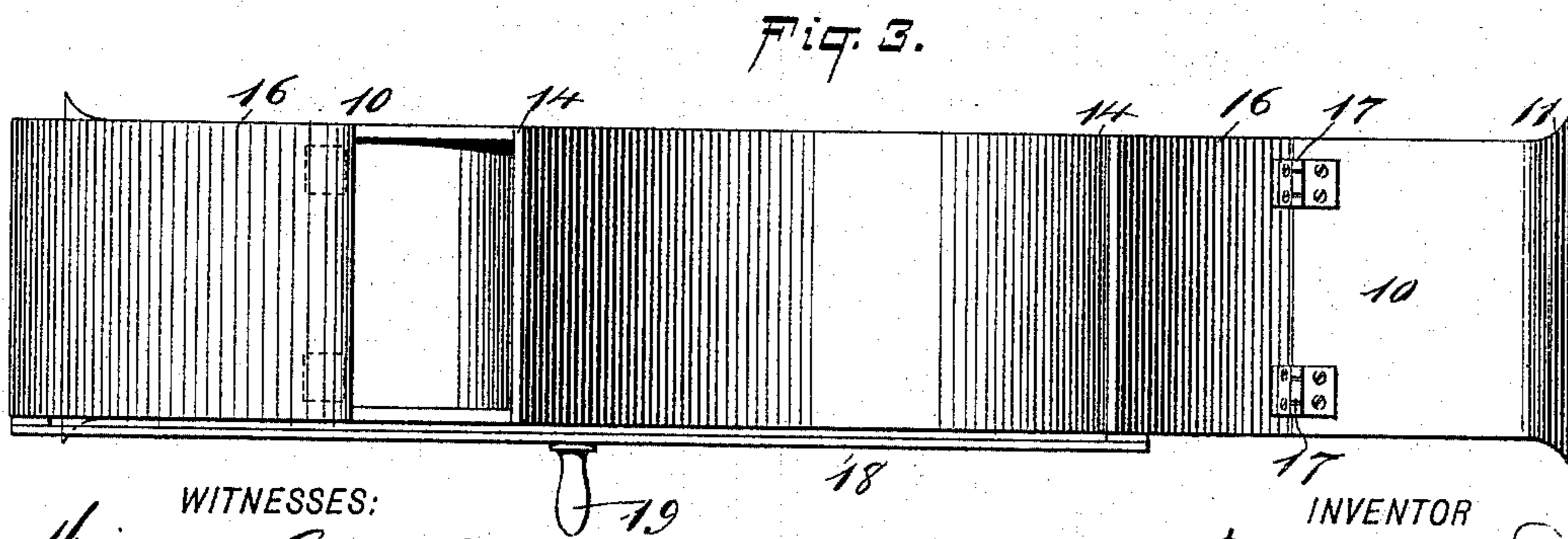
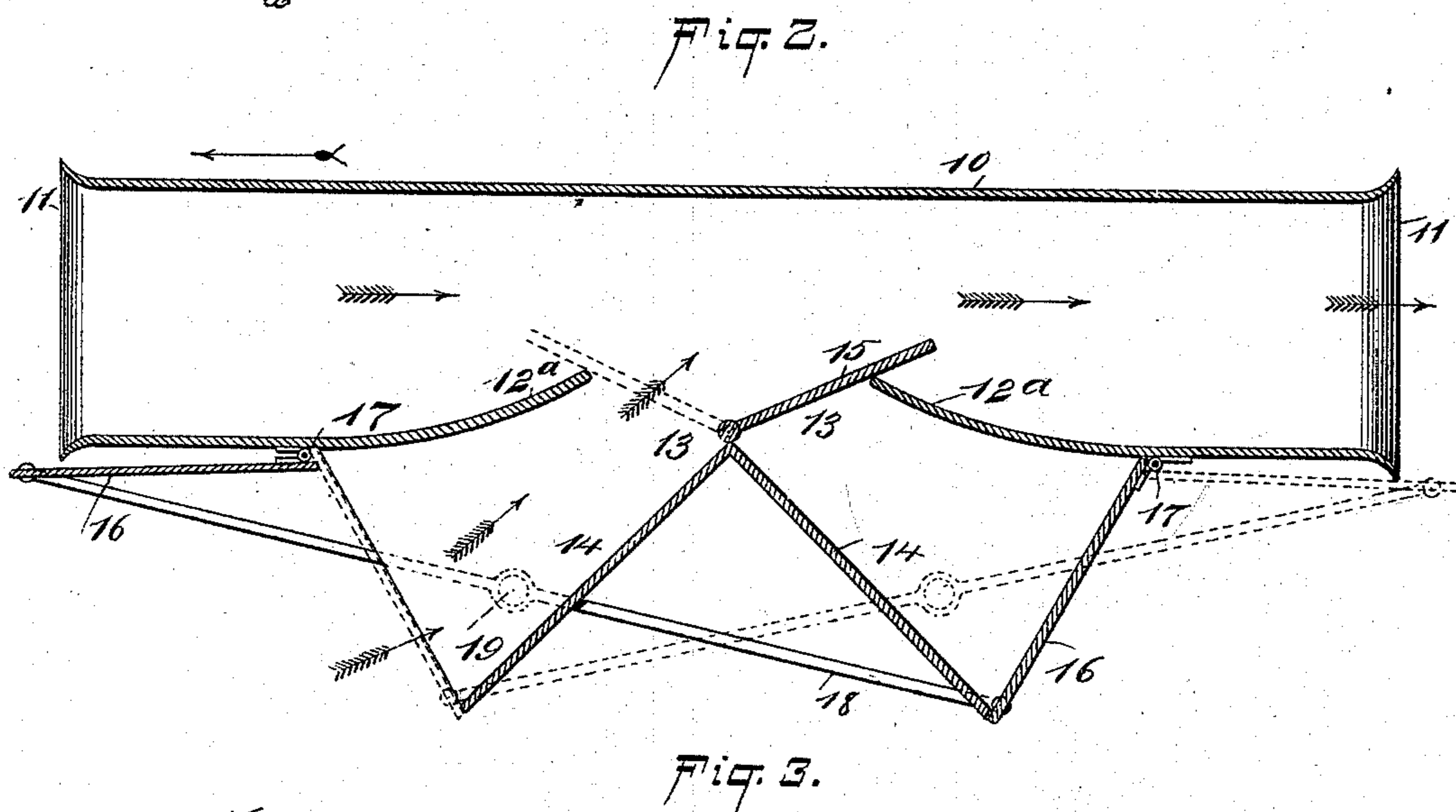
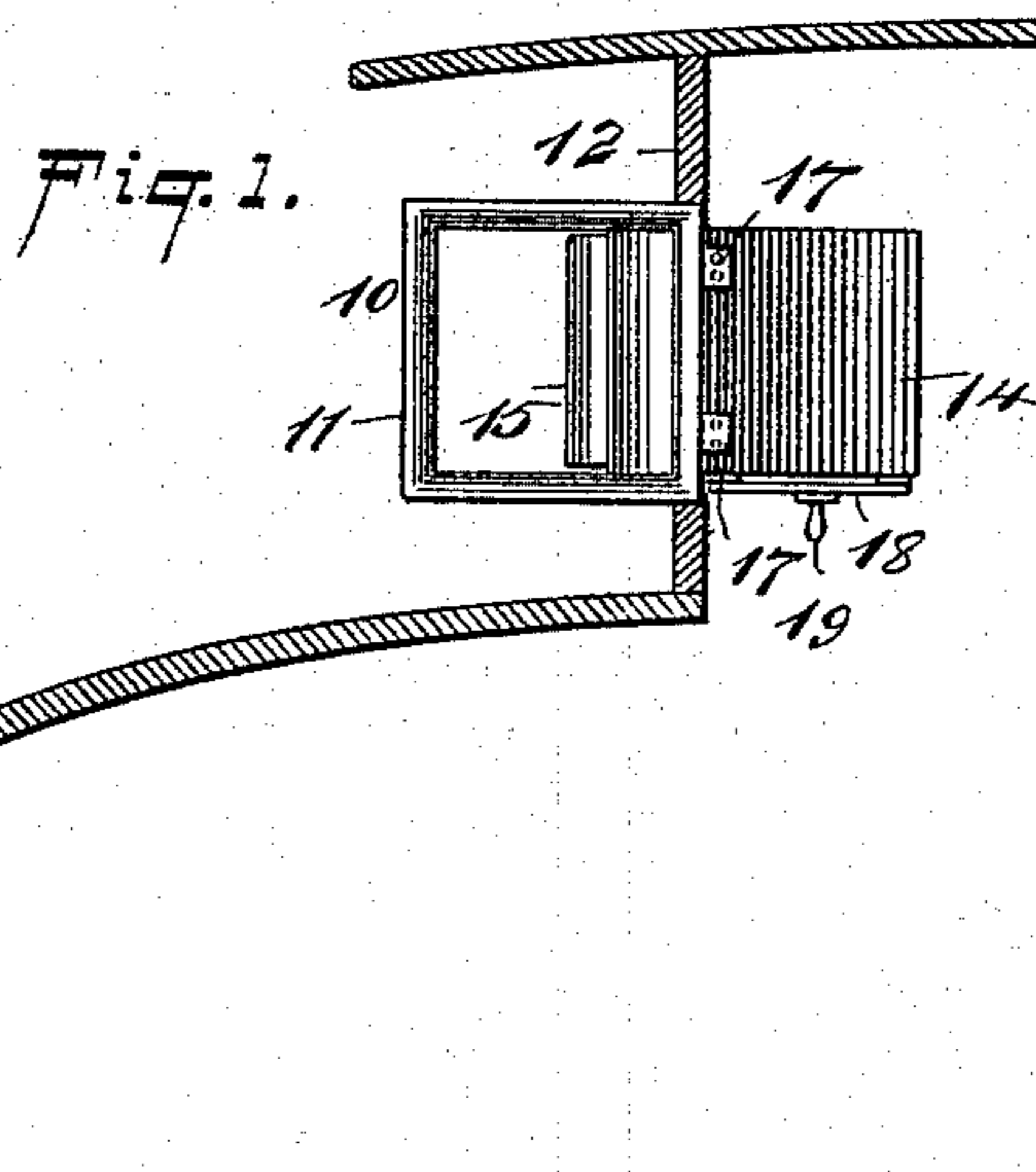


(No Model.)

B. F. HUGHSON.
CAR VENTILATOR.

No. 527,987.

Patented Oct. 23, 1894.



WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMIN FRANKLIN HUGHSON, OF COLD SPRING, NEW YORK.

CAR-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 527,987, dated October 23, 1894.

Application filed April 13, 1894. Serial No. 507,423. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN FRANKLIN HUGHSON, of Cold Spring, in the county of Putnam and State of New York, have invented a new and Improved Car-Ventilator, of which the following is a full, clear, and exact description.

My invention relates to improvements in car ventilators; and the object of my invention is to produce a device of the utmost simplicity and cheapness, which may be easily applied to any ordinary railway car, either when the car is built or to an old car, and which is adapted to operate automatically by the movement of the car to draw the foul air from the interior of the car and make room for an influx of pure air.

A further object of my invention is to construct a device of this character which, while adapted to work automatically, as described, may also be conveniently operated by hand from within the car.

To these ends my 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 all the views.

Figure 1 is a sectional elevation of a portion of a car, showing the ventilator attached to the roof, the ventilator appearing in end elevation. Fig. 2 is a detail sectional plan of the ventilator; and Fig. 3 is an inside elevation of the same.

The ventilator has a tubular body 10 which may be of any desired shape in cross section, and which is open at both ends, these end portions flaring outward slightly, as shown at 11, so that a draft of air will readily operate the body. The body is fastened to the side 12 of the car roof, see Fig. 1, so as to lie parallel therewith, and the inner walls of the body curve outward slightly near the center, as shown at 12^a in Fig. 2, these walls forming two sides of apertures 13 leading into the inclined passageways 14, which are of opposite pitch and which project through the car roof and into the interior of the car, as shown clearly in Fig. 1. At the junction of the two passageways 14 is pivoted a flap valve 15 which turns easily on its pivot and

is adapted to overlap the end of one of the walls 12^a and protrude into the body 10 far enough to offer considerable resistance to a current of air passing through the said body. It will thus be seen that when the body is moved along with the car, the air draft will swing the valve 15 so as to close the rear passageway 14 and open the front one, and thus the suction of the air passing through the body 10 will create a current in the forward passageway 14 and draw out the foul air from within the car.

The inner ends of the passageways 14 are adapted to be closed by doors 16 which are hinged, as shown at 17, and are connected by a rod 18 having a handle 19 attached, to enable the rod and the doors to be operated by hand. The rod is of such a length that it holds one door open when the other is closed, as illustrated in Fig. 2. This arrangement enables the doors to be easily adjusted according to the direction of the car. For instance, if the car and the ventilator are moving in the direction of the outside arrow in Fig. 2, there will be a draft through the body, as indicated by the arrows in the said figure, which draft swings the valve 15 back and closes the rear passageway, and the doors 16 are adjusted so as to open the front one and close the rear one, thus leaving the forward passageway open and permitting the foul air to escape, as specified.

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

A car ventilator having a tubular body 10, having open flaring ends 11, oppositely inclined passageways opening into the body between its ends, a freely swinging valve 15 pivoted at the juncture of the outer walls 14 of said passages, doors 16 hinged to the body 10 to alternately open and close the respective passageways 14, and a single rod 18, pivoted at its ends to the free edges of the doors and provided with a handle, the rod being of a length to extend from the free end of one door when closed to the corresponding edge of the other door when open, substantially as described.

BENJAMIN FRANKLIN HUGHSON.

Witnesses:

J. G. SOUTHARD,
W. C. SOUTHARD.