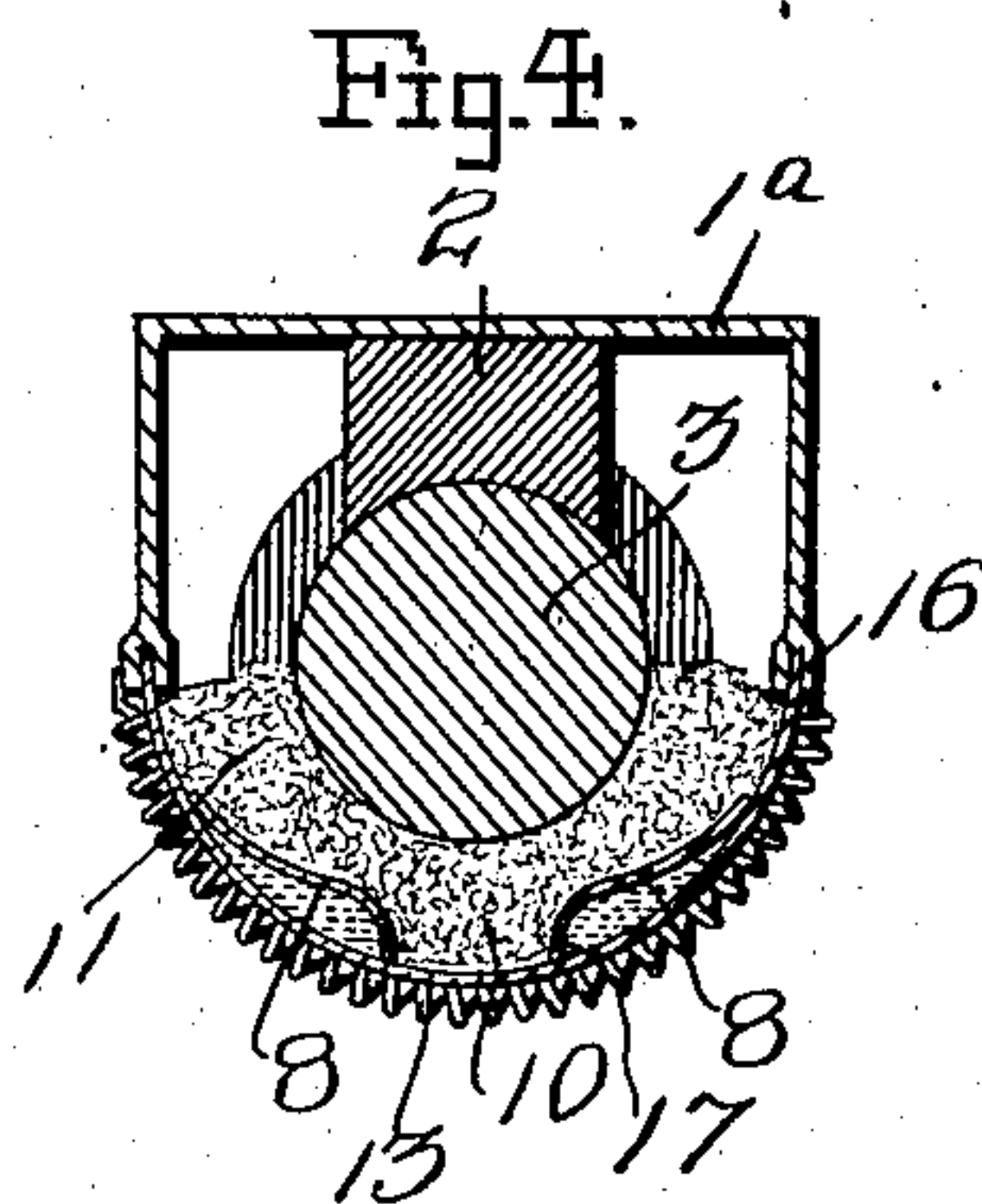
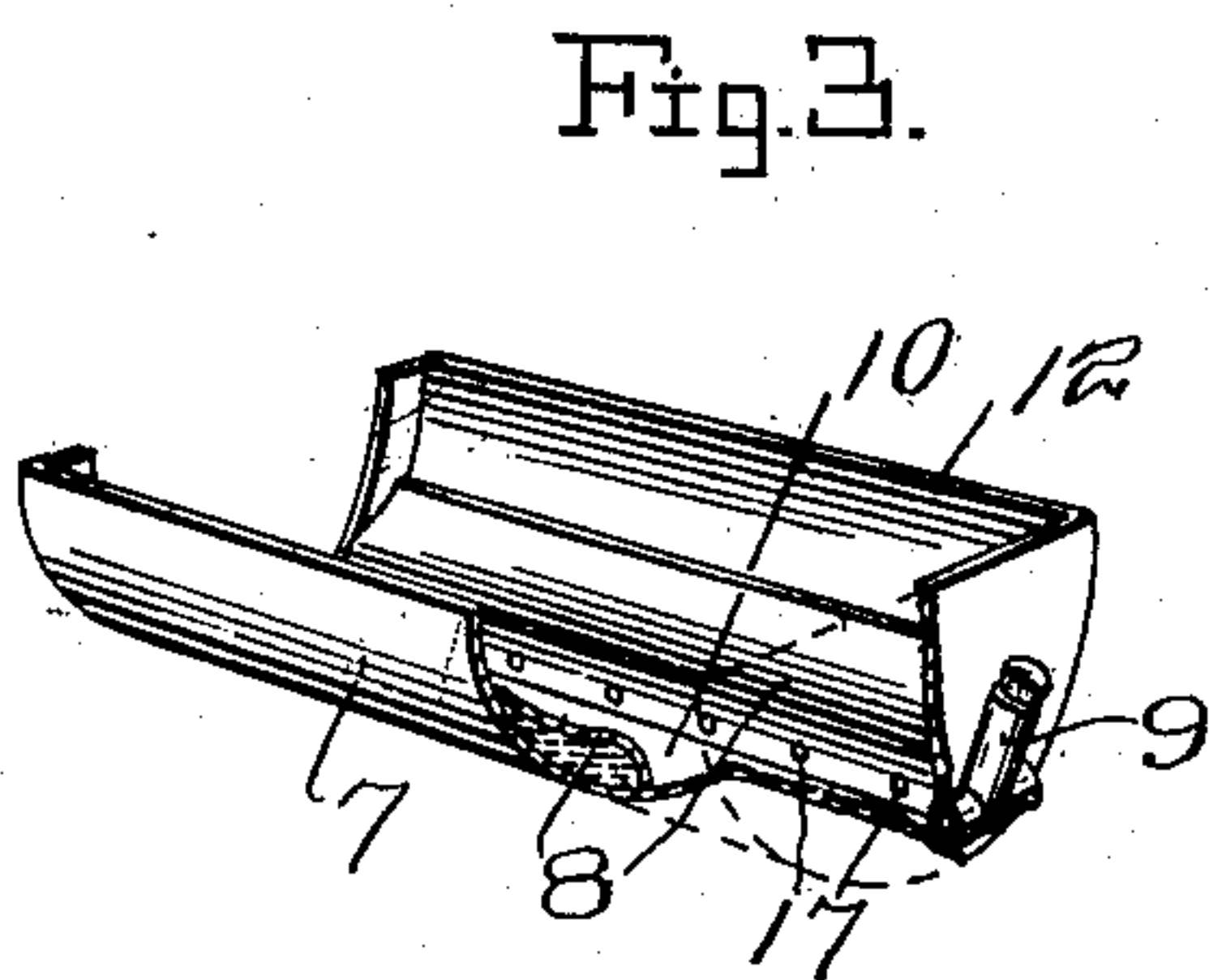
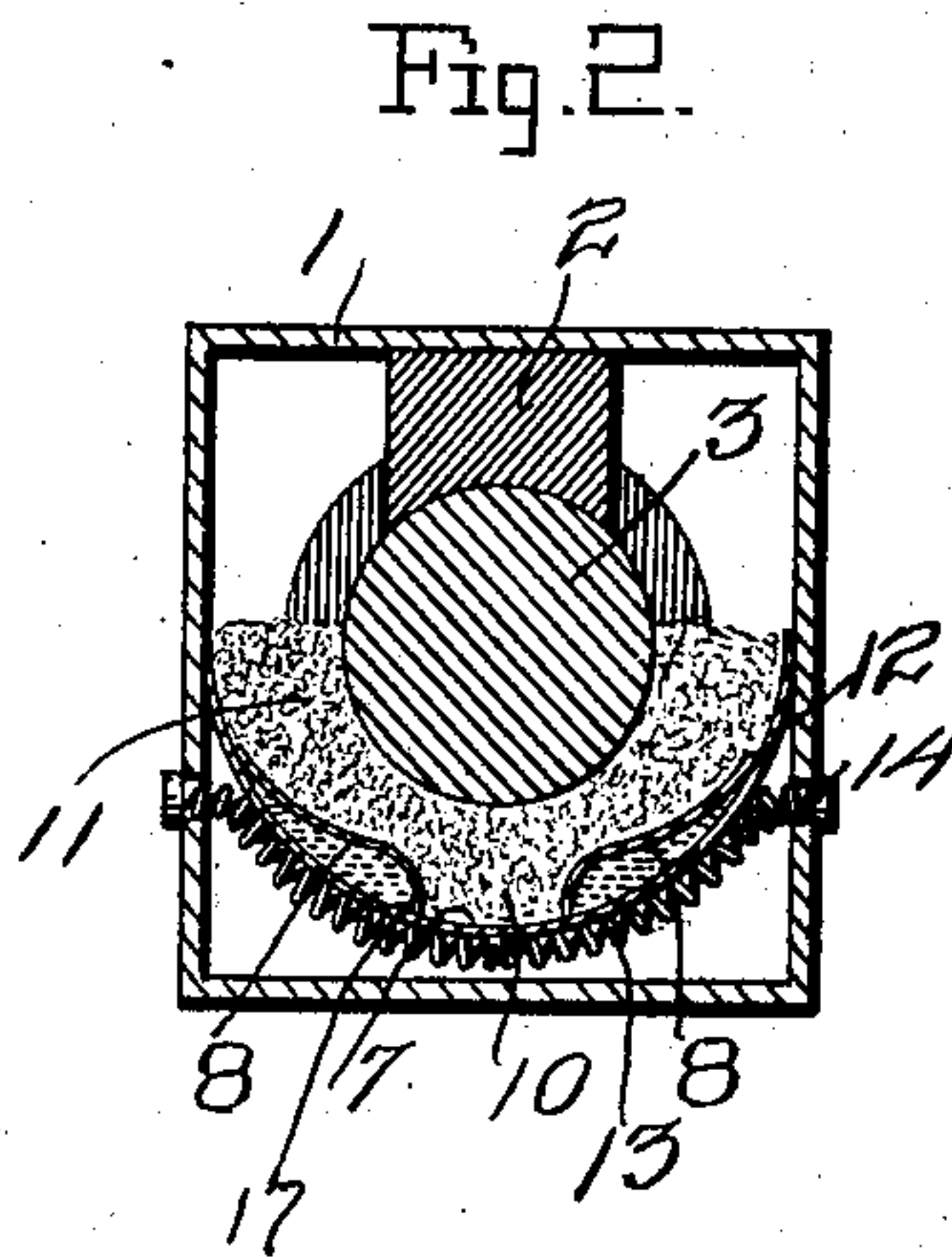
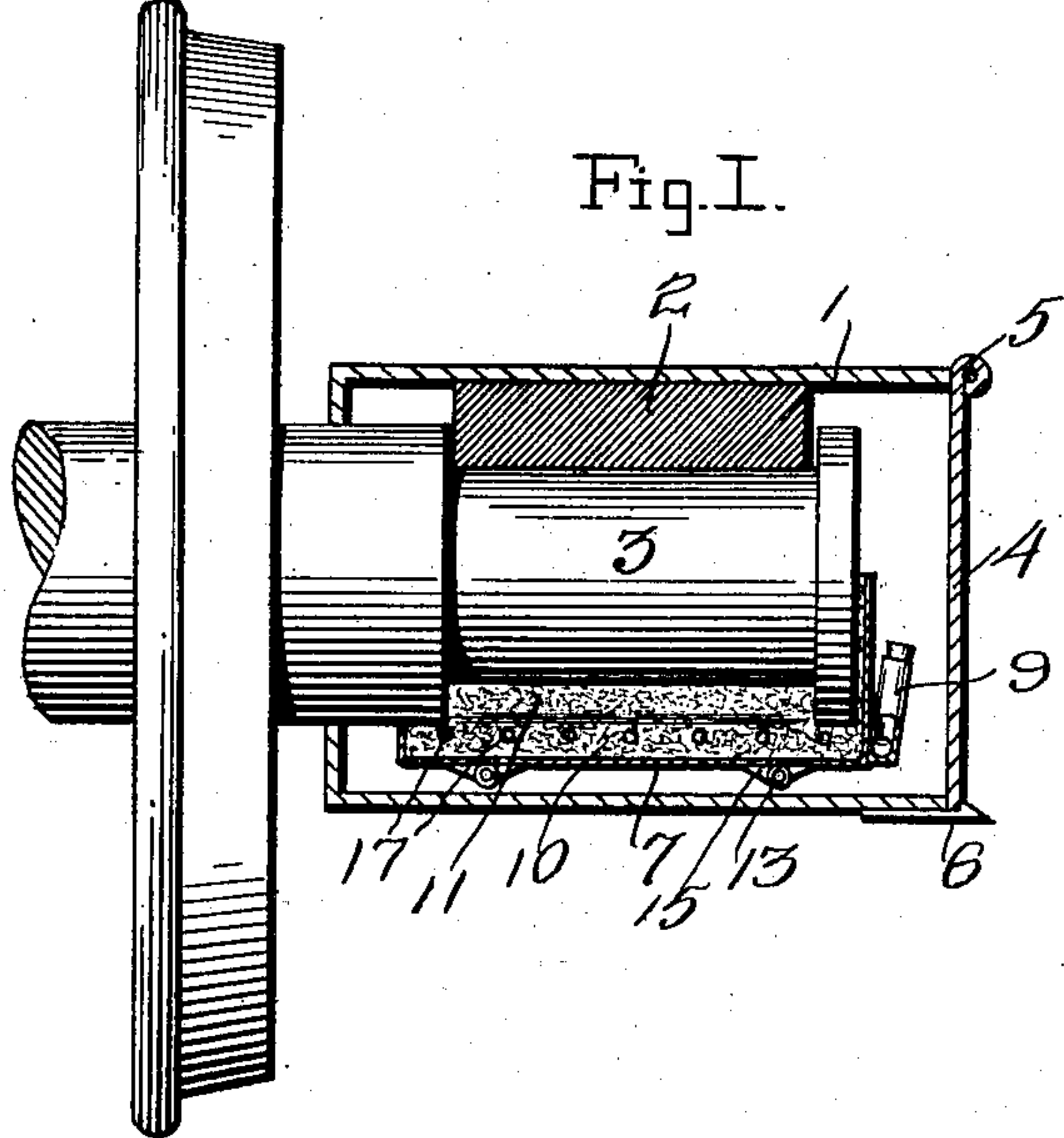


No. 742,041.

PATENTED OCT. 20, 1903.

P. T. LANGDON.
CAR AXLE LUBRICATOR.
APPLICATION FILED DEC. 31, 1902.

NO MODEL.



Inventor

P. T. Langdon.

Witnesses

C. H. Reichenbach

L. Hilton

By

A. B. Wilson & Co.

Attorneys

UNITED STATES PATENT OFFICE.

PIERPONT T. LANGDON, OF AUDUBON, MINNESOTA.

CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 742,041, dated October 20, 1903.

Application filed December 31, 1902. Serial No. 137,359. (No model.)

To all whom it may concern:

Be it known that I, PIERPONT T. LANGDON, a citizen of the United States, residing at Audubon, in the county of Becker and State of Minnesota, have invented certain new and useful Improvements in Car-Axle Lubricators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improved car-axle lubricator; and it consists in the peculiar construction and combination of devices hereinafter fully described and claimed.

The object of my invention is to effect improvements in the construction of the means for lubricating the journals of car-axes, whereby the same will participate in the end thrusts of the car-axes and will maintain the waste at all times in close engagement with the axle-journals and prevent the waste from coming out of contact with the axle-journals, hence assuring an efficient lubrication of the axle-journals under all conditions when the train is in motion and prevent waste of the lubricant, excessive wear of the journals and bearing-blocks, and also prevent the boxes from heating.

In the accompanying drawings, Figure 1 is a vertical central longitudinal sectional view of a car-axle box provided with my improved lubricating devices, showing the same applied to a journal of a car-axle. Fig. 2 is a transverse sectional view of the same, taken on the plane indicated by the line *aa* of Fig. 1. Fig. 3 is a detail perspective view, partly in section, of the oiling-pan. Fig. 4 is a transverse sectional view of my improved lubricating devices, showing the same applied to a modified form of car-axle box, of which the oiling-pan forms the lower side.

In the embodiment of my invention here shown the car-axle box 1 and the bearing-block 2 in the upper side thereof and which engages the upper side of the journal 3 of the car-axle are of the usual form, 4 indicating the door at the front or outer side of the box, which door is hinged at its upper side, as at 5, and is engaged at its lower side by a spring-catch 6 on the under side of the car-axle box when the door is closed.

In carrying out my invention I provide an oiling-pan 7 of suitable dimensions, which is adapted to be placed in the lower portion of the box 1 under and at a suitable distance from the journal 3 and which is here shown as provided with a pair of longitudinally-disposed oil-reservoirs 8, which are connected at their front or outer ends to an intake or supply-nozzle 9, which is common to both of them and through which oil is supplied to said reservoirs. In the center of the pan is a space 10 between the oil-reservoirs for the reception of waste 11, employed to convey the oil by capillary action from the oil-pan to the under side of the axle-journal, the waste being supplied with oil from the reservoirs 8 through perforations 17 and the pan having its side portions 12 extending upwardly for a suitable distance to adapt the pan to hold or contain a sufficient quantity of the waste. The oiling-pan is supported in the car-axle box in such manner as to keep the waste at all times in contact with the axle-journal by means of springs, which adapt the oiling-pan to conform to the end thrusts or longitudinal motions of the car-axle and also adapt the oiling-pan to conform to any radial movements of the axle-boxes with reference to the axle-journal. Within the scope of my invention these springs may be of any appropriate construction, and I do not desire to limit myself in this particular. In the form of my invention here shown the said springs 13 are coil-springs disposed transversely under the oiling-pan and having their ends connected to the sides of the axle-box, as at 14. The pan, as shown, is provided with lugs 15 on its under side, which engage opposite sides of the said suspending coil-springs, which lugs prevent the springs from becoming disengaged from the oiling-pan by the motions of latter, as will be understood.

It will be understood that the tension of the springs which form suspending-supports for the oiling-pan is such as to keep the latter so elevated as to prevent the waste from disengaging the under side of the axle-journal under any condition when the train is in motion. It will be further understood that the said suspending-springs adapt the oiling-pan to move or sway transversely with ref-

erence to said suspending-springs and longitudinally with reference to the axle-box, so that the oiling-pan may participate in the end thrusts of the car-axle, and hence at all
5 times keep the waste which supplies the lubricant to the axle-journal in engagement with the latter. Moreover, the movements of the oiling-pan thus permitted by the supporting-springs prevent the waste from becoming packed or solidified in the oiling-pan
10 and prevent its capillary properties from being impaired from this cause.

In the modified form of my invention shown in Fig. 4 the axle-box 1^a is bottomless, and its
15 side walls are provided with longitudinal and vertical guide-slots 16, the under sides of which are open to receive the upwardly-extending side walls of the oiling-pan. Hence the latter forms the lower side of the box.

20 From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

25 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention.

Having thus fully described my invention, 30 what I claim as new, and desire to secure by Letters Patent, is—

In combination with a car-axle box and an axle journaled therein, a pan under the axle and coil-springs disposed transversely under 35 the pan extending from side to side of the axle-box and having their ends attached thereto, said springs supporting the pan and adapting the same to move with the axle, said pan being adapted to contain waste and provided 40 with a reservoir to supply lubricant by gravity to the waste and being further provided on its under side with devices which engage the springs and prevent casual disengagement of the pan from the springs, substan- 45 tially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PIERPONT T. LANGDON.

Witnesses:

G. A. FINCH,

WILBUR BLATCHFORD.