C. J. JÖRGENSEN.

Passenger-Gate.

No. 220,624. Patented Oct. 14, 1879.

Fig. 1.

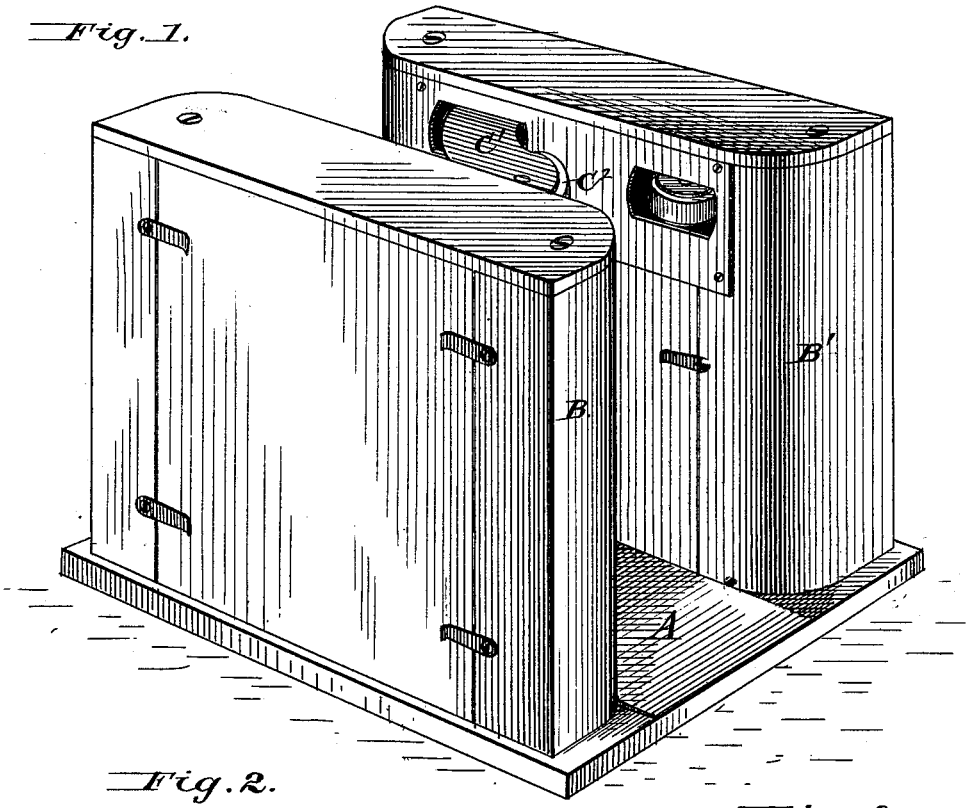


Fig. 2.

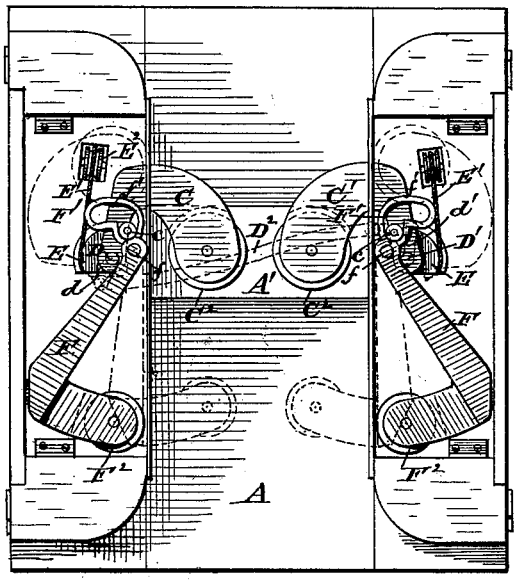
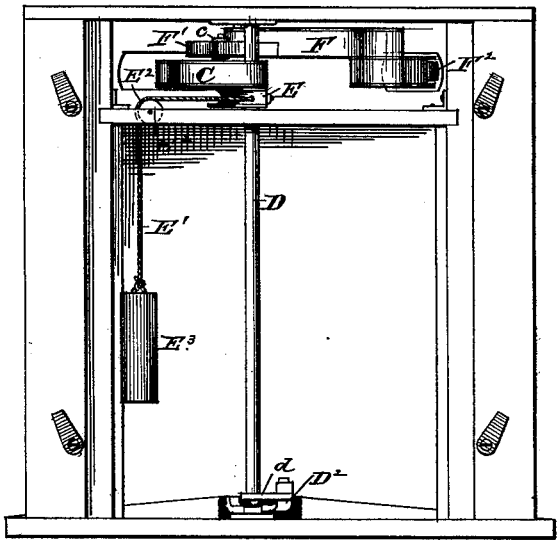


Fig. 3.



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CARL JULIUS JÖRGENSEN, OF STADE, HANOVER, GERMANY.

IMPROVEMENT IN PASSENGER-GATES.

Specification forming part of Letters Patent No. **220,624**, dated October 14, 1879; application filed May 28, 1879.

To all whom it may concern:

Be it known that I, CARL JULIUS JÖRGENSEN, of Stade, in the Kingdom of Hanover and Empire of Germany, have invented certain new and useful Improvements in Passenger-Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to passenger-gates so constructed as to admit of the entrance and passage of but one person at a time.

My improvement consists of various combinations, specifically set forth in the claims at the close of this specification, of certain mechanical devices, of which devices the following are the most essential ones, viz: a pair of barriers which normally extend sufficiently far across the gateway from opposite sides to prevent the passage of a person, but which readily yield laterally by receding under the pressure of a passing person, and an auxiliary pair of barriers, which normally do not obstruct the gateway, but are partially thrown across the same on the recession of the primary pair of barriers, so as to confine the use of the gateway to one person at a time.

In order that my invention may be fully understood, I have illustrated and will proceed to describe the form thereof which at the present time I regard as the best embodiment of the same; but will also allude to some modifications of construction and arrangement of some of the parts, to indicate that the actual embodiment of the invention may be considerably varied without any substantial change in the principle of operation.

In the annexed drawings, Figure 1 is a perspective view of a passenger-gate embodying my invention. Fig. 2 is a plan of the same, the top plates of the hollow curbs having been removed to expose the devices in the chambers of said curbs. Fig. 3 is an exterior side elevation, exposing to view the devices in one of the hollow curbs.

The same letters of reference are used in all the figures in the designation of identical parts.

The gateway A is flanked by the parallel curbs B and B^1, of proper height, and forming part of a fence, wall, car, or other structure. The curbs are made hollow for the purpose of receiving some of the operative parts.

C and C^1 refer to the primary barriers, of a contour best seen in Fig. 2. Their curved arms are adapted to play through slots in the sides of the curbs, while their straight arms are rigidly secured to the respective vertical shafts D and D^1, mounted in the chambers of the respective curbs.

Opposite crank-arms *d* and *d'* on the lower ends of the shafts D and D^1 are connected by a coupling-rod, D^2, underneath the base A′ of the gateway, so that the primary barriers will move in unison always.

In order to hold the primary barriers normally projected across the gateway, a segmental pulley, E, is secured to each of the shafts D and D^1, and to each pulley a cord or chain, E^1, is secured, running over a sheave, E^2, and carrying a weight, E^3, which tends to hold the shaft so as to project the primary barrier attached to it. In the ends of the curved projecting arms of the primary barriers are mounted anti-friction rollers C^2, preferably constructed with a rubber tire, so that a person may walk through the gateway with a minimum of friction on these barriers.

A small anti-friction roller, *c*, on the straight arm of each primary barrier engages a slotted arm, F^1, on an auxiliary barrier, F, fulcrumed at *f*, one in each hollow curb. These auxiliary barriers F have the shape of an elbow, the short arm of which is adapted to play through a slot in the hollow curb, to reach part way across the gateway at certain times, it carrying an anti-friction roller, F^2, in its end, like the primary barrier.

The respective dispositions of the primary and auxiliary barriers are such that when the former project across the gateway the latter are entirely retracted within the hollow curbs, as shown in full lines in Fig. 2. On the recession of the primary barriers the auxiliary barriers are projected part way across the gateway by the action of roller *c* of the former on

the slotted arm F^1 of the latter, and are maintained in this projected position until the primary barriers are again projected by the action of the weights, when the rollers *c* thereof again retract the auxiliary barriers. The auxiliary barriers must be so disposed as to obstruct the gateway immediately behind a person passing the primary barriers by pushing them aside. In order that the auxiliary barriers may obstruct the gateway until the primary barriers have been again partially projected, the slots *f'* in the arms F^1 of the auxiliary barriers are so formed that the projection of the auxiliary barriers will be accomplished or completed before the primary barriers have been pushed aside far enough to permit of the passage of the person, while the further recession of the primary barriers will have no other effect on the auxiliary barriers but to maintain them in their projected position. Thus the primary barriers will be partially projected again before they begin to retract the auxiliary barriers, so that no person can slip through without first pushing aside the primary barriers.

When projected the ends of the primary barriers approach each other pretty closely; but the ends of the auxiliary barriers are not brought so near together, in order to prevent injury to persons in projecting said barriers.

A suitable register is to be attached to this gate, and suitably connected to any moving part of the same, so that the number of persons passing through the gate may be duly registered.

The primary barriers may be actuated by springs instead of by weights. The connection between the primary and auxiliary barriers might be in the nature of segmental gears so constructed as to provide for stopping further movement of the auxiliary barriers at the proper times.

The primary and auxiliary barriers have been described as arranged and operating in pairs. Although this is the preferred construction, I do not limit myself, as it will be readily seen that a single primary barrier and a single auxiliary barrier, connected by intermediate mechanism such as described, may be used instead with good effect.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, substantially as before set forth, of a movable primary barrier, a separate movable auxiliary barrier, and an intermediate connecting mechanism, substantially such as described, which holds the auxiliary barrier quiescent after projection during the movements of the primary barrier beyond a given point of partial recession.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of May, 1879.

CARL JULIUS JÖRGENSEN.

Witnesses:
CHRISTOPHER STANTON,
C. W. SCHROEDER.