

No. 816,253.

PATENTED MAR. 27, 1906.

F. J. RANDALL.  
DEVICE FOR LUBRICATING JOURNAL BEARINGS.

APPLICATION FILED MAR. 13, 1905.

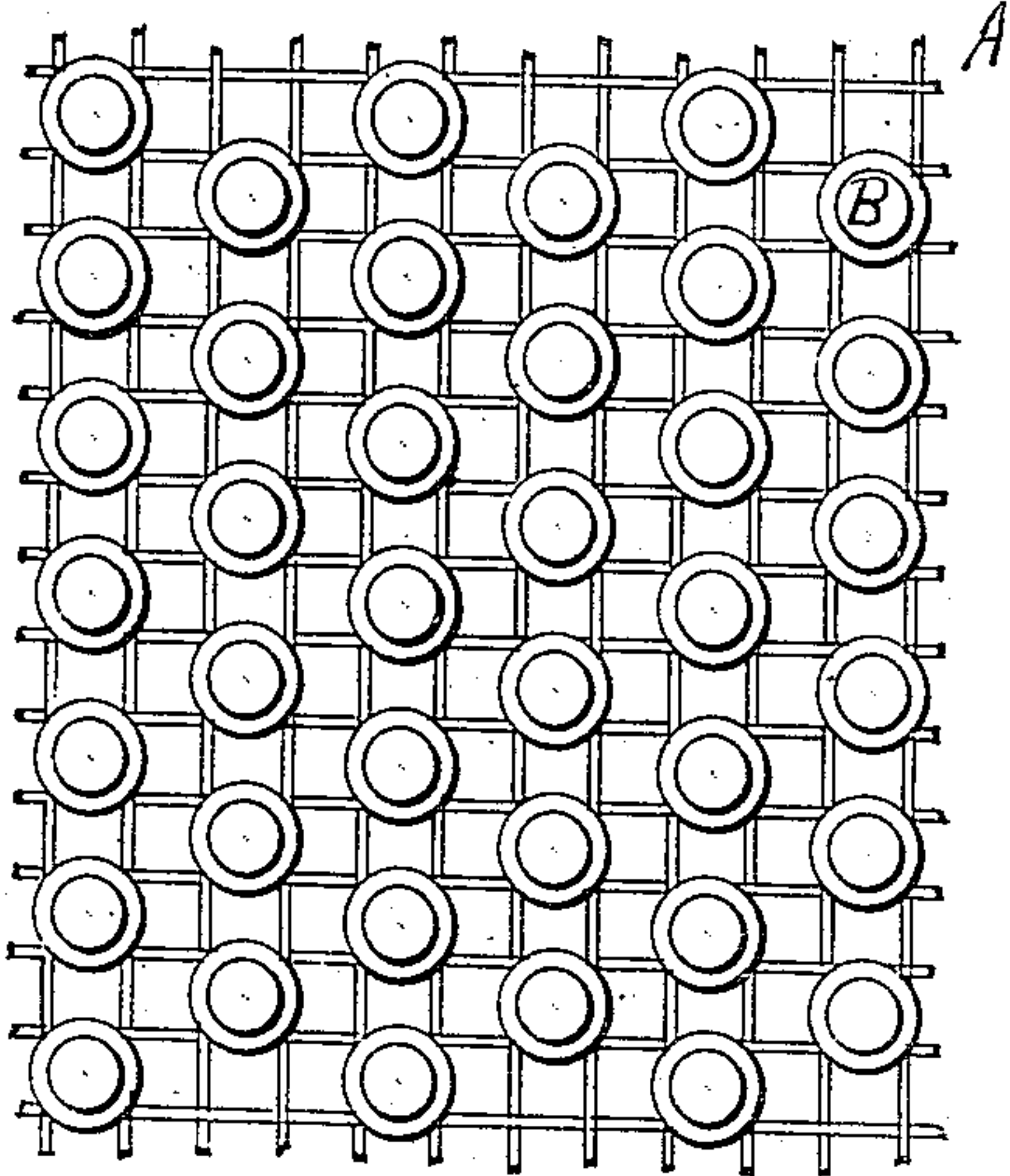


Fig 1

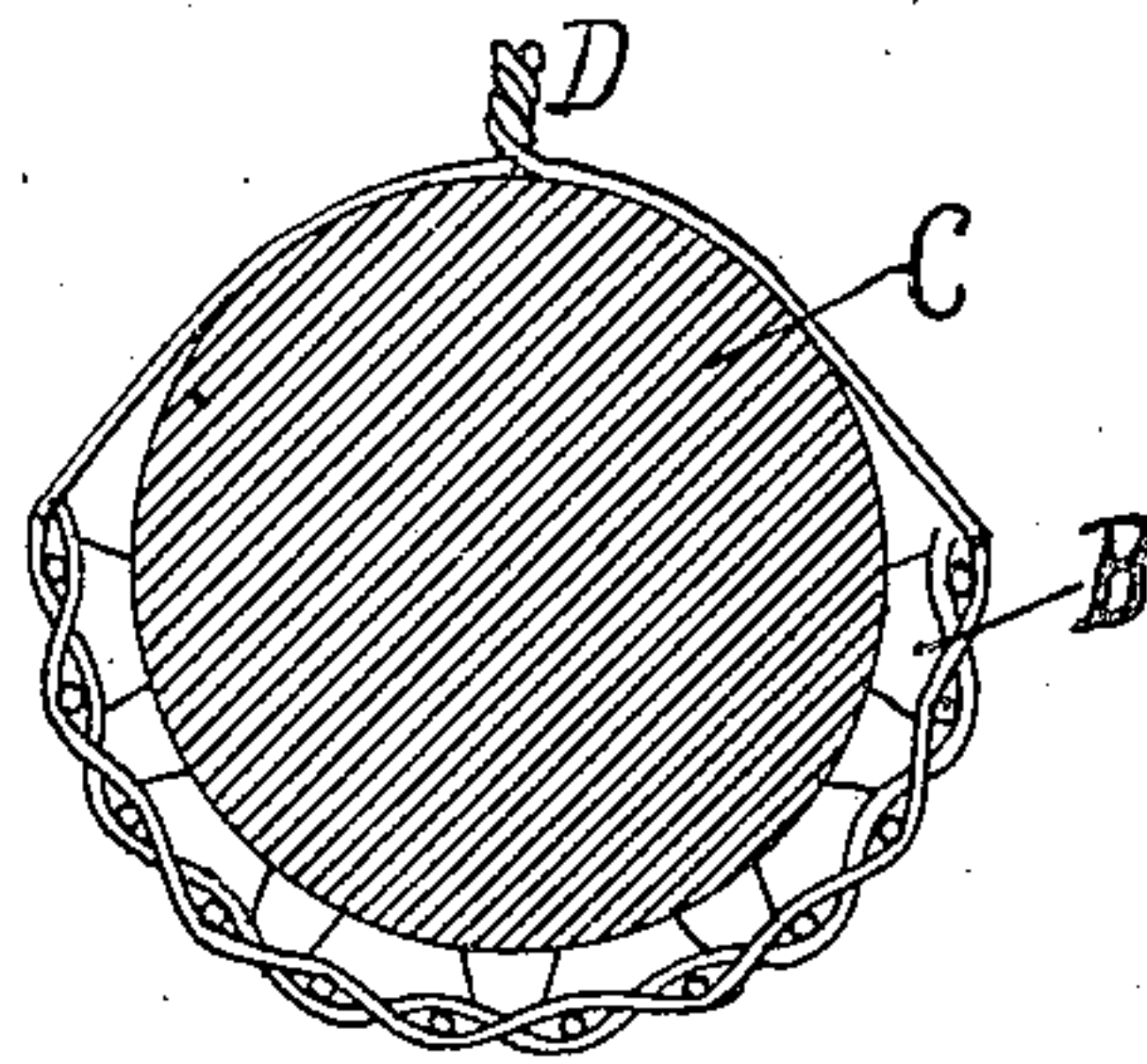


Fig 3

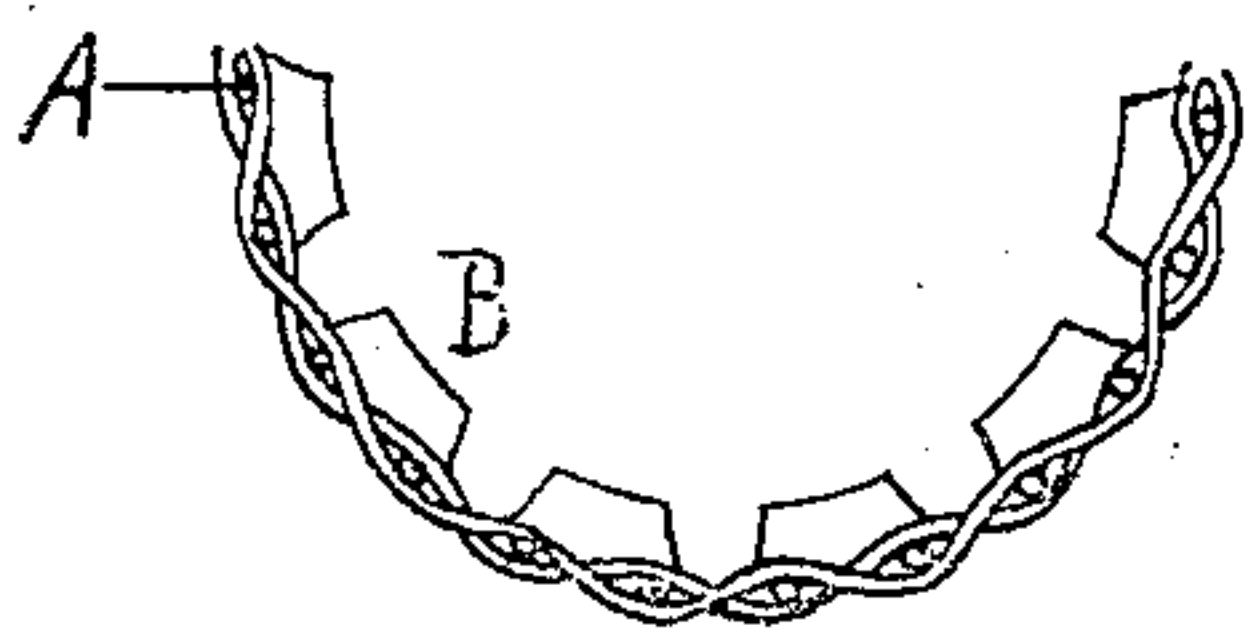


Fig 2

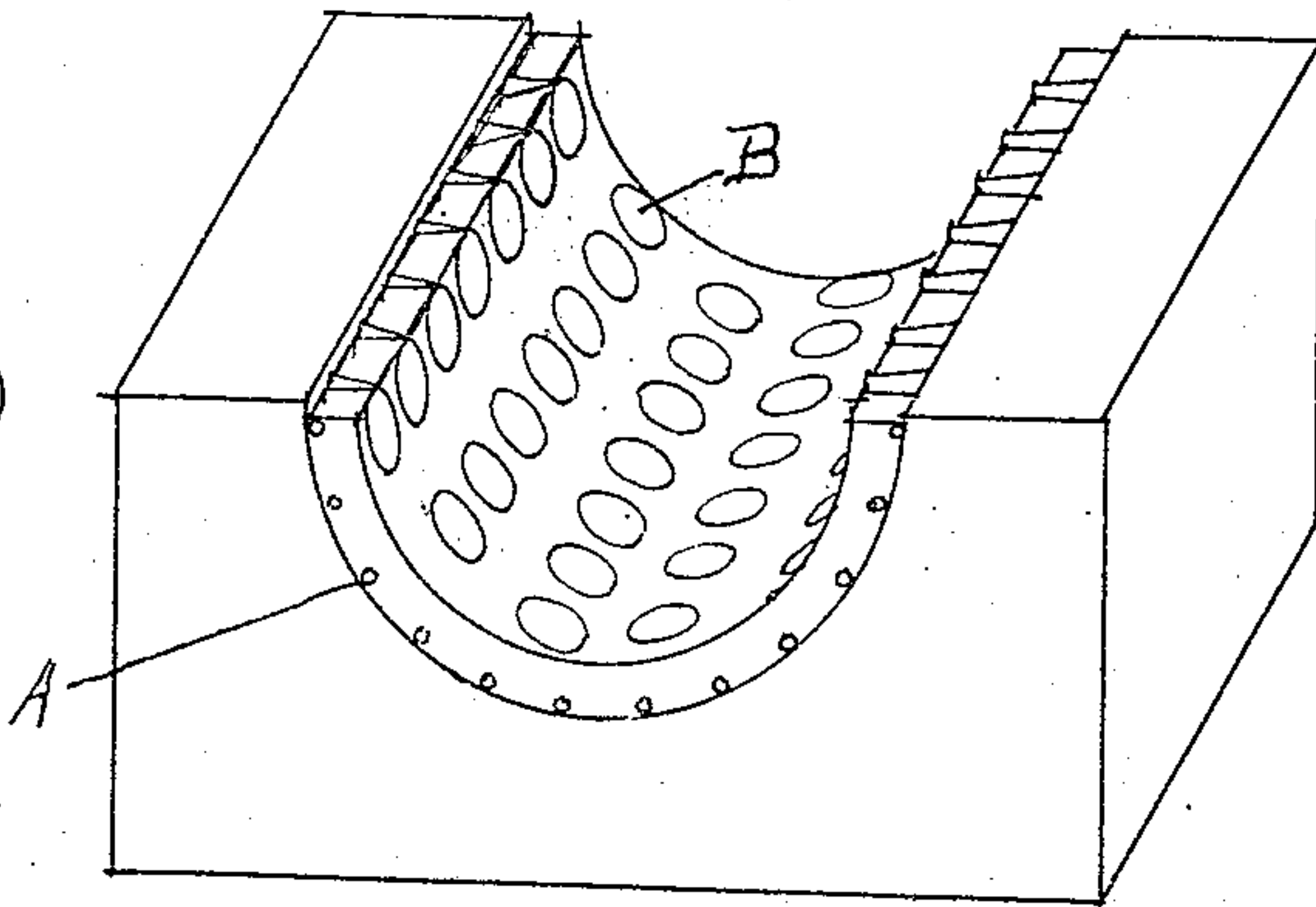


Fig 4

Witnesses

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# UNITED STATES PATENT OFFICE.

FRANK J. RANDALL, OF JENNINGS, MISSOURI.

## DEVICE FOR LUBRICATING JOURNAL-BEARINGS.

No. 816,253.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed March 13, 1905. Serial No. 249,691.

*To all whom it may concern:*

Be it known that I, FRANK J. RANDALL, a citizen of the United States, residing at Jennings, in the county of St. Louis and State of Missouri, have invented certain new and useful Improvements in Lubricating Devices for Journal-Bearings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improvement in lubricating devices; and the invention has for its object, first, to secure a continually-lubricated bearing for a journal; second, to effect a saving in the oil used in lubricating the journal, and, third, to produce a more durable journal-bearing.

Figure 1 is a face view of my journal-bearing device in the condition in which it is manufactured for use. Fig. 2 is an end view of the journal-bearing device shaped to fit a journal. Fig. 3 is an end view of the journal-bearing device applied to a journal shown in cross-section. Fig. 4 is a perspective view of the lower half of a journal-box with the journal-bearing device embedded in the usual bearing metal.

A designates a sheet of wire fabric, preferably consisting of either fine copper or soft brass wire, and preferably of about one-quarter-inch mesh.

B represents solidified tapered lubricant-tablets set at intervals into the mesh of the wire-fabric sheet throughout its extent. These tablets are so positioned in the wire fabric that portions of them project beyond the plane of the wire-fabric sheet at one of its sides, as seen most clearly in Figs. 2 and 3.

In producing the lubricant-tablets I make a mixture of powdered graphite with dissolved glue and paraffin and boil said mixture to produce a paste-like mass. I then mold and press the tablets into the wire-fabric sheet while the mass is in a plastic state. The tablets are then dried and become permanently affixed to the wire fabric. The lubricant-bearing sheet is then in a condition to be applied to a journal. In applying the device to a journal it is bent to conform to an arc of the journal, as seen in Fig. 2, and is then secured to the journal C (see Fig. 3) by any suitable means, such as a wire or string D, that is passed around the journal and

around the device to hold the latter to the journal. The journal, with the lubricant device applied thereto, is then laid in the journal-box, (shown in Fig. 4,) and bearing metal, such as is usually employed in journal-boxes, is poured into the box in the usual manner to fill the space between the journal and the inside face of the box, whereby the wire-fabric sheet A and the lubricant-tablets become thoroughly embedded in the bearing metal. When the bearing metal is poured into the journal-box, and the wire fabric and lubricant-tablets are embedded therein, the lubricant-tablets project through the bearing metal, as seen in Fig. 4, to the inner face thereof, where they serve to lubricate the journal during its movement in the box.

While I have shown and described my lubricating device as made of a sheet of wire fabric and having the lubricant-tablets affixed thereto, I desire to be understood as not limiting myself particularly to the use of wire fabric as a holder for the tablets, as it is obvious that perforated sheet metal might be used with the same effect as a holder as is the wire fabric. It is only essential to my improvement that a suitable perforate holder be used and that the lubricant-tablets be set thereinto, in the manner described, so that they will project from the holder for lubricating action, as set forth.

It is of importance that the tablets B in my lubricating device be made of tapering shape with their ends projecting from the perforated sheet or holder of the least diameter. The object in forming the tablets tapering is to provide against their escape from the bearing metal after the entire journal-bearing has been completed and is in condition for service, and the object in having the tablets project beyond one of the side faces of the holder-sheet is to provide for the tablets becoming embedded exterior of the holder-sheet in the bearing metal, as seen in Fig. 4. This feature is one of the utmost importance in that while the holder-sheet and the lubricant-tablets therein constitute my lubricating device, said device would be of very inferior utility when embedded in bearing metal if the tablets did not project from the holder-sheet. This is due to the fact that were the tablets terminated on a plane with a side of the sheet the device would only be of

service for a period sufficient to wear out the holder-sheet, whereas by having the tablets project beyond the plane of the holder-sheet a wearing and lubricating action of much greater duration is possible.

I claim as my invention—

1. A perforated holder having lubricant-tablets set therein and projecting from the face of the holder.
2. A perforated holder having tapered lubricant-tablets set therein and projecting from one side of the holder.
3. A sheet of wire fabric having lubricant-

tablets set into the mesh of the fabric and projecting from one side of the fabric. 15

4. A sheet of wire fabric having tapering lubricant-tablets set into the mesh of the fabric and projecting from one side of the fabric.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 20

FRANK J. RANDALL.

Witnesses.

DANIEL B. RAFFENAU,  
WILLIAM GOLDAMER.