

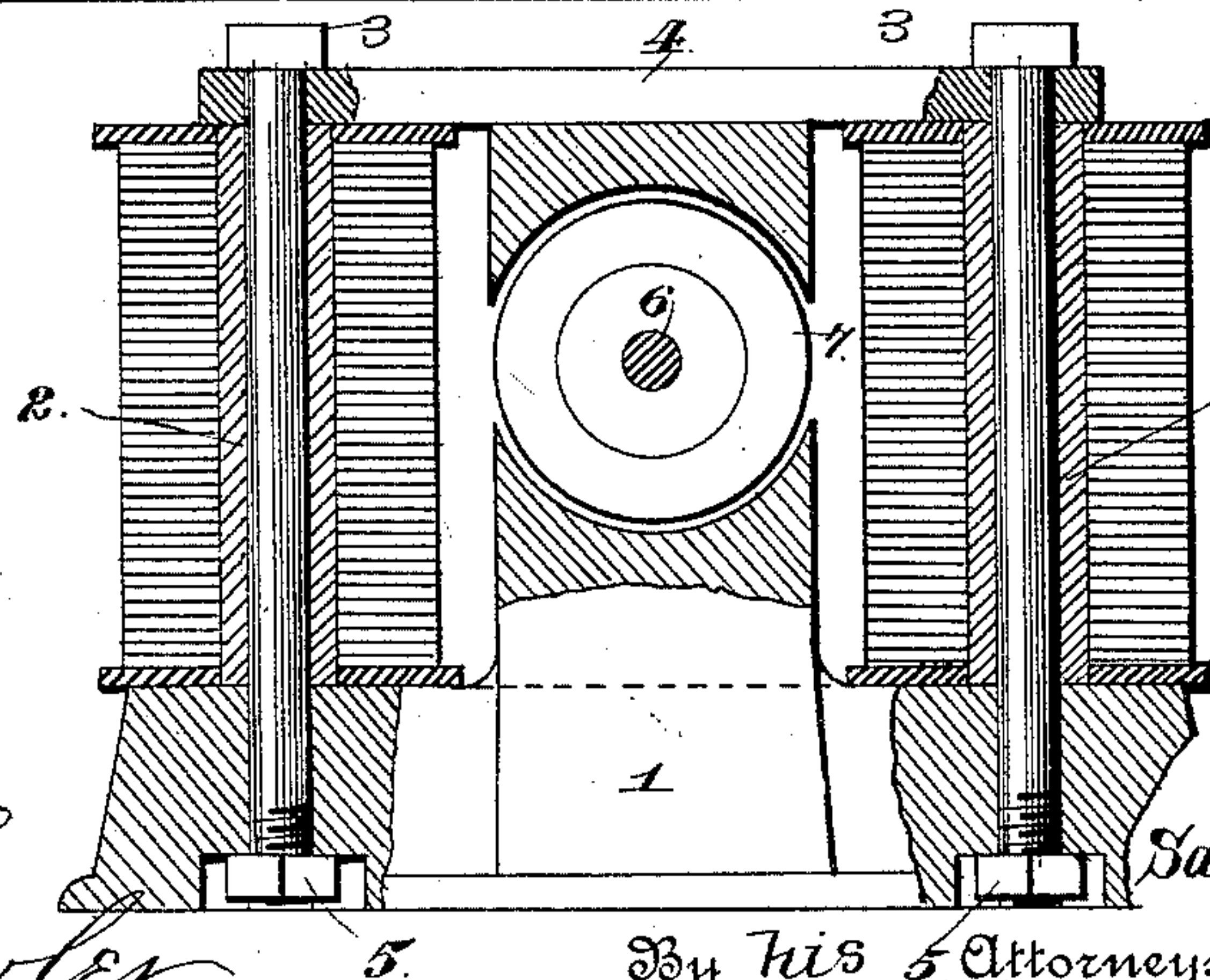
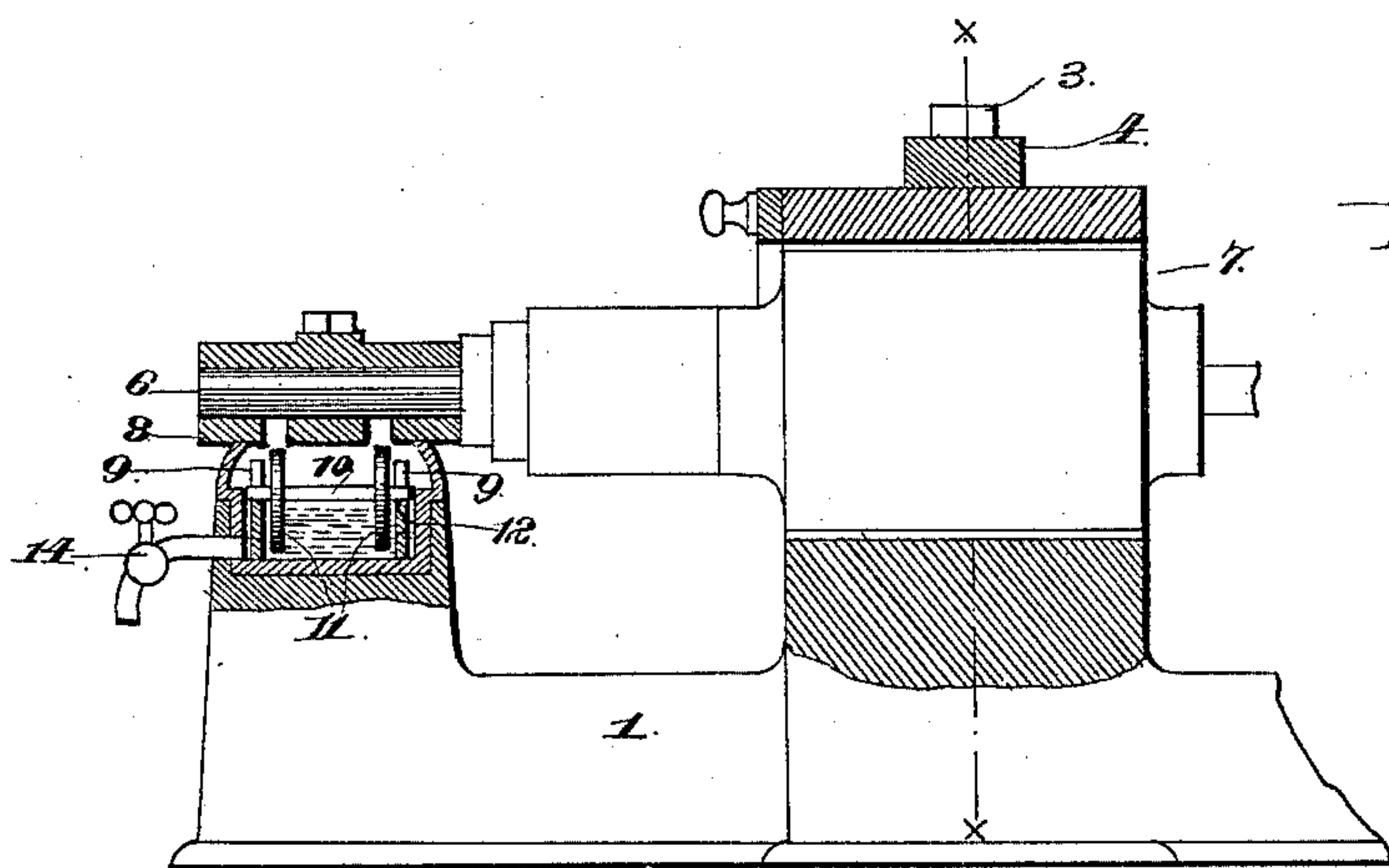
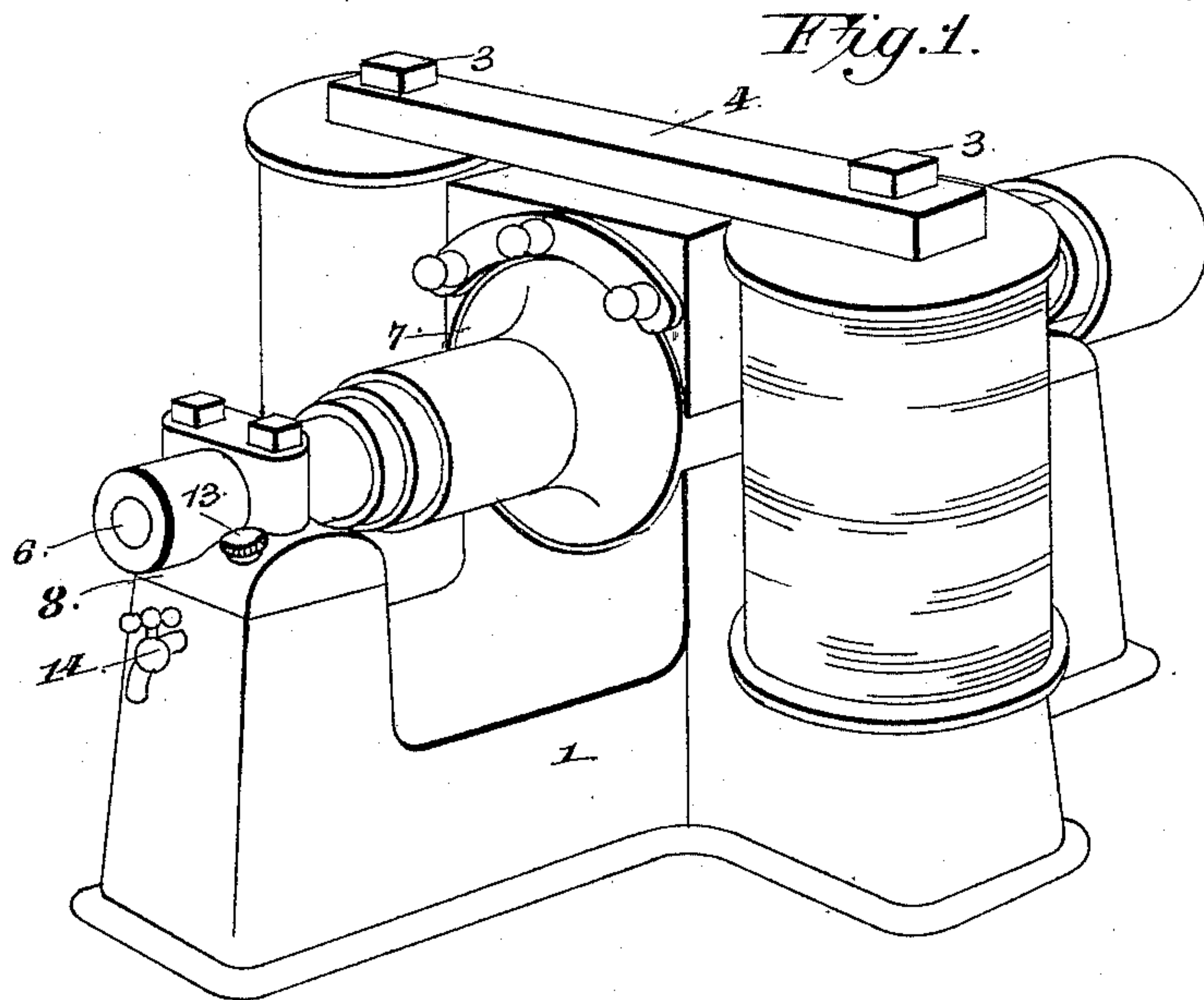
(No Model.)

S. L. BARRIETT.

AUTOMATIC LUBRICATING DEVICE FOR ELECTRIC MOTORS.

No. 432,927.

Patented July 22, 1890.



Witnesses

M. E. Fowler
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UNITED STATES PATENT OFFICE.

SAMUEL LAWRENCE BARRIETT, OF BROOKLYN, NEW YORK.

AUTOMATIC LUBRICATING DEVICE FOR ELECTRIC MOTORS.

SPECIFICATION forming part of Letters Patent No. 432,927, dated July 22, 1890.

Application filed March 13, 1890. Serial No. 343,768. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL LAWRENCE BARRIETT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Automatic Lubricating Device for Electric Motors, of which the following is a specification.

This invention relates to automatic lubricating devices for electric motors; and it has for its object to provide a device of this class which shall be simple in construction and thoroughly efficient, as well as entirely automatic in operation.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of an electric motor to which my invention has been applied. Fig. 2 is a vertical sectional view taken longitudinally through the shaft or spindle carrying the armature. Fig. 3 is a vertical transverse sectional view taken on the line $x x$ in Fig. 2.

Like numerals of reference indicate like parts in all the figures.

The motor to which my invention in the drawings hereto annexed has been shown applied is of the ordinary shunt-wound-drum-armature species.

1 designates the base, to which the core-pieces 2 2 of the field-magnet are secured by means of stud-bolts 3 3, passing through the pole-piece 4, through the said core-pieces, and through the base, under which they are provided with nuts 5, by means of which the parts may be drawn securely into position. The base being thus a prolongation of the pole-piece, is magnetized and magnetizes the spindle 6 of the armature 7. Said spindle or shaft is journaled in the boxes 8. The boxes 8, which are hollow, as shown, form receptacles for oil, and in the said boxes are secured the vertically-slotted brass bushings or up-rights 9, forming bearings for a spindle 10, carrying the soft-iron disks 11. Normally when the machine is at rest the position of the spindle 10 is at the lower ends of the slots 12 in the bushings 9, and the iron disks 11

are then out of contact with the shaft of the armature. When the machine is in motion, the shaft of the armature becomes magnetized and attracts the soft-iron disks, which are rotated by friction therewith. At the same time the said disks dip in the oil contained in the boxes, and thus supply a sufficiency of lubricating material to the shaft of the armature.

A screw-plug 13 is provided, through which the box may be filled with oil, and the spent oil may be drawn off, when desired, through a suitably-located cock 14. It will be seen that by this device the shaft of the armature will be supplied with lubricating material automatically, and only when the machine is in operation, thereby avoiding waste of lubricating material and the difficulty and annoyance incident to the necessity for frequently oiling the machine.

The construction of the device is simple and inexpensive, and it may be easily applied to electric motors of various kinds and patterns.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In an electric motor so constructed that the shaft of the armature shall be magnetized when in motion, a lubricating device comprising an oil-receptacle arranged below each spindle of said shaft, and soft-iron disks arranged in said oil-receptacles and adapted to be attracted by and rotated by friction with the shaft of the armature when in motion, substantially as set forth.

2. The combination, with a shaft adapted to be magnetized when in motion, of a lubricating device comprising soft-iron disks mounted upon a vertically-movable spindle and dipping in an oil-receptacle below each spindle of said shaft, substantially as set forth.

3. The combination of a shaft adapted to be magnetized while in motion, oil-receptacles formed in the bearings of said shaft, vertically-slotted uprights secured in the said oil-receptacles, spindles mounted vertically adjustable in the said slotted uprights, and soft-iron disks mounted upon the said spindles, substantially as set forth.

4. In an electric motor, the combination of

the base, the field-cores, the pole-piece, the bolts extending through and connecting the pole-piece, the field-cores, and the base, which latter is thereby constituted a prolongation
5 of the pole-piece, the oil-receptacles formed in the base, the armature-shaft journaled in the latter, the vertically-slotted uprights secured in the oil-receptacles, the spindles journaled in the slots of said uprights, and the
10 soft-iron disks upon the said spindles, all ar-

ranged and operating substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

SAMUEL LAWRENCE BARRIETT.

Witnesses:

MAX BAYERSDORFER,
ABR. A. GREENHOOT.