

J. P. MENDENHALL.

Car Coupling.

No. 29,395.

Patented July 31, 1860.

Fig. 1.

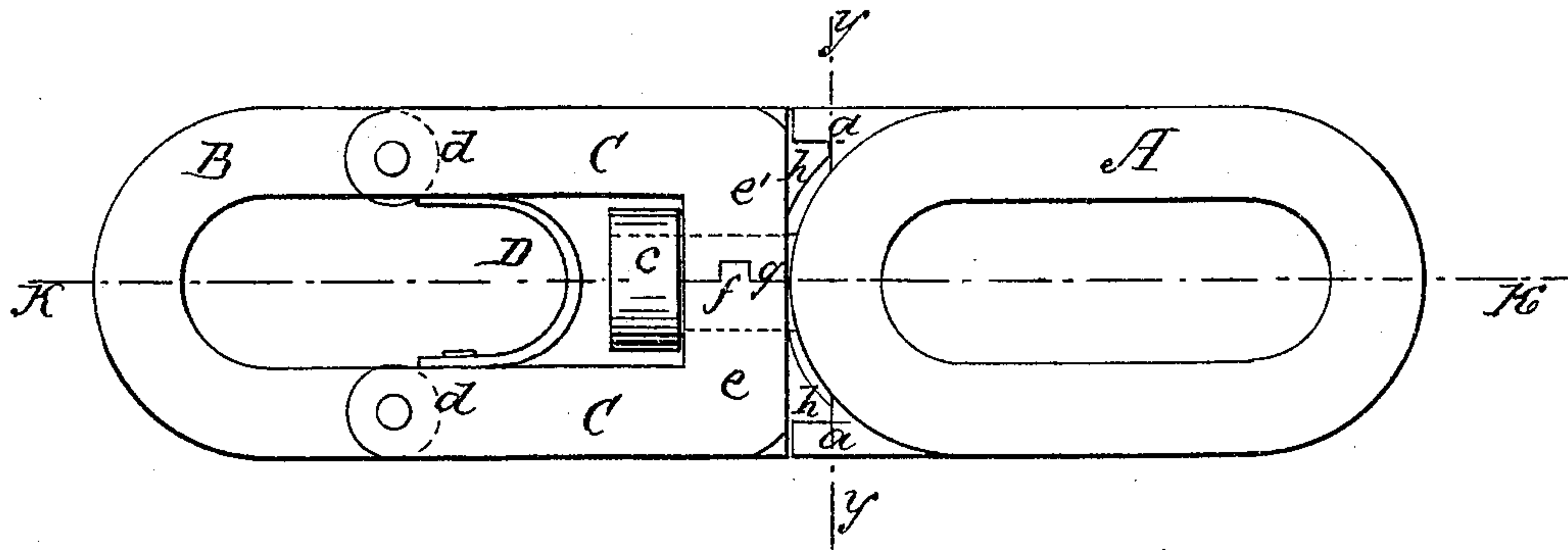


Fig. 2.

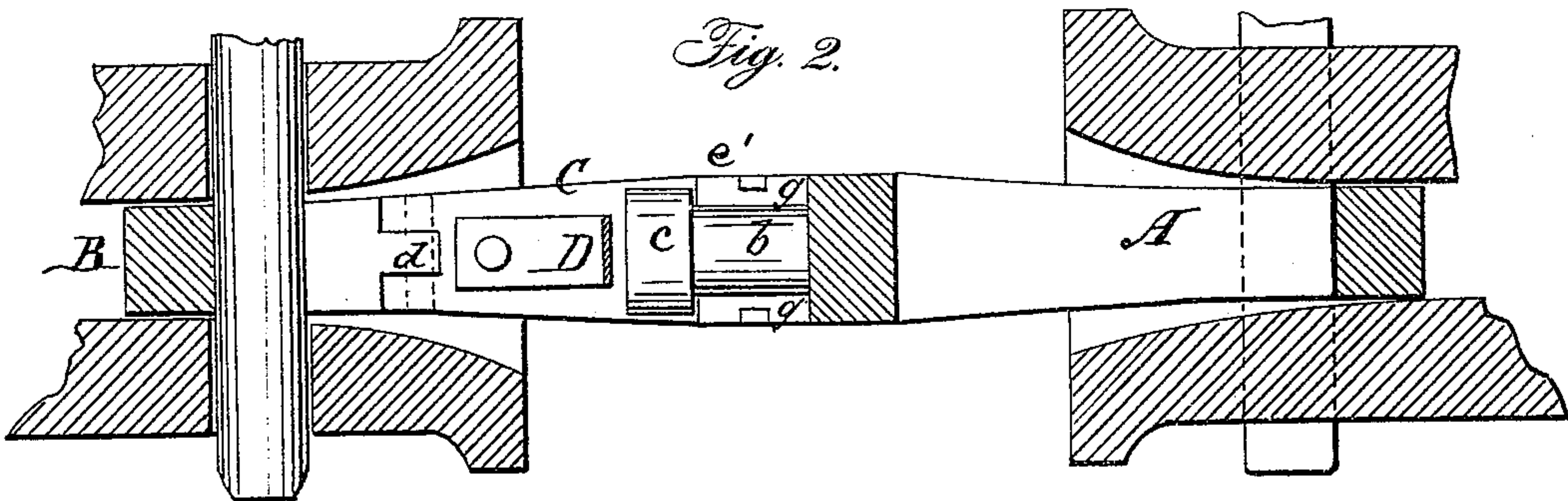


Fig. 3.

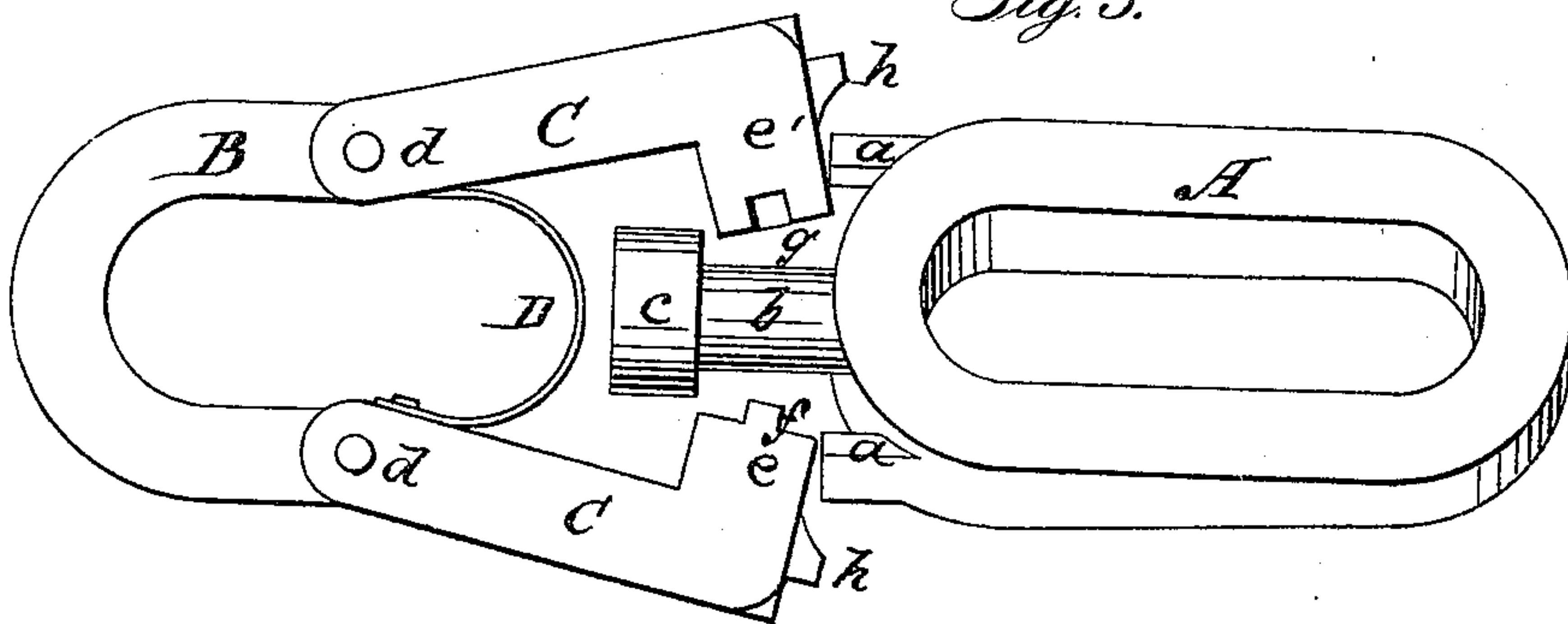
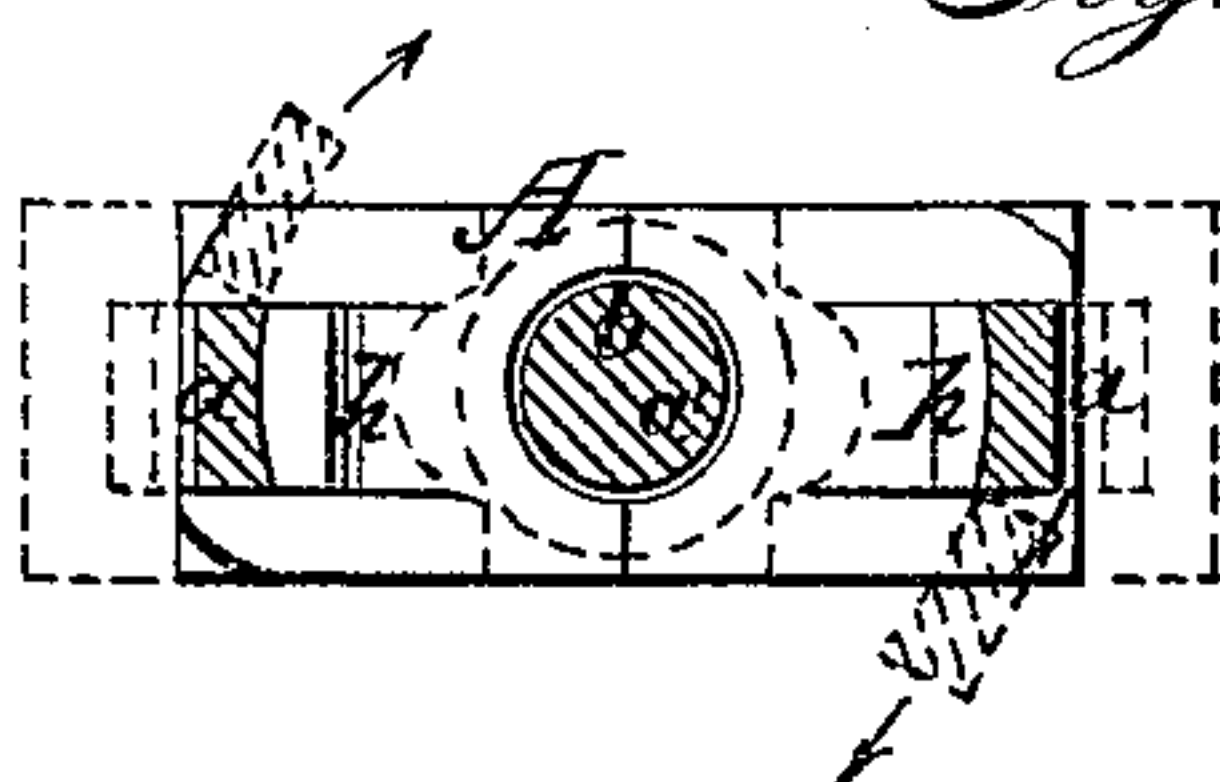


Fig. 4.



Witnesses:

*H. Coombs*  
*R. S. Spurr*

Inventor:

*J. P. Mendenhall*  
*per Mumf. & Co.*  
*Attorneys*



# UNITED STATES PATENT OFFICE.

I. P. MENDENHALL, OF FARMINGTON, ILLINOIS.

## CAR-COUPLING.

Specification of Letters Patent No. 29,395, dated July 31, 1860.

*To all whom it may concern:*

Be it known that I, I. P. MENDENHALL, of Farmington, in the county of Fulton and State of Illinois, have invented a new and

5 Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

10 Figure 1, is a plan or top view of my invention in a connected state. Fig. 2 a horizontal vertical section of the same taken in the line  $x, x$ , Fig. 1. Fig. 3 a plan or top view of the same in a disconnected

15 state. Fig. 4, a transverse vertical section of the same taken in the line  $y, y$ , Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

20 This invention has for its object the prevention of accidents on rail-roads produced by the throwing of the locomotive, or any of the cars of a train, from the track, a contingency of frequent occurrence, caused by obstructions on the track, the displacement of rails etc., etc.

25 The invention consists in constructing the coupling in a novel and improved way substantially as hereinafter shown and described, so that a swivel-connection is obtained and one which on being turned a certain distance as would be the case if a car or locomotive to which the coupling is connected were thrown from the track will disconnect or become detached and therefore

35 prevent the car thrown from the track from dragging adjoining cars off with it.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

40 A, represents an oval-shaped metal stock which is secured to the bumper rod of a car in any proper way. This oval-shaped stock has two projections  $a, a$ , at its front end one at each side, said projections being

45 at their outer sides, in line with the sides of the stock A. The inner surfaces of the projections  $a, a$ , are concave being portions of a circle of which the axis of the stock A, is the center, see Fig. 4, in which the

50 point  $a'$ , indicates the axis of the stock. At the outer or front end of the stock A, at its center there is a cylindrical projection  $b$ , which is parallel with the projections  $a, a$ , but extends outward some distance, beyond them and has a head  $c$ , on it said head being considerably larger in diameter than

the projection  $b$ , as shown clearly in Figs. 2 and 3.

The parts above described; to wit, the stock A, with its projections  $a, a$ , and cylindrical projection  $b$ , with its head  $c$ , constitute one part of the coupling. The other part which is attached to the end of the car adjoining the end of the one to which the stock A, is attached is composed of a U- 60 shaped bar B, which is attached to the bumper rod of its car. To each end of the outer part of the bar U, there is attached by a joint  $d$ , a bar C. These bars C, are allowed to work freely on their joints  $d$ , and at 65 their outer ends  $e, e'$ , they are bent or extend inward toward each other and have their faces made concave so as to form jaws to grasp the cylindrical projection  $b$ , on the stock A, the concave surfaces of the ends 70  $e, e'$ , of bars C, corresponding inversely to the projection  $b$ .

One jaw  $e$ , is provided at each edge with a lip  $f$ , and these lips when the jaws are closed fit in corresponding recesses  $g$ , in the 80 jaw  $e'$ . This will be understood by referring to Figs. 1 and 3.

The outward end of each jaw  $e, e'$ , has a projection  $h$ , and these projections when the two parts of the coupling are connected fit 85 within the projections  $a, a$ , on the stock A, as shown in Fig. 1. The outer surfaces of the projections  $h, h$ , are convex corresponding inversely to the inner surfaces of the projections  $a, a$ , on the stock A. 90

To one of the bars C, a curved spring D, is attached and this spring when the jaws  $e, e'$ , are closed exerts a pressure against the bars C, and would distend or throw them out from each other if not restrained. 95

In order to connect the two parts of the coupling and consequently the two cars to which the two parts of the coupling are attached, the operator grasps the bars C, C, and turns the bars C, C, B, until the former 100 may be pressed together in a plane forming a sufficient angle with the plane of the projections  $a, a$ , as to admit of the jaws  $e, e'$ , being adjusted in contact with the projection  $b$ , of the stock A. The bars C, C, B, are 105 then turned until the projections  $h, h$ , pass within the projections  $a, a$ , and the latter keep the jaws  $e, e'$ , in contact with the projection  $b$ . The head  $c$ , and jaws  $e, e'$ , it will be seen form the connections, and in case of 110 the turning of either the stock A, or bars C, C, a sufficient distance to admit of the

projections *h, h*, passing out from within the  
projections, *a, a*, the spring D, will expand  
or throw out the bars C, C, free from the  
projection *b*, and the two parts of the coup-  
5 ling will be disconnected, and it will be seen  
that in case of a locomotive or car being  
thrown from the track, this turning of the  
part of the coupling attached to it will be  
effected and the car detached see red lines  
10 Fig. 4.

Having thus described my invention what  
I claim as new and desire to secure by Let-  
ters Patent is

The stock A, provided with the projec-  
tions *a, a*, and the cylindrical projection *b*, 15  
having the head *c*, at its end; in connection  
with the bar B, having the bars C, C, at-  
tached to it by joints *d*, the spring D, being  
between them and provided at their outer  
ends with the jaws *e, e'*, and projections 20  
*h, h*, substantially as and for the purpose  
set forth.

I. P. MENDENHALL.

Witnesses:

A. G. GRIDLEY,  
LYMAN WARNER.