J. TENWICK.

Lubricator.

No. 111,401. Patented Jan'y 31, 1871.

Fig. 5.

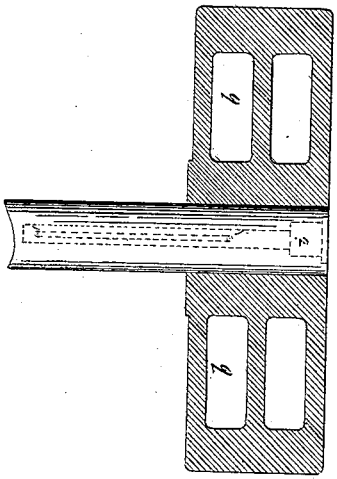


Fig. 4.

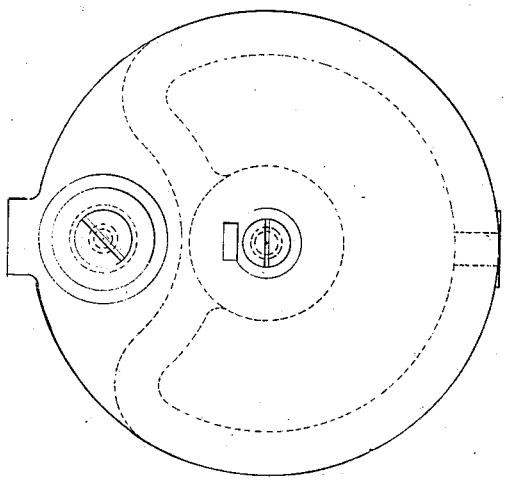


Fig. 6.

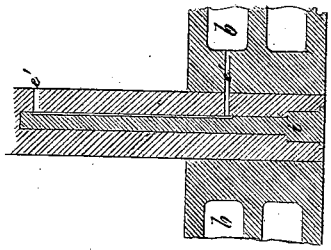


Fig. 2.

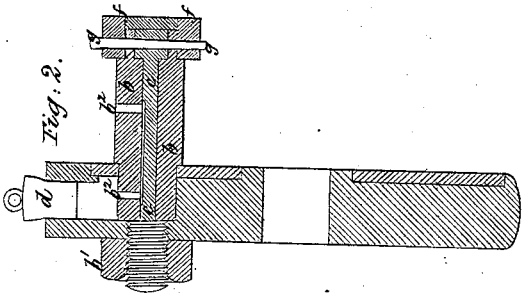


Fig. 3.

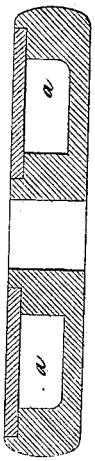
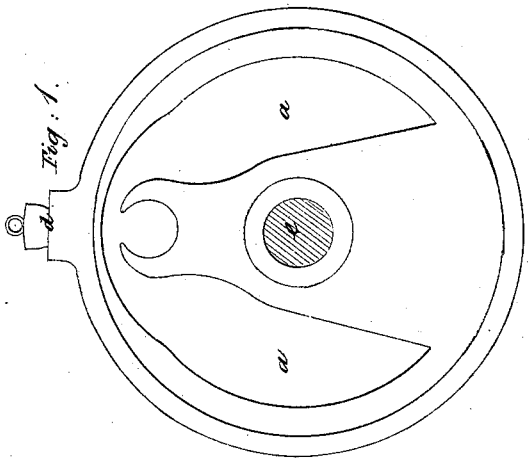


Fig. 1.



Witnesses { Jno. S. Thompson, Spencer Castle

John Tenwick

United States Patent Office.

JOHN TENWICK, OF GRANTHAM, ASSIGNOR TO ROBERT CHARLES RANSOME, OF IPSWICH, ENGLAND.

Letters Patent No. 111,401, dated January 31, 1871.

IMPROVEMENT IN LUBRICATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all to whom it may concern:

Be it known that I, JOHN TENWICK, of Grantham, in the county of Lincoln, molder, a subject of the Queen of Great Britain, have invented or discovered new and useful "Improvements in the Manufacture of Lubricators;" and I, the said JOHN TENWICK, do hereby declare the nature of the said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof; that is to say—

This invention has for its object improvements in the manufacture of lubricators, and consists of an arrangement for supplying cranks with oil. It is applicable especially to reaping and mowing-machines, but may be used also in other machinery where cranks are employed.

In the crank-plate, which is made of a circular form, and acts as a fly-wheel, I form a hollow or cavity, and such hollow or cavity I use as a receptacle for the oil.

The crank-plate or fly-wheel may either be cast in one piece with the hollow or cavity in it, or it may be cast or manufactured in parts suitably fitted together.

The crank-pin is inserted into a socket in the crank-plate, and through the socket I make one or more holes for the oil to pass through from the receptacle to the crank-pin.

In the crank-pin, where it fits in the socket, I make a hole to convey the oil to the interior of the pin, which is hollow, and another hole which conveys the oil to the place where the connecting-rod works.

Into the hollow in the crank-pin I fit a regulating-plug. The regulating-plug is made with a groove in it to communicate with the holes in the crank-pin. The regulating-plug fills the hollow in the crank-pin, so that the groove in the plug is the only passage by which the oil can escape to the exterior of the crank-pin to lubricate it and the connecting-rod working thereon, and the size of the groove regulates the amount of lubrication. I secure the regulator-plug to the crank-pin with a washer and pin or screw, or in other convenient means.

In the rim or outside edge of the crank-plate is a hole to supply the oil, and, in order to stop the last-mentioned hole, I use a plug or piece of cork or other suitable material.

If desired, a second lubricating cavity may be provided in the crank-plate to lubricate the crank-axis in a similar manner, the axis having a passage in it communicating both with the cavity and with the bearing of the crank-shaft, and being provided with a regulating-plug, as already described in respect to the crank-pin.

My invention can be more readily understood by referring to the drawing which accompanies this specification, but I wish it to be understood that I do not bind myself to the exact shapes and dimensions shown therein, as these can be altered without departing from my invention.

Figure 1 is a side view of the crank-plate and lubricating-cavity with the cover-plate removed;

Figure 2 is a vertical section, and

Figure 3 a horizontal section of the same.

a is the lubricating-cavity;

b is the hollow crank-pin, secured by a nut, b^1; and

b^2 b^2 are holes communicating with the interior hollow.

c is the grooved regulating-plug fitted into the hollow in the crank-pin;

d is the feed-hole and stopper for the supply of oil;

e is the crank-shaft;

f is a collar on the crank-pin for securing the connecting-rod; and

g, a pin by which the collar *f* and plug *c* are held in their places.

Figure 4 is a back view of a double-disk lubricator for lubricating the crank-shaft as well as the crank-pin;

Figure 5 is a section, and

Figure 6 is a part of a similar view, with the crank-shaft also in section.

l is the oil-cavity for lubricating the bearing;

e' e' are oil-passages in the shaft; and

i is a regulating-plug fitted into a hollow in the shaft.

Having now described and explained my said invention, and the means for carrying the same into effect,

I would have it understood that I claim—

1. The combination of the crank-plate, constructed with a lubricating-cavity, and the hollow crank-pin, so arranged that the lubricating material may pass from said cavity to the journal of the crank-pin, substantially as before set forth.

2. The combination of the said crank-plate, the hollow crank-pin, and the crank-shaft, so that both the crank-pin journal and the journal of the crank-shaft may be lubricated by lubricating material supplied from the crank-plate, substantially as before set forth.

JOHN TENWICK

Witnesses:

SPENCER WALLHEAD,

JOHN HASLAM.