

(No Model.)

2 Sheets—Sheet 1.

# M. MORELL & R. M. FERRER, EXPRESS CAR.

No. 526,191.

Patented Sept. 18, 1894.

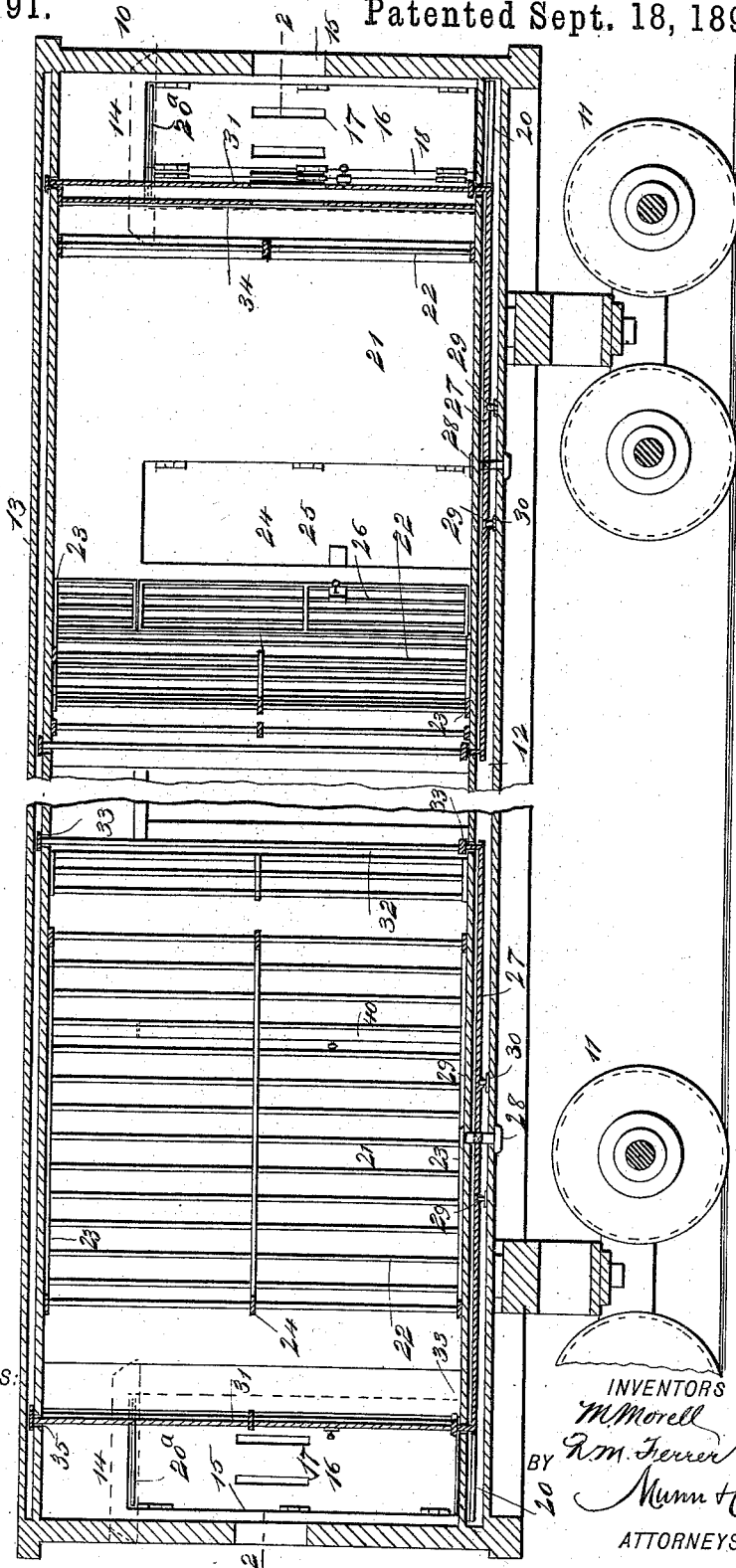


Fig. 1

WITNESSES:

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*C. Sedgwick*

INVENTORS  
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BY *Munn & Co*  
ATTORNEYS.

(No Model.)

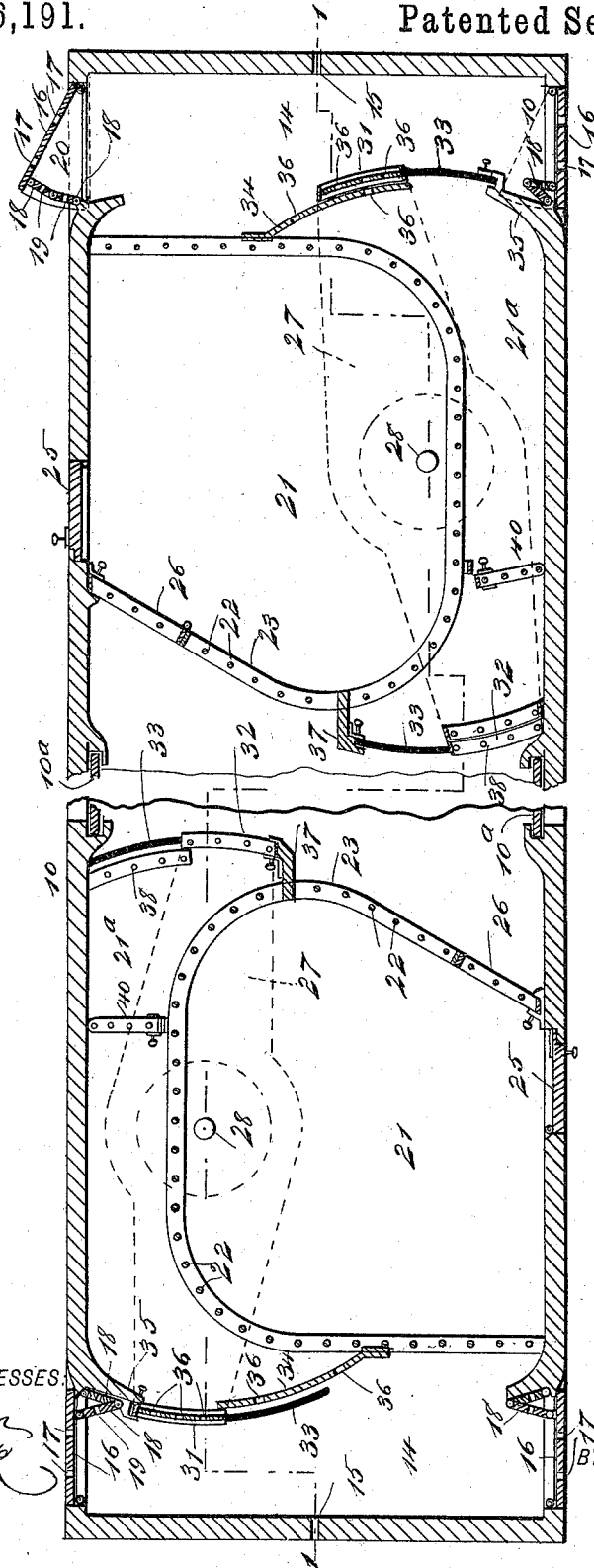
2 Sheets—Sheet 2.

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FIG 2



WITNESSES  
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# UNITED STATES PATENT OFFICE.

MIGUEL MORELL AND RAMON M. FERRER, OF SANTA BARBARA,  
CALIFORNIA.

## EXPRESS-CAR.

SPECIFICATION forming part of Letters Patent No. 526,191, dated September 18, 1894.

Application filed March 22, 1894. Serial No. 504,733. (No model.)

*To all whom it may concern:*

Be it known that we, MIGUEL MORELL and RAMON M. FERRER, both of Santa Barbara, in the county of Santa Barbara and State of California, have invented a new and Improved Express-Car, of which the following is a full, clear, and exact description.

Our invention relates to improvements in express cars; and the object of our invention is to produce a burglar proof express car, which is constructed in a simple and substantial manner, so as not to be very expensive, which has provision for carrying ordinary express matter in substantially the usual way, which is also provided with cages which can only be opened from outside the car and which are adapted to contain a safe and the more valuable parcels in the car, the arrangement being such that only the depot man at the station to which the safe is consigned can open the cage, thus rendering it impossible for the messenger to tamper with the safe; which is arranged also in such a manner that if robbers succeed in entering the car they will be exposed to the fire of the messenger, which has a bullet-proof compartment in each end into which the messenger may step and be situated so as to fire on the robbers without exposing himself, and which is also constructed in such a manner that the messenger may protect the engineer and may also shoot along the sides of the car so as to prevent burglars or robbers from making an entry.

To these ends our invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in both the views.

Figure 1 is a broken longitudinal section, on the line 1—1 of Fig. 2, of the car showing our improvement; and Fig. 2 is a sectional plan on the line 2—2 of Fig. 1.

The car 10 is of substantially the usual exterior shape and it is mounted, in the ordinary way, on trucks 11, and has a double floor

12 and likewise a double roof 13. In each end of the car is a messenger's room or compartment 14 in which the messenger may take refuge in case the car is attacked by robbers and from which he is enabled to shoot into the car, in front of the car, along the sides, or laterally, so as to completely protect the car without seriously exposing himself.

In the ends of the car are port holes 15, large enough to permit a rifle barrel to be conveniently passed through them so that a messenger may shoot any robbers who attempt to interfere with the engineer. On the sides of the car and at the ends of each messenger's room 14 are outwardly swinging doors 16 which have port holes 17 through which shots may be fired, the doors being themselves of metal; and the doors are hinged to swing outward, and have their free edges hinged to the sections 18 which extend the full height of the doors and are also of metal, these sections being hinged to the car and hinged together so that they may fold one upon the other, as illustrated in Fig. 2, and when the door is opened the sections 18 straighten out, as illustrated at the right hand in Fig. 2, and these sections are also provided with port holes 19 through which shots may be fired.

The door 16 has a floor 20 adapted to shut between the floors 12 of the car and a top 20<sup>a</sup>, and when a door 16 is opened, as shown at the right hand in Fig. 2, a V-shaped recess is formed in which the messenger may stand and he may fire through either the port holes 17 or 19, as necessary, and thus have command of the car, and in fact, of the entire train. At the opposite sides of the car are cages 21 in which a safe and valuable packages may be placed, each cage comprising a series of bars 22 extending from floor to roof of the car, these bars being strengthened at top and bottom by plates 23 and being braced in the center by connecting plates 24. The cages are of metal and strong enough to resist any attempt to break them. Each cage is reached by a door 25 in the side of the car, the door having a lock on the outside, and

thus it may be locked at one station and unlocked at another to which it is consigned, by the man in charge at said station, so that the messenger in the car cannot have access to the cage. Each cage is, however, provided with a door 26 opening into the body portion of the car, which may be kept locked under ordinary circumstances, but may be unlocked when necessary. The space in the center of the car may be used for ordinary packages, and the sides of the car opposite the central portion are provided with the ordinary sliding doors 10<sup>a</sup> which provide for the insertion and removal of said packages. A passageway 21<sup>a</sup> is left on one side of each cage and leads from the messenger's room to the central portion of the car, but this passageway may be closed by the mechanism described below.

Beneath the inner side of each cage and turning between the floors of the car is a platform 27 which is pivoted in the center, as shown at 28 and has on its under side a circular groove 29 running on a track 30, see Fig. 1, to enable it to be easily turned. The platform is somewhat longer than the cage and it carries at its front end a metal door 31 and at its rear end a door 32, the latter being composed of bars and cleats, substantially like those of the cages. The doors 31 and 32 extend from the platform to the car roof, and run in grooves 33 in the upper floor and in the ceiling. The front door 31 closes the opening between the partition 34 and ledge 35 at one end of the passageway 21<sup>a</sup> and may swing opposite the partition 34 when it is desired to have an opening between the passageway and the messenger's room. Both the door 31 and the partition 34 are provided with port holes 36, so that in case robbers are within the car the messenger may, from behind the door and partition, open fire on them. The doors 31 and 32 are both provided with suitable locks, and the latter door extends from a wall 37 at one side of the cage to a grated wall 38 substantially like the cage wall and arranged at one end of the passageway 21<sup>a</sup>. It will be observed that by turning either door, the other is also opened and they are both simultaneously closed, as the platform 27 is swung by moving either door and, of course, the other door moves with the platform. The passageway 21<sup>a</sup> is also closed by a door 40 which has a lock on the side next the messenger's room. If then, the robbers should manage to get into the central portion of the car, the messenger may flee through the passageway to the messenger's room, closing and locking the door 40 after him, and if a robber should chase him the messenger may close the door 31 which is locked on the messenger's side, after the robber has passed the door 32, and this will close the door 32 and shut the robber into the passageway 21<sup>a</sup>, thus making a prisoner of him and exposing him to the fire

of the messenger, who can stand behind the partition 34 and door 31 and cover the prisoner through the port holes 36 and thus hold him at bay or kill him, as desired.

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

1. The combination, with a car, of the outwardly-swinging doors thereon, and the sections hinged to the free edges of the doors and to the car, the doors and sections being provided with port holes, substantially as described.

2. The combination, with the double floored car, of the outwardly-swinging doors on the opposite sides thereof, each door having a floor extending within the car floor, and the hinged sections connecting the free edges of the doors with the car sections and doors, being provided with port holes, substantially as described.

3. The combination with a car having a compartment at each end, of outwardly swinging side doors having folding sections hinged to the doors and to the car, and doors leading from the compartments into the interior of the car, the doors, the folding sections, and the partitions forming the compartments, being provided with port holes, substantially as described.

4. The combination, with the car, of the cages in opposite ends and opposite sides thereof, each cage being provided with a door opening through the side of the car, messenger rooms at the ends of the car, and partitions between the messenger rooms and cages, the partitions having port holes therein, substantially as described.

5. The combination with a car provided with a cage on the inside, a passage way being left between the cage and one side of the car, of a door at each end of the passage way, and means for simultaneously opening and closing said doors, substantially as described.

6. The combination, with the car and the cage arranged at one side of the car, a passageway being left between the cage and one side of the car, of the swinging platform beneath the car floor, and doors at opposite ends of the platform to simultaneously close both ends of the passageway, substantially as described.

7. The combination, with the car and the cage therein, the cage having a passageway between itself and one side of the car, of a messenger's room in front of the cage, a partition between a portion of the room and the cage, a swinging platform beneath the car floor and passageway, and doors carried by the platform to close both ends of the passageway, the front door and the adjacent partitions being provided with port holes, substantially as described.

8. An express car having a cage therein, a door in the side of the car and cage, a messenger's room in the end of the car, a passage

way leading from the central portion of the car opposite the cage and to the messenger's room, partitions adjacent to the ends of the passageway, the front partition being bullet-proof and provided with port holes, a swinging platform beneath the floor of the car, doors carried by the platform at its opposite ends and adapted to close the passageway, and a door arranged transversely in the passageway, substantially as described.

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RAMON M. FERRER.

Witnesses:

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C. F. CARRIER.