

MARMADUKE & BRUCE.

Safety Coupling for Shafts and Poles.

No. 82,857.

Patented Oct. 6, 1868.

Fig. 1.

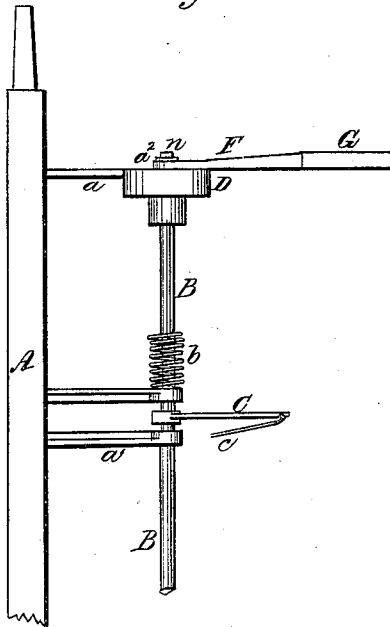
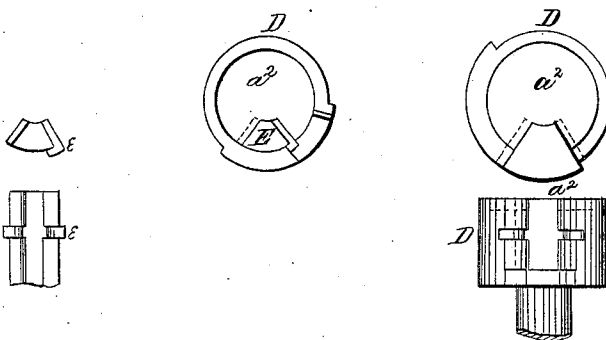


Fig. 2.



Witnesses.

H. Pauli

Robert Burns

Inventors.

S. Marmaduke & S. Bruce

by their attys

Randolph & Phelps

United States Patent Office.

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Letters Patent No. 82,857. dated October 6, 1868.

IMPROVEMENT IN THE MODE OF ATTACHING AND DETACHING SHAFTS AND POLES OF CARRIAGES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, LESLIE MARMADUKE, of Arrow Rock, and SIDNEY T. BRUCE, of Marshall, in the county of Saline, and State of Missouri, have made certain new and useful improvements in Safety-Shaft and Pole-Coupling for Vehicles; and we do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to a coupling for attaching the shaft or pole to a vehicle in such a manner that should the team drawing the same become frightened, and attempt to run away, the driver might easily release them from the vehicle by means of an attachment for disconnecting the shafts or pole from the vehicle.

To enable those skilled in the art to make and use my improved coupling, I will proceed to describe its construction and operation.

Figure 1 of the drawings is a top plan of an axle of a vehicle, and a part of a pair of thills or shafts, attached thereto by means of our improved coupling.

Figure 2 is a sectional side elevation of the same.

The axle A of any wheeled vehicle, or a cross-bar of similar construction, attached to a sleigh or sled, has attached to it, and in front of it, by means of suitable traction-rods a a^1 , the coupling-rod or rock-shaft B. A spring, b , attached to this rod or shaft, habitually turns the said shaft or rod in one direction, for the purpose hereinafter more fully described, and the lever or arm C, attached to the shaft B, is employed to turn it in a direction opposite to the action of the said spring b .

To each end of the rod B is attached a cylindrical head-piece, D. The end traction-rods a^1 have circular head-pieces, a^2 , as shown in fig. 2, which fit the cylindrical cavities in the ends of the said head-pieces D.

Notches are made in the bottom sides of both the pieces D and a^2 , for the reception of the coupling-block E, which is to be attached to the rear end of the goose-neck F, by means of a suitable nut or key, n . The goose-neck piece F is to be secured to the back end of the pole or shaft G in the usual manner.

In entering the coupling-blocks E in the notches of the pieces D and a^2 , the rod B will be turned over so as to have the notch in the piece D cover that in a^2 , and then the said piece E may easily be inserted therein, when the rod B will be allowed to turn back by the action of the spring b , thus securing the said piece E in the notch in a^2 in the manner clearly shown in fig. 2.

A strap or cord, c , attached to the outer end of the arm or lever C, will extend up to within easy reach of the driver, who, when occasion requires, will draw up on this cord, thereby turning the said shaft or rod over, so as to allow the notches in D to cover those in a^2 , when the pieces E will drop down by their own gravity, and the team will thus be detached from the vehicle in this simple and easy manner, and all danger be instantly avoided.

The front sides of the notches in D and a^2 , for the blocks E, should be sloped forward and outward, so as to make the action of drawing, on the blocks E, have a tendency to draw them down and out of their bearings when released by the head-piece D.

In the operation of disengaging the coupling-piece E, the head-piece D, in turning, strikes the projecting tenon e on the coupling-piece E, and thus forces the said coupling-piece out of its seat. Again, the traction due to the power of the draught-animal is exercised when the parts are in position for disengaging, as indicated in the drawings, to draw the parts asunder readily.

Lastly, it is plain that the devices thus employed form a convenient coupling for general uses.

Having described our invention, what we claim, is—

1. The coupling-heads D a^2 and the coupling-block E, when arranged and operated substantially in the manner and for the purpose herein shown and described.

2. The arrangement of the axle-piece A, traction-rods a a^1 , rod B, lever C, and coupling-heads D a^2 E, substantially in the manner shown and described.

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SIDNEY T. BRUCE.

Witnesses:

GEO. P. HERTHEL, Jr., }
J. C. SAPPINGTON, } as to LESLIE MARMADUKE.
W. S. SMITH, }
J. R. BERRYMAN, } as to SIDNEY T. BRUCE.