B. E. ARNTZEN.

DEVICE FOR HANDLING INVALIDS.

APPLICATION FILED MAR. 23, 1912.

1,257,445.

Patented Feb. 26, 1918.

2 SHEETS—SHEET 1.

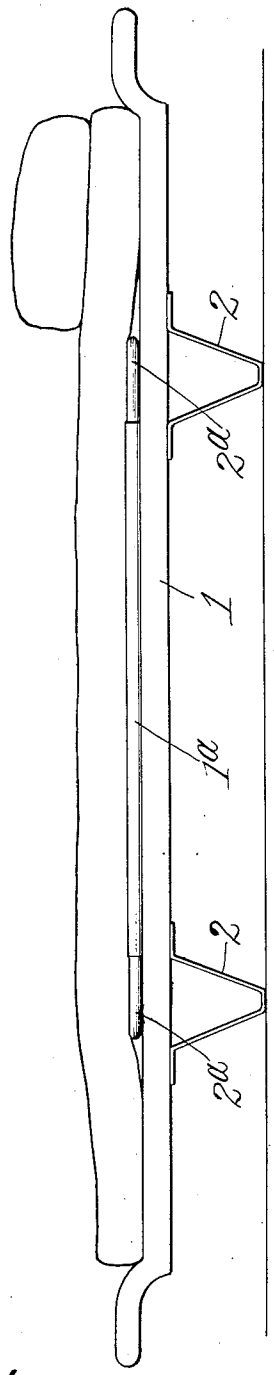


Fig. 1.

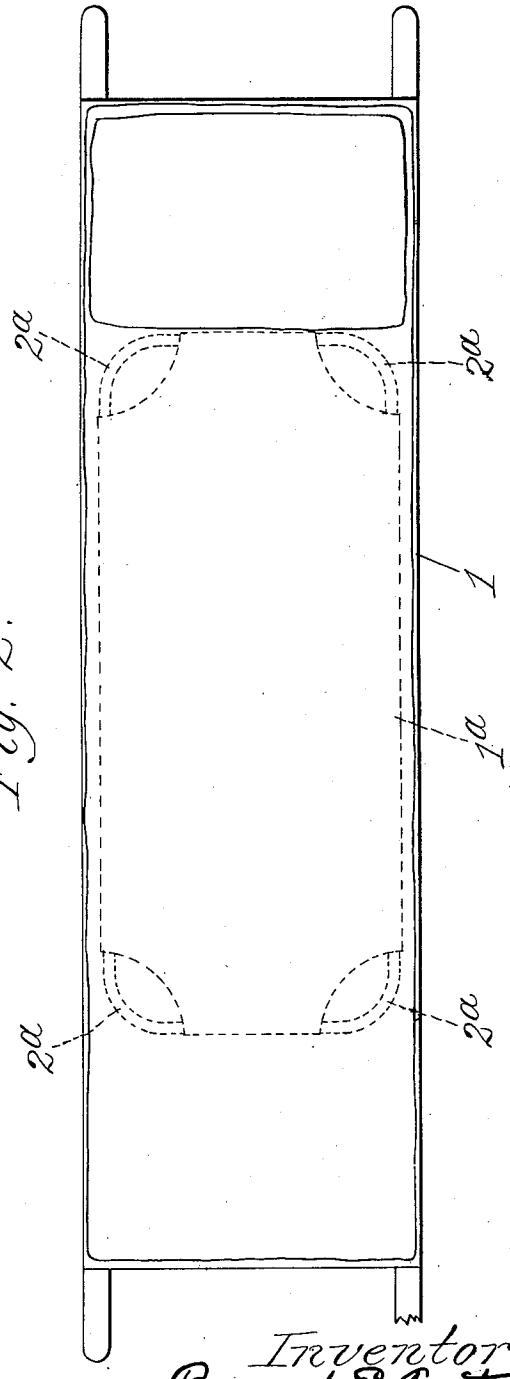


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

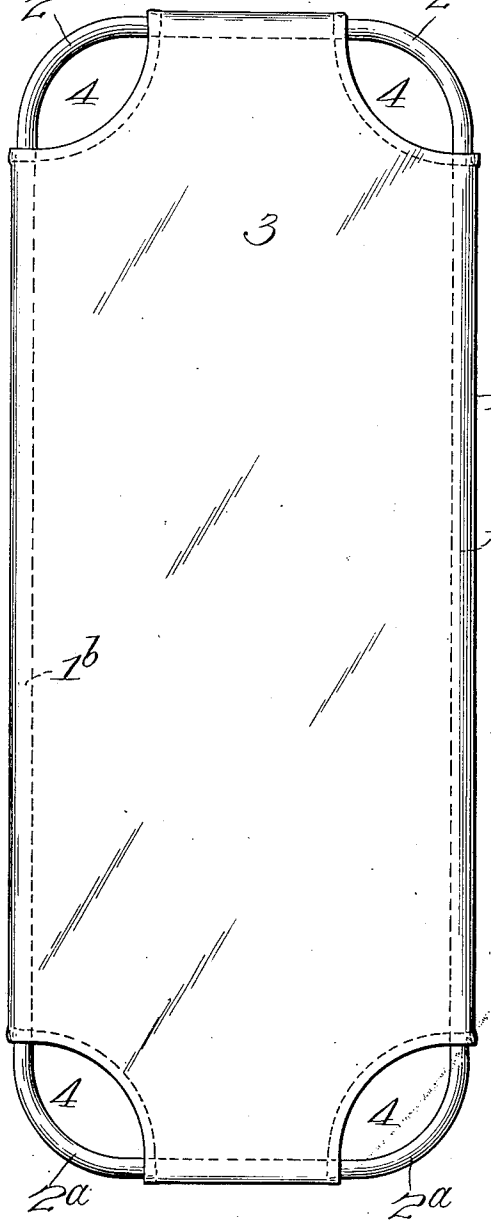
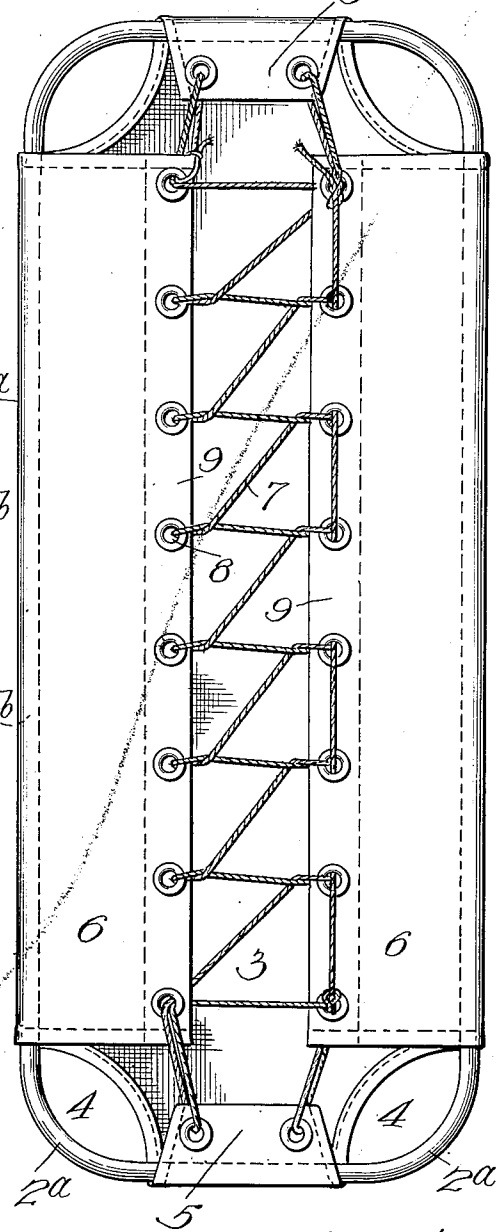


Fig. 4.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR HANDLING INVALIDS.

1,257,445. Specification of Letters Patent. Patented Feb. 26, 1918.

Application filed March 23, 1912. Serial No. 685,662.

To all whom it may concern:

Be it known that I, BERNARD E. ARNTZEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Devices for Handling Invalids, of which the following is a specification.

This invention relates to improvements in devices for handling invalids, and has for its object to provide a new and improved device of this description, and is particularly adapted for transferring invalids from ambulances to berths in sleeping cars. In view of the fact that the passageways leading from the doors of a sleeping car to the interior thereof are very narrow and are provided with sharp turns, an invalid can not now be moved into the car through the doors and these passageways. The ordinary method now used to transfer an invalid from the ambulance to the car is to open the window of the car and lift the invalid in through the window. This method is a difficult method, is liable to cause injury to the invalid and is very trying on the nerves of the invalid. By means of my present invention, all these objectionable features may be eliminated and the invalid can be carried into the car through the door and the narrow passageway leading to the interior thereof.

Referring now to the accompanying drawings, I have shown one form of the device embodying the invention.

Figure 1 is a side elevation showing one form of the device embodying the invention.

Fig. 2 is a plan view of the device shown in Fig. 1.

Fig. 3 is an enlarged top view of the auxiliary stretcher or holding device.

Fig. 4 is an enlarged bottom view of the auxiliary stretcher shown in Fig. 3.

All numerals refer to like parts throughout the several figures.

Referring now to Figs. 1 and 2, I have shown a main stretcher 1, having suitable supports or legs 2, said stretcher being of suitable length to permit the invalid to comfortably lie thereon. Loosely supported upon the main stretcher is an auxiliary stretcher 1^a which is shorter than the main stretcher and which may be placed under whatever bed clothing is used on the main stretcher. The auxiliary stretcher is preferably shorter than the ordinary adult patient. This auxiliary stretcher which is illustrated in Figs. 3 and 4 is made up so that it can be placed on the main stretcher and so that there will be no obstructing parts, the size and shape of the auxiliary stretcher being such that it can be easily moved into the sleeping car through the door and the narrow passageway. As shown in Figs. 3 and 4, the auxiliary stretcher is made up of a metallic rod or tube 1^b which is formed into an oblong frame and which is bent at the corners to form the curved handles 2^a. Attached to the frame 1^b is a flexible supporting piece 3 which may be of canvas or other suitable material. This canvas is cut away at the corners so as to provide the hand holes 4 and so as to expose the curved handles 2^a. The supporting piece 3 is provided with end flaps 5 and side flaps 6, (see Fig. 4), said supporting piece is held in place by a cord 7 which engages the flaps 5 and 6 by means of eyelets 8 or in any other suitable manner. The flaps are separated to permit the cord to be drawn taut to properly stretch the canvas on the frame. The edges of the flaps are preferably provided with hems 9 as shown in Fig. 4. It will be noted that this auxiliary stretcher occupies a very small amount of space, is free from projections of any kind, and can be easily and conveniently carried. It will further be noted that the frame itself while being covered by the canvas is free at the corners so that the corners of the frame itself act as the handles.

The use and operation of my invention are as follows:

When the invalid is to be put into a sleeping car, said invalid is first placed upon the main stretcher 1 while the auxiliary stretcher is in place thereon as shown in Figs. 1 and 2 and is transferred in the ambulance to the depot. The main stretcher is then removed from the ambulance and taken to the door of the car. Two men one at each end of the stretcher then take hold of the handles 2^a of the auxiliary stretcher and carry it together with the bed clothes and the invalid through the door of the car and through the narrow passageway into the main body of the car, the invalid being then transferred to the sleeping berth. An invalid of normal height would bend his knees so as to shorten his height to make it correspond substantially with the length of the stretcher, as

the individual of ordinary height could not be carried through this narrow passageway stretched out to his full length. If desired the stretcher and bed clothing may be inserted directly into the berth and may be either left there with the invalid thereon or may be removed. It will thus be seen that by means of this apparatus the invalid may be easily and safely transferred to the sleeping car through the ordinary door and passageway and with a minimum of inconvenience to the invalid.

It will be seen that by means of this construction I am able to provide a device for transferring invalids to sleeping cars without causing them injury or discomfort or agitation or the resulting danger due thereto, and that the device is, as it were, a separable supporting device consisting of a main section and a separable auxiliary section supported thereon. The main portion of the body of the patient rests on the flexible or canvas supporting piece of the separable section so that it does not produce discomfort.

I claim:

1. A device for transferring invalids to sleeping cars, comprising a main stretcher, an auxiliary stretcher shorter in length than the main stretcher so that it may be passed through the narrow passageway of the sleeping car and around the bends at the ends thereof, and supported on said main stretcher, said auxiliary stretcher located beneath the bed clothes of the main stretcher and consisting of a thin flat supporting device adapted to support the invalid while being transferred from the main stretcher to the sleeping car.

2. A device for handling invalids comprising an auxiliary stretcher consisting of a rectangular frame, said frame bent at the corners so as to form curved connecting pieces between the sides and ends thereof, a flexible cover stretched on said frame and cut away at the corners so as to expose said curved connecting pieces, the curved connecting pieces acting as handles, said frame free from projecting parts and shorter in length than the height of the average adult so that only a portion of the body of the party being carried engages the stretcher, the other portion projecting beyond the stretcher so that said stretcher may be moved through narrow passages and around sharp corners while the invalid is resting thereon.

3. A device for handling invalids comprising a double stretcher having a main stretcher of normal length, suitable supports for said stretcher, suitable handling devices connected with said stretcher, an auxiliary stretcher shorter than normal length and mounted on the main stretcher intermediate its ends, said auxiliary stretcher free from supporting devices and provided with a frame extending therearound, a portion of which is exposed to form handles whereby the invalid may be carried to the vestibule of a car on the main stretcher and may then be carried through the narrow passageway into the car on the auxiliary stretcher without being changed from one to the other.

4. The method of handling invalids, which consists in supporting the invalid on a flat, short stretcher shorter in length than the length of the invalid, so that only a portion of the invalid engages the stretcher, the other portion of the invalid projecting beyond the end of the stretcher, whereby the invalid may be easily transferred through narrow passageways and around sharp bends, without removing said patient from the stretcher.

Signed at Chicago, Illinois, this 20th day of March 1912.

BERNARD E. ARNTZEN.

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