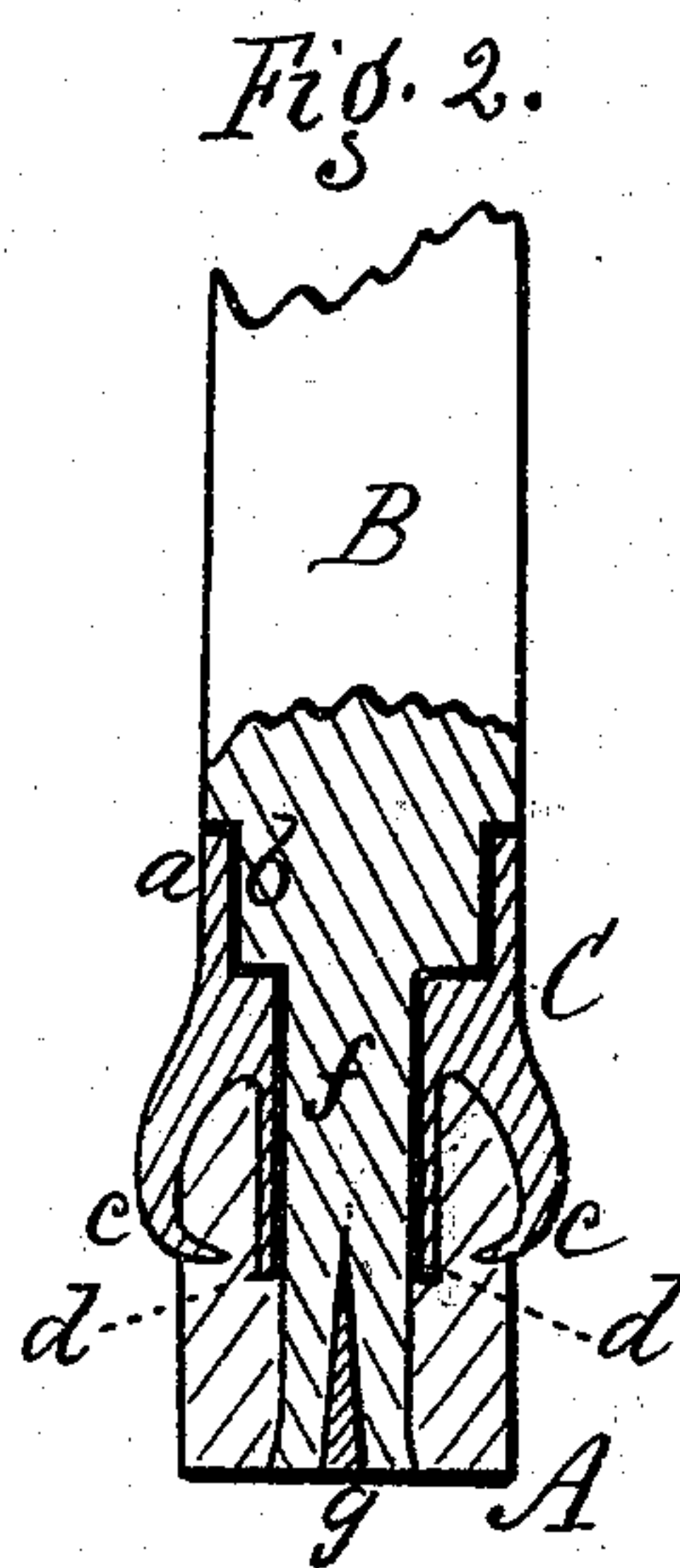
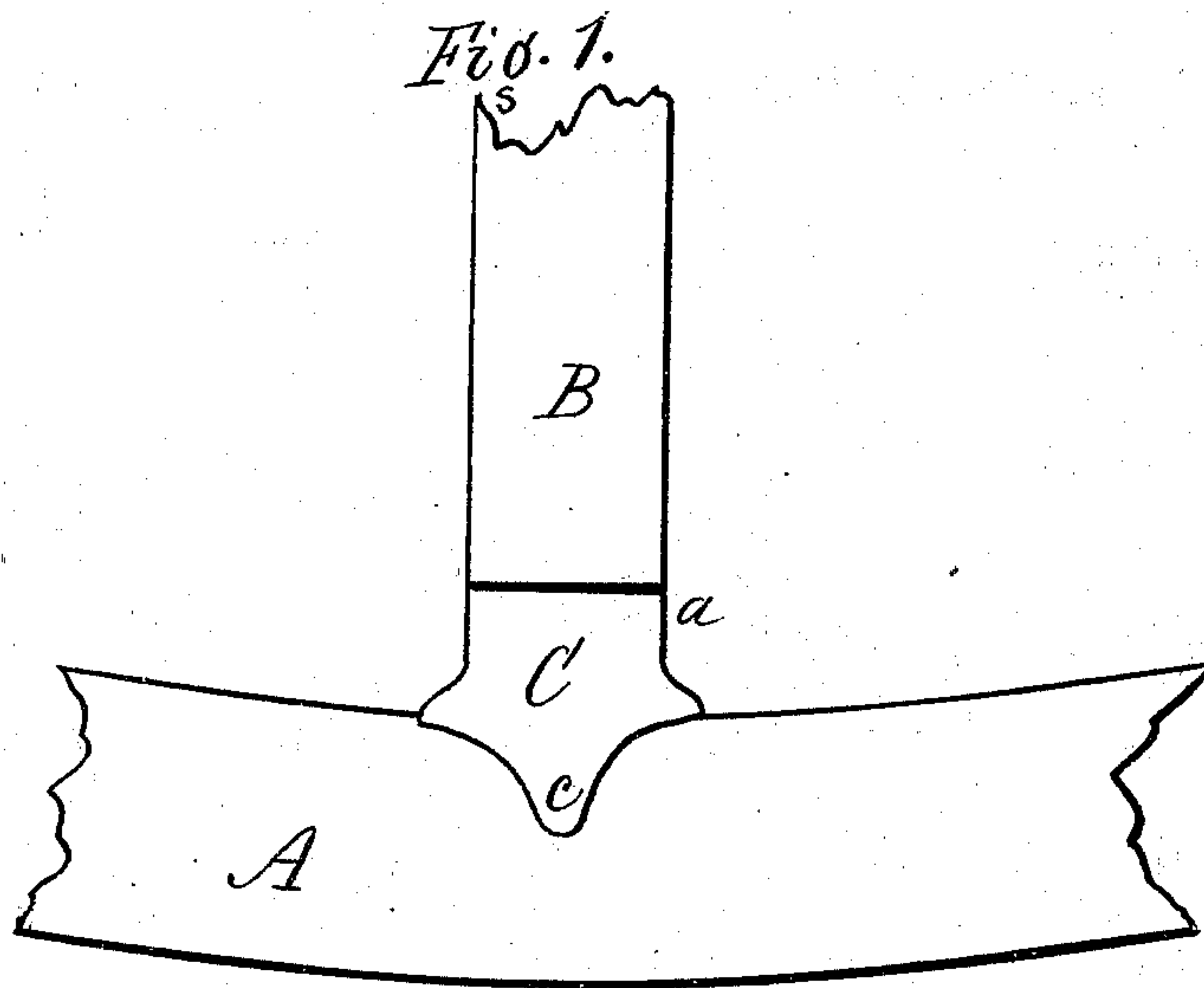


S. MITCHELL.
Spoke Sockets.

No. 152,911.

Patented July 14, 1874.



Witnesses.
W. A. Loder
H. L. Saurchild

Inventor.
Saml. Mitchell
per R. F. Osgood,
atty.

UNITED STATES PATENT OFFICE.

SAMUEL MITCHELL, OF LIMA, NEW YORK.

IMPROVEMENT IN SPOKE-SOCKETS.

Specification forming part of Letters Patent No. **152,911**, dated July 14, 1874; application filed April 21, 1874.

To all whom it may concern:

Be it known that I, SAMUEL MITCHELL, of Lima, in the county of Livingston and State of New York, have invented a certain new and useful Improvement in Spoke-Sockets; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

My invention is an improvement on that patented to me June 4, 1872. In that case the socket is secured to the felly by means of spurs, which are driven into the wood, and the socket simply rests upon the upper or inner surface of the felly without other support.

My present invention consists in combining with such a socket an interior thimble or tube, which projects about half-way through the felly, more or less, and serves as a central bearing to prevent the rocking and twisting of the socket, and the consequent unseating of the spurs under lateral strain of the spokes. It also serves to receive and hold the upper half of the spoke-tenon, so that the same cannot split the felly, while the lower half comes only in contact with the wood, and can be securely wedged therein, thus securing a better hold than could be secured in iron, and preventing any loose action.

In the drawings, Figure 1 is an elevation. Fig. 2 is a cross-section.

A is the felly, B the spoke, and C the socket. The latter is made of malleable iron, and is of such form as to fit on the upper or inner side of the felly. It has an enlarged socket, *a*, which receives a corresponding shoulder, *b*, of the spoke-tenon. It also has spurs *c c*, which, being malleable, can bend, and are driven into the sides of the felly, as shown, thus avoiding the use of rivets or screws. The spurs may be single or double on each side, as desired. Thus far the construction is the same as in my patent aforesaid. I combine with this socket an interior thimble or tube, *d*, which is cast with it, and

extends downward half-way, more or less, through the body of the felly, as shown. This thimble receives the upper half of the spoke-tenon *f*, the lower half of same resting in the wood of the felly, and being tightened therein by a wedge, *g*. This thimble is cast light and thin, and being embedded about the same depth as the side spurs, it forms a central bearing, and holds the socket in position against rolling or twisting, so that the side strain of the spokes cannot unseat and detach the spurs from their hold in the wood. Without the use of this thimble the socket is liable to turn sidewise under the great leverage, thus loosening the spurs on one side and embedding them deeper on the other. My improvement obviates all difficulty of this kind. Another advantage results from carrying the thimble but part way through the wood. In such case it gives a bearing to the upper end of the tenon, so that no side strain can split the felly at that point, while the lower end of the tenon comes in direct contact with the wood, in which it can be wedged therein, and prevent the looseness which would occur between the thimble and the wood if carried all the way down.

Having thus described my invention, I do not claim a spoke-socket having a tubular portion extending through the felly.

What I claim is—

A spoke-socket constructed with side spurs for striking into the wood, and with a tube for extending partly through the felly to sustain the spurs, substantially as shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

SAMUEL MITCHELL.

Witnesses:

R. F. OSGOOD,
E. B. SCOTT.