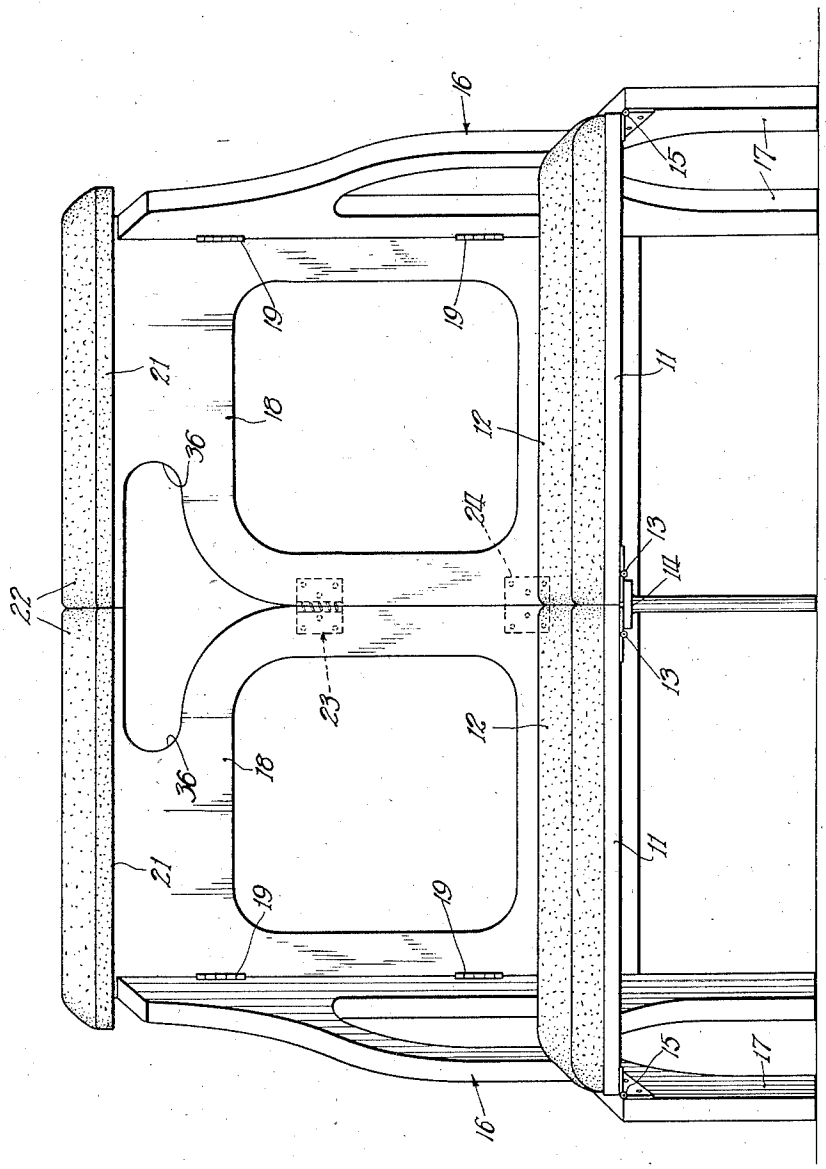
June 9, 1936. W. F. LISKA 2,043,669

PRIE DIEU

Filed April 12, 1934 3 Sheets-Sheet 1

Fig. 1.



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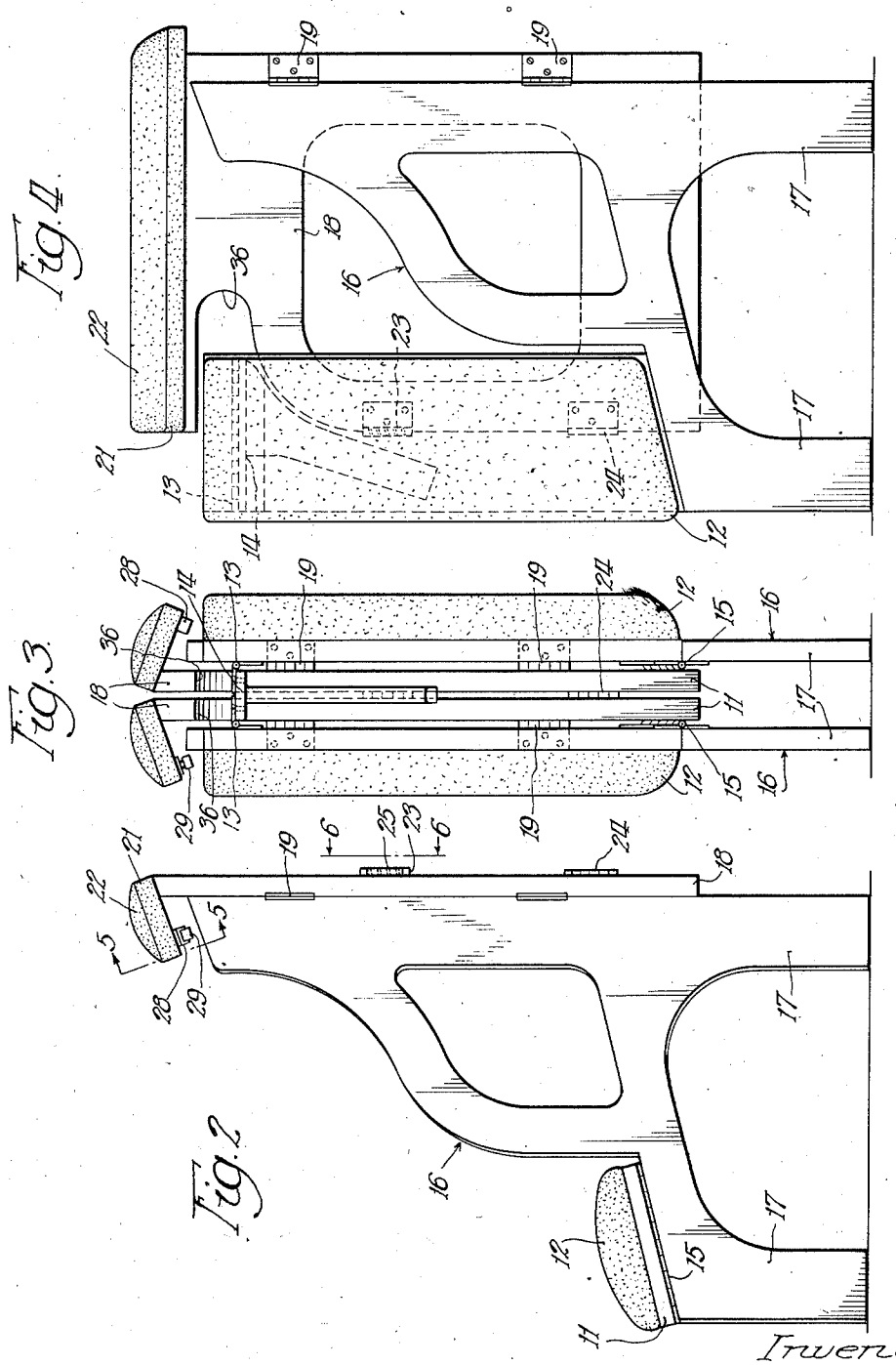

Fig. 1.

Fig. 3.

Fig. 2.

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Fig. 7.

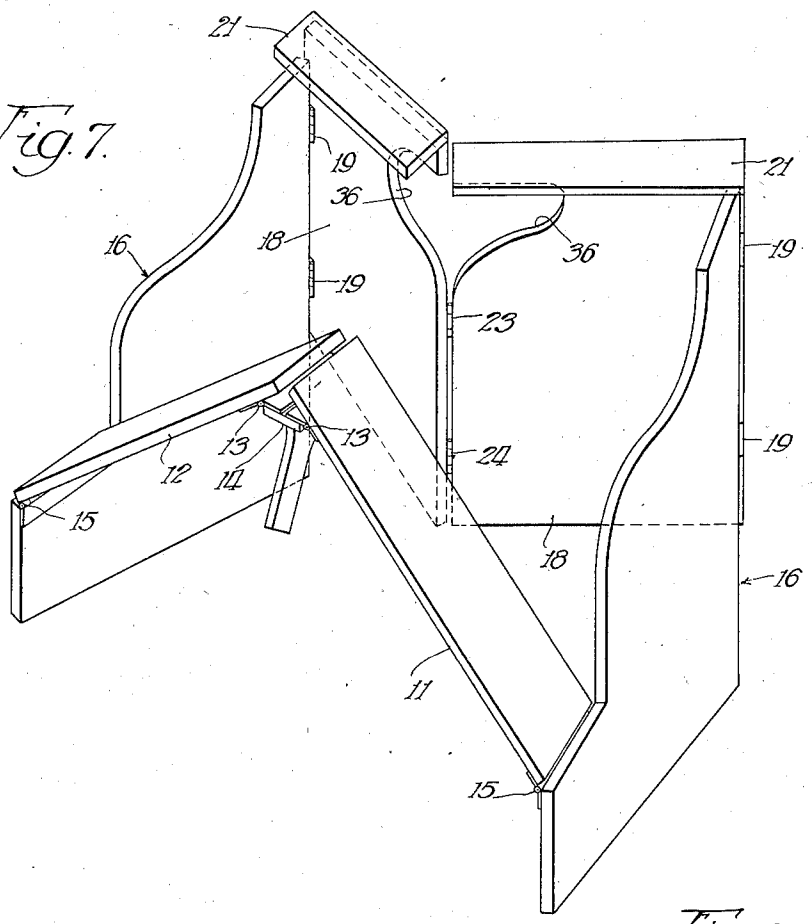


Fig. 5.

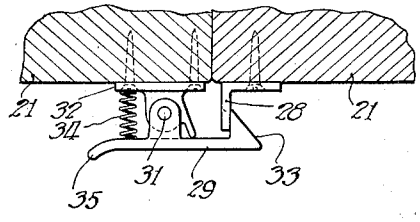
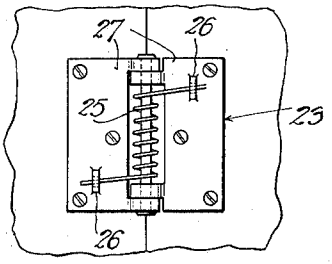


Fig. 6.



Witness:
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13

Patented June 9, 1936 2,043,669

UNITED STATES PATENT OFFICE

2,043,669

PRIE-DIEU

William F. Liska, Chicago, Ill., assignor to Holland Brass Works, Inc., Chicago, Ill., a corporation of Illinois

Application April 12, 1934, Serial No. 720,217

13 Claims. (Cl. 155—166)

This invention relates to a prie dieu, and particularly to a device of the character described, which may be readily transported manually from place to place.

One object of the present invention is to provide a structure of the character described, which is of suitable size and proportions when in use, and which may be readily folded into a comparatively small space of minimum dimensions for convenient handling and transporting or moving the device from one place to another.

Another object of the invention is to provide a structure wherein all the elements of the structure are permanently connected together and suitably arranged to permit of their being positioned in operative relationship and secured together to provide a safe and efficient structure.

Another object of the invention is to provide a structure wherein the elements comprised therein may be readily moved, with relation to each other, into folded arrangement to provide a package of relatively small size of minimum dimensions for convenient handling in moving or transporting the device from place to place.

Another object of the invention is to provide a structure wherein portions of certain of the elements are protected against damage from contact with each other when the device is in folded position.

A further object of the invention is to provide a structure wherein the various elements are so connected and capable of being so manipulated that upon releasing the securing means, the entire structure may be moved into folded position by a single manual operation.

A still further object of the invention is to improve devices of the character described in sundry details hereinafter referred to and particularly pointed out in the appended claims.

One embodiment of the present invention is shown for illustrative purposes in the accompanying drawings, in which

Fig. 1 is a front view of my improved prie dieu illustrating features of the present invention;

Fig. 2 is a side elevational view of the illustrative embodiment of the invention shown in Fig. 1;

Fig. 3 is a front elevational view of my improved prie dieu shown in folded position;

Fig. 4 is a side elevational view of the device as shown in Fig. 3, also illustrating the parts in folded position;

Fig. 5 is a fragmentary sectional elevational view taken substantially as indicated by the line 5—5 of Fig. 2; and illustrating fastening means for securing the device in set-up or open position;

Fig. 6 is a fragmentary elevational view taken substantially as indicated by the line 6—6 of Fig. 2, and illustrating a type of spring hinge employed to assist in the folding or collapsing of the device; and

Fig. 7 is a diagrammatic perspective view of the outline of the frame members illustrating the position of the various parts of the device in their movement to open or folded position.

The illustrative embodiment of the present invention, shown in the drawings, comprises a pair of rearwardly inclined knee rests 11, having kneeling pads 12 suitably mounted thereon, and pivotally or hingedly connected adjacent their inner ends by means of hinges 13 to the upper end of a centrally disposed supporting bracket 14, the opposite or outer ends of the knee rests 11 being hingedly or pivotally connected, preferably by means of hinges 15, to supporting side frames 16 adjacent the forward edge thereof, the side frames 16 having supporting legs 17 formed thereon and converging rearwardly from the knee rests 11, the side frames 16 being pivotally or hingedly connected adjacent their rear edge portions to the outer ends of a pair of arm rests 18, the pivotal center lines of which are arranged to extend substantially transversely to the pivotal center line of the hinges 15, by means of hinges 19, the arm rests 18 being shown, in the present instance, as provided, respectively, adjacent their upper edge portions with a pair of top plates 21 having pads 22 mounted thereon.

The adjacent inner ends of the arm rests 18 are pivotally and hingedly connected by means of hinges 23 and 24, the hinge 23 being of a suitable spring type, such, for example, as illustrated in Fig. 6, the spring 25 of the hinges 23 having its respective ends engaged with lugs 26 formed on the respective plates 27 of the hinge 23, and being arranged to normally urge the inner end portions of the arm rests 18 toward the knee rests 11, or, in other words, toward the front portion of the device.

For securing the various elements of the device in substantially fixed relation with respect to each other when the device is in set-up or operative position, as illustrated in Figs. 1 and 2, securing means of suitable construction, such, for example, as illustrated in Fig. 5, is provided, the securing means being shown, in the present instance, as mounted on the under side of the top plates 21 and comprising a stop 28 mounted on one of the plates 21 and adapted to be engaged by a latch 29 pivotally mounted at 31 to a bracket 32 secured to the other top plate 21, the latch 29

being provided, preferably, adjacent\one of its ends with a cam surface 33 adapted to engage the stop 28 in a manner to facilitate a latching engagement with the stop and to be yieldingly held in such engagement by a spring 34 operating between the opposite end of the latch 29 and the bracket 32, and adapted to be compressed when pressure is exerted on the thumb piece 35 of the latch 29 for releasing it from the stop 28.

As clearly illustrated in Figs. 1, 4 and 7, the respective arm rests 18 are provided with recesses 36 formed in their inner adjacent end portions and adapted to receive a portion of the supporting bracket 14 when the elements of the device are moved into folded position, as illustrated in Figs. 3 and 4.

It will be observed from the foregoing description that when the device is in set-up or operative position, as illustrated in Figs. 1 and 2, with the latch 29 in engagement with the stop 28, as shown in Fig. 5, the arm rests 18 will be held in substantial alignment and the various elements of the device are secured in fixed relation with respect to each other, and that by releasing the latch 29 from the stop 28, the spring 25 of the hinge 23 will act to break the hinge joint at the inner ends of the arm rest 18 in a manner to move the arm rests out of alignment with each other and move the inner ends thereof in a forward direction toward the knee rests 11, whereupon a single manual operation tending to lift the central supporting bracket 14 will act to draw the side frames 16 toward each other and to further move the arm rests 18 relatively to each other and with respect to the side frames 16 and knee rests 11 in a manner to move the elements of the entire structure into the folded positions shown in Figs. 3 and 4, and that by slightly moving the side frames 16 outwardly from the position shown in Fig. 3, and forcing the supporting bracket 14 downwardly the various elements of the device will move in an opposite direction through the position shown in Fig. 7 and into the open or set-up position illustrated in Figs. 1 and 2, whereupon, the engagement of the latch 29 with the stop 28 will maintain the device in a safe and efficient operative position.

Obviously, the present invention is not limited to the precise construction and arrangement shown and described, as the same may be variously modified. Moreover, all the features of the invention need not be used conjointly, as the same may be used to advantage in variously different combinations and sub-combinations.

What I claim as new and desire to cover by Letters Patent, is:

1. A foldable device of the class described comprising, in combination, a pair of knee rests, a supporting bracket hinged to the inner ends of said knee rests, a pair of arm rests hingedly connected adjacent their inner ends, a pair of supporting side frames hingedly connected adjacent their top front and rear edge portions to said knee rests and arm rests, respectively, and means for securing said side frames, knee rests and arm rests in fixed relation with respect to each other.

2. A foldable device of the class described comprising, in combination, a pair of knee rests adapted to be in substantial alignment with each other in set-up position, a supporting bracket hinged to the inner ends of said knee rests, a pair of arm rests hingedly connected adjacent their inner ends and adapted to be in substantial alignment with each other in set-up position, a pair of supporting side frames hingedly connected adjacent their top front and rear edge portions to said knee rests and arm rests, respectively, and means for securing said side frames, knee rests and arm rests in set-up position.

3. A foldable device of the class described comprising, in combination, a pair of relatively movable knee rests adapted to be in substantial alignment with each other in set-up position, a supporting bracket hinged to the inner ends of said knee rests, a pair of relatively movable arm rests hingedly connected adjacent their inner ends and adapted to be in substantial alignment with each other in set-up position, a pair of relatively movable supporting side frames hingedly connected adjacent their top front and rear edge portions to said knee rests and arm rests, respectively, and cooperable means operatively related, respectively, to relatively movable portions of the device for securing said side frames, knee rests and arm rests in set-up position.

4. A foldable device of the class described comprising, in combination, a pair of relatively movable knee rests adapted to be in substantial alignment with each other in set-up position, a supporting bracket hinged to the inner ends of said knee rests, a pair of relatively movable arm rests hingedly connected adjacent their inner ends and adapted to be in substantial alignment with each other in set-up position, a pair of supporting side frames hingedly connected adjacent their top front and rear edge portions to said knee rests and arm rests, respectively, means for securing said side frames, knee rests and arm rests in set-up position, and means for moving said arm rests out of alignment when said securing means is moved out of securing position.

5. A foldable device of the class described comprising, in combination, a pair of relatively movable knee rests adapted to be in substantial alignment with each other in set-up position, a supporting bracket hinged to the inner ends of said knee rests, a pair of relatively movable arm rests hingedly connected adjacent their inner ends and adapted to be in substantial alignment with each other in set-up position, a pair of supporting side frames hingedly connected adjacent their top front and rear edge portions to said knee rests and arm rests, respectively, cooperable means operatively related, respectively, to said arm rests for securing said side frames, knee rests and arm rests in set-up position, and resilient means operatively related to said arm rests for automatically moving them out of alignment when said cooperable means are disconnected from securing position.

6. A foldable device of the class described comprising in combination, a pair of relatively movable knee rests adapted to be in substantial alignment with each other in set-up position, a supporting bracket hinged to the inner ends of said knee rests, a pair of relatively movable arm rests hingedly connected adjacent their inner ends and adapted to be in substantial alignment with each other in set-up position, top plates on the respective arm rests, a pair of supporting side frames hingedly connected adjacent their top front and rear edge portions to the outer ends of said knee rests and arm rests, respectively, cooperable means mounted, respectively, on said top plates for securing said side frames, knee rests and arm rests in set-up position, and resilient means operatively related to the respective arm rests adjacent their inner ends for moving them out of alignment when said cooperable means are disconnected from securing position, the inner ends of said arm rests being movable to-

ward said knee rests and said side frames being movable toward each other and toward said arm rests as said supporting bracket is moved upwardly to move the relatively movable portions of the device into folded position, said arm rests having recesses formed in their respective inner end portions adapted to receive a portion of said supporting bracket when the device is folded.

7. A foldable prie dieu comprising, in combination, a pair of inclined knee rests pivotally connected adjacent their inner ends, a pair of rearwardly converging side frames whose top edges running rearwardly extend generally upwardly pivotally connected, respectively, adjacent their top front edge portions to the respective outer ends of said knee rests along pivotal center lines extending substantially parallel to the top edges of the front portions of said frames, a pair of arm rests hingedly connected together adjacent their inner ends and pivotally connected adjacent their respective outer ends to the rear edge portions of the respective side frames along pivotal center lines extending somewhat transversely to the pivotal center lines of the pivotal connections between said side frames and knee rests, and supporting means adjacent the inner ends of said knee rests.

8. A foldable prie dieu comprising, in combination, a pair of elongated rearwardly inclined knee rests hingedly connected adjacent their inner ends to fold upwardly, a pair of rearwardly converging side frames whose top edges running rearwardly extend generally upwardly pivotally connected, respectively, adjacent their top front edge portions to the respective outer ends of said knee rests along pivotal center lines extending substantially parallel to the upwardly extending top edges of the front portions of said side frames, a pair of arm rests hingedly connected together adjacent their inner ends to fold inwardly and pivotally connected adjacent their respective outer ends to the rear edge portions of the respective side frames along pivotal center lines extending somewhat transversely to the pivotal center lines of the pivotal connections between said side frames and knee rests, and supporting means adjacent the inner ends of said knee rests, said knee rests, side frames and arm rests being foldable into compact rectangular form.

9. A foldable prie dieu comprising, in combination, a knee rest of foldable sections, a pair of arm rests of hinged sections hingedly connected adjacent their inner ends and foldable inwardly toward said knee rest, a pair of supporting side frames foldably connected adjacent their top front and rear edge portions to said knee rest and arm rests, respectively, and means for securing said side frames, knee rest and arm rests in fixed relation with respect to each other.

10. A foldable prie dieu comprising, in combination, an elongated knee rest of hinged sections adapted to fold upwardly, a supporting bracket hinged adjacent the central portion of said knee rest, a pair of arm rests hingedly connected adjacent their inner ends and adapted to be in substantial alignment with each other in set-up position and foldable toward said knee rest to folded position, a pair of supporting side frames whose top edges running rearwardly extend generally upwardly hingedly connected adjacent their top front and rear edge portions to said knee rest and arm rests, respectively, and means for securing said side frames, knee rest and arm rests in set-up position, said side frames, knee rest and arm rests being foldable into compact substantially rectangular form.

11. A foldable prie dieu comprising, in combination, a pair of relatively movable elongated knee rests pivotally connected together adjacent their inner ends and adapted to be positioned in substantial alignment with each other when the prie dieu is in set-up position, a pair of supporting side frames pivotally connected relatively low and adjacent their forward portions to the outer ends of the respective knee rests, and a back providing an arm rest with the upper portion spaced upwardly and rearwardly from said knee rests to provide an open space therebetween, said side frames diverging from said back, and said arm rest being pivotally connected adjacent its outer vertical edge portions to the rear vertical edge portions of the respective side frames.

12. A foldable prie dieu of the kind described comprising a back, a pair of side frames pivotally connected to said back and diverging therefrom, a relatively low knee rest, hingedly divided into two sections and pivotally connected to the side frames, the outer ends of the knee rest sections extending parallel to the top front edges of the side frames, the angles formed at the front edge of the knee rest and each end thereof being the supplement of the inner angle formed at the juncture of the back and each of said side frames, the latter angle being greater than 90 degrees.

13. A foldable prie dieu of the kind described comprising a back, a pair of diverging side frames pivotally connected at their rear edges to said back, an elongated knee rest hingedly divided intermediate the ends into sections, and pivotally and angularly connected to the side frames, the obtuse angle on the side frame between the front vertical edge of the latter and the top edge at which the knee rest is positioned being equal to the obtuse inner angle formed by the back and each side frame, and the supplement of the angle formed by the front edge of the knee rest and each end thereof.

WILLIAM F. LISKA.