

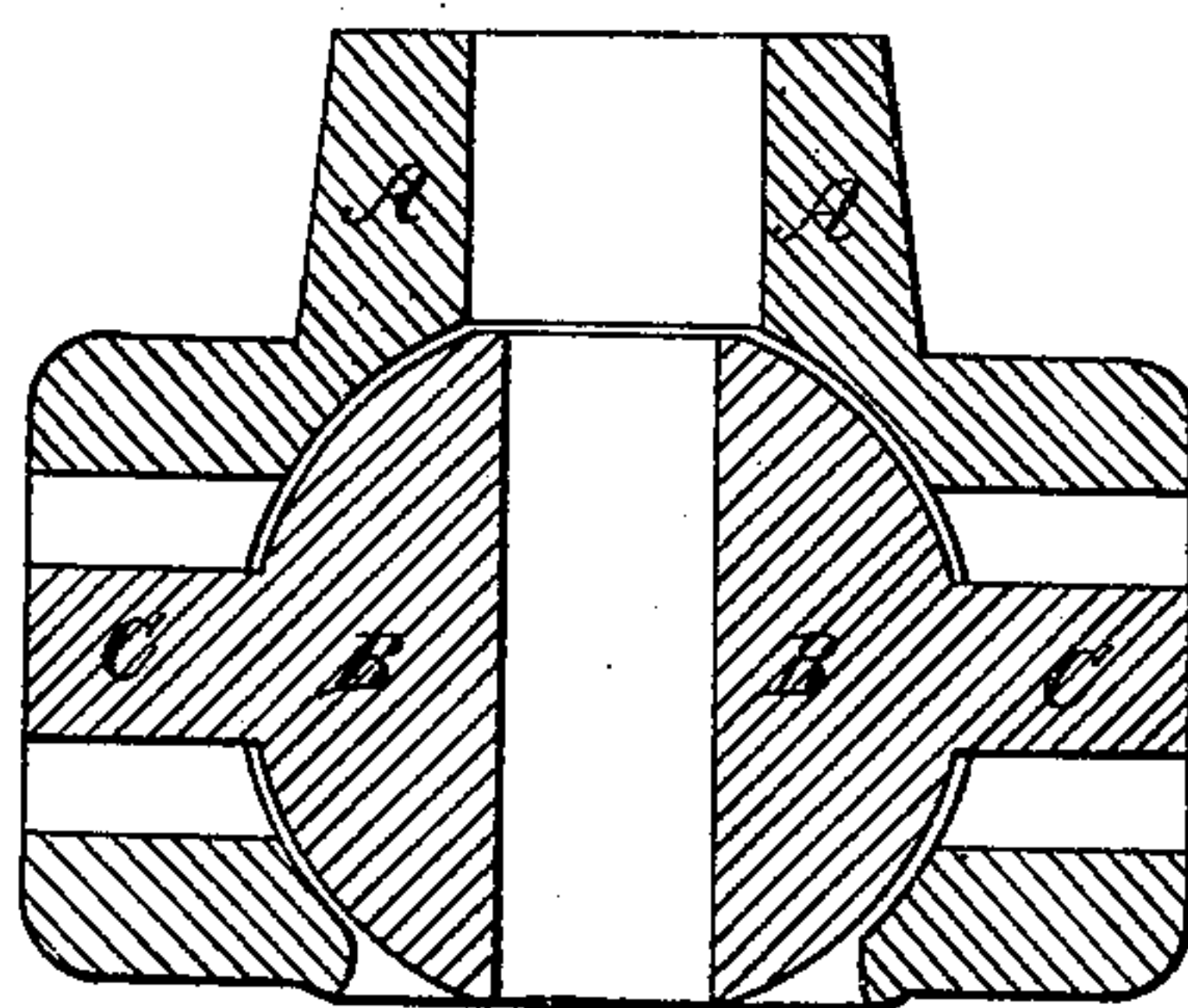
*A. J. Langworthy.*

*Shaft Coupling.*

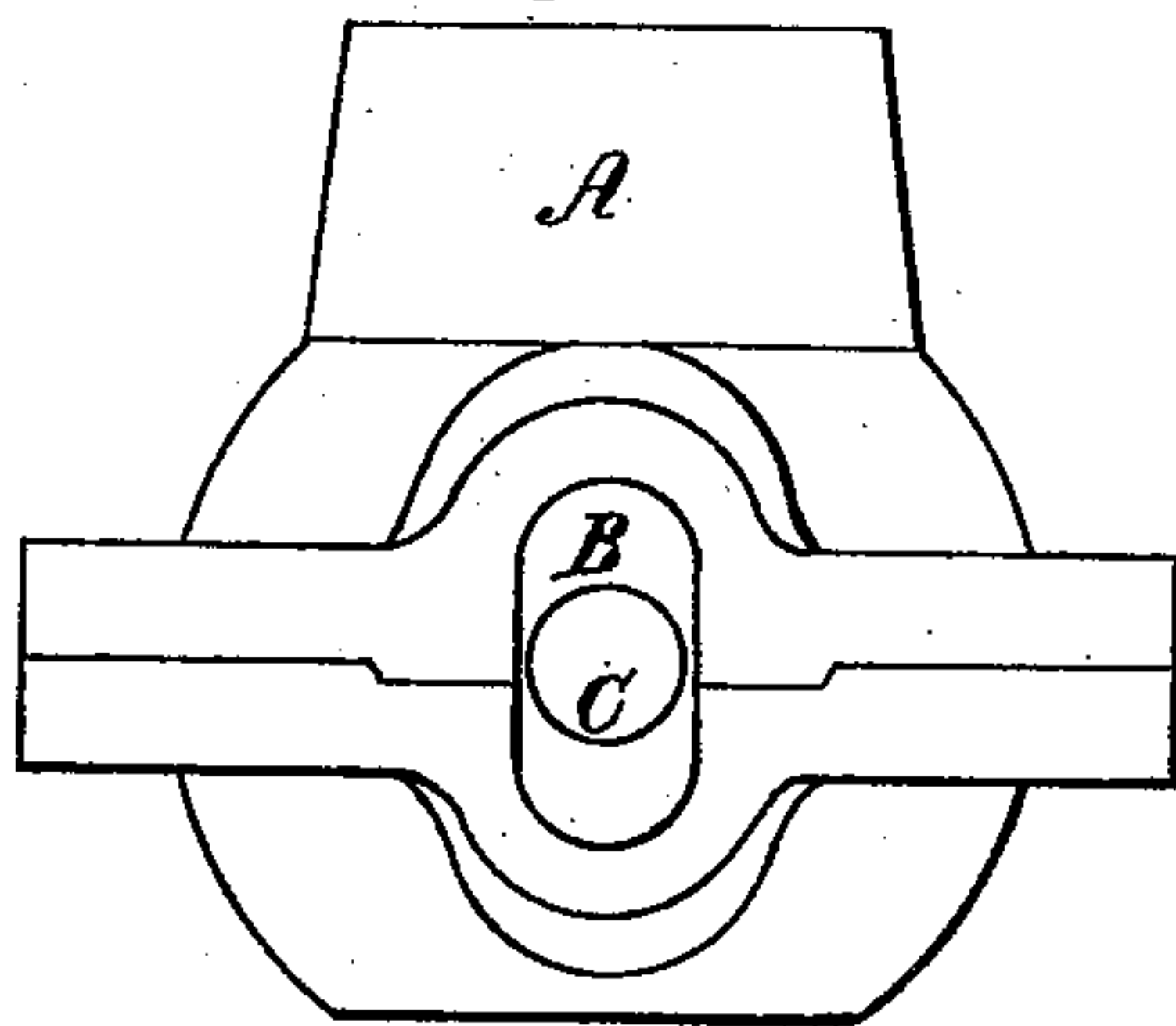
*Nº 90,757.*

*Patented Jan. 1, 1869.*

*Fig. 1*



*Fig. 2.*



*Witnesses;*  
*H. S. Look*  
*Gerran Tietz*

*Inventor;*  
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*J. B. Smith*

# UNITED STATES PATENT OFFICE.

A. J. LANGWORTHY, OF MILWAUKEE, WISCONSIN.

## IMPROVED SHAFT-COUPLING.

Specification forming part of Letters Patent No. 90,757, dated June 1, 1869.

*To all whom it may concern:*

Be it known that I, A. J. LANGWORTHY, of the city and county of Milwaukee, and State of Wisconsin, have invented a new and useful Improvement in Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional view of my invention, and Fig. 2 a side view.

Similar letters of reference in each of the figures indicate corresponding parts.

The object of my invention is to produce a coupling that shall be free from those dangerous excrescences usual; that shall be as safe as any part of the shaft to which they are attached, and yet be all that is required.

A is the outside shell, with four openings, one of them for the end of a shaft to be firmly fixed in, and the one opposite longer for the end of a shaft to pass through into the ball in the center; B, a ball which occupies the cen-

ter of the shell A, with a square hole through it, with two trunnions, C C, which project out into the openings in the sides of the shell A. The shell A is made of two pieces and bolted together.

This coupling is used by putting permanently one end of a shaft into the hole in the projecting end of the shell, which has a square hole which just fits the shaft. The hole in the other end of the shell A is much larger, through which is put the end of another shaft into the ball B. This hole, being larger than the end of the shaft, will give considerable play, and the holes for the trunnions C C being larger than the trunnions one way, so that the shaft can have play up and down and sidewise.

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

The coupling A B C, constructed substantially as described.

A. J. LANGWORTHY.

Witnesses:

J. B. SMITH,  
T. C. GURNEY.