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RESILIENT SEAT SUPPORT

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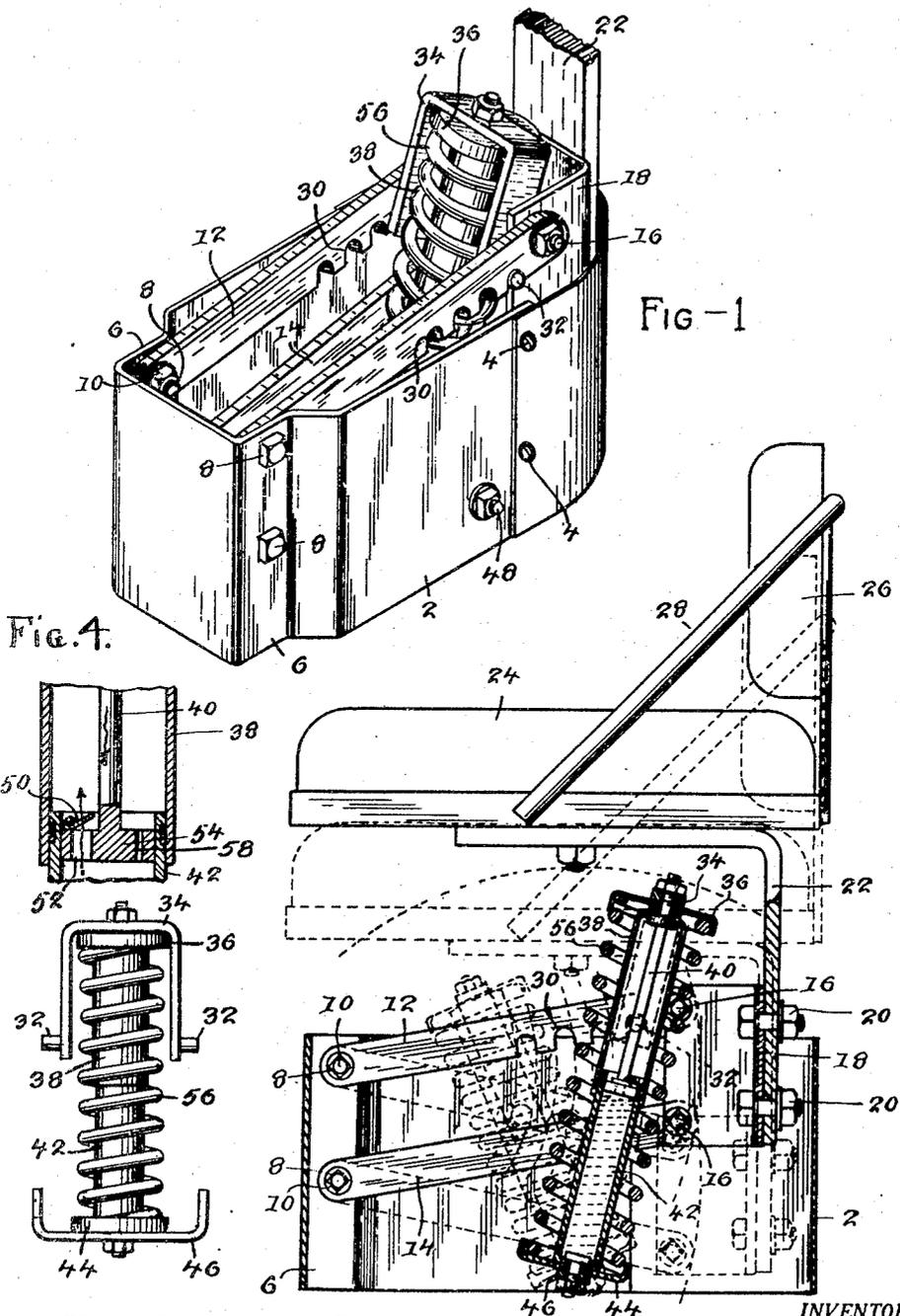


Fig. 4.

Fig-1

Fig-3

Fig-2

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## RESILIENT SEAT SUPPORT

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6 Claims. (Cl. 155—9)

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My present invention relates to an improved resilient seat support and more specially to a seat support adapted to support a seat under any circumstances and to provide selective adjustment therefor.

The seat support of my invention comprises generally a base and bracket arms together with spring and oil cushion means for resiliently supporting a seat.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention according to the best mode I have thus far devised, but it will be understood that various changes and alterations may be made in the exemplified structure within the scope of the appended claims.

In the drawings:

Fig. 1 is a perspective view of the support without a seat.

Fig. 2 is a longitudinal vertical sectional view showing a seat thereon.

Fig. 3 is a plan view of the cushioning means.

Fig. 4 is a detail sectional view of the fluid cylinder.

Referring now to the drawings wherein like parts are indicated by like characters, I provide a base 2 consisting in a sheet of metal or other suitable material and bent to form a housing, the ends being secured by screws 4. A front restricted portion is formed with parallel walls 6 to receive and journal the bolt shafts 8 secured by nuts 10.

Parallel arms or bars 12 and 14 are secured at their front ends on the shafts 8 while the rear ends are secured to both shafts 16 in the U-frame 18 to which is secured by bolts 20 bracket 22 for the illustrated seat 24 having a back 26 and brace 28.

The parallel arms 12 are formed with notches or openings 30 along the under edge and a pair of aligned notches engage with the opposed pins 32 of the brackets or saddle 34 which is mounted on the cap 36 for the cylinder or post 38. This cylinder is provided with a piston 40 and the piston reciprocates within and the cylinder telescopes without, a cylinder 42 having a cap 44 on a bracket 46 secured to the base 2 by bolts 48.

The piston is formed with a flap valve 50 for the front 52 of head 54 and permits a controlled movement of the spring 56 spaced between the caps 36 and 44 and oil within the telescoping cylinders moves through the small port 58 while the flap valve permits contraction of the cylinders. The cylinder 38 and its pis-

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ton 40, and the spring 56, constitute a spring and shock absorbing unit.

The weight of the occupant of the seat will depress the arms 12 and 14 and the pressure of the pins 32 will act to contract the cylinders against the tension of the spring 56. The spring encompassed cylinders may be moved about the pivot bolts 48 to engage selected pairs of notches and thereby the cushioning may be increased or decreased to effect a maximum cushion regardless of the weight of the occupant. Obviously with the stroke of the piston shortened by moving the pins to the left in Fig. 2 the pressure resistance will be increased.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. A seat support comprising a base having a vertically disposed end, pairs of parallel arms with notches in the lower edges of the arms of one of the pairs pivotally mounted on the vertically disposed end of the base, a seat bracket pivotally secured to and carried by the opposite ends of the arms, a post positioned between the pairs of arms with the lower end pivotally secured in the base, a bracket providing a saddle mounted on the upper end of the post having depending arms with outwardly extending opposed pins carried by the lower ends of the arms, said pins positioned in a selected pair of notches of the arms, and resilient means on said post urging the saddle, parallel arms, and seat bracket upward.

2. In a resilient seat support, a base having a vertically disposed end, pairs of parallel arms pivotally mounted at one end on the vertically disposed end of the base, one of said pairs of parallel arms having notches in the lower edges thereof, a seat bracket pivotally secured to and carried by the extending ends of the arms, a vertically disposed telescoping cylinder positioned between the arms with the lower end thereof pivotally mounted in the base, means retarding the contraction of said telescoping cylinder, and a bracket providing a saddle mounted on the upper end of the cylinder having depending arms with opposed pins positioned in a selected pair of the notches of the parallel arms to support the seat bracket.

3. In a resilient seat support, a base having vertically disposed ends and side walls, pairs of parallel arms positioned in the base and with the inner ends pivotally mounted on one end thereof, said pairs of parallel arms positioned one above the other and with the upper pair having notches in the lower edges thereof, a seat bracket pivotally

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secured to and carried by the outer ends of the arms, a vertically disposed telescoping cylinder with fluid compression means therein positioned between the parallel arms with the lower end thereof pivotally mounted in the base, a compression spring surrounding said cylinder, and a bracket providing a saddle mounted on the upper end of the cylinder having horizontally disposed pins positioned in a selected pair of the notches of the parallel arms for supporting the seat bracket.

4. In a resilient seat support, a base having vertically disposed ends and side walls, pairs of parallel arms positioned in the base and with the inner ends thereof pivotally mounted on one of the ends of the base, a seat bracket pivotally secured to and carried by the outer ends of the parallel arms, a vertically disposed telescoping cylinder with the lower end pivotally mounted in the base, means resiliently retarding contraction of the cylinder, the uppermost of said parallel arms having notches in the lower edges thereof, and a bracket providing a saddle carried by the upper end of the cylinder and having pins positioned in the notches of the parallel arms.

5. A seat support comprising a base, upper and lower pairs of bars pivotally mounted at one end on the base, a seat bracket pivotally secured to and carried by the other ends of the bars, a vertically disposed spring and shock absorbing unit located between the pairs of bars with its upper end extending above one pair of the bars, means pivotally mounting the lower end of the unit on the base, a saddle of inverted U-form mounted

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on the upper end of the unit with its sides extending downwardly therefrom, members carried by that pair of bars above which the unit extends, and members carried by the lower ends of the saddle, the members of the bars and the members of the saddle cooperating to provide means for detachably connecting the saddle to said bars at one of a series of longitudinally spaced distances from the pivots of the bars.

6. A seat support such as claimed in claim 5, wherein the members on the bars consist of spaced apart notches in the lower edges of the bars, and wherein the members on the saddle consist of pins extending laterally from the saddle for engagement in an aligned pair of said notches.

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