

No. 801,300.

PATENTED OCT. 10, 1905.

P. H. CONRADSON.  
JOURNAL LUBRICATOR.  
APPLICATION FILED SEPT. 9, 1903.

3 SHEETS—SHEET 1.

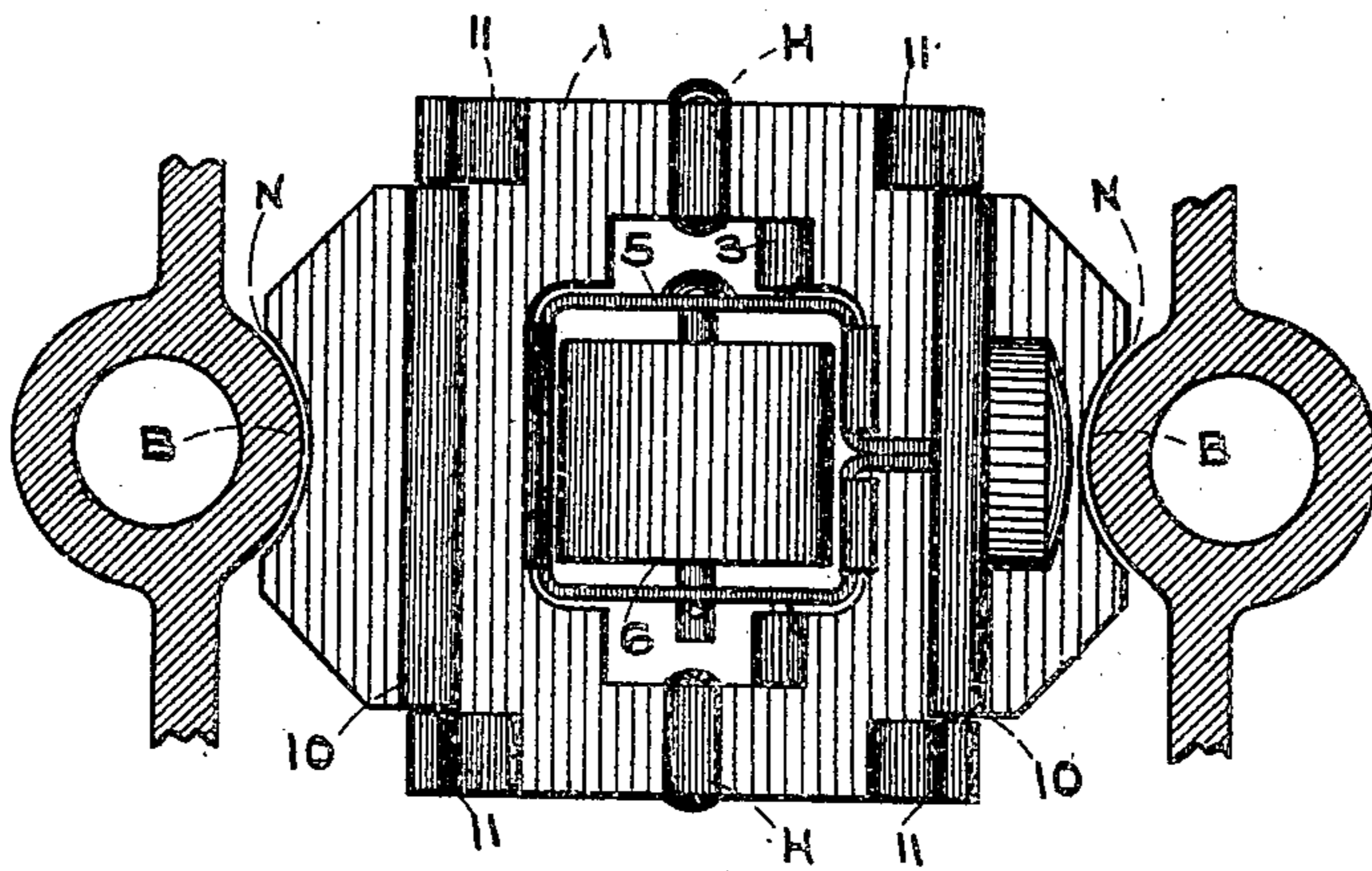


FIG. 1.

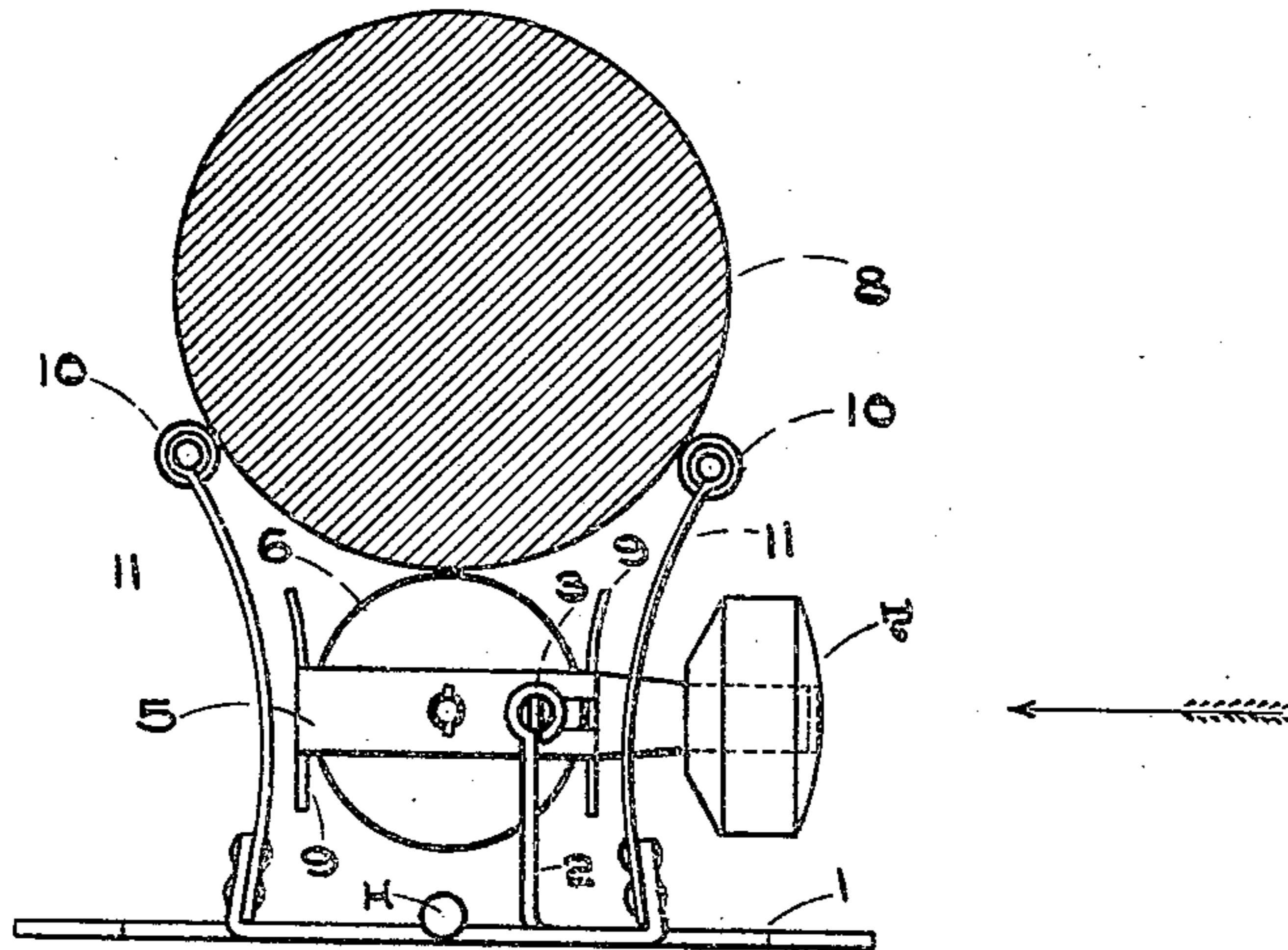


FIG. 2.

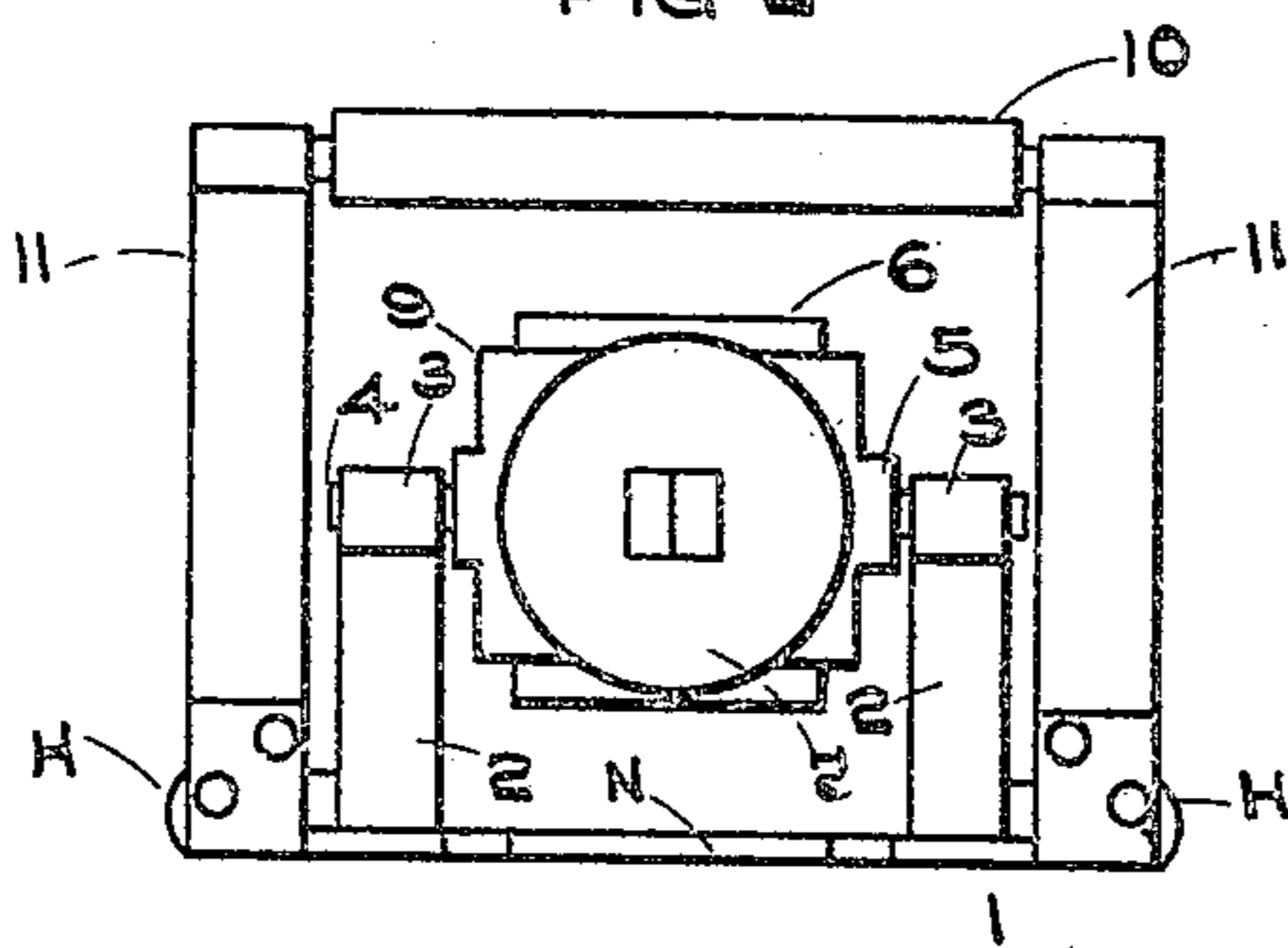


FIG. 3.

WITNESSES

*Agnes D. Hale*  
*W. H. Fisher*

INVENTOR

*Pontus H. Conradson*  
BY *Edward R. Arman*  
ATTORNEY

No. 801,300.

PATENTED OCT. 10, 1905.

P. H. CONRADSON.  
JOURNAL LUBRICATOR.  
APPLICATION FILED SEPT. 9, 1903.

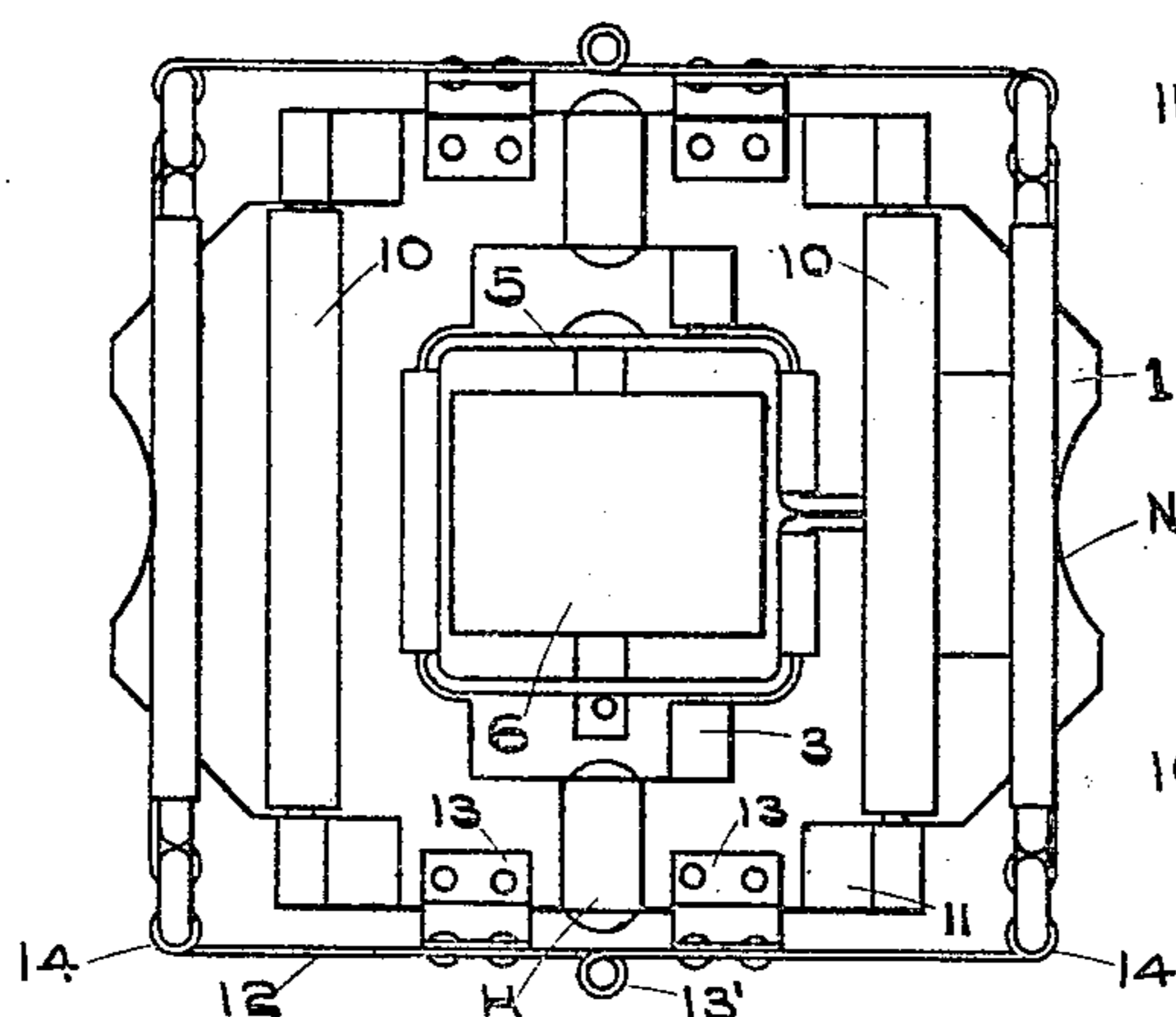


FIG. 4.

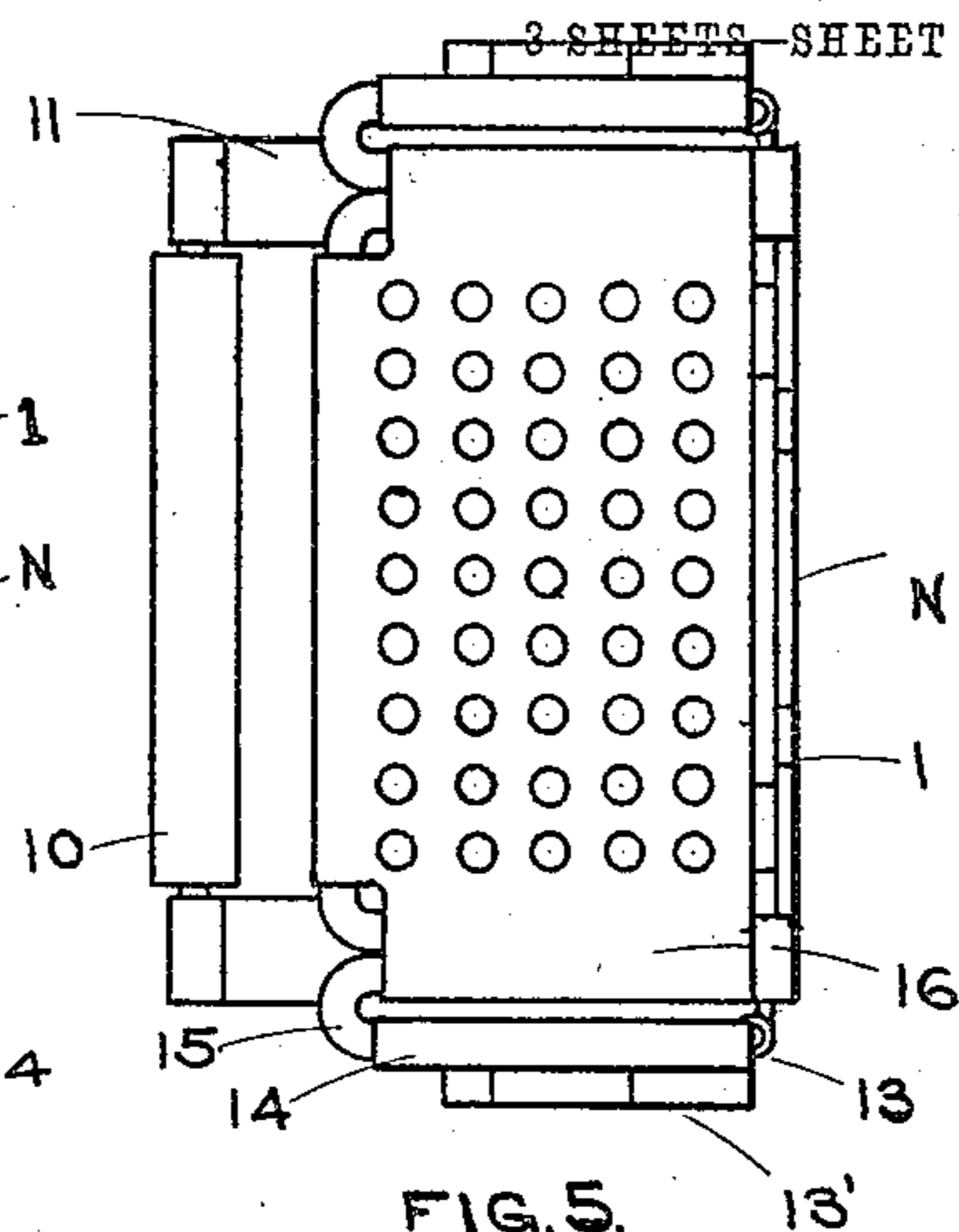


FIG. 5.

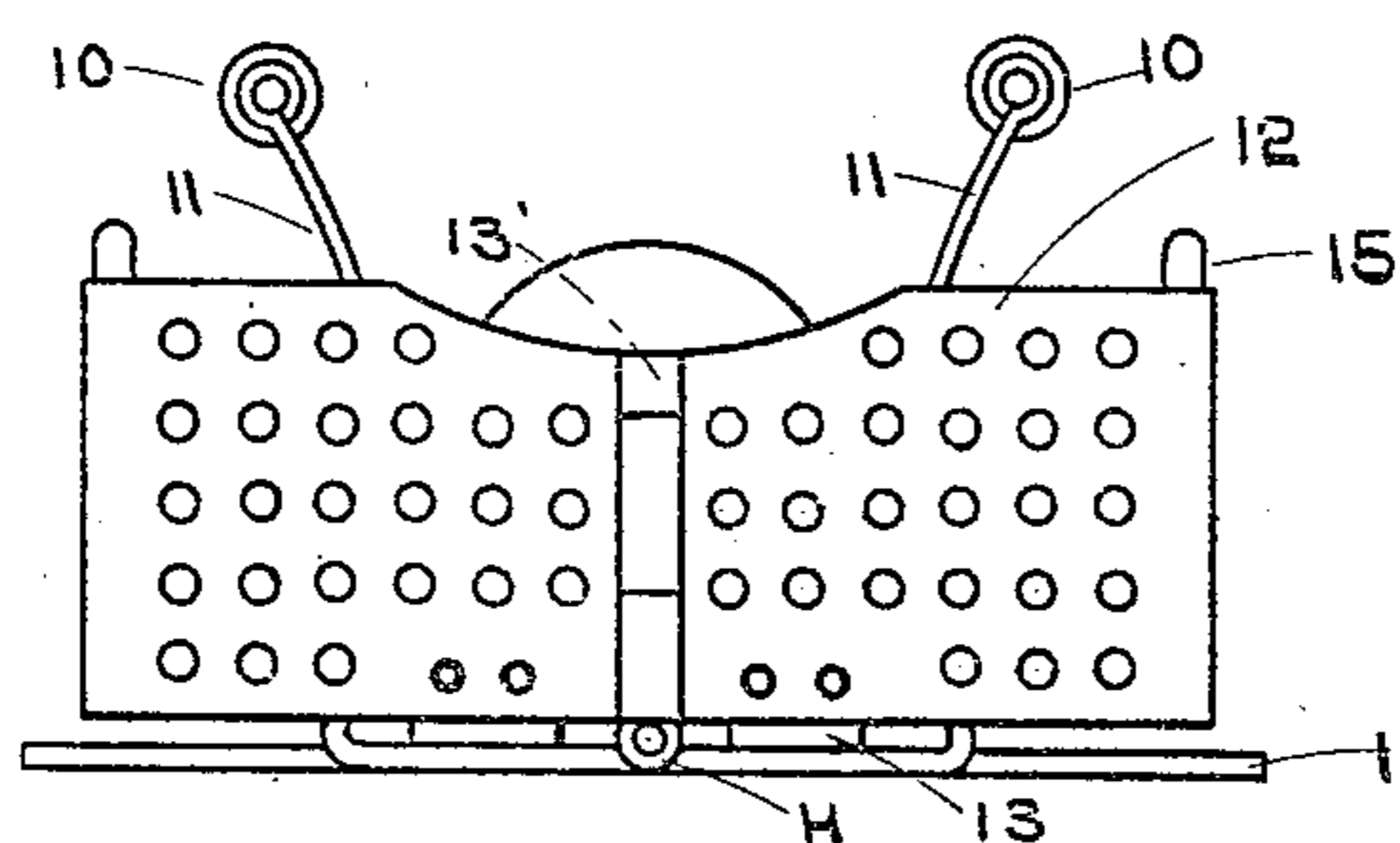


FIG. 6.

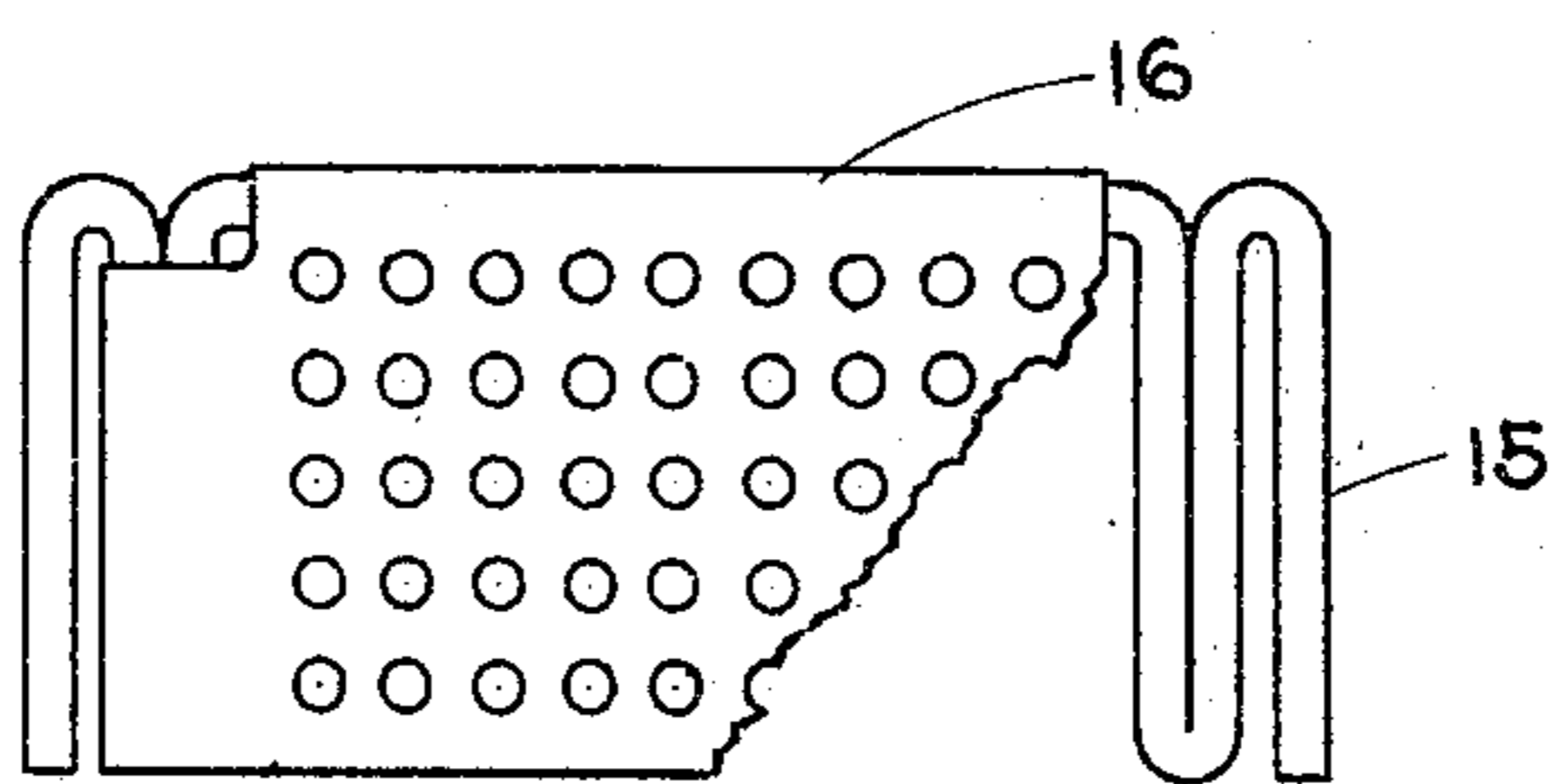


FIG. 7.

WITNESSES

*Agnes D. Hale*  
*W. C. Forbush*

INVENTOR

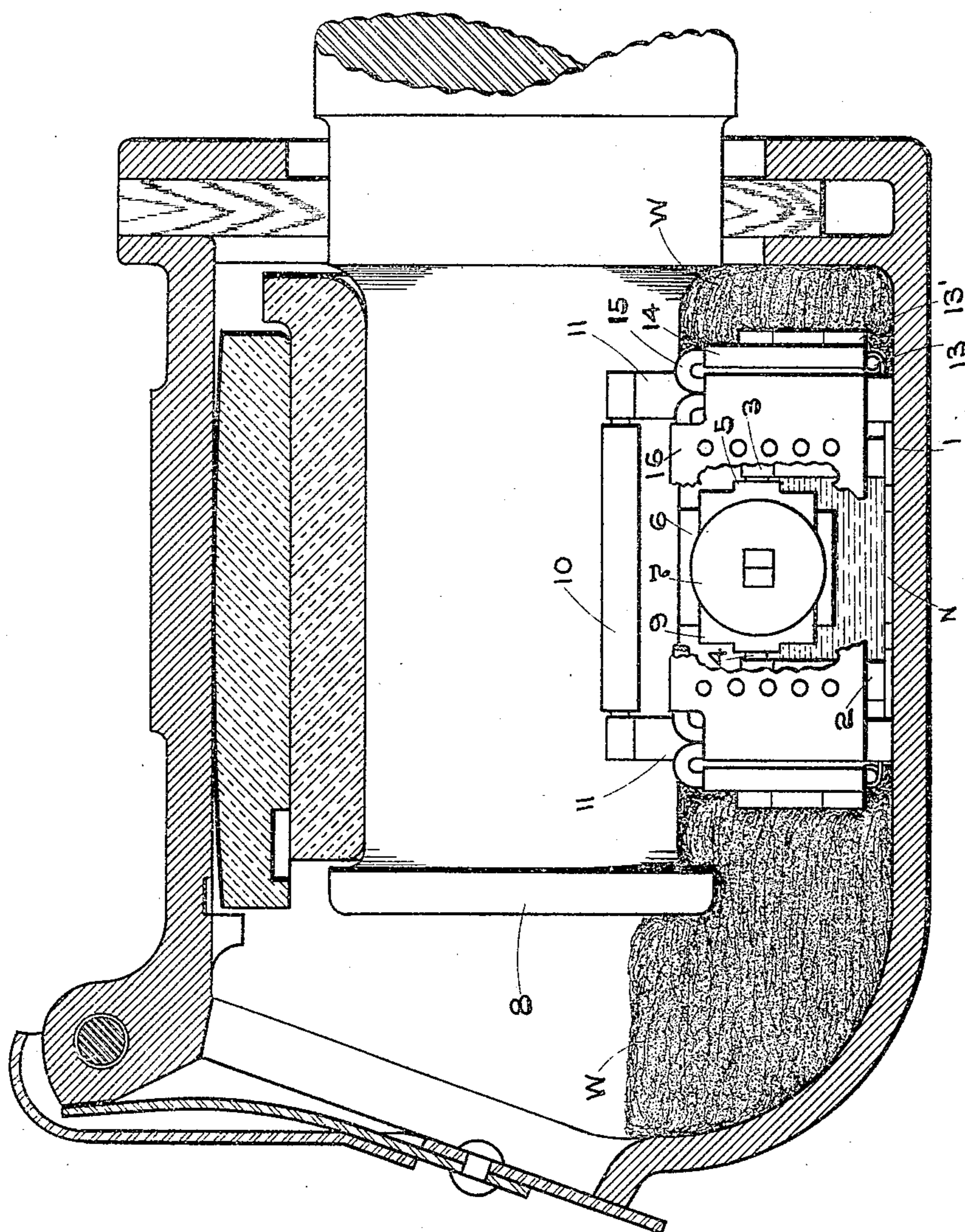
*Pontus H. Conradson*  
BY *Edward P. Immaus*  
ATTORNEY

No. 801,300.

PATENTED OCT. 10, 1905.

P. H. CONRADSON.  
JOURNAL LUBRICATOR.  
APPLICATION FILED SEPT. 9, 1903.

3 SHEETS--SHEET 3.



WITNESSES

*Agnes Whalen*  
*Wm. F. ...*

INVENTOR

*Pontus H. Conradson*  
BY *Eduard R. Imman*  
ATTORNEY

# UNITED STATES PATENT OFFICE.

PONTUS H. CONRADSON, OF FRANKLIN, PENNSYLVANIA, ASSIGNOR TO  
GALENA-SIGNAL OIL COMPANY, OF FRANKLIN, PENNSYLVANIA, A  
CORPORATION OF PENNSYLVANIA.

## JOURNAL-LUBRICATOR.

No. 801,300.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed September 9, 1903. Serial No. 172,463.

*To all whom it may concern:*

Be it known that I, PONTUS H. CONRADSON, a citizen of the United States, residing at Franklin, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Journal-Lubricators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in journal-lubricators, the construction, application, and operation of which will be fully understood from the following specification, reference being had to the accompanying drawings through the figures and letters of reference marked thereon and forming a part of this specification.

In said drawings, Figure 1 is a plan view of my device. Fig. 2 is an end elevation, the journal being here shown in section, but omitted from all other views except Fig. 8. Fig. 3 is a side elevation from the view-point indicated by the arrow in Fig. 2. Fig. 4 is a plan view of my device, showing a retaining-wall or oil-cellar which may be constructed about the lubricator. Fig. 5 is a side elevation of Fig. 4. Fig. 6 is an end elevation of Fig. 4. Fig. 7 is a detail. Fig. 8 is a central longitudinal section of a journal-box and its contained parts, showing my lubricator in position, the retaining-wall being broken away to expose the lubricator to view.

The same reference characters indicate identical parts in the several views.

The essential features of my device are, a wheel or roller bearing against the under sides of the axle, which wheel is yieldably supported by a counterweight and is of such diameter as to extend downward well into the oil-cellar, so as to be partly immersed in the lubricant contained therein, and said wheel is adapted to revolve by reason of its contact with the journal and to carry a portion of said lubricant by adhesion and deliver same to the journal, in combination with yieldably-supported rollers or lubricant-distributors, which are adapted to bear longitudinally against the journal, at each side thereof, somewhat above the wheel aforesaid for the purpose of spreading the lubricant over the periphery of the journal as it is delivered thereto by said wheel.

The detailed construction of my device is substantially as follows: A base 1 has extend-

ing upwardly therefrom two brackets or standards 2 2, each formed at its upper extremity into an eye 3 for the reception of the pivots or trunnions 4 4, which project outwardly from each side of frame 5, wherein is revolubly mounted the wheel 6. Being thus mounted, wheel 6 is adapted to have a vertical movement, and a counterweight 7, mounted on said frame 5, is adapted to keep wheel 6 always in contact with the periphery of axle 8, the trunnions 4 acting as fulcrums for this purpose. At each side of wheel 6 is provided guards or fenders 9 9, which serve to arrest such lubricant as may be thrown from the wheel by centrifugal force.

At each side of and somewhat above the wheel 6 is a roller 10 10, which rests longitudinally against journal 8 and is held in yieldable contact therewith by means of the springs 11 11. Said rollers 10 are adapted to spread the oil or other lubricant evenly over the periphery of the journal as it is delivered thereto by the wheel 6. Springs 11 are suitably secured to the base 1.

In order that my lubricator may the more easily be placed in position within the journal-box, the base 1 is hinged at the points H H, which adapts it to be flexed or folded in a line parallel with the longitudinal axis of the journal when said lubricator is in position in the journal-box.

The lateral extremities of the base are made to conform to the structural shape of the side walls and bottom of the journal-box, and in the drawings the base 1 is shown notched at N N for the purpose of conforming to and receiving the bosses B B, which are formed at the sides of some styles of journal-boxes for the reception of bolts, by means of which such boxes are secured to the truck. By this means the lubricator is adapted to be retained in position. I do not wish, however, to be understood as limiting myself to the particular style and conformation here shown, for the reason that not all journal-boxes are thus constructed, though nearly all of them have some peculiarity of conformation at the point in question which will admit of the application of the feature shown in some modified form and its adaptation to the purpose here specified.

A particularly desirable feature of my device is the fact that it does not depend upon

wicks or any fibrous absorbent material to deliver lubricant to the journal or any fibrous or absorbent pad or wiper to spread the same thereon, as such fibrous and absorbent material when held in contact with the journal soon becomes so coated with dust, foreign matter, and abraded particles from the journal and its bearings as to be rendered useless and inefficient. In my device the lubricant is delivered to the journal by the wheel 6, which may be of wood or metal, and the lubricant is spread upon the journal by means of the rollers 10, which are as efficient in their operation as any elastic or fibrous wipers could be even when new, and being constructed of wood or metal they do not become inefficient by continued use.

The present style of journal-boxes on railway-cars and locomotives have a large cellar or receptacle beneath the journal on account of the very general use of packing material used therein, such as waste and other fibrous material, to absorb and retain the lubricant within the cellar.

As the lubricator here shown is adapted to be placed in any journal-box without any change or special preparation of the box itself, it is necessary to fill up the immediate surrounding portion of the cellar which is not occupied by the lubricating device, and for the purpose of so filling the cellar waste, chips, shavings, blocks of wood, or any other suitable material may be used, the material shown in Fig. 8 being waste. The filling material must be prevented from coming in contact or becoming entangled with the operating portions of the lubricator, and for this purpose a perforated retaining-wall is formed thereabout, which incloses all of the working parts of the lubricator and forms an oil-well at the point where the lubricant is needed for use.

The necessity of filling the journal-box about the lubricator, as above stated, arises from the fact that if this were not done it would require an unnecessarily large amount of lubricant to fill the box, and this lubricant would very soon be spilled by reason of the jar and agitation to which the box is always subjected when in service if there were no means of confining it within proper and reasonable limits of utility. Further, by reason of such agitation and the consequent splashing of the lubricant within the box wheel 6 would often not be properly immersed in lubricant, and thus would be prevented from performing its functions properly and efficiently.

The retaining-wall (shown in Figs. 4, 5, 6, 7, and 8) is constructed substantially as follows: A section of perforated metal 12 is hinged at 13' directly in line with hinge H in the base 1 and attached to said base 1 by means of hinges 13 13, and when the lubricator is to be placed in position in the journal-box the walls 12 12 are let down, so that they lie in the

same horizontal plane with the base, which permits the base and walls 12 12 to be folded or flexed at the hinges H H and 13 13, in which condition the lubricator may be inserted in the journal-box. When the device is in position, the base is straightened upon the hinges H H, and the walls 12 12 are thrown up in the vertical position. At each end of wall 12 is formed an eye 14 14, into which is inserted the stem 15 of the end wall 16, which end wall thus placed serves to keep the side walls in a vertical position. In case the space in the journal-box is sufficiently large the lubricator may be placed in position thereon without thus throwing down the retaining-walls. A quantity of waste or other suitable material is now placed in the journal-box about the lubricator, and the whole is ready for service.

From an inspection of Fig. 8 it will be readily understood that any oil which is poured upon the waste or thrown there by the action of the lubricator will find its way to the open space about wheel 6, keeping said wheel well immersed in lubricant, and consequently efficient and reliable in its action and operation.

I am aware that various forms of perforated receptacles have been used for retaining waste or other fibrous material beneath journals and to hold the same closely in contact with the journal for the purpose of lubricating the same, and such a device is shown in patent to Harrison, No. 458,364, of August 25, 1891, also in patent to Kernodle, No. 558,963, of April 28, 1896; but I hereby specifically disclaim such devices as are therein shown, as my device is for the purpose of preventing fibrous and other filling material from coming in contact with the operating parts of my lubricator, which is contained within the retaining-wall.

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

1. In an improved lubricator for journals, a base adapted to conform laterally to the structural walls of the sides and bottom of the journal-box, and to be retained in position thereby, in combination with hinges in said base, adapting the same to be folded in a line parallel with the longitudinal axis of the journal.

2. In a journal-lubricator, a hinged base, adapted to bear against the side and bottom walls of the journal-box and to be thereby held in position, two brackets extending upwardly from said base, there being an eye at the upper extremity of each of said brackets, a frame mounted in said eyes, a wheel mounted in said frame, a counterweight attached to said frame, and adapted to keep the wheel aforesaid in contact with the journal, rollers yieldably mounted upon said base, adapted to bear against the sides of the journal and to spread the lubricant as it is delivered there-

to; all combined and operating substantially as set forth.

3. In an improved journal-lubricator, a wheel adapted to be held yieldably against the under side of the journal by a counterweight, the counterweight aforesaid, rollers adapted to be held yieldably against the sides of the journal, as shown, in combination with a perforated retaining-wall surrounding said wheel

and counterweight for the purpose specified, and any suitable material filling the lower portion of said box, outside the wall.

In testimony whereof I affix my signature in presence of two witnesses.

PONTUS H. CONRADSON.

Witnesses:

AGNES WHALEN,  
EDWARD R. INMAN.