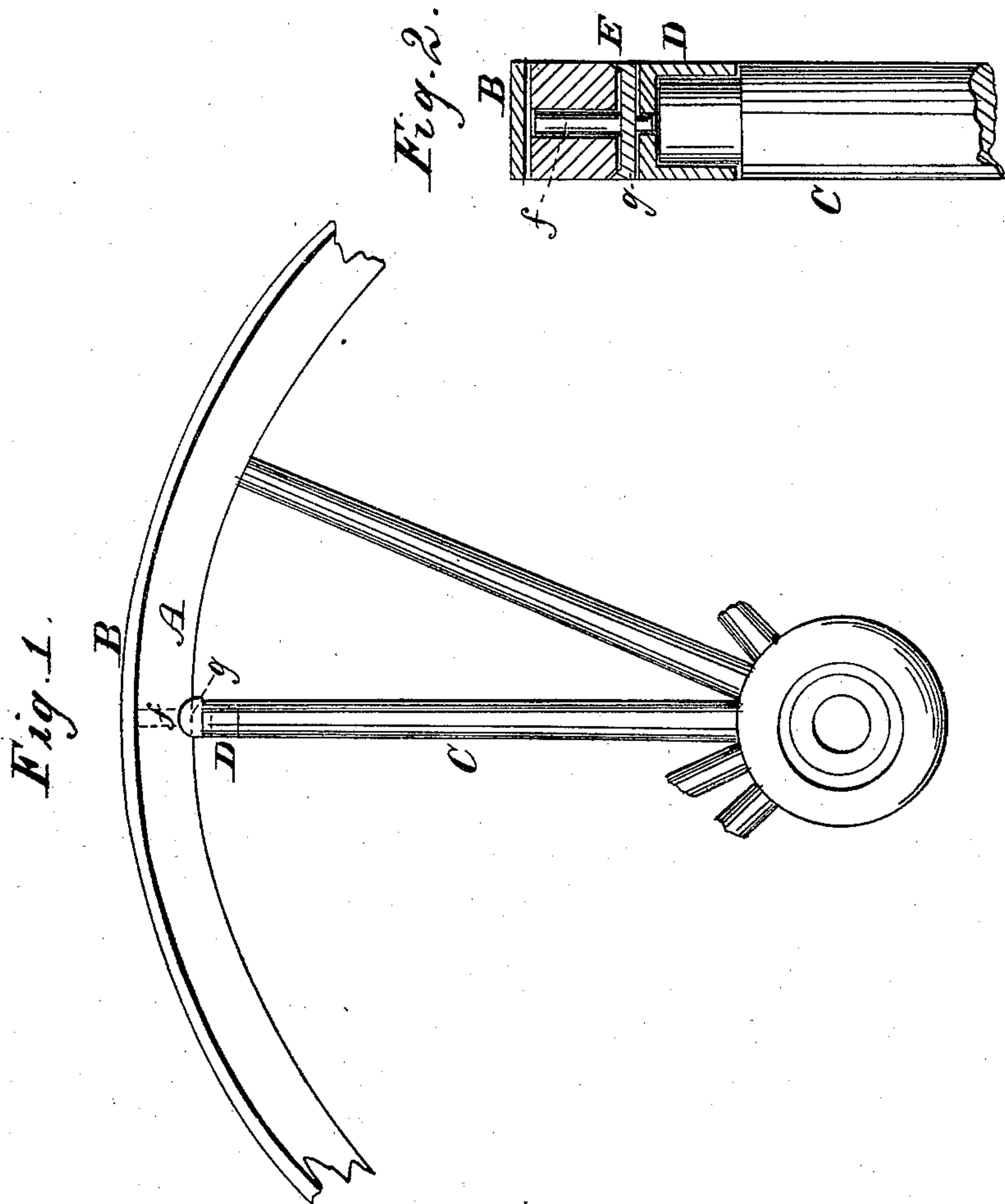


H. N. HOUGHTON.

Spoke Fastener.

No. 91,938.

Patented June 29, 1869.



Witnesses.

Chas. H. Birchman
Jno. E. Brooks

Inventor.
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United States Patent Office.

H. N. HOUGHTON, OF BRATTLEBOROUGH, VERMONT.

Letters Patent No. 91,938, dated June 29, 1869.

IMPROVED SPOKE-FASTENER.

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

To all whom it may concern:

Be it known that I, H. N. HOUGHTON, of Brattleborough, in the county of Windham, and State of Vermont, have invented a new and improved Spoke-Fastening; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to a new and useful method of repairing buggy, carriage, or wagon-wheels, applicable where spokes are broken off at the felloe, and for new wheels; and consists in a metallic socket and tenon applied as hereinafter more fully described.

In the accompanying sheet of drawing—

Figure 1 represents a portion of a wheel, showing the device applied to one of the spokes, and to the felloe.

Figure 2 is a cross-section through the felloe, and through the fastening-device.

Similar letters of reference indicate corresponding parts.

A represents the felloe of the wheel.

B is the tire.

C is the spoke.

My fastening-device consists of two parts. One part is applied to the spoke, which part is a socket, or thimble, D, placed on the end of the spoke, as seen in the drawing. It may be of such size as to receive the en-

tire end of the spoke, or a tenon may be made to fit the socket, as seen in fig. 2.

E is the part that is attached to the felloe.

It consists of a metallic pin or tenon, *f*, with a clasp-plate, *g*, attached thereto, with the end of the pin or tenon passing through the plate, so as to enter an orifice in the end of the thimble D, as seen.

The long end of the pin *f*, enters and passes through the felloe, and forms a tenon, while the plate *g* clasps the felloe and stays the connection.

It will be seen that the back of the plate *g*, and the end of the thimble D, are brought in contact with each other, and the parts are kept in place by the projecting end of the pin, which enters the thimble.

When the parts D and E are attached to the spoke, and to the felloe, they are sprung together without difficulty. This makes a substantial and durable connection, far superior to the original.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

In combination with a wheel for highway-vehicles, the parts D and E, constructed and arranged substantially as and for the purposes herein shown and described.

H. N. HOUGHTON.

Witnesses:

CHARLES K. FIELD,
J. M. TYLER.