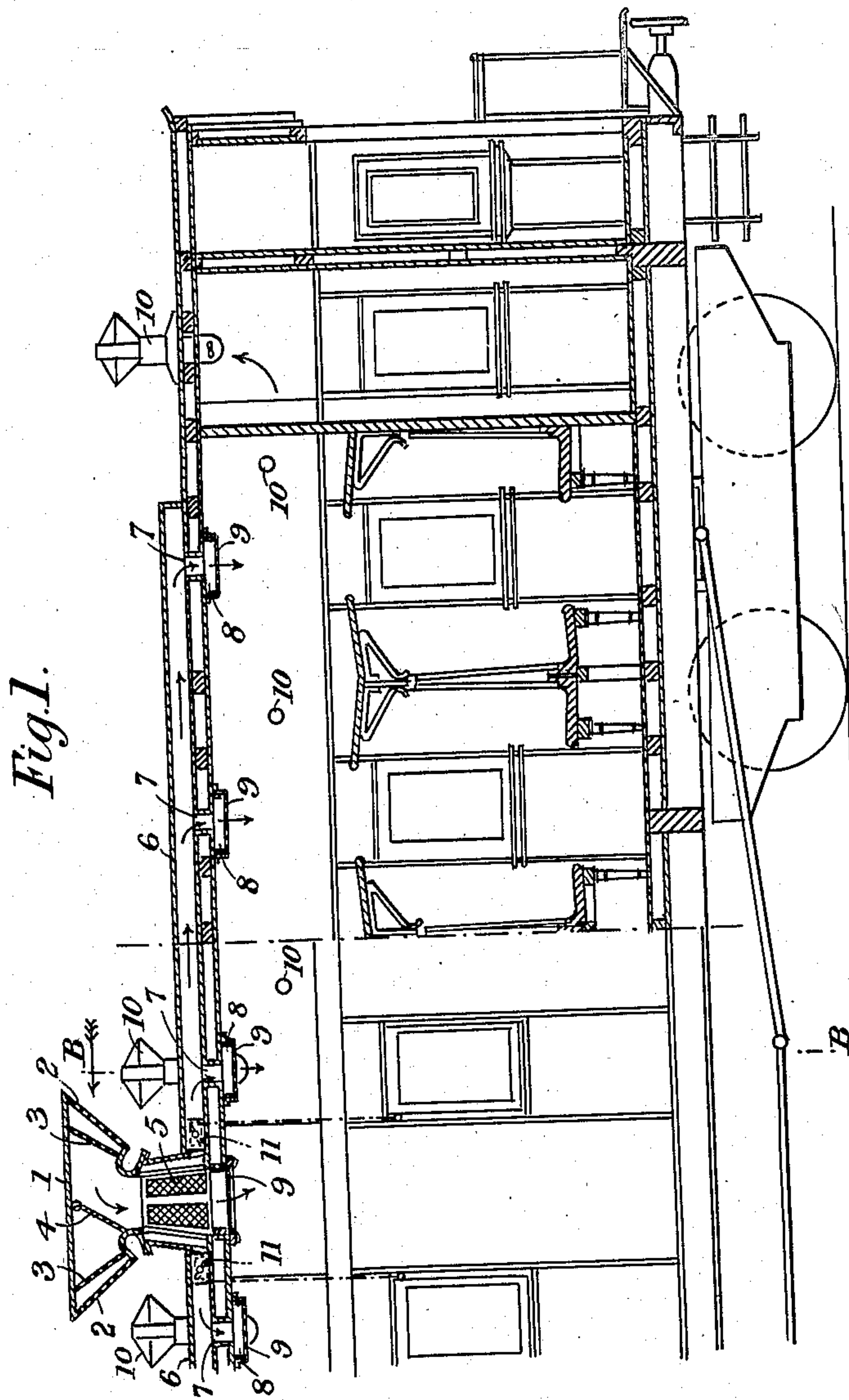


S. TIMOCHOWITSCH.
 VENTILATING SYSTEM FOR RAILWAY CARRIAGES AND THE LIKE.
 APPLICATION FILED OCT. 27, 1906.

900,614.

Patented Oct. 6, 1908.

2 SHEETS—SHEET 1.



Witnesses
 J. M. Wyndham
 H. Totten

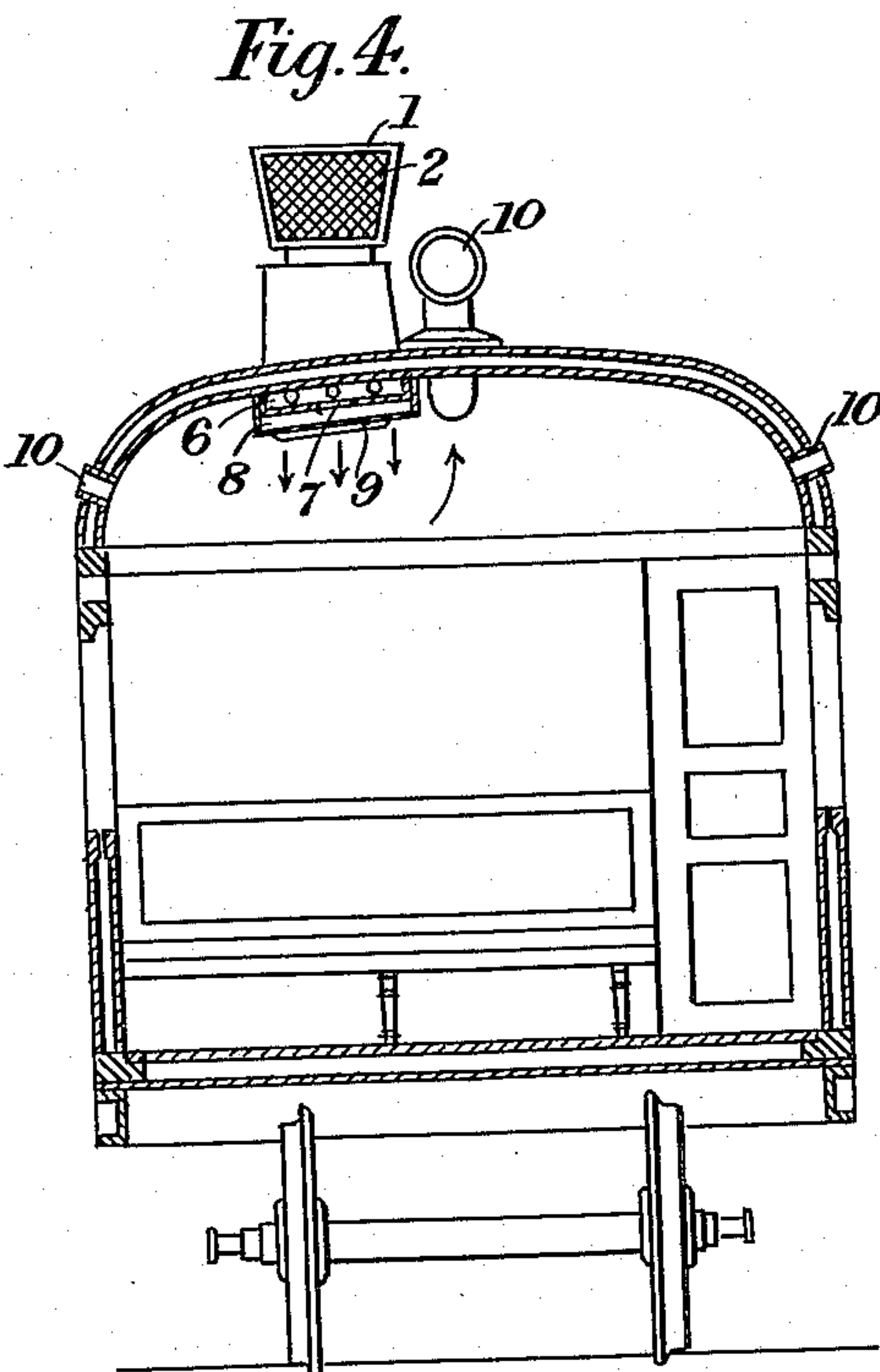
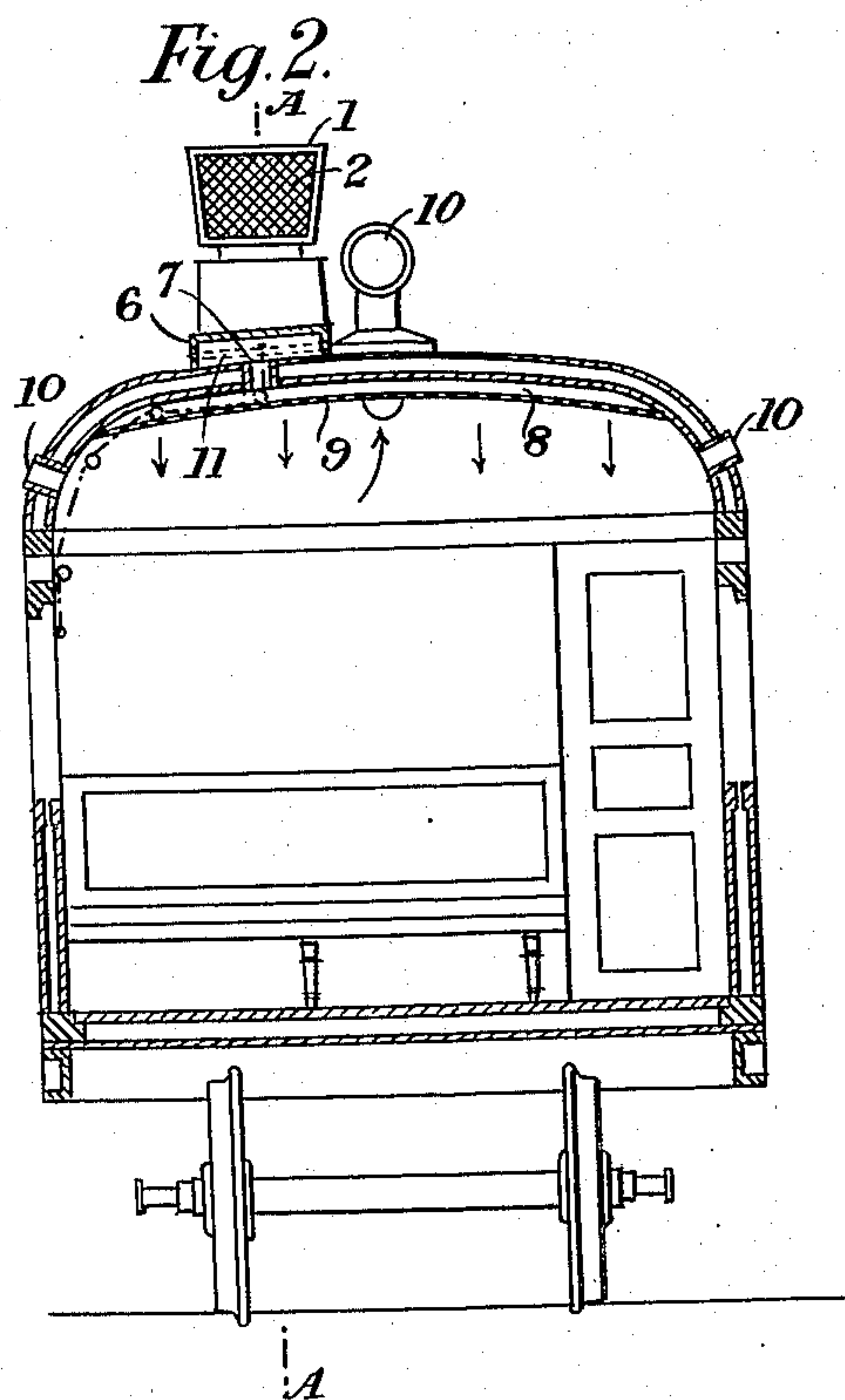
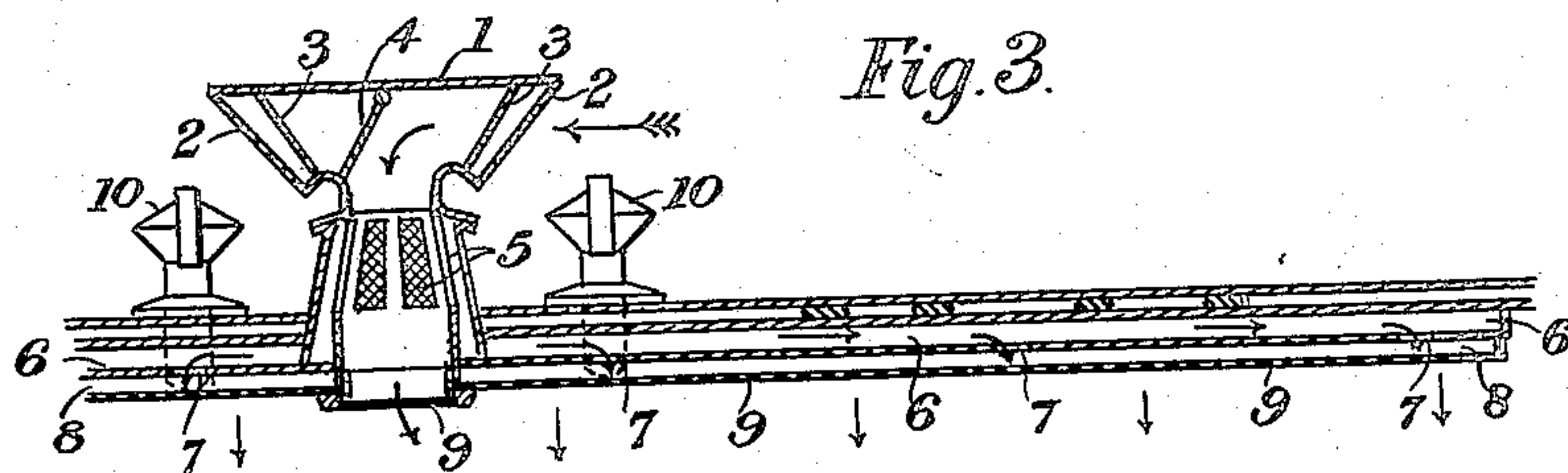
Inventor
 Sergius Timochowitsch
 By Knight & Co.
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UNITED STATES PATENT OFFICE.

SERGIUS TIMOCHOWITSCH, OF MOSCOW, RUSSIA.

VENTILATING SYSTEM FOR RAILWAY-CARRIAGES AND THE LIKE.

No. 900,614.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Original application filed March 7, 1905, Serial No. 248,802. Divided and this application filed October 27, 1906.
Serial No. 340,891.

To all whom it may concern:

Be it known that I, SERGIUS TIMOCHOWITSCH, a subject of the Emperor of Russia, residing at Mjasnitzkaja, No. 24, Moscow, in the Empire of Russia, engineer, have invented a new and useful Ventilating System for Railway-Carriages and the Like, of which the following is a specification, reference being had to the drawings hereunto annexed and to the figures and reference-numerals marked thereon—that is to say—

The invention relates to a ventilating system for railway carriages and the like and is a divisional application from applicant's co-pending application Serial No. 248,802, filed Mar. 7th, 1905.

According to the present invention fresh outer air which has passed through filtering devices is introduced into the carriage at or near the roof thereof and the foul or vitiated air is extracted from the carriage through outlets also arranged in or near the said roof.

In the accompanying drawings:—Figures 1 and 2 are respectively a longitudinal and a transverse section, the sections being taken on the lines A—A and B—B of Figs. 2 and 1 respectively of a railway carriage illustrating the application thereto of the present invention and Figs. 3 and 4 are respectively similar views to Figs. 1 and 2 illustrating a slight modification.

Referring to the drawings 1 is a receiver or collector into which fresh air from the outside of the railway carriage is forced by the resistance offered by the more or less quiescent air to the motion of the carriage and said receiver consists of a casing having perforated ends 2 and perforate filtering partitions 3 and it is provided with a light swinging valve 4 pivotally mounted by its upper edge and which according to the direction of motion of the carriage assumes an angular position on one side or the other of the receiver or collector 1 and consequently deflects the current of air downward into the body of the receiver.

The body of the receiver 1 is provided with any suitable filtering medium constituting an air filter 5 and the deflected current of air is compelled to pass through said filter as shown by the arrows in Figs. 1 and 3 and which has the effect of arresting any particles of soot, coal and the like, carried in the air.

The body of the receiver 1 communicates with a passage or conduit 6 extending over

the entire length of the carriage exteriorly or it might be interiorly thereof as shown at Figs. 3 and 4 and the current of filtered air passes into said conduit. Pipes or tubular ways 7 lead from the passage or conduit 6 to a distributing conduit 8 arranged transversely upon the inside of the roof of the carriage or it might lie longitudinally thereof as shown at Figs. 3 and 4 and said conduits 8 are formed of a flattened section and covered with filtering material 9 through which the fresh air is distributed in the interior of the carriage.

Hand regulating valves 11 are provided between the conduit 6 and the receiver 1 to control the volume of atmospheric air passing to the interior of the carriage. While fresh filtered air is thus introduced into the carriage, the foul air is sucked out therefrom through outlets 10 provided in the roof of the carriage or adjacent thereto, so that the peculiar ventilation effect described in my application hereinbefore referred to is insured. The outlets 10 may be so constructed in any well known manner that by reason of the rapid passage a suction like action is produced and the removal of the foul air thus effected or if desired other well known means might be provided for extracting the foul air.

It will be understood that the constructive details hereinbefore shown and described are merely given by way of example and are capable of variation without departing from the spirit of the invention.

By the means hereinbefore described the foul or vitiated air is removed from a railway carriage or the like and fresh air is introduced therein without to any great extent mixing with the former while at the same time the incoming air is more or less heated by passing in close proximity to the outgoing warm but foul air and thus the atmosphere of the carriage is maintained in a wholesome condition from a hygienic standpoint and by reason of the peculiar relative positions of the inlets and outlets this is achieved without creating an appreciable draft.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed I declare that what I claim is:—

1. In a ventilating system for railway carriages and the like the combination of a conduit extending longitudinally along the roof

of the carriage, conduits extending transversely of the roof of the carriage, tubular ways connecting the longitudinal conduit with the transverse conduits, said conduits
5 being open on the underside and there covered with filtering material, an air receiver on the exterior of the carriage communicating with the longitudinal conduit and provided with an air filter, a swinging valve in
10 the receiver for deflecting the air current toward the filter in either direction of motion of the carriage and air exhaust ways extending through the roof of the carriage as set forth.

15 2. In a ventilating system for railway carriages and the like the combination of a conduit extending longitudinally along the roof of the carriage exteriorly thereof conduits

extending transversely of the roof of the carriage interiorly thereof, tubular ways connecting the longitudinal conduit with the transverse conduits, said conduits being
open on the underside and there covered with filtering material, an air receiver upon the exterior of the carriage communicating
2 with the longitudinal conduit and provided with an air filter a swinging valve in the receiver for deflecting the air current toward
the filter in either direction of motion of the carriage and air exhaust ways extending
3 through the sides immediately below the roof of the carriage as set forth.

SERGIUS TIMOCHOWITSCH.

Witnesses:

NICOLAS TZIGANOF,
GARLAND HARTFORD.