

(No Model.)

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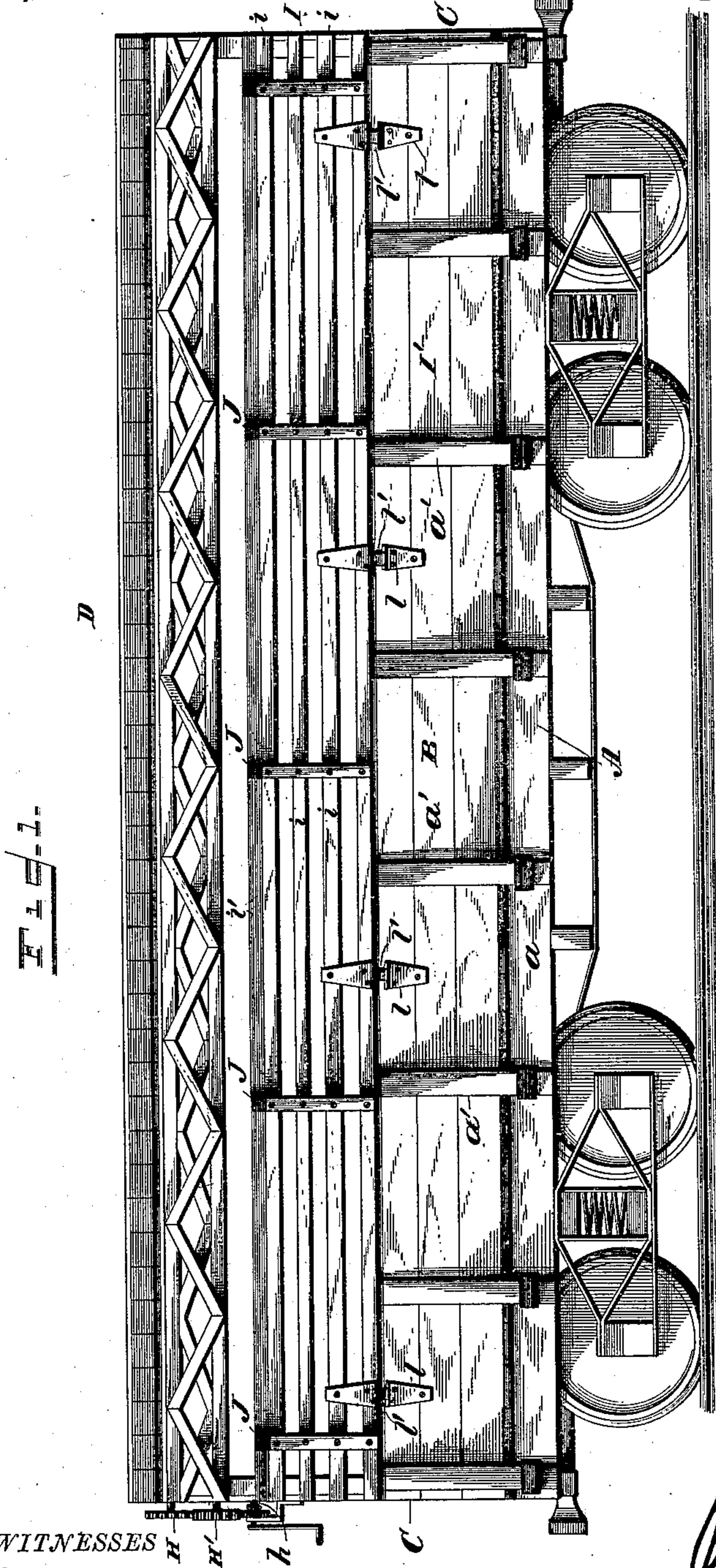
A. O. BALDWIN, Dec'd.

L. J. BALDWIN, Administratrix.

FREIGHT CAR.

No. 370,720.

Patented Sept. 27, 1887.



Albert O. Baldwin.
Inventor.
Lizzie J. Baldwin.
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WITNESSES
G. S. Elliott.
E. M. Johnson

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Attorney

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3 Sheets—Sheet 2.

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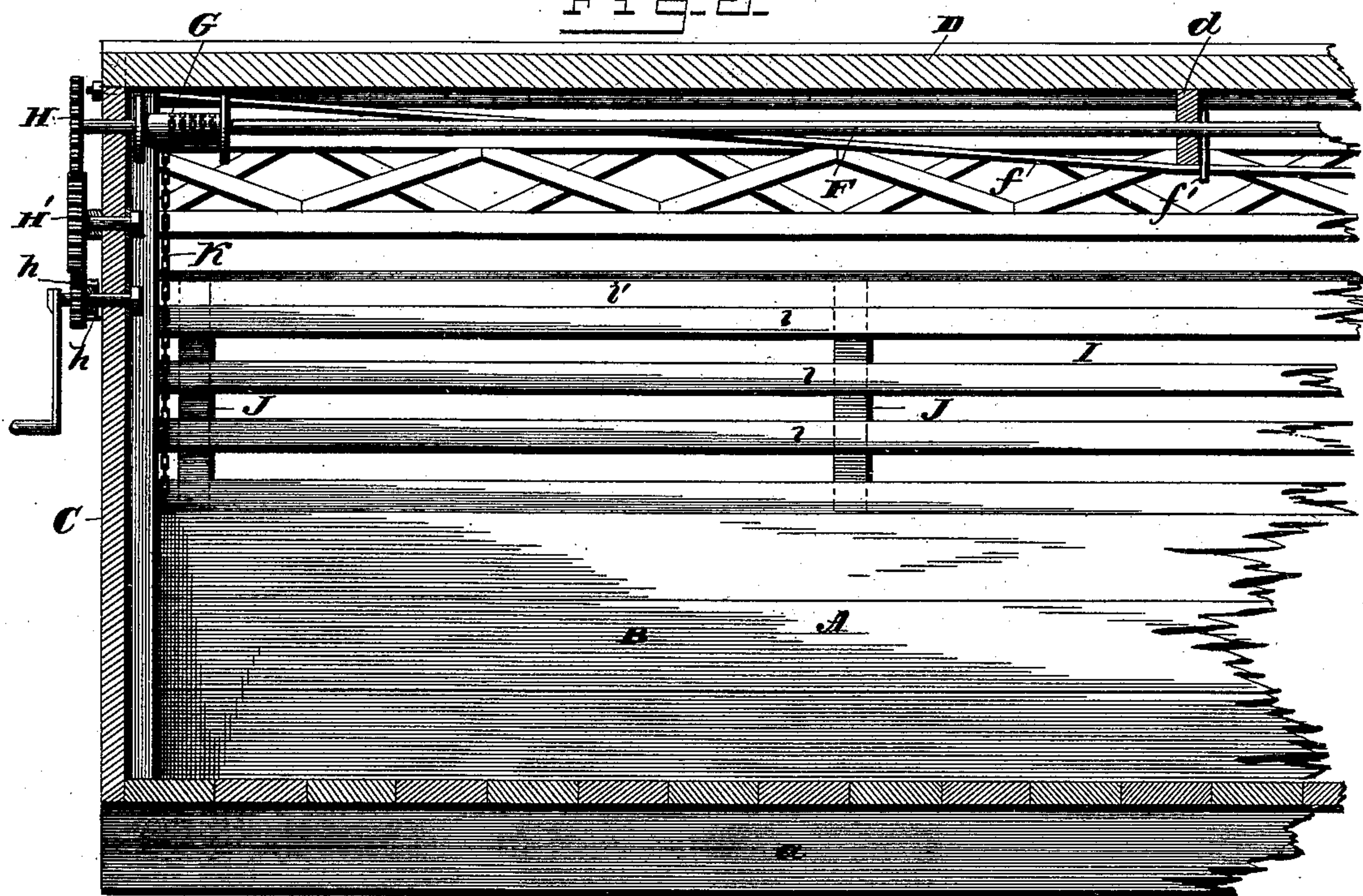
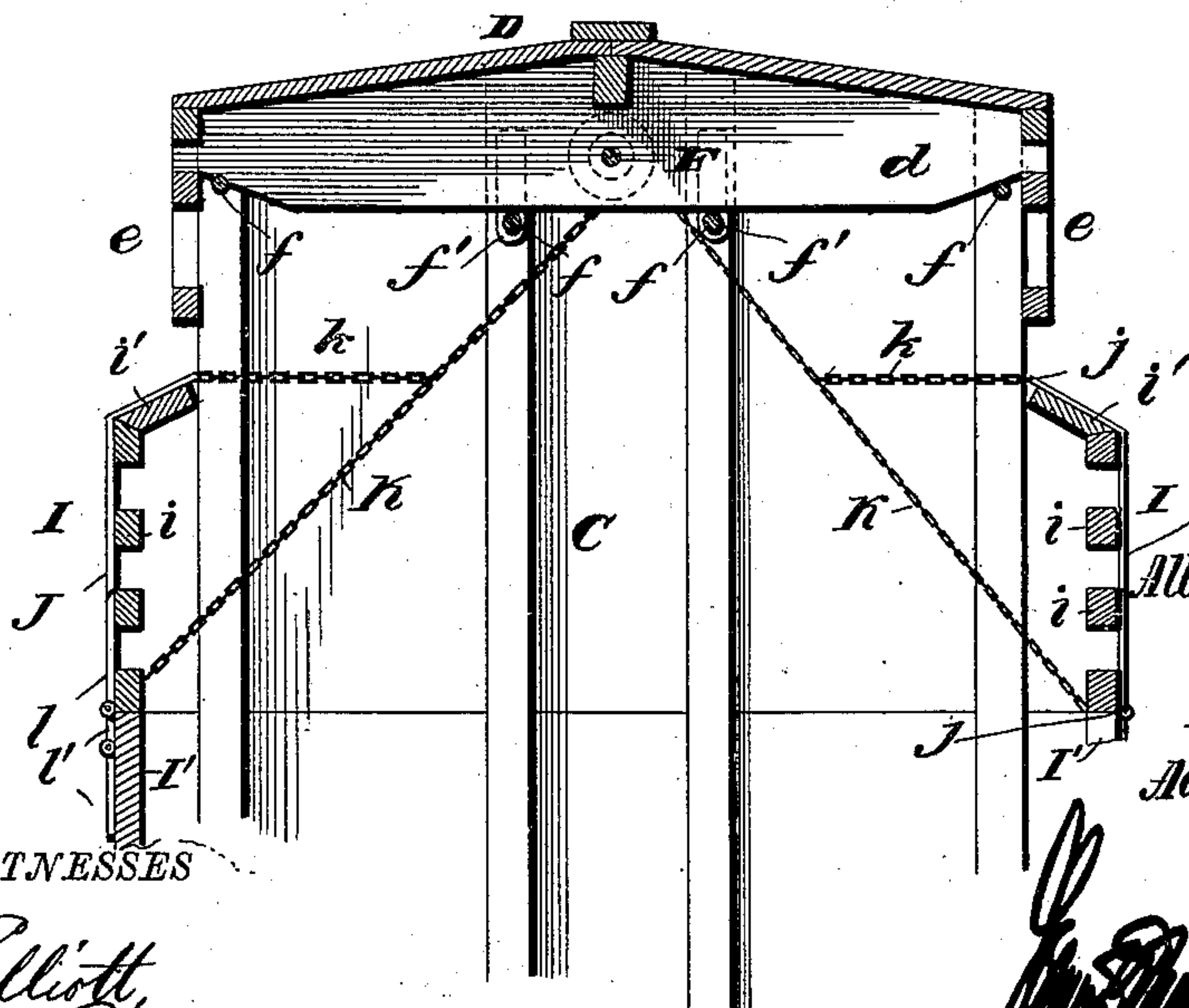


Fig. 1.



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Fig. 4

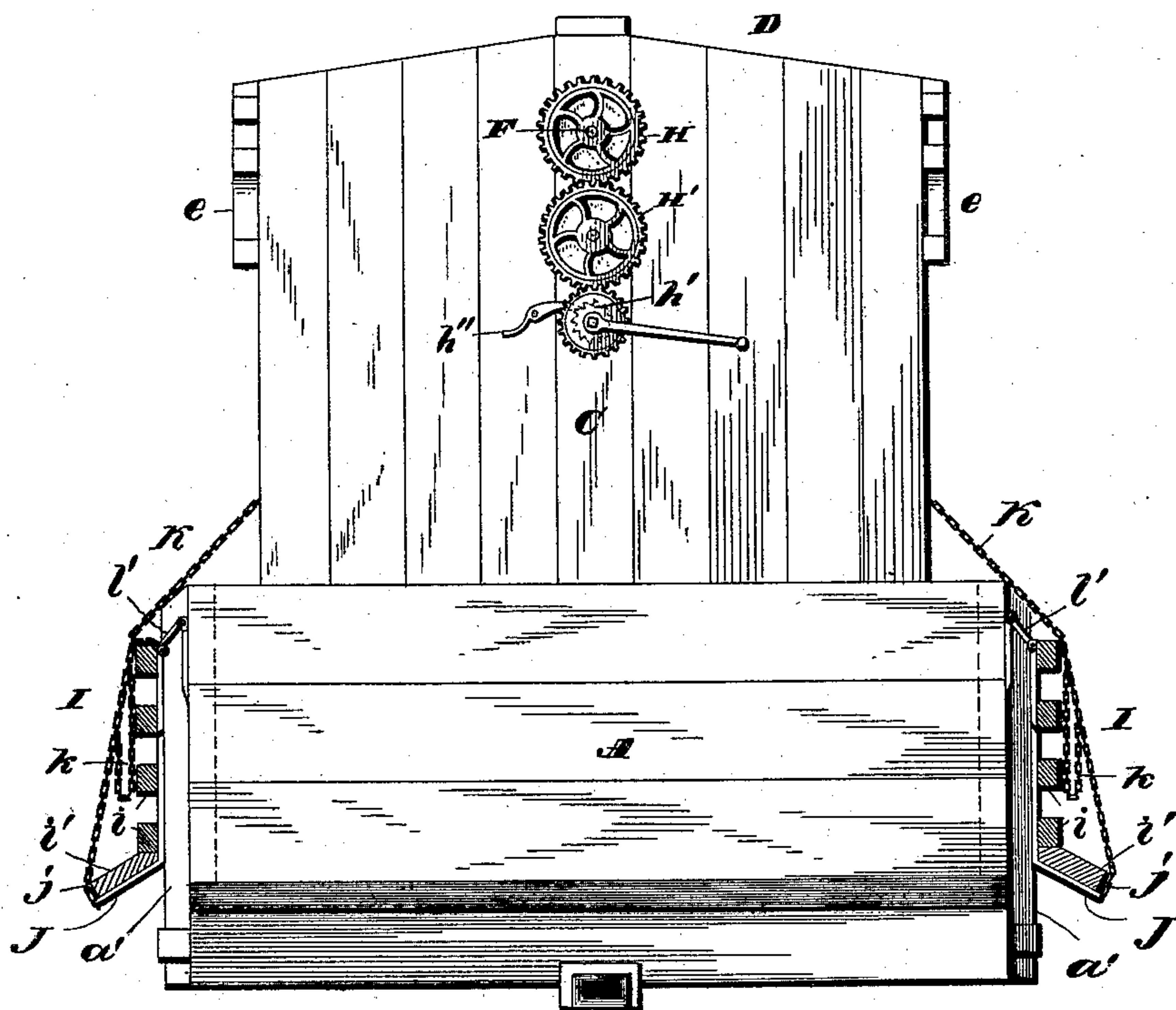


Fig. 5



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UNITED STATES PATENT OFFICE.

LIZZIE J. BALDWIN, OF BRAZIL, INDIANA, (ADMINISTRATRIX OF ALBERT O. BALDWIN, DECEASED,) ASSIGNOR OF THREE-FOURTHS TO JOSEPH S. C. SOWAR AND JEROME BOGLE, BOTH OF SAME PLACE.

FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 370,720, dated September 27, 1887.

Application filed June 14, 1887. Serial No. 241,301. (No model.)

To all whom it may concern:

Be it known that I, LIZZIE J. BALDWIN, administratrix of the estate of ALBERT O. BALDWIN, a citizen of the United States of America, residing at Brazil, in the county of Clay and State of Indiana, believe that ALBERT O. BALDWIN has invented certain new and useful Improvements in Freight-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in freight-cars, the same being designed especially for the transportation of soft coal, the object of the invention being to provide a car of the character generally known as "flat" or "open" cars with a roof and closed ends, the sides being made up of longitudinal doors which can be let down when it is desired to load the car and raised when the car is loaded, so as to protect the contents from weather.

This invention consists in the special construction and combination of the parts, as will be hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, which illustrate this invention, Figure 1 is a side view of a car constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view of one end of the car. Fig. 3 is a transverse section. Fig. 4 is an end view, and Fig. 5 is a detail view, of one of the hinges detached.

A refers to the car-body, which is of ordinary construction and is provided with trucks. The longitudinal beams *a a* are provided with sockets, to which the standards *a'* are secured, the side boards, B, being attached to these standards. The ends CC of the car are closed similar to the ordinary box-cars, and to these ends is attached the roof D, which is of less width than the car-body proper. The roof D is supported by suitable transverse beams, *d*, which are attached to the vertical posts which

extend from the car-body to the roof, and to the vertical corner-posts immediately beneath the roof are attached longitudinal beams *e e*, which are connected to each other by diagonal braces, and these beams *e e* serve to support transverse braces which extend at suitable intervals across the car immediately beneath the roof thereof. The transverse braces *d d* are also supported by a series of truss-rods, *f f*, which extend from the vertical posts at one end of the car to the vertical posts at the opposite end. These truss-rods are provided at their ends with nuts, so that they can be tightened when desired, and the center rods pass through perforated straps *f'*, attached to the transverse braces *d*.

Through the longitudinal center of the car, near the roof, passes a shaft, F, which is suitably journaled in each of the transverse braces *d d*, and also in the ends of the car, and adjacent to the inner sides of each end this shaft is provided with spools G, over which pass chains for raising and lowering the sides, as will be hereinafter set forth. One end of this shaft F passes through one end of the car and is provided with a cog-wheel, H, which meshes with a cog-wheel, H', which is journaled to the end of the car upon a short shaft, this cog-wheel H' meshing with a pinion which is rigidly attached to a stub-shaft, *h*, the outer end of said shaft being key-ended and provided with a crank-shaft. The stub-shaft *h* also carries a ratchet-wheel, which is rigidly keyed thereon, said ratchet-wheel *h'* engaging with a pawl, *h''*, as shown in Fig. 4.

I refers to the sides of the car, which are preferably made of longitudinal boards *i*, which are connected to each other at suitable intervals by metallic braces J, the upper ends of which are bent inwardly, as shown. These braces J are bolted to the boards *i*, and they are provided at their upper and lower ends with eyes *j j*, to which are secured the chains. The top board, *i'*, of the side pieces, I, is inclined inwardly, and is preferably of greater width than the other longitudinal board, so that the same will shed rain which may fall from the top of the car thereon. The side pieces, I, are secured to the sides I' of the car-

body by hinges l , which have a connecting portion, l' , which will permit the sides I to swing outwardly when lowered, so that they will be against the standards a' , and when raised the lower edge of the bottom longitudinal board of the hinged side piece will rest upon the upper edge of the top board of the side I' .

K refers to chains which extend from the lower ends of the braces J to the spools G , and from these chains extend short sections k , which are attached to the upper end of said braces, by which means the sides can be raised or lowered when the crank-handle is turned.

When the sides are lowered, they will lie a slight distance below the sides I' of the car, so that when being loaded the coal or other material will not contact with the hinged sides.

By the construction herein set forth a car is provided with a superstructure which will be light and strong, and the whole side may be thrown open, so as to permit the same to be readily loaded and unloaded.

I claim—

1. In combination with a car, a superstructure comprising narrow fixed sides and fixed ends, a spooled shaft journaled in said superstructure, folding sides hinged to the fixed sides, chains secured at their upper ends to the spools of the shaft and at their lower ends to the folding sides, and a hand device for rotating the shaft, substantially as described.

2. In combination with a car having narrow fixed sides I' , double hinge-connections con-

sisting of leaves l and links l' , one of the pintles of said hinge being arranged below the upper edge of the fixed sides, a longitudinal shaft, and chains connecting said shaft with both the upper and lower edges of the folding sides, substantially as described, whereby the hinge edge of the folding side will, when raised, rest upon the upper edge of the fixed side, and when lowered will drop below the same.

3. In combination with a flat or open car of ordinary construction, the raised ends connected to each other by braced beams, a top of less width than the body of the car, supported by the end pieces and braced beams, a longitudinal shaft journaled near the top of the car and provided with means for rotating the same, hinged sides attached to the stationary side pieces, and chains connected with the shaft for operating the hinged sides, substantially as shown, and for the purpose set forth.

4. The combination, with a car constructed substantially as shown, of the side pieces, I , made up of longitudinal slats which are connected to each other by braces J , the upper slat and the upper ends of the braces being inclined inwardly, substantially as and for the purpose set forth.

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

LIZZIE J. BALDWIN.

Witnesses:

JOSEPH S. C. SOWAR,
EMMA H. BOGLE.