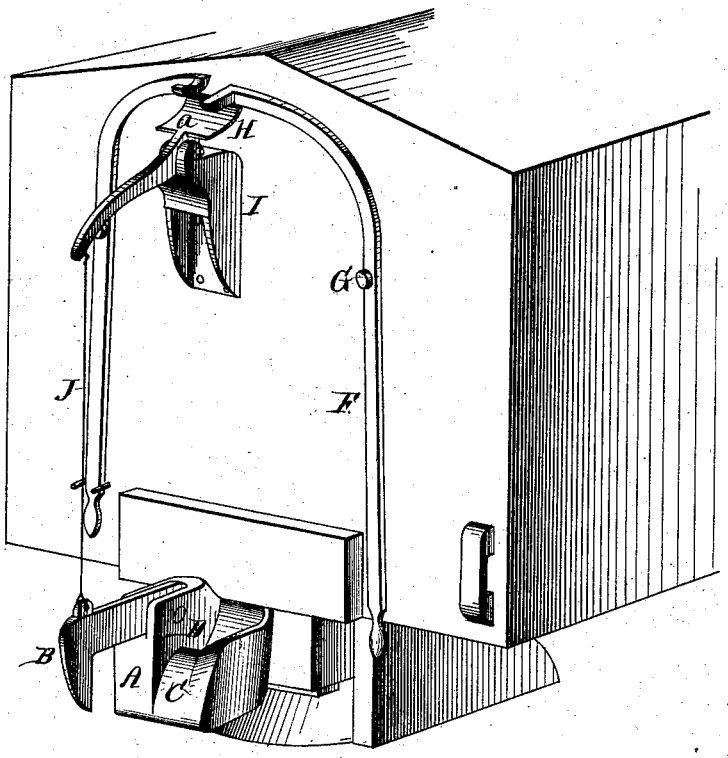
2 Sheets—Sheet 1

J. JOHNSTON.

CAR-COUPLING.

No. 192,870. Patented July 10, 1877.

Fig. 1.



Attest.

C. L. Snow.
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John Johnston,
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his Attorney.

2 Sheets—Sheet 2.

J. JOHNSTON.

CAR-COUPLING.

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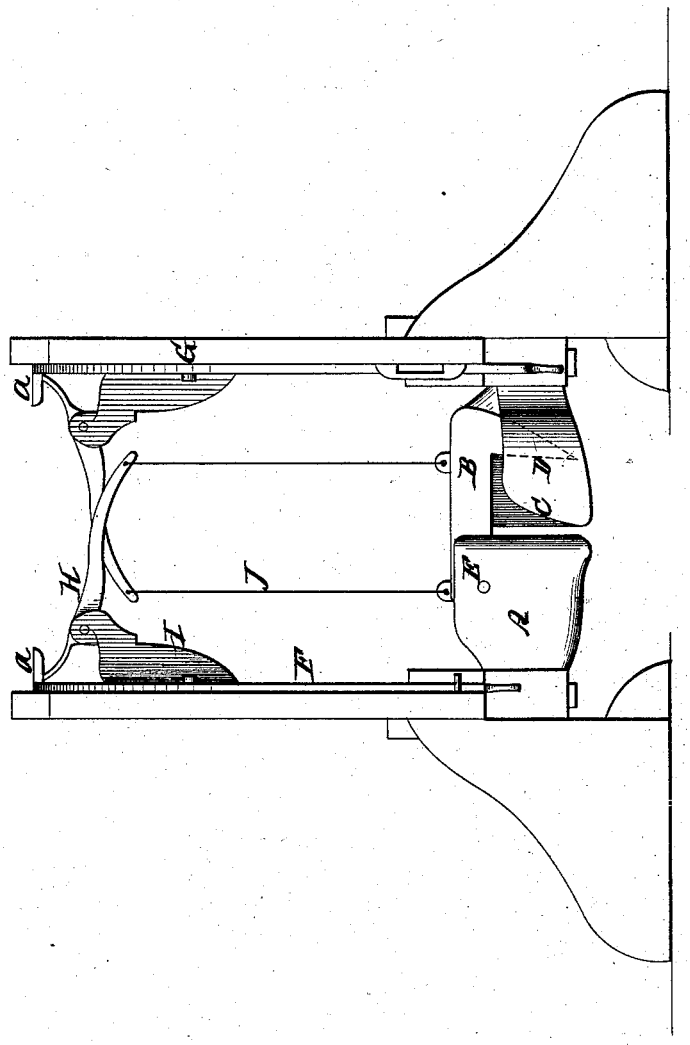
Fig. 2.



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C. L. Sussw.
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John Johnston,
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UNITED STATES PATENT OFFICE.

JOHN JOHNSTON, OF IONA, ONTARIO, CANADA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **192,870**, dated July 10, 1877; application filed June 11, 1877.

To all whom it may concern:

Be it known that I, JOHN JOHNSTON, of Iona, in the county of Elgin and Province of Ontario, Canada, have invented a new and useful Device for the Coupling and Uncoupling of Railway-Cars, of which the following specification and its drawings are a full, clear, and exact description.

The object of my invention is to effect the coupling of cars automatically, and to effect their uncoupling without its being necessary for a person to go between cars. Life or limb is not jeopardized, as it is never necessary for a person to go between cars in operating the coupler.

My invention consists in a combination of the elements employed, as I am aware that the elements singly or of themselves are both old and common.

In the drawings annexed, Figure I is an oblique view of one end of a car, showing all of the coupling devices which belong to one car, it being understood that the same devices arranged in the same manner are used upon the adjoining car. Fig. II shows the coupling devices in the position which they occupy when two cars are coupled together.

A is the buffer of the coupler on each car, made of cast-iron, and in and out of which work the connecting-hooks B. The hooks are made of wrought or pressed iron, and work automatically in coupling, being so shaped that, lying horizontally, as the cars approach each other they strike against the beveled portion of the buffer, marked C, which causes them to rise until they reach the chamber D in the buffer, into which they fall and securely connect the cars while on the track. But, by reason of their form and the form of the chambers, should the cars overturn, or should one leave the track, they would immediately become disconnected.

These hooks may be of any desired strength or weight, and of sufficient length to admit of connection being made with the ordinary link-and-pin coupler, and with cars of different height. These hooks work freely on bolts E passing through the buffer, with countersunk head and key, but they cannot rise too high to permit them to fall into the chamber when the hooks reach that point.

A hook is attached to each buffer, and each buffer contains a beveled chamber into which falls the hook from the opposite buffer when connection is made; and, owing to the formation of the hooks and chambers, connection is as readily made between cars of unequal as of equal height.

In the application of this invention no change need be made in the construction of the cars.

F is a lever attached to the end of the car, at the point G, by a bolt, upon which it rocks freely. When this lever is drawn outward by hand it depresses the flanged end *a* of the lever H, supported by the bracket I, and connected, by a chain, J, to the hook B, and by this depression the hook is lifted out of its chamber, and the cars thus uncoupled.

This coupling is automatic in its action when the cars come together; consequently its operation is not attended with danger, as the attendant's place is outside the line of cars. Much time is saved by its use, as the brakeman stands in full view of the engineer, and can signal ahead at the same moment when he operates the coupling.

Disclaiming the several devices separately, I claim as new, and desire to secure by Letters Patent, the invention as set forth in the following claim:

In an automatic coupling for railway-cars, the combination and arrangement of the buffers A and hooks B with the levers F, flanged lever H, bracket I, and chain J, the several parts being constructed substantially as described.

St. Thomas, Ontario, April 2, A. D. 1877.

JOHN JOHNSTON.

In the presence of—

J. MANN,

ALFRED WARE.