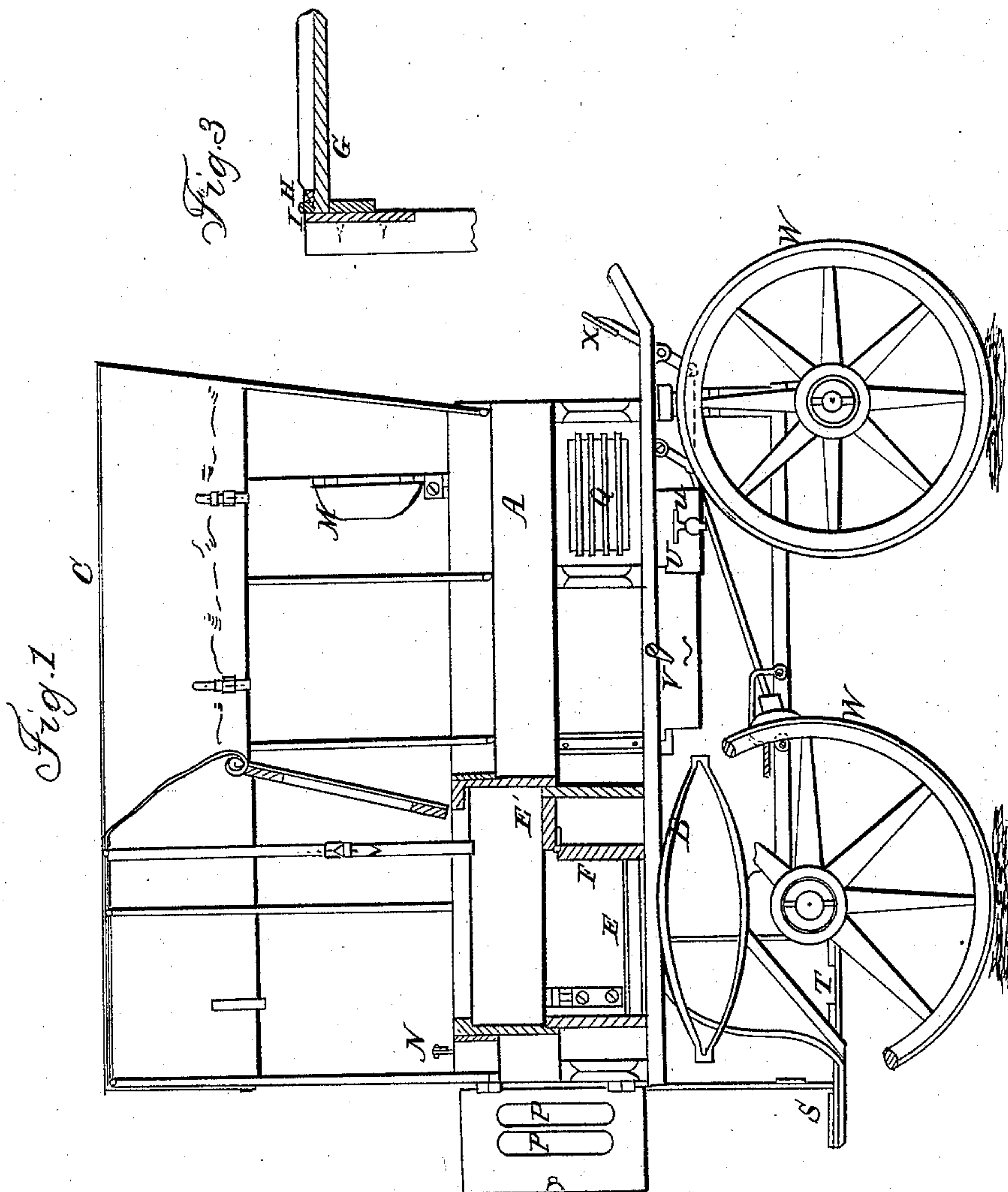


A. W. SUS.

Ambulance.

No. 39,595.

Patented Aug. 18, 1863



*Witnesses:*  
*Octavius Knight*  
*J. H. Stoddard*

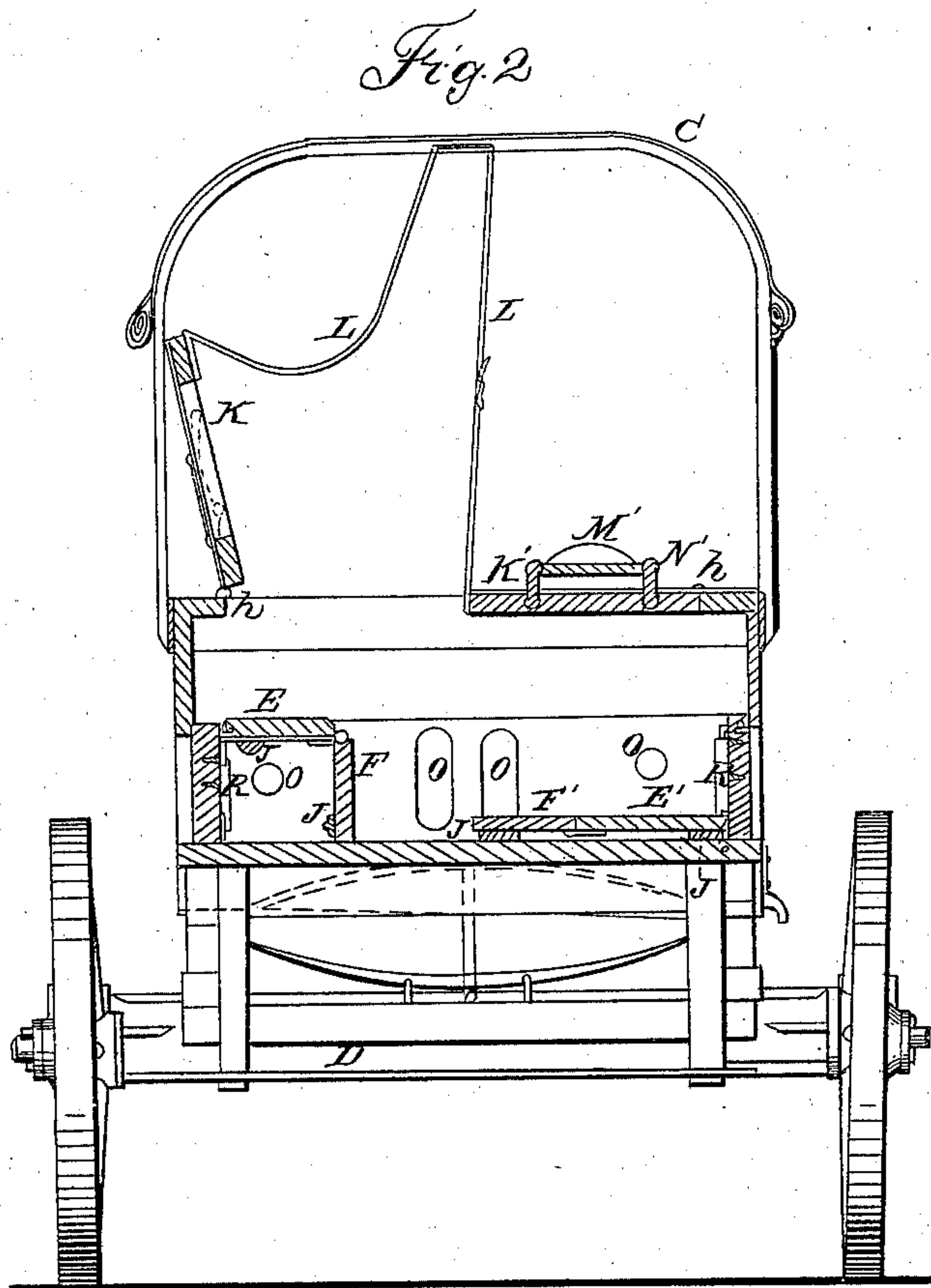
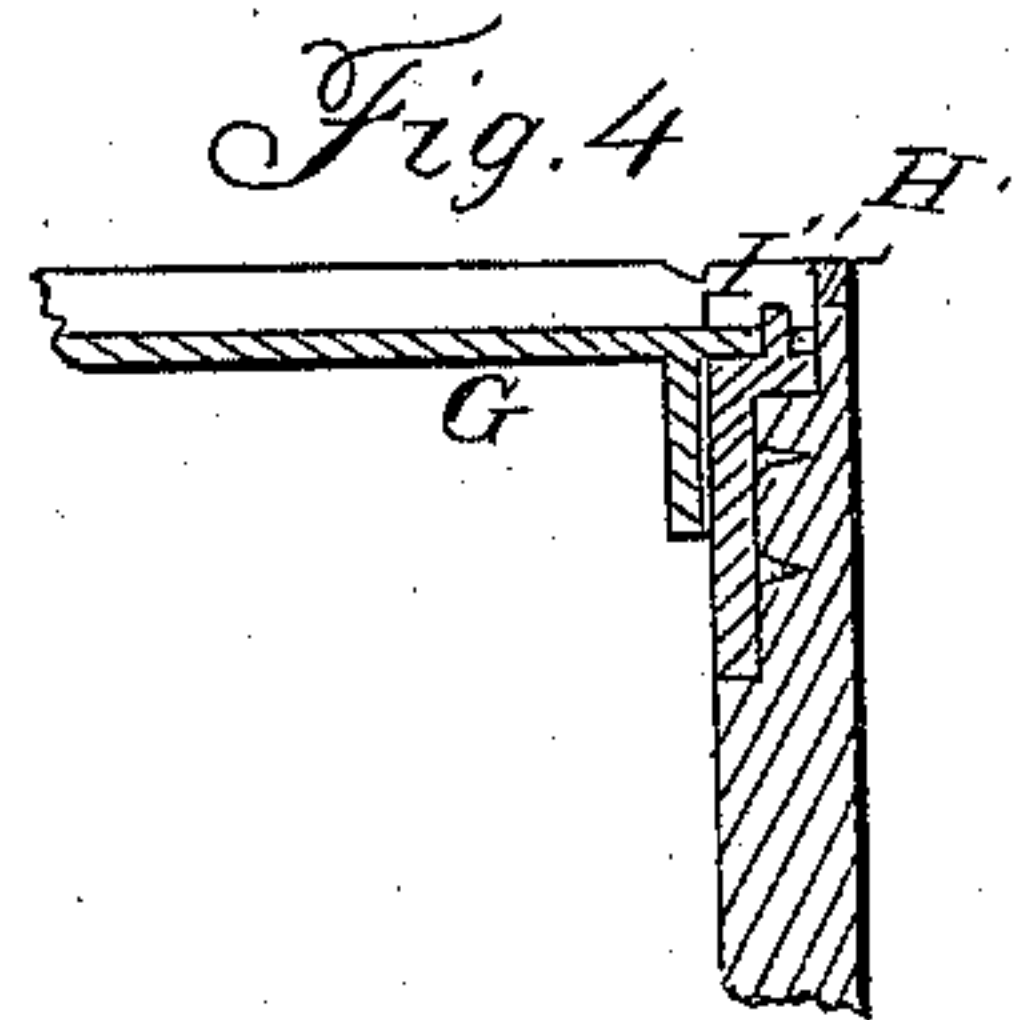
*Inventor*  
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*Oscarus Knight*  
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# UNITED STATES PATENT OFFICE.

AUGUSTUS WILLIAM SÜS, OF NEW YORK, N. Y.

## IMPROVEMENT IN AMBULANCES.

Specification forming part of Letters Patent No. 39,595, dated August 18, 1863.

*To all whom it may concern:*

Be it known that I, AUGUSTUS WILLIAM SÜS, of the city, county, and State of New York, have invented certain new and useful Improvements in Ambulances; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of my improved ambulance, a portion at the rear being broken away in an oblique plane to exhibit the interior construction. Fig. 2 is a vertical transverse section of the same at  $x x$ , representing the parts in different positions on the respective sides. Figs. 3 and 4 are detached sectional views illustrating different modes of attaching the seats.

Similar letters of reference indicate corresponding parts in the several views.

The subject of my said invention is an ambulance which may be adapted to carry double the number of badly-wounded patients in a reclining posture that can be carried by ambulances of equal size now in common use. This I accomplish by securing the seats with self-sustaining and movable detachable fastenings, so that they may be lowered to the floor and leave room for a second pair of beds or stretchers above the first.

The invention further consists in an improved construction of hinged stretchers provided with hinged or folding head-boards and foot-boards and occupying little or no room while not in use; also, in provisions for carrying water, lint, bandages, instruments, knapsacks, and other baggage.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe its construction and operation.

The frame A, springs B, cover C, axles D, and wheels W may be of usual construction.

EE' represent a pair of seats provided with hinged flaps F F', and secured in horizontal position against the sides of the ambulance by means of rigid knees G G', hooks H H', and eyes I I'. The hooks may be formed upon the upper part of the knees, attached to the edges of the seats, and the eyes attached to the body of the ambulance, as shown in Fig. 3, or the eyes may be attached to the seats and the

hooks to the body of the ambulance, as shown in Fig. 4.

J J represent springs of india-rubber by which the extended seats and flaps E F E' I' may be supported on the floor of the wagon, the said springs serving to reduce concussions.

K K' are a second pair of cots or stretchers, permanently hinged at  $h h$  to the sides of the ambulance, and adapted to be turned up out of the way, as shown on the left in Fig. 2, or lowered to a horizontal position, as shown on the right, in which position their free edges are supported by straps L L.

M M' are folding head-rests, and N N' folding foot-rests, which may be closed compactly against or within the stretchers K K' when the latter are folded up or made to project therefrom when they are lowered into position for use.

O P Q represent ventilation-apertures in the front, back, and sides, any or all of which may be closed by slides R R to any desirable extent either by the patients themselves or by attendants.

S represents the step for ascending or descending at the rear of the conveyance.

T is a rack placed in front of the said step, beneath the floor, for the reception of knapsacks or other baggage.

U is a water-tank, constructed with a sloping bottom, inclining downward toward the faucet  $u$ , by which the water is drawn out.

V is a drawer, in which may be carried lint, bandages, instruments, or other articles.

The brake X is placed in convenient position for the right foot of the driver. In other respects it may be constructed and operated in any usual or suitable manner.

Operation: For patients capable of riding in a sitting posture, the seats are placed in the position shown in Fig. 1, and at E in Fig. 2, and the stretchers turned up, as shown in Fig. 1, and at K in Fig. 2. When the ambulance is to be used for conveying patients in a reclining posture, the seats E E' are detached from the sides and placed upon the floor, and the stretchers K K' lowered to horizontal positions, as shown at E' K' in Fig. 2. Four patients may thus be conveyed at full length, two above and two below, being double the number which can be accommodated in an ambulance of common construction; or, by placing all the parts in the positions shown in Fig.



2, one half a load of sitting patients may be carried on one side, and two reclining patients on the other.

From the above description it will be apparent that the improved ambulance equals the old in carrying capacity for sitting patients and double the capacity for those in a reclining posture; also, that the full load of reclining patients now carried by a common ambulance may be carried in addition to half a load of sitting patients.

Seats constructed and applied as above described are self-sustaining without any additional support in the place of feet, &c., the flap to the seat alone being used as an additional support, although not necessary to it. The seat so hooked in is easier in its motion than the old style of seat that is fastened into the floor of the ambulance, but it is still more easy when laid on the floor, the jarring or jerking motion of the ambulance being greatly lessened by the mobility of the seat itself on the floor, and the wounded soldier stretched out on the seat is consequently much less affected by the jolting and jerking of the ambulance. This is one of the great advantages gained over the present style of ambulance. The ease

of motion is still more increased by the india-rubber springs J J, as described. Additional room and more free ventilation is afforded by dispensing with the usual water-kegs and carrying the water beneath the floor in a suitable tank, as explained.

The movable seats are adapted for use in carriages for other purposes than that here specified.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. The movable seats E E', constructed and secured substantially as set forth.

2. The hinged cots or stretchers K K' in the described combination with the movable seats E E'.

3. The folding head and foot rests M N, applied to the hinged cots K K, substantially as shown and described.

4. The described arrangement of the water-tank U and drawer V beneath the body A of the ambulance.

A. WM. SÜS.

Witnesses:

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CHARLES SMITH.