

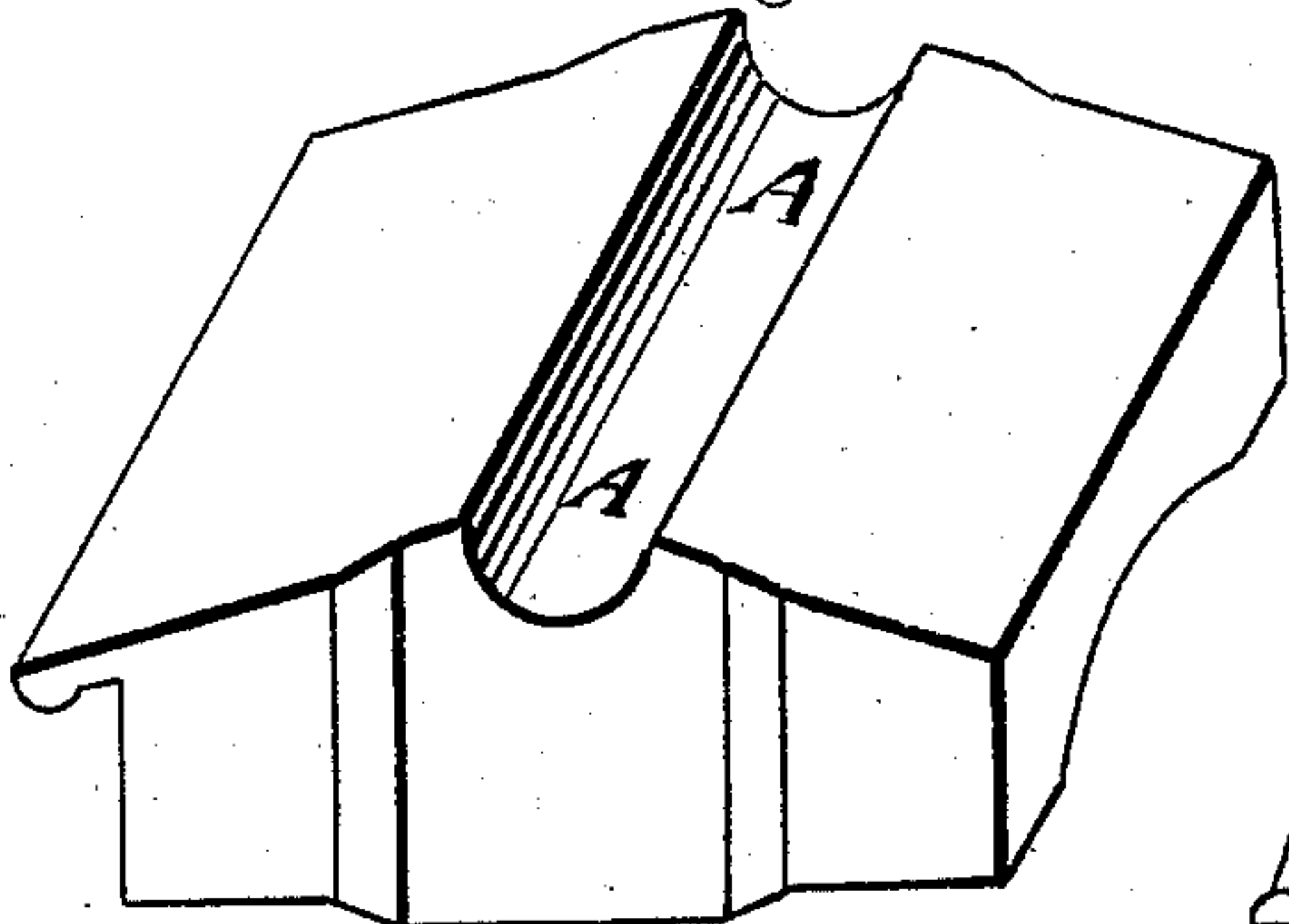
A. B. ALLEN.

Car-Axle Box.

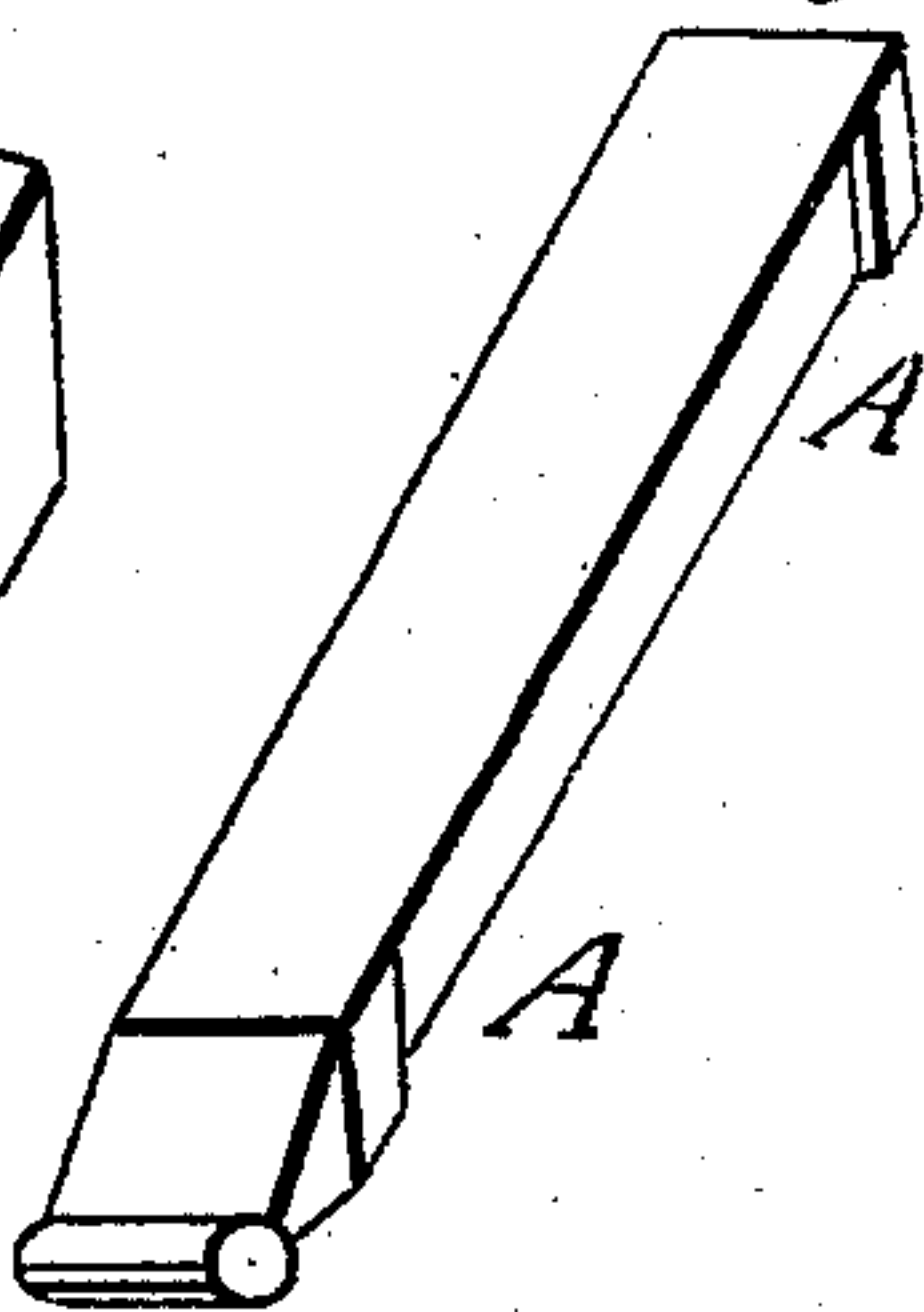
No. 88,356.

Patented March 30, 1869.

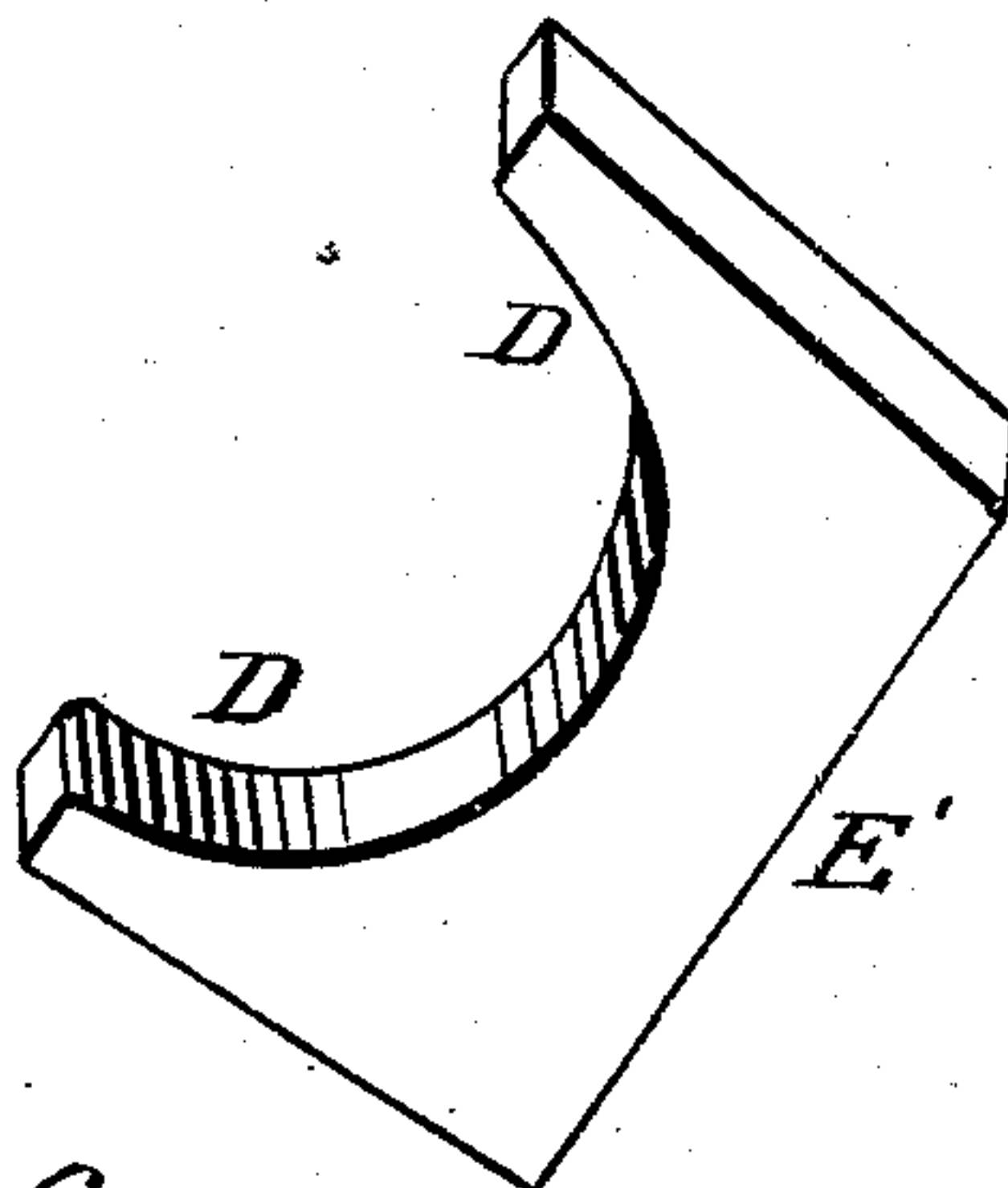
*Fig. 1.*



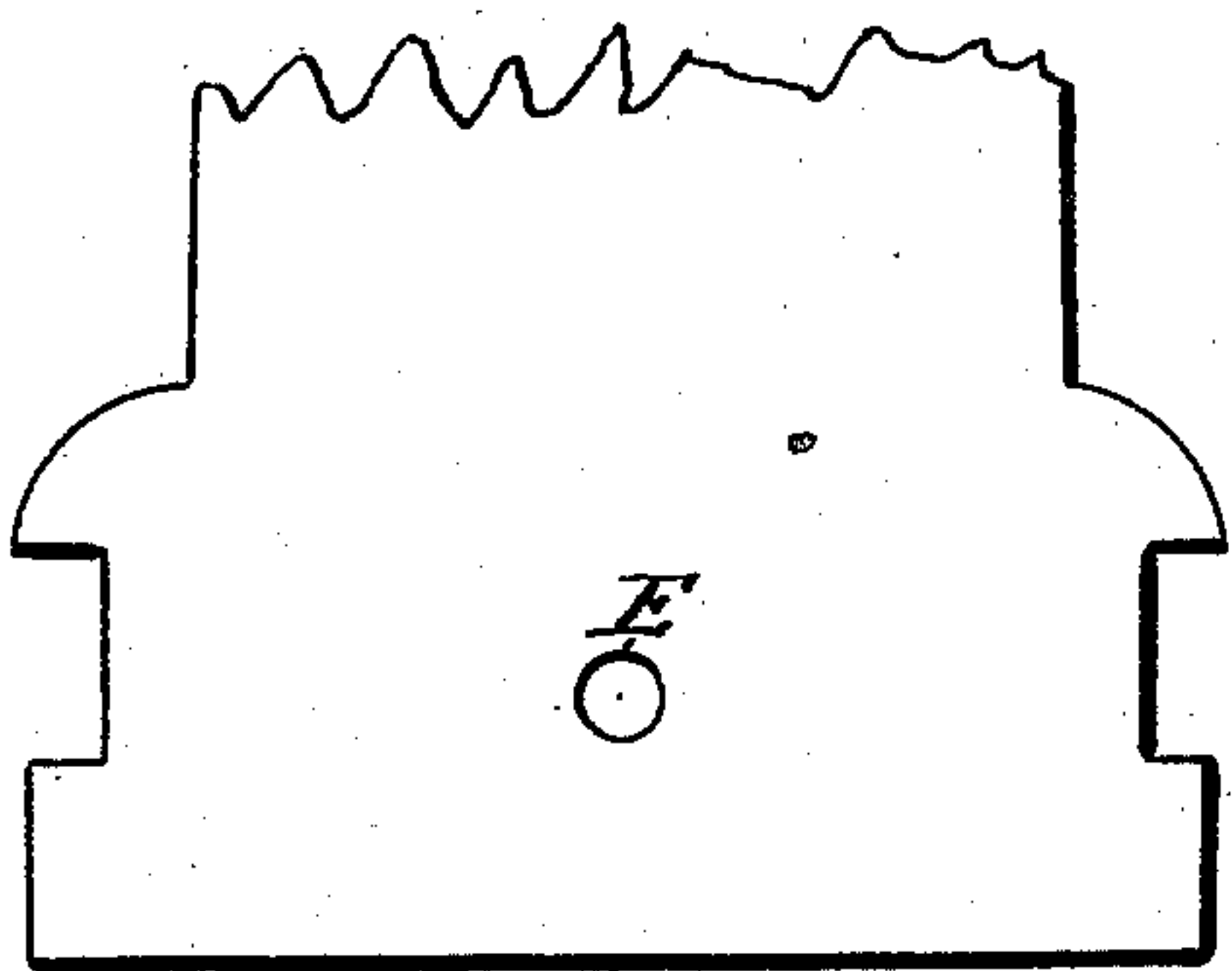
*Fig. 2.*



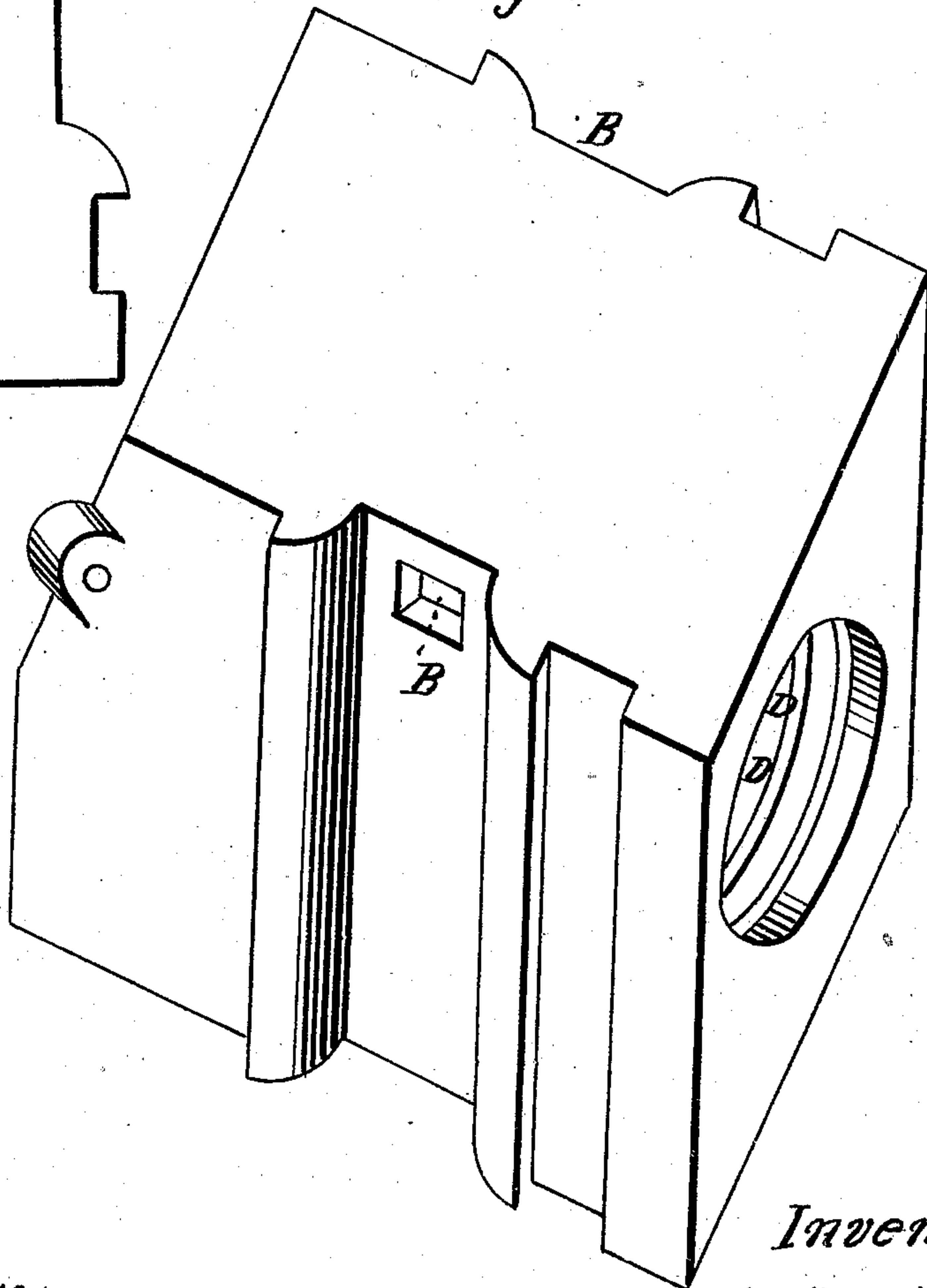
*Fig. 3.*



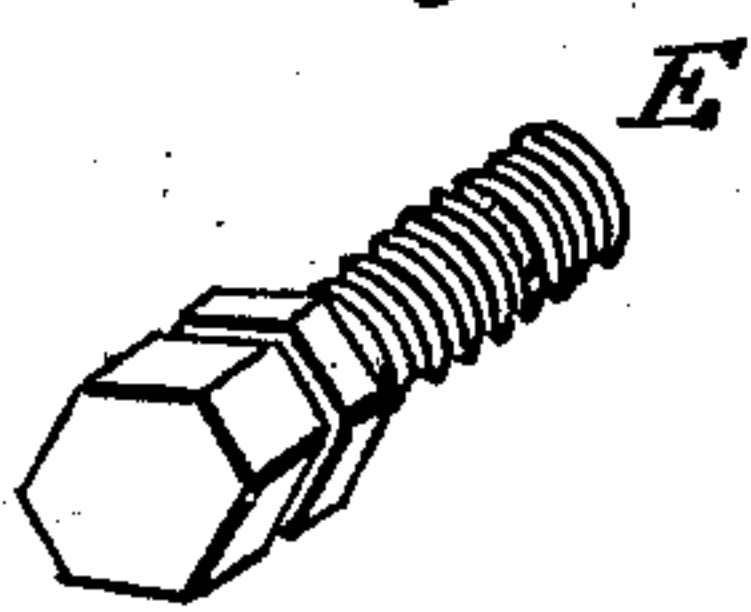
*Fig. 5.*



*Fig. 6.*



*Fig. 4.*



*Witnesses*

*Geo. C. Hawkey.*  
*Wm. G. W. Ripley*

*Inventor*

*A. B. Allen*



AZRO B. ALLEN, OF RUTLAND, VERMONT, ASSIGNOR TO HIMSELF  
AND J. D. ALLEN, OF SAME PLACE.

*Letters Patent No. 88,356, dated March 30, 1869.*

**IMPROVED AXLE-BOX BEARING.**

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, AZRO B. ALLEN, of Rutland, in the county of Rutland, and State of Vermont, have invented a new and useful Improvement on the Centre-Bearing of a Railroad Journal-Box, together with a rubber washer, or packing, for preventing the lubricating-oil from escaping from the oil-cellar under the journal, and wasting; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters and references marked thereon, in which—

Figure I is a railroad journal-box.

Figure II, loose key, forming improved centre-bearing.

Figure III, rubber washer, or packing.

Figure IV, set-screw, for raising rubber washer, or packing.

Figure V, under-side view of railroad-housing, or case for the journal, showing hole for set-screw.

Figure VI, perspective view of housing, with journal out.

The improvement on the centre-bearing is this, viz:

The use and arrangement of the movable key, which forms the centre-bearing, on which, as a bearing, the journal-box will turn, or move in such manner as to enable the journal-box to rest evenly on the journal at all times, so as not to wear more in one place than in another, or become heated, by unevenness of the railroad-track; and by which key the journal-box can be taken out without jacking up, or tilting the car, as in case of the old centre-bearing journal-boxes.

The rubber washer, or packing, is this, viz:

A semicircular rubber washer, placed near the end of the housing, and resting up against the under side of the journal, and held close to the journal by the set-screw running up through the under part of the housing, so as to prevent the lubricating-oil from running out, and escaping from the inner, or main oil-cellar, thereby contributing, with the improvement on the centre-bearing, to prevent the journal from becoming heated and worn.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I take the centre journal-box now in use, and represented by Fig. I, having a semicircular excavation in the centre of the top, A A, and put this in its place in the housing, Fig. VI, above the journal.

I make the mortises B B in the sides of the housing, near the top, where the excavation A A comes against the top of the housing.

I then make the loose key, Fig. II, forming the improved centre-bearing, rounded on the bottom side A' A', so as to fit the excavation A A, with shoulders on the under side of the key, near the ends, for the purpose of holding the key in its place.

This key is put through the mortises B B, and when the car is let down, the journal bears up against the journal-box, Fig. I, and the box against the key, Fig. II, forming the centre-bearing.

The journal-box now in use generally, is one having a flat surface on top; and resting against a flat bearing.

I make the rubber washer, Fig. III, with a semicircular excavation on the upper side, D D, which is put in the end of the housing, Fig. VI, in what is called the oil-cellar, in the end of the housing, under the journal, the top, D D, being represented, when the washer is in the housing, by D' D', and is made thick enough to fit the cellar tightly.

The set-screw, Fig. IV, I then put up through an aperture, made for the purpose, on the under side of the housing, represented by E", in Fig. V, bringing the joint E against the washer on the under side, at E'. By this screw the washer is pressed up against the journal, and the oil is prevented from slopping over from the main oil-cellar and being wasted.

I do not claim, broadly, a transverse key for the purpose of holding an axle-box; but

What I do claim, and desire to secure by Letters Patent, is—

The axle-box, of the construction described, with rounded transverse groove A, when held in place by the removable key, fitted and arranged substantially as and for the purpose set forth.

A. B. ALLEN.

Witnesses:

THOS. ROSS,  
W. G. VEAZEY.