Nov. 23, 1926. 1,607,878

J. DOETTLING

COLLAPSIBLE STAND

Filed Dec. 28, 1923 2 Sheets-Sheet 1

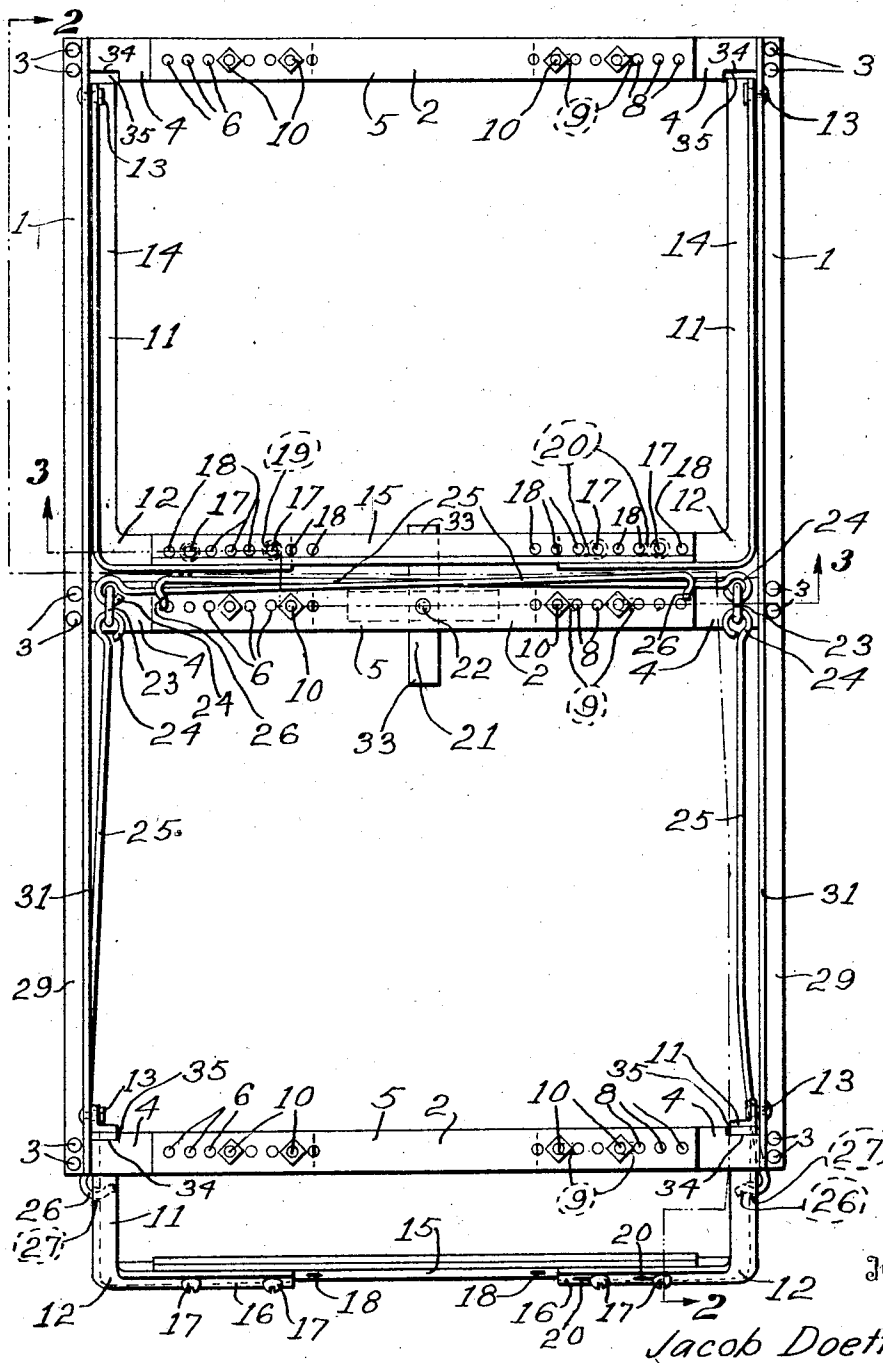


Fig. 1.

Inventor:
Jacob Doettling,
By Hughes & Wagner,
Attorneys.

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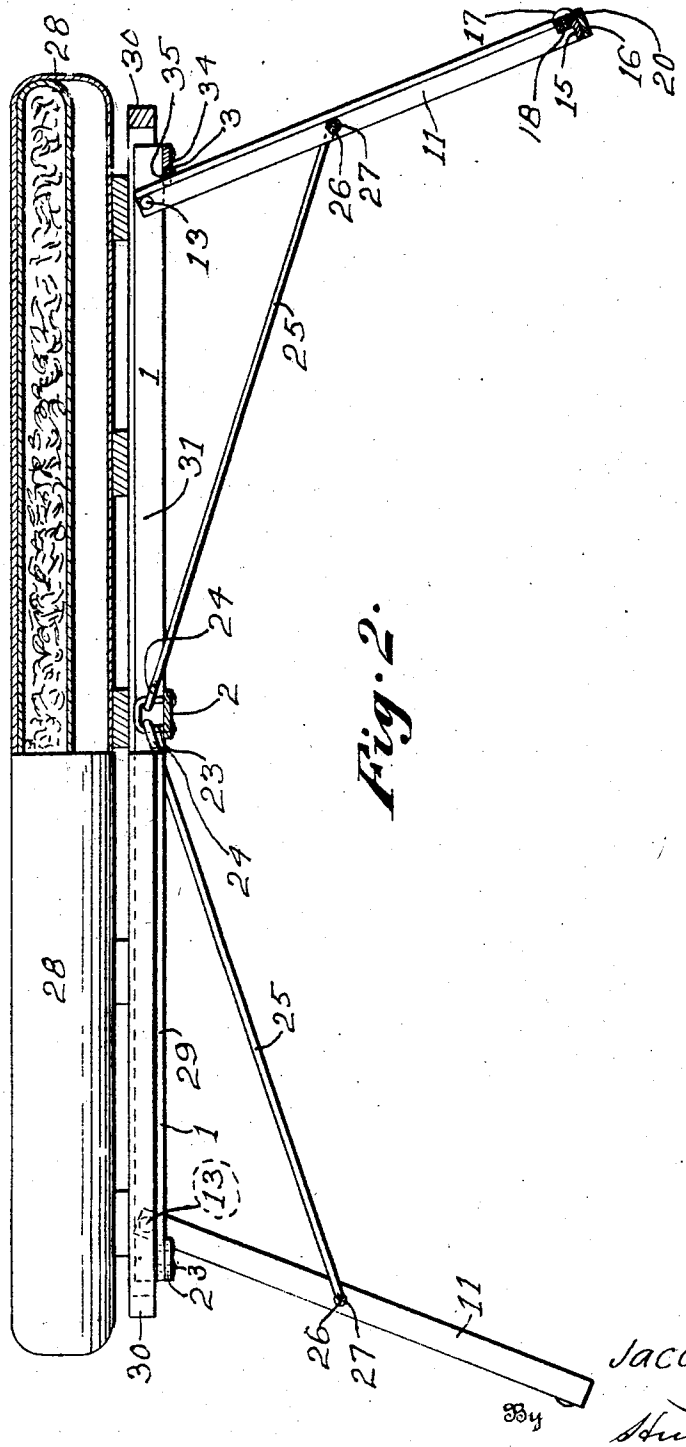


Fig. 2.

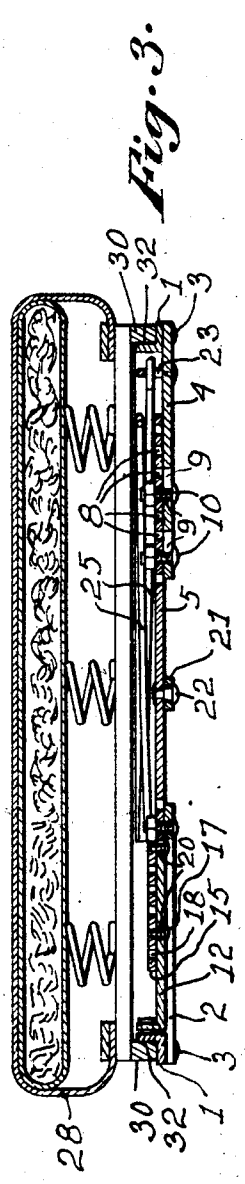


Fig. 3.

Inventor:

Jacob Doettling.

By Hugh B. Wagner.

Attorney

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UNITED STATES PATENT OFFICE.

JACOB DOETTLING, OF ST. LOUIS, MISSOURI.

COLLAPSIBLE STAND.

Application filed December 28, 1923. Serial No. 683,131.

This invention relates to collapsible structures, and pertains more particularly to a portable folding stand which is adapted for use as a support for the detachable seat cushions of automobiles and the like.

Motorists who take pleasure excursions in the open country, on alighting from their vehicles upon reaching their destinations, frequently take their seat cushions with them to avoid sitting on the ground. An object of the present invention is to provide a suitable stand or support for such seat cushion, to raise the same above the ground to a comfortable height.

Another object is to provide a stand or structure of this nature which shall be collapsible, so that, when not in use, it can be carried in compact form in the narrow space between the seat of the vehicle and the cushion resting thereon.

Another object is to provide such a stand which can be adjusted to fit seats of different sizes, thereby obviating the necessity of manufacturing stands in a variety of sizes, and so materially simplifying their manufacture and tending to their economical production in large quantities.

Other objects and advantages will be apparent as the description proceeds.

In the accompanying drawings forming part of this specification, in which like numbers of reference denote like parts wherever they occur.

Figure 1 is a plan view of the collapsible seat cushion support, showing the support folded in at one end and extended at the other;

Figure 2 is an elevational view with a section taken on the irregular line 2—2 of Figure 1; and

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 1.

A pair of oppositely disposed angle-bars 1 are connected together, preferably by transverse flat rectangular bars or strips 2, secured thereto by any suitable fastening means such as the rivets 3. There are preferably three such bars, one at each end and one in the middle. The bars or strips 2 consist of separate mutually over-lapping sections, the outer sections 4 being connected by the intermediate section 5. The intermediate section 5 has a series of apertures 6 at one end, which are alternatively registerable with the series of apertures 7 in the corresponding outer section 4. The other end of section 5 has a series of apertures 8, adapted for alternative registration with the series of slots 9 in the other outer section 4. The length of the slots 9 is preferably equal to the overall distance across two consecutive apertures 8. Bolts 10, passing through the mutually registerable apertures 6 and 7 and aperture 8 and slot 9, secure the intermediate section 5 to to the outer or end sections 4. The angle bars 1 may be brought closer together or spaced farther apart by bringing into registration the appropriate opposing apertures in the respective over-lapping sections, coarse variations in spacing by successive stages equal to the distance between consecutive holes being had thereby, and any finer variations desired being effected by the longitudinal adjustment of the apertures 8 relatively to the slots 9.

U-shaped standards 11, preferably fabricated of angle-bars, consist of L-shaped end-pieces 12, pivoted at 13 near the upper end of their defending legs 14, and of connecting bar 15, adjustably secured at its ends to the feet 16 of opposite legs 14 by means of screws 17 secured in screw-threaded apertures or tapped holes 18 in bar 15 and passing through apertures 19 in the foot 16 of one leg and through slots 20 in the foot 16 of the other leg. The series of apertures 19 and the series of slots 20 are capable of alternative registration with their respective co-operating series of tapped holes 18. Feet and bar 15 constitute the intermediate span of the U-shaped standard between its legs 14.

A bar 21 preferably pivoted at its center 22 to the center of the middle one of the bars 2 and on the underside of the said middle bar 2, can be swung into either the position shown in full lines or to the position indicated by dotted lines in Figure 1.

Staples 23, secured to the top side of the middle one of the bars 2 and just inside of the bars 1 and preferably parallel thereto, are looped through the eyes 24 of rods or hooks 25, having substantially S-shaped perpendicularly projecting ends 26, adapted to engage the apertures 27 in legs 14 for the purpose of retaining the standards 11 in their normal open positions when the stand has been set up for use.

When folded together and tucked away be-

tween the seat cushion 28 and the seat box or cushion support of a vehicle, the strips 2, and bottom flanges 29 of the angle-bars 1, face the said seat box, and a rectangular frame 30 on the bottom of the seat cushion 28 rests on the top side of the flanges 29, the upright flanges 31 of angle-bars 1 being fitted tightly against the inner sides 32 of the frame 30, by suitably adjusting the length of the bars 2, and, of course, also, the intermediate span of the U-shaped frames or standards 11. This adjustment is rendered possible because of the apertures 6, 7, and 8, slots 9, and bolts 10 associated with the bars 2, and because of the screws 17 and apertures 18 and 19 and the slots 20 in U-shaped standards 11, provided for the purpose. It will thus be seen that the seat is gripped securely between oppositely disposed angle-bars 1 and that the latter, by reason of their adjustable connections, can be moved relatively into and out of gripping engagement with the seat and also adjusted to fit seats of different sizes. In this collapsed position of the stand, the standards 11 are folded in so that their legs 14 are parallel to the bars 1, and the said standards 11 are retained in this withdrawn position when the cushion 28 is lifted from its seat box, because of the bar 21 being arranged perpendicularly to the bar 2 so that its ends 33 support the standards 11. In Figure 1, the standard 11 at the far side is shown to be thus supported by the bar 21.

When it is desired to set up the stand, the bar 21 is swung to the dotted position depicted in Figure 1, and the standards 11 are then swung outwardly on their pivots to the position as indicated in Figure 1 by the standard 11 at the near side of the stand. The rods or hooks 25 are then removed from their withdrawn position on the middle bar 2 (this position for the associated rods of the far standard 11 is depicted in Figure 1) and their S-shaped bent ends 26 are inserted in the apertures 27 in standards 11. Should the hooks 25 not be used, the standards 11 will be swung farther apart until their legs 14 abut against the edges 34 of recesses 35 in the two outer ones of the bars 2. This, however, results in greater bending strain being placed on the bars 1 when the stand is in use. To facilitate disengaging the hooks 25 from the apertures 27, preparatory to folding the stand together, it is desirable to bend or bow the same as shown at the right in Figure 1. This bending permits the S-shaped ends 26 to wind their way through the apertures 27.

Having thus described this invention, I hereby reserve the benefit of all changes in form, arrangement, order, or use of parts, as it is evident that many minor changes may be made therein without departing from the spirit of this invention or the scope of the following claims.

I claim:

1. A collapsible support for a seat comprising a pair of oppositely disposed longitudinally extending seat-gripping members respectively having a horizontal flange adapted to engage the bottom of the seat and a vertical flange adapted to engage a side of the seat, means adjustably connecting the said members and permitting the latter to be moved relatively into and out of gripping engagement with the said seat, and leg members pivotally connected to the said seat-gripping members.

2. A collapsible support for a seat comprising a pair of oppositely disposed longitudinally extending seat-gripping members respectively having a horizontal flange adapted to engage the bottom of the seat and a vertical flange adapted to engage a side of the seat, strips connecting the said members and being adjustable to permit the said members to be moved relatively into and out of gripping engagement with the said seat, and U-shaped standards at opposite ends of the said seat-gripping members, said standards respectively having L-shaped end members pivotally connected near their upper ends to the said seat-gripping members and a connecting bar adjustably secured at the ends to the feet of the said L-shaped end members.

3. A collapsible support for a seat comprising, in combination, a seat having a rectangular frame on the bottom side thereof, and a supporting standard comprising oppositely disposed angle-bars having upright flanges adapted to be engaged with the inner sides of the frame and horizontal flanges adapted to extend under the bottom edges of the frame, means adjustably connecting the said angle-bars and permitting the latter to be brought closer together or spaced farther apart, and leg members pivotally connected to the said angle-bars.

In testimony whereof I hereunto affix my signature.

JACOB DOETTLING.