

May 5, 1942.

J. M. VALLONE
ARTICLE OF FURNITURE

2,282,270

Filed July 30, 1940

2 Sheets-Sheet 1

Fig. 1

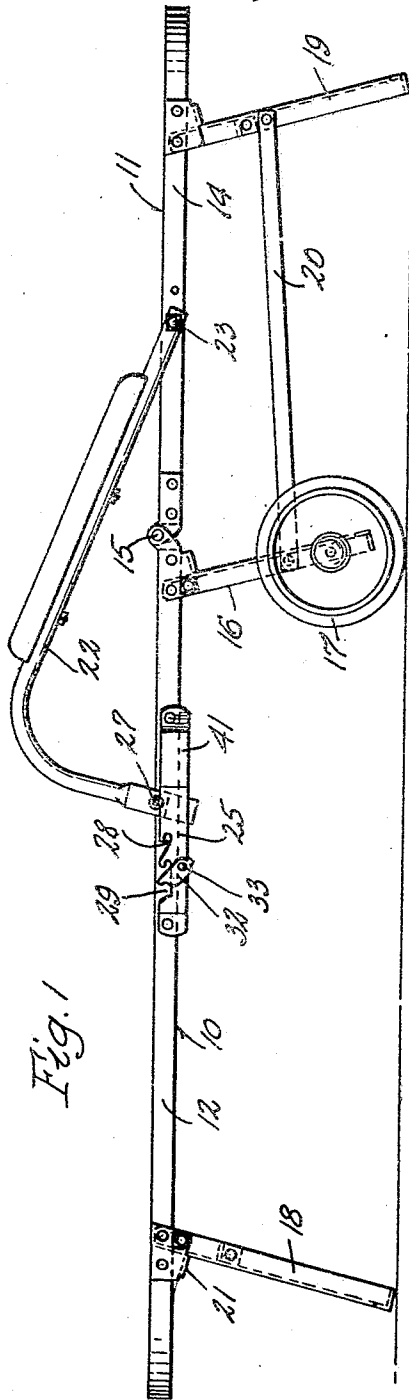
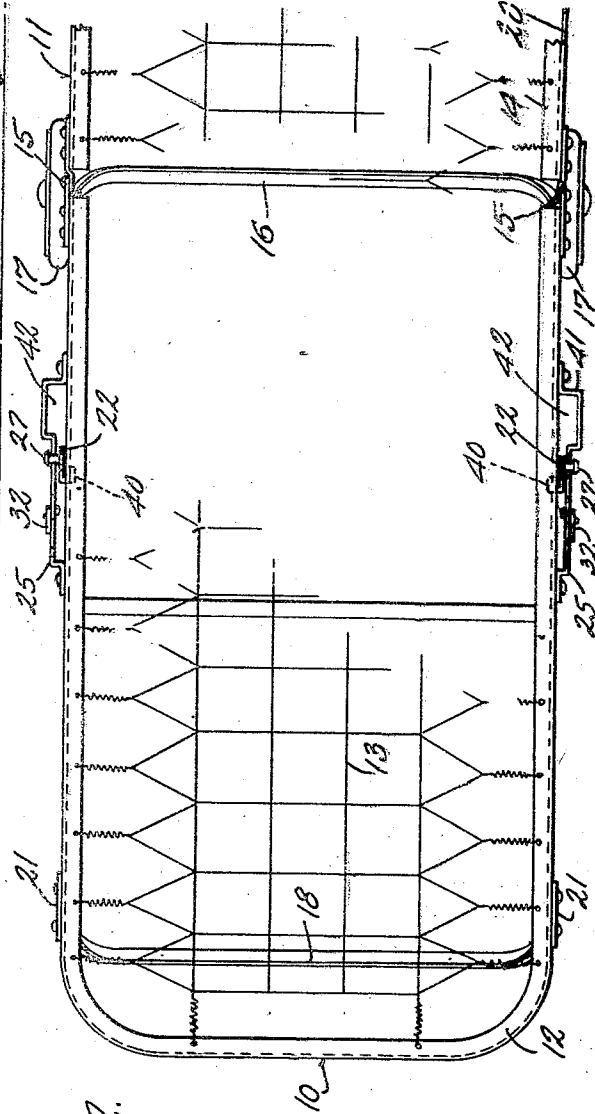


Fig. 2



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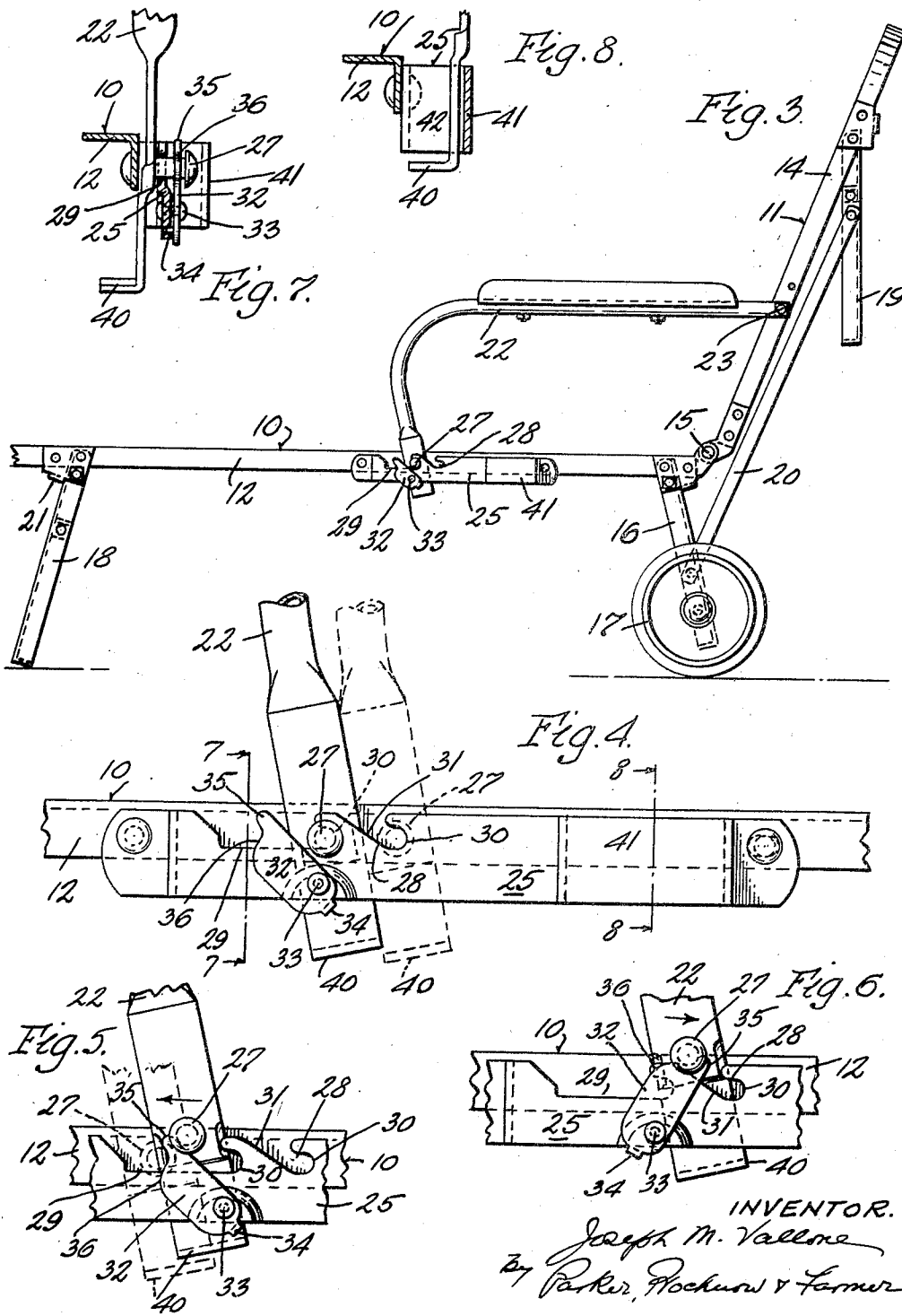
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UNITED STATES PATENT OFFICE

2,282,270

ARTICLE OF FURNITURE

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5 Claims. (Cl. 155—45)

This invention relates to articles of furniture, such as lounges, cots, chairs and the like, which have a section or part which is adapted to be swung or adjusted to different positions with respect to an adjacent section of the article, and a device for holding the movable section in ad-
justed position. In this application, the holding device is disclosed as applied in a lounge for hold-
ing the hinged back of the lounge in different
desired positions, but it will be understood that
the device is adapted for use in other articles of
furniture for holding an adjustable section in de-
sired adjustments.

One object of the invention is to provide a desirable, practical device of novel construction for holding the adjustable section in a desired position, and which is operated to hold and release the section simply by movement or manipulation of the section itself without the necessity for separately operating the holding device.

Other objects of the invention are to provide a holding device of the type mentioned, which is simple and inexpensive but strong, and durable and reliable in action; which enables the ready assembly of the parts by an unskilled person, but the parts of which, when assembled, are pre-
vented from unintentional disarrangement.

Further objects and advantages of the invention will appear from the following specification of the preferred embodiment of the invention, shown in the accompanying drawings, and the novel features of the invention are set forth in the appended claims.

In said drawings:

Fig. 1 is a side elevation of a cot or lounge embodying the invention, showing the back section in extended horizontal position.

Fig. 2 is a fragmentary plan view, partly in section, thereof.

Fig. 3 is a side elevation thereof showing the back section held in a raised position.

Fig. 4 is an enlarged side elevation of the holding device for the back section, showing the same position of the parts as Fig. 3.

Figs. 5 and 6 are similar views showing different positions of the parts assumed in the releasing action of the device.

Fig. 7 is a sectional elevation of the device on line 7—7, Fig. 4.

Fig. 8 is a sectional elevation on line 8—8, Fig. 4, showing the brace in position for removing it from the guide.

As illustrated in the drawings, the holding device is applied to a cot, comprising a seat or

bottom section 10 and a back section 11, which is suitably hinged to the seat section to adapt the back to occupy a horizontal position in line with the seat section, so that a person can lie at full length on the cot, or to be swung upwardly and supported in a more or less standing position, so as to provide a back support for a person in a more or less sitting or reclining position on the cot. As shown, the seat section has a U-shaped angle bar frame 12 which supports a bottom fabric 13 of link or other suitable construction, and the back section is of similar construction, having a U-shaped angle bar frame 14 to which the bottom fabric is attached. The side bars of the back section are hinged or pivoted in any suitable manner at 15 to the adjacent ends of the side bars of the seat section. As shown, the cot is provided with supporting members comprising a U-shaped leg 16 rigidly secured to the seat section, near its head end, and equipped with ground wheels 17 on which the cot can be wheeled about; a U-shaped leg 18 hinged to the foot end of the seat section and a U-shaped leg 19 hinged to the outer end portion of the back section. The leg 19 on the back section is connected by a link 20 to the stationary leg 16 so that when the back is raised, its leg 19 will be folded in toward the back, and when the back section is lowered to a horizontal position, its leg will be swung out and held in position for supporting the back section. The hinged leg 18 at the foot end of the cot is also adapted to be folded from its supporting position up under the seat section, and is adapted to be held in its supporting position by bearing against stationary abutments 21 on the seat frame. The cot or article could be of other construction having a hinged or adjustable section.

Braces or arms 22 are preferably provided at opposite sides of the cot, each suitably pivoted at 23 at one end to the adjacent side bar of the back section and having its opposite or front end arranged to cooperate with a holding device on the seat section, whereby the brace is held for supporting the back section in a standing or rearwardly inclined position, or is released to permit the back section to swing down to its horizontal position. The braces are shown as made of metal tubing and having downwardly curved, front end portions, and when the braces are in position for holding the back in its standing position, they form arm rests. The brace and its holding device are duplicated at opposite sides of the cot to hold the back more firmly, but a single brace and holding device only could be used, and

since the two devices are alike, only one is hereinafter described in detail.

The front end of the brace extends and is adapted to slide or move between the adjacent side bar of the frame 12 and a guide bar or member 25 which, as shown, has offset end portions stationarily secured, as by rivets, to the frame side bar so as to space the body portion of the guide member away from the frame bar, thus providing the necessary space or slot between these parts for the reception and movement of the end brace.

A stud or projection 27 fixed or formed on the front end portion of the brace, projects laterally therefrom over and is adapted to slide on the upper edge of the guide member 25, which edge is provided with one or more notches into which the stud is adapted to drop and engage one end of the notch for holding the back section in a raised position. Two notches 28 and 29 are shown in the guide member and, by engaging the stud in one notch, the back section is held in one position, while by engaging the stud in the second notch, the back section is held in a different adjustment. As shown, each notch is provided with an abrupt rear end or shoulder 33 which is preferably undercut or of hook form to prevent unintentional disengagement of the stud from the notch with consequent unintentional falling of the back from its raised position. The front edge 31 of the first or rear notch slopes upwardly and forwardly so as to permit the brace stud to ride on this edge upwardly out of the notch onto the upper edge of the guide, by a forward movement of the brace. To secure the back section in raised position, it is only necessary to lift it, which causes the stud on the brace to slide forwardly on the guide until it reaches the first notch 28, when it will drop into this notch, and by engaging the end 30, hold the back section up. If it is desired to adjust the back section further forwardly, it is only necessary to move it forwardly and the brace stud will ride up out of the first notch and drop into the next notch 29, and thus hold the back section in the second adjustment, shown in Fig. 3.

For releasing the brace to permit the lowering of the back section rearwardly from its raised position, the foremost notch 28 is lengthened or extended forwardly and a movable releasing member 32 is provided, which is preferably pivoted at 33 on the guide member to swing forwardly and rearwardly. This releasing member, as shown, is provided with a lateral lug 34 on its lower end adapted to engage the lower edge of the guide for retaining the releasing member in either a forwardly or rearwardly inclined position, as shown in Figs. 5 and 6, and the releasing member is shaped to provide a lug 35 at its upper, rear end portion and an edge 36, which curves or slopes downwardly and forwardly from this lug.

When the back is in its foremost, raised adjustment, the brace stud will be engaged in the foremost notch 29 back of the releasing member 32, which then occupies the upwardly and forwardly inclined position shown in Figs. 3 and 4. Then, when it is desired to release and lower the back section, it is only necessary to move the back section further forwardly and the brace stud will ride up on the inclined rear edge of the releasing member and drop down into the notch in front of the lug 35 on the upper end of the releasing member. Then, by pulling the back section rearwardly, the brace stud will engage

the lug 35 and swing the releasing member rearwardly and, in so doing, will ride on the curved edge 36 of the releasing member up out of the front notch. In its rearwardly inclined position, the upper end of the releasing member, as shown in Fig. 6, will substantially bridge the open, upper end of the first or rear notch 28, so that in the continued rearward or lowering movement of the back, the brace stud will ride over the rear notch on the releasing member and pass on to the upper edge of the guide in rear of the rear notch. When the back section is again lifted and supported in a raised position, the brace stud 27 in its forward movement on the upper edge of the guide will engage the upper end of the releasing member, which then inclines rearwardly, and will shove the releasing member forwardly to permit the stud to enter the rear notch. If, in this movement of the brace stud to enter the rear notch, it does not shove the releasing device forwardly far enough to drop into its forwardly inclined position, further forward movement of the stud for releasing it to permit the lowering of the back will shove the releasing member forward to its forwardly inclined position.

Thus, the back can be raised and secured in either of two standing or raised positions, simply by lifting and moving the back to the desired raised adjustment, and then the back can be released and lowered from either adjustment, simply by first a forward and then a rearward movement of the back section, and without first or separately manipulating the holding device to release the brace and permit the lowering of the back section. When only a single raised adjustment of the back is required, it will be understood that only the single, long notch 29 with the releasing member is necessary.

As shown in the drawings, the front end of each brace is bent inwardly, or provided with an inwardly extending projection 40 which is adapted to extend under the lower edge of the adjacent side bar of the seat frame 12 to prevent unintentional disengagement of the end of the brace from its guide slot between the guide member and the frame bar. In order to permit the insertion of the front end of the brace into the guide slot between the guide bar and the frame bar, in assembling the parts of the cot, the guide bar 25 is provided with a rear end portion 41 which is offset outwardly from the frame bar, far enough to permit the laterally extending end of the brace to pass through the passage 42 thus formed between the guide bar and frame bar, as illustrated in Fig. 8. In the normal operation of the device, after the assembly of the parts, the front end of the brace does not move rearwardly far enough to become disengaged through the wide passage 42.

I claim as my invention:

1. In an article of furniture comprising sections one of which is adjustable relatively to the other, a brace connected to one section and having a lateral stud at its free end portion, a guide on the other section which forms a slot in which the free end portion of said brace is confined but is movable lengthwise and along which said stud is moved by movement of said first section and which has an abrupt shoulder which said stud engages for holding said section from movement in one direction; and a releasing member pivoted on said guide and arranged to be swung to different positions by opposite movements of said stud, said releasing member in one position providing a surface on which said stud can ride in

one direction past the releasing member for engagement with said shoulder and said releasing member in its other position providing a surface on which the stud can ride in the opposite direction over said shoulder for releasing said adjustable section.

2. An article of furniture comprising sections one of which is adjustable relatively to the other, a brace connected to one section and having a stud, a guide on the other section along which said stud is moved by movement of said first section and which has a forwardly facing shoulder which said stud engages for holding said section from rearward movement, and a releasing device by which said stud is released from said shoulder by moving said section to move said stud first forwardly from the shoulder and then rearwardly, said guide forming a slot between itself and said second section in which said brace slides and said brace having a lateral projection arranged to engage a wall of the slot to prevent disengagement of the brace from the slot, and said slot having at one place a wide portion through which said lateral projection is removable from the slot.

3. In an article of furniture comprising sections one of which is adjustable relatively to the other, a brace connected to one section and having a stud, a guide on the other section along which said stud is moved by movement of said first section and which has a shoulder which said stud engages for holding said section from movement in one direction, a releasing device by which said stud is released from said shoulder by moving said section to move said stud first away from and then toward the shoulder, said guide forming a slot between itself and said second section in which said brace slides and said brace having a lateral projection arranged to engage a wall of the slot to prevent disengagement of the brace from the slot, and said slot having at one place a wide portion through which said lateral projection is removable from the slot.

4. In an article of furniture comprising a bot-

tom section and a back section which is hinged at its lower end to said bottom section to swing to different adjustments, a brace pivoted to a side portion of the back section above its hinge connection, said brace extending forwardly from said back section and being shaped and arranged to form an arm rest, a guide on said bottom section in which the front end portion of said brace is confined but is movable forwardly and rearwardly by adjusting movements of said back section, said guide having a shoulder which a part on said brace engages for holding said back section from rearward movement, and a releasing device which is mounted on said bottom section and is shifted by movement of said brace for releasing the brace from said holding shoulder by operating said back section to move said holding part of the brace first forwardly from the shoulder and then rearwardly.

5. In an article of furniture comprising a bottom section and a back section which is hinged at its lower end to said bottom section to swing to different adjustments, a brace pivoted to a side portion of the back section above its hinge connection, said brace extending forwardly from said back section above the bottom section and having a front end portion extending downwardly to said bottom section, a guide on said bottom section in which the front end portion of said brace is confined but is movable forwardly and rearwardly by adjusting movements of said back section, said guide having a shoulder which a part on said brace engages for holding said back section from rearward movement, and a releasing device which is mounted on said bottom section and is shifted from and to a releasing position by operating the back section to shift said brace forwardly and rearwardly, said releasing device having a portion which when the device is in said releasing position engages said brace and holds said holding part of the brace from engagement with said shoulder to release the back section for rearward adjustment.

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