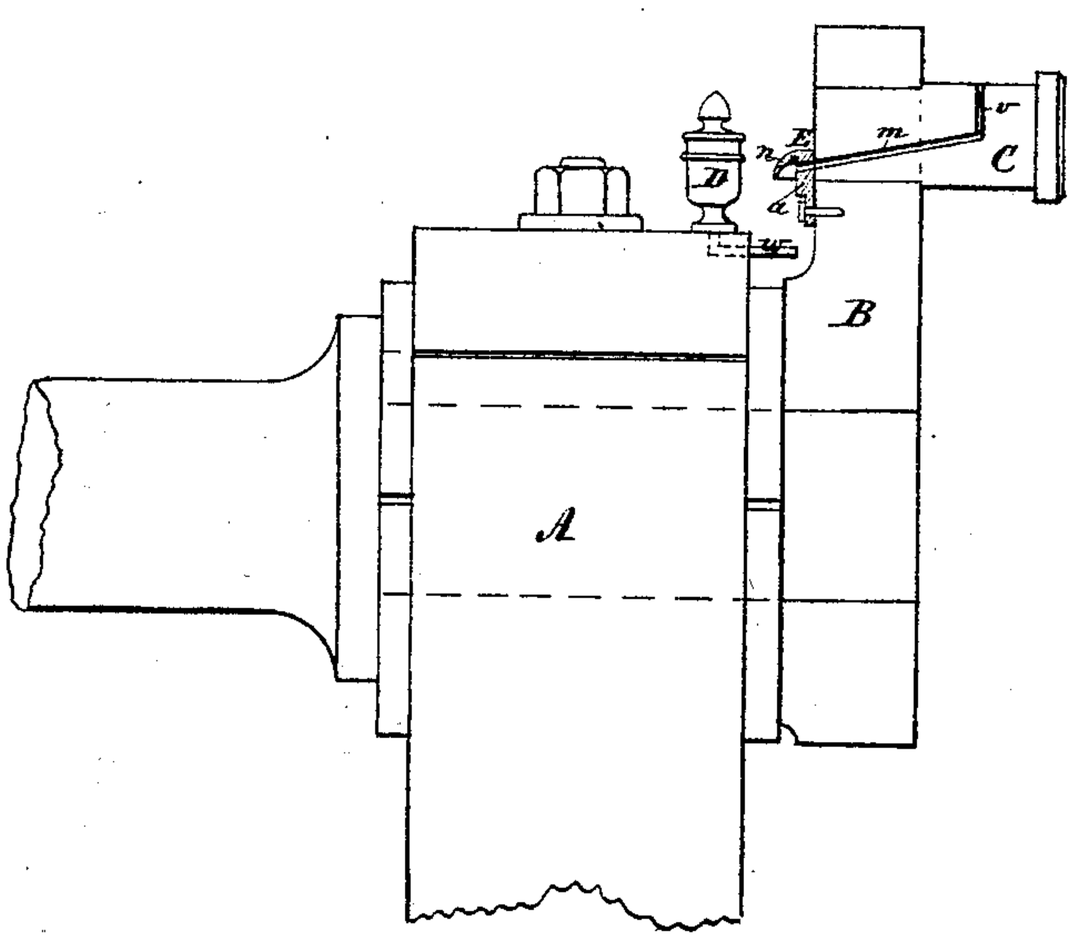
JOHN F. ALLEN.

Improvement in Oiling Apparatus for Crank Pins.

No. 121,744. Patented Dec. 12, 1871.

Fig. I.



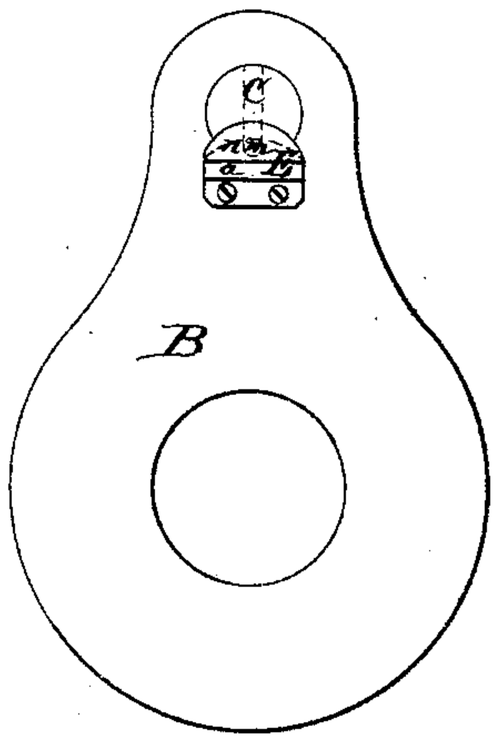


Fig. II.

Witnesses.

Henry E. Rankin

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John F. Allen

UNITED STATES PATENT OFFICE.

JOHN F. ALLEN, OF MOTT HAVEN, NEW YORK.

IMPROVEMENT IN OILING APPARATUS FOR CRANK-PINS.

Specification forming part of Letters Patent No. 121,744, dated December 12, 1871.

To all whom it may concern:

Be it known that I, JOHN F. ALLEN, of Mott Haven, in the county of Westchester and State of New York, have invented certain Improvements in Oiling Apparatus for Crank-Pins or other revolving parts of machinery, of which the following is a specification:

My invention consists in the arrangement of a radiating plate, consisting of a raised surface provided with a suitable flange or projection to form a cup or cavity at the end of said surface, and attached to the inner side (or the side next to the frame) of the crank, said cup or cavity being connected with suitable channel-ways terminating near the center of the outer surface of the crank-pin; and, further, in the combination of said radiating plate with an oil-cup fixed on the top of the pillow, block, or at any other stationary part of the machine, and so arranged that the end of the oil-cup, nozzle, or any projection of the same capable of conducting the oil from the oil-cup shall come in contact with the raised surface of the radiating plate where the same passes during the revolution of the crank, whereby a drop or some small particle of oil will be left upon said surface, which will be thrown by the centrifugal force into the cup or cavity and from there through the channel-ways on the surface of the crank-pin.

Figure I represents an end elevation of a crank and part of a pillow-block embodying my invention. Fig. II represents a view of the back of the crank.

In the accompanying drawing, A represents part of a pillow-block. B is the crank, and C the crank-pin. At the back of the crank, near the end of the crank-pin, a radiating-plate, E, is fastened, having a raised surface, *a*, provided with a flanch, *n*, at its end, forming a cup or cavity. The upper end of this cup or cavity connects with the hole or channel-way *m* drilled partly through the crank-pin C and connecting with the channel-way *v*, leading to the outer surface of the crank-pin. D is an oil-cup, fixed on the top of the pillow-block or upon any suitable part of the stationary frame of the engine. The nozzle or discharge-pipe *w* of the oil-cup is made to project toward the crank B, and is so arranged that the end of the same will come in contact with the raised surface *a* of the radiating-plate E at the time the same passes the end of said nozzle *w* during the revolution of the crank. By the arrangement of this radiating-plate E any oil or other fluid required may at stated times be made to pass to the surface of the crank-pin by holding a common oil-can against the stationary frame and squirting the oil or other fluid contained therein against this radiating-plate wherever the same passes. The oil or fluid thus thrown against this radiating-plate E will, through the centrifugal force, be thrown into the cup or cavity formed by the flanch *n* at the end of the surface *a* and pass then through the channel-ways *m* and *v* to the surface of the crank-pin C. When an oil-cup, D, is fixed on the pillow-block or frame with a nozzle, *w*, projecting so as to come in contact with the raised surface *a* at each revolution, some particle of oil or other fluid will be left upon said surface *a* at each revolution, which will be thrown, through the centrifugal force, into the cup or cavity and from there upon the surface of the crank-pin, as above described. Instead of arranging the nozzle *w* in such a manner that the same shall come in contact with the surface *a* of the radiating-plate E, a wire or a wick may be placed in the end of said nozzle *w* and arranged so as to rub against the surface *a* for the purpose of leaving a particle of oil on the surface *a* during the revolution of the crank.

It will be readily understood that this arrangement may be easily applied for oiling other parts of machinery, such as eccentrics, journals, loose pulleys, or any other part having a revolving or vibrating motion.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the radiating-plate E on the back of the crank, and connected, through suitable channel-ways *m v*, with the surface of the crank-pin to be oiled.

2. The above-described radiating-plate E, in combination with an oil-cup attached to a stationary part of the engine, and provided with a projecting nozzle, *w*, or its equivalent, constructed and operating substantially as and for the purpose hereinbefore set forth.

JOHN F. ALLEN.

Witnesses:

HENRY E. ROEDER,

JOHN CHRISTIAN.

(87)