

No. 722,201.

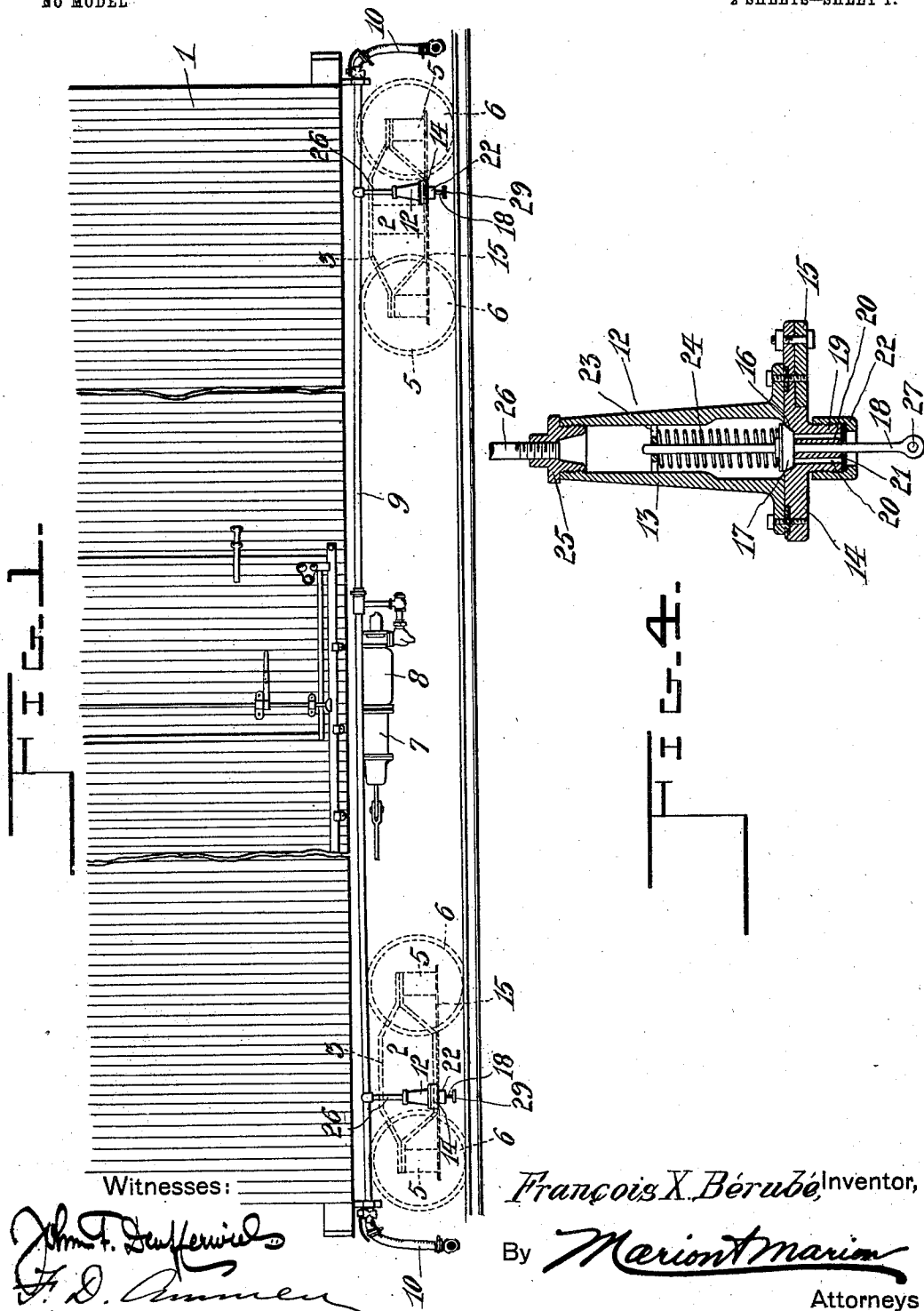
PATENTED MAR. 10, 1903.

F. X. BÉRUBÉ.
CAR BRAKE.

APPLICATION FILED DEC. 5, 1902.

NO MODEL

2 SHEETS—SHEET 1.



Witnesses:

John T. Deffenbach
H. D. Ammer

François X. Bérubé, Inventor,

By *Mariont Marion*
Attorneys

No. 722,201.

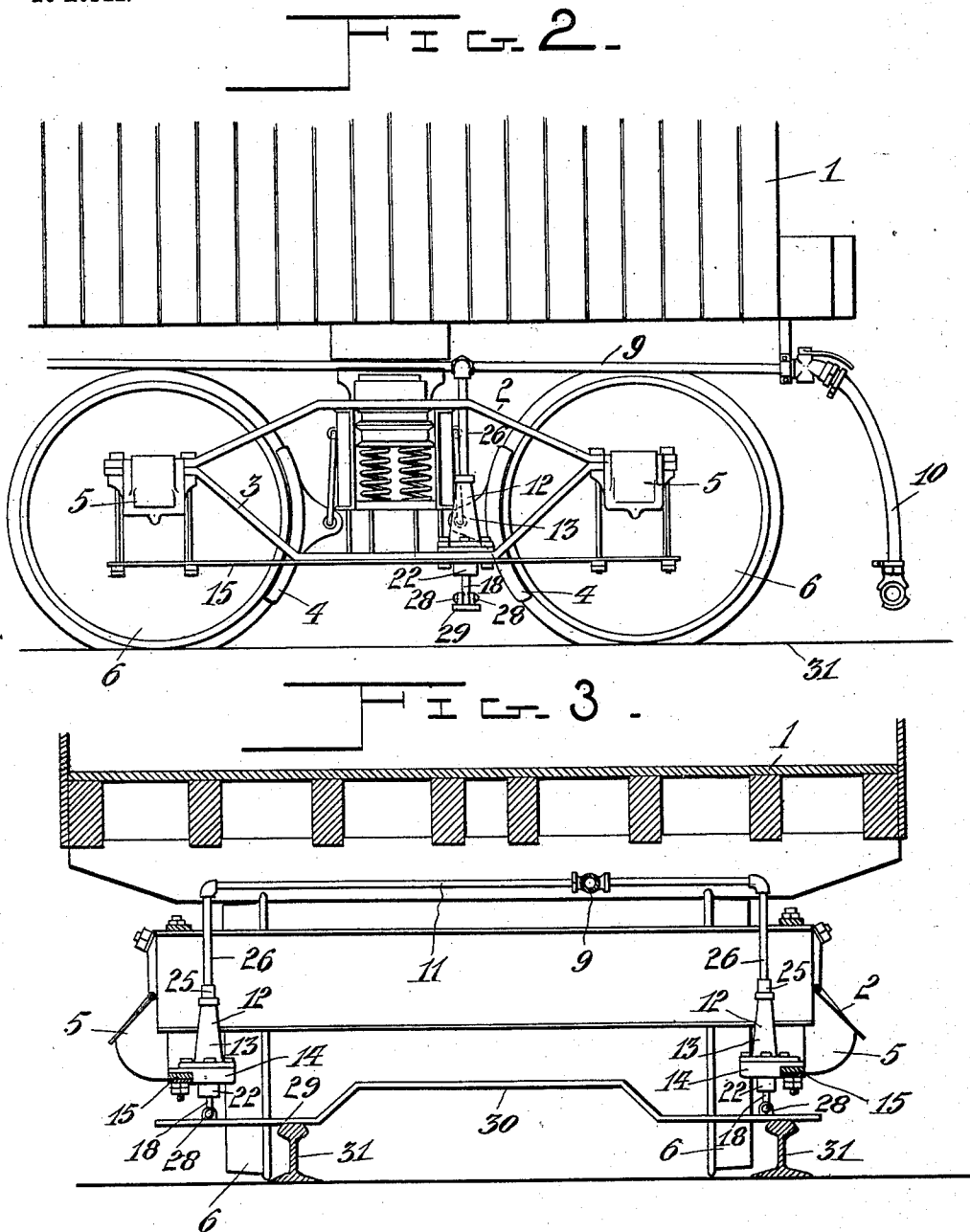
PATENTED MAR. 10, 1903.

F. X. BÉRUBÉ.
CAR BRAKE.

APPLICATION FILED DEC. 5, 1902.

NO MODEL.

2 SHEETS—SHEET 2



Witnesses:

John F. Deufferwiel
H. D. Ammer

François X. Bérubé Inventor,

By *Marion & Marion*
Attorneys

UNITED STATES PATENT OFFICE.

FRANÇOIS XAVIER BÉRUBÉ, OF FRASERVILLE, CANADA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 722,201, dated March 10, 1903.

Application filed December 5, 1902. Serial No. 134,042. (No model.)

To all whom it may concern:

Be it known that I, FRANÇOIS XAVIER BÉRUBÉ, a subject of the King of Great Britain, residing at Fraserville, county of Temiscouata, Province of Quebec, Canada, have invented certain new and useful Improvements in Car-Brakes; and I do hereby declare that the following is 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.

My invention relates to railway-brakes; and its object is to provide improved means for automatically applying the braking power to arrest the movement of a train if any of the cars have become derailed, the object being to prevent as far as possible the damage which might result from such an accident.

The invention consists in a certain construction and combination of parts to be fully described hereinafter and definitely set forth in the claims.

In the drawings, which fully illustrate my invention, Figure 1 is a side elevation of a freight-car to which my invention has been applied, the view being broken, as will appear. Fig. 2 is a side elevation of an end of the car, upon an enlarged scale, showing the parts more in detail. Fig. 3 is a vertical cross-section through the truck and car-body, showing the car derailed. Fig. 4 is a vertical section of a valve used in connection with my invention.

Like numerals refer to like parts throughout the specification and drawings.

1 represents the body of an ordinary freight-car provided with suitable trucks 2, including proper truck-frames 3 and brake-shoes 4. These trucks also include the common journal-boxes 5, which receive the axles of the wheels 6 in the usual manner.

I shall describe my invention in connection with a compressed-air-brake system, such as is now usually operated on all freight-trains, and in this connection it will be remembered that in most of these systems an arrangement obtains which will operate to apply the brakes automatically by a breach of the air-hose connections between the cars. In other words, by allowing air to escape from the air-hose the brakes are applied. They are applied by means of the air cylinder and res-

ervoir beneath the car. Such an air cylinder and reservoir are represented, respectively, by 7 and 8 in Fig. 1. A suitable pipe 9, extending longitudinally of the car, connects them with proper air-hose sections 10 for connecting the cars of the train. At points adjacent to the trucks 2 the pipe 9 is provided with cross branches 11, which lead to valves 12, one of which corresponds to each pair of wheels. The construction of this valve is most clearly shown in Fig. 4. It comprises an elongated body 13, mounted upon a suitable base 14, which base is supported upon the lower strap 15 of the truck-frame 3. The base 14 is provided with a suitable conical seat 16, upon which rests a suitable valve 17, the stem 18 of which projects downwardly and passes through a threaded nipple 19, provided with openings 20, which pass from the seat of the valve to the outer air. A sheet of coarse wire-gauze 21 may be placed over the mouth of this nipple and held in place by a suitable nut 22. The stem 18 also extends upwardly into the body 13 of the valve, where it is guided through the boss of a spider 23, made integral with the body in a well-known manner. A helical spring 24 surrounds this upper extension of the stem 18 and thrusts against the lower side of the spider 23, so as to constrain the valve 17 on its seat. The valve-body may be closed above by a suitable cap 25, in which is mounted the inlet-pipe 26, leading from the branches 11. The lower extremity of the stem 18 is provided with an eye 27, which is received between the two lugs 28, which project upwardly from a cross-bar 29, which is carried beneath this truck. The middle portion of this cross-bar may be offset upwardly, as indicated at 30; but when a car has been derailed its depressed portions engage with the upper side of the head of the rails 31. However, when this takes place the valves 17, corresponding to the derailed truck, become raised from their seats and allow the air which is within the corresponding cross branch 11 to escape to the outer air through the openings 20. In this manner the air within the pipe 9 is allowed to escape, which applies the brake-shoes to the wheels with any of the usual means or lever connections.

It should appear from the above that when-

ever a derailment of the car occurs the cross-bar 29, which corresponds to the derailed truck, is automatically operated, so as to apply the brakes to the wheels of that truck, soon arresting the advance of the car or train.

While I have shown in the accompanying drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or utility of my invention, and I therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

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

1. In combination, a railway-truck, valves carried respectively on each side thereof, said valves having stems which extend downwardly, a cross-bar connecting said stems and adapted to contact with the rails of the track, a compressed-air system, said system being adapted to apply the brakes to the wheels of said truck when the stems of said valves are raised.

2. In combination, a railway-truck comprising truck-frames having horizontal members between the wheels, valves carried on the inner sides of said horizontal members, said valves comprising substantially vertically-disposed stems; a cross-bar connecting said stems, said cross-bar being adapted to

move vertically to actuate said valves, and an air-brake system controlled by said valves.

3. In combination, railway-truck frames comprising horizontal members and horizontal straps attached to the lower sides thereof, valves, the bodies whereof are attached to said horizontal members, substantially vertically-disposed stems projecting downwardly from said valves, a cross-bar connecting said stems, said cross-bar having an upwardly-offset body between the rails and depressed portions at its extremities adapted to engage the rail, and an air-brake system controlled by said valves.

4. In combination, truck-frames comprising horizontally-disposed members, plates attached to said horizontally-disposed members and comprising the bases for valves, vertically-elongated valve-bodies attached to said bases, valves carried therein, springs within said bodies constraining said valves downwardly upon their seats, stems projecting downwardly from said valves, a cross-bar connecting said stems and having an upwardly-offset body portion and depressed extremities, said cross-bar being adapted to be moved upwardly to actuate said valves, and an air-brake system controlled by said valves.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

FRANÇOIS XAVIER BÉRUBÉ.

Witnesses:

JOS. A. FOISY,

PHILDA LÉRESQUE.