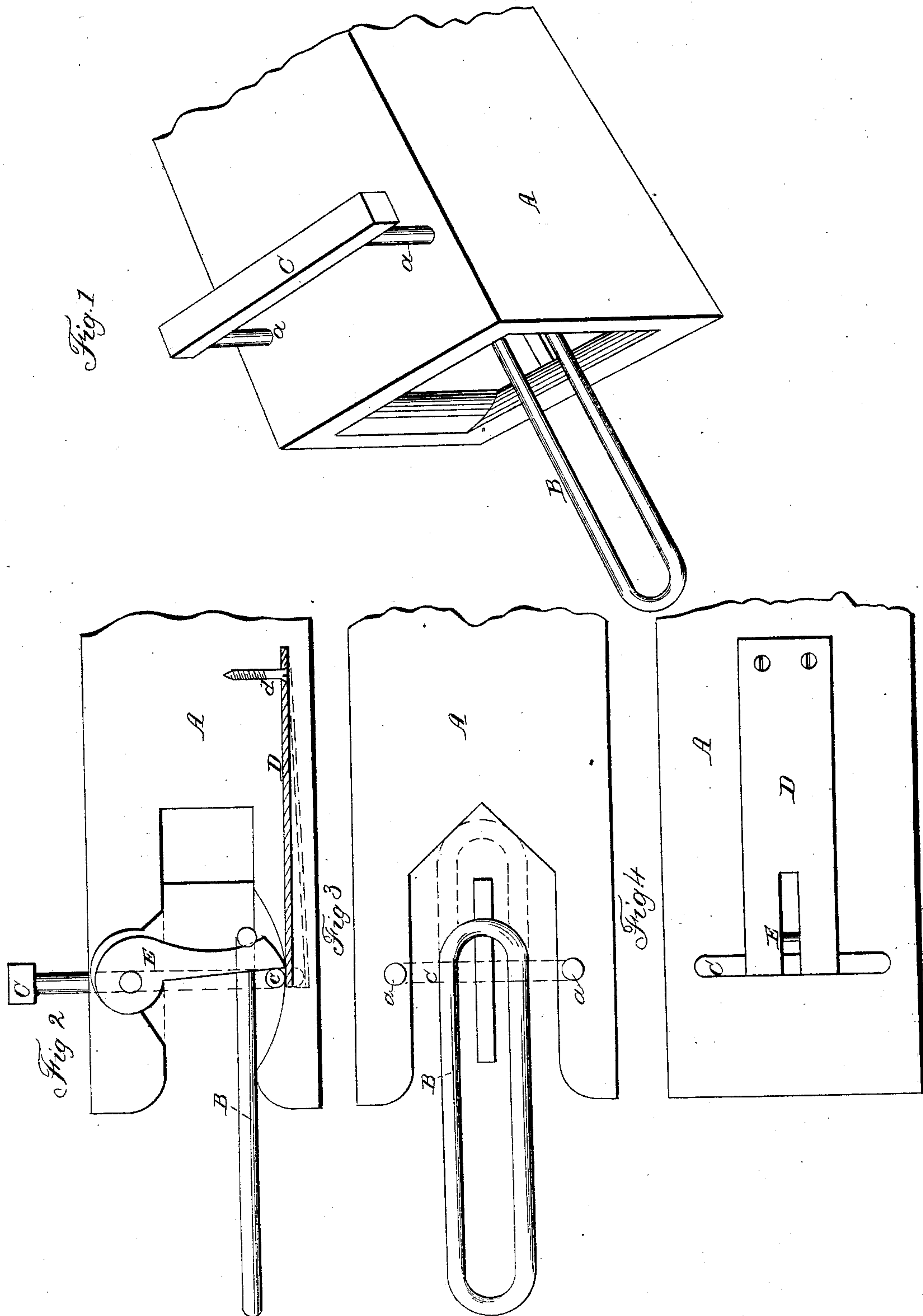


F. E. GLEASON.

Car Coupling.

No. 20,264.

Patented May. 18, 1858.



UNITED STATES PATENT OFFICE.

F. E. GLEASON, OF COLUMBUS, OHIO.

RAILROAD-CAR COUPLING.

Specification of Letters Patent No. 20,264, dated May 18, 1858.

To all whom it may concern:

Be it known that I, FRANCIS E. GLEASON, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the arrangement and construction of the adjustable catch and this in combination with other parts as will be hereinafter described. In order that others skilled in the arts may make and use my improvement I will proceed to describe its construction and operation.

In the annexed drawings Figure 1 is a perspective view. Fig. 2 is a side view of the coupling, with one side removed, showing the internal arrangement. Fig. 3 is a plan view of the coupling with the top removed. Fig. 4 is a bottom view.

In the several figures (A) represents the frame of the coupling made of wrought iron or any other suitable material. In the top of this frame is secured a falling or adjustable catch, which is constructed in the peculiar shape seen in the drawing, its back being concave and its lower end being beveled from the front edge, toward the back as is seen. (a a) are rods or bars which run through the frame and are connected at top by the bar (C) and at bottom by the bar (c). The bottom bar (c) rests upon a spring of steel marked D, said spring being secured within the frame by means of the screw (d).

(B) is a link which enters the coupling and which secures the cars together.

In Fig. 2, the relative positions of the hanging catch (E) and the rods (a a) will be seen. In this figure, the position of the several parts show that the cars are coupled; the catch E, stands back, its front edge coming in contact with the bottom bar (c). When this bar (c) is depressed by pressing upon the top (C), it presses upon the spring D, and they assume the position shown by the dotted lines in this Fig. 2, and as they take this position the catch E falls forward beyond the bar (c). The reason of this is very obvious when it is seen that the catch is

secured to the frame, at its upper extremity by means of a pivot, so that its center of gravity will fall in front of the bar (c).

In the operation of this coupling it will be seen that when the catch is in the position seen in Fig. 2, that its lower end bears firmly against the bar (c) and that the link, bearing against the back of said catch, cannot pull out. Thus I have as solid a bearing as is obtained by means of the ordinary iron pin. It will also be seen that as the front of the catch stands on an incline, when the bar (c) is pressed down, it matters not how great the draft may be, it will fall below the end of the catch, thus freeing the catch and allowing the link to draw out. When the bar (c) returns to its place, the catch E, will hang in front of it, but when the link strikes the catch when it is desired to couple the train its inclined or beveled end pressing against the bar (c) presses it down, and passing over, is pushed back until it falls between the sides of the link. The bar (c) having returned to its position, the catch will fall against its back, and thus I have a firm bearing again.

This is a self coupler but not a self uncoupler—it requires pressure upon the foot-piece C, in order to loosen the catch E, and thus free the link.

The advantages of this coupler are its simplicity of arrangement, its cheapness of construction, and the facility and ease by which it may be operated. In case of accident to the train the brakeman by simply pressing upon the piece (C) with his foot, may disengage the entire train, or any one car of the train from the locomotive and thus prevent both the loss of life, and of the cars.

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

The arrangement and construction of the catch E, with relation to the bar (c), and this in combination with the foot piece C, bars or rods (a a) spring D, and link B, all being operated in the manner and for the purpose therein set forth.

FRANCIS E. GLEASON.

Witnesses:

C. M. ALEXANDER,

JOHN S. HOLLINGSHEAD.