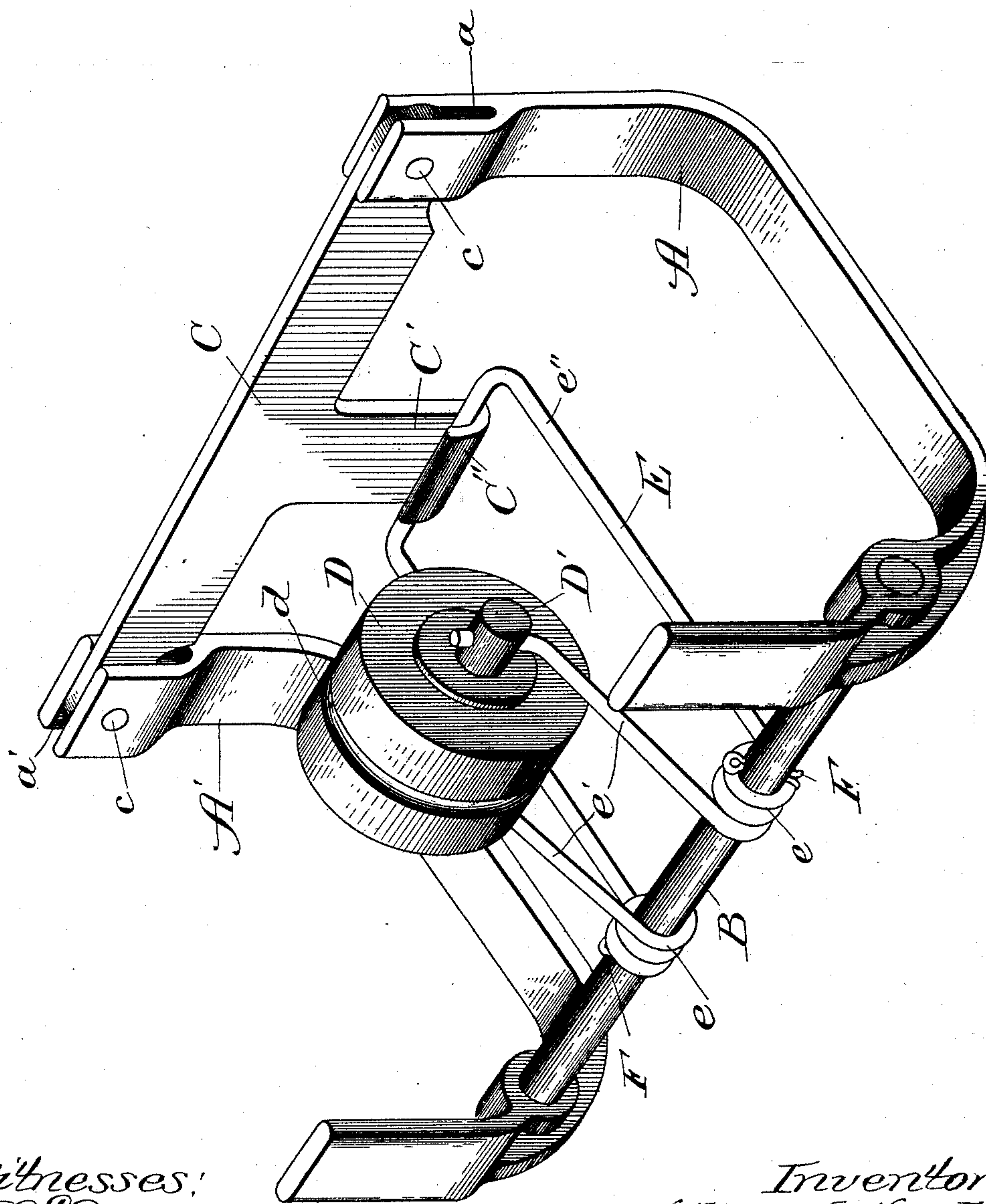


(No Model.)

W. H. WARD.
AXLE LUBRICATOR.

No. 483,624.

Patented Oct. 4, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. WARD, OF TOPEKA, KANSAS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO WILLIAM B. FERGUSON, JOHN WEYERHAEUSER, JOHN VOLK, JOHN OHLWEILER, GUSTAVE STENGLE, AND GEORGE E. LAMBERT, OF ROCK ISLAND, ILLINOIS, EMIL LANGE, OF DAVENPORT, IOWA, WILLIAM ULLMANN, OF MOLINE, AND A. A. CHAPMAN, OF GALESBURG, ILLINOIS.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 483,624, dated October 4, 1892.

Application filed January 30, 1892. Serial No. 419,753. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WARD, of Topeka, Kansas, have invented certain new and useful Improvements in Axle-Lubricators, of which the following is a specification.

These lubricators have heretofore been made in a large number of forms and used for the purpose of lubricating the axles of railway-cars and other vehicles. One such form is shown in the patent to Daniels and Costley, No. 403,876, dated May 21, 1889. In that device a framework was used in which was journaled a shaft carrying by means of spring-arms the lubricating-rollers. On the shaft was mounted a ratchet-wheel engaged by a pawl attached to a frame, whereby the tension of the spring-arms was adjusted in order to keep the wheels or rollers continually against the axle.

The object of my invention is to simplify and improve upon the construction shown in such patent, and in doing this I dispense with the ratchet-wheel and pawl and construct one of the cross-arms in the form of a letter T, the lower end of which is hooked to engage with the spring-arm after it is passed around the horizontal bar, the revolving shaft of the patent having been dispensed with. By means of my improvement I am also enabled to dispense with one of the wheels of such patent and the drip-collar thereof, and thereby to greatly simplify and cheapen the construction of the lubricator.

My invention consists in the features of construction hereinafter described and claimed.

The drawing represents a perspective view of a lubricator embodying my improvements.

In constructing my improved lubricator I first form the substantially-U-shaped end pieces A A'. These are made of any suitable material, preferably malleable cast-iron, and are shaped, as shown, to conform to the interior of the axle-box, within which they are to be placed, one of such end pieces coming near one end of the box and the other near the other end. At one side these end pieces carry a rod B, which supports the lubricating-roller, as hereinafter described, and at the other side

they are connected and secured together by means of a bar C, made somewhat in the form of a letter T, with elongated horizontal arms. This bar is secured at its ends in slots *a a'*, forming the ends of the uprights, preferably by means of rivets *c*, as shown. The vertical arm C' of this bar extends downward any desired distance, and at its lower end is formed into a hook C'', for the purpose hereinafter described.

The lubricating wheel or roller D is made of any suitable material, preferably of cast-iron, and of any desired diameter and width, being preferably provided with a groove *d*. To support this roller in place, I provide a spring E, preferably constructed in the form shown, wherein it is provided with coils *e* of a suitable diameter to fit upon the bar D, with roller-supporting arms *e'*, and with an arm *e''*, adapted to extend across and engage, as shown, with the hooks E'' on the arm C. The arms *e'* are bent upward, as shown, and passed through holes in the journal D', on which the roller revolves. In this way the roller is held elastically against the surface of the axle, and the spring is prevented from being rocked downward upon the rod B by means of its engagement with the hook E''.

In order to facilitate the putting together of the device, one end of the bar C is notched or recessed to enable it to be latched over the rivet *c*.

This device, having been constructed as above described, may be put together in the axle-box in any desired manner—as, for example, the following: The end piece A, with the bar C attached thereto, may be first inserted in the box, after which the rod B, upon which the spring and roller have been placed, may be inserted, the bar secured to the end piece, and the spring brought into engagement with the hook E'', the roller being depressed beneath the axle or journal. Lastly, the end piece A' is inserted, secured to the rod B, and the hook on the end of the bar C brought into engagement with the rivet *c*. To prevent this spring from sliding on the rod, I prefer to use split pins F, although I do

not consider them to be essential. By this means I am enabled to provide a simple and efficient lubricator composed of a comparatively-small number of parts which are readily assembled or put together within the journal-box, and I am thereby enabled to dispense with the somewhat complicated adjusting machinery heretofore in use. For this reason my lubricator is far more durable, less complex, and not so liable to get out of order or become broken as would be a lubricator provided with a larger number of parts and more intricate system of regulation and adjustment.

While I have shown more or less precise forms, I do not wish to be understood as unduly limiting myself thereto, but contemplate changes in form, proportions, and the substitution of equivalent members, as may be desirable or necessary, so long as the spirit or gist of my invention is adhered to, this gist consisting, as already described, in a lubricator comprising end pieces provided with a suitable connecting bar and rod adapted to carry the roller-spring and to engage therewith to prevent undue rocking of the roller.

I claim—

1. An axle-lubricator comprising end pieces, a roller-carrying rod secured to one side of such end pieces, a T-shaped bar secured to the other side, and a spring supporting a lubricating-roller mounted upon the rod and

engaging with a hook on the bar, substantially as described.

2. The combination of end pieces having uprights at each corner provided with slots at their upper ends at one side, a T-shaped bar secured in such slots and provided with a depending hook, a rod rigidly secured to the end pieces at suitable points in the side thereof opposite to the bar, a duplex spring supported upon such rod, having an arm engaging with the hook on the bar and arms supporting a roller-journal, and a roller mounted upon such journal and held in contact with the axle by means of the spring, substantially as described.

3. The combination of end pieces, a T-shaped bar connecting and forming a tie for such end pieces by being latched into slots formed in the uprights of such end pieces, a bar carrying a depending hook, a rod rigidly secured to the end pieces on the opposite side to the bar, and a spring supported at one side by said rod and at the other by the hook and provided with arms extending from the rod at an angle to the horizontal arm supporting the journal upon which revolves the lubricating-wheels, substantially as described.

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Witnesses:

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