(No Model.) 2 Sheets—Sheet 1.

M. & L. WETZLER.

FREIGHT CAR.

No. 440,907. Patented Nov. 18, 1890.

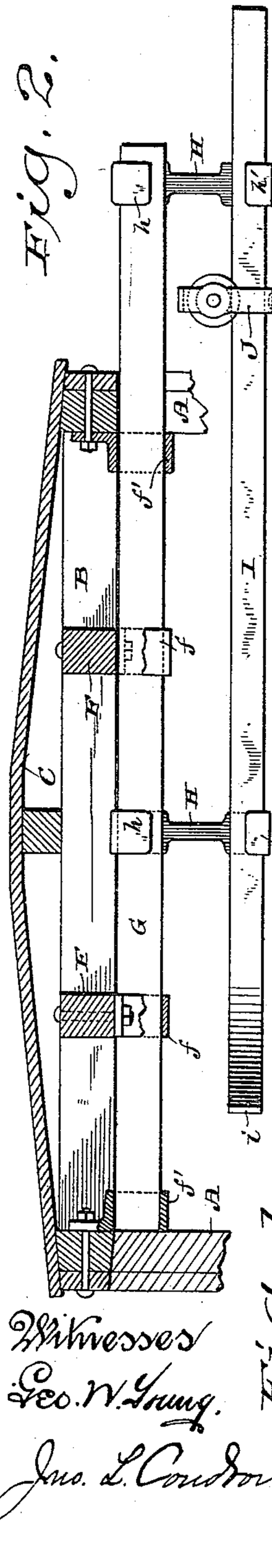

Fig. 2.

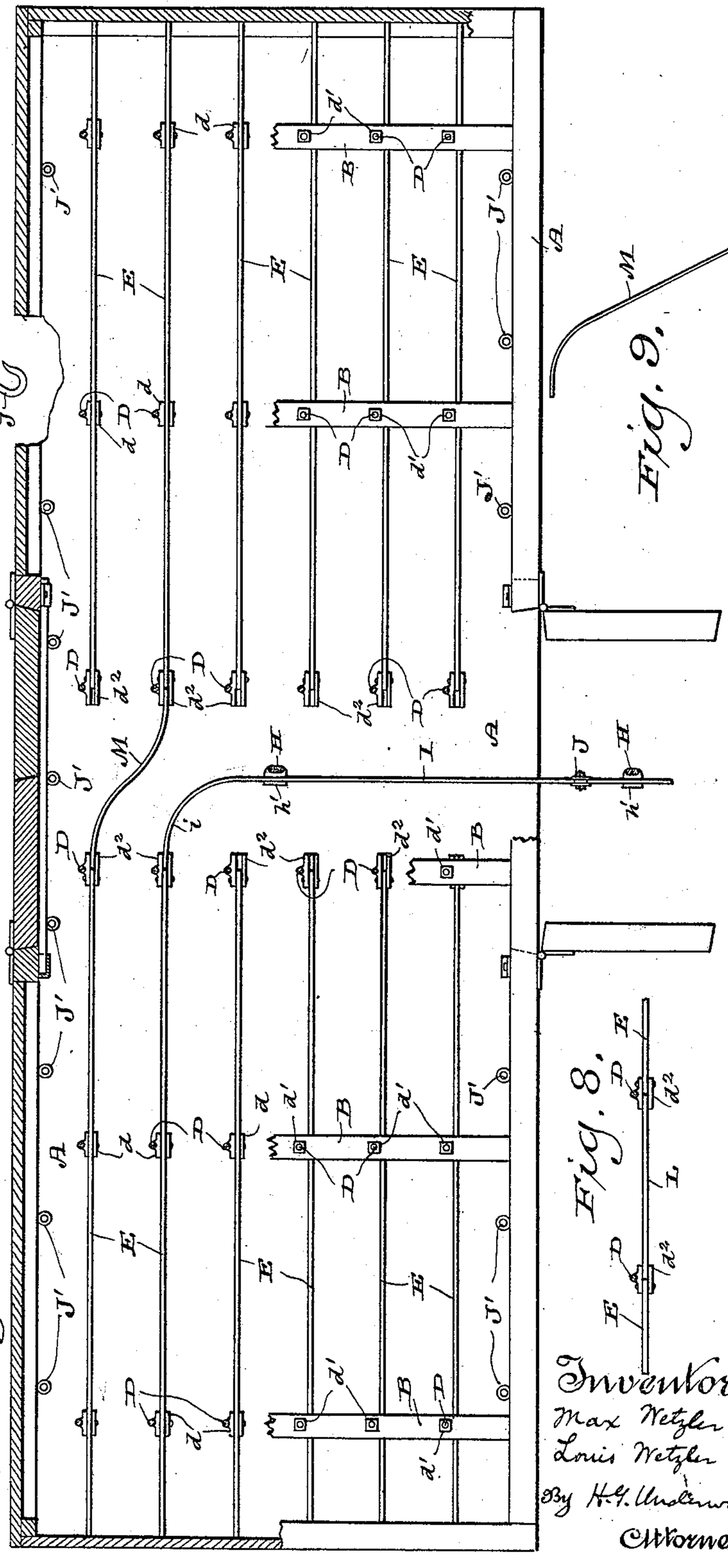

Fig. 9.

Fig. 1.

Fig. 8.

Witnesses
Geo. W. Young.
Jno. L. Condon

Inventors
Max Wetzler
Louis Wetzler
By H. G. Underwood
Attorney

(No Model.) 2 Sheets—Sheet 2.

M. & L. WETZLER.

FREIGHT CAR.

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Fig. 4.

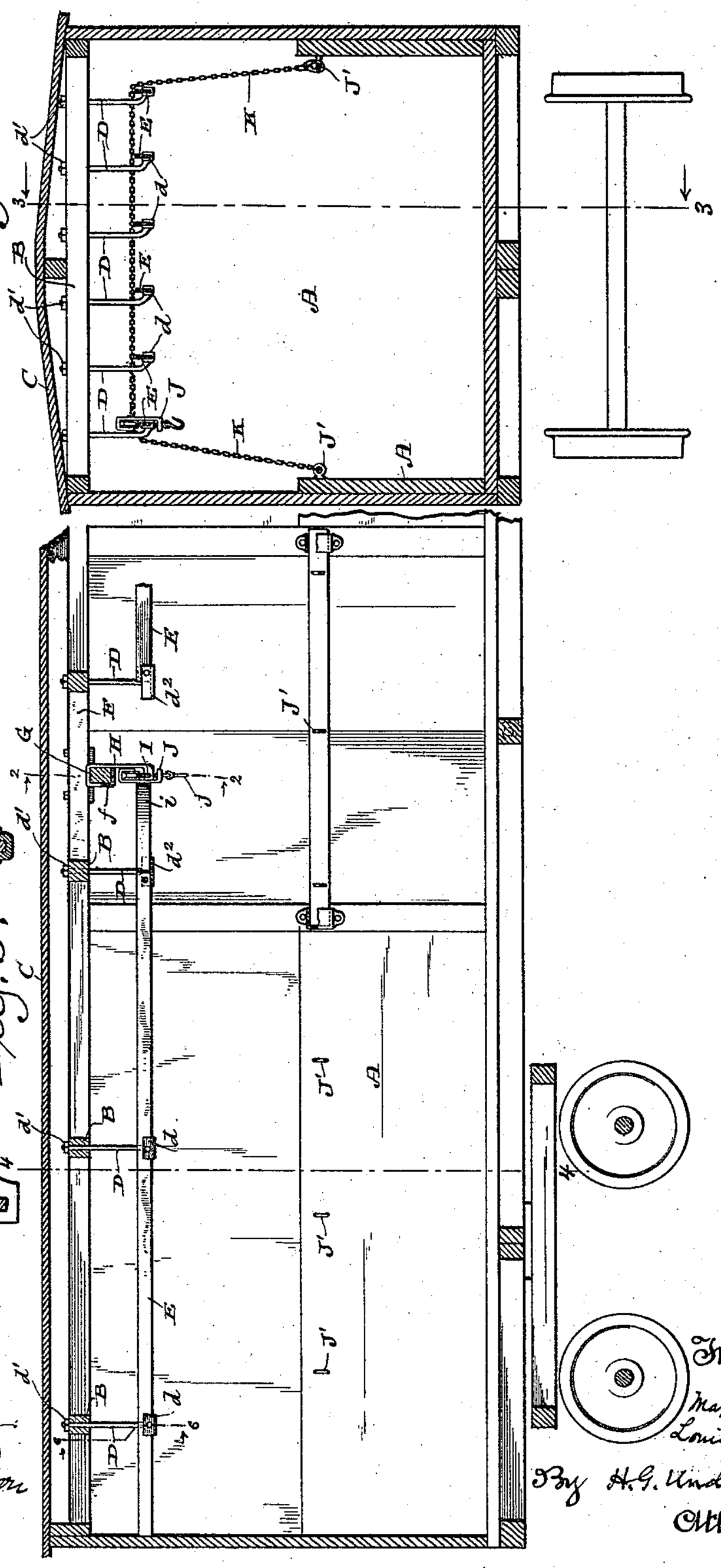

Fig. 1.

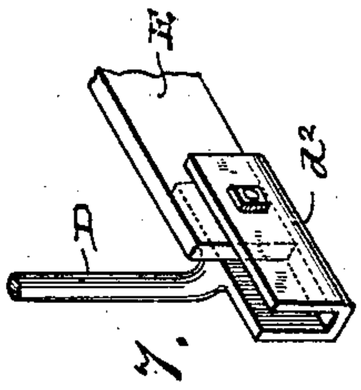

Fig. 6.

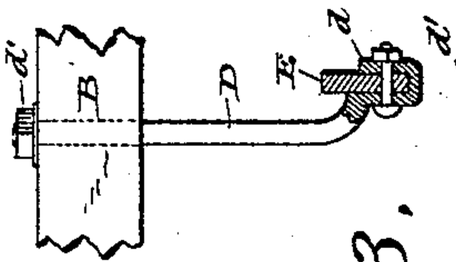

Fig. 5.

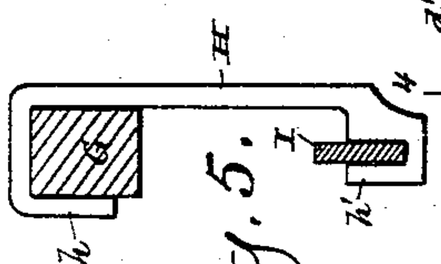

Fig. 3.

Witnesses
Geo. W. Young.
Jno. L. Condron

Inventors
Max Wetzler
Louis Wetzler
By H. G. Underwood
Attorney

UNITED STATES PATENT OFFICE.

MAX WETZLER AND LOUIS WETZLER, OF HURLEY, WISCONSIN.

FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 440,907, dated November 18, 1890.

Application filed May 17, 1890. Serial No. 352,228. (No model.)

To all whom it may concern:

Be it known that we, MAX WETZLER and LOUIS WETZLER, of Hurley, in the county of Ashland, and in the State of Wisconsin, have invented certain new and useful Improvements in Freight-Cars; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to refrigerator and similar cars for the transportation of dressed beef, bunches of bananas, or other bulky articles; and the invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described, and pointed out in the appended claim.

In order that our invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a plan view, partially in horizontal section, of a freight-car having its top removed and with certain of our improvements applied thereto. Fig. 2 is a transverse vertical section of the upper part of the car. Fig. 3 is a vertical longitudinal section on the line 3 3 of Fig. 4. Fig. 4 is a transverse vertical section on the line 4 4 of Fig. 3. Figs. 5, 6, 7, 8, and 9 illustrate in detached condition certain particular parts of our improvements, the section of said Fig. 6 being on the line 6 6 of Fig. 3.

The objects of our invention are to economize space in refrigerator-cars, so as to insure the stowage of the full amount of goods which the capacity of the car will admit, and also to facilitate and expedite the operations of loading and unloading the goods; furthermore, to prevent all liability of injury to the goods during transportation due to the motion of the cars. These results we attain by virtue of the construction which we will now proceed to describe.

In the said drawings, A designates the body of a box-car.

Inasmuch as our invention is more especially intended to be used in the transportation of dressed beef and like commodities, the improvements which we are about to describe will be generally applied to refrigerator-cars. However, it will be obvious from the ensuing description that our invention may be also effectively applied to ordinary box-cars and various other types of freight-cars, as well as in the transportation of dressed meat.

B B designate a number of cross beams or rafters, which are located directly beneath the roof C of the car, and which preferably extend transversely thereof, as shown.

D D designate hangers, which are pendent from the rafters B, and which at their lower ends are formed with U-shaped bearings or sockets *d*, (see Fig. 6,) which receive the rails or tracks E. The hangers D are shown as extending at their upper ends entirely through the rafters B and as screw-threaded at such points to receive nuts *d'*, which rest upon the upper sides of the rafters, and thus retain the hangers D in their required position. It is obvious, however, that this precise manner of securing the hangers in pendent position is not exclusively essential to the spirit of our invention; but such hangers may be retained in position in any suitable or preferred manner. These hangers are placed at intervals with their sockets *d* extending longitudinally of the car, so that the tracks or rails E shall extend parallel with each other in corresponding relation to the car-body. There are preferably two similar sets of these hangers and rails—one set at each end of the car—and the rails or tracks E at one end of the car are in alignment with those at the opposite end thereof, a gangway or space extending between the sets of tracks transversely of the car from one side door to the other. By reference to Figs. 1, 3, 6, and 8 it will be seen that the sockets d^2 nearest to the gangway or space just referred to protrude toward the gangway, and that the contiguous ends of the rails E extend only partially within the opposite parts of the said sockets sufficiently to be effectively supported thereby. The purpose of this arrangement will hereinafter appear.

F F designate rafters, which extend longitudinally of the car over the gangway, and the ends of which are secured to the two adjacent transverse rafters B. Pendent from these rafters F are U-shaped hangers or straps *f*, (see Fig. 2,) which receive a removable beam G, the ends of which are also supported by U-shaped straps or hangers *f'*, secured to the transoms of the side doors. This arrangement is such that the beam G can be readily pushed

inward from either side of the car through hangers *f f'* and likewise be withdrawn when desired. After this beam has been thus put in place any desired number of removable hangers H (see Figs. 2 and 5) are removably suspended by their inverted-U-shaped upper ends *h* from said beam. The lower ends of these hangers H carry U-shaped sockets *h'* to removably sustain a temporary rail or track I, one end *i* of which is curved laterally, as is best shown in Fig. 1.

The manner of using the appliances thus far described is as follows: When the car is moved into position to receive its load, (supposing the car to be empty,) it is opened at one side, and the beam G and hangers H are put in place. The track I is now placed in the sockets *h'* of hangers H, and its curved end is set in one of the sockets d^2 farthest from open side of the car. A traveler J is now placed upon the outer end of track I, and is drawn along said track over its curved portion *i* and back to the farthest end of the permanent track E. This operation is repeated, other similar travelers J being used, until the said track E is filled. The track I is now drawn outward until its curved end rests in the next socket d^2, and so on till all the tracks E at that end of the car are filled, and then the track I simply turned over so as to turn its curved end toward the opposite end of the car. After placing the track in the proper socket d^2 of this set of tracks E the operations above described are repeated till the car is entirely filled. The beam G, track I, and hangers H are now removed, and the car may be closed for transportation. It is obvious that the operation of unloading the car is simply a reversal of that just described, and also that such operations are much more easily and quickly performed than they could be without the use of the appliances described.

In order to prevent any damage to the goods due to violent collision against each other by reason of the rough movements of the car, we preferably attach at intervals along the sides of the car a number of eyebolts J'. Chains or ropes K are secured at their ends to these bolts and are strained up over the tracks E, so as to extend from side to side of the car. These chains or ropes confine the several pendent articles, and thus prevent them from striking against each other and so becoming damaged. Frequently the articles which compose a load in this branch of transportation are consigned to different parties and various points, and for this and other obvious reasons the contents of the car have to be moved about, so that access may be had to the particular articles called for. In order to adapt the appliances described to this exigency, we employ removable rails, which serve as temporary switches or bridges which are designed to connect the two sets of tracks E, so that articles may be transferred readily from one to the other, as desired.

In Fig. 8 a straight switch or bridge L is shown, and in Figs. 1 and 9 a curved switch or bridge M is also shown. The ends of these switches are set into the opposite sockets either of the corresponding tracks of the two sets or of the varying tracks thereof. Thus the articles can be rapidly shifted about, as required, and the changing about of the load is greatly facilitated.

Having thus described our invention, what we claim as new therein, and desire to secure by Letters Patent, is—

The combination, with a freight-car body, of a number of hangers or straps secured to the upper part of the roof and door-transoms, a beam set removably in said hangers, and a removable track or way suspended by hangers from said beam, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands, at Hurley, in the county of Ashland and State of Wisconsin, in the presence of two witnesses.

MAX WETZLER.
LOUIS WETZLER.

Witnesses:
R. SLEIGHT,
H. G. REICHWALD.