

(No Model.)

R. M. & C. F. BARRETT.

AXLE BOX.

No. 374,234.

Patented Dec. 6, 1887.

Fig. 1.

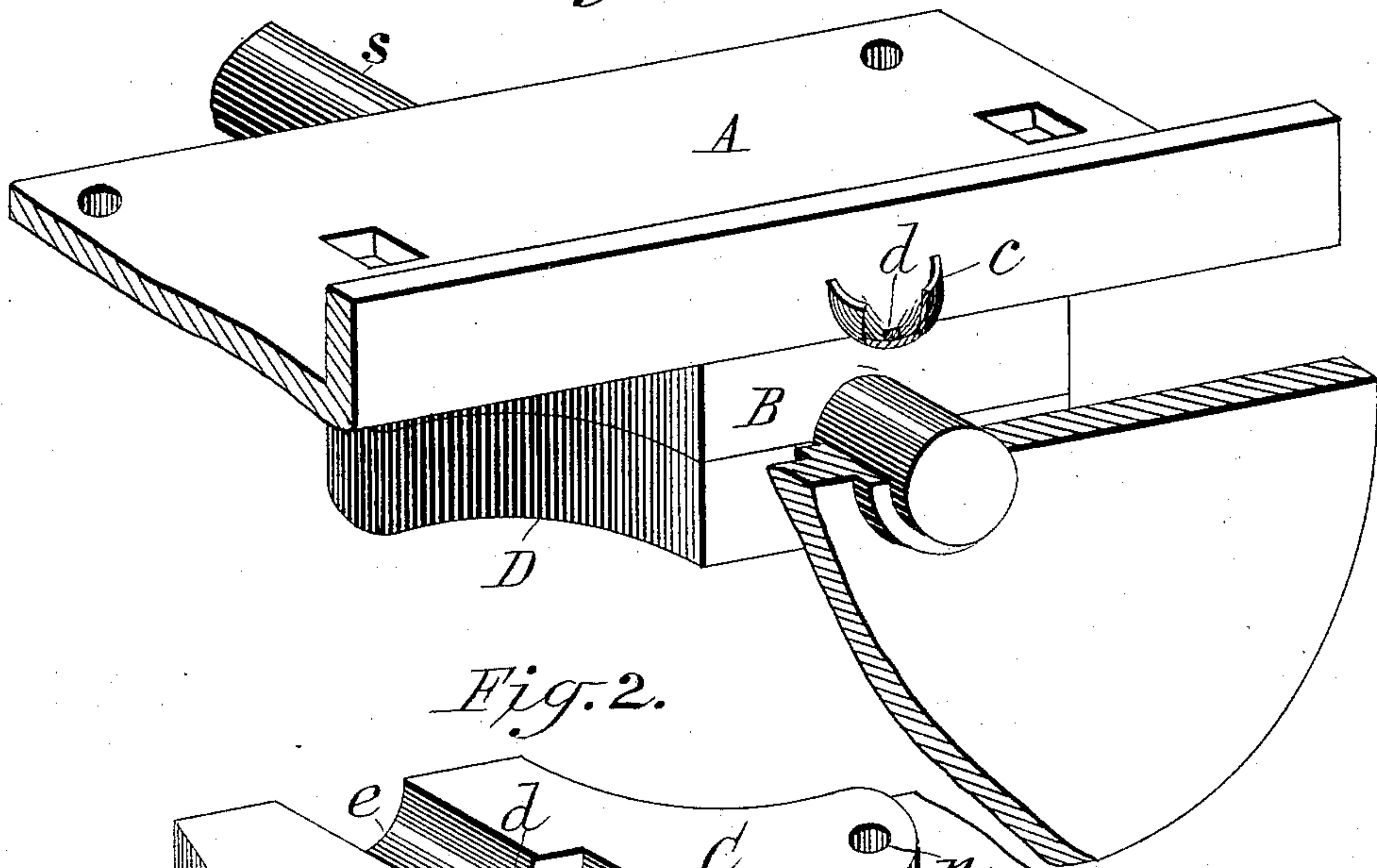


Fig. 2.

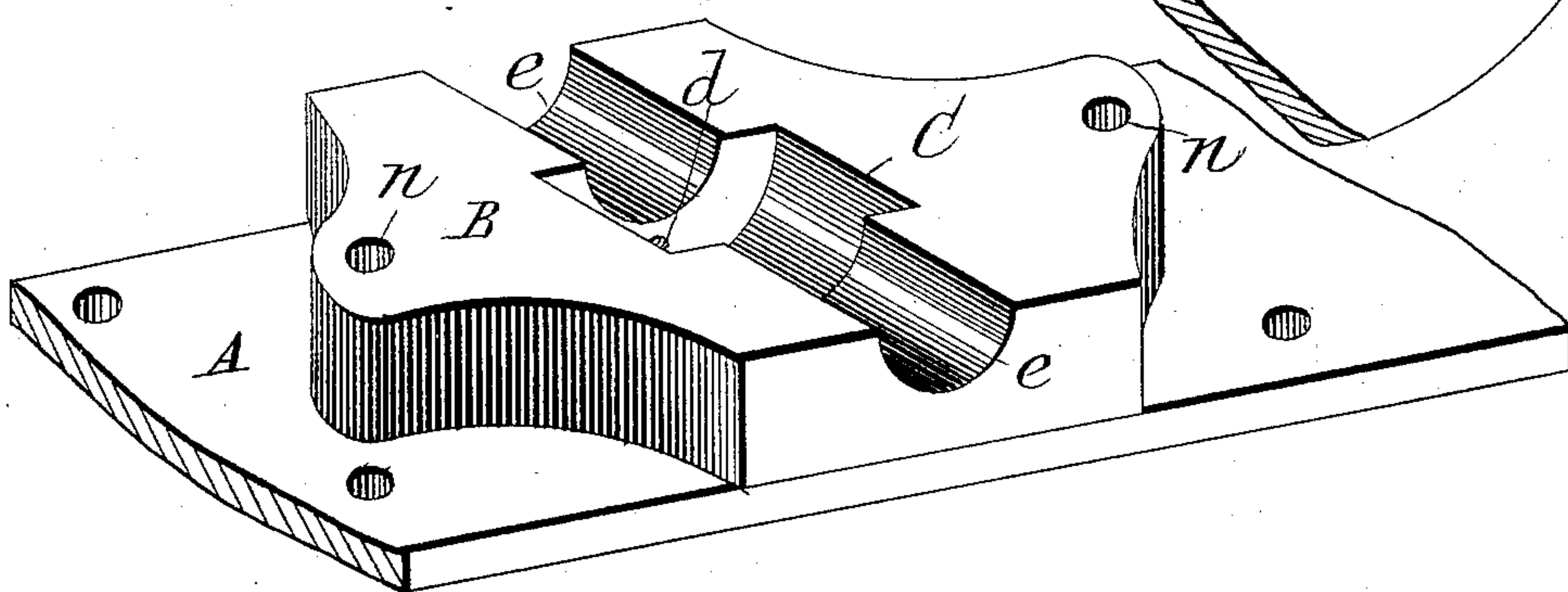
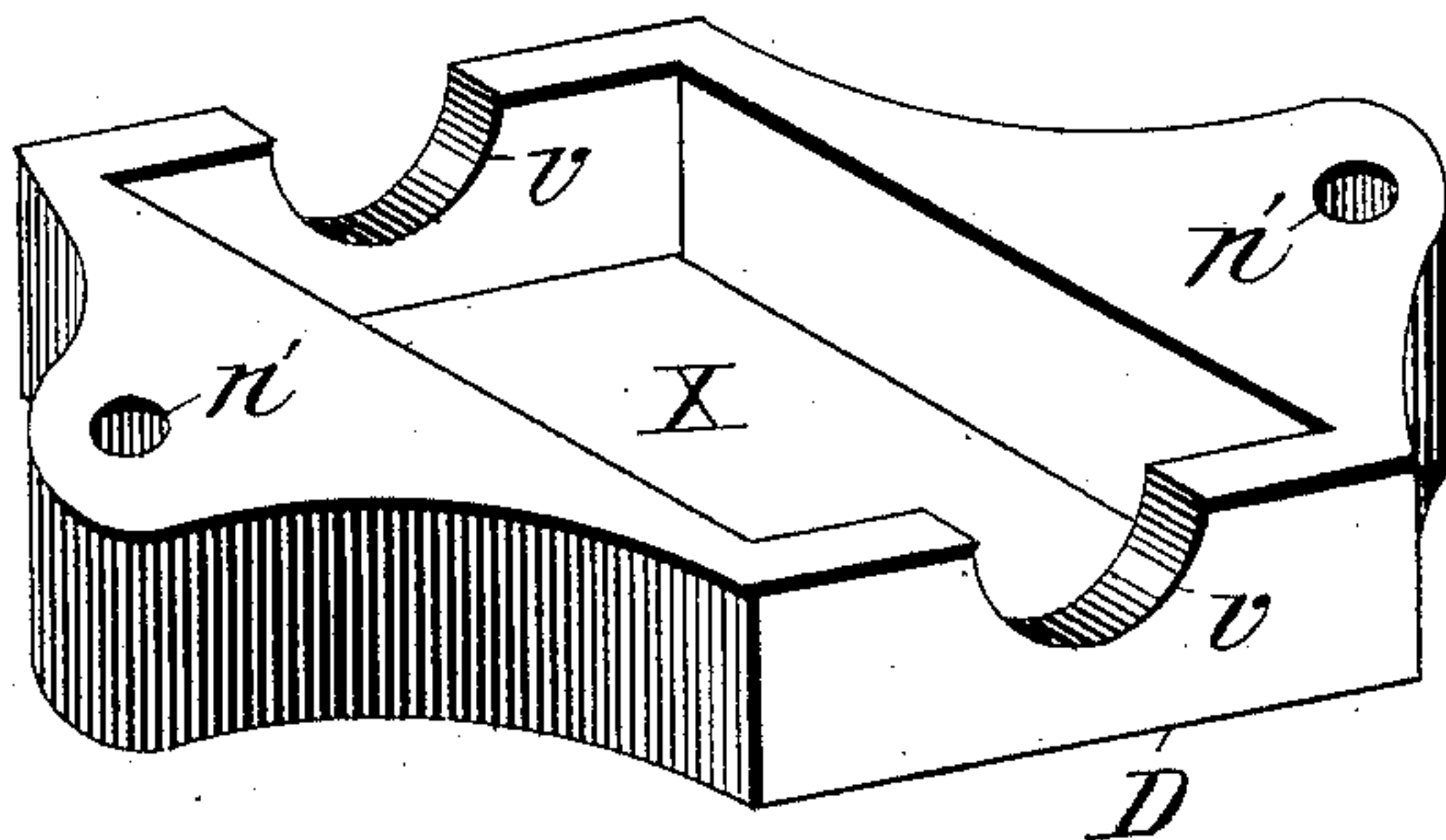


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT M. BARRETT AND CHARLES F. BARRETT, OF WOOSTER, OHIO.

AXLE-BOX.

SPECIFICATION forming part of Letters Patent No. 374,234, dated December 6, 1887.

Application filed August 24, 1887. Serial No. 247,775. (No model.)

To all whom it may concern:

Be it known that we, ROBERT M. BARRETT and CHARLES F. BARRETT, citizens of the United States, residing at Wooster, in the county of Wayne and State of Ohio, have invented a new and useful Self-Oiling Axle-Box, of which the following is a specification.

Our invention relates to self-oiling axle-boxes and especially such as are adapted to use upon dump-cars or mine-cars or the like; and it consists, broadly, in the use of an axle-box or rotary-shaft box properly lined with any suitable metal upon the bearing-surfaces of the box, the box proper constructed with an intermediate recess or depression to hold suitable waste packing upon the axle between the bearing-surfaces aforesaid, and a duct for oil communicating therewith, in combination with a suitable cap opposite the box proper secured thereto and recessed to accomplish the double purpose of securing the shaft or axle in the box and hold waste packing against the axle and in contact with the waste packing in the recess of the box proper.

Our invention is illustrated by the accompanying drawings, in which similar letters of reference indicate like parts.

Referring to the drawings, Figure 1 is a side view of our improved axle-box for an ordinary dump-car detached from the car, and showing oil-duct and section of the axle and wheel. Fig. 2 is a view of the axle-box proper with the cap and axle removed, showing the lined bearings and intermediate recess for waste packing and inner orifice of the oil-duct. Fig. 3 is a view of the cap inverted, showing recess for packing.

A is the plate of the box, by which it is permanently attached to the car by bolts.

B is an elevation on the plate which forms the axle-box proper. It is hollowed to receive and form suitable bearings for the axle.

C is a central depression or recess which separates the axle-box into two bearings, *e e*.

e is an exterior oil-cup from which an oil-duct, *d*, leads by a slight incline to the intermediate recess which is filled with waste packing to receive and distribute the oil within the box.

D is the cap of the axle-box. It is attached to the box proper by suitable bolts, and secures the axle *s* in the lined bearings *e* by bearings *v* at the ends of the cap. This cap has a capacious recess for waste packing, extending the entire length of the axle.

It is evident that when the parts of the axle-box are united the packing between the bearings *e* comes into contact with the packing in the cap, the waste packing, which is saturated with oil, completely surrounding the central part of the axle, and distributes the oil in the cap the entire length of the axle. By this means a larger quantity of oil can be introduced at a time without any waste, thereby requiring oiling only at long intervals. The arrangement of the waste packing receives, retains, and distributes the oil evenly upon the axle and prevents wear. The intermediate space between the bearings being filled with waste packing saturated with oil prevents the axle from heating. The oil-duct communicating with the box through this intermediate waste packing facilitates oiling and entirely prevents the introduction of dust, sand, and the like upon the axle.

We are aware that axle-boxes constructed to hold waste packing for oil on one side of the axle have been heretofore used in connection with an opening at the end of the axle to receive the oil, and we do not claim such; nor do we limit our claims to any particular use of such axle-box.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The axle-box B, consisting of opposite bearings, *e*, separated intermediately by a recess for waste packing to receive, retain, and distribute the oil, substantially as set forth.

2. The axle-box provided with a recess for waste packing between opposite bearings and an oil-duct communicating therewith to conduct the oil to such intermediate waste packing for distribution, substantially as set forth.

3. An axle-box having the bearing for the axle parted intermediately by a recess for waste packing, and an oil-duct communicating therewith, in combination with a cap for the box secured thereto, the cap having bearings to secure the axle in the box, and a recess to receive and hold oil-saturated-waste packing against the axle and distribute the oil from the waste packing of the box proper along the axle, substantially as set forth.

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