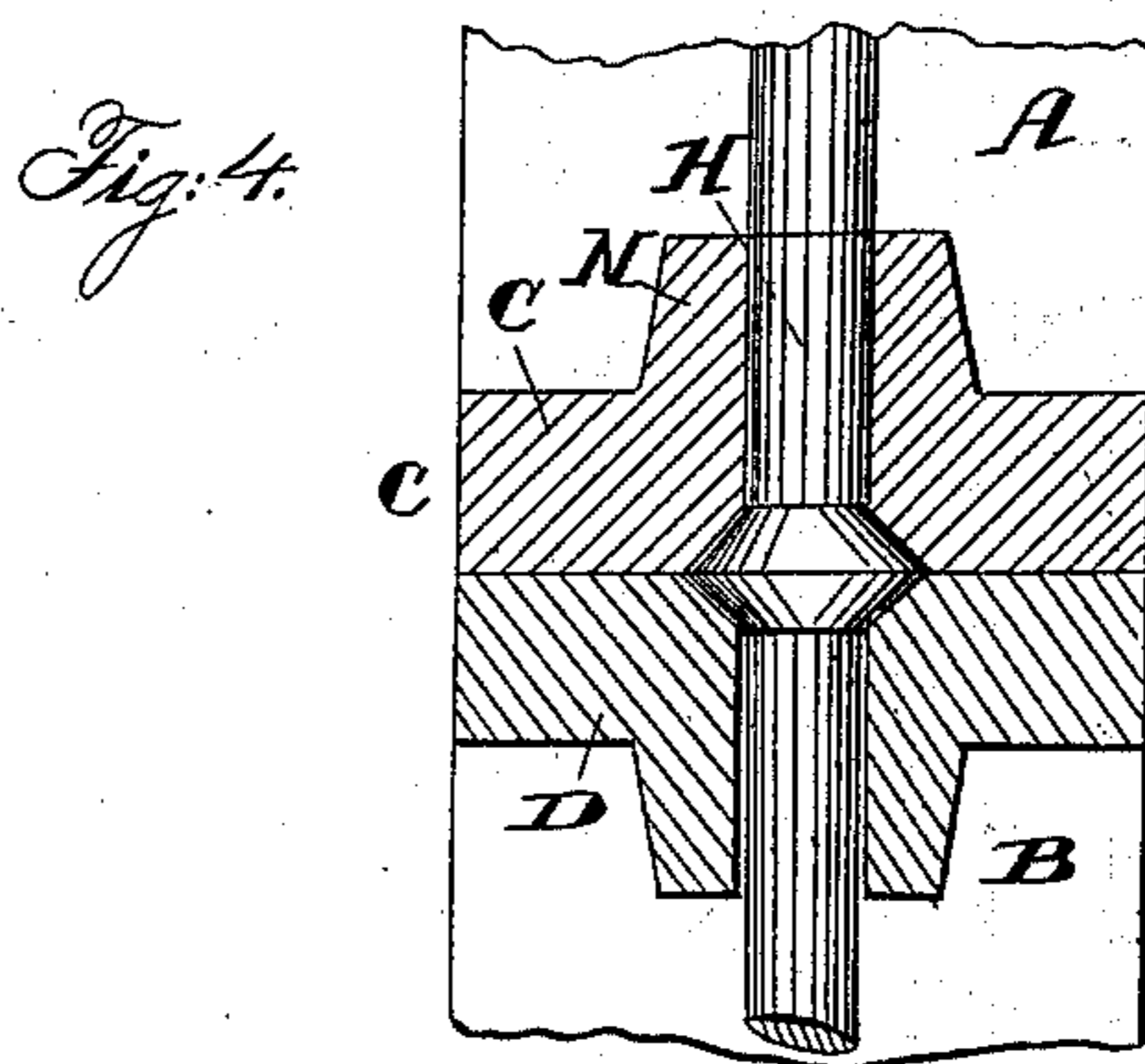
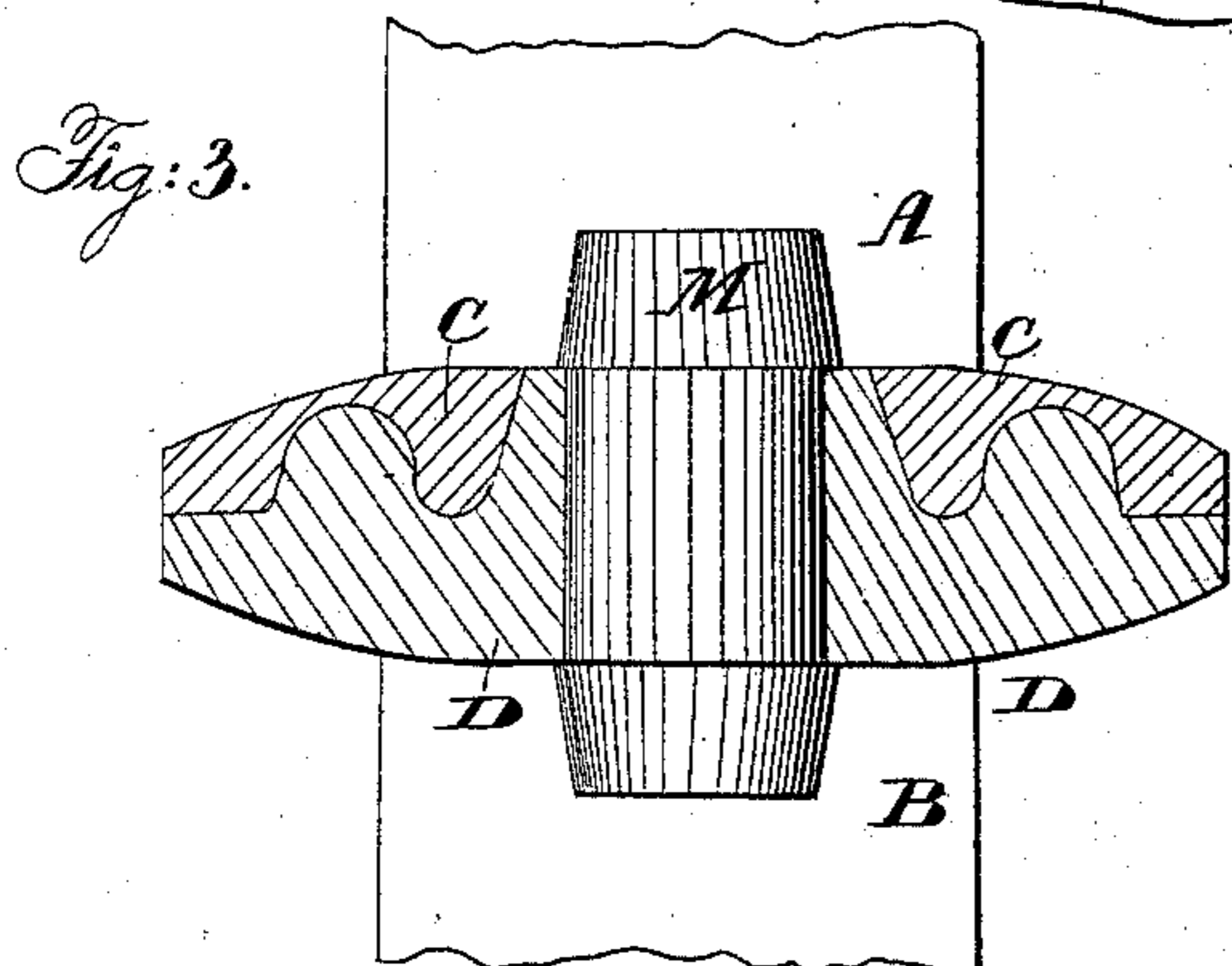
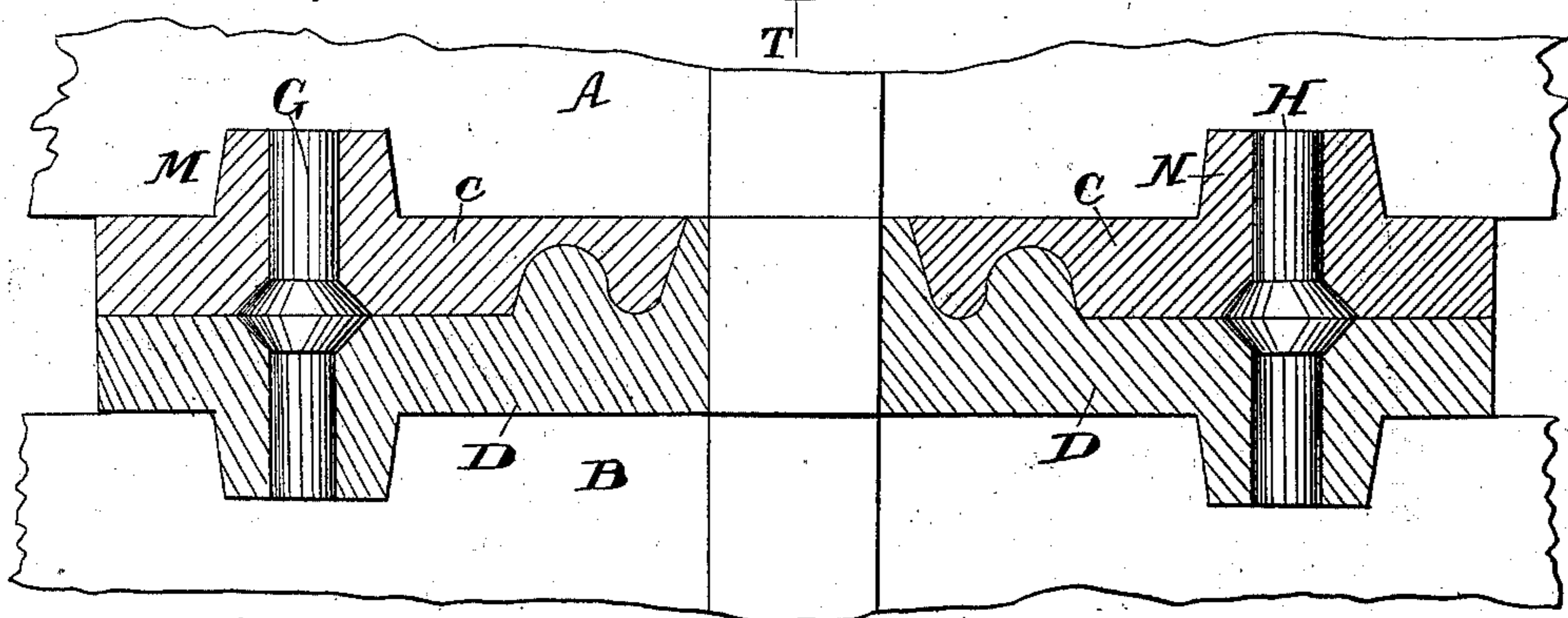
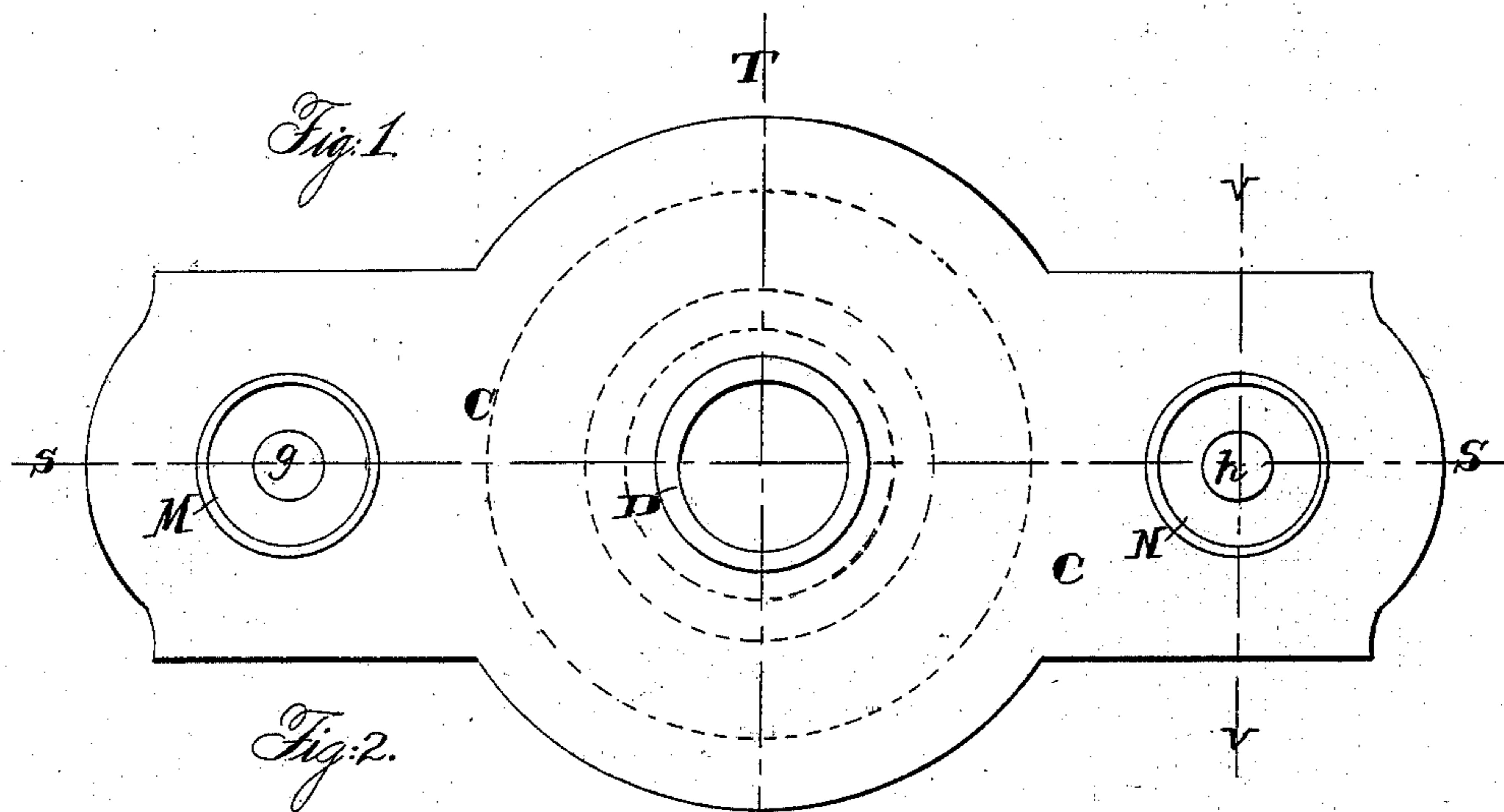


O. E. MILES.

Wagon-Bolster.

No 59 922.

Patented Nov 20, 1866.



Witnesses

D. W. Shelton

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# United States Patent Office.

## IMPROVEMENT IN BOLSTER-PLATES FOR WHEELED VEHICLES.

OREN E. MILES, OF AURORA, ILLINOIS, ASSIGNOR TO HIMSELF AND  
WILLIAM B. SIGLEY, OF SAME PLACE.

*Letters Patent No. 59,922, dated November 20, 1866.*

### SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, O. E. MILES, of Aurora, in the county of Kane, and State of Illinois, have invented a certain new and useful Improvement in Bolster-Plates for Carriages; and I do hereby declare that the following is a full and exact description thereof:

Bolster-plates, as ordinarily constructed, provide very perfectly for the maintaining of the king-bolt in the proper position relatively to themselves, but are liable themselves to become loose in their connection to the bolster. The bolts by which they are fastened are insufficient to prevent their working laterally. My invention is intended to provide against this difficulty, and consists in producing bosses or projections around the bolt-holes near each end of the plate, which shall project into corresponding recesses in the bolster.

Bolster-plates have been before made having a boss around the central hole through which the king-bolt passes, but I am not aware that any such have ever been made at or near the end holes, I mean the holes through which the holding-bolts pass, and believe the latter to be peculiar to my invention. The objection to the employment of such a boss around the central hole is, first, that by the necessary removal of the wood for its reception, the bolster is too much weakened at that point, it necessarily involving both the removal of the large quantity of material to allow the passage of the king-bolt, and the removal of the additional quantity to allow the entrance of such boss. Furthermore, a boss at such point cannot resist the torsional strain, by which I mean the tendency of the bolster-plate to twist around on the bolster when the wagon is turned under a heavy load. The bosses, however, arranged as in my invention, are able to resist the torsional strain with great efficiency, and the excavation of the holes for their reception is at the points where only the small holes for the holding-bolts are made, and the weakening is not so great as to be objectionable. The bolster is still stronger at that point than where the king-bolt passes.

I will now proceed to describe what I consider the best means of carrying out my invention. The accompanying drawings form a part of this specification.

Figure 1 is a plan view.

Figure 2 is a longitudinal section on the line S S, in fig. 1.

Figure 3 is a cross-section, on the line T T, in fig. 1.

Figure 4 is a cross-section on the line V V, in fig. 1.

The drawings represent the novel parts, with so much of the other parts as is necessary to show their relation thereto. They represent two corresponding plates fitted together in the ordinary manner. The uppermost plate is bolted to the under side of the bolster, and the lowermost on the upper face of the washer which turns below.

Similar letters of reference indicate like parts in all the figures.

A is the bolster, and B the washer. C is the bolster-plate; D the corresponding plate bolted upon the washer, and E the king-bolt. G and H are holding-bolts, with conical heads, adapted to fit into corresponding counter-sunk holes, *g h*, through the bolster-plate near its ends. All these parts, so far as yet described, were known previous to my invention. M and N are slightly tapering bosses, cast or otherwise formed in one with the bolster-plate. They encircle the bolts G and H, and are extended a little way, (say one inch, more or less,) into the wood of the bolster. The boss, M, encircles the bolt G, and the boss, N, encircles the bolt H. Corresponding bosses project downward into the washer, B, from the lower plate or washer-plate, D. My invention applies to both the bolster-plate proper, and to the washer-plate as described. I use the term bolster-plate, sometimes, to indicate either or both these plates. My bolster-plates may be conveniently made either in cast or wrought iron, by the ordinary approved means, using swedges to form them of wrought iron, and suitable patterns and cores to produce the bosses and the bolt holes, when the same are made of cast iron. I do not confine myself to the construction of projections in the form of bosses centrally encircling the bolts, G and H; they may be placed excentrically thereto, or entirely on one side, provided the holes to receive them are correspondingly placed.

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

The projections M N around the bolt holes, near the ends of the plates, and adapted to stand in corresponding holes in the wood work, and resist both the lateral and the torsional strains, as and for the purpose herein set forth.

OREN E. MILES.

Witnesses:

H. F. VAN NORTWICK,  
ALBERT CLARK.