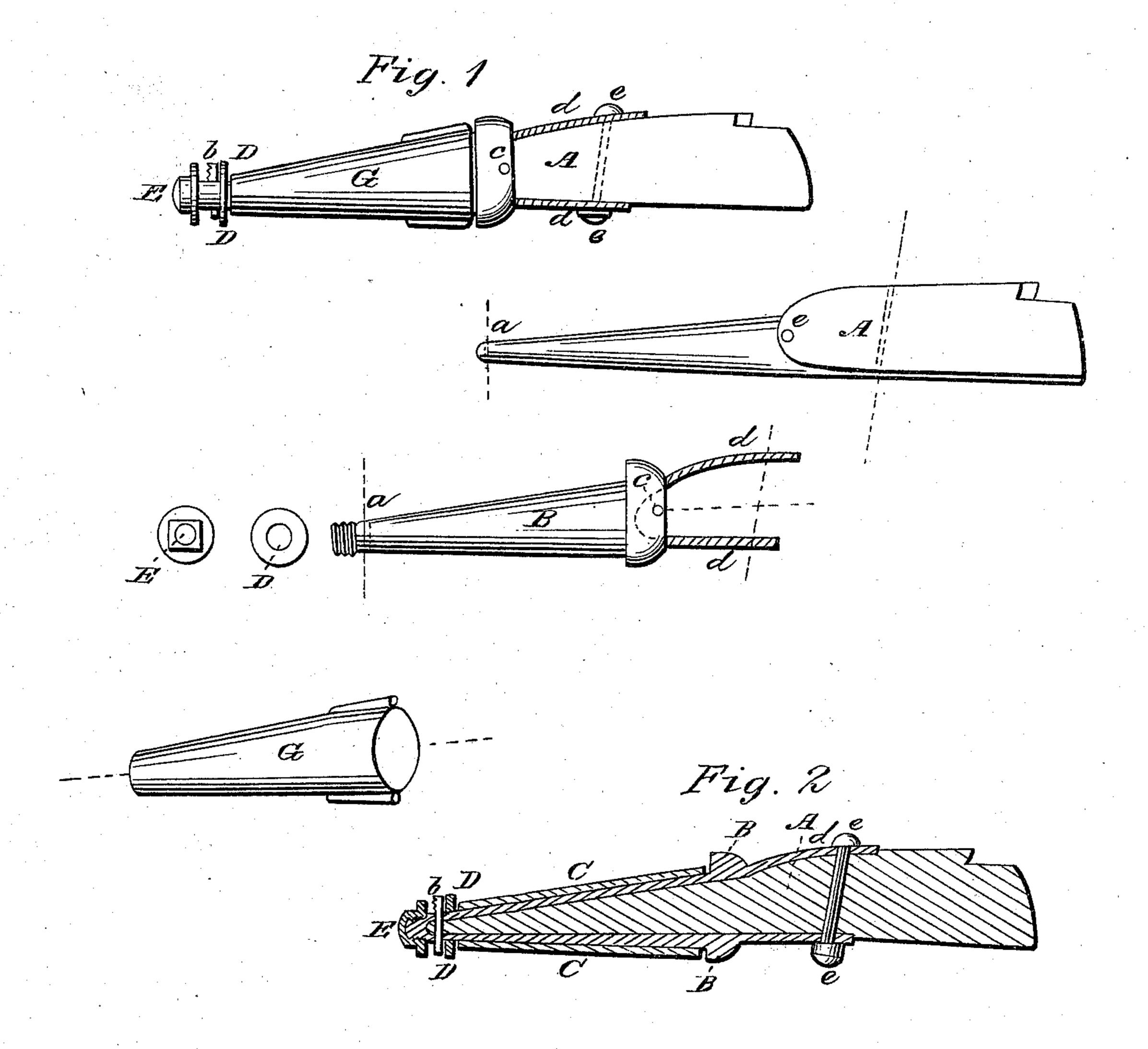
J. C. JOHNSON.

Axle Skein.

No. 97,408.

Patented Nov. 30, 1869.



Witnesses: John Charles Ether

Inventor: John C. Johnson

Anited States Patent Office.

JOHN C. JOHNSON, OF GOLCONDA, ILLINOIS.

Letters Patent No. 97,408, dated November 30, 1869

IMPROVEMENT IN WAGON-SKEINS.

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, John C. Johnson, of Golconda, in the county of Pope, in the State of Illinois, have invented a new and improved Wagon-Skein; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists of a skein, marked B, made of wrought-iron or steel, of one-fourth to three-eighths of an inch in thickness, which, from the end, (nut E,) for the distance of about two inches, is solid; from thence to the hurter-band or collar C is open or hollow.

The wooden axle-tree is driven into the skein until the end shall have passed the hole for the bolt a, which passes through both the wood and the skein.

The hurter-band, or collar c, is then shrunk on over the skein, closing it around the axle-tree.

The skein also extends back of the hurter-band, or

collar, on the top and bottom of the axle-tree, and is fastened with an iron bolt, d, through the axle-tree.

The box C of the wheel is secured by an iron ring, D, fastened by the bolt b, passing through the hole a, and the whole secured by the nut E, screwed on the end of the skein.

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

The combination and arrangement of a wroughtiron or steel skein, B, with a wooden axle-tree, A, secured by an iron hurter-band or collar, c, and the iron
bolt d, with the combination of the nut E with the
bolt b passing through the box C, secured by the iron
ring D, and the solid end of the axle-tree A, in the
manner and for the purposes herein specified.

JOHN C. JOHNSON.

Witnesses:

JOHN M. RAUM, J. B. PERRY.