

July 20, 1943.

D. P. FIGGINS

2,324,570

PORTABLE BACK FOR BENCHES

Filed March 2, 1940

2 Sheets-Sheet 1

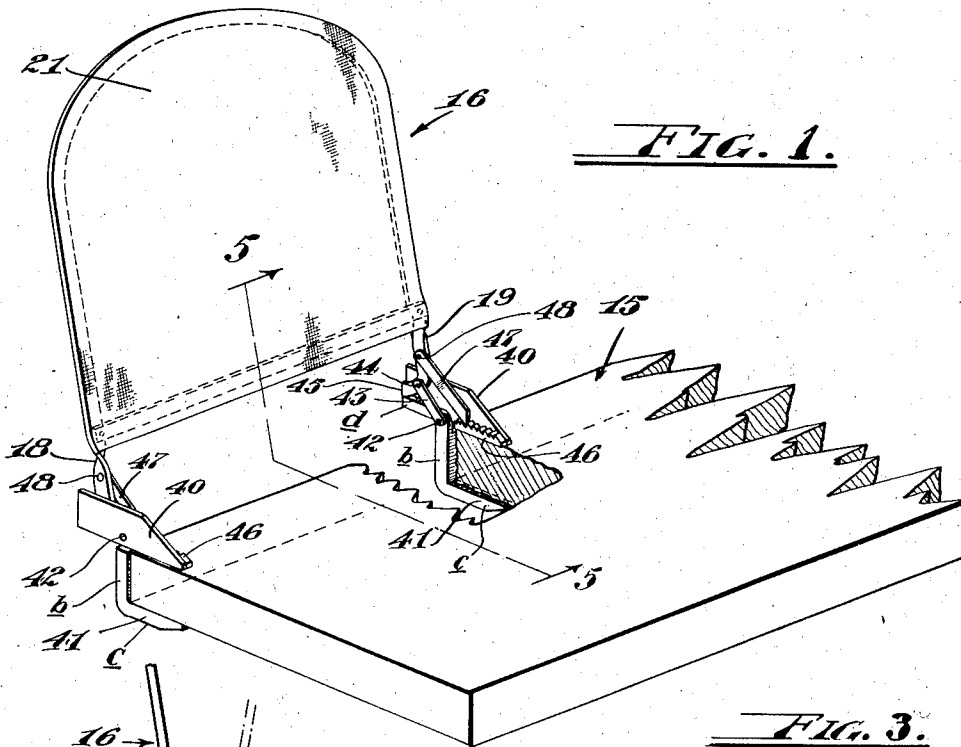


FIG. 1.

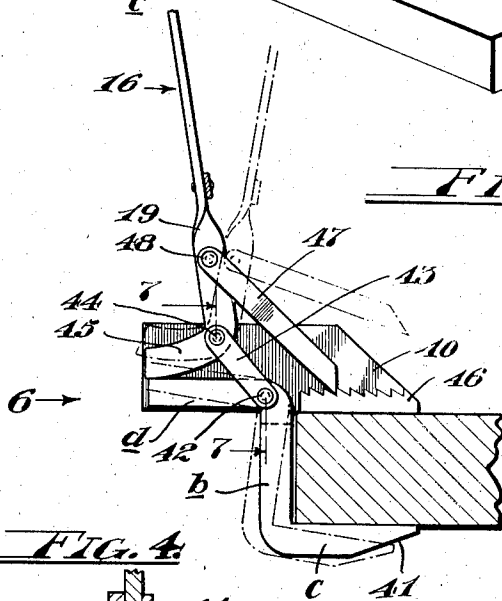


Fig. 2.

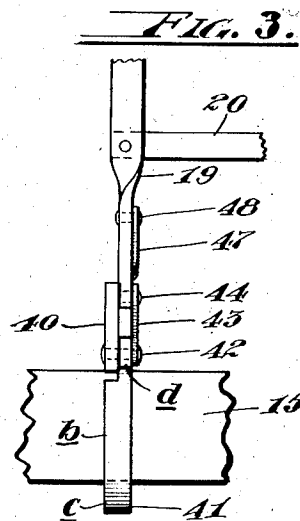


FIG. 3.

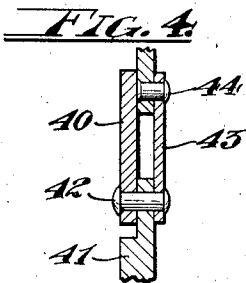


FIG. 4.

Inventor

Donald P. Figgins

By

R. S. Berry

Attorney

July 20, 1943.

D. P. FIGGINS

2,324,570

PORTABLE BACK FOR BENCHES

Filed March 2, 1940

2 Sheets-Sheet 2

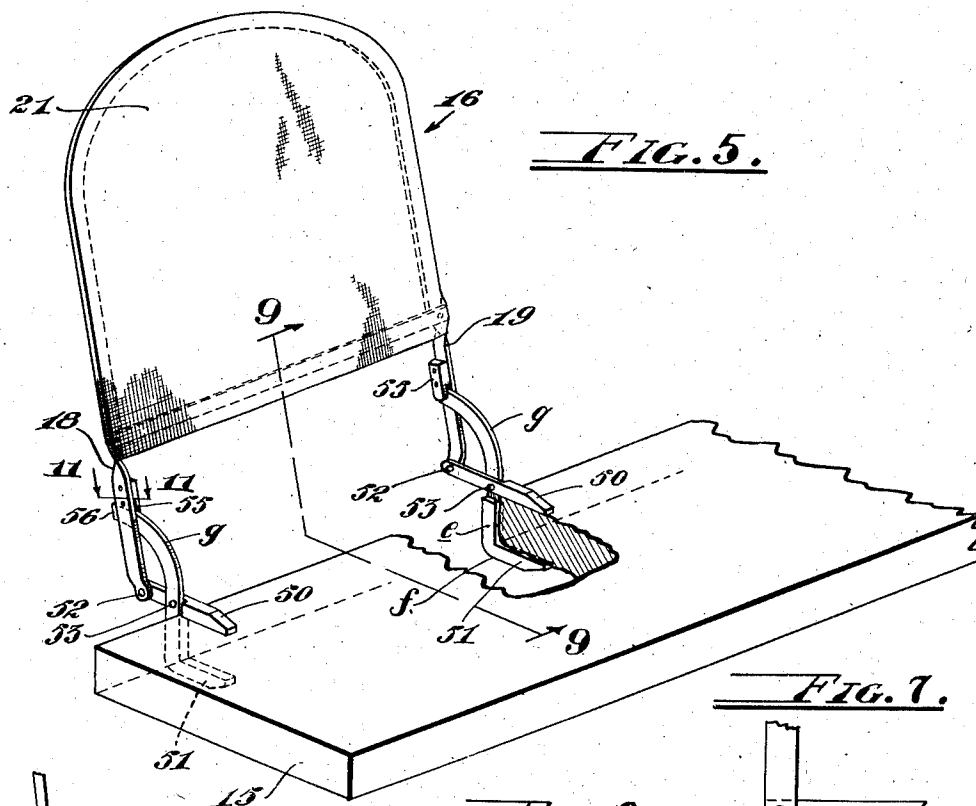


FIG. 5.

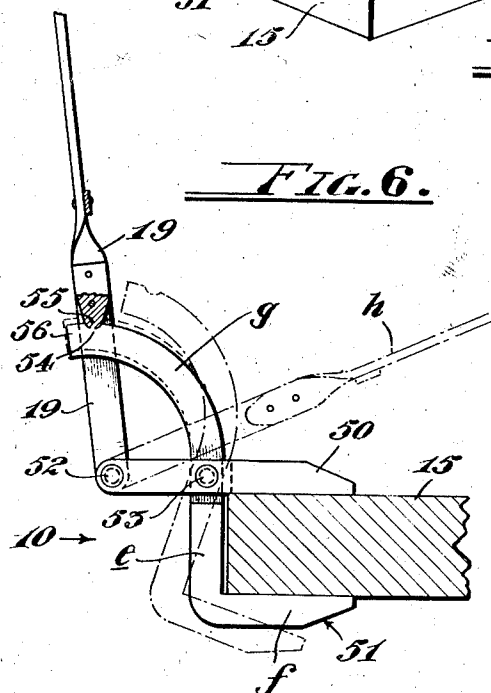


FIG. 6.

FIG. 8.

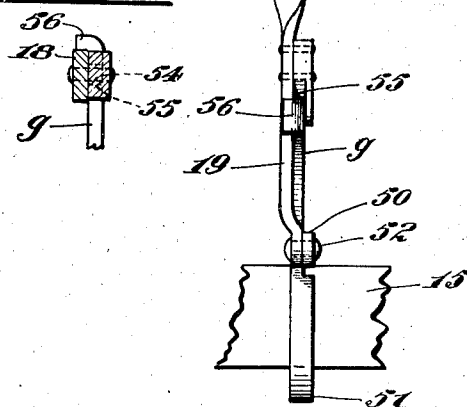


FIG. 7.

Inventor

Donald P. Figgins

R. S. Bump

By

Attorney

Patented July 20, 1943

2,324,570

UNITED STATES PATENT OFFICE

2,324,570

PORTABLE BACK FOR BENCHES

Donald P. Higgins, San Bernardino, Calif.

Application March 2, 1940, Serial No. 321,923

3 Claims. (Cl. 155-133)

This invention relates to a portable back for benches and has as its primary object the provision of a back-rest attachment for benches which may be readily applied to and removed from the seat of a bench or seat of the backless type, and which is light and compact and thereby adapted to be readily carried to and from the bench or seat to which it is to be applied. The invention is particularly applicable for use as an attachment to the conventional plank seats provided at out-door recreational parks which seats ordinarily are not equipped with back-rests and accordingly afford considerable discomfort to the occupants. By the use of my invention a person may equip the seat with an individual back-rest suitable to his needs and of a character which may be readily applied to the seat and easily removed therefrom.

Among the objects of the invention is the provision of a strong and substantial connection between the portable back-rest and the seat which may be quickly operated in effecting attachment to the seat and its removal therefrom.

With the foregoing objects in view, together with such other objects and advantages as may subsequently appear, the invention is carried into effect as illustrated by way of example in the accompanying drawings, in which:

Fig. 1 is a perspective view of the invention, showing it as applied;

Fig. 2 is a detail in section and elevation as seen on the line 5-5 of Fig. 1;

Fig. 3 is a detail in elevation as viewed in the direction indicated by the arrow 6 in Fig. 2;

Fig. 4 is a view in vertical section taken on the line 7-7 of Fig. 3;

Fig. 5 is a perspective view depicting another form of the invention showing it as applied;

Fig. 6 is a detail in section and elevation taken on the line 9-9 of Fig. 5;

Fig. 7 is a detail in elevation as seen in the direction indicated by the arrow 10 in Fig. 6; and

Fig. 8 is a view in section taken on the line 11-11 of Fig. 5.

Referring to the drawings more specifically, 15 indicates the seat of a bench which seat ordinarily comprises a horizontally extending plank having unobstructed front and rear edges. In carrying out the invention I provide a back-rest 16 which is fitted with means whereby it may be detachably connected to the seat 15 at any point throughout the length thereof in such fashion as to incline rearwardly from the rear edge of the seat and afford a comfortable rest for the back of a person occupying the portion of the seat in

front of the back-rest. The back-rest may be of any suitable construction but is here shown as including connected side members 18 and 19 supporting a panel 21 here shown as formed of a fabric envelope that is slipped over the bowed portion of the frame.

The side members 18 and 19 of the back-rest are each fitted with a pair of jaws 40 and 41 that are detachably engageable with the rear marginal portion of the seat; the jaw 40 comprising a plate having an end portion adapted to be seated on the upper marginal portion of the seat and to which the jaw 41 is connected by a pivot 42, and the jaw 41 comprising a bar having an intermediate portion b adapted to overlie the rear edge of the seat, an end portion c adapted to underlie and engage the rear margin of the seat, and an opposite end portion d extending rearward from the pivot 42 alongside the rear portion of the plate constituting the jaw 40.

Leading upwardly and rearwardly from the pivot 42 is a link 43 which is connected by a pivot 44 to the lower end portion of the contiguous side member 18 or 19 of the back-rest frame to afford a toggle connection between the back-rest and the jaws.

A rearwardly protruding arcuate extension 45 is formed on the lower end of each of the side members 18 and 19 of the back-rest frame which extension is adapted to bear on the end portion d of the jaw member 41 to effect swinging movement of the latter on rocking the back-rest rearwardly.

Mounted on the jaw member 40 is a ratchet toothed bar 46, and carried on the contiguous side member 18 or 19 of the back-rest frame is a pawl 47 which extends forwardly and downwardly from a pivot 48 into engageable relation to the ratchet bar, and which pawl is adapted to be disposed in and out of engagement with the teeth of the bar.

The jaw members 40 and 41 are positioned astride the rear edge of the seat 15; the back-rest being swung forwardly with the pawl 47 clear of the rack 46, as shown in broken lines in Fig. 2, to permit spreading of the end portion c of the jaw member 41 relative to the lower edge of the jaw 40 to admit the edge of the seat between the jaws.

The back-rest is then swung rearward so as to cause the curved extensions 45 to bear on the end portions d of the jaws 41 and thereby swing the end portions c thereof into clamping engagement with the seat. The pawls 47 are then engaged with the teeth of the rack 46 as shown in Fig. 2

so as to hold the back-rest in a rearwardly inclined position against accidental forward swinging movement and thus securely fastening the back-rest in place.

When it is desired to detach the back-rest, the pawls 47 are disengaged from the teeth of the racks and the back-rest is swung forwardly so as to free the jaw 41 whereupon the jaws may be readily withdrawn from astride the seat.

In the form of the invention shown in Figs. 5 to 8 inclusive, the lower ends of the side members 18 and 19 of the frame of the back-rest are each fitted with a pair of jaws 50 and 51; the jaw 50 comprising a straight bar one end of which is connected by a pivot 52 to the lower end of the adjacent frame member 18 or 19 and the other end of which bar is adapted to overlie the marginal portion of the seat.

The jaw member 51 comprises a bar that is pivoted at 53 to the jaw 50 and embodies an intermediate portion *e* adapted to overlie the rear edge of the seat, an end portion *f* engageable with the underside of the seat, and an arcuate upper end portion *g* which curves rearwardly and overlies the contiguous frame side member 18 or 19. The upper end portion *g* of the jaw member 51 is resilient and is adapted to be sprung radially, and formed on the upper edge thereof is a notch 54 adapted to be engaged by a fixed detent 55 on the adjacent side member 18 or 19 of the back-rest frame.

The outer upper end of each of the portions *g* of the jaw members 51 is formed with a flange 56 extending in the path of travel of the side frame members to afford a stop and limit rearward movement of the back-rest and prevent the back-rest and portions *g* of the jaw members 51 from becoming disengaged.

The arcuate end portion *g* extends on an arc eccentric to the axis of the pivot 52 with the pivoted end thereof closest to the pivot 52, so that when the back-rest is swung toward the jaw member 50 as indicated by the broken lines *h* in Fig. 6, the outer margin of the arcuate end portion *g* will clear the detent 55 so that the jaw 51 may then be swung freely on the pivot 53, and whereby the end portion *f* of the jaw 51 may be swung away from the jaw 50 to permit positioning of the jaws 50—51 astride the rear margin of the seat, as indicated in Fig. 6. On thus disposing the jaws 50—51 astride the margin of the seat, the back-rest is swung rearwardly thereby causing the detents 55 thereon to ride against and along the outer edge of the arcuate end portion *g* and to depress the latter and cause the jaws 51 to advance against and grip the seat; movement of the back-rest being continued until the detents 55 ride into the notches 54 where they

will be engaged thus effectively fastening the back-rest in a rearwardly inclined position against the flanges 56. The notches and the detents are rounded so that a forward pull on the back-rest will cause the detents to ride out of the notches and thus free the jaw 51 and permit removal of the back-rest.

I claim:

1. A back-rest for bench seats comprising a frame, a back-rest panel on said frame, and spaced pairs of vertical pivotally connected jaws pivotally carried by said frame adapted to engage a marginal portion of a seat and relative to which said frame is tiltable, stop means carried by certain of the jaws and said frame for limiting the tilting of said frame, and means for locking said jaws in clamped position.

2. A back-rest for bench seats comprising a frame, a back-rest panel on said frame, spaced pairs of pivotally connected jaws pivotally carried by said frame adapted to engage a marginal portion of a seat and relative to which said frame is tiltable, and stop means for interengaging said frame with one of the jaws of each pair for releasably holding the frame against tilting movement, and means for locking said jaws in clamped position.

3. A back-rest for bench seats comprising a frame, a back-rest panel on said frame, spaced pairs of pivotally connected jaws pivotally carried by said frame adapted to engage a marginal portion of a seat and relative to which said frame is tiltable, stop means engaged between certain jaws and the frame for limiting tilting of the frame and means actuated by swinging said frame relative to said jaws for tightening or loosening said jaws relative to the seat engaged thereby.

4. In a back-rest for seats, a portable back-rest frame, a pair of jaw members pivotally carried by said frame arranged to engage one side of a seat, a second pair of jaw members pivotally carried on said first named jaw members and arranged to engage the other side of a seat, and abutment connections between said frame and at least one pair of said jaw members for effecting clamping of said jaw members onto a seat by swinging said frame in one direction and to effect loosening of the jaw members on swinging the frame in the opposite direction, and means for locking said jaws in clamped position.

5. A structure called for in claim 4 wherein said locking means provides for effecting detachable interlocked connection between said frame and one pair of said jaw members to fasten said frame against swinging in a direction to loosen the tightened jaw members.

DONALD P. FITGINS.