

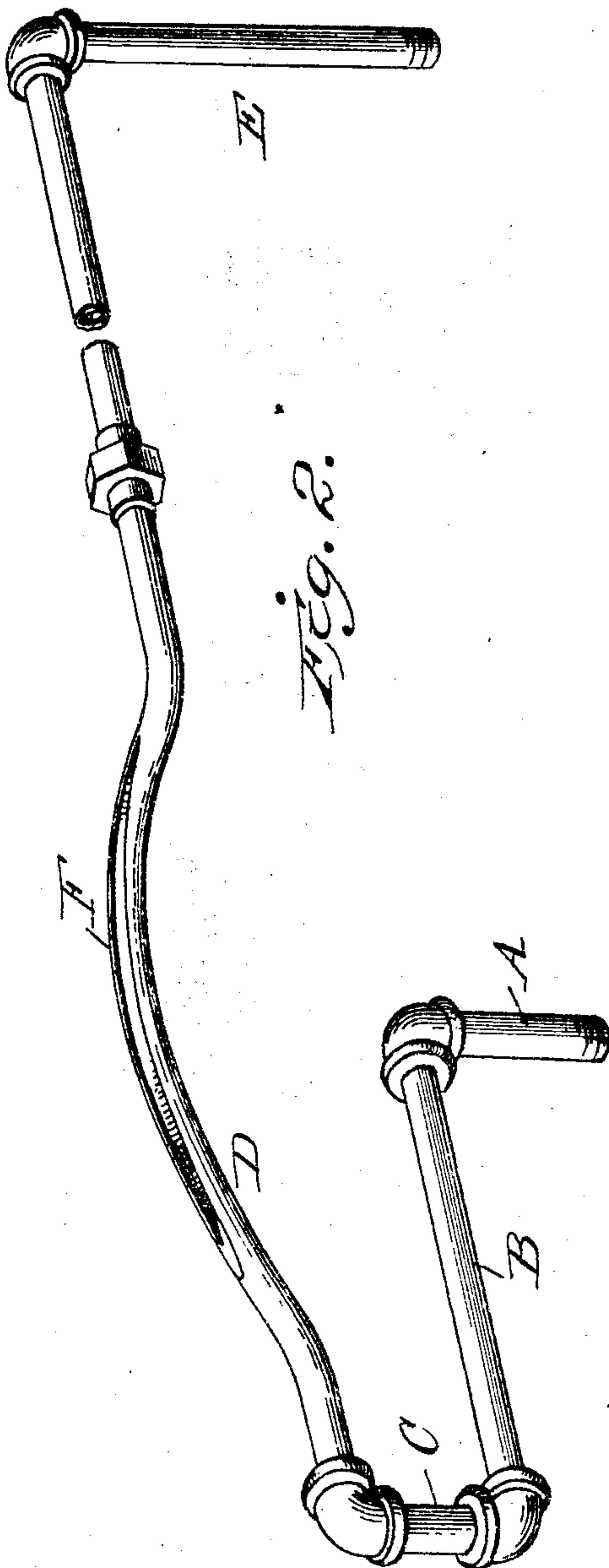
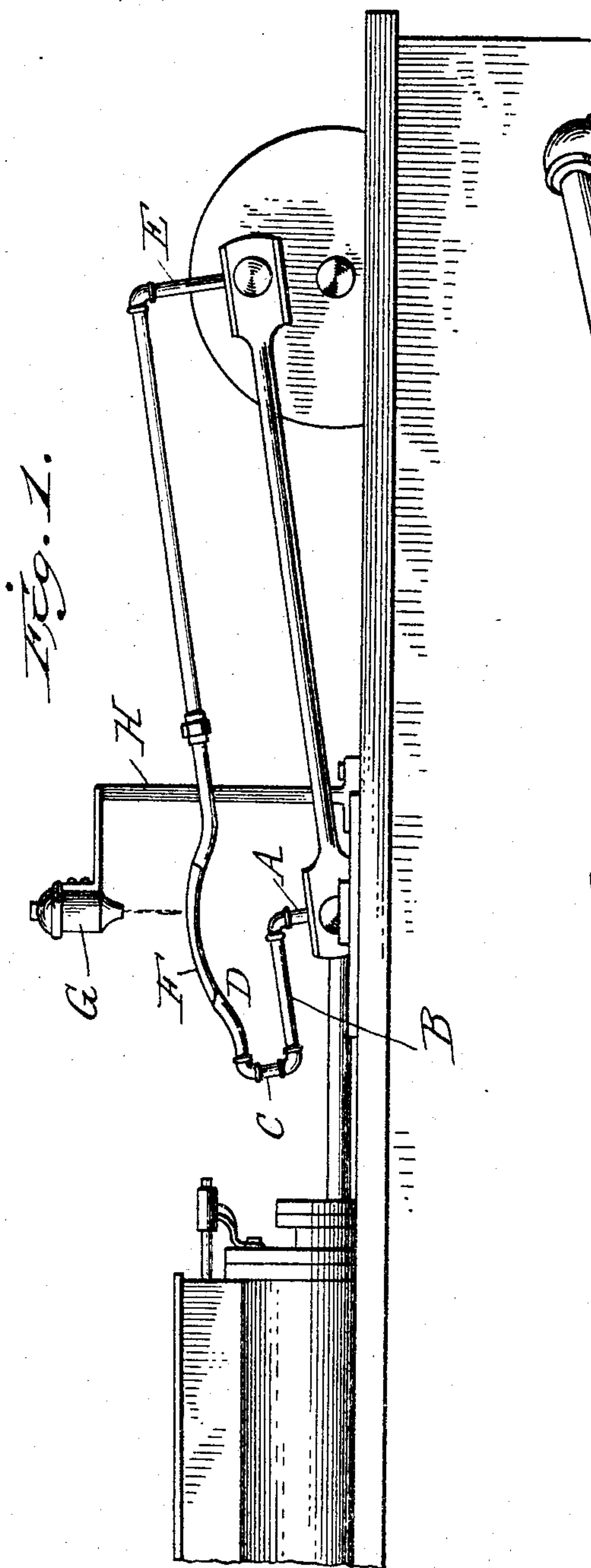
No. 782,734.

PATENTED FEB. 14, 1905.

W. R. EICHENSER.

LUBRICATOR.

APPLICATION FILED OCT. 25, 1904.



Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM R. EICHENSER, OF DUNLO, PENNSYLVANIA.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 782,734, dated February 14, 1905.

Application filed October 25, 1904. Serial No. 229,947.

To all whom it may concern:

Be it known that I, WILLIAM R. EICHENSER, a citizen of the United States of America, residing at Dunlo, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Lubricators, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to devices for lubricating moving parts of engines; and it consists in certain novel features hereinafter first fully described and then particularly pointed out in the appended claims.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a side elevation, partly broken away, showing the device applied to the crank-pin and cross-head of an engine; and Fig. 2 is a detail perspective view of the device removed and on a larger scale.

My invention is applicable to any of the well-known types of reciprocating horizontal engines, and is designed more particularly for lubricating the crank-pin and cross-head.

In carrying out the invention I attach to the cross-head directly over its journal a short vertical pipe A, to the upper end of which is connected a horizontal pipe B, extending toward the cylinder. From the end of the said horizontal pipe a short vertical connection C extends upward to the end of the oil-receiving pipe or tube D. The opposite end of this oil-receiving pipe communicates with the crank-pin connection to the pitman through a vertical pipe E, as clearly shown. The oil-receiver D is open in its upper side, as shown at F, the said opening being equal in extent to the length of the stroke of the engine, and the bottom of the said receiver is inclined downward toward each end, the elevated portion of the receiver being centered directly over the cross-head. The oil or other lubricant is supplied from a cup G, supported by a standard H on any convenient part of the frame of the engine, the cup being directly over the open upper side of the oil-receiver.

The operation will be readily understood. The oil is permitted to escape from the oil-cup G at the speed best adapted for the successful and economical supply of lubricant to the bearings and drops therefrom onto the inclined bottom of the oil-receiver, whence it passes to the end of the receiver and thence through the connecting pipes or tubes to the bearings. The dropping oil will fall alternately on the opposite inclinations of the oil-receiver bottom as the said receiver reciprocates with the pitman and will flow down said smooth surface directly to the end of the receiver, so that lubricant is supplied alternately to the bearings at the ends of the pitman. Inasmuch as the opening in the receiver is equal in extent to the stroke of the engine, oil will be caught in the receiver in all positions of the pitman, so that the feed of the lubricant may be continuous, and as the receiver is arranged directly over the cross-head the vertical movement will be reduced to a minimum, and the receiver will be given only sufficient rocking motion to cause the oil to flow alternately toward the opposite ends of the receiver. By thus guarding against the receiver following the violent vertical movement of the crank-pin I avoid all splashing of the oil from the receiver and consequent loss of the lubricant, so that all the lubricant is carried to the bearings.

It will be observed that all parts of the lubricating device are rigidly connected, so that wearing of the parts is prevented, and that there are no complicated arrangements or constructions which are liable to get out of order and add to the weight of the engine. The oil-supply may be replenished without stopping the engine, and cooling compounds, such as camphor or sulfur, may be fed into the receiver, and thus fed to the bearings without the necessity of passing the same through the oil-cup. No wipers are employed or are necessary with this device, and I obtain a regular, even, and constant lubrication of the bearings, whereas the devices employing wipers effect only an irregular and unequal lubrication of the parts.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. In a lubricator of the class described, an oil-receiver having an open upper side and
5 having its bottom inclined downwardly in opposite directions toward its ends.

2. A lubricator of the class described comprising an oil-receiver having an open upper side and a bottom inclining downward from
10 its center toward its ends, and connections between said receiver and the pitman of an engine whereby said receiver is given a rocking motion without excessive vertical movement.

3. A lubricator for reciprocating engines
15 comprising a horizontally-disposed oil-re-

ceiver arranged directly over the cross-head of the engine and having an opening in its upper side equal in length to the stroke of the engine, connections between one end of the receiver and the cross-head, and connections 20 between the other end of the receiver and the crank-pin.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM R. EICHENSER.

Witnesses:

R. W. BISHOP,

C. D. DAVIS.