(No Model.) 2 Sheets—Sheet 1.

J. D., L. H. & C. M. CHARLES.

STRETCHER.

No. 324,228. Patented Aug. 11, 1885.

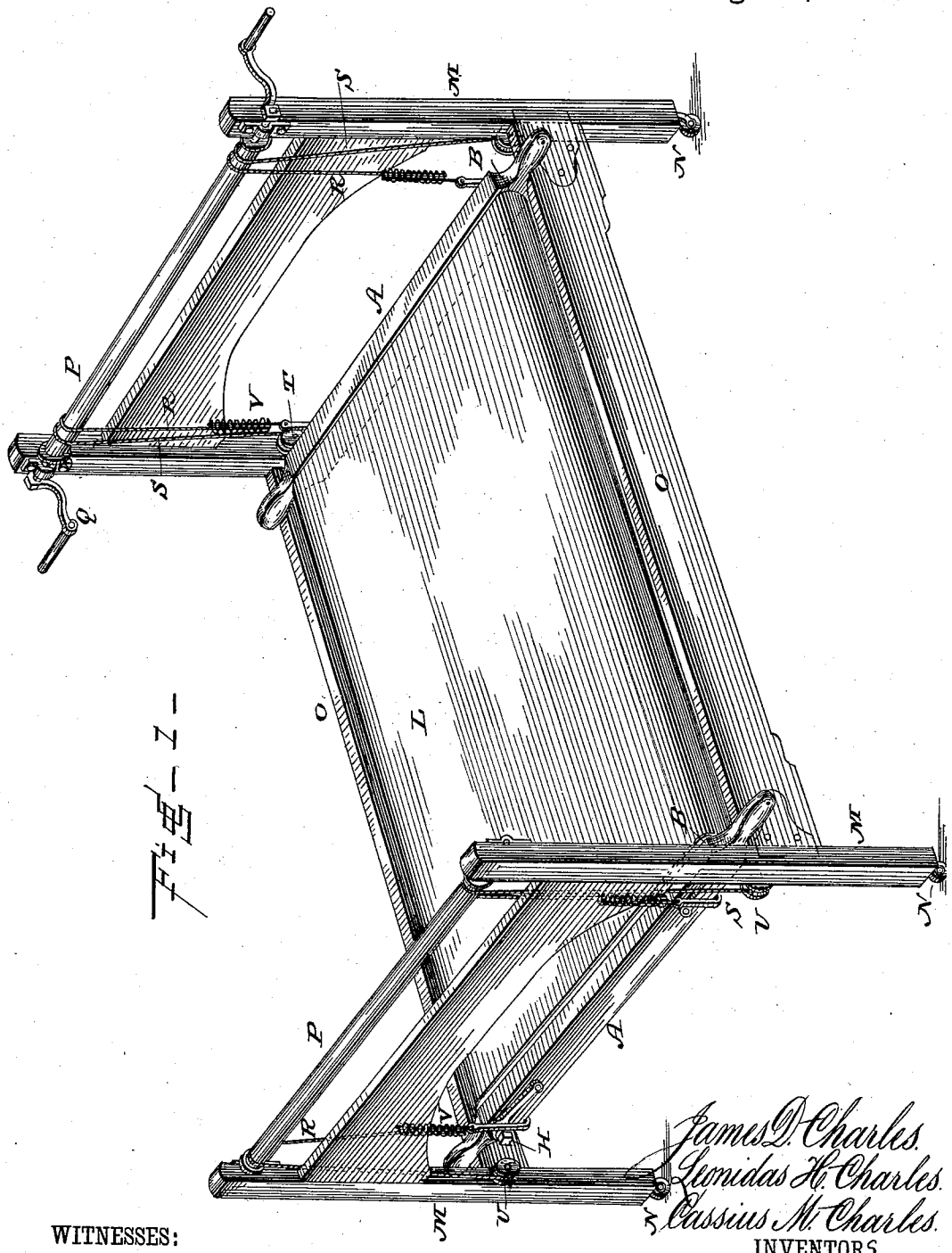


FIG. 1.

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(No Model.) 2 Sheets—Sheet 2.

J. D., L. H. & C. M. CHARLES.

STRETCHER.

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Fig. 2.

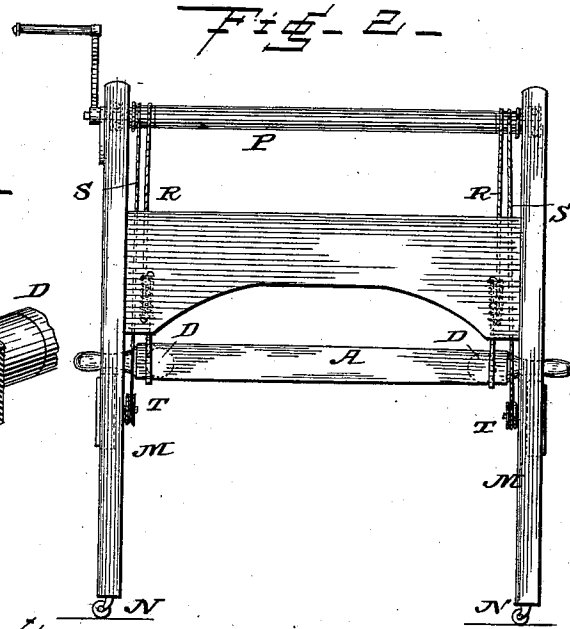


Fig. 6.

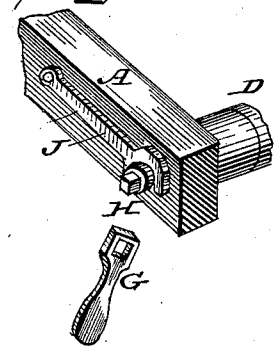


Fig. 7.

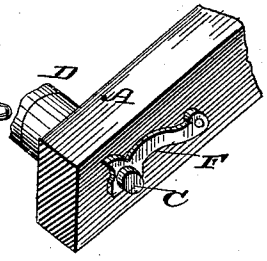


Fig. 4.

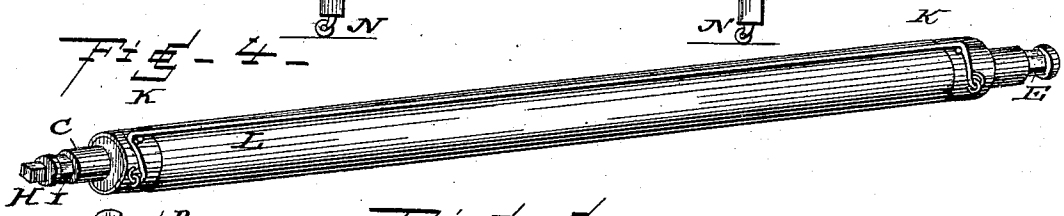


Fig. 5.

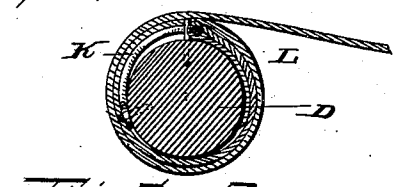


Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES D. CHARLES, LEONIDAS H. CHARLES, AND CASSIUS M. CHARLES, OF LITCHFIELD, ILLINOIS.

STRETCHER.

SPECIFICATION forming part of Letters Patent No. 324,228, dated August 11, 1885.

Application filed March 28, 1884. (No model.)

To all whom it may concern:

Be it known that we, JAMES D. CHARLES, LEONIDAS H. CHARLES, and CASSIUS M. CHARLES, citizens of the United States, and residents of Litchfield, in the county of Montgomery and State of Illinois, have invented certain new and useful Improvements in Stretchers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved truck and stretcher for use in handling helpless persons. Fig. 2 is an end elevation of the same. Fig. 3 is a side elevation. Fig. 4 is a detail view of one of the rollers of the stretcher. Fig. 5 is a cross-section of the same and of the sheet, and Figs. 6 and 7 are detail views of the ends of the trunnions of the stretcher-rollers and their fastenings.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to trucks and stretchers for use in hospitals or similar places for handling sick and helpless persons in moving them from one bed to another or in making the bed; and it consists in the improved construction and combination of parts of such a stretcher, in which the person upon the stretcher may be raised upon the sheet or blanket upon which he lies, and of a truck by means of which the stretcher may be raised and moved from one place to another, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters A A indicate two cross-pieces of the stretcher, forming handles at their ends, and forming bearings B near their ends, in which the trunnions C of the longitudinal stretcher-rollers D D are journaled. The trunnions passing through the one cross-piece have grooves E in their ends, into which grooves hooks F, pivoted upon the cross-piece, may engage, which hooks prevent the trunnions from slipping out of their bearings; and the trunnions passing through the other cross-piece are square at their outer ends for the reception of a wrench, G, which fits upon the said ends H, and by means of which the rollers may be turned; and the inner portion, I, of the projecting ends of the trunnions are polygonous, adapted to be engaged by hooks J, having correspondingly-shaped jaws and pivoted upon the cross-pieces, preventing them from turning.

A long bail, K, is hinged at its ends to the ends of each roller, its straight portion being parallel with the roller, and it will be seen that the sheet or blanket L, upon which the patient lies, may have its edges inserted into these bails, and have the said edges doubled over the straight portions of the bails, when they will be held tightly when the rollers are turned, stretching the sheet and holding it fast.

For the purpose of raising and moving the stretcher with greater ease, we construct a bed-frame having four upright posts, M, mounted upon casters N, and connected by means of side rails, O, similar to the side rails of a bed, and the posts at the ends of the side rails are connected at their upper ends by means of rollers P, journaled transversely in the upper ends of the posts at a height sufficient to allow the rollers to pass over the ends of a bedstead, the width of the truck being sufficient to pass over and straddle a common bedstead.

One of the trunnions of the roller at one end is provided with a crank or winch, Q, and cords R R are attached to the roller and to that end of the stretcher, serving to raise that end of the stretcher when the roller is revolved, while cords S S are attached at one end to the roller, winding upon the same, whereupon they pass down at the sides of the posts, over pulleys T upon the inner sides of the posts, to pulleys U upon the posts at the other end, up to the roller at that end, over the same, and are attached to that end of the stretcher, so that both ends of the stretcher may be raised when the roller at the other end is revolved.

The cords are provided near the ends at which they are attached to the stretcher with spiral springs V, the cords being cut in two, and the end of the lower portion being passed up through the spring and attached to the upper end of the spring, and the end of the upper portion being passed down through the spring and attached to the lower end of the spring, so that the springs are compressed by weight, preventing them from breaking by

overstraining, the springs serving to cushion the stretcher when the truck is moved. In this manner it will be seen that a person may be raised in the sheet or blanket upon which he rests, and that the stretcher may be raised above the bed and moved upon the truck, the entire mechanism only requiring one person to operate it. It follows that the stretcher may be used without the truck, the handles upon the cross-pieces or end pieces serving for that purpose.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. The combination in a stretcher, of the longitudinal roller, with a bail hinged at its ends to the ends of the roller, and having its straight portion parallel with the roller, as and for the purpose shown and set forth.

2. The combination, in a stretcher, of the longitudinal side rollers having bails hinged with their ends at the ends of the rollers, and with their straight portions parallel with the rollers, with a sheet or blanket having its side edges folded double over the straight portions of the bails, and wound partly on the said rollers, as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

JAMES D. CHARLES.
LEONIDAS H. CHARLES.
CASSIUS M. CHARLES.

Witnesses:
ELI LEE,
W. E. LOUGHMILLER.