F. ANDRIESSEN.

Car Truck.

No. 34,234. Patented Jan. 28, 1862.

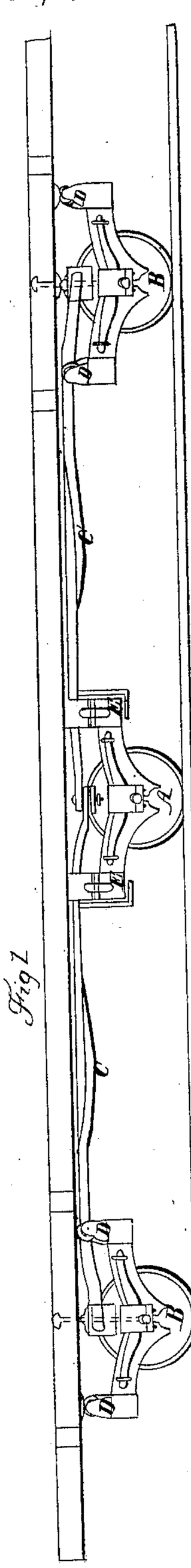

Fig. 1

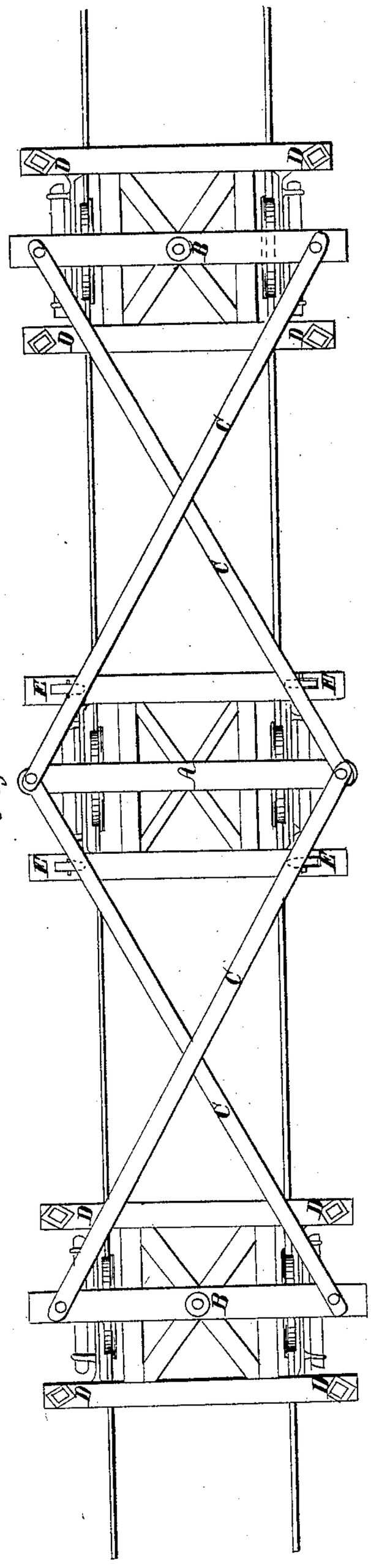

Fig. 2

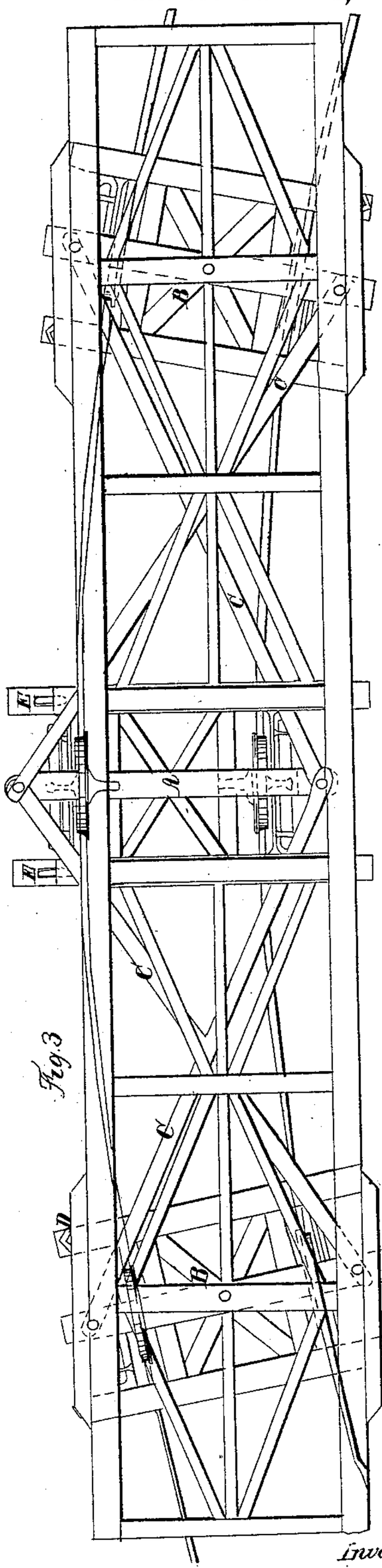

Fig. 3

Witnesses;

Inventor;

UNITED STATES PATENT OFFICE.

FREDERICK ANDRIESSEN, OF ALLEGHENY, PENNSYLVANIA.

IMPROVED CAR-TRUCK REGULATOR.

Specification forming part of Letters Patent No. **34,234**, dated January 28, 1862.

To all whom it may concern:

Be it known that I, FREDERICK ANDRIESSEN, of Allegheny city, in the county of Allegheny, in the State of Pennsylvania, have invented a new and useful Improvement in Railroad Locomotives and Cars, consisting in a Self-Adjusting Regulator; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed two drawings, making part of this specification, in which—

Figure 1 is a side view of a railroad-car with a self-adjusting regulator; Fig. 2, a view from above on a railroad in a straight line; Fig. 3, a view from above with the wagon-frame in a curve of seventy-five feet radius.

Part A shows the regulator with transverse movement upon four friction-rolls E E E E.

Part B B are wheel-trucks with one axle turning about a pin; part C C C C, leading-poles from the regulator to the wagon-frame; part D D D D and D D D D, friction-rolls, of iron or brass.

The nature of my invention consists in placing three truck-frames exactly equidistant under every wagon-chest or locomotive, (connected with a tender.) Instead of four wheels with two axles, every truck obtains only two wheels with one axle. The middle truck-frame (the self-adjusting regulator) has no turning motion under the car-chest; but it is moving to the right and left side by means of four friction-rolls of a middling size and made of iron or brass. These rolls run in suitable deepenings. The two truck-frames on the side have, on the contrary, a turning motion, by means of some pins, like the trucks of four wheels of the railroad-cars now in use; but the friction against the frame is, by means of the four small friction-rolls of iron, (on each of these side trucks,) impossible. The middle truck-frame is joined crosswise, with the ends of the middlest beam of the two side trucks on the ends of the middle beam, by four symmetrical leading-poles made of strong timber or iron, which are moving upon pins. While the flanks of the wheels of the regulator turn in every curve aside, the regulator arrangement is directing both the side trucks, so that the three truck-axles are always directed to the center of every curve just to be passed over, and on a straight track are always parallel with one another.

The advantages of my invention are evident, viz:

First. The long car obtains three supporters, by which the vibrating motion of the car-chest and every balancing and swinging to and fro will cease.

Second. Wheels and wheel-flanks cannot be worn out, because the axles move always in straight direction to the center.

Third. Breakings of axles never will happen again, not any balancing or swinging of the flanks against the rails being possible. A large truck-car of the old system is always throwing to and fro. Nobody can praise such a system.

Fourth. In comparison with the present truck system one-fourth of wheels and axles is saved.

Fifth. Every short curve may be passed over with the greatest surety, and new railroads may be constructed with the half of the present expenses.

Sixth. The locomotive-power will not be lavished by the friction of the many wheels in the train.

Seventh. This important improvement can also be applied on locomotive-engines instead of the truck-wheels.

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

The application of this self-adjusting regulator with the four leading-poles, friction-rollers, &c., (see letters A, B B, C C C C, D D D D, D D D D, and E E E E of the drawings,) to railroad locomotives and cars.

FR. ANDRIESSEN.

Witnesses:

JAMES MILLER,

HUGO ANDRIESSEN.