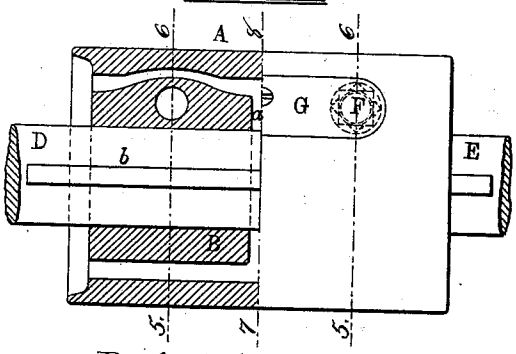
J. WALKER.
Shaft-Coupling.

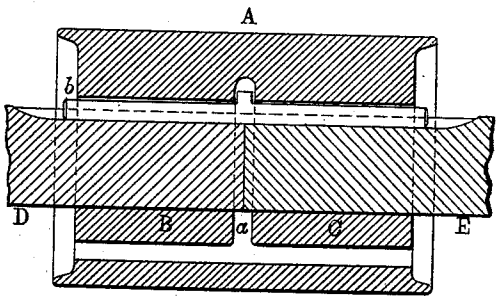
No. 221,128. Patented Oct. 28, 1879.

—FIG. I—



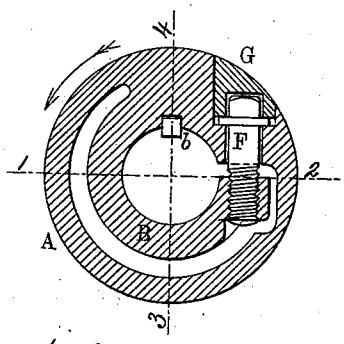
Part section through 1.2.

—FIG. II—



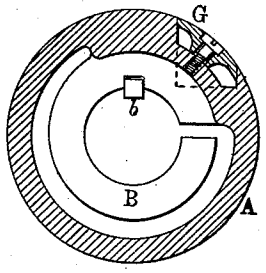
Section through 3.4.

—FIG. III—



Section through 5.6.

—FIG. IV—



Section through 7.8.

—WITNESSES—

Thos. Connally
Leo. Bacon

—INVENTOR—

John Walker
by G. H. W. Thomas
Attys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN WALKER, OF WOODBERRY, MARYLAND.

IMPROVEMENT IN SHAFT-COUPLINGS.

Specification forming part of Letters Patent No. **221,128**, dated October 28, 1879; application filed March 27, 1879.

To all whom it may concern:

Be it known that I, JOHN WALKER, of Woodberry, in the county of Baltimore and State of Maryland, have invented an Improved Shaft-Coupling, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to a shaft-coupling in which the ends of the shafts are independently clamped in the circumferential contraction of two clamping devices forming a part of the coupling, as will hereinafter fully appear.

In the further description of the improved coupling which follows, reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a partly sectional longitudinal view of the improved coupling. Fig. 2 is a longitudinal section of the same as seen from a different point. Figs. 3 and 4 are transverse sections of the invention.

Similar letters of reference indicate similar parts in all the views.

The coupling proper is in one piece, but consists, essentially, of three sections or parts—viz., an outer casing, A, preferably of cylindrical form, and two clamps, which, in the drawings, are represented by B and C.

The said clamps may be described as open rings, secured to, or projecting from, the inner circumference of the casing A, and separated longitudinally by an annular space, which is designated by *a*.

The shafts to be connected are denoted by D and E.

The clamps are drawn tightly in contact with the shafts by means of bolts F, which pass loosely through the fixed portions of the clamps, and are screwed into the free ends of the same.

The coupling is preferably provided with the usual feather, *b*, extending its entire length, to assist in preventing the turning of the shafts independently thereof; but when such feather is used care must be taken to have its seat of greater depth than that of the feather, so as to not let the said feather interfere with the proper closing of the clamps around the shafts.

A cap, G, covers the heads of the bolts F, and establishes the continuity of the outer circumference of the shell A.

In case the driving-shaft is made to revolve in the direction indicated by the arrow, it will be seen that the strain upon the driving-clamp has a tendency to close the same, while in the other clamp the tendency is to open or separate it.

This inequality in action can, however, be obviated by connecting or attaching the two clamps at opposite sides of any radial line on the coupling, and placing the bolts at different sides to correspond with them.

The advantages of my improved coupling may be summed up as follows: The shafts are clamped separately and without respect to any slight difference in their sizes. The clamps in the compressing operation bear on the entire circumference of the shafts, except the parts thereof where the break in the circumferential continuity of the clamps is located, or where the free and fixed ends of the same approach each other. The outer casing being merely a means for communicating motion between the two clamps and only attached to a limited portion of the outer circumference of the said clamps, an elasticity is established in the device which is beneficial when either or both of the connected shafts are bent, or not revolving on a common axis.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

A shaft-coupling consisting of an outer cylindrical continuous shell, to the inner surface of which are attached two independently operating open-ring clamps, each one of which has a fixed and a free end and a bolt which passes loosely through the fixed end and into the free end, whereby in the operation of the said bolt the said free end of the clamp is drawn around its shaft toward the fixed end thereof, substantially as herein specified.

In testimony whereof I have hereunto subscribed my name this 24th day of March, A. D. 1879.

JOHN WALKER.

Witnesses:
WM. T. HOWARD,
THOS. MURDOCH.