A. P. CHATHAM.

Car Coupling.

No. 10,176. Patented Nov. 1, 1853.

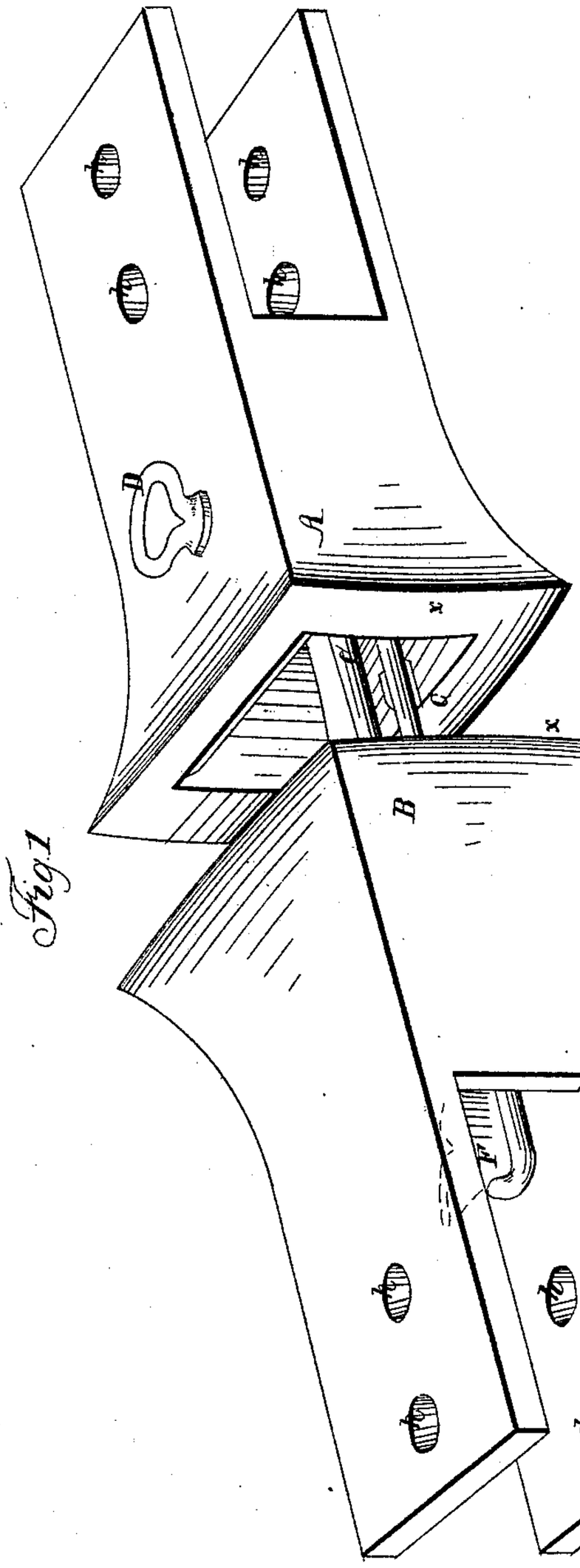

Fig. 1

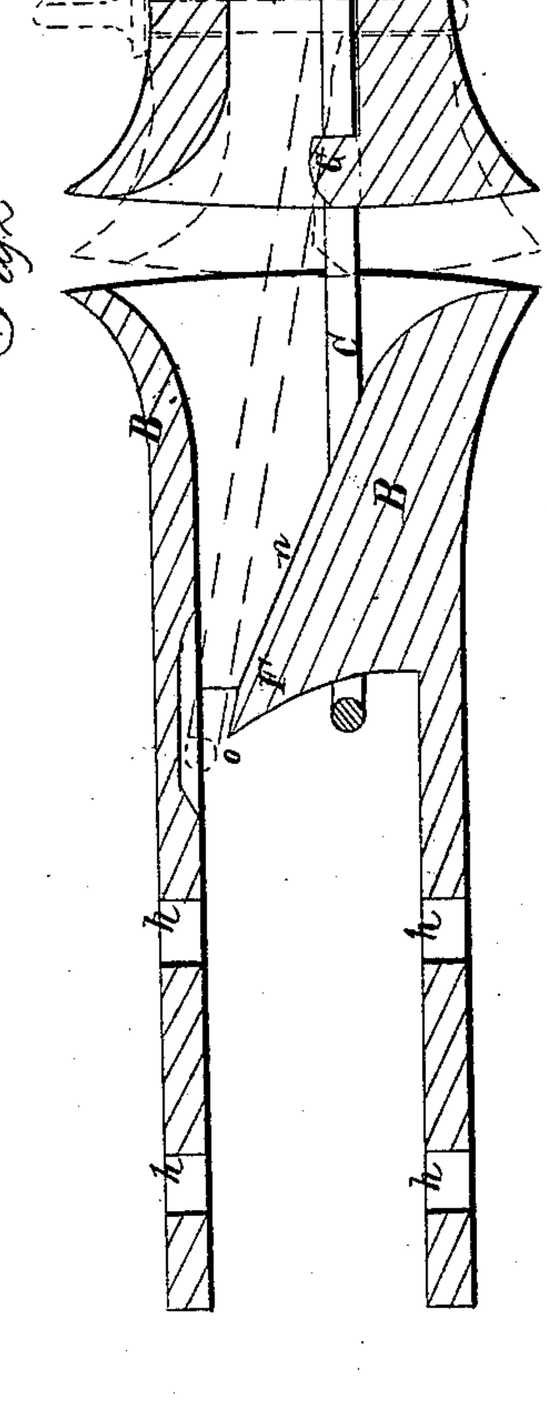

Fig. 2

UNITED STATES PATENT OFFICE.

A. P. CHATHAM, OF CANOGA, NEW YORK.

CAR-COUPLING.

Specification of Letters Patent No. 10,176, dated November 1, 1853.

To all whom it may concern:

Be it known that I, A. P. CHATHAM, of Canoga, in the county of Seneca and State of New York, have invented a new and useful Improvement in Car-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification, and in which—

Figure 1 is a view in perspective of my improved coupling, and Fig. 2 is a longitudinal section of the same.

My improved coupling consists of two buffers (A and B), having rectangular faces (*x*); they are made of iron or other material sufficiently strong to resist the shock of the collision between the cars when they meet, and are coupled by an iron link (C) that is held to its place in the buffer A by a bolt or pin (D). Both buffers are made with cavities in them for the insertion of the connecting link (C), and the cavity of the buffer B has a draft hook or catch (F) which is formed or cast in one piece with the buffer; the front edge (*n*) of this catch inclines upward and backward until it rises nearly to the top of the cavity and the back edge inclines in the opposite direction to cause its upper extremity (*o*) to overhang its base, so that the draft link (C) may tend to keep down at the base of the hook and obviate any tendency to uncouple. The inclined plane or face (*n*) of the hook raises the front end of the link (C) as it enters the cavity of the buffer B and conducts it over the upper extremity (*o*), the link striking the top of the cavity, when its gravity will cause it to drop behind the catch F, and the cars become coupled. Thus, it is merely necessary, in order to connect two cars (fitted with my coupling) to place the link C in the cavity of the buffer A, its one end projecting into a recess (*a'*) and the pin D inserted to hold the link to the buffer A;—then, by running the cars toward one another the projecting end of the link (lying horizontal) strikes the hook F, and (assisted by the shock produced by the collision of the cars) is guided and dropped over the hook as described, and as there is barely room for the link C to pass over the catch F without being sprung, it is effectually protected from becoming detached from the catch while the cars are running, except it be raised (as shown in red lines Fig. 2) and the buffers be nicely adjusted in suitable positions and force be applied to the link to push it toward the buffer A while the buffer B is moved in the opposite direction,—a concurrence of circumstances which it is highly improbable will ever happen while cars (thus coupled) are in motion.

The cars are uncoupled by withdrawing the pin D and moving the car to which the buffer A is attached until the link (C) is withdrawn from the cavity of that buffer; the end of the link now projecting from the buffer B is depressed until its opposite end passes over the catch (F) when the link is withdrawn from the buffer B, after which it should be re-inserted in the buffer A and the pin D replaced.

The buffer A, it will be observed, is constructed generally, in a similar manner to the buffer B, with the exception however that the back end of its cavity is closed up to support the inner end of the link (C) when its opposite end is being pushed over the catch F. The link is maintained in a horizontal position in the buffer A, when it is about being attached to the buffer B, by means of a small projection (*a*) or the recess (*a'*) in the back part of the buffer A, within which recess (*a'*) the inner end of the link C is placed in order to make room for the pin D, that passes down immediately in front of it and through the top and bottom plates of the buffer. A short distance in front of the bolt D, on the edge of the face of the buffer A, is a small snug G that serves to prevent the cars from separating by the recoil if run together while the pin D is removed preparatory to uncoupling. Both buffers (A and B) are fastened to the car frames in the usual manner by bolts passing through the straps projecting from their back extremities.

Having thus described my improved car coupling, what I claim as new therein and desire to secure by Letters Patent, is—

Constructing the buffer A with a recess *a'* to hold the link C in the proper position for entering the buffer B, and the buffer B with

a cavity and an inclined draft catch (F) extending to nearly the top of its cavity, so that when a link C is connected to the buffer A and passed over the catch (F) of the buffer B, it cannot jump up and become detached from the catch, whereby while the cars are in motion the danger of the cars being separated while running is greatly lessened while the coupling is simple, cheap and not liable to get out of order.

In testimony whereof I have hereunto subscribed my name.

A. P. CHATHAM.

Witnesses:

JAMES R. JOYNER,

JAMES F. TURNER.