No. 815,868.

PATENTED MAR. 20, 1906.

F. S. SEE.

DEVICE FOR TRANSPORTING PASSENGERS FROM CARS.

APPLICATION FILED JULY 14, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

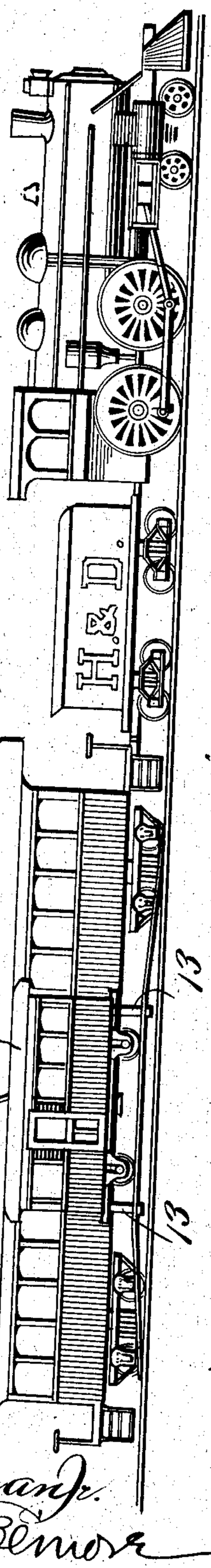
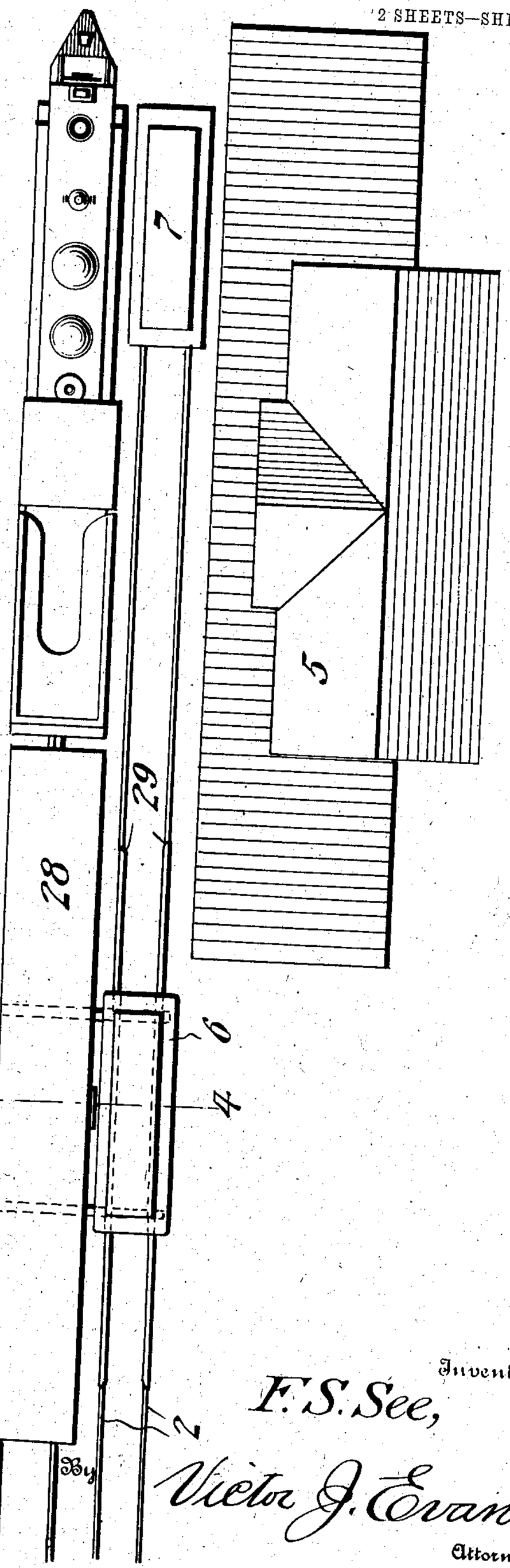


Fig. 2.



Witnesses

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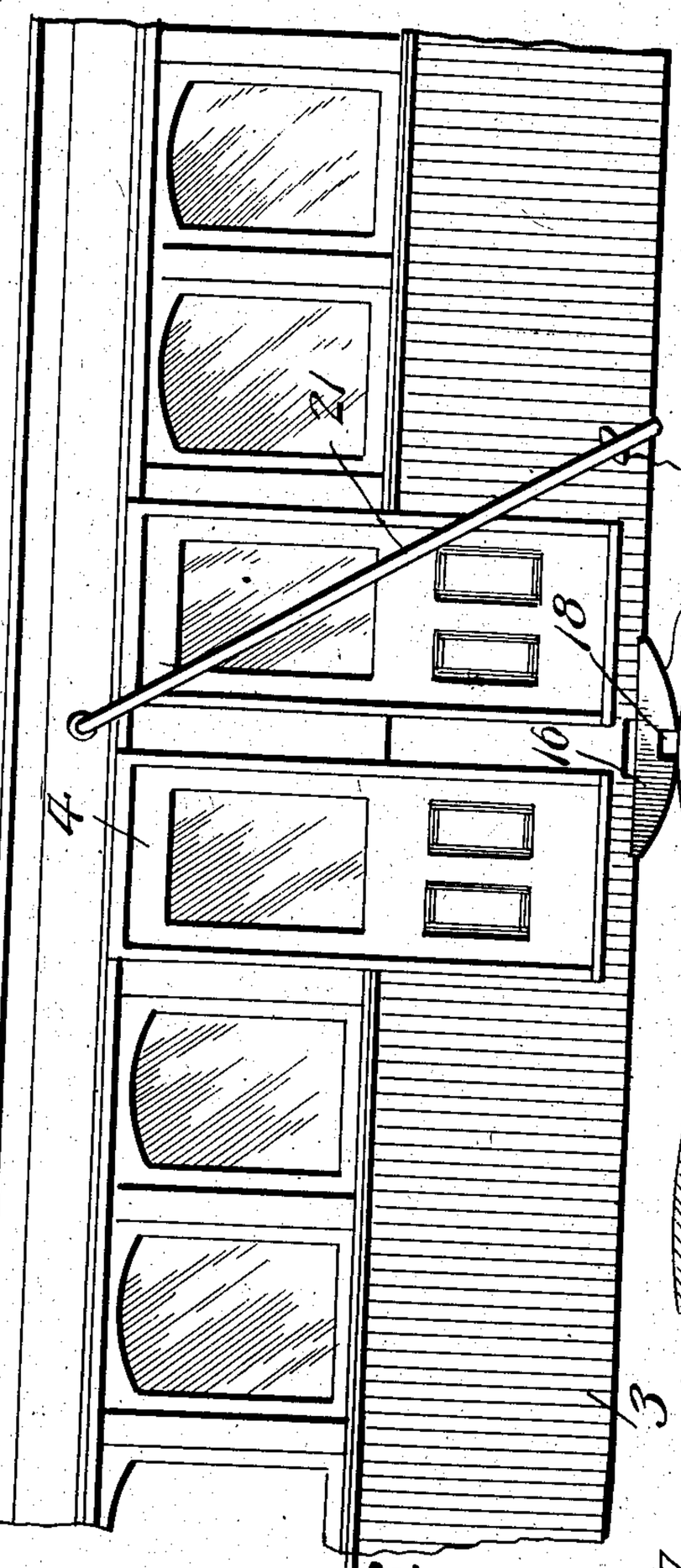

Fig. 3.

Fig. 5.

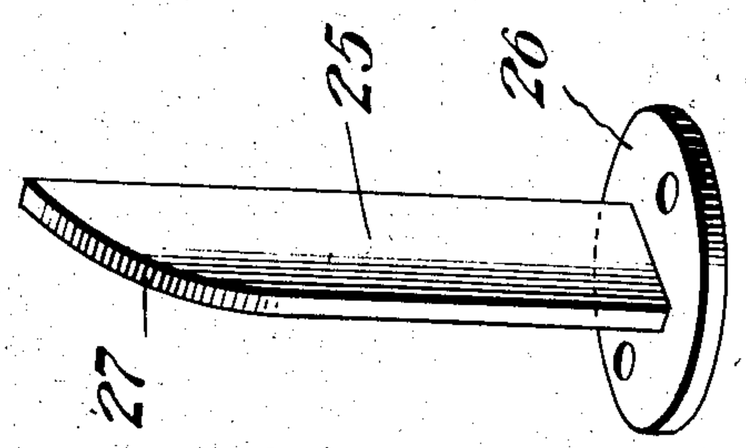

Fig. 6.

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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DEVICE FOR TRANSPORTING PASSENGERS FROM CARS.

No. 815,868. Specification of Letters Patent. Patented March 20, 1906.

Application filed July 14, 1905. Serial No. 269,703.

To all whom it may concern:

Be it known that I, FILER S. SEE, a citizen of the United States of America, residing at Gem, in the county of Thomas and State of Kansas, have invented new and useful Improvements in Devices for Transporting Passengers from Cars, of which the following is a specification.

This invention relates to devices for receiving passengers upon or discharging them from moving trains, and has for its objects to produce a comparatively simple inexpensive device of this character in which the supplemental or transferring cars will be automatically received by and released from the passenger-car, one in which the transferring-car will be received and delivered without objectionable shocks, and one in which the clamping-jaws will be automatically opened at such times as it may be desired to release the transferring-car.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a railway-train, showing the supplemental transferring-car carried thereby. Fig. 2 is a top plan view of the same, showing the train at a point or station for releasing one transferring-car and receiving another. Fig. 3 is a side elevation, on a larger scale, of a portion of a passenger-car equipped with clamping-jaws and a tripping member embodying the invention. Fig. 4 is a section, on an enlarged scale, taken on the line 4 4 of Fig. 2. Fig. 5 is a detail perspective view of the engaging member or arm to be carried by the transferring-car. Fig. 6 is a similar view of the track member for actuating the trip.

Referring to the drawings, 1 designates the rails of a main track, and 2 the rails of an auxiliary track disposed at one side of and parallel with the main track, upon which latter there is adapted for travel a passenger-car 3, these parts being of the usual construction and arrangement, except that the car 3 is provided in its side wall with doors 4 for a purpose which will hereinafter appear.

Adapted for travel on the track 2, which is laid only at points or stations 5 along the main road, is a plurality of auxiliary or transferring cars 6 and 7, identical in construction and each equipped with transporting-wheels 8 and a pair of doors 9 10, disposed at opposite points in its side walls, there being fixed beneath the body of the car an engaging member or arm 11, bolted or otherwise secured in place and having an engaging portion 12, of rectangular form in cross-section, projected beyond one side of the car.

Fixed to and carried by the car 3 is a pair of rigid supporting members or brackets 13, disposed at appropriately-spaced intervals and having horizontal portions or arms 14 lying in a plane adjacent to that of the tread of the rails 2, there being bolted or otherwise secured to the bottom of the car, at a point centrally between the brackets 13 and immediately beneath the doors 4, a pair of coöperating spring clamping members or plates 15, provided at their outer ends, which project slightly beyond the outer side face of the car, with clamping portions or heads 16, having reversely-curved inner edges 17, constituting oppositely-disposed cam-faces, there being provided in one (preferably the upper) head 16 a rectangular seat or recess 18, designed to receive the projecting portion 12 of arm 11 for a purpose which will presently appear.

Extended transversely through the car and journaled for rotation in suitable bearings 19 is a tripping member or rock-shaft 20, provided with a pair of depending portions or arms 21 22, disposed, respectively, at opposite sides of the car, the arm 21 having at its lower end a cam-head 23 of substantially elliptical form, while the arm 22 is provided at its lower end with an outturned contact portion or finger 24, designed to project in the path of and contact with a vertical track member or standard 25, fixed at a point adjacent the track 1 in suitable relation to the station 5, said standard 25 being preferably provided with a base 26, perforated for attachment to the ties or sleepers and having its upper end curved, as at 27, to present a cam-face disposed in the line of travel of the car.

Fixed to and carried by the bracket-arms 14 is a pair of supporting-rails 28, gaged to aline with the track-rails 2, these supporting-rails having slightly-elevated central portions and downwardly-inclined end portions, the terminals of which travel upon and in contact with the treads of the rails 2 and are inwardly curved or beveled transversely, as at 29.

In practice one of the transferring-cars 6 or 7 is normally carried by the passenger-car 3, under which conditions it is supported upon the rails 28 and fixed in place, owing to engagement of the portion 12 of arm 11 with

the seat 18 between the jaws 16, as illustrated in Fig. 4, while the tripping member 20 normally stands in position for maintaining the arms 21 and 22 in a forwardly-inclined direction, as seen in Fig. 3, it being noted that the doors 4 and 9 are thus oppositely disposed to permit of the passengers passing freely from the main car 3 to the auxiliary car 6. As the train approaches the station 5 the part 24 of arm 22 comes into contact with and rides over the cam-surface 27 of the track member 25, thus swinging arm 21 rearwardly and causing the cam-head 23 to enter between and open the jaws 16 for releasing arm 11 and permitting the auxiliary car to travel off of the supporting-rails 28 and be deposited upon the rails 2, it being understood that when the car 3 reaches car 7 the forward ends of the supporting-rails 28 pass beneath the wheels of the latter, thereby picking up the car 7, the arm 11 of which passes between and is automatically engaged by the jaws 16. Thus it will be seen that as the train advances it will at each station deposit a transferring-car and receive a second such car, these operations being performed automatically and permitting of the passengers being received or delivered at the stations without stopping the progress of the train. It is to be particularly noted that as the cam-head 23 passes between and for opening jaws 16 the arm 21 will contact with the portion 12 of arm 11, thus to positively release the latter and give sufficient impetus to car 6 for causing the latter to travel rearwardly or through rails 28, and that owing to the terminals of the latter being beveled they will enter diagonally beneath the wheels 8 of the auxiliary car to obviate any possibility of the same being derailed during the operation.

From the foregoing it is apparent that I produce a simple device which may be readily installed for use and one which will in practice admirably perform its functions to the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus described the invention, what I claim is—

1. In a device of the class described, a main car, an auxiliary car, an engaging member carried by one of the cars, clamping members carried by the other car for engagement with said member, and means for automatically operating the clamping member to release the engaging member at a predetermined point.

2. In a device of the class described, a main car, an auxiliary car, an engaging member carried by one of said cars, a pair of spring clamping members adapted for automatic engagement with the first-named member, and means for automatically operating the clamping members to release the engaging member.

3. In a device of the class described, a main car, an auxiliary car, an engaging member carried by one of said cars, a pair of cooperating clamping-jaws carried by the other car for engagement with said member and a tripping member carried by one of the cars and automatically operable to actuate the jaws for releasing the member.

4. In a device of the class described, a main car, an auxiliary car, a rigid engaging member carried by one of said cars, spring clamping members carried by the other car for automatic engagement with said member, a tripping member, and means for operating the tripping member to automatically actuate the clamping-jaws for releasing the engaging member.

5. In a device of the class described, a main car having supporting-rails, an auxiliary car adapted to be automatically received upon said rails, interengaging devices for retaining the auxiliary car in position, a tripping member designed to act upon said devices for automatically releasing the auxiliary car, and means for operating the tripping member.

6. In a device of the class described, a main car having supporting-rails, an auxiliary car adapted to be automatically received upon said rail, interengaging devices for retaining the auxiliary car in position, a tripping member designed to act upon said devices for releasing the auxiliary car, and a track member for automatically operating the tripping member at a predetermined point.

7. In a device of the class described, a main car having a support, an auxiliary car adapted to be automatically received upon said support, a pair of spring clamping-jaws carried by one of the cars, an arm carried by the other car for engagement with the jaws to retain the auxiliary car in place, a tripping member having a cam-head to enter between the jaws for releasing the arm, and a track member designed to automatically operate the tripping member.

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

FILER S. SEE.

Witnesses:
E. N. See,
Jas. W. Barr.