

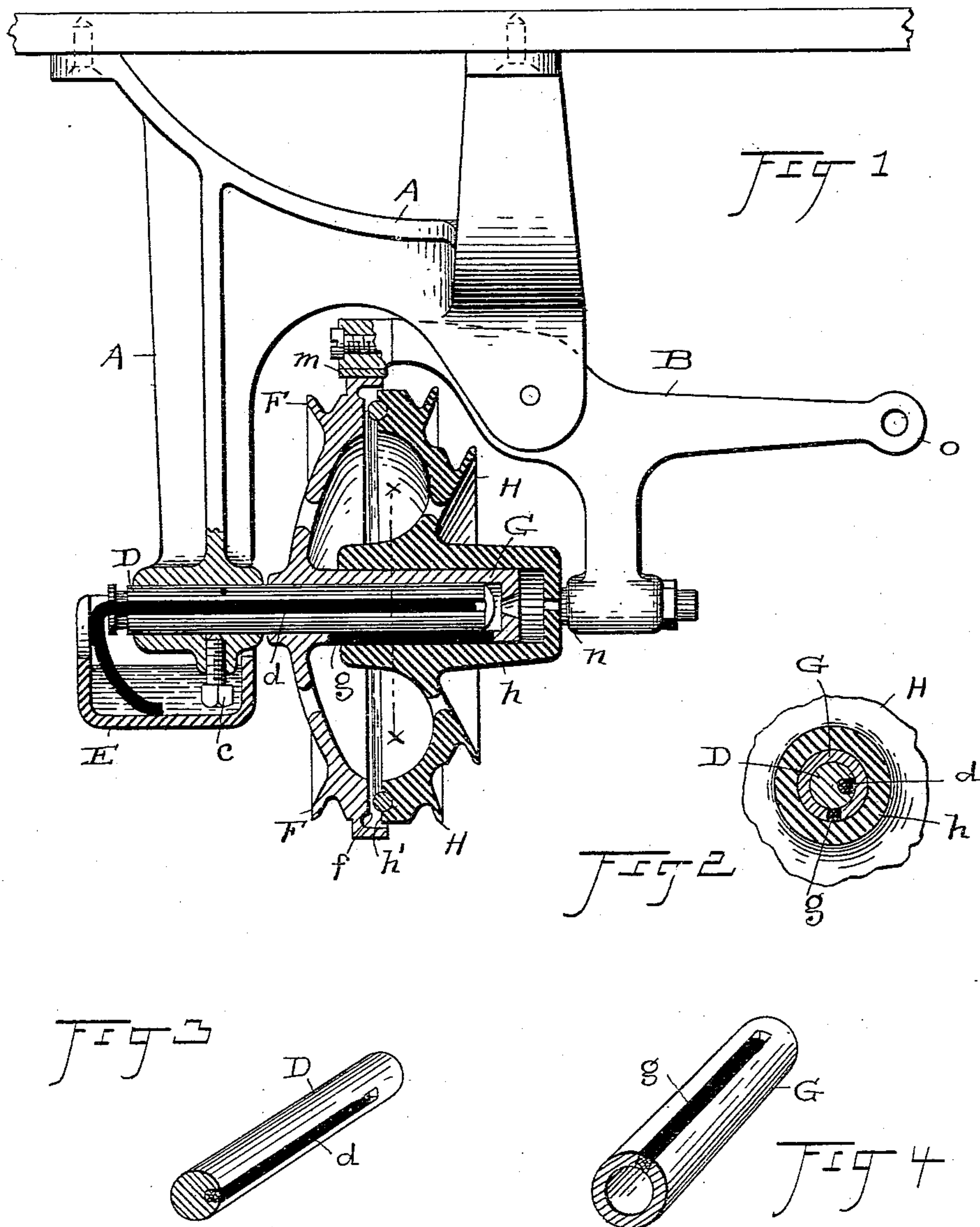
(No Model.)

W. A. MACK.

MEANS FOR LUBRICATING JOURNAL BEARINGS.

No. 555,176.

Patented Feb. 25, 1896.



ATTEST

R.B. Moser

G. S. Scharffer

INVENTOR  
William A. Mack.

BY H J Fisher ATTORNEY



# UNITED STATES PATENT OFFICE.

WILLIAM A. MACK, OF CLEVELAND, OHIO.

## MEANS FOR LUBRICATING JOURNAL-BEARINGS.

SPECIFICATION forming part of Letters Patent No. 555,176, dated February 25, 1896.

Application filed October 30, 1893. Serial No. 489,458. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. MACK, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Means for Lubricating Journal-Bearings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to means for lubricating journal-bearings, and although it is designed to be used more especially in sewing-machines, it will be understood that the invention is not limited to this special use, but may be adopted and applied wherever a like or kindred association of bearings is employed. The invention is, however, peculiarly adapted to use with sewing-machines on account of its absolute freedom from overflow or waste of oil or anything that is uncleanly. This is of the first importance in power-transmitters for sewing-machines, because if they become filthy they are liable to injure the goods upon which work is being done, as well as to soil the clothes of the person using the machine. Indeed, a power-transmitter that is defective in this particular is wholly unfit to be applied in sewing-machine work, and yet there are many of this kind being used, simply because they are the best that could be obtained. I claim for my invention that it is proof against leakage or waste and that the transmitter can be used for months at a time without ever showing oil on the outside, while at the same time lubrication on both bearings is so complete that there is not the slightest show of friction or wear on any of the surfaces.

Therefore, my invention consists in the construction and combination of parts substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical sectional elevation of the transmitter longitudinally of the shaft, but showing the bracket and brake-arm in full lines. Fig. 2 is a cross-section on a line corresponding to  $x x$ , Fig. 1. Fig. 3 is a perspective view of the axle; and Fig. 4, a perspective

view of the sleeve of the drive-wheel, which forms the journal for the driven wheel.

A represents a bracket which supports the transmitter and is adapted to be hung beneath the table or top of the machine or other means of support, and B is the brake-arm pivoted in said bracket.

D is the shaft rigidly fixed in the bracket by set-screw  $c$  or its equivalent. The shaft or journal has a longitudinal slot or channel occupied by a wick  $d$  of suitable kind which dips into the oil in the oil cup or receptacle E, attached to bracket A, or in such relation to the shaft D as to supply oil to wick  $d$ .

The drive-wheel F has a tubular or cylindrical hub G which sleeves upon shaft D, and this hub or sleeve has a longitudinal slot extending through from side to side and serving to hold a wick  $g$ , which fills the said slot or channel. Then the driven wheel H has a hub  $h$  which slips over upon the cylindrical hub G, and the two wheels have friction-engaging surfaces  $f$  and  $h'$ , respectively, at their sides and periphery. The brake-arm has a brake  $m$  for the drive-wheel, and a pendant portion  $n$  which bears against the hub  $h$  to force the said wheels together and into engagement.

In operation the oil is taken up by wick  $d$  and communicated to the bearing of the drive-wheel on shaft D. In its rotations the said drive-wheel not only becomes thoroughly lubricated itself, but the lubricant is conveyed or imparted to wick  $g$  in the hub of said drive-wheel and through said wick to the outer bearing for the driven wheel. The wick  $g$  reaches through and touches wick  $d$  and at the same time lubricates the bearing for wheel H.

The brake extremity  $m$  of the brake-arm engages the periphery of the driven wheel, and the pendant  $n$  has a suitable construction to engage the end of the hub of the driven wheel. One brake or the other is always in engagement, and the operator depresses the end  $o$  of the brake-arm and causes engagement of the wheels when the machine is in use.

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

1. The bracket and the oil-cup connected therewith, the fixed shaft having a longitudinal channel on its surface and a wick in said channel dipping into said cup, and a  
5 wheel-hub having a wick longitudinally therein flush with its surface and sleeved on said shaft, in combination with a wheel having a hub sleeved on the first-named hub, said wheels constructed to have frictional en-  
10 gagement at their peripheries, substantially as set forth.

2. The bracket and the shaft detachably fixed in the bracket, in combination with the drive-wheel sleeved on the said axle and the

driven wheel sleeved on the hub of the drive- 15  
wheel, said shaft having an outside channel filled by a lubricating-wick, the hub of the drive-wheel having the form of a sleeve and provided with a longitudinal slot, a wick filling said slot, and a wheel with a sleeve-hub 20  
over the hub of the drive-wheel, substantially as set forth.

Witness my hand to the foregoing specification this 14th day of October, 1893.

WILLIAM A. MACK.

Witnesses:

H. T. FISHER,

R. B. MOSER.