J. A. HAUSER.

STRETCHER SPRING.

APPLICATION FILED JULY 21, 1916.

1,253,595. Patented Jan. 15, 1918.

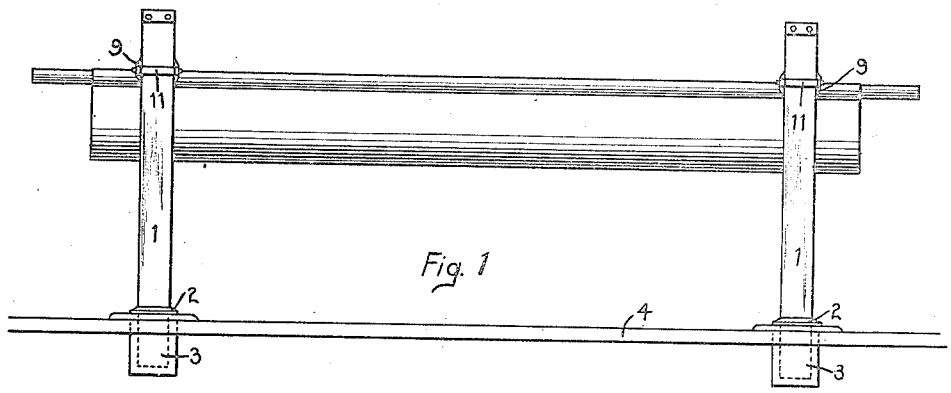


Fig. 1

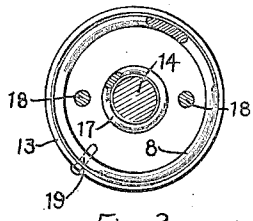


Fig. 3

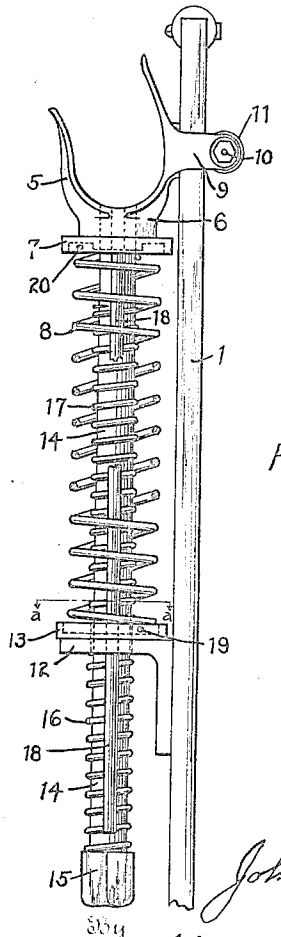


Fig. 2

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STRETCHER-SPRING.

1,253,595. Specification of Letters Patent. Patented Jan. 15, 1918.

Application filed July 21, 1916. Serial No. 110,434.

To all whom it may concern:

Be it known that I, JOHN A. HAUSER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Stretcher-Springs, of which the following is a specification.

This invention relates to a new and useful improvement in stretcher springs.

The principal object of the invention is to provide for automobile ambulances, patrol wagons, baggage cars and other conveyances, a stretcher spring device that insures to sick and injured persons complete freedom from undue jolts and jars incident to the moving vehicle. The device is simple and compact in construction, and may be readily installed in any vehicle which is used for the transportation of the injured and sick.

The preferred form of embodiment of my invention is illustrated in the accompanying drawings, of which Figure 1 is a side view of the spring standards in their stretcher supporting position. Fig. 2 is an elevational view, partly in section, of one of the standards and the springs which it supports. And Fig. 3 is a sectional view taken on the line *a—a* of Fig. 2.

Throughout the specification and drawings, similar reference characters denote corresponding parts.

In a detailed description of the preferred form of embodiment of my invention, the numeral 1 designates a spring-supporting standard which is preferably constructed of cast steel whose sides are smooth and flat. A shoulder or flange 2 is provided on the extreme lower end of the standard 1, so that the portion of the latter below said shoulder may enter a pocket 3 permanently attached to the floor 4 of the vehicle which carries the stretcher. The pocket 3 is deep and firm enough to afford a rigid support for the standard 1 which may be readily inserted in it and removed therefrom. In Fig. 1 two of these standards are shown supported upon the floor 4 as above described; and while the pocket method of attaching the standards to the floor is preferred, any other suitable method may be employed if desired.

Referring to Fig. 2, the numeral 5 designates a stretcher pole-receiving member or hook 5 which is shaped somewhat similar to an oar lock. This member has two upwardly and outwardly flaring jaws, and a neck portion 6 to the lower end of which is secured a lid shaped piece 7 that receives within its circumferential edge a coil spring 8.

Projecting laterally from the inner jaw of the member 5, is a forked piece 9 which loosely straddles the standard 1. A pivot 10 is firmly attached between the outer ends of the forked piece 9 to receive a roller 11 which, as will be hereinafter described, assists in the easy operation of the springs.

Attached to the lower portion of the standard 1, is a ledge or shelf 12 which supports a cup 13 similar to the lid shaped piece 7. Within its circumferential edge this cup 13 forms a seat for the spring 8.

Rigidly secured to the neck 6 of the member 5, and extending downwardly therefrom through the cup 13 and ledge 12, is a rod 14 which terminates at its lower end in an enlarged bolt head portion 15. Any downward pressure, such as that exerted by an occupied stretcher, will force the rod downwardly against the tension of the spring 8. To prevent a sudden rebound of the rod 14 after the vehicle has passed over a rough place in the road, a coil spring 16 is provided. This spring encircles the rod 14 between its head 15 and the ledge 12 to so cushion the rod on its return stroke that the latter will not be felt.

The spring 8 is of sufficient strength and resiliency to absorb all jars and jolts when a person of light weight is on the stretcher. However, to relieve a heavier person from these shocks, an interior coil spring 17 is provided. This spring closely encircles the rod 14 from a point a short distance below the piece 7 to the base cup 13 which forms for it a seat. Now, a light weight will be fully sustained by the spring 8, but a heavy weight will force the piece 7 downwardly upon the top of the spring 17, after which the latter will coöperate with the spring 8 in protecting a heavy person from the shocks and jars of the moving conveyance.

In order to assist in guiding the springs hereinbefore referred to during their compression and expansion, there extend downwardly from the neck portion 6 of the member 5, two rods 18. These rods, which are of small diameter, pass downwardly through the cup 13 and ledge 12, almost to the head 15. They are positioned one on each side of the rod 14, outside of the spring 17 and

within the spring 8 above the cup 13, and outside the spring 16 below said cup. They accordingly coöperate with the roller 11 in insuring the stretcher holder 5 and its supporting springs, a straight up and down movement at all times, to the end that their shock absorbing qualities are increased. The springs are specially tempered so that they will expand and contract without breaking.

A pin 19 enters the cup 13 above the lower end of the spring 8, and a similar pin 20 extends into the piece 7 below the upper end of said spring, to firmly hold it in place.

It will now be seen that ease and comfort will be insured to the sick and injured while riding in an ambulance equipped with my device.

Having described my invention, I claim:

1. In a device of the class specified, the combination with a standard, a ledge mounted thereon, a pole-supporting means resiliently mounted on said ledge, a forked device carried by the pole-supporting means, straddling the standard, closure means for the forked device, and a post passing downwardly from said pole-supporting means through the ledge, to coöperate with the forked device in guiding the post-supporting means relatively to the standard.

2. In a device of the class specified, the combination with a standard, a ledge mounted thereon, a pole receiving stirrup resiliently supported by said ledge, lugs carried by the stirrup straddling the standard, closure means carried by said lugs, and a post passing downwardly from said stirrup through the ledge to coöperate with the lugs in guiding the stirrup relatively to said standard.

In testimony whereof I have hereunto set my hand this 18th day of July, 1916.

JOHN A. HAUSER.

Witness:

HOWARD S. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."