

F. X. MALOCSAY.

CAR DOOR.

APPLICATION FILED DEC. 9, 1908.

1,024,797.

Patented Apr. 30, 1912.

4 SHEETS—SHEET 1.

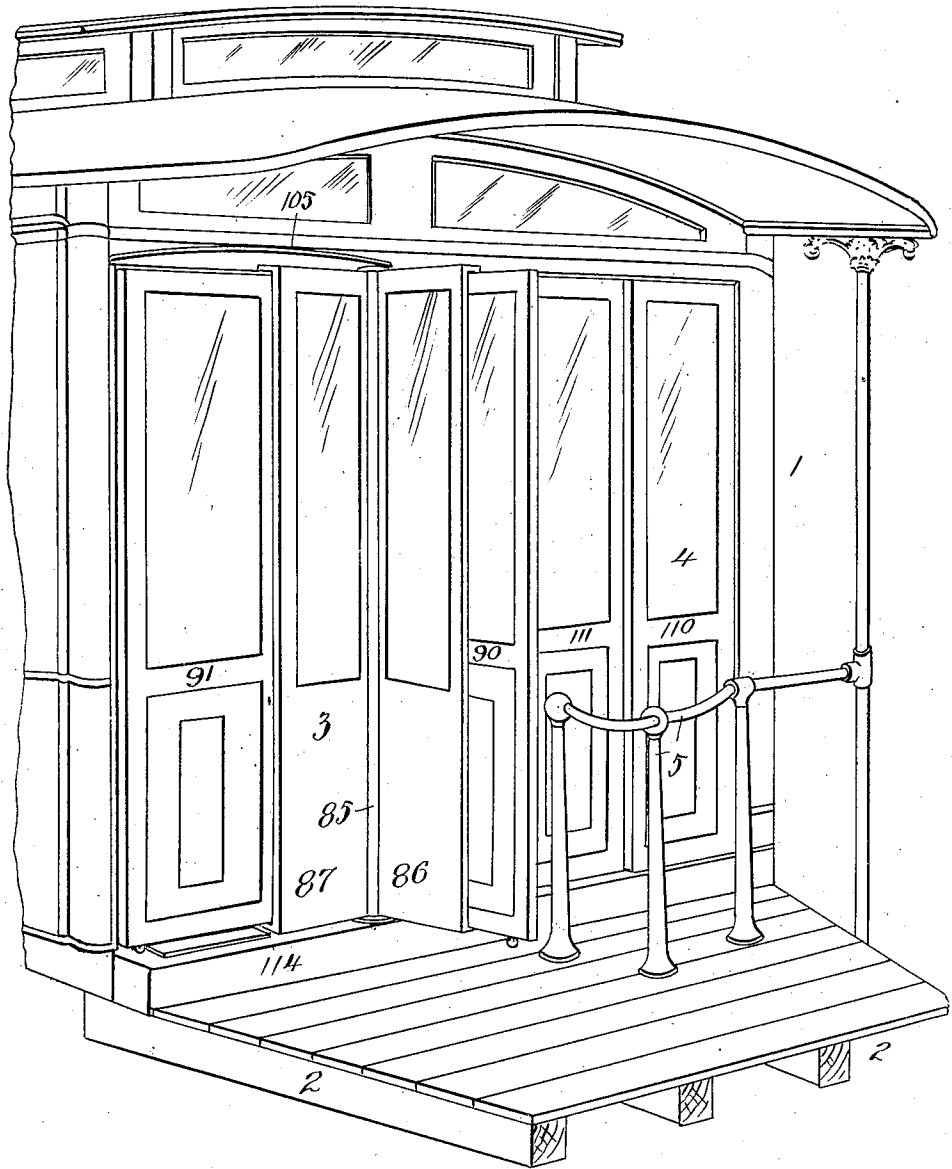


Fig. 1

Witnesses:
C. W. Benjamin
G. J. Harman

Inventor
Francis X. Malocsay
By his Attorney
John L. Levy

F. X. MALOCSAY.
CAR DOOR.

APPLICATION FILED DEC. 9, 1908.

1,024,797.

Patented Apr. 30, 1912.

4 SHEETS—SHEET 2.

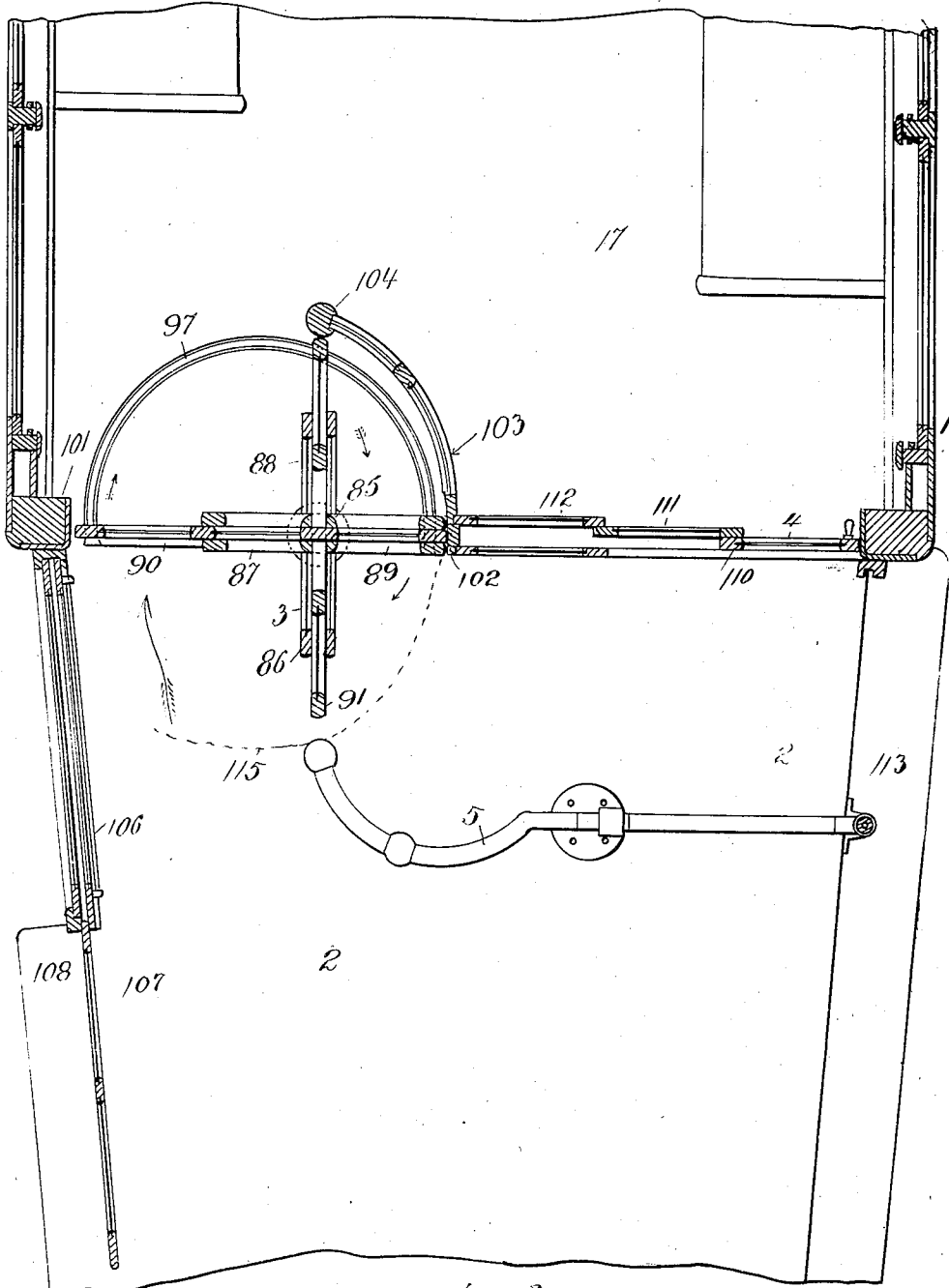


Fig. 2

Witnesses:
C. W. Benjamin
G. Hamard

Inventor
Francis X. Malocsay,
By his Attorney
Joseph H. Berry

F. X. MALOCSAY.

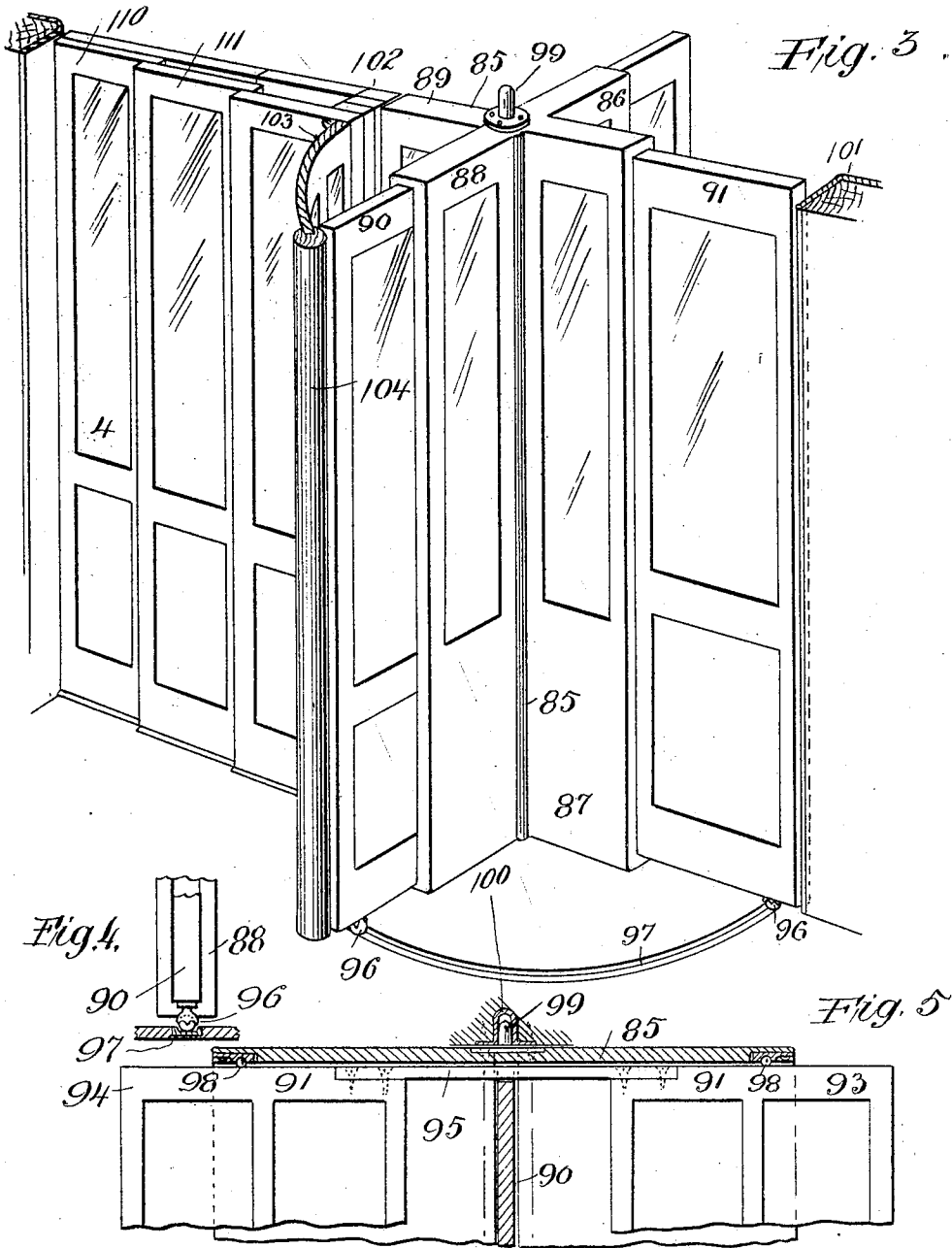
CAR DOOR.

APPLICATION FILED DEC. 9, 1908.

Patented Apr. 30, 1912.

4 SHEETS—SHEET 3.

1,024,797.



Witnesses:
C. W. Benjamin
G. J. Linnard

Inventor
Francis X. Malocsay
By his Attorney
Joseph R. Lewy

F. X. MALOCSAY,
CAR DOOR.

APPLICATION FILED DEC. 9, 1908.

Patented Apr. 30, 1912.

4 SHEETS—SHEET 4.

1,024,797.

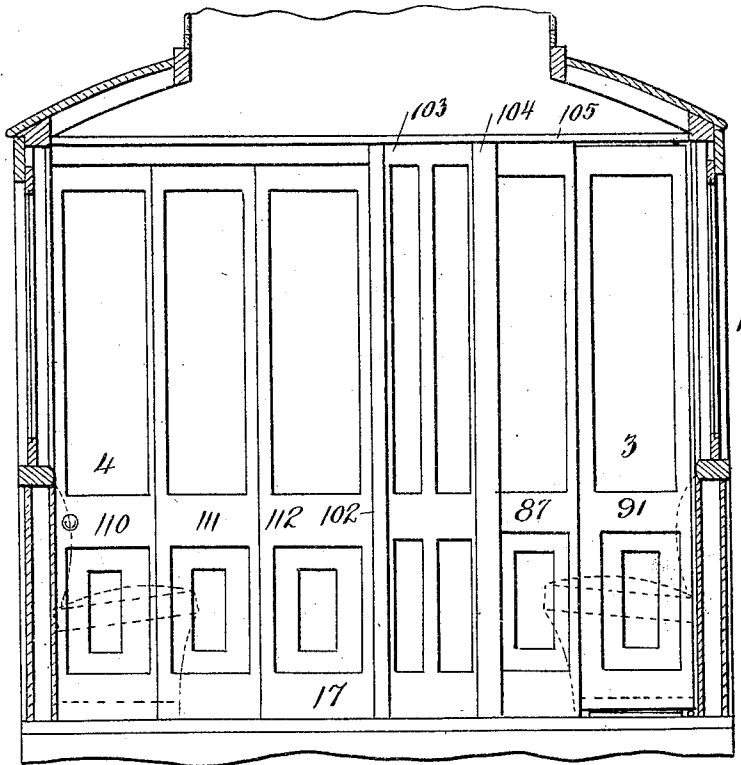


Fig. 6.

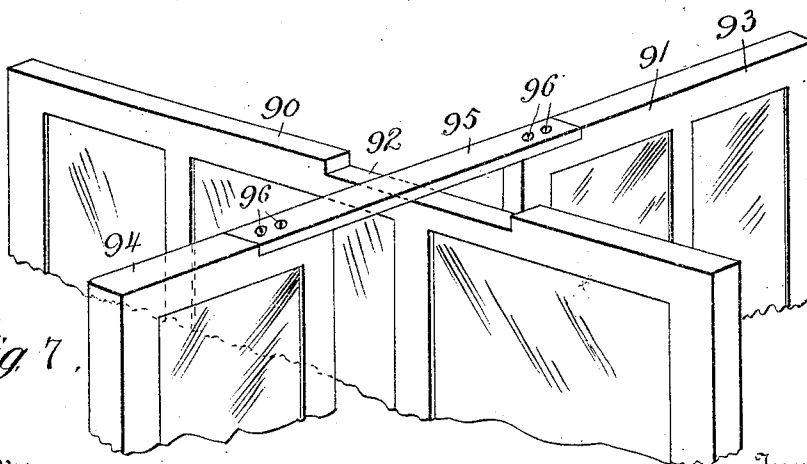


Fig. 7.

Witnesses:
C. W. Benjamin
H. D. Amos

Inventor
Francis X Malocsay
By his Attorney
Joseph L. Levy

UNITED STATES PATENT OFFICE,

FRANCIS X. MALOCSAY, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO WILLIAM H. HEULINGS, OF PHILADELPHIA, PENNSYLVANIA.

CAR-DOOR.

1,024,797.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Original application filed September 1, 1908, Serial No. 451,161. Divided and this application filed December 9, 1908. Serial No. 466,619.

To all whom it may concern:

Be it known that I, FRANCIS X. MALOCSAY, a citizen of the United States, and a resident of Jersey City, county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Car-Doors, of which the following is a specification.

This application is a division of my former application filed September 1st, 1908, Ser. No. 451,161.

The object of my invention is to provide a car of this class in which the doors are so arranged that at the rear of the car, the regular entrance doors will operate so as to permit passengers to enter the car, but not to leave the car, and the doors at the other end will permit passengers to leave the car, and when the car runs in the opposite direction, the doors can be made to operate in the reverse manner, that is, the rear door which was the front door, will operate so as to admit passengers and the other door will operate so as to permit the egress of passengers.

For a more particular description of my invention, reference is to be had to the accompanying drawings forming a part hereof, in which:—

Figure 1 is a perspective view of a car provided with my improvements. Fig. 2 is a plan view of the same, the parts being in section. Fig. 3 is a perspective view of a car door and a portion of the end of a car provided with my improvements. Fig. 4 is a detailed view of a portion of a door. Fig. 5 is a sectional view of the top part of a car and the parts connected therewith. Fig. 6 is a sectional view showing the end of a car provided with my improvements. Fig. 7 is a perspective view of the top of the panels for the door.

Throughout the various views of the drawings, similar reference numerals designate similar parts.

As stated above, my invention is applicable to what are known as "Pay-as-you-enter cars" which have the usual large platforms 2, entrance doors 3, and the exit doors 4. The essence of my invention resides, as above pointed out, in the doors 3 and the parts adjacent thereto and connected there-

with. These cars are also provided with the usual railing 5, behind which the conductor stands and which separates the passengers getting off from those getting on.

In the structure herein described the ingress doors 3 are made in the form of a turnstile with sliding parts so as to operate in a restricted space and to permit one person to enter through the door with each quarter turn thereof. In this structure the door 3 is provided with a pivot 85 running from the floor to the top of the doorway and mounted in a manner substantially the same as the pivot 13, described in my application Serial No. 466,618. This pivot 85 is composed of the panels 86, 87, 88 and 89 which are each placed at right angles to the adjacent panels and each of these panels is composed of two parallel and identical members which are separated by the thickness of the slides 90 and 91 which slide freely between said panels, the slide 91 moving between the parts of the panels 86 and 88 and the slide 90 between the parts of the panels 87 and 89.

The slide 90 is preferably made continuous from end to end and is recessed at its top and bottom as shown in Fig. 7 at 92. The slide 91 is divided into two parts 93 and 94 which are connected by top and bottom bars 95 which are secured in place in any suitable manner, as by screws 96. The slides 90 and 91 are each provided with as many panes of glass as desired and the same is true of the panels 86, 87, 88 and 89 respectively, and each of these slides is provided with suitable casters 96 both at the top and bottom which move in suitable runways 97 located in the floor and ceiling respectively, and these slides also have suitable ball bearings 98 so as to move properly and easily between the panels. The casters 96 act as pintles and the runways 97 act as pintle grooves and cooperate as described below. The ends 99 of the pivot 85 turn freely in the cups 100 located at the top and bottom. Anti-friction bearings may be used to support this pivot 85 if desired.

The slides 90 and 91 are so mounted and arranged that each extends from a stanchion 101 at one side of the car to the post 102 ad-

jaacent to the center of the car and not far from the conductor's railing 5.

In the interior of the car, extending from the post 102, is a curved guard 103 which runs about 90° to a post 104 as shown in Fig. 3. This post 104 supports a false ceiling 105 which extends over the bottom runway 97 and supports a similar runway immediately above the panels 86, 87, 88 and 89 and the slides 90 and 91. In this construction the platform is provided with a suitable side panel 106 into which a door 107 may slide to permit persons to leave the car over the step 108. The exit door 4 is an ordinary sliding door, preferably composed of two slides 110 and 111 respectively, which move into the panel 112 and next the post 102 when the door 4 is opened. These door sections 110 and 111 move abreast so as to leave a sufficiently wide space for the exit of passengers. When leaving the car passengers pass by the door 4 which is then in the panel 112, on to the platform 2 and thence out of the car by means of the step 113 or out through the front of the car. Passengers entering the car enter from the step 113 and platform 2 between the rail 5 and the rear end of the car and pass by the conductor who stands in the curved portion of the rail 5 and collected the fares and from thence between this rail 5 and the panel 106 to the door 3 which is shifted in the conventional manner, the same as an ordinary turnstile door. Each quarter turn admits one passenger only as there is no room for any more. A cash register, not shown, registers each quarter turn of the door so that the number entering the car is clearly indicated by the register. The slides 90 and 91 are shifted by the pintles 96 and pintle grooves 97, so that these slides will be projected so as to close the entrance and intrude into the car as little as possible. This construction also makes them move clear of the conductor and gives him ample room to stand. To prevent passengers from being pinched between the door sill 114 and the door 3, the floor of the car is preferably extended as shown in dotted lines and designated by the numeral 115 in Fig. 2.

While I have shown and described one embodiment of my invention, it is evident that it is not restricted thereto but is broad enough to cover all structures that come within the scope of the annexed claims.

What I claim is:

1. In a device of the class described, a car door consisting of panels, protrudable sliding panels movable with and adapted to move between said panels and means for pivoting said panels so that they will move about a common axis while carrying said sliding panels.

2. In a device of the class described, a car door consisting of panels arranged at sub-

stantially right angles to each other, protrudable sliding panels adapted to move in said panels and transversely of each other and means for mounting said panels so that they will revolve about a common axis.

3. In a device of the class described, a car door consisting of panels and a pivot for supporting the same, protrudable sliding panels mounted in said pivot and means for causing said sliding panels to move in the direction of their width through said pivot.

4. In a car door or similar device, panels and means for pivotally mounting the same, protrudable sliding panels adapted to move through the pivot of the panels, one through the other, and means for causing said slides to move relatively to each other.

5. In a device of the class described, a car door in the form of a turnstile with panels disposed at substantially right angles to each other and composed of parallel members mounted upon a common pivot and protrudable slidable panels freely movable between the members of said panels.

6. In a device of the class described, a car door in the form of a turnstile with panels disposed at substantially right angles to each other and composed of parallel members mounted upon a common pivot and protrudable sliding panels freely movable between the members of said panels and a curved guard for said panels.

7. A device for the purpose described comprising a member or members mounted for bodily sliding movement and supported to revolve about a substantially fixed axis, relatively fixed guides for such member or members for causing each such member in rotating about such axis to reciprocate bodily in its guide in a direction substantially radial to such axis, to assume successively operative positions, in which it extends a maximum distance from such axis and across the passage-way, and inoperative positions substantially at right angles to the operative positions, each member being adapted to reverse upon itself at successive operative positions.

8. A device for the purpose described, comprising an element revolubly supported upon a fixed axis of rotation, a member or members slidably supported on such element and means for causing each such member, as such element is rotated, to move reciprocally in directions substantially radial to the axis of such element, to assume successively operative positions, in which it extends a maximum distance from such axis and across the passageway, and inoperative positions.

9. A device for the purpose described, comprising a member or members supported to revolve about a substantially fixed axis and means for causing each such mem-

70

75

80

85

90

95

100

105

110

115

120

125

130

ber, in rotating about such axis, to move reciprocally in directions substantially radial to such axis to assume, successively, operative positions, in which it extends a maximum distance from such axis and across the passageway, and inoperative positions substantially at right angles to the operative positions, each such member being reversed upon itself at successive operative positions, and also at successive inoperative positions.

10 10. A device for the purpose described, comprising an element revolubly supported upon a fixed axis of rotation; a member or members slidably supported on such element and means for causing each such member, as such element is rotated, to move reciprocally in directions substantially radial to the axis of such element, to assume successively operative positions, in which it extends a maximum distance from said axis and across the passageway and inoperative positions, each such member being reversed

upon itself at successive operative positions, and also at successive inoperative positions.

11. A device for the purpose described, comprising a member or members supported to revolve about a substantially fixed axis, means for causing each such member in rotating about such axis, to assume, successively, operative positions in which it extends a maximum distance from such axis and across the passageway, and inoperative positions substantially at right angles to the operative positions and means for causing each such member to move in directions substantially radial to such axis first in one direction and then in the opposite direction during correspondingly successive intervals between such operative positions.

Signed at the city, county and State of New York, this 26th day of November, 1908.

FRANCIS X. MALOCSAY.

Witnesses:

GUSTAVE I. ARONOW,
HARRY RADZINSKY.