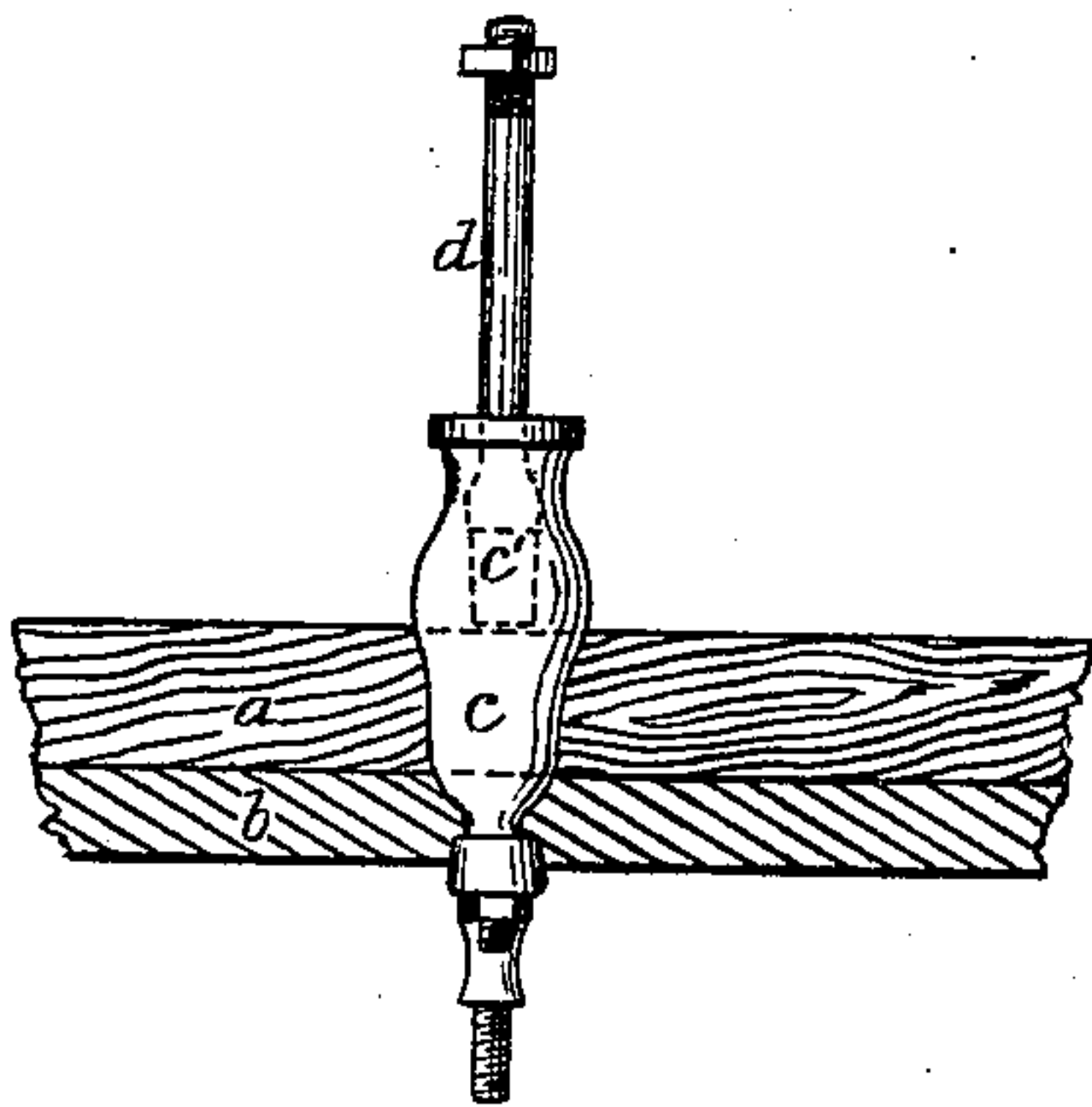


*J. Strawn,
King Bolt.*

No. 76,546.

Patented April 7, 1868.



WITNESSES

*C. F. Brown,
H. W. Beadle*

INVENTOR

*J. Strawn by
Geo. E. Brown
Atty.*

United States Patent Office.

JAMES STRAWN, OF PLYMOUTH, MICHIGAN.

Letters Patent No. 76,546, dated April 7, 1868.

IMPROVEMENT IN CARRIAGE-BOLT.

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, JAMES STRAWN, of Plymouth, in the county of Wayne, and State of Michigan have invented a new and improved Carriage-Bolt; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing, which is a side elevation.

This invention consists in the application of a bolt to a clip surrounding a carriage-axle, which bolt is intended for insertion in a carriage-rocker for the purpose of connecting the carriage with the axle, as will hereinafter more fully appear.

To enable others skilled in the arts to make and use my invention, I will proceed to describe its construction and operation.

a represents a section of a wooden axle, in connection with which is the usual iron axle, *b*. *c* represents an iron clip surrounding the axles *a* and *b*, which clip is constructed in the usual manner. In its upper part is a cavity, *c'*, extending through the same, in which is placed a bolt, *d*, which may have an enlarged head to retain it in the cavity, or may be of tapering form, the larger end being downward, in either case the form of the cavity being made correspondent to that of the bolt.

This bolt is designed to occupy the usual orifice in the rocker of a carriage, and thus effect a connection between the body and axle-tree. The bolt is not rigidly attached to the clip, but is loose therein, so that if by any accident the bolt becomes broken, it may be replaced on simply removing the clip from the axle. In this respect my invention is an improvement on any bolt rigidly attached to the clip, an arrangement of which sort, I am aware, has been patented. Instead of the clip *c*, a band might be used.

I am also aware of the patent of E. A. Keasy, October 1, 1867, for a king-bolt, which forms a swivel-joint with the clip, but I consider my invention an improvement on this, for the reason that that part of Keasy's bolt which is within the clip cannot be removed in case of fracture of the upper portion, as it is securely fastened to the clip by the shoulder-piece on one side and the rivet on the other.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the clip *c* with the bolt *d*, the latter being loose in the former, as and for the purpose described.

JAMES STRAWN.

Witnesses:

JOHN W. ANDERSON,

WM. D. DEAN.