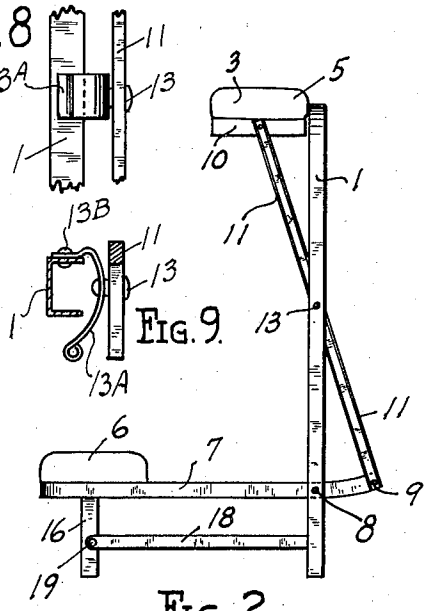


FIG. 2

FIG. 9

FIG. 8

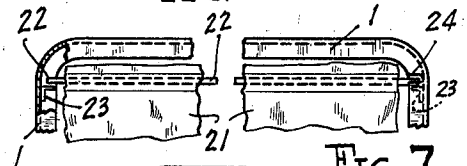


FIG. 7

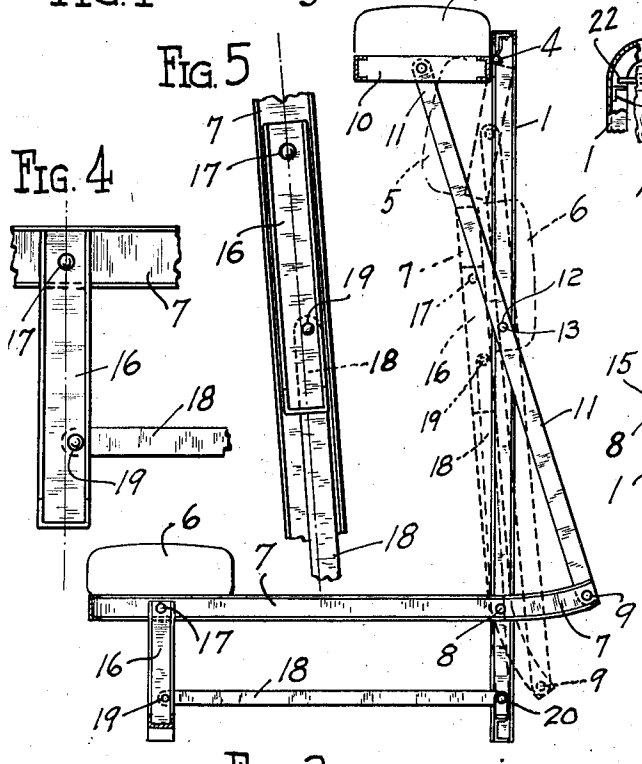


FIG. 3

FIG. 5

FIG. 4

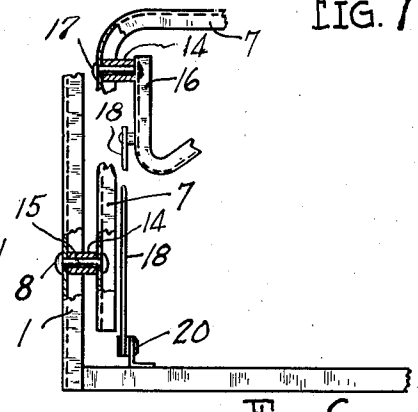


FIG. 6

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PRAYER BENCH

John H. Gilbaugh, Portland, Oreg.

Application January 15, 1935, Serial No. 1,937

1 Claim. (Cl. 155—166)

This invention relates to improvements in prayer benches of the collapsible type and has for its principal object to provide a device of this character which is readily changeable from a rigid and set-up position to a collapsed position for disposal with any approved form of carrying case.

Another object of the invention is the provision of anti-friction means between the movable elements of the device to render it noiseless when being changed from a collapsed position to a position for use, or vice versa.

Still another object of the invention is the provision of means for automatically locking the device either in an extended or a collapsed position.

A still further object is the provision of means within the frame work of the device whereby drapes or curtains carrying various religious symbols may be readily attached or detached from the device, in either a collapsed or extended position.

These and other objects will appear as my invention is more fully hereinafter described in the following specification, illustrated in the accompanying drawing and finally pointed out in the appended claim.

In the drawing:

Figure 1 is a front elevation of my new and improved prayer bench in an extended position and ready for use.

Figure 2 is a side elevation of Figure 1.

Figure 3 is an enlarged sectional side elevation of Figure 1 taken on the line 3—3 of Figure 1.

Figure 4 is a fragmentary detail view of certain supporting elements of the device in an extended position.

Figure 5 is a fragmentary detail view of the elements shown in Figure 4, in collapsed position, and showing particularly the automatic locking means for maintaining said elements and their related parts in locked position.

Figure 6 is a fragmentary front elevation of the device in collapsed position, and showing particularly the anti-frictional means interposed between those elements of the device which are movable with respect to each other.

Figure 7 is a fragmentary detail view of the upper end of the main frame of the device showing the drape support.

Figure 8 is a fragmentary detail view of a modified form of automatic locking means.

Figure 9 is a top plan view of Figure 8.

Referring now more particularly to the drawing

Reference numeral 1 indicates the main body of my prayer bench which consists of an inverted U-shaped frame member of channel section reinforced at its lower end by a cross bar 2. To the upper end of the main frame I hingedly mount an arm rest 3, whose frame is of channel section, by means of hinges 4. The arm rest is provided with any suitable form of cushion 5.

Near the lower end of the main frame 1 I provide a knee rest which is swingably mounted to the main frame as at 8 by means of supplemental frame 7. This frame 7 is likewise U-shaped and of channel section and its legs are of sufficient length to extend beyond the main frame 1 and to curve upwardly as shown to provide a pivot point 9. To render the entire device automatically collapsible by movement of either the arm rest or the knee rest I interconnect the ends of the extended legs of the frame 7 with the base 10 of the arm rest 3 by a link 11. In moving the knee rest upwardly from its full line position (Figure 3) into the dotted line position, as shown, it will be seen that the upward movement of the frame 7 with a resultant downward movement of the extended leg portions thereof will cause the arm rest to be drawn downwardly by means of the link 11 into the dotted line position also shown in Figure 3.

For maintaining the arm rest and knee rest in their extended or usable position I provide apertures 12 in each link 11. Each aperture is adapted to receive a stud 13 which is secured to each upright member of the frame 1. The links 11 are sufficiently flexible, due to their length, to slide over the studs under flexure until the studs enter the apertures 12, whereupon the studs will immediately be projected into the apertures and thereby provide an automatic lock for maintaining the device in its extended position.

For releasing the links 11 from engagement with the studs 13 it is only necessary to draw the links outwardly until they become disengaged from the studs 13. When this is accomplished the entire structure is free to be collapsed into the dotted line position as shown.

It is to be understood, of course, that the invention contemplates the use of any approved form of resilient or spring locking means between the spring link 11 and the leg members of the main frame 1. As shown in Figures 8 and 9, a modified form of spring locking means may be provided in the form of a leaf spring 13A which is secured to the leg members of the main frame

as at 13B. Normally, the leaf spring rests in a position in the path of movement of the stud 13 being carried by the link 11 when being moved to an extended position. The stud 13 comes into wiping contact with the leaf spring until it reaches an aperture provided therein, whereupon, the stud enters the aperture and thereby locks the links with respect to the leg members. For disengaging the studs from their locked engagement with the springs, it is only necessary to move the free ends of the leaf spring away from the studs.

Any form of automatic locking feature is an important one in devices of this character in view of the particular uses to which they are put, for instance, at funeral services it is desirable to have a prayer bench which may be quickly and conveniently extended or collapsed with the minimum amount of manipulation on the part of the operator.

Another equally important feature of the invention is the provision of anti-frictional means between the movable elements of the structures so as to render them noiseless in operation, and which will also prevent chafing and wearing of the parts which move with respect to each other. Accordingly, to accomplish this result I provide spacer bushings 14 over the various pivots 15 upon which the elements are pivotally united. These spacer bushings are easily lubricated to render them noiseless and at the same time maintain the moveable elements in proper spaced relation with respect to each other to prevent chafing or wearing of the surface of the elements as aforesaid.

Beneath the knee rest 6 I provide a leg 16 which is of channel section and is shaped as shown in Figure 1. The leg is connected at both of its ends by means of pivots 17 to the supplemental frame 7. The leg 16 is pivotally interconnected to the leg portions of the main frame 1 by means of the links 18 which are pivoted as at 19 to the leg 16 and as at 20 to the cross bar 2, and thus to the leg portions of the main frame 1. The link 18 functions to draw the leg 16 downwardly into a parallel position with respect to the supplemental frame 7, when in a collapsed position.

It will be noted that the pivotal connections between the leg 16 and the links 18 are arranged at one side of the longitudinal center line of the leg 16 at 19 whereas pivots 8 and 20 are in the center line of the member 1. The purpose of this off-center connection is to provide an automatic locking relation between the leg 16 and supplemental frame 7 to prevent these two elements from falling by gravity from a collapsed position to an extended position. When these elements are in their collapsed positions, as shown in Figure 5, it will be noted that the links 18 will maintain the elements in their collapsed position by reason of the greater distance between 17 to 8 to 20 than there is between 17 to 19 to 20, thus causing a binding action between the parts when folded and when the members 16 and 18 are brought into alignment with each other past the frame 7. To prevent further rearward movement of the elements, the link 11 comes into contact with the pivot pin 8 which serves as a limit stop.

In order to extend the elements from their collapsed to an extended position it is only necessary to draw the leg 16 outwardly around its pivot point 17 to overcome the off-center locked relation between the link 18 and the leg. When the leg is moved outwardly beyond the off-center position the supplemental frame, of course, is then free to swing downwardly either by gravity or by force into an extended position. In Figures 4 and 5 I have shown enlarged details of this particular locking arrangement.

For supporting a curtain or drape 21 on the device, which carries a symbol of the particular service being rendered, I provide a rod 22 upon which the drape is removably secured. When in place on the device, the rod rests upon clips 23 which are secured to the inner side of the frame 1. One leg of the frame is cut out as at 24 so that the rod may be removed from the frame.

While I have shown a particular form of embodiment of my invention, I am aware that many minor changes therein will readily suggest themselves to others skilled in the art without departing from the spirit and scope of the invention. Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:—

A kneeling bench comprising a vertical inverted U-shaped main frame member, a horizontal U-shaped frame member constituting a knee rest support pivotally connected to said main frame near its lower end, the rear ends of the legs of said horizontal frame extending rearwardly of the legs of said vertical frame, an arm rest hingedly mounted on the upper end of the vertical frame and pivotally interconnected with the said rear ends of the legs of the horizontal frame by a pair of apertured links whereby upward movement of the horizontal frame will cause downward movement of the arm rest, a pair of studs extending inwardly from the legs of the vertical frame and in constant wiping contact with said links and adapted to enter the apertures in the links for maintaining said arm rest and horizontal frame in extended positions, supporting legs pivotally depending from the outer end of the knee rest frame and a pair of links pivotally interconnecting said supporting legs with the legs of the vertical frame member whereby a parallelogram is formed by the horizontal frame, the legs of the vertical frame, the supporting legs and the connecting links therebetween, the pivotal connections of the horizontal frame and the links to the legs of the vertical frame on each side being in vertical alignment with each other, the pivotal connections of the opposite ends of said horizontal frame and link members to the supporting legs on each side being out of vertical alignment with each other so that the distance between the diagonal pivot points will be greater along one perimeter than along the opposite perimeter so that a binding action will be set up between said members when drawn into a collapsed position, the pivotal connections between the knee rest frame and vertical frame serving as stops against which the links between the arm and knee rests bear when the device is folded.

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