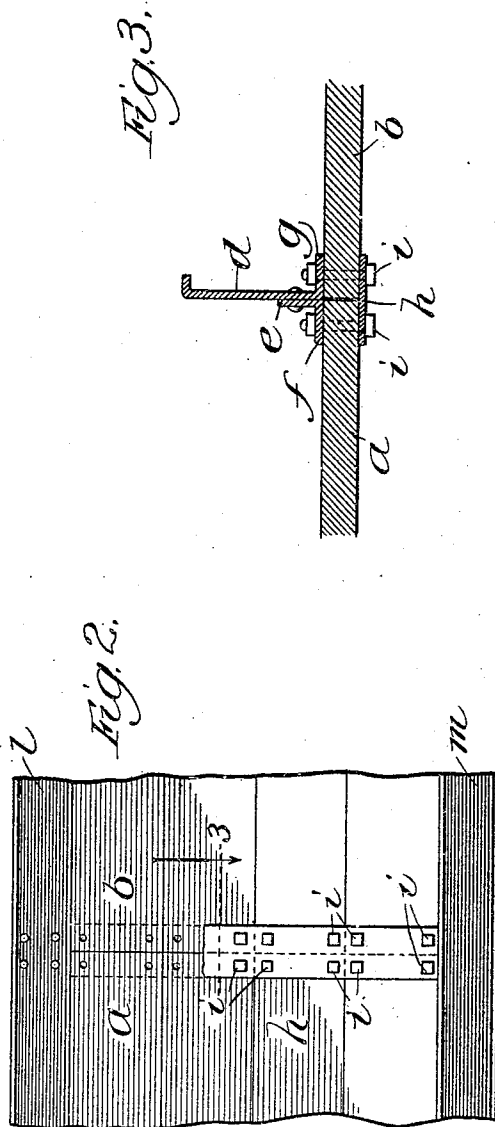
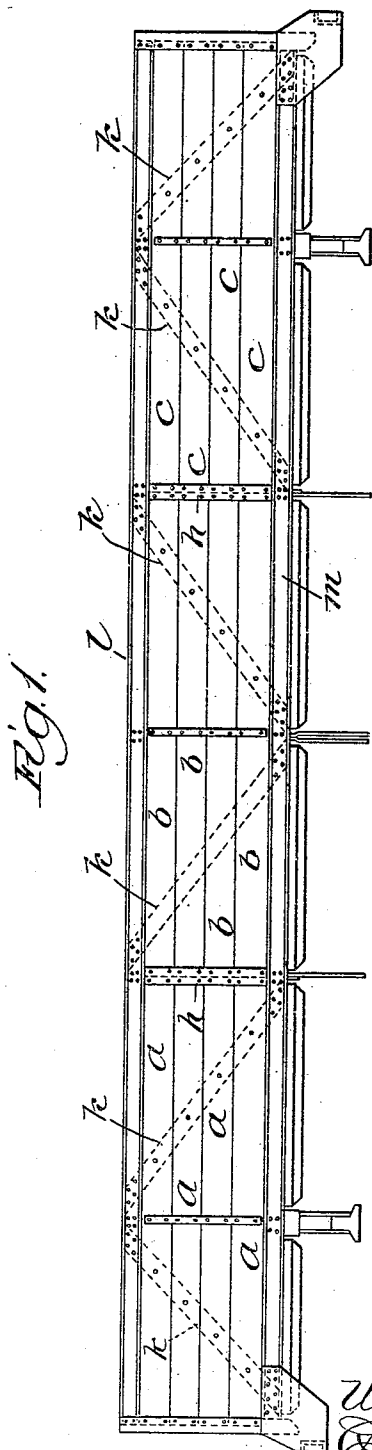


S. OTIS.
 SPLICED SIDE GONDOLA CAR.
 APPLICATION FILED MAR. 11, 1907.

958,426.

Patented May 17, 1910.



Witnesses:
Chas. H. Cull.
By Thomas F. Sheridan,

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UNITED STATES PATENT OFFICE.

SPENCER OTIS, OF CHICAGO, ILLINOIS, ASSIGNOR TO NATIONAL DUMP CAR COMPANY,
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SPliced-SIDE GONDOLA CAR.

958,426.

Specification of Letters Patent.

Patented May 17, 1910.

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To all whom it may concern:

Be it known that I, SPENCER OTIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Spliced-Side Gondola Cars, of which the following is a specification.

The object of my invention is to provide a gondola car wherein the side planks are so spliced as to give additional strength to the side of the car and at the same time to permit of the use of planks of comparatively short length.

In the drawings Figure 1 is a side elevation of a gondola car constructed according to my invention. Fig. 2 is a fragmentary view of the joint between adjoining lengths of side planks. Fig. 3 is a detail sectional plan view of one of the side stakes and the joint between adjoining plank sections.

It has been customary heretofore in constructing trussed side frames of wooden gondola cars to construct the sides of planks of a length equal to one-half the length of the car. In this form of construction the joint between the planks is located at the center of the car, which is ordinarily the weakest part of the side framing and also the point at which the greatest strain comes. In order to avoid this objectionable feature and also to effect the economy incident to the use of shorter length planks, I have constructed the side of my improved car of planks *a*, *b* and *c*, one third the length of the car. By this construction I avoid a joint or splice in the planking at the center of the car, the intermediate planks *b* extending across the center from points substantially one-third the length of the car inward from each end. By this construction the strength of the car side is greatly increased as the cross sectional strength of the planks is much greater than that of the joint between adjoining lengths of planking.

The side stakes of the car illustrated consist of channel irons *d* to which, adjacent their outer edges, are riveted angle irons *e*, one flange of the angle irons being continuous with one of the flanges of the channel irons. The flange *f* of the angle irons *e* and the flange *g* of the channel iron *d* lie against the inner surface of the car side at the point where adjoining plank sections

meet. Upon the outside of the car opposite the side stake, I place straps *h*. The parts mentioned are secured together by means of bolts *i* passing through the strap *h*, the planks *a* and *b* and the flanges *f* and *g* of the side stake. The car side is strengthened in the usual manner by diagonal braces *k* extending between the upper and lower members of the side truss.

The upper compression member of the car side preferably consists of a channel or other structural metal member *l*, and the tension member is a similar structural metal member *m*. The metal framing of the car side consisting of the parts *l*, *m*, *k*, *d*, *h* and *e*—i. e., the horizontal vertical and diagonal members, is greatly reinforced by the planks *a*, *b* and *c*, and the fact that the planks *b* extend continuously through the center line of the car constitutes an element of strength not secured by any other arrangement of short planks.

It will be obvious that the arrangement of side planks, which constitutes the essence of my invention, may be applied to cars of various construction, and is not limited to the particular form of car illustrated, nor is it limited to the use of three sections of planks, as still shorter planks might be used, still embodying my idea of having continuous planks extend across the central part of the car side.

I claim:

1. A trussed side frame for a railway car comprising planks of a length less than the length of the car, some of said planks extending from a point on one side of the center to a point on the opposite side thereof.

2. A trussed side frame for a railway car comprising planks of a length less than the length of the car, said planks being arranged in sections, each section consisting of planks of substantially equal length and the central section extending from a point on one side of the center to a point on the opposite side thereof.

3. A trussed side frame for a railway car comprising planks of a length less than the length of the car, the joints between said planks being located at each side of the center of the car.

4. A car side comprising planks of a length substantially equal to one-third the length of the car, the joints between said

planks being located at substantially one-third of the distance from each end of the car to the opposite end.

5 5. A trussed car side comprising compression and tension members, diagonal members
between said compression and tension members, planks between said compression and
tension members, said planks being of less
10 length than the car side, said planks extending continuously through the transverse center
of the car side and being jointed at
points comparatively remote from said center.

15 6. A trussed car side comprising compression and tension members, diagonal members

between said compression and tension members, planks between said compression and
tension members, said planks being of less
length than the car side, said planks extending continuously through the transverse center
20 of the car side and being jointed at
points comparatively remote from said center, side stakes, straps opposite said side
stakes, the abutting ends of said planks being received between said stakes and straps
25 and secured thereto.

SPENCER OTIS.

Witnesses:

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