

C. M. Ried,

Lubricator.

N^o 84,765.

Patented Dec. 8, 1868.

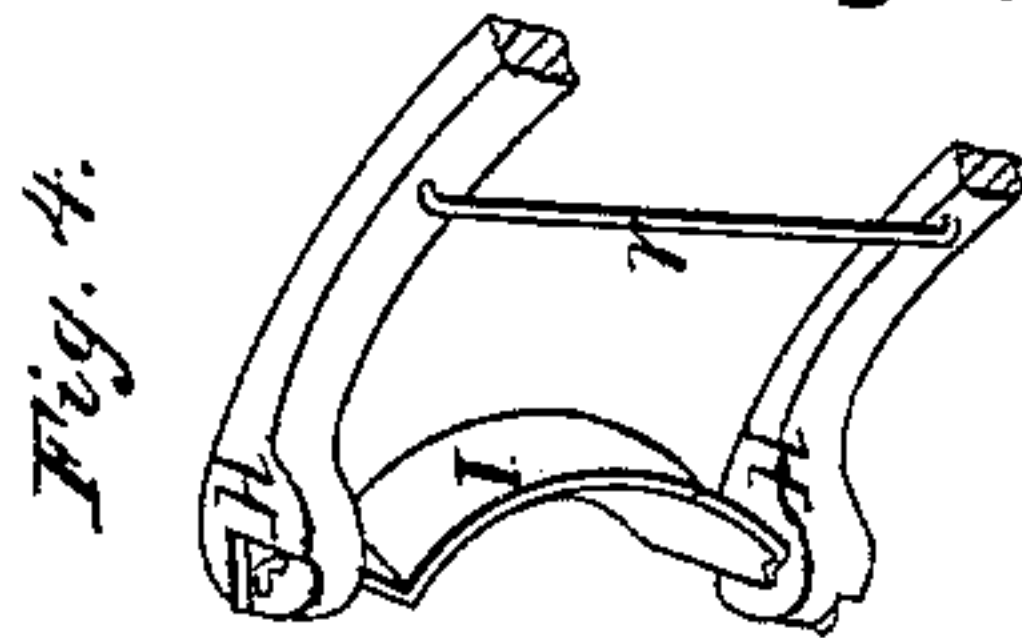


Fig. 2.

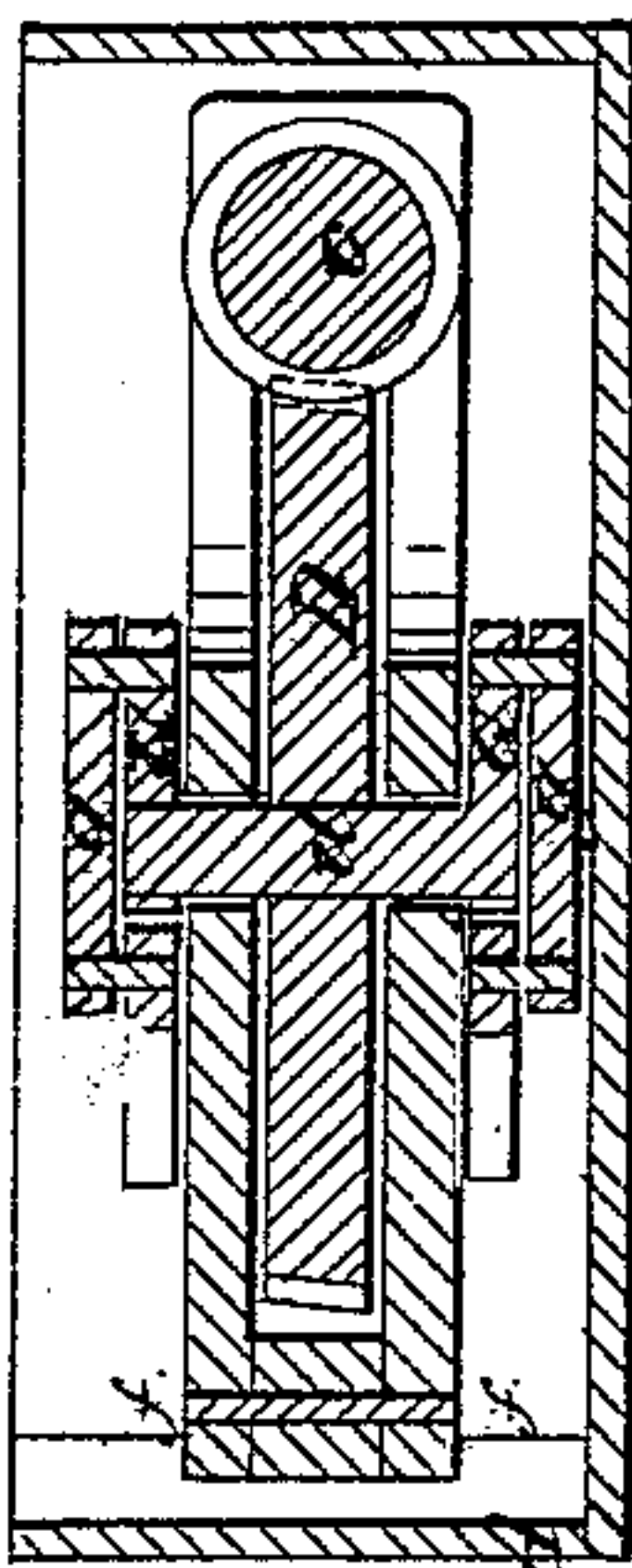


Fig. 3.

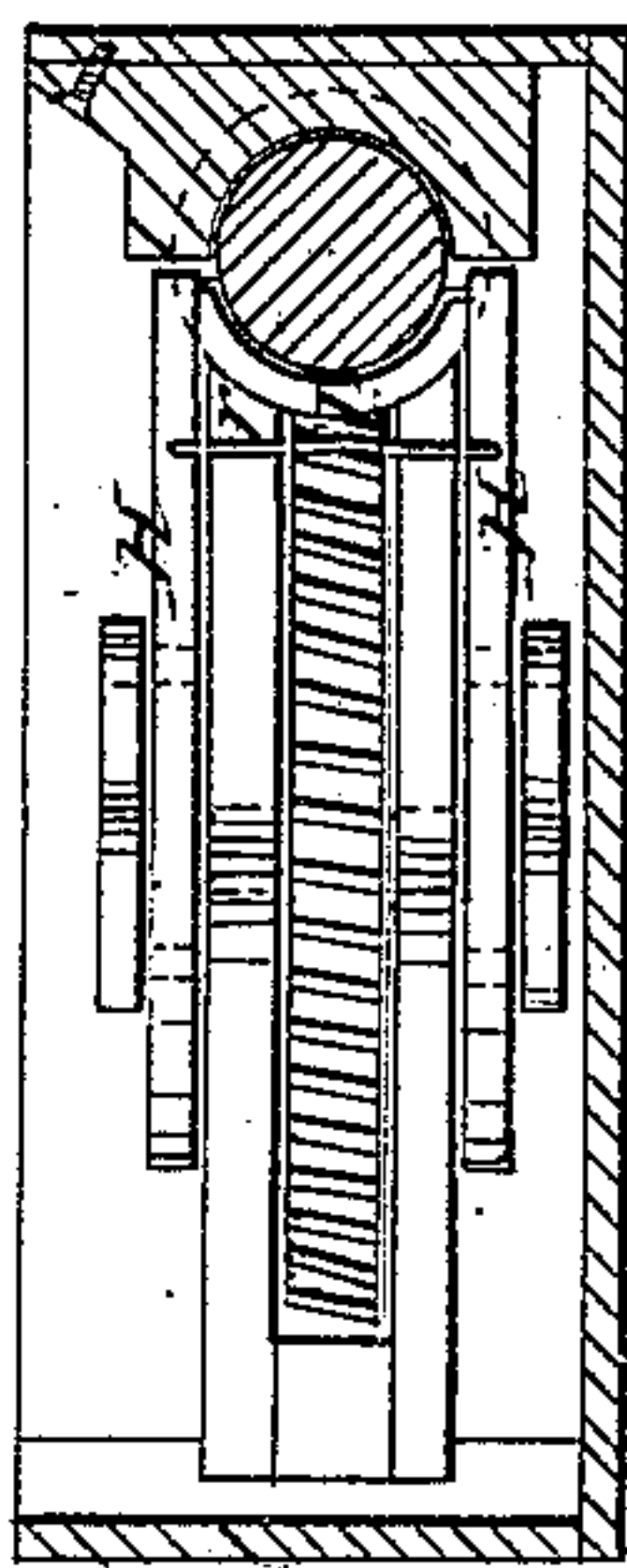
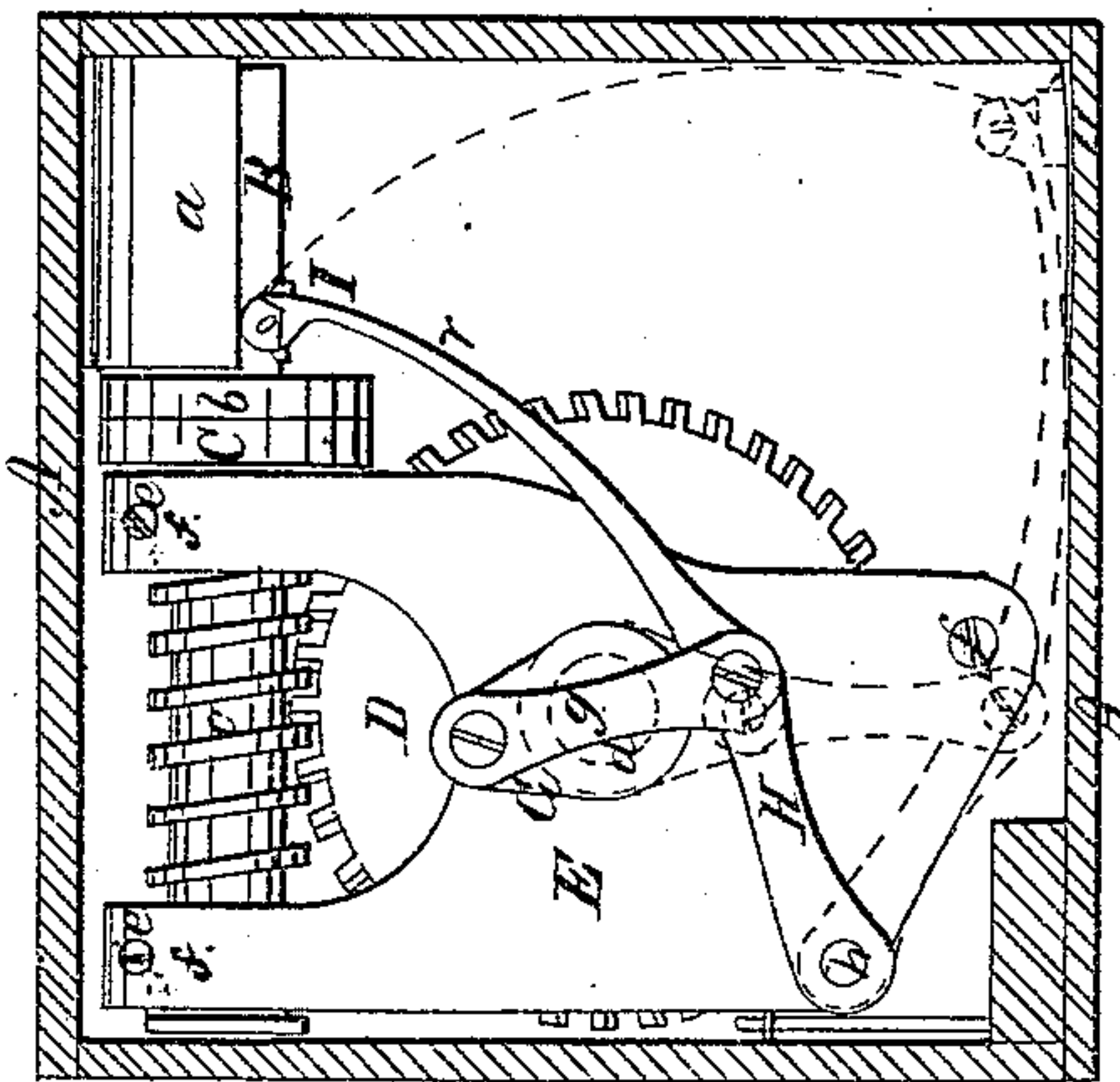


Fig. 1.



Witnesses

V. Clayton
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Inventor

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United States Patent Office.

C. M. RIED, OF GREENSBOROUGH, ALABAMA.

Letters Patent No. 84,765, dated December 8, 1868.

IMPROVED LUBRICATOR FOR JOURNALS.

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

To all whom it may concern:

Be it known that I, C. M. RIED, of Greensborough, in the county of Hale, and in the State of Alabama, have invented certain new and useful Improvements in Lubricators for Car-Axles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in constructing a machine, which can be readily attached to the ends of ordinary car-axles, and be contained within the grease-box or "housing," applying the lubricant automatically, and just when needed, in a quantity exactly sufficient to lubricate, thereby saving the great waste oil that the ordinary mode of oiling entails.

In the drawings—

Figure 1 is a side elevation of the invention, one side of the grease-box being removed, to show the manner of attaching and working the same.

Figure 2 is a transverse section, showing the manner of connecting the several parts of the invention.

Figure 3 is an end-elevation. The end of the grease-box nearest the car is taken off, to show the operation of the invention.

Figure 4 is a perspective view of the cup or dipper which applies the lubricant to the car-axle, and is showing the connection of the cup with the spring-arms.

To enable those skilled in the art to make and use my invention, I will now describe its construction and operation.

A is the grease-box or "housing," of a suitable shape, having one of its sides movable, so as to adjust the parts of the invention. The lubricant is contained in the bottom of box A, in an open dish or other suitable manner. The grease-box is secured to bearing *a*.

B is the car-axle and part to be lubricated.

b is the flange that usually terminates the outer end of the car-axle.

I provide a flange, C, of the size of flange *b*, and secure to it by screws or other suitable means.

Flange C is made a part of a screw of a uniform twist, marked *c*, which propels a cog-wheel, D, whose bearing is on the two sides of the hanging frame E, which has its own bearings at *e* and *e* on the propelling-screw *c*.

Upon the size and number of cogs on the cog-wheel D in great measure depends the supply of the lubricant.

A convenient shape of the hanging frame E is shown in fig. 1, which is made of thin material, and its two sides are secured together by screws or bolts *f*, more fully shown in fig. 2.

The rock-shaft *d* of cog-wheel D extends out from

both sides of frame E, and has two cranks, G, firmly secured to it, one on each of the extended ends.

Each of the cranks G has a pitman, *g*, connected to it at one end, and the other end of each pitman *g*, is connected with a spring-arm, H, which I prefer to make of steel. The spring-arms H are pivoted at *h* on the frame E.

On the opposite ends of these arms H is a dipper or cup, I, of any suitable shape, and very clearly shown in perspective at fig. 4.

A small rod, *r*, may be used to firmly connect the two spring-arms H.

My invention is operated, when the car is put in motion, by the revolution of the axle turning the flange C with the propelling screw *c*, which sets cog-wheel D in a rotatory movement, which imparts a motion to spring-arms H, by means of rock-shaft *d*, cranks G, and pitmen *g*.

The arms H, with dipper I, are in the position shown in red lines in fig. 1, at first, and are pulled up, in the dotted red-line curve, to the position seen in figs. 1 and 3.

The dipper I is pressed up against the axle B by the arms H, which are made, as represented in the drawings, sufficiently long, so that some little time is given for the axle to turn and take up oil all around its sides before the arms H descend for more oil, and which they begin to do as soon as the cranks G and pitmen *g* reach the position they hold in fig. 1. The ascent of spring-arms H is commenced when the position shown in red lines in fig. 1 is assumed.

I may find it more desirable to construct one of the spring-arms H stiff and unbending, instead of a flexible nature, as above described. The effect this would help to produce would be, that when the flexible arm H rises with the dipper, the dipper will have its side, which is attached to the flexible arm H, carried up higher than its opposite, and the oil would thus be more effectually applied, and in greater quantity than it would be if applied as first set forth. The dipper may in this arrangement also contain a reservoir.

Having thus fully described my invention,

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

The screw *c*, with its flange C, frame E, cog-wheel D, cranks G, pitmen *g*, spring-arms H, dipper I, in combination with the "housing" or "grease-box," when constructed and operating substantially in the manner and for the purposes set forth.

In testimony that I claim the above-described invention, I have hereunto signed my name, this 25th day of November, 1867.

Witnesses:

C. M. RIED.

JAS. E. WEBB,

I. A. TALLMAN.