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E. A. SWEETLEY ET AL
SIDE WALL FLOOR RACK HINGE

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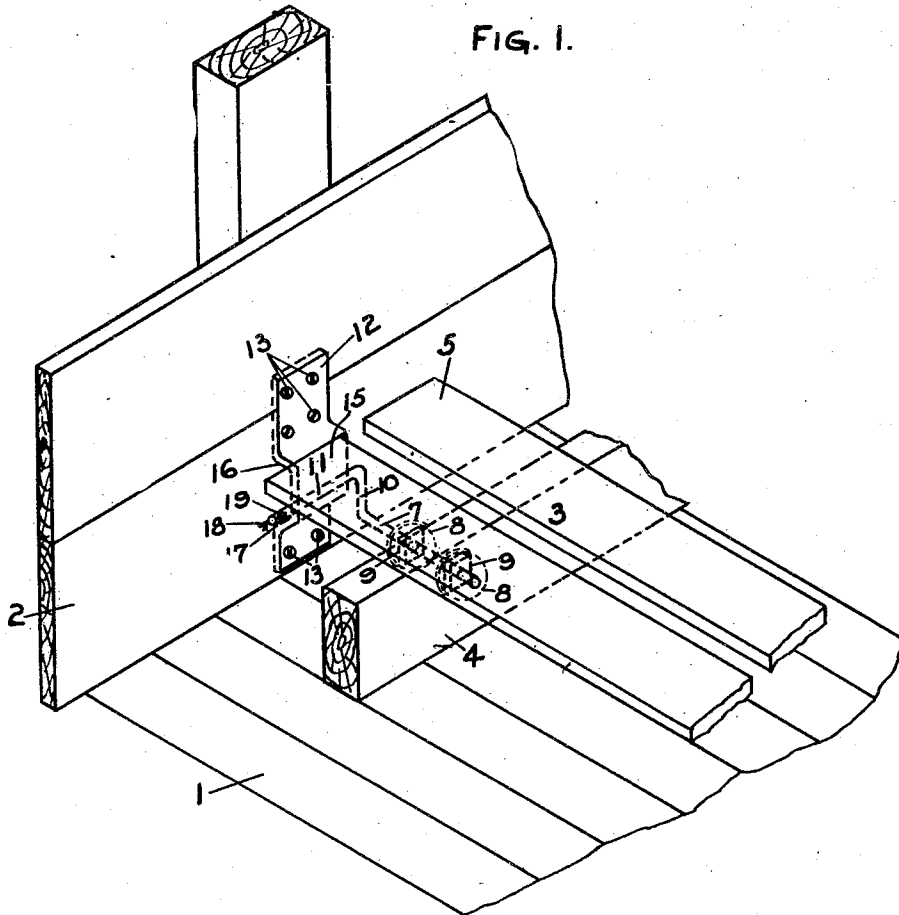
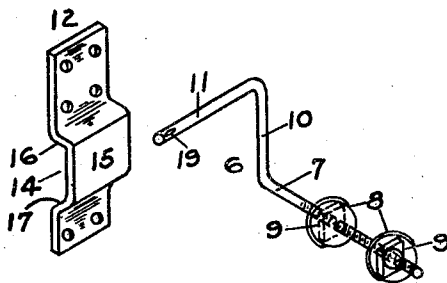


FIG. 2.

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This invention relates more particularly to freight cars for transportation of vegetables, fruit and other merchandise. It has for its object to provide simple and efficient means for attachment of sectional racks or ventilating supplemental floors which may be raised or lifted from over the permanent floor so as to facilitate cleaning the floor from debris that may lodge thereon. It has further for its object to provide a hinge for the sections of the floor racks which will sustain the sections in an upright position when raised (and sustain the section) so that there will be a clear space between the section and permanent floor and thereby make it possible to more expeditiously and thoroughly clean the entire permanent floor area. It has further for its object to provide a floor rack hinge that will permit the rack and its hinge to move vertically in case that debris or other substance should get under the floor rack stringers, and thus relieve the hinge from damaging strains and at the same time permit the rack section to maintain a more nearly horizontal position instead of a more acute angle or inclination.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in features hereinafter particularly described and then sought to be clearly defined by the claims reference being had to the accompanying drawings forming a part thereof and in which

Figure 1 is a perspective of a portion of a car, showing part of a floor rack and hinge for connecting the rack to the side of the car.

Figure 2 is a perspective illustrating details of the hinge.

In the drawing the numeral 1 designates a portion of a floor and 2 a portion of one side of a car of any approved construction of the refrigerating type employed for transporting fruits and vegetables and other perishable food products. These cars are usually provided with sectional floor racks disposed on top of the permanent floor of the car and of an open frame formation which will permit air to be circulated between the rack section and permanent floor and the merchandise above the floor rack sections. A desired number, if there will be any desired number, is designated by the numeral 3 and will be formed of a desired number of stringers 4 and cross slats 5, the stringers resting on the permanent floor of the car and the cross slats, spaced apart from one another, being supported by the stringers. It is desirable to connect or attach the rack sections to some part of the car, so as not to be subject to accidental displacement and yet capable of being lifted or raised so as to have the whole area of the permanent floor free or unobstructed by the floor racks for cleaning or removing from the permanent floor particles of merchandise or debris that may drop and lodge upon the permanent floor. Under the present invention means are provided for connection or attachment of the floor racks that will permit them to be moved or swung upward so as to stand in an upright position, say against the side wall of the car body, and stand in that position with the rack sections supported above the permanent floor so that debris or matter lodging on the floor may readily be swept from the entire area of the floor without interference from the rack sections. To that end there is provided a hinge embodying a pintle 6 which preferably comprises a member 7 designed to pass through one of the stringers of a floor rack section and held thereto by washers 8 and nuts 9 engaging with threads on members 7 and bearing against opposite sides of the stringer so as to rigidly secure the member to the stringer. One end of member 7 is formed with an upwardly extending portion 10, standing substantially at right angles to the member 7 and having a laterally extending portion 11 designed to pass through a keeper 12 adapted to be secured by threaded bolts or screws 13,

or otherwise, to a side wall of the car body as illustrated in Figure 1 of the drawing. The keeper 12 is formed with an elongated slot 14 formed preferably by an offset portion 15 of the keeper which will provide a shoulder 16 that will limit the upward movement of the laterally extending portion 11 and also a shoulder 17 that will limit the downward movement of the portion 11, and thus provide for a slidable movement of the pintle member of the hinge in its keeper. This slidable movement of the rack section pintle provides for a vertical play of the section so that if an obstruction lodges beneath a stringer of a rack section the section will stand in a substantially horizontal plane, or level, instead of at a greater or less acute or oblique angle, and liability of the parts to bind is prevented. The shoulder 17 at the bottom of the off-set portion of the keeper 12 also serves as a seat for the rack section when the section is raised to stand alongside the side of the car body, and all parts of the rack section will be held entirely above and away from the permanent floor of the car, which will facilitate cleaning the floor from all débris.

It will be observed that the hinge attachment for a floor rack section is particularly simple in formation and operation and composed of a minimum number of parts and easily applied in position without the necessity of employing skilled labor. The keepers may be applied and remain as a permanent part of the car body structure; and a floor rack section, with the pintle member of the hinge applied is readily positioned so that the laterally extending portion of the pintle will pass through the elongated slot of the keeper; and by passing a cotter pin 18 through a slot 19 in the end of the pintle member, the floor rack section will be held against accidental displacement. If it be desired at any time to remove a floor rack section from the car it is easily and quickly done by removing the cotter pin 18 and then sliding the rack section far enough to withdraw the portion 11 of the pintle from its keeper, when the floor rack may be carried from the car. Under ordinary conditions it is not necessary to remove a floor rack section from the car, and it may be thrown up against the side of the car, out of the way, so that a truck may be run over the permanent floor in loading and unloading the car, and the floor racks may in succession be lowered or raised to meet various existing conditions.

It will also be observed that no part of the hinge lies over and in the plane of the top surface of a floor rack but lies below or outside of the boundary lines of the top surface or face of the rack and hence the top plane of the rack is free from projections that might interfere with freely sliding objects across the face of the floor racks, or possibly cause persons to stumble in walking across

the racks. It will be further observed that each floor rack is independent of all the other racks so that necessity of folding one rack onto its companion or next rack in placing and removing or in changing position of the rack, does not exist. Other advantages will be appreciated by the skilled in this art.

The best present known embodiment of the invention has been illustrated and described in detail but changes may be made therein without departure from the scope of the invention as sought to be defined by the appended claims.

Having described the invention and set forth its merits, what we claim is:

1. A side wall floor rack hinge comprising a pintle member for attachment to part of a floor rack, said member having one end projected laterally to the length of the member, and a keeper for attachment to a support, said keeper being formed with an elongated slot to receive the laterally projected portion of the pintle member and in which the projected portion is vertically slidable.

2. In combination with a floor rack comprising stringers and cross slats; a pintle member secured to a stringer of the rack and having a portion extended at an angle thereto and another portion projected laterally from the angularly extended portion, and a keeper formed with an elongated slot to receive and permit the projected portion of the pintle member to have a slidable movement therein, and an upright support for the keeper disposed to permit the rack to fold towards said support.

3. In combination with a floor rack comprising stringers and cross slats; a pintle member secured to a part of the floor rack and having a portion extended at an angle thereto and another portion projected laterally from the angularly extended portion, and a keeper formed with an elongated slot to receive and permit the projected portion of the pintle member to have a slidable movement therein, and an upright support for the keeper disposed to permit the rack to fold towards said support, said keeper having a shoulder adjacent to its elongated slot to constitute a seat to sustain the rack in an upright position when folded.

4. In combination with a floor rack comprising stringers and cross slats; a pintle member secured to a part of the floor rack and having one end projected laterally to the length of the member, a keeper made with an off-set portion to form an elongated slot to receive the projected portion of the pintle member and having a shoulder to form a seat to sustain the rack in an upright position when folded, and a support for the keeper.

5. In combination with a floor rack comprising stringers and cross slats; a hinge for the rack comprising a keeper for attachment

to an upright support and formed with an elongated slot, and a pintle for connecting the rack and keeper, said pintle having a laterally projected portion slidable in the elongated slot of the keeper and permitting
5 the rack to rise and fall to conform to obstructions beneath the rack.

In testimony whereof we affix our signatures.

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NORMAN T. ANDERSON.

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