No. 764,560. PATENTED JULY 12, 1904.

F. A. CLOUDY.

STEP BEARING FOR SHINGLE MACHINE ARBORS.

APPLICATION FILED OCT. 5, 1903.

NO MODEL.

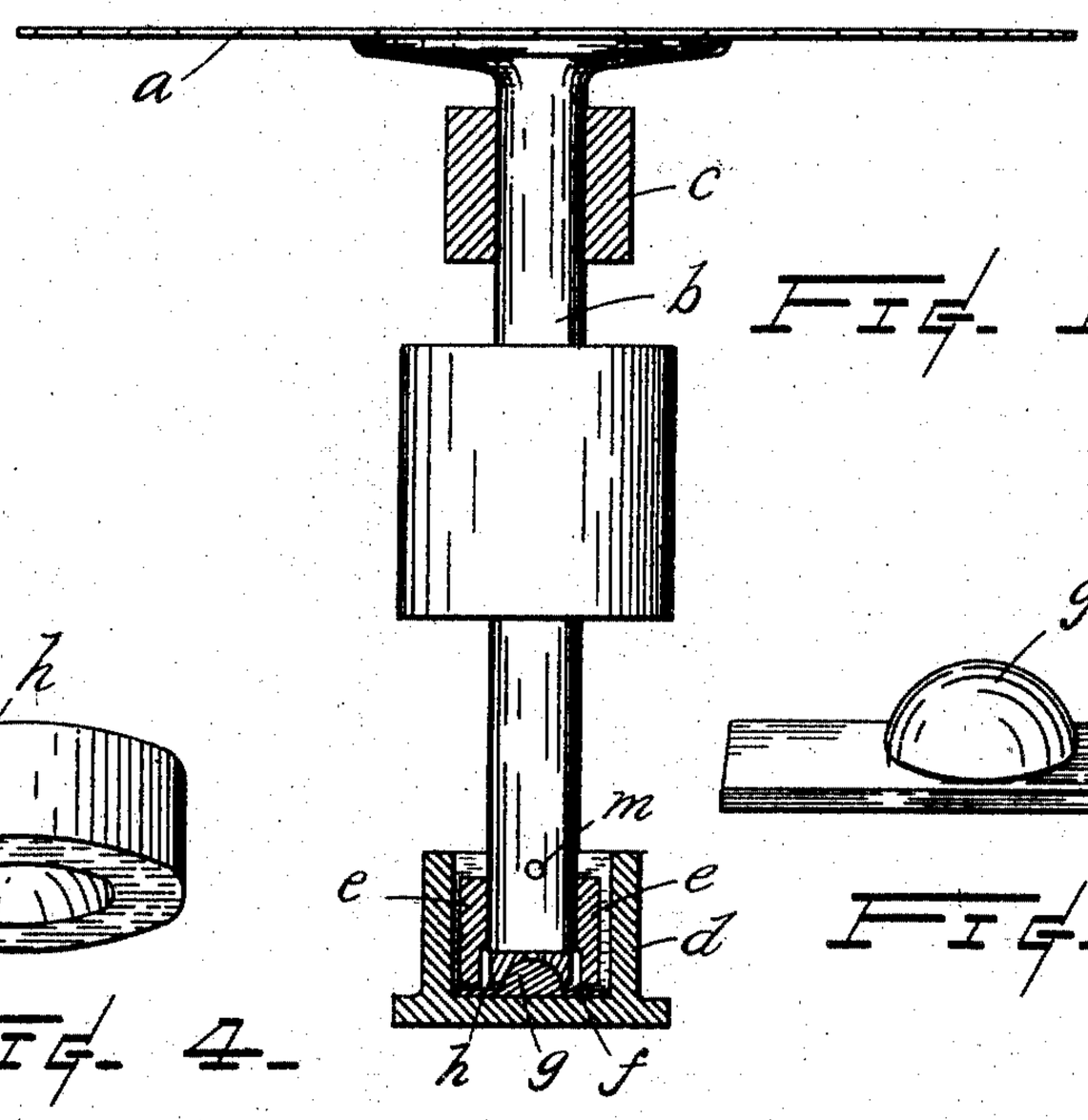

FIG. 1.

FIG. 3.

FIG. 4.

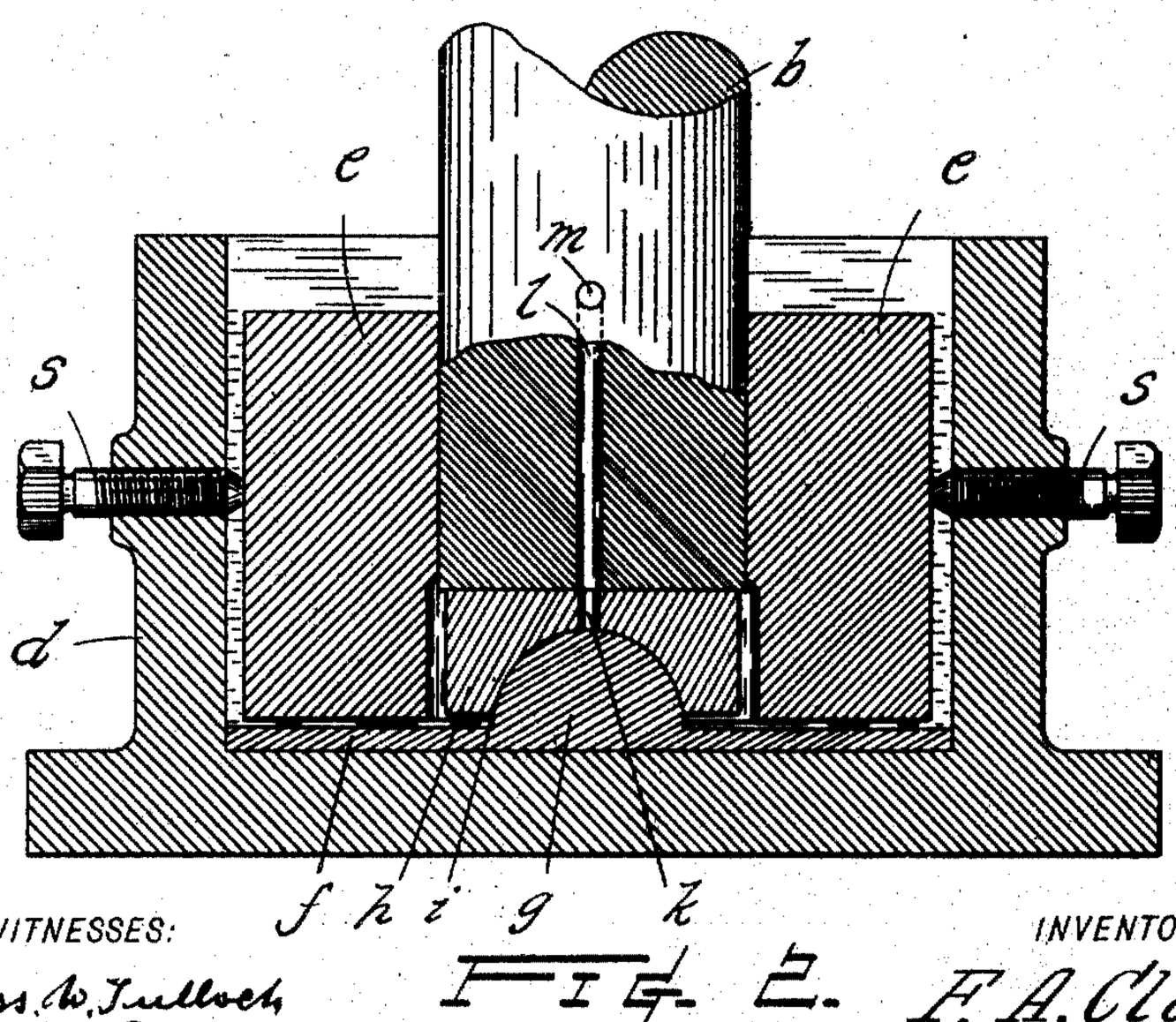

FIG. 2.

WITNESSES:

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No. 764,560. Patented July 12, 1904.

UNITED STATES PATENT OFFICE.

FRANCIS A. CLOUDY, OF STARTUP, WASHINGTON.

STEP-BEARING FOR SHINGLE-MACHINE ARBORS.

SPECIFICATION forming part of Letters Patent No. 764,560, dated July 12, 1904.

Application filed October 5, 1903. Serial No. 175,809. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. CLOUDY, a citizen of the United States, residing at Startup, in the county of Snohomish and State of Washington, have invented certain new and useful Improvements in Step-Bearings for Shingle-Machine Arbors, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to step-bearings for upright shafts.

Under the conditions obtaining in the operation of shingle-sawing machines no provision has been made in the construction of the step-bearings of the upright saw-arbors for the tilting of the arbor for the purpose of giving the saw an inclination or lead nor to compensate for the vibrations or rocking of the arbor by reason of the upper bearings thereof becoming enlarged from wearing, and consequently the step or foot bearings and also the arbor become unevenly worn and must be replaced, for otherwise the saw will run untrue and the arbor become overheated.

I have devised a construction of step-support which overcomes the above-noted objectionable features and allows the saw to rotate in an inclined position without undue wear either upon the arbor or its step and at the same time provides for the thorough lubrication of the wearing-surfaces thereat.

The accompanying drawings embody what I consider the best means of carrying out my invention, in which—

Figure 1 is a side elevation of the usual form of shingle-saw and arbor, with the step boxing and bearings shown in section. Fig. 2 is an enlarged detail sectional transverse section of the foot of the arbor and its bearings. Figs. 3 and 4 are perspective views, respectively, of the two parts comprising the step-bearing.

In the said drawings the reference-letter *a* indicates a shingle-saw, and *b* its upright arbor, which is provided with an upper journal-box *c* and a step-boxing *d* of the machine-frame for the reception of the bushings *e* and the step-bearings.

The step-bearings comprise a bearing-plate *f* of horizontal shape and size adapted to be seated in the bottom of the boxing *d* and is provided with an upwardly-projecting semi-spherical-shaped turret *g*, integral with the plate and disposed so as to be in line axially with the arbor.

h is a disk of less diameter, preferably, than the diameter of the arbor and is provided with a cavity *i*, extending upwardly from the lower face and registering with the said semispherical turret of the other part.

k is an oil-passage of the disk, which connects the concave surface thereof with an axially-arranged oil-hole *l* of the arbor, which is supplied by a transverse hole *m* with oil from a reservoir, which in this instance is the step-boxing. By this means the oil not only lubricates the wearing-surfaces between the step parts, but likewise the surfaces between the upper step part and the arbor. The said bushings are adjustably secured within the step-boxing by set-screws *s*, passing through the walls thereof.

The operation of the device will be understood from the foregoing specification and needs no further description here.

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

1. In a device of the type set forth, the combination with an arbor having an oil-passage therein, of a step-boxing, a plate seated in the bottom of said boxing and carrying centrally thereof an upwardly-projecting semispherical turret, a disk having a cavity in its lower side received on said turret, said disk having an oil-passage, a bushing on the arbor, with means carried by the boxing for supporting said bushing.

2. A device of the type set forth, comprising in combination with an arbor having an oil-passage therein, a step-boxing, a plate seated in the bottom of said boxing and carrying a semispherical turret, a disk having a cavity in its lower end seated on said turret, there being an oil-passage in the disk, a bushing on the arbor inclosing said disk, and set-screws passing through said boxing and engaging said bushing to support the same.

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

FRANCIS A. CLOUDY.

Witnesses:

PIERRE BARNES,

M. E. BREWER.