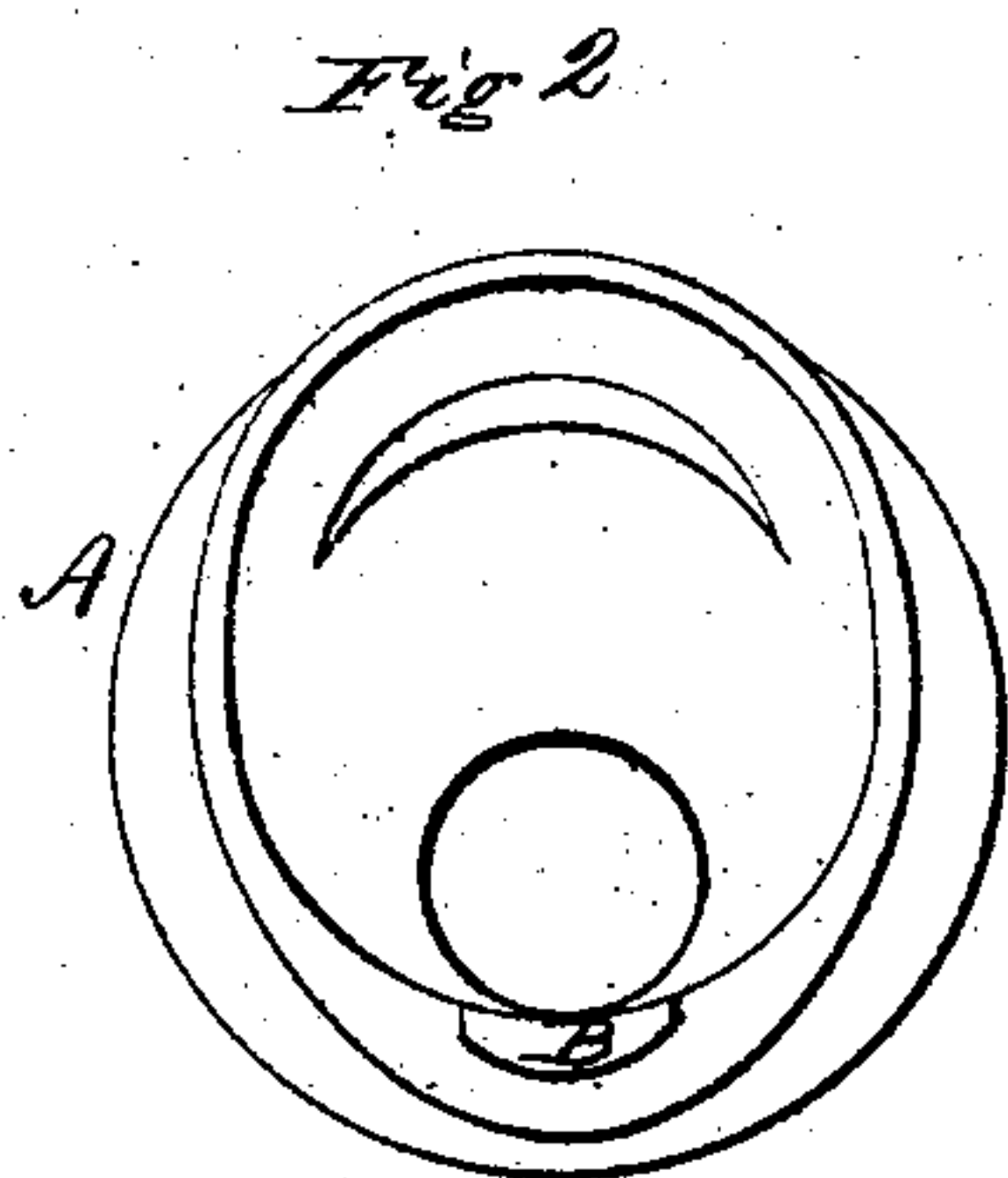
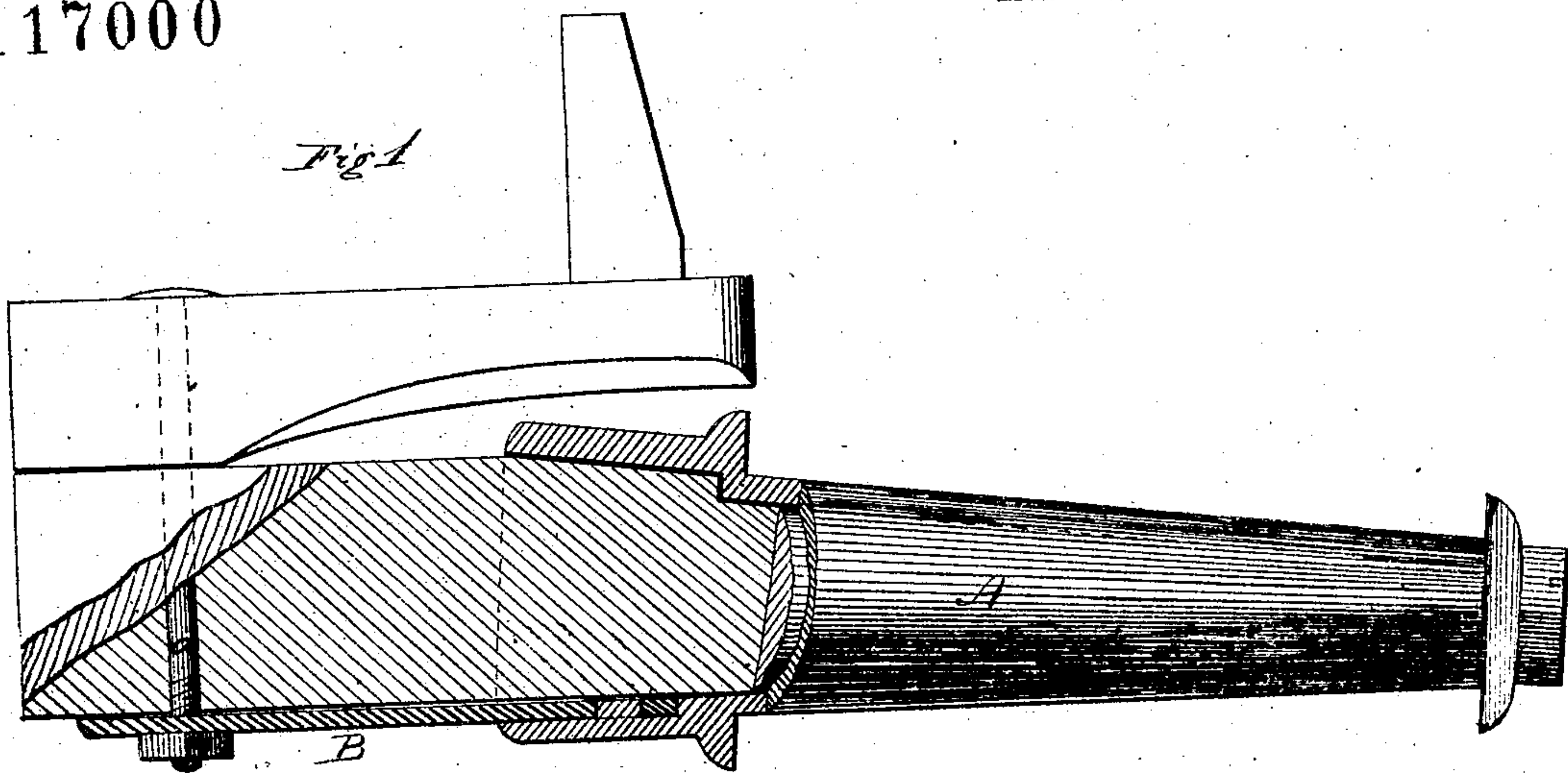


**A.L.SHEARS.**

*Thimble Skein.*

PATENTED JUL 11 1871

117000



*Witnesses*

*Harry King.*  
*Phil. F. Dodge*

*Inventor.*

*A. L. Shears.*  
*by Dodge & Munn.*  
*Atty.*

# UNITED STATES PATENT OFFICE.

ALBERT L. SHEARS, OF ST. LOUIS, MICHIGAN, ASSIGNOR TO HIMSELF, TIMOTHY HUTCHINGS, AND JOHN L. SANDELL, OF SAME PLACE.

## IMPROVEMENT IN THIMBLE-SKEINS FOR WAGONS.

Specification forming part of Letters Patent No. 117,000, dated July 11, 1871.

*To all whom it may concern:*

Be it known that I, ALBERT L. SHEARS, of St. Louis, in the county of Gratiot and State of Michigan, have invented certain Improvements in Thimble-Skeins for Wagons, of which the following is a specification, reference being had to the accompanying drawing.

My invention consists in a cast-iron thimble-skein having a wrought-iron tang or sleeve at its inner end for securing it to the axle, the skein being cast fast to the tang.

Figure 1 is a side view of my skein in position on an axle, a portion being broken away to show the union of the tang and body of the skein; and Fig. 2 is an inside end view of my improved skein.

In the drawing, A represents the body of the skein, constructed in the usual form to fit over the end of the axle, and B the tang at the inner end of the skein to receive the bolt *a* for holding the skein in place. In constructing my skein I first provide the wrought-iron tang, and then form the mold for the skein, place the tang therein, and pour the molten metal in upon it. The cast metal surrounds and firmly unites with the end of the tang, which is thus secured as firmly and rigidly to the body of the skein as if the whole were in one piece. The end of the tang which is to be united to the skein should be made

of such form that the cast metal will hold it firmly, so that it will not be liable to work loose. In the drawing the tang is represented as having a hole in its inner end through which the cast metal passes, but it is obvious that notching the sides or enlarging the end of the tang will accomplish the same end.

It is obvious that the form of the skein and the tang may be varied, as circumstances require, without departing from the spirit of my invention; and also that, when necessary, two or more tangs may be used on one skein.

In this manner I produce a thimble-skein having a hard stiff body to receive the wear, and a strong cast-iron tang, which is not liable to be broken, for securing it to the axle. The skein thus constructed combines the advantages of both the ordinary cast and sheet-metal skeins, without the disadvantages of either.

Having thus described my invention, what I claim is—

A cast-iron thimble-skein for wagons, having a wrought-iron tang, B, secured thereto, substantially as described.

ALBERT L. SHEARS.

Witnesses:

C. B. KRESS,  
S. W. AMBLER.