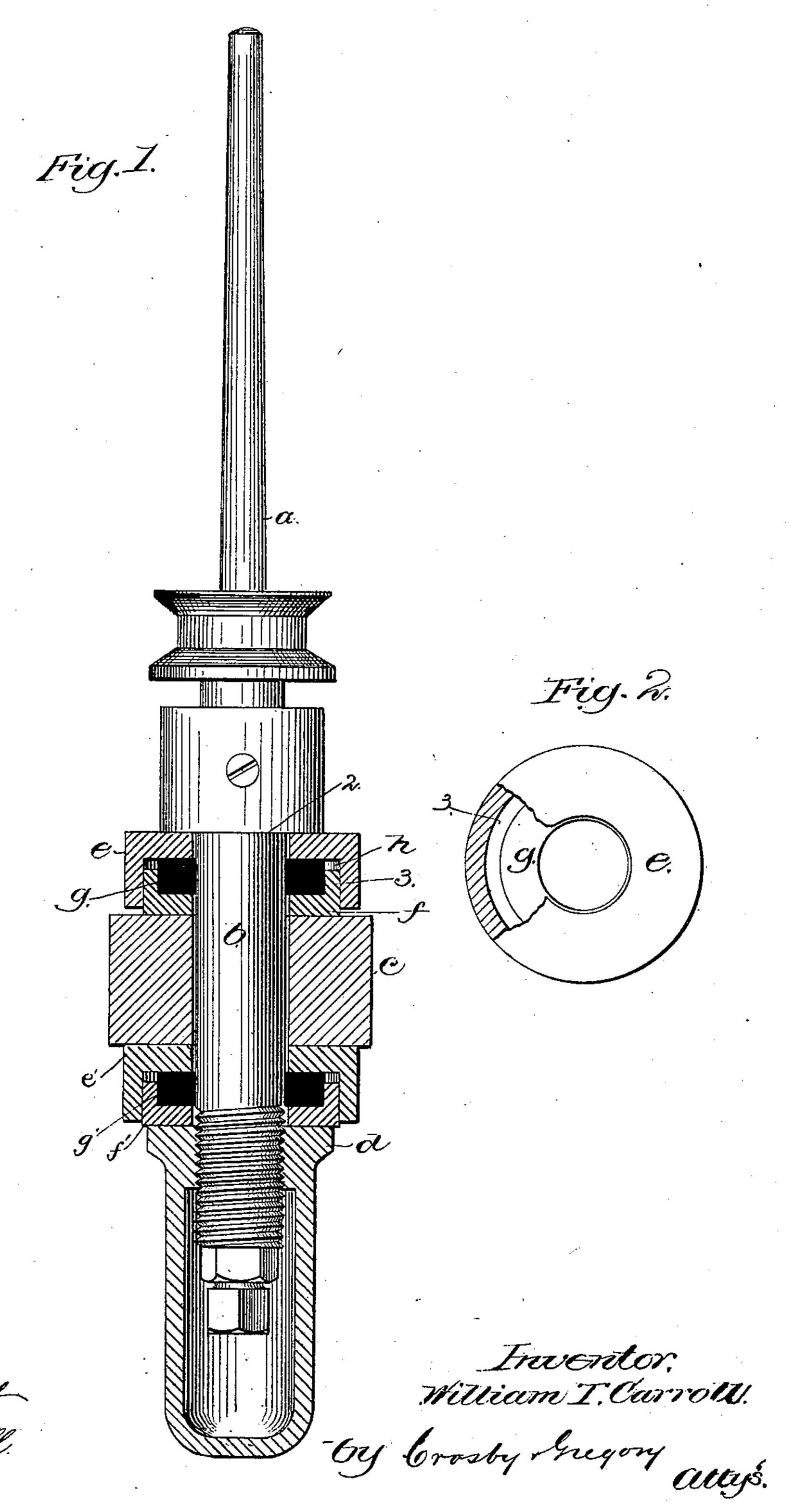
(No Model.)

## W. T. CARROLL

## BEARING FOR SPINNING SPINDLES.

No. 272,528.

Patented Feb. 20, 1883.



Witnesses. John F. C. Bennetert Fred A. Powell.

N. PETERS, Photo-Lithographer, Washington, D. C.

## United States Patent Office.

WILLIAM T. CARROLL, OF WORCESTER, ASSIGNOR TO GEO. DRAPER & SONS, OF HOPEDALE, MASSACHUSETTS.

## BEARING FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 272,528, dated February 20, 1883.

Application filed June 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. CARROLL, of Worcester, county of Worcester, State of Massachusetts, have invented an Improvement in Bearings for Spinning-Spindles, of which the following description, in connection with the accompanying drawings, is a specification.

My invention has for its object to hold in a yielding manner the supporting-tube, which receives in it the bearings for the spindle, in order that the said tube may yield to a limited extent in every direction, and assist in maintaining the spindle in its true center of rotation under all its conditions.

Figure 1 represents in partial vertical section a sufficient portion of a spinning-frame, with a supporting-tube and spindle therein, to illustrate my invention; and Fig. 2, a top view, partially broken out, of one of my cases and washer therein.

The spindle a, tube b, and rail c are of usual construction. The tube b has usually been inserted directly through a hole in the rail, with the shoulder 2 resting upon the top of the said rail, and the upper end of a nut, d, against the under side of the said rail. In some instances washers have been interposed between the said rail and the said shoulder and nut; but such washers, if composed of india-rubber, which is the best material, soon become worthless for the purposes intended by reason of the action of oil thereon.

To enable india-rubber washers to be employed at the upper and under sides of the rail without being injured by oil I, by experiment, discovered that the said washers might be inclosed in suitable cases or boxes, thus entirely shielding them from oil.

The case made by me consists of a flanged annulus, e, and a smaller annular seat, f, fitted therein, the said seat having preferably a flangeor shoulder, 3, to act against the interior of the flanged parts of the annulus e. Between these two parts e f, I place a washer, g, of india-rubber, leaving a sufficient space at h

to permit the parts of the case to bear firmly against the bottom or top of the washer without coming in contact. The end of the flange of the outer annulus above the rail terminates a little above the top of the rail, so as to per- 50 mit the flexible washer g to be compressed and to yield or rock as the support b is rocked or moved. The parts e' f' g' below the rail are the same as those marked efg above the rail c; but below the said rail the said parts are 55 inverted, the annulus e' taking its bearing directly upon the said rail c. Turning the nut d in one or the other direction compresses the india-rubber washers g g' more or less. The support b enters loosely a hole in the rail c. 60 The support b will inclose within it any usual bolster, and at its lower end will contain a suitable step.

I do not broadly claim an annular yielding packing arranged in connection with a botster- 65 rail.

I claim-

1. The rail c and the shouldered support b for the spindle, and the nut d, combined with the metal case composed of the parts ef, and 70 the interposed flexible or yielding washer contained in the said case, the case being interposed between the shoulder of the support b and the top of the rail, substantially as described.

2. The rail c and the shouldered support b, placed loosely therein, and the nut applied to the said support below the rail, combined with two cases or boxes, as described, and flexible or yielding washers placed therein, the said 80 cases or boxes being one above and the other below the rail, as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM T. CARROLL.

Witnesses:

GEORGE M. WOODWARD, EDGAR J. CARROLL.