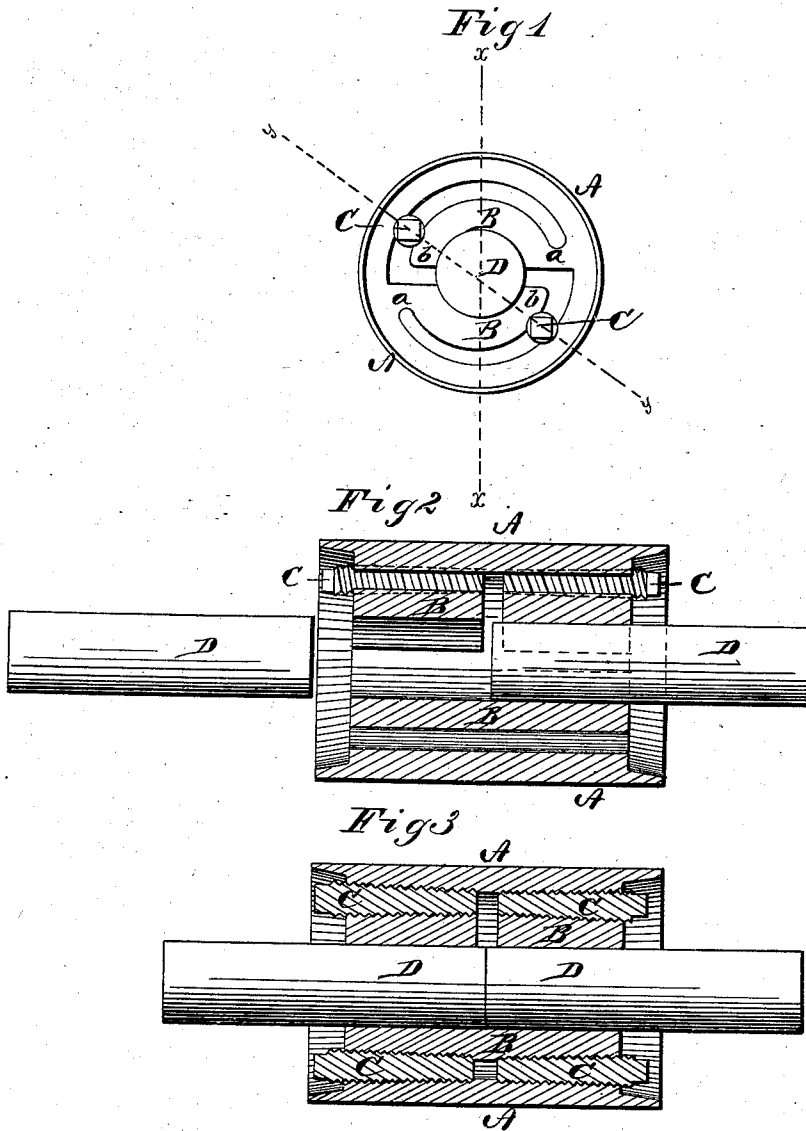


R. WETHERILL.
Shaft-Couplings.

No. 147,720.

Patented Feb. 17, 1874.



WITNESSES.
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UNITED STATES PATENT OFFICE.

ROBERT WETHERILL, OF CHESTER, PENNSYLVANIA.

IMPROVEMENT IN SHAFT-COUPPLINGS.

Specification forming part of Letters Patent No. **147,720**, dated February 17, 1874; application filed January 23, 1874.

To all whom it may concern:

Be it known that I, ROBT. WETHERILL, of Chester, in the county of Delaware and in the State of Pennsylvania, have invented certain new and useful Improvements in Coupling for Shafting; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in an outer cylindrical shell connected to or formed with two interior semi-cylindrical shells at, or nearly at, opposite sides, through or between which latter the pieces to be coupled are inserted and held by means of tapering screws, bolts, or wedges, one of said interior shells being divided transversely at or near the center, so that one may set independent of the other, and each piece to be coupled is clamped at four different points, all as herein-after more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is an end view of my coupling. Fig. 2 is a longitudinal section of the same through the line *x x*, Fig. 1; and Fig. 3 is a similar section through the line *y y*, Fig. 1.

A represents the exterior cylindrical shell or body of the coupling, and B the inner semi-cylindrical shells. The shells B B are formed with, or attached to, the inside of the exterior shell A at the points *a a*, which are opposite each other, as shown in Fig. 1. Each of the interior shells B is firm and solid at *a*, while the other side, *b*, is capable of being forced inward by means of a tapering screw, bolt, or wedge, C, and when said screw, bolt, or wedge is removed it springs outward again. D D represent the ends of the shafts or other pieces to be coupled, which are inserted from opposite ends in the coupling, and then the

screws, bolts, or wedges C C, two at each end, are tightened, so that each piece D is clamped or held at four different places perfectly true, whether they are larger or smaller than the mandrel on which the coupling has been turned. One of the inner shells B is divided transversely in the center, so that either piece D may be loosened and removed without interfering with the other.

I am aware that a coupling has been used in which are two interior jaws surrounding or forming about one-half of the aperture through which the shaft is passed, the other half forming a solid bearing. In this case the screws are placed close together on the same side at or near the adjoining outer ends of the jaws. This coupling has been found objectionable, for the reason that it clamps only in three places, and unless the pieces to be coupled were of the same size as the mandrel on which the coupling was turned, it could not be coupled true, but be eccentric in the coupling. This difficulty is entirely obviated by my invention, for, in this case, the fixed points *a a* of the coupling are opposite each other, and the tightening screws, bolts, or wedges are also opposite each other. By this means the shafts to be coupled will be centered perfectly true, of whatever size they may be.

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

A shaft-coupling, consisting of the exterior cylindrical shell A, and the interior semi-cylindrical shells B B, joined to the outer shell on opposite sides, and operated by tapering screws, bolts or wedges, C C, on opposite sides, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of January, 1874.

ROBT. WETHERILL.

Witnesses:

A. N. MAER,
J. M. MASON.