

J. HUTCHISON.
COMPRESSION COUPLING.
APPLICATION FILED FEB. 12, 1903.

NO MODEL.

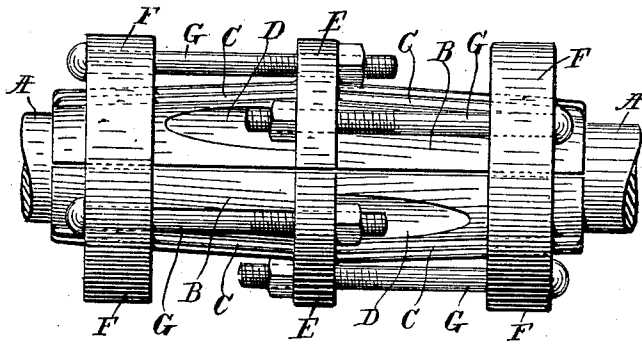


Fig. 1.

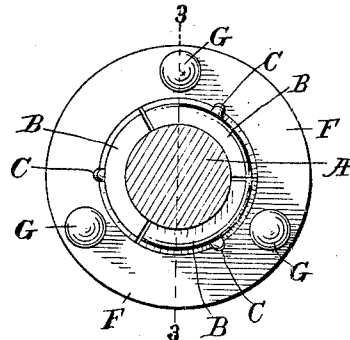


Fig. 2.

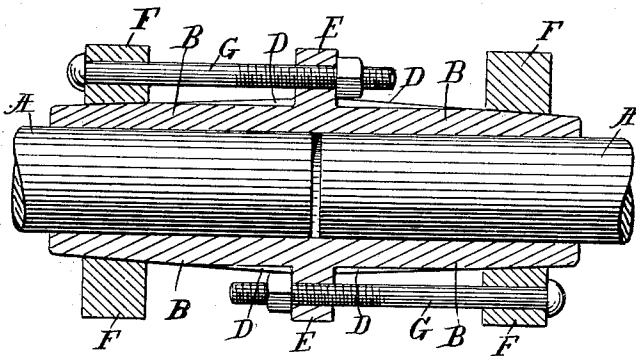


Fig. 3.

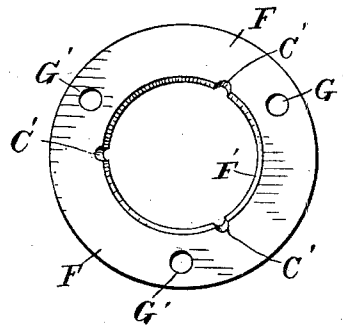


Fig. 4.

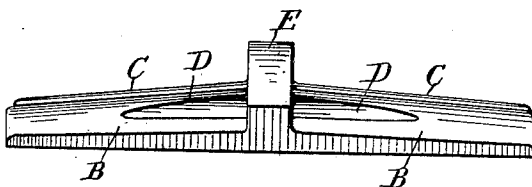


Fig. 5.

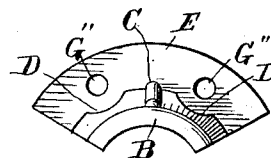


Fig. 6.

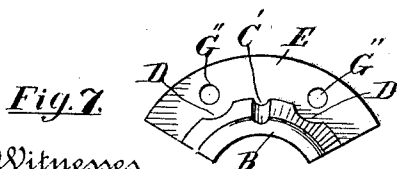


Fig. 7.

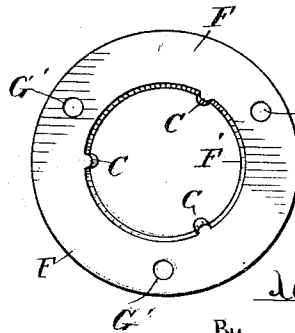


Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN HUTCHISON, OF JACKSON, MICHIGAN.

COMPRESSION-COUPLING.

SPECIFICATION forming part of Letters Patent No. 738,809, dated September 15, 1903.

Application filed February 12, 1903. Serial No. 143,027. (No model.)

To all whom it may concern:

Be it known that I, JOHN HUTCHISON, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Compression-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in compression-couplings for shafts; and its object is to provide a simple and effective device having no projecting parts liable to catch in clothing or belts, to provide a device easily inclosed with a casing or cover, and to provide the same with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims.

My device consists, essentially, of a number of externally and oppositely tapered integral segmental clamps having segmental flanges provided with bolt-openings and rings to surround the clamps and having tapered central openings and bolt-openings and bolts extending through the rings and flanges, as will hereinafter more fully appear by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of a device embodying my invention; Fig. 2, an end elevation of the same; Fig. 3, a longitudinal section of the same on the line 3 3 of Fig. 2; Fig. 4, a detail of one of the rings; Fig. 5, a side view of one of the clamping-segments; Fig. 6, an end view of the same, and Figs. 7 and 8 a modification of Figs. 4 and 6.

Like letters refer to like parts in all of the figures.

A A represent the adjacent ends of two alined shafts coupled by my device.

B represents the clamping-segments, preferably three in number, each having a longitudinal and transversely-concave channel to fit the shafts and oppositely-tapered and convex outer surfaces. These segments are also each provided at the middle with a transverse segmental flange E, having two bolt-holes G', arranged sixty degrees apart. C represents ribs extending longitudinally of the outer surfaces of the clamping-segments.

F F are suitable rings, each having a suitably-tapered central opening to fit the outer tapered surfaces of the clamping-segments and recesses C' to engage the rib C. Said rings are also each provided with bolt-holes G', arranged one hundred and twenty (120) degrees apart and thirty (30) degrees from radial lines extending through the recesses C'. The rings F and segmental flanges E are of the same outside diameter, whereby they may be readily covered by any suitable tubular casing. (Not shown.) The bolts G are inserted in the rings from opposite directions and oppositely through the segmental flanges E, with their projecting ends and nuts between the flanges and rings and opposite the recesses D in the clamping-segments.

In some cases it is preferable to reverse the position of the ribs C and grooves C', as shown in Figs. 7 and 8, thus securing a somewhat stronger ring of given diameter and somewhat lighter clamping-segments.

By the construction and arrangement described the rings are reversible and cannot be misplaced, the ribs C and recesses C' insure correct alinement of the bolt-holes in the rings and flanges, and the device is easily and cheaply made and applied, requiring but little machining, and is very strong and durable.

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

1. A coupling comprising segmental clamps each having a concave inner side, a centrally-located integral flange and an oppositely-tapered outer surface, rings surrounding the respective ends of the clamps, and bolts separately and independently connecting the rings to the flanges.

2. The combination of three segmental clamps having concave inner surfaces to engage a shaft and oppositely-tapered outer surfaces, there being integral segmental flanges on the middle of said clamps and having bolt-openings sixty (60) degrees apart, rings having tapered central openings to engage the outer surfaces of the clamps and bolt-holes one hundred and twenty (120) degrees apart, and bolts separately connecting the rings to the flanges.

3. The combination of three segmental clamps having straight concave inner sur-

faces and oppositely-tapered convex outer surfaces, there being integral segmental flanges at the middle of said clamps, and longitudinal ribs on the clamps, rings having tapered
5 openings to engage the clamps and recesses to engage the ribs, and bolts separately connecting the rings to the flanges.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HUTCHISON.

Witnesses:

LYMAN B. TRUMBULL,
ROBERT A. SMITH.