No. 894,759. PATENTED JULY 28, 1908.

S. G. STEVENS.

CAR TARPAULIN.

APPLICATION FILED MAY 18, 1906.

FIG. 1.

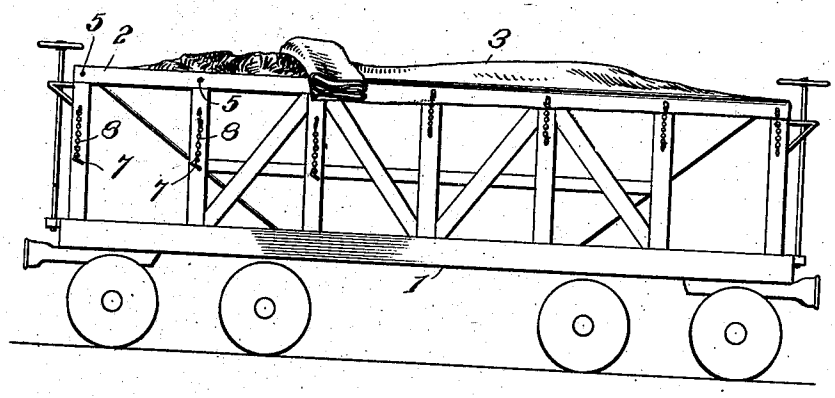


FIG. 2.

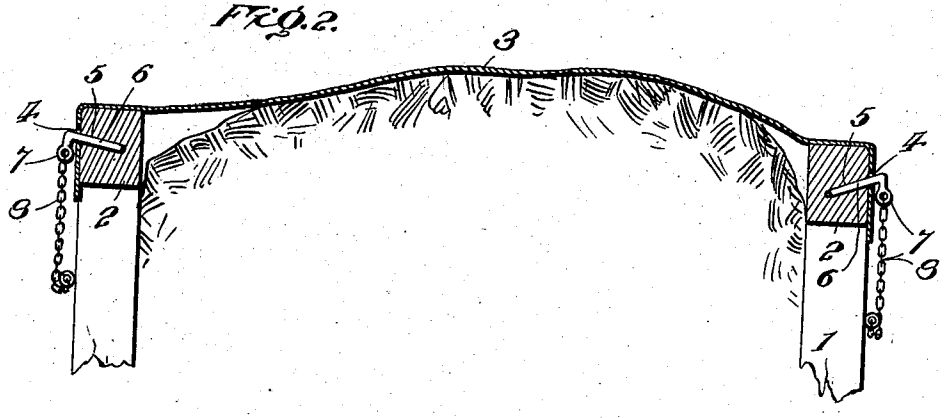


FIG. 4.

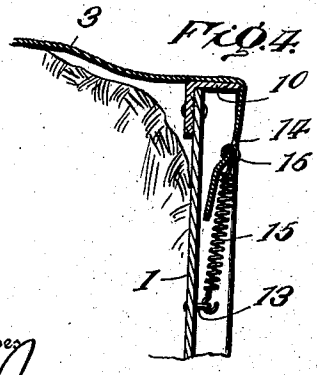
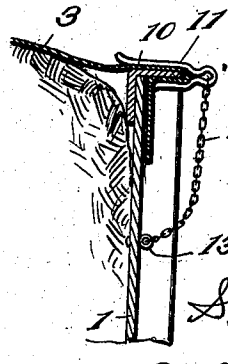


FIG. 3.



Witnesses

Chas. P. Wright Jr.

Inventor

S. G. Stevens,

By A. S. Pattison,

Attorney

UNITED STATES PATENT OFFICE.

SYLVESTER GEORGE STEVENS, OF DULUTH, MINNESOTA.

CAR-TARPAULIN.

No. 894,759. Specification of Letters Patent. Patented July 28, 19 08.

Application filed May 18, 1906. Serial No. 317,559.

To all whom it may concern:

Be it known that I, SYLVESTER GEORGE STEVENS, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Car-Tarpaulins, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in car tarpaulins, and pertains more particularly to those used on ore cars.

The object of my invention is to provide a cover of this character which is readily attached to the car, and closing or covering the upper end thereof, and which is composed of a substantially water-proof material such as heavy canvas or ducking, which will serve the double function of not only keeping the rain, moisture, and cold out of the material within the car, but will also keep the latent heat within the material and prevent the same from freezing.

Another object of my invention is to provide a more simple, cheap and effective device of this character, which can be readily attached or secured to any car without changing the construction thereof.

In the accompanying drawings:—Figure 1, is a side elevation of a wooden hopper car having my improved tarpaulin applied and partly rolled, showing how it may be removed. Fig. 2, is a transverse sectional view of the upper end of the car showing the means of securing the tarpaulin. Fig. 3, is a sectional view broken away, showing means for applying or securing the tarpaulin to a steel car. Fig. 4, is a sectional view similar to Fig. 3, and showing another means for securing the tarpaulin to a steel car of the construction shown in Fig. 3.

Referring now to the drawings, 1 represents a car which, as is readily understood, is of wood construction, and of the ordinary form used in the transportation of ore of different character, and which has its upper end open. The car, as is readily understood, is provided at its upper end with the horizontal brace beam 2 which extends around the entire car, although this is not absolutely necessary, as will be hereinafter more fully described. Cars of this character are usually filled with ore to the top, and during transportation of the same the ore becomes wet from rain, or snow, and the ore or other granular material becomes thoroughly saturated and soon freezes during cold weather, and absolutely prevents the cars from being dumped or emptied, as the contents form a solid mass which has to be thawed out or blasted.

In order to prevent the rain or other moisture from entering the ore or granular material during transportation, and also to retain the latent heat within the ore, I provide a covering 3 which is preferably of a heavy canvas or duck having been properly treated to make the same water-proof. The said covering is of such a length and width that the same completely covers the upper end of the car and extends downwardly a short distance over the edge of the car, and is provided with eyelets 4 therein. The said eyelets are arranged an equal distance apart and the brace 2 of the car is provided with obliquely arranged recesses 5 therein which are arranged the same distance apart as the eyelets 4, so that when the cover or tarpaulin 3 is in position, the eyelets 4 are opposite the recesses 5 in the braces.

Passing through the eyelets and entering the obliquely-arranged recesses 5 are pins 6 which firmly hold the tarpaulin over the upper end of the car, and owing to the oblique arrangement of the recesses, the pins, by force of gravity, are held in the recesses and prevented from being jolted out by the movement of the car during transportation. The outer end of said pins, as shown, are turned downward and are provided with eyes 7 in which are secured chains 8 which are fastened in any desired manner to the car body at 9, whereby the pins are always in place ready for use. If desired, the pins can be attached to the tarpaulin, and are thus less liable to be detached than when attached directly to the car.

In Fig. 3 I have shown a steel car of the character described, and the same is usually provided with the outwardly-extending flange 10, over which the tarpaulin or cover passes, and extends downwardly. In this form I use a spring pin 11 which, as shown, is in the form of a clothes pin, only made of a greater width and strength, and is adapted to be forced over the flange 10 and firmly clamp the tarpaulin or cover thereon. The said clamp has a chain 12 secured thereto which has its opposite end secured to an eye-bolt 13 secured to the steel body of the car.

As shown in Fig. 4, I show another means by which the tarpaulin may be secured to a

steel car. In this form the cover or tarpaulin is provided with the eyelets 14, but if desired, rings may be secured thereto in place of the eyes, and the eye-bolts 13 have secured thereto springs 15 which have their upper ends provided with hooks 16 which are adapted to hook into the rings or eyelets 14 and firmly hold the cover or tarpaulin tightly over the car, and yet the same can be readily removed, as will be understood. If desired, springs could be permanently attached to the tarpaulin or cover, and their lower ends provided with the hooks which would hook into the eye-bolts 13.

As shown in Fig. 1, the bolts 5 or other fastening means, when employed, are released, and the cover can be folded or rolled up over the car and removed, and thus taking up little or no room when not in use, and is readily applied.

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

1. The combination with a car having an open upper end, of a tarpaulin covering said open end and extending over the sides of the car, eyelets carried by the edges of the tarpaulin, and spring members carried by the sides of the car and adapted to hook into the eyelets in the tarpaulin.

2. The combination with a car having an open upper end, of a tarpaulin covering said open end and extending over the sides of the car, and yielding means secured to the car and adapted to engage and removably hold the tarpaulin to the sides of the car.

3. The combination with a car having an open upper end, a tarpaulin covering said open end and extending over the sides of the car, eyelets carried by the edges of the tarpaulin, and coiled springs having their lower ends secured to the car and their upper ends provided with hooks adapted to hook into the eyelets in the tarpaulin.

In testimony whereof I affix my signature in presence of two witnesses.

SYLVESTER GEORGE STEVENS.

Witnesses:

GEO. F. MACKENZIE,

E. L. PALMER.