

No. 635,750.

Patented Oct. 31, 1899.

J. L. CREVELING.
DYNAMO DRIVING MECHANISM.

(Application filed June 30, 1899.)

(No Model.)

2 Sheets—Sheet 1.

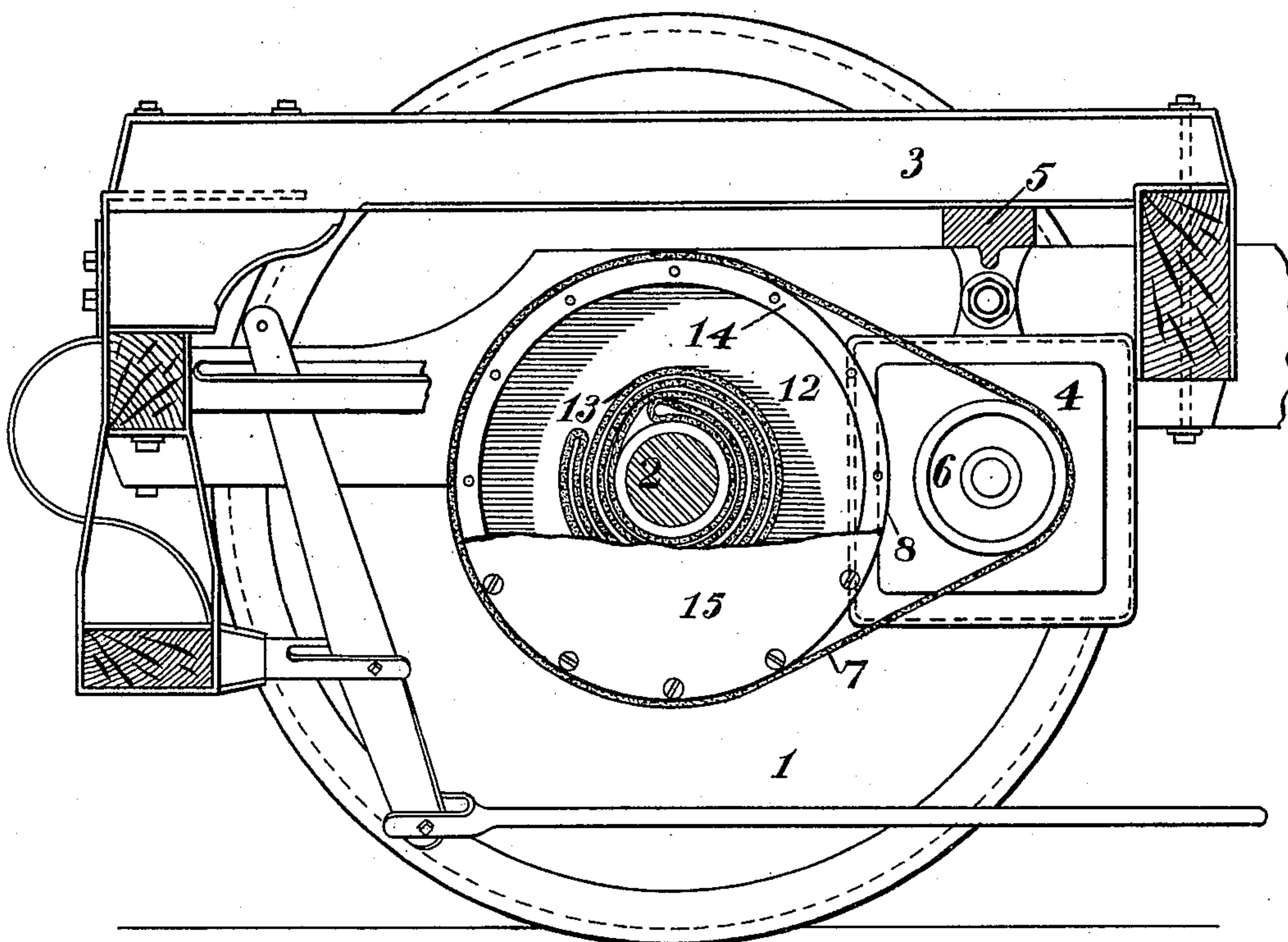


Fig. I.

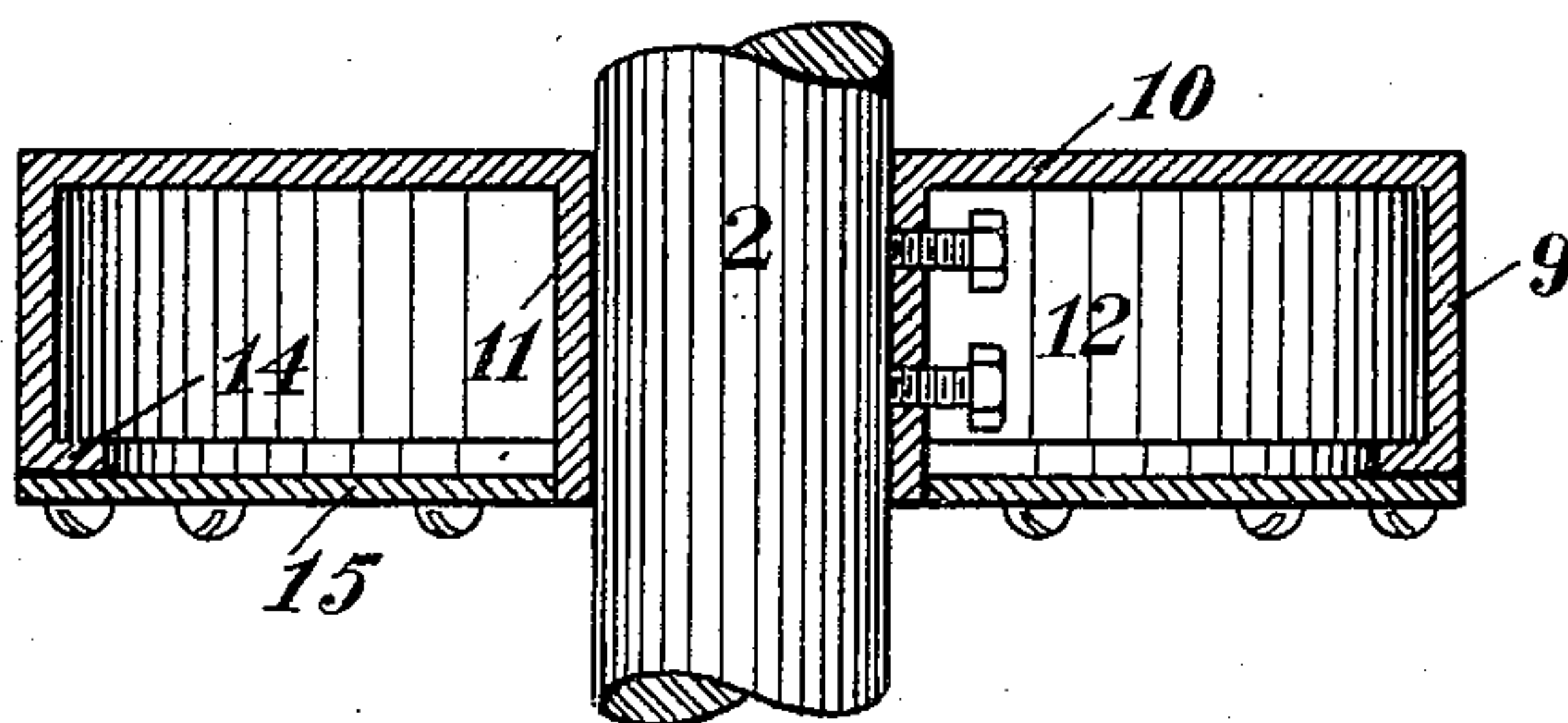


Fig. II.

WITNESSES.

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2 Sheets—Sheet 2.

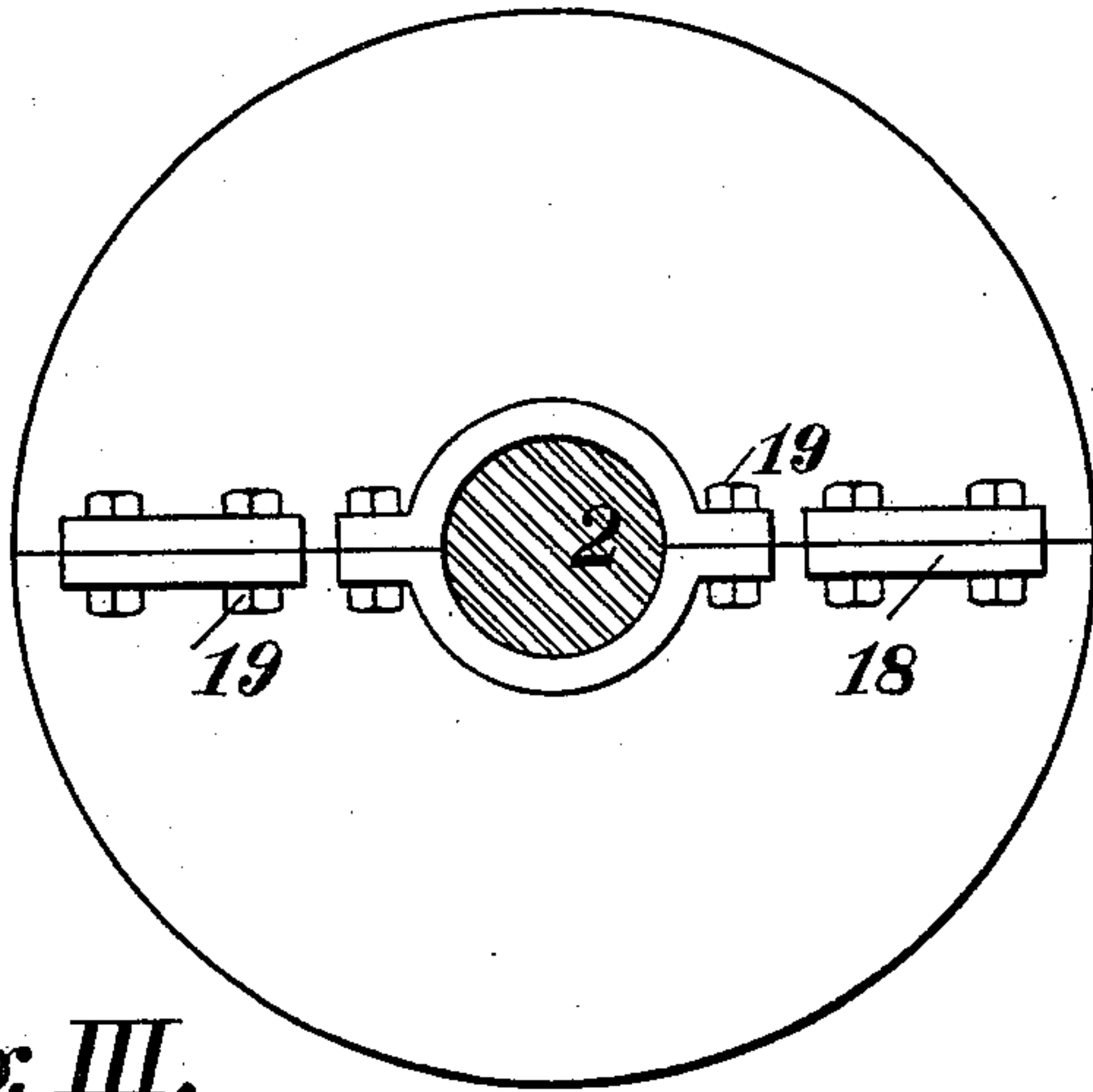


Fig. III.

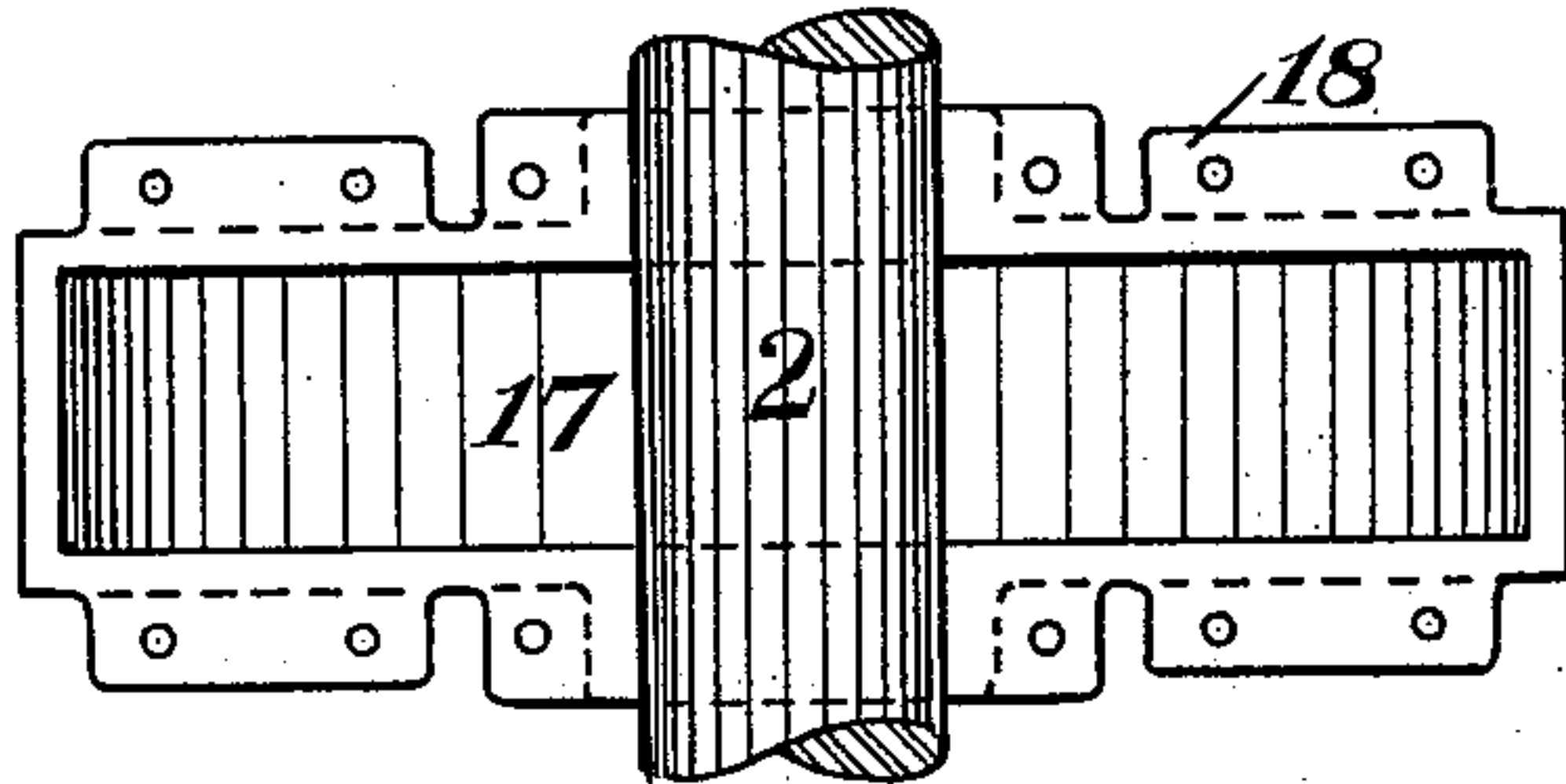


Fig. IV.

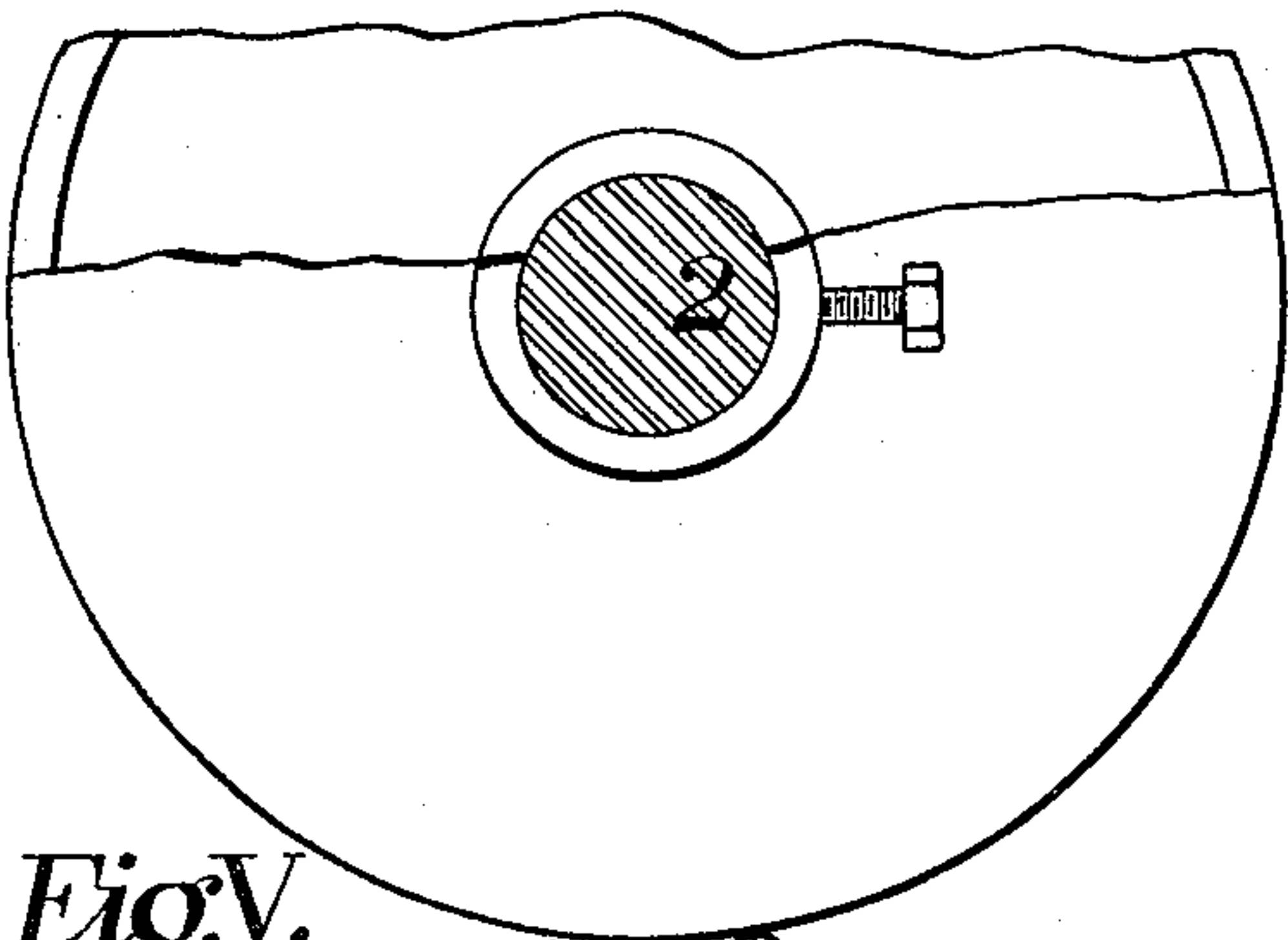


Fig. V.

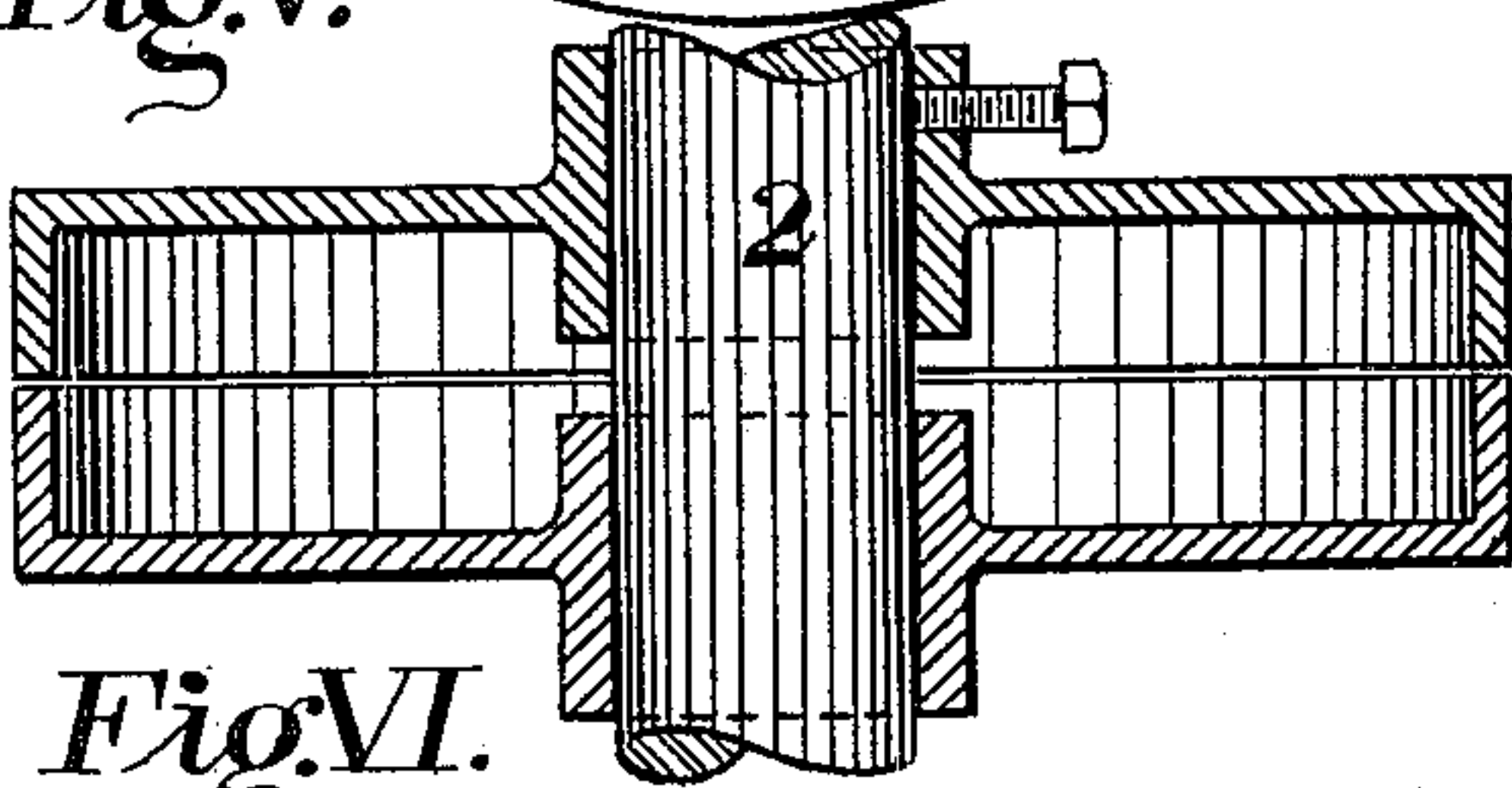


Fig. VI.

WITNESSES.

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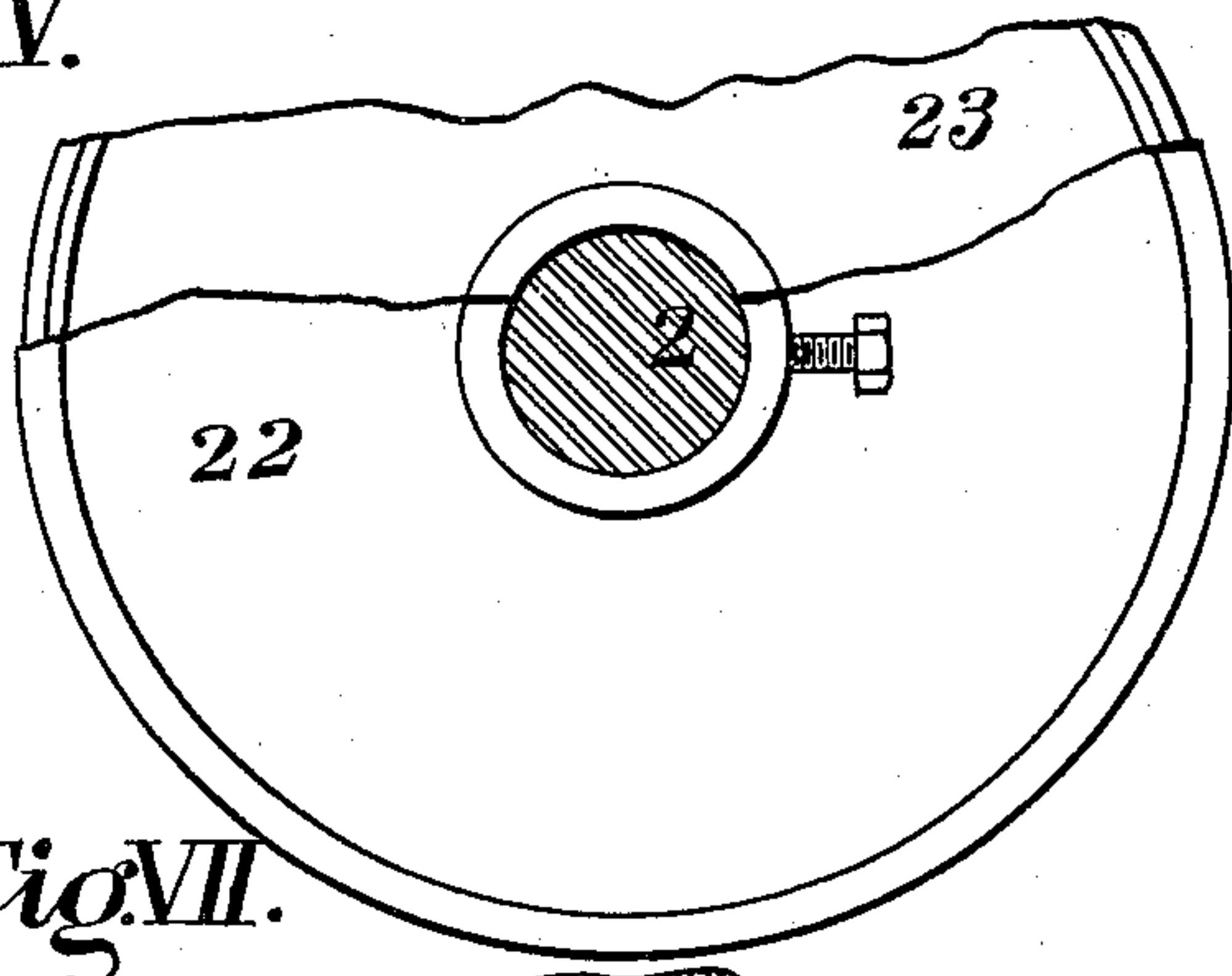


Fig. VII.

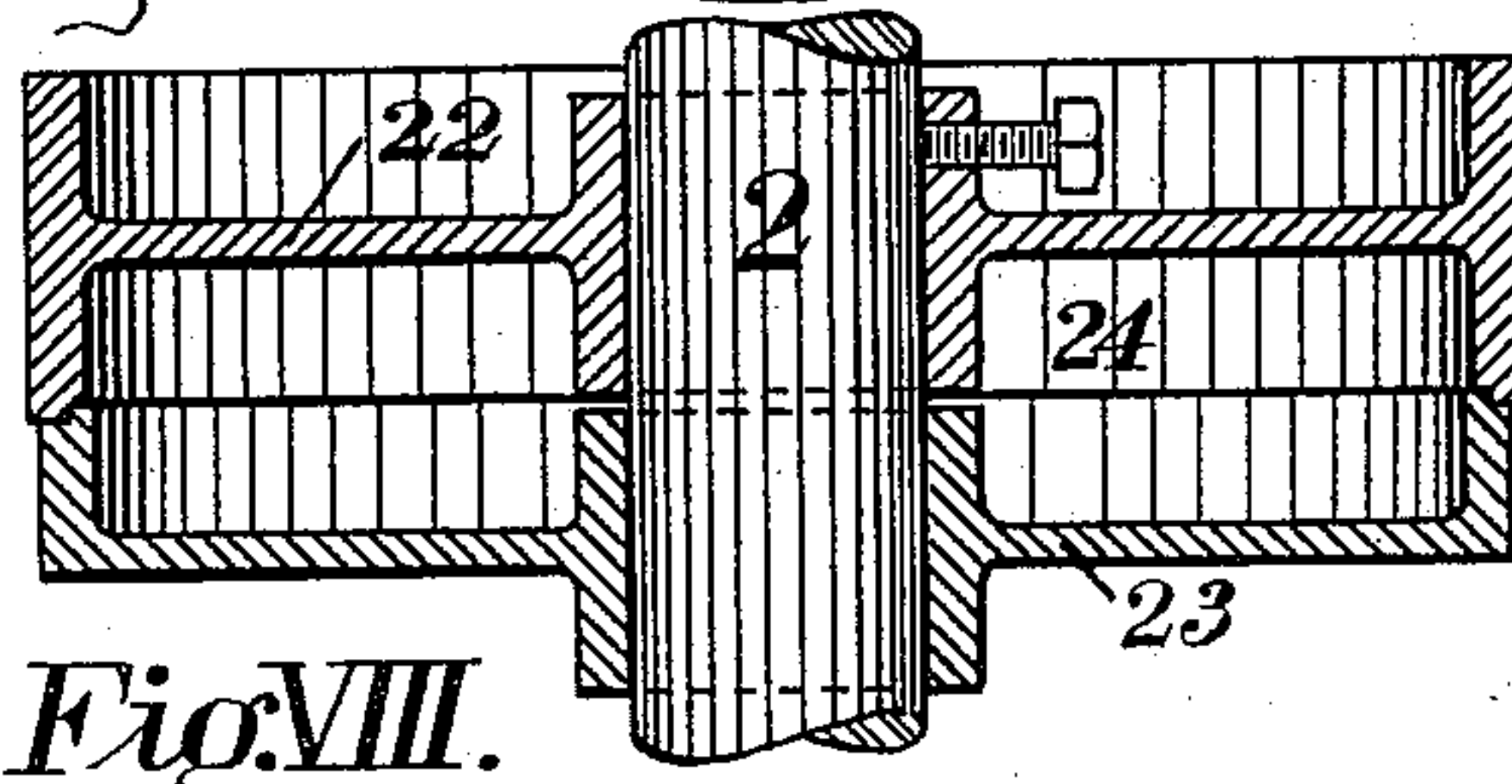


Fig. VIII.

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UNITED STATES PATENT OFFICE.

JOHN L. CREVELING, OF NEW YORK, N. Y.

DYNAMO-DRIVING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 635,750, dated October 31, 1899.

Application filed June 30, 1899. Serial No. 722,383. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. CREVELING, a citizen of the United States, residing at New York, county of New York, State of New York, have invented new and useful Improvements in Dynamo-Driving Mechanism, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention is particularly applicable to that class of driving mechanism where the dynamo is placed upon a car-truck and driven by power taken from the axle by means of a belt passing over a pulley upon said axle and a pulley connected with the dynamo-armature. Inasmuch as the portion of the car-axle upon which a belt-pulley may be placed is located between the two wheels upon the axle and between the pedestals of the truck, it is necessary to splice the belt around the axle unless the truck be taken apart each time the new belt is put on. Of course these belts only break when the car is in service, and then it is impractical to delay a train long enough to properly splice a belt around the axle. My invention comprehends means whereby spare belts which may be spliced around the axle when the car is out of service may be carried, so that all that is necessary in case the driving-belt breaks is to replace it with one of the spare belts already spliced around the axle.

In the drawings, Figure I represents a portion of the car-truck with the dynamo attached thereto and having a pulley comprising my invention upon the axle. Fig. II represents a section of the pulley and belt-holder shown in Fig. I. Fig. III represents an elevation of a modification of the belt-holder shown in Fig. I. Fig. IV shows a plan of half the holder shown in Fig. III. Fig. V indicates a still further modification of my invention. Fig. VI is a section of the same. Fig. VII represents an elevation of a further modification of my device. Fig. VIII is a section of the same.

In Fig. I, 1 represents the car-wheel, 2 the car-axle, and 3 a portion of the truck-frame. 4 represents a dynamo or generator secured to the truck by the hanger 5, while 6 is a pulley upon the end of the armature-shaft of the

dynamo which is caused to revolve by the motion of the train, since the belt 7 passes around the pulley 6 and the pulley 8, secured to the car-axle and revolving therewith. The pulley 8 is of such section as shown in Fig. II and consists of the rim 9, supported, as by the web 10, from the hub 11 in such manner as to form the annular cavity 12 for the reception of spare belts, as indicated by 13 in Fig. I. The rim of the pulley is provided with the flange 14, to which is screwed the annular plate 15. Thus it is obvious that spare belts of the proper length to run over the two pulleys may be spliced or sewed up around the axle and then placed in the cavity 12, and that if the plate 15 be then put on the belts will be protected against moisture and dirt and mechanical injury. Now if at any time a new belt be needed it will not be necessary to delay the train long enough to splice a belt around the axle, as a spare one can be taken from the cavity or inclosure 12 and replaced when the car is not in use.

The device shown in Fig. III is composed of two like halves, one of which is shown in plan in Fig. IV. Each half defines the cavity 17, and if belts be spliced around the axle they can be coiled up and the two halves of the holder placed over them and bolted together, as by means of the bosses 18 and bolts 19, thus entirely covering and protecting the belts.

The holder or inclosure shown in Fig. V is composed of two parts, as shown in section in Fig. VI, adapted to be separated by slipping one or both parts along the shaft or axle. An endless belt may then be coiled around the axle between the two parts of the device, and if these parts then be brought together the belt will be surrounded and protected by the holder.

The device shown in Fig. VII consists of an ordinary pulley the rim of which is supported, as by spokes or preferably by a web, as indicated by 22 in Fig. VIII, and a shell or case 23, mounted upon the axle 2 and so arranged that when the pulley and shell 23 are brought together, as shown in the drawings, they form the annular cavity 24. If these parts be separated by sliding either along the shaft 2, a belt may be spliced around

the shaft and then coiled up, and if the two parts now be brought together they may be made to inclose the belt.

5 In all the applications of my invention shown in the drawings the periphery of the device for containing the belts may be used as a pulley-face; but it is obvious that any of the devices which I have shown may be used for carrying the belts, while a separate
10 pulley may be used for driving the dynamo. I have shown the devices in the form of pulleys, inasmuch as this form is preferred by me, since the apparatus takes up little, if any, more room upon the axle than the ordi-
15 nary driving-pulley. It is also plain that for the proper working of my device it is not necessary that the receptacle or inclosure for the belts shall revolve with the axle, but that it may remain stationary, unless it be desired
20 to use a portion thereof to constitute part of the driving-pulley. I therefore do not wish to confine myself to the constructions shown in the attached drawings, which merely indicate forms of apparatus embodying my in-
25 vention and which may be subject to consid-

erable alteration without departing from the spirit of the invention.

Having thus described my invention, what I claim as novel, and desire to secure by Letters Patent, is as set forth in the following
30 claim:

Means for use with an axle or shaft to be operated in connection with a driving-belt, said means comprising an auxiliary belt normally inoperatively inclosing said axle or
35 shaft, and adapted to be readily substituted in operative position for the ordinary driving-belt upon the breaking of the latter, and an inclosure for retaining such auxiliary belt in inoperative position around the axle or
40 shaft and adapted to retain it until its services are rendered necessary as a substitute for the first-mentioned belt.

In testimony of all of which I have hereunto subscribed my name.

JOHN L. CREVELING.

Witnesses:

EDW. C. SOFIO,
ELMER E. ALLBEE.