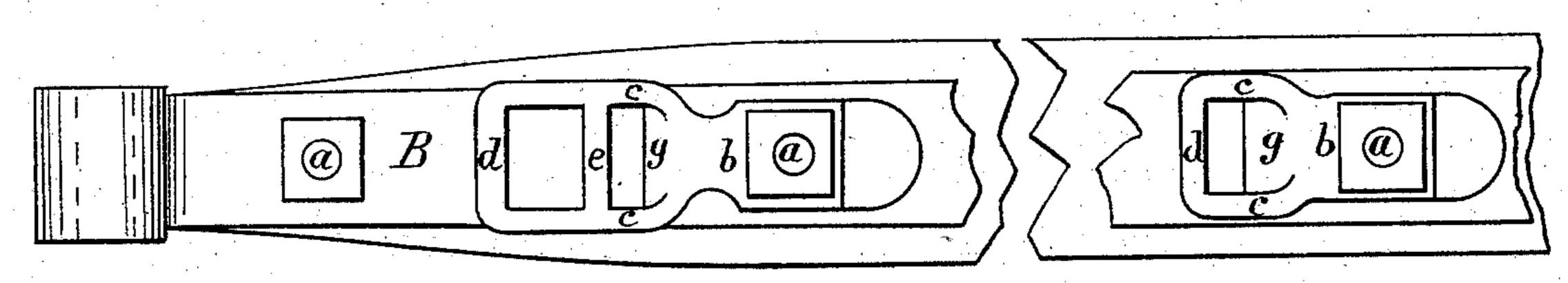
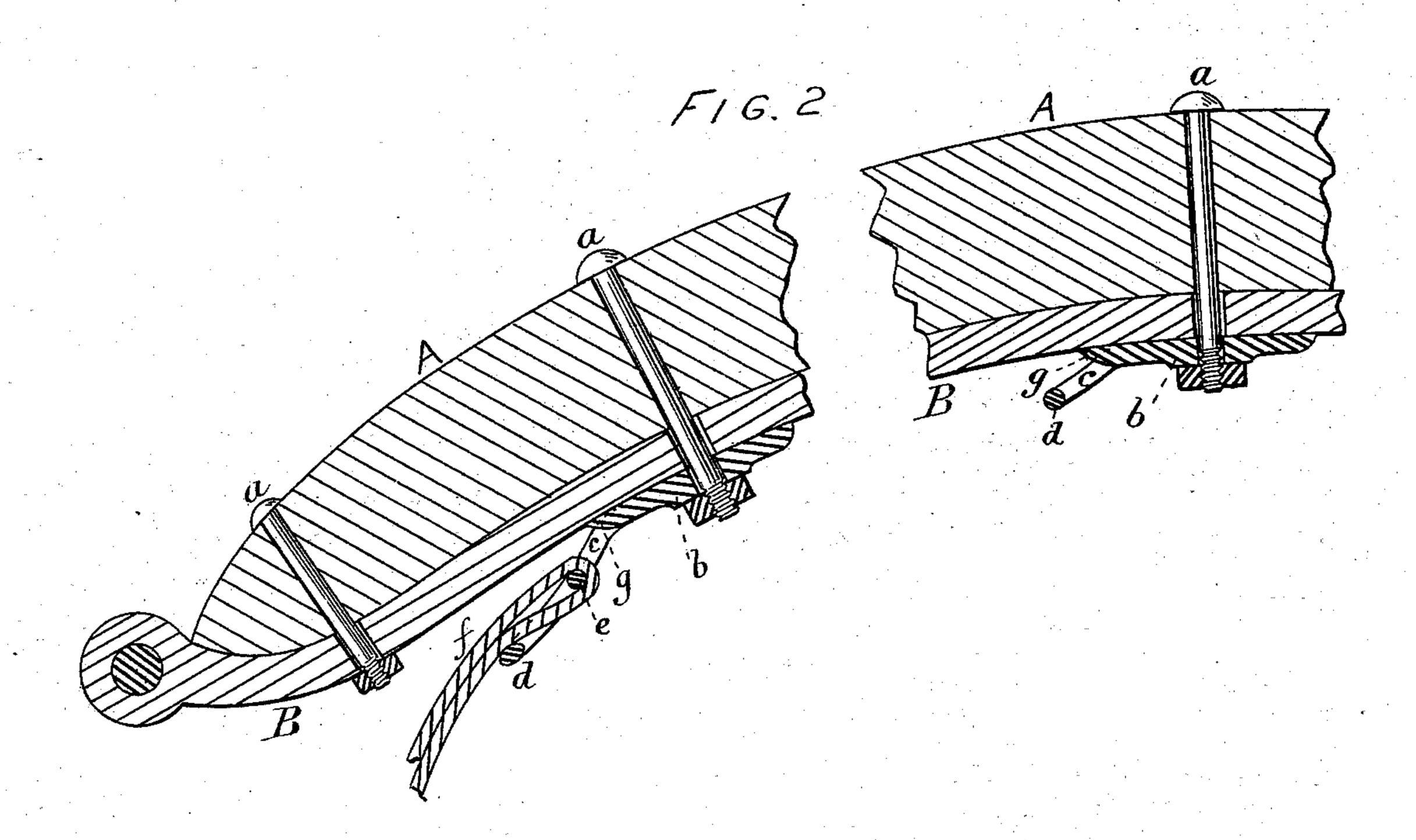
## H. K. PORTER. Thill-Coupling Loop.

No. 216,291.

Patented June 10, 1879.

F16.1





Witnesses. Herbert Whitman. J. W. Parter -

Inventor:

Henry R. Fater

## UNITED STATES PATENT OFFICE.

HENRY K. PORTER, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN THILL-COUPLING LOOPS.

Specification forming part of Letters Patent No. 216,291, dated June 10, 1879; application filed March 14, 1879.

To all whom it may concern:

Be it known that I, HENRY K. PORTER, of the city of Boston, State of Massachusetts, have invented Improvements in Carriage-Loops, of which the following is a specification.

The object of my invention is to provide a loop to be attached to vehicles by a bolt, screw, or rivet, in the usual manner, and formed with an incline within the area of the eye of the loop, such incline being so formed and arranged as to facilitate the introduction of the strap within and through the eye of the loop when it is desired to attach the strap thereto; and it further consists in an intermediate bar, which is formed between the body of the loop and the end bar thereof, as will, by the aid of the accompanying drawings, be fully set forth.

Figure 1 is a plan view, showing the loop in position as attached to the under side of a shaft. Fig. 2 is a longitudinal vertical section of Fig. 1, but showing the shaft right side up for use, and with a section of a strap as attached to the middle bar of the loop-eye.

In said drawings, A is the shaft, and B is the draft-iron, secured to the under side of shaft A, the two being united by bolts a, in the usual manner, and shown merely to illus-

trate the use of my improvements.

The loops are formed with a body, b, as shown, to receive the bolts a, and with the eye consisting of the members c c and d, all in the usual manner, except that the members c c are extended to a greater distance from the body b, and with the intermediate bar, e, connected to members c c and between bar d and the body b. To this intermediate bar the safety-strap f is attached, and is held up and sustained by the end bar, d, which thus confines it compactly in place, and thereby prevents its usual shaking and swinging motion,

that wears it away where it rests upon the

single bar of the eye.

To facilitate the passing of the strap through the loop-eye, I form an incline, g, upon the body b, which incline fits closely to the iron B, and terminates at its end in a wedge-shaped joint, so that when the strap is slid under the loop-eye and between bars c c it will slide up the incline g and pass out between the side bars, c c.

The loops shown at the right hand in both said figures have the incline, but with the eye

in the usual form.

I do not claim a harness-buckle having an intermediate bar, my invention relating only to that class of loops which have an eye formed upon a body, which is connected to the vehicle by a bolt or rivet which passes through a hole in such body, as shown in my drawings, and which is adapted to such use and to no other.

I claim as my invention—

1. In a carriage-loop having a body, b, to receive the bolt a, and an eye, c c d, to receive the strap f, and formed upon body b, the bar c, arranged between body b and bar d, substantially as specified.

2. In a carriage-loop having a body, b, to receive the bolt a, and a strap-eye, c c d, formed thereon, the incline g, formed upon body b and within the area of the eye, substantially as

specified.

3. In a carriage-loop formed with a body, b, to receive the bolt a, and an eye, c c d, formed thereon, the intermediate bar, e, and the incline g, formed upon such body and within the area of the eye, substantially as specified.

HENRY K. PORTER.

Witnesses:

EUGENE HUMPHREY, T. W. PORTER.