

W. E. London,
Shaft Coupling.

N^o 70,869.

Patented Nov. 12, 1867.

Fig. 1.

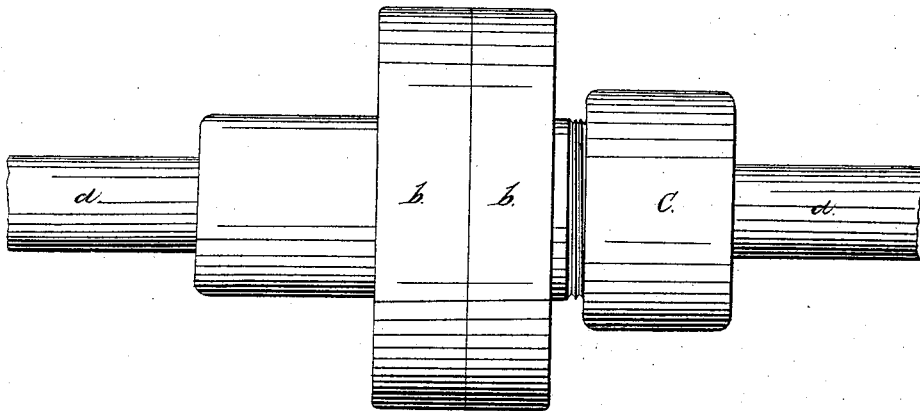


Fig. 2.

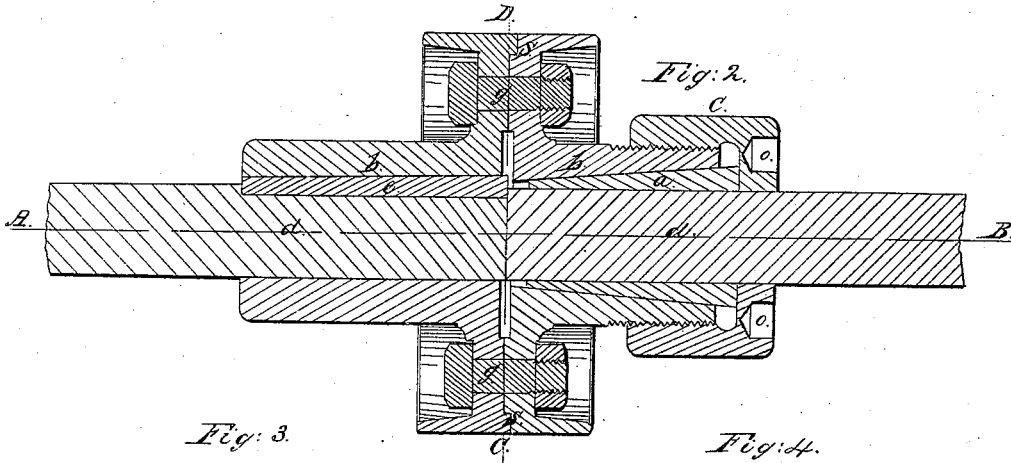


Fig. 3.

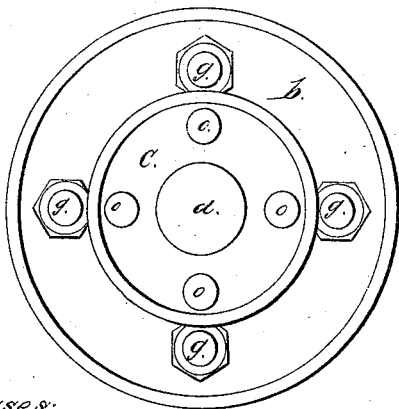
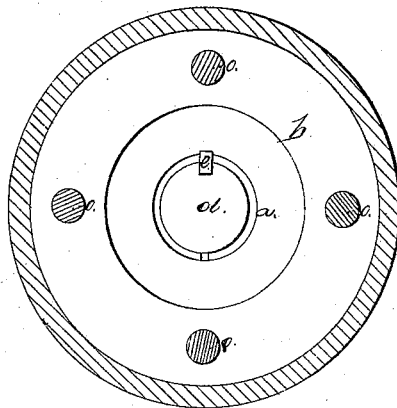


Fig. 4.



Witnesses:
Charles Herrmann,
W. S. Kelley.

Inventor
W. E. London.

United States Patent Office.

WILLIAM E. LONDON, OF CINCINNATI, OHIO, ASSIGNOR TO J. A. FAY & CO., OF SAME PLACE.

Letters Patent No. 70,869, dated November 12, 1867.

IMPROVEMENT IN SHAFT-COUPLING.

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, WILLIAM E. LONDON, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a new and useful Improvement in Couplings for Shafting; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of a coupling with my improvement.

Figure 2 is a longitudinal section through the same.

Figure 3 an end view of fig. 1, and

Figure 4 a cross-section through the centre.

Similar letters of reference on the different figures indicate corresponding parts.

The nature of this invention consists in providing a compressing device in one of the halves of a common plate-coupling, so that it can be readily removed from the shaft for any necessary purpose, while the other part will remain keyed firmly to its place; and in the mechanism for accomplishing this result, as illustrated in the drawings and described in this specification.

It often becomes necessary to remove couplings from shafting to put on or remove pulleys, and for other purposes. When couplings are firmly keyed on it, is difficult to remove them, and incurs a liability of breaking them in driving. The fit on the shaft is also destroyed by a few removals, and the faces are liable to run out of true, causing bends in the shaft; and the couplings, too, often come loose, with other difficulties familiar to mechanics. In couplings where the shaft is connected by compressing-sleeves in both ends of the coupling, it requires the most perfect workmanship to insure a true-running shaft, while in most cases the stiffening effect of the large flanges is lost in couplings of that class. To meet these wants, and obviate the objections referred to, is the object of the invention herein described.

To enable others skilled in the art to make and use my invention, I will proceed to describe the manner of constructing and operating the same with the aid of the drawings.

One-half of the coupling *b'* is constructed in the common form, and keyed firmly upon the shaft, provided with a shallow socket, *S S*, or close-fitting bolts, to keep the faces true in the usual manner. The other half, *b*, is provided with the arrangement for clamping the shaft, so as to be readily removed and attached. The hub is bored out in a taper form, as shown in fig. 2, enough larger than the shaft to receive the conical sleeve *A*, and is threaded on its exterior to receive the nut *C*. The cone *A* is split on one side to allow it to close concentrically upon the shaft, when pressed into the hub by means of nut *C*, which is revolved by means of a wrench fitting into holes *o o*.

To apply the coupling, the part *b'* is first keyed on with a strong key, *e*, fig. 2, and faced off perfectly true in a lathe, and is allowed to remain upon the shaft at all times, each piece of shafting having one of the solid and one of the detachable halves, so that pulleys and fittings can be put on from the end with adjustable clamping-hub, as hereinbefore mentioned. The other half *b* is bolted firmly to part *b'*, the shaft inserted and fastened by means of the conical sleeve *A* and nut *C*, as shown.

Having thus described the nature of my invention, the manner of constructing and operating the same, what I regard as new, and desire to secure by Letters Patent, is—

I claim a shaft-coupling, constructed as herein specified, to wit: one-half keyed on firmly in the usual manner, the other half provided with an adjustable clamping device, as herein specified, and for the purposes described.

W. E. LONDON.

Witnesses:

W. S. KELLEY,

G. V. ORTON.