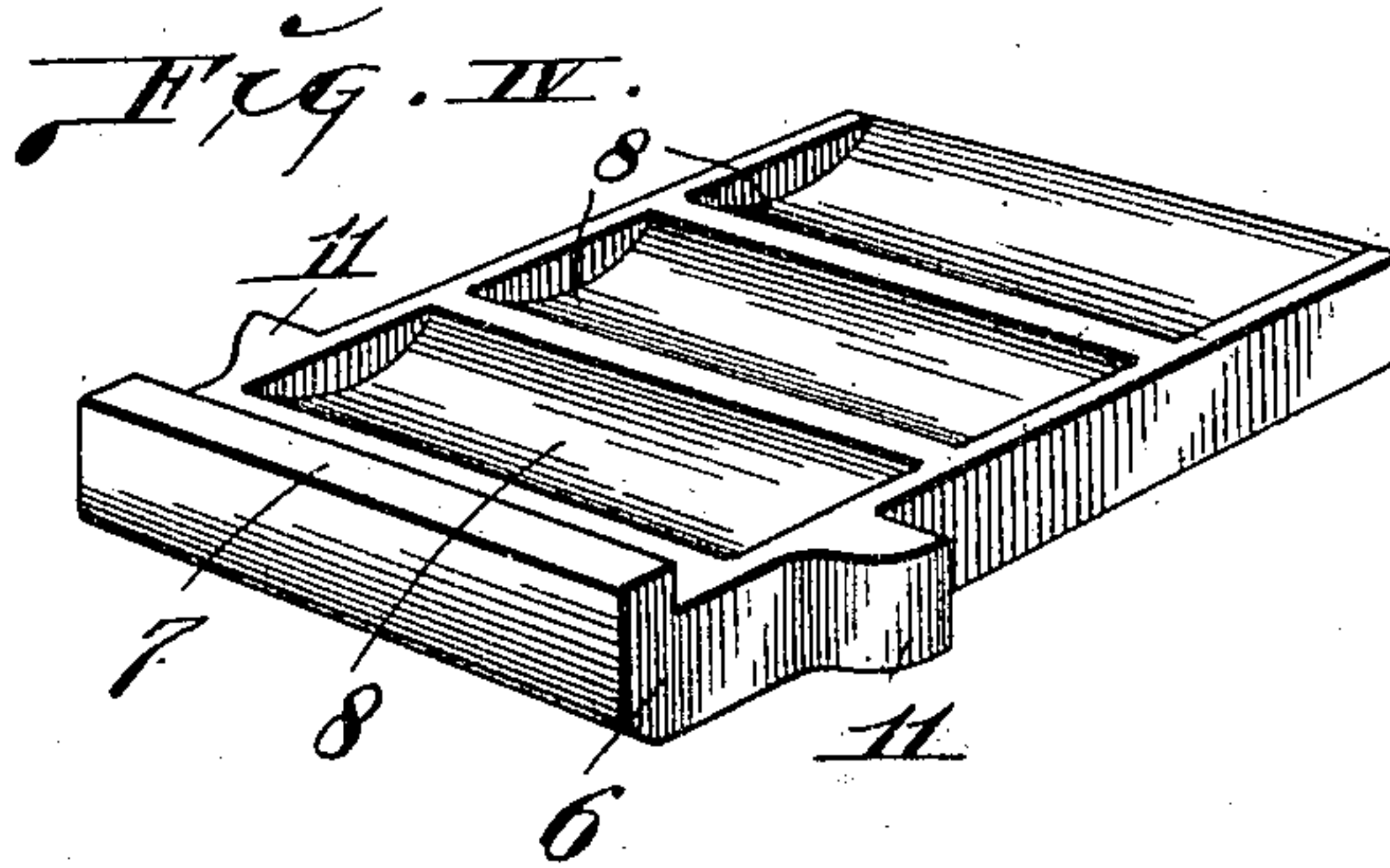
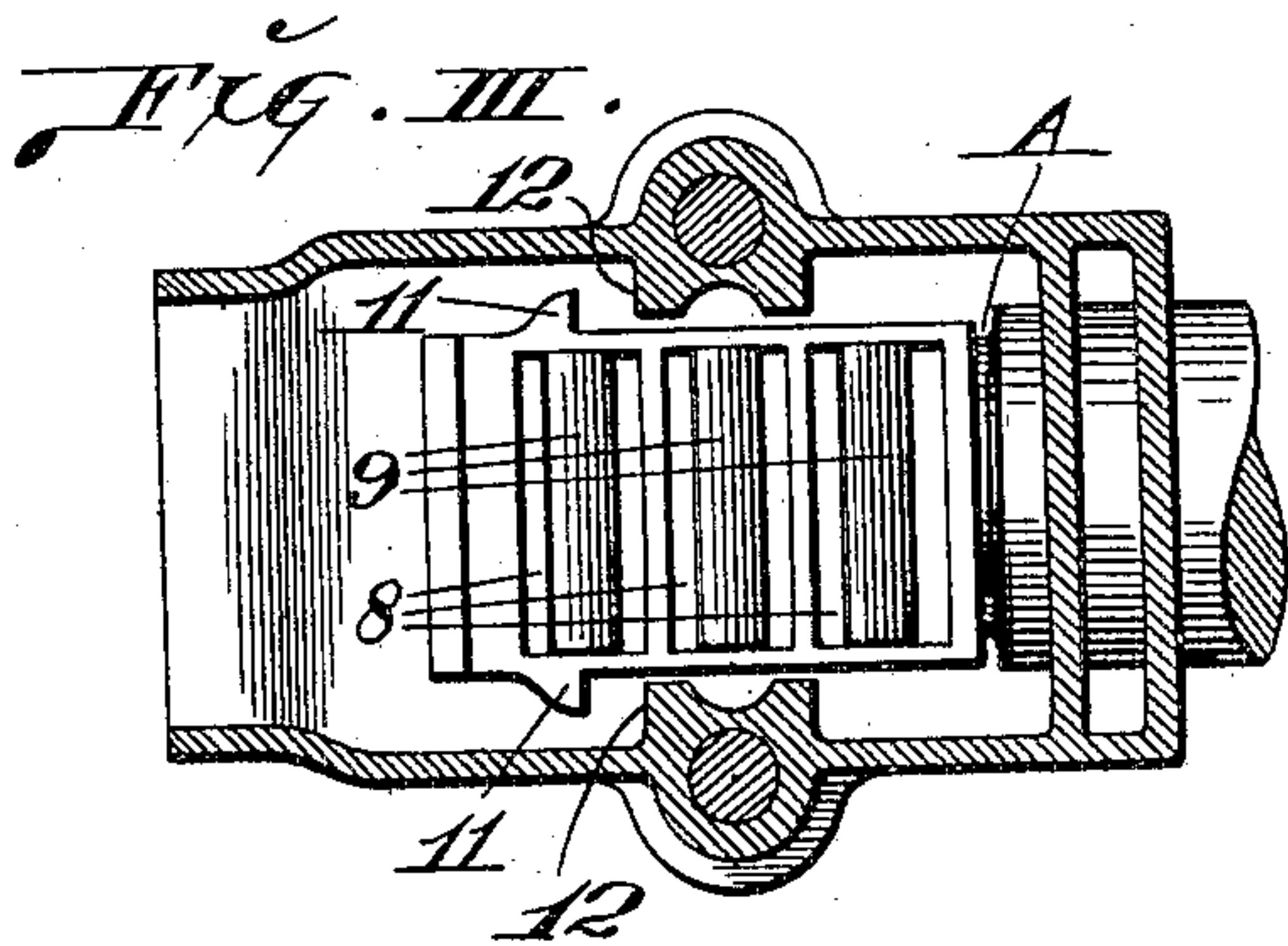
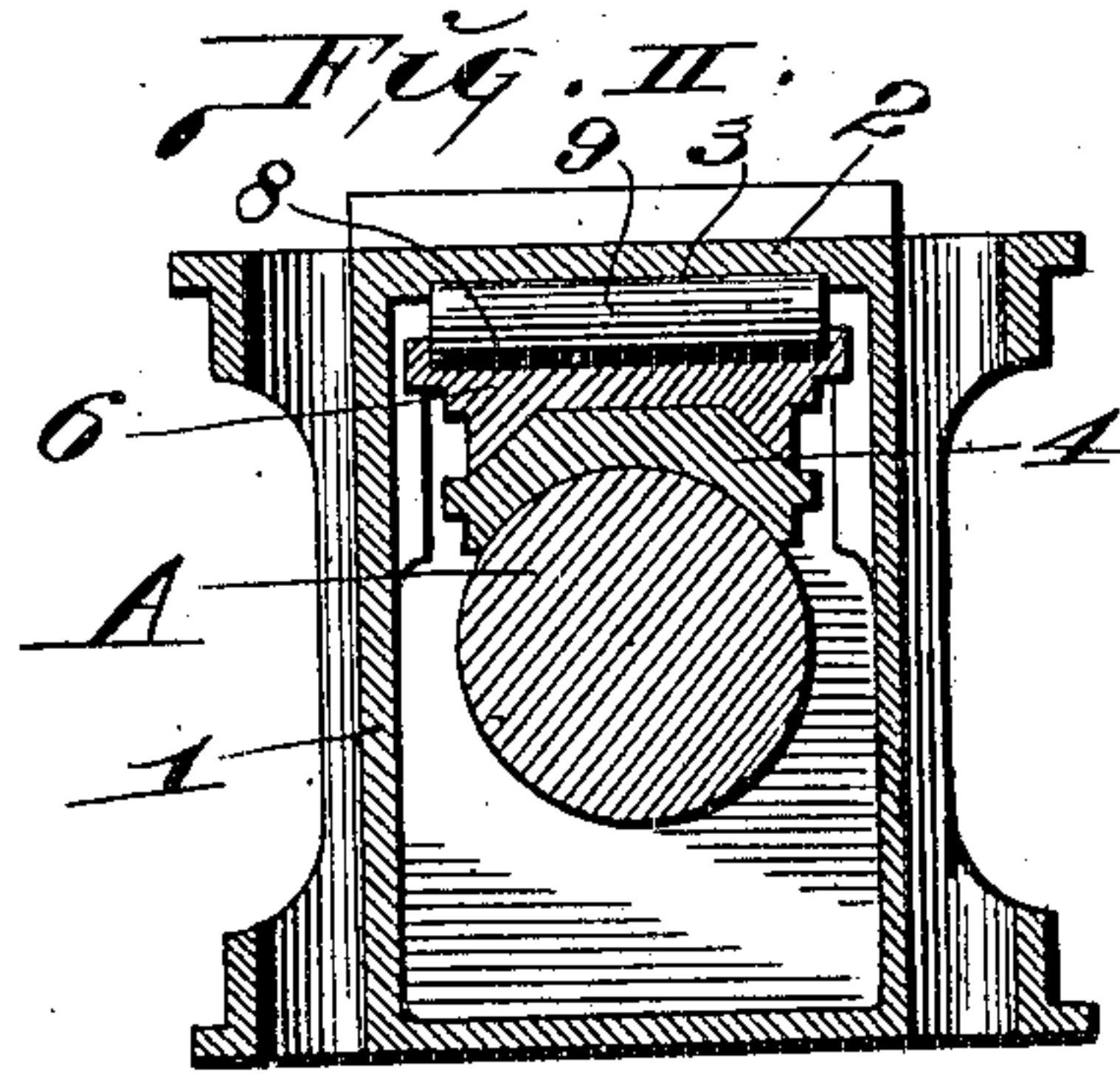
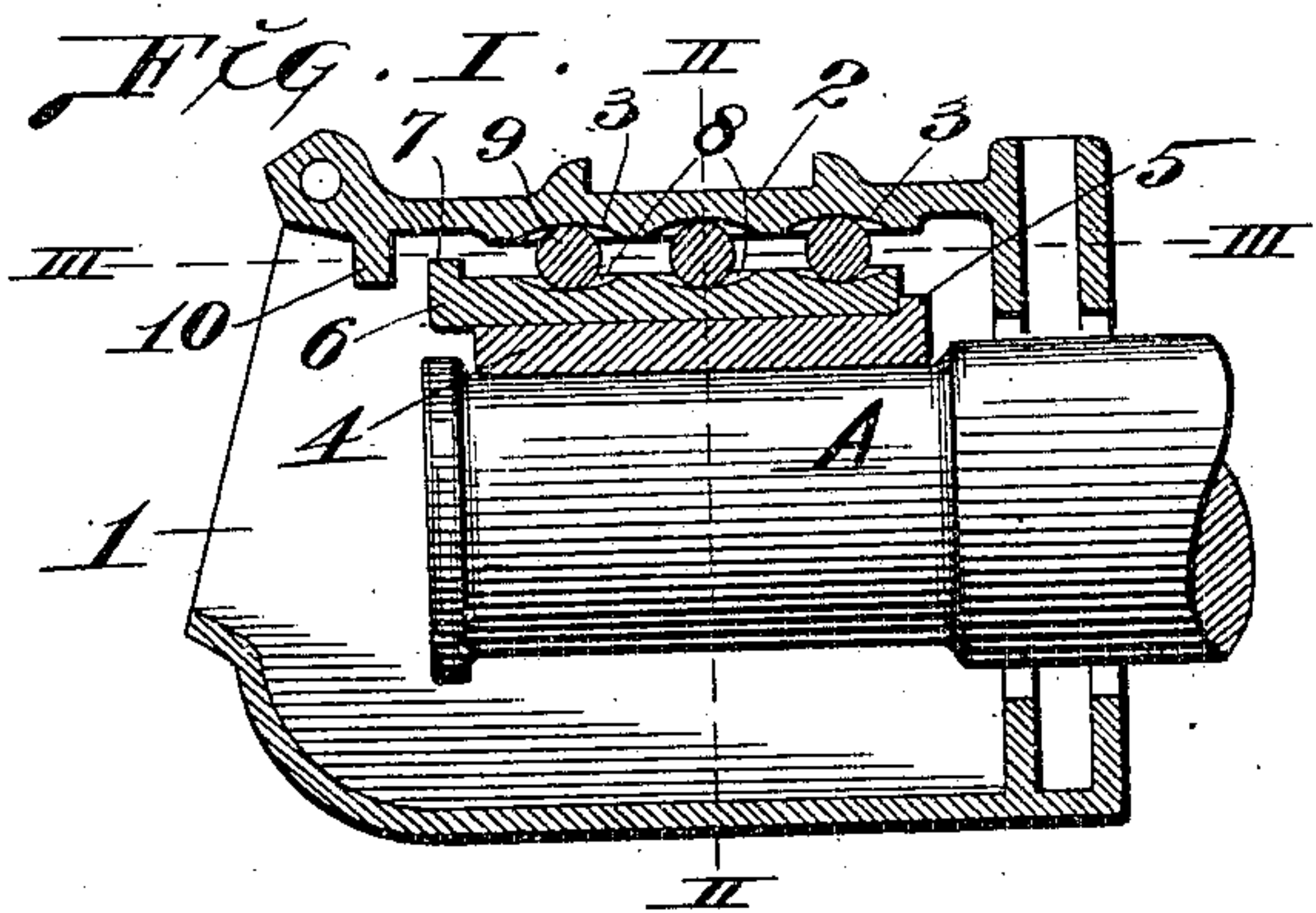


No. 836,992.

PATENTED NOV. 27, 1906.

O. S. PULLIAM.
SWING BEARING FOR CAR AXLE BOXES.
APPLICATION FILED APR. 2, 1904.



Attest:—
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UNITED STATES PATENT OFFICE.

OSWALD S. PULLIAM, OF ST. LOUIS, MISSOURI.

SWING-BEARING FOR CAR-AXLE BOXES.

No. 836,992.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed April 2, 1904. Serial No. 201,333.

To all whom it may concern:

Be it known that I, OSWALD S. PULLIAM, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Swing-Bearings for Car-Axle Boxes, 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 a swing-bearing associated with a car-axle box, through the medium of which lateral swinging motion may be permitted by the car-body supported by a series of axle-boxes that move longitudinally with respect to the car-axle bearings to which they are fitted.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a longitudinal vertical section taken through a car-axle box with my swing-bearing located therein. Fig. II is a transverse vertical section taken on line II II, Fig. I. Fig. III is a horizontal longitudinal section taken on line III III, Fig. I. Fig. IV is a perspective view of the roller-bearing plate of my swing-bearing.

A designates the journal of a car-axle which is of any ordinary shape.

1 designates a car-axle box the main contour of which may be of common form. The top 2 of the axle-box is provided at its under side with a plurality of roller-receiving cavities 3. (See Fig. I.)

4 is a journal-brass that rests upon the journal A. At the rear end of this brass is a lip 5, projecting upwardly therefrom.

6 designates a bearing-plate surmounting and resting upon the journal-brass 4 and provided at its forward end with an upwardly-extending lip 7. In the upper face of the bearing-plate 6 are a series of roller-receiving cavities 8, that oppose the cavities 3 in the top of the axle-box.

9 represents rollers interposed between the bearing-plate 6 and the top of the axle-box and occupying positions in the cavities of said members. These rollers permit of either longitudinal movement of the axle-box with respect to the axle-journal by rotating between the axle-box top and the bearing-plate or a longitudinal movement of

the axle-journal within the axle-box while the axle-box remains in a fixed position. Provision is thereby made for a longitudinal swing of the axle-box with respect to the journal in the event of lateral lurching of a car, as in rounding curves or upon uneven railroad-tracks. During the motion of the members in the manner stated outward longitudinal thrust of the bearing-plate 6 is limited by a stop 10, with which the lip 7 of the bearing-plate 6 comes in contact when moved thereto, and inward thrust of the bearing-plate is limited by lugs 11, extending from the edges of the plate and so positioned as to strike against vertical lugs 12, projecting inwardly from the side walls of the axle-box in a position to receive said bearing-plate lugs and restrict their inward travel. Inward thrust of the bearing-plate on the brass 4 is prevented by the lip 5, extending upwardly from the brass.

While I have shown rollers as the rotating bearing members in my improvement, it is obvious that balls may be utilized in lieu of rolling members having length, as illustrated.

I claim as my invention—

The combination with a car-axle journal, of an axle-box having a plurality of cavities in the under side of its top and provided with lugs projecting inwardly from its side walls and a stop projecting downwardly from its top at the forward end of the box, a segmental journal-brass surmounting said journal and provided with a lip projecting upwardly from its rear end, a bearing-plate surmounting said brass having a plurality of cavities opposing the cavities in the axle-box and provided with lugs extending outwardly from its edges in advance of the lugs on the box and a lip extending upwardly from its forward end and throughout the width of the bearing-plate for engagement with the fore-mentioned stop when said plate moves in an outward direction, and rollers arranged in the cavities between the bearing-plate and the axle-box to permit relative movement of the axle-box and the axle-journal; said lugs, lips and stop limiting the relative movement of the parts.

OSWALD S. PULLIAM.

In presence of—

E. S. KNIGHT,
NELLIE V. ALEXANDER.