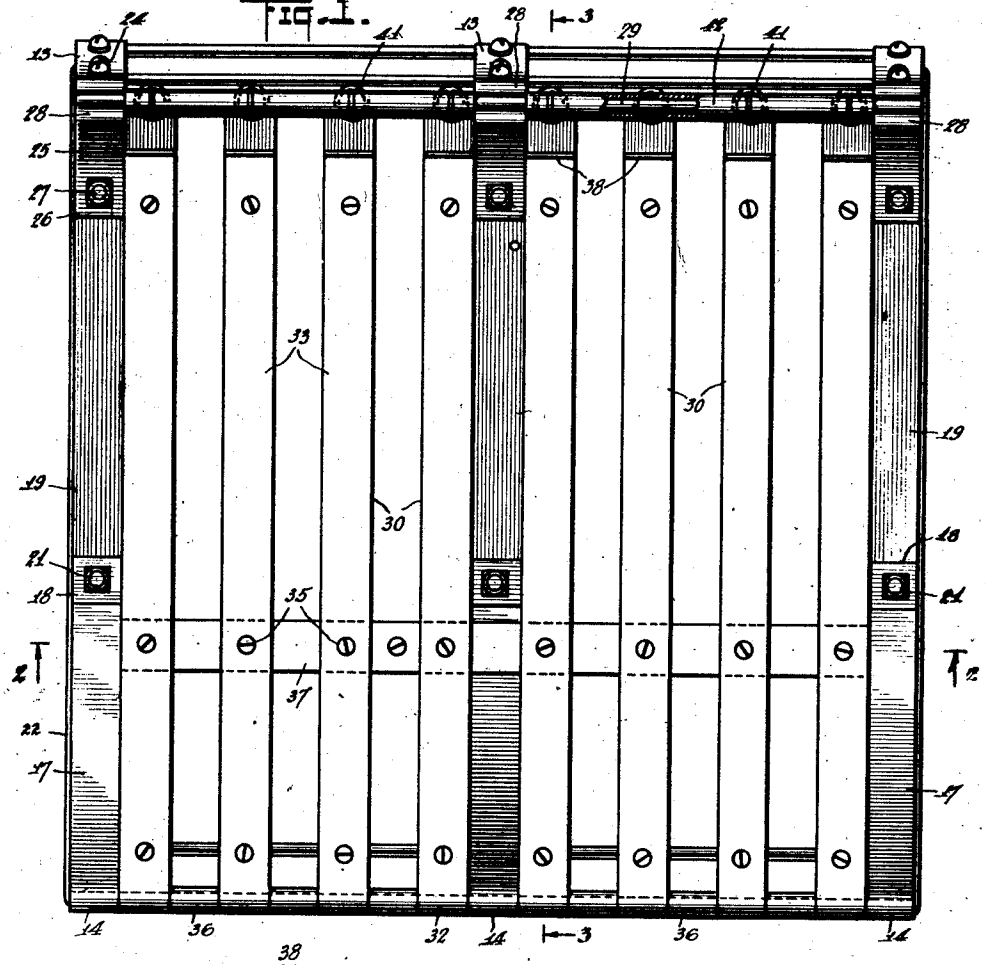
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RESILIENT SUPPORT FOR CUSHION SEATS

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FIG. 1.



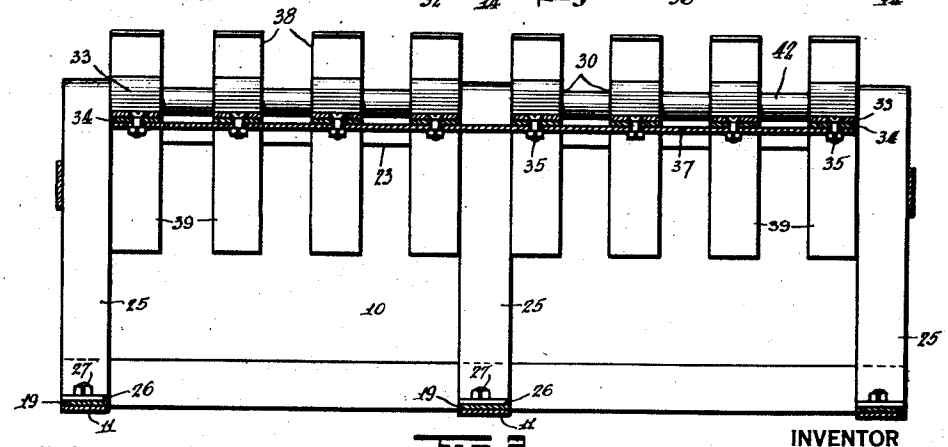


FIG. 2.

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Fig. 3.

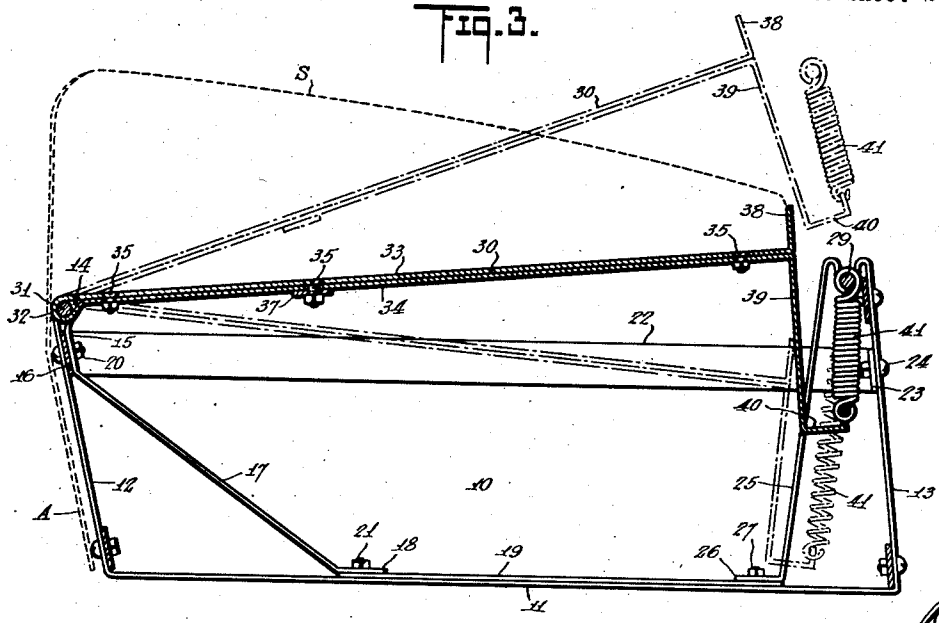


Fig. 4.

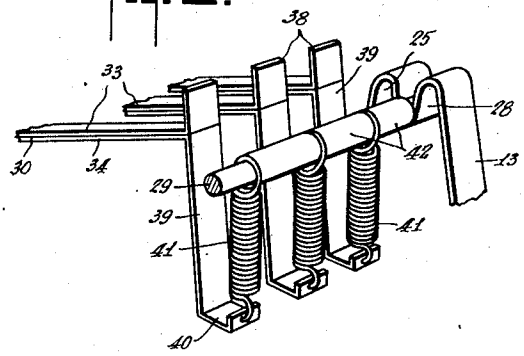


Fig. 5.

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UNITED STATES PATENT OFFICE.

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RESILIENT SUPPORT FOR CUSHION SEATS.

Application filed April 13, 1927. Serial No. 183,397.

This invention relates to resilient supports for cushion seats which are especially designed for vehicle seats, the same being in the nature of an improvement over our copending application, Serial No. 156,491, filed December 22, 1926.

The present invention comprehends a resilient cushion seat support, including a frame defining a compartment for the storage of tools or other articles and which support includes a seat rest which is fulcrumed to the frame in such a manner as to permit of the swinging of the seat rest to an open position whereby access may be gained to the compartment defined by the frame for the introduction and removal of articles.

More specifically the invention comprehends a resilient seat support for cushion seats, which includes a stationary frame and a seat rest made by a plurality of resilient arms independently fulcrumed at the forward ends to the forward upper edge of the frame with a rear cross element having independent contractile connections with the rear free ends of the arms together with laterally spaced bearings at the rear upper face of the frame within which the rear cross element is normally seated and supported whereby the free ends of the arms are tensioned against downward movement and returned to a normal position.

Other objects reside in the details of construction, the simplicity of the construction, the economy with which the same may be produced, and the general efficiency derived therefrom.

With the above recited and other objects in view, reference is had to the following specification and accompanying drawings in which there are exhibited certain examples or embodiments of the invention which are in no way intended as limitations upon the scope of the appended claims as it is to be clearly understood that variations and modifications which properly fall within the scope of said claims may be resorted to when found expedient.

In the drawings—

Figure 1 is a top plan view of the seat support constructed in accordance with the invention;

Fig. 2 is a transverse sectional view therethrough taken approximately on the line indicated at 2—2 in Fig. 1;

Fig. 3 is a longitudinal sectional view taken approximately on the line indicated at 3—3 in Fig. 1, and illustrating respectively in full and broken lines, the normal closed relation of the seat rest to the frame, a partially opened position thereof, and a depressed position of the seat rest;

Fig. 4 is a fragmentary perspective view illustrating the closed supported position of the seat rest in the frame bearings;

Fig. 5 is a sectional view similar to Fig. 3, illustrating a slightly modified adaptation of the invention.

Referring to the drawings by characters of reference, a stationary frame is designated generally by the reference character 10 and said stationary frame includes bottom longitudinal frame strips 11 extending fore and aft or from front to rear, which frame strips are provided with upwardly projecting front and rear ends 12 and 13. The front end 12 of each strip is bent inwardly and downwardly to form a bearing knuckle 14 and thence upwardly to and spaced from the end 12 to provide a portion 15, between which is positioned and bolted the horizontal lead 16 of a horizontal frame strip. From the portion 15 each strip 11 is provided with a rearwardly and downwardly inclined terminal 17 having a horizontal extremity 18 which overlies a brace strip 19 on each strip 11. The lead 16 of the horizontal frame strip is bolted or otherwise secured by an element 20 passing through the ends 12, portions 15 and the lead 16. The extremity 18 is secured by a bolt 21 or its equivalent to the innermost element 19 and strip 11. The horizontal upper frame member lead 16 is provided with rearwardly directed leads 22 at the opposite end of the stationary frame 10, which leads 22 are formed with inwardly bent terminals 23 secured by bolts 24 or their equivalent to the rear upturned ends 13 of the longitudinal strips 11. The rear upturned ends 13 are provided with inwardly and downwardly bent terminals 25 having horizontal extremities 26 secured by bolts 27 or their equivalent, to the brace elements 19 and the longitudinal strips 11. The bights or upper portions of the ends and terminals 13 and 25 are downwardly offset to form open bearings 28 for the reception of a cross rod 29.

A plurality of arms or fingers 30 constituting a seat rest, are fulcrumed for independent movement on a cross rod 31 mounted

in the bearing knuckles 14. Each of the arms 30 consists of a length or strip of material which is bent substantially intermediate its ends to form a loop or eye 32 embracing the cross rod 31. The ends of the strip of material form superimposed leaves 33 and 34, which are secured together by bolts 35 or other suitable securing means. The arms are transversely spaced by means of spacer leaves 36 on the front cross rod 31. The arms or fingers 30 are connected by a transverse semi-flexible strip 37 attached by one set of bolts or securing elements 35. At the free rear ends of the arms, the upper leaves are formed with an upwardly projecting extremity 38 and the lower leaves 34 with a downwardly projecting extremity 39. The downwardly projecting extremities 39 are each formed with a rearwardly directed terminal 40, which is connected to the rear cross rod 29 by a coiled contractile spring 41. The upper ends of the springs 41 are laterally spaced by spacer sleeves 42. The intermediate spacer sleeves are separated to allow the cross rod to fit within the open bearings 28. A seat S is mounted upon the seat rest defined by the arms 30, and is preferably secured thereto. The seat S may have a depending apron A covering and concealing the seat supporting device.

In practice, the main frame 10 defines a compartment for the reception of tools or other articles and it is obvious that the seat rest carrying the seat S may be raised as illustrated in Fig. 3, to gain access to the compartment defined by the stationary frame 10. In raising the seat, the rear cross rod 29 is disengaged from the open bearings 28 and when the seat rest is returned to a closed position with respect to the frame 10, the rear cross rod 29 is again seated in the open bearings.

In the modified adaptation of the invention illustrated in Fig. 5, the rear terminal 38^a of the uppermost leaf 33 of each arm 30, is extended upwardly to form a back rest which may be upholstered.

What is claimed is:

1. A resilient support for seats, including a stationary frame defining a storage compartment and a seat rest comprising a plurality of resilient arms independently fulcrumed at their forward ends to the upper forward edge of the frame, a rear cross rod having independent contractile connections with the free rear ends of the arms, and laterally spaced bearings at the rear upper edge of the frame having open upper ends within which the rear cross rod is normally seated and supported to anchor the upper end of the contractile connections, whereby the rear free ends of the arms are tensioned against downward movement and returned to a normal position when deflected downwardly.

2. A resilient seat support, including a stationary frame defining an article receiving compartment, and a seat rest composed of a plurality of independent arms fulcrumed at the forward ends to the forward upper edge of the stationary frame, laterally spaced open bearings at the rear upper edge of the frame, a transverse element removably mounted in the bearings, and vertically arranged independent contractile springs connected at their opposite ends respectively to the free rear ends of the arms and said transverse element whereby the arms have free independent movement with respect to each other and whereby said seat rest is removably supported at its rear end by the stationary frame.

3. A resilient seat support, including a stationary frame defining an article receiving compartment, and a seat rest composed of a plurality of independent arms fulcrumed at the ends to the forward upper edge of the stationary frame, laterally spaced bearings at the rear upper edge of the frame said bearings being open at their upper ends, a transverse element mounted in the bearings, and displaceable from said bearings by upward swinging movement of said seat rest, and independent contractile connections between the free rear ends of the arms and said transverse element, whereby said seat rest constitutes a closure for the compartment defined by the frame, which seat rest is swingable upwardly to an open position for gaining access to said compartment.

4. A resilient seat support, including a stationary frame and a yieldable seat rest comprising a plurality of resilient seat-supporting arms independently furcrumed at the forward ends to the upper forward portion of the frame, a member removably supported by the upper rear portion of the frame, and independent contractile means of connection between the rear ends of the arms and said member for tensioning said arms against downward movement and for normally retaining the same elevated.

5. A resilient seat support, including a stationary frame and a yieldable seat rest comprising a plurality of resilient seat-supporting arms independently fulcrumed at the forward ends to the upper forward portion of the frame, a member removably supported by the upper rear portion of the frame, independent contractile means of connection between the rear ends of the arms and said member for tensioning said arms against downward movement and normally retaining the same elevated, and a yieldable means of connection between said arms disposed adjacent the fulcrum ends.

6. A resilient seat support, including a stationary frame and a yieldable seat rest comprising a plurality of resilient seat-supporting arms independently fulcrumed at

the forward ends to the upper forward portion of the frame, a member removably supported by the upper rear portion of the frame, and independent contractile means of connection between the rear ends of the arms and said member for tensioning said arms against downward movement and normally retaining the same elevated, the arms having upwardly projecting terminals constituting a back rest for the seat.

7. In a resilient seat support, a plurality of spaced parallel resilient seat-supporting arms, each fulcrumed at the same end and independently on alined axes and each provided at the opposite end with a depending terminal, a transverse bar superposed with respect to said depending terminals, an independent contractile connection between each terminal and said transverse bar, and laterally spaced bearings within which the transverse bar is engageable upon downward movement and from which the same is displaceable upon upward movement.

8. In a resilient seat support, a plurality of spaced parallel resilient seat-supporting arms, each consisting of a length of material bent substantially intermediate its length to form an eye and superimposed connected leaves, the upper leaf of which is bent upwardly at its free terminal to engage with and act as a stop for a seat supported thereby and the lower leaf of which is bent downwardly with a rearwardly projecting and upturned apertured terminal, a common axis upon which the eyes are fulcrumed to permit of independent relative movement of the arms, a transverse rod superposed with respect to the apertured extremities and independent vertically arranged springs respectively attached to each apertured extremity and to the transverse rod, and transversely spaced bearings with which the transverse rod is engaged upon downward movement and from which the same is displaceable upon upward movement.

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