## P. H. HUTCHINSON, Jr. THRUST BEARING.

No. 566,178.

Patented Aug. 18, 1896.

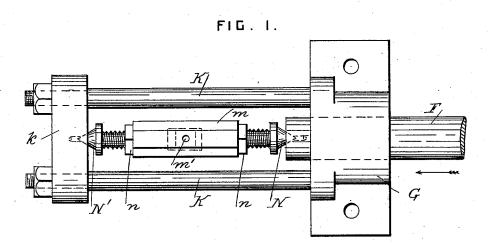


FIG. 2.

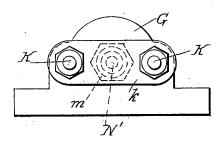


FIG. 3.

Witnesses

Inventor

Philip H. Hutchinson, Jun. 334 Attorney Hedert W. Jenner.

## UNITED STATES PATENT OFFICE.

PHILIP H. HUTCHINSON, JR., OF STONO, SOUTH CAROLINA.

## THRUST-BEARING.

SPECIFICATION forming part of Letters Patent No. 566,178, dated August 18, 1896.

Application filed July 24, 1895. Serial No. 556, 974. (No model.)

To all whom it may concern:

Be it known that I, PHILIP H. HUTCHINSON, Jr., a citizen of the United States, residing at Stono, in the county of Berkeley and State of 5 South Carolina, have invented certain new and useful Improvements in Thrust-Bearings; 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.

This invention relates to thrust-bearings for shafts; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of a thrust-bearing. Fig. 2 is an end view of the same, and Fig. 3 is a longitudinal section through the screw-threaded sleeve.

F is an ordinary revolving shaft subjected to end thrust in the direction of the arrow.

G is a bearing for the shaft and is of any approved construction. A stationary abutment or cross-piece k is provided beyond the 25 end of the shaft.

K are two rods for supporting the crosspiece from the bearing G, but the cross-piece may be supported in any other approved manner.

The thrust-bearing is interposed between the end of the shaft and the abutment. A long rectangular nut or screw-threaded sleeve

m is provided, and the screw-threads are cut in opposite directions at the opposite ends of the nut. The center portion of the nut is 35 provided with an air-hole m'.

N and N' are conical centers provided, respectively, with right and left hand screwthreaded stems which engage with the ends of the nut m. Jam-nuts n are provided on 40 the stems of the centers for locking them in position after they have been adjusted. The centers engage with conical center holes in the end of the rod or shaft F and in the crosspiece k, and the thrust-bearing is set up from 45 time to time as required.

What I claim is—

The combination, with a revoluble shaft, and a stationary abutment, each provided with a conical center hole; of a thrust-bear-50 ing interposed between the said parts and comprising two conical centers provided respectively with right and left hand screwthreaded stems, a revoluble screw-threaded sleeve engaging with the said stems, and jamnuts screwed on the said stems and bearing against the ends of the sleeve, substantially as set forth.

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

PHILIP H. HUTCHINSON, JR.

Witnesses:

W. C. VENNING, Jr., CHAS. F. HARD, JR.,