C. V. PETTEYS.

Horse-Litter.

No. 220,865. Patented Oct. 21, 1879.

Fig. 1.

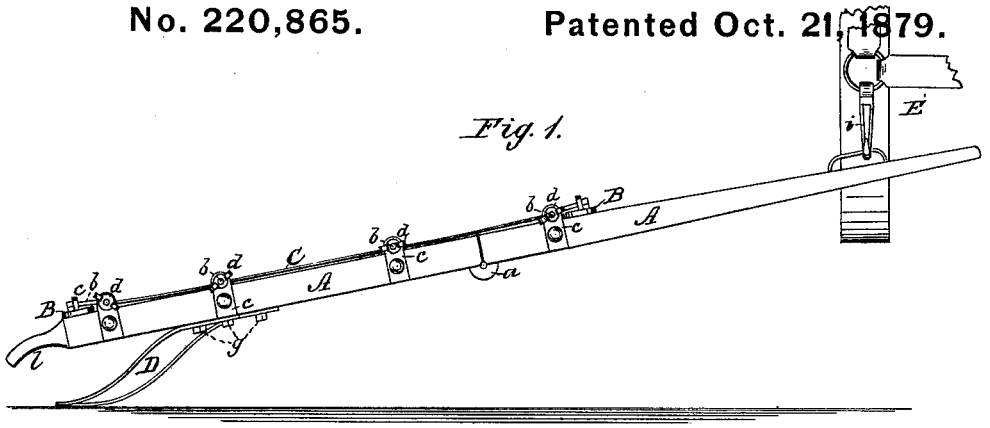


Fig. 2.

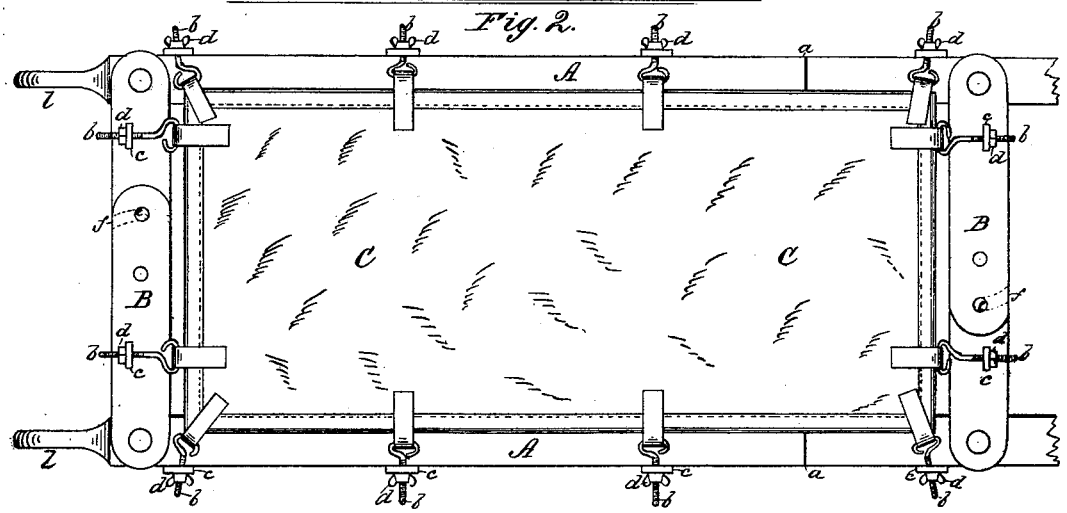


Fig. 3.

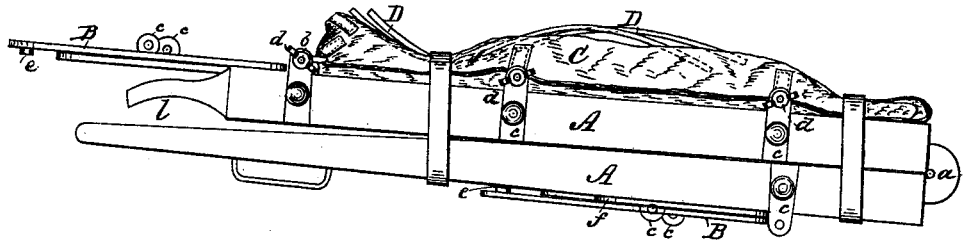
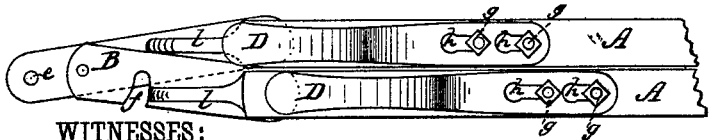


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES V. PETTEYS, OF U. S. ARMY, FORT ROBINSON, NEBRASKA.

IMPROVEMENT IN HORSE-LITTERS.

Specification forming part of Letters Patent No. **220,865**, dated October 21, 1879; application filed July 18, 1879.

To all whom it may concern:

Be it known that I, CHARLES V. PETTEYS, acting assistant surgeon U. S. A., stationed at Fort Robinson, Nebraska, have invented a new and Improved Horse-Litter; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of my invention is to provide for army use an improved travois or horse-litter, which shall be of light draft, and adapted to be folded and packed in small space, and to be readily extended when required for use; also adapted to support the sick or wounded in comfortable horizontal position, and with the least possible jar or jolt while passing over rough ground.

To this end I construct a travois as hereinafter described, and as shown in the accompanying drawings, in which—

Figure 1 is a side view of the travois in the position it assumes when in use. Fig. 2 is a plan view of the body or main portion of the same. Fig. 3 is a side view of the travois folded for transportation, &c. Fig. 4 is a detail plan view of the rear portion of the shafts inverted, and in the position they assume when the travois is folded.

Referring to said figures, the frame of the travois is composed of the parallel bars or shafts A A and pairs of connecting cross-bars B B. The shafts A A have each a rule-joint at or near the middle *a*, to adapt them to fold lengthwise, and the cross-bars B B of each pair are also pivoted together and to the shafts A, so that they will fold horizontally.

The canvas C is secured to the frame of the travois by means of bolts *b*, which are attached at various points around its edge, and are detachably secured to eyes *c* on the shafts A and bars B by means of nuts *d*, that are screwed upon the ends of the bolts. These devices—to wit, screw-bolts and nuts—enable the canvas to be kept stretched taut, so that two or more persons may be conveniently carried. The connecting-bars B fold outward, and are prevented from folding inward or toward the canvas C by means of a lock formed by a stud, *e*, and slot *f*. The stud *e* projects downward from the overlapping end of one of the bars B of each pair, and enters the open slot *f*, formed in the outer side or edge of the other bar B at a point between the pivot and the shaft.

When the travois is extended and ready for use, as shown in Fig. 1, the tension of the canvas C holds the bars B in alignment, the studs *e* being in such case in contact with the bottom or closed end of the slots *f*. In such position the bars B serve as stays for the shafts A A, holding them rigidly parallel. The rear end of the travois has curved plate-spring supports D, whose elasticity relieves the heavy jolt or jar incident to the use of the ordinary horse-litter. Said springs also support the litter in a nearly horizontal position, so that the sick or wounded placed thereon do not tend to slide downward, but easily maintain the position in which they are first laid on the canvas.

The springs D are attached to the shafts A A by screw-bolts *g*, that pass through key-hole slots *h*, so that the springs may be detached or changed in position as required. One of the springs projects farther rearward than the other, as shown in Figs. 1, 3, 4. Hence, in passing over sticks and ridges, &c., or through hollows or cavities in the ground, one side of the travois will be raised or let down before the other, thus rendering the motion as easy as practicable.

The travois is attached to a mule or other draft-animal by a simple and cheap form of harness, of which a portion, E, is shown in Fig. 1, consisting mainly of a breast-collar and back-band or pad. The special means of connection between the travois and harness are the snap-hooks *i*, which admit of instant attachment and detachment.

When the travois is not required for use the nuts of bolts *b*, attached to the ends of the canvas, are screwed off and the spring-supports D detached, so that the jointed parts A A B B may be folded, as shown in Fig. 3, in which position the travois occupies so small space that from five to six of them may be transported by a single mule. The rear ends of the shafts A are reduced to form handles *l*, which make the travois available as a stretcher or hand-litter.

What I claim is—

1. A travois or litter composed of jointed bars or shafts, jointed connecting-bars, and a

canvas, detachably secured, as shown and described, whereby the litter is adapted to be folded and extended for use, as specified.

2. The combination, with the shafts A A, of the pairs of pivoted bars B B, having a lock-joint, and the canvas C, which holds said bars in rigid alignment when attached thereto, as specified.

3. The combination of the screw-bolts *b* and nuts *d*, and the canvas C, with the shafts and bars A B, and the eyes or perforated lugs *c*, attached to the latter, all as shown and described, for the purposes specified.

4. The combination, with a travois or horse-litter, of plate-springs attached to its rear end to serve as elastic supports, as shown and described.

5. The combination, with the shafts A A, of plate-spring supports, one of which projects in rear of the other, as and for the purpose specified.

CHARLES V. PETTEYS.

Witnesses:
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