

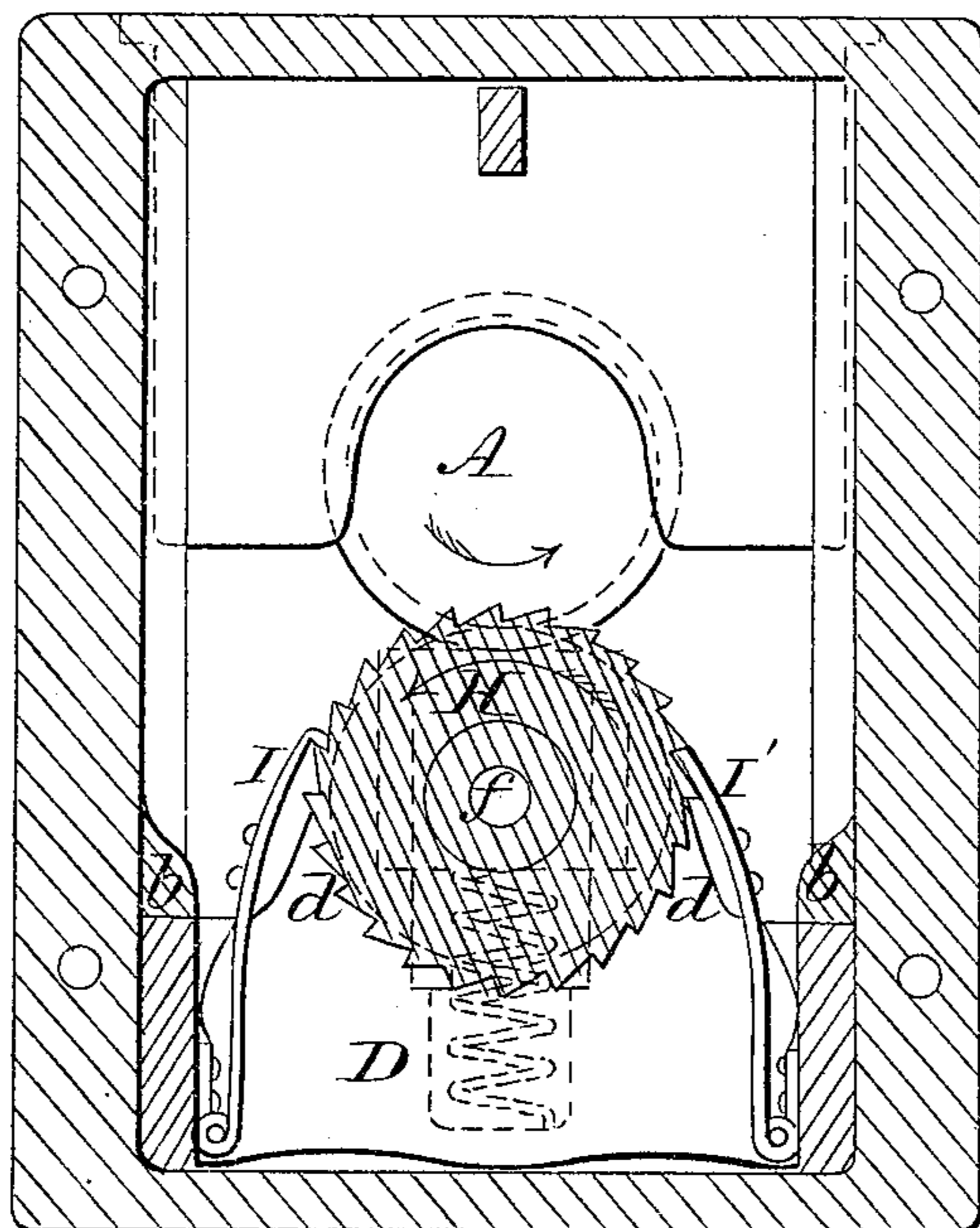
J. C. GEISENDORFF.

Car-Axle Box.

No. 19,291.

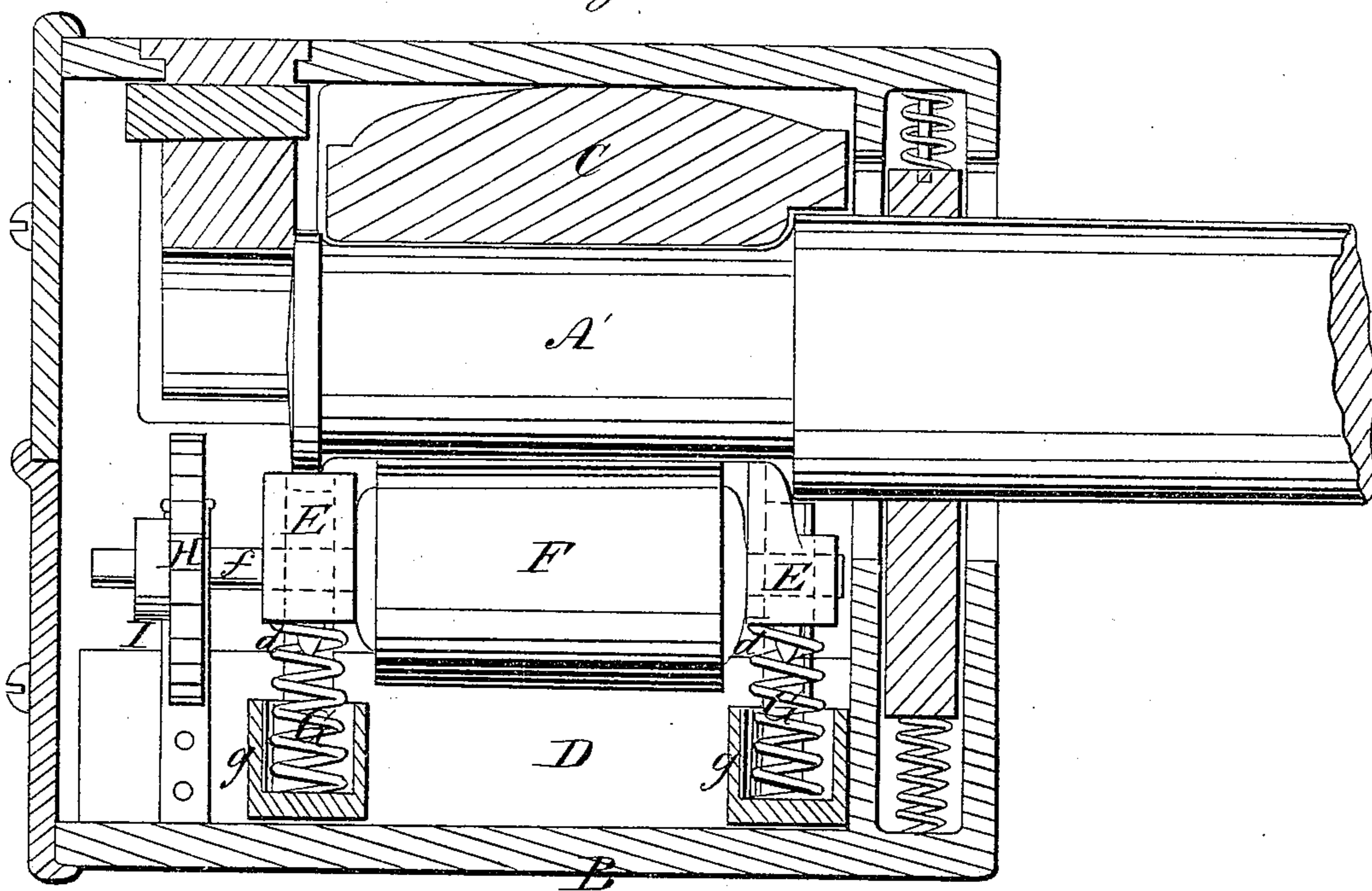
Patented Feb. 9. 1858.

Fig. 1.



B

Fig. 2.



UNITED STATES PATENT OFFICE.

JACOB C. GEISENDORFF, OF CINCINNATI, OHIO.

LUBRICATING APPARATUS FOR JOURNAL-BOXES OF RAILROAD-CARS.

Specification of Letters Patent No. 19,291, dated February 9, 1858.

To all whom it may concern:

Be it known that I, JACOB C. GEISENDORFF, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Lubricating Apparatus for the Journal-Boxes of Railroad-Cars; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

My invention consists in an arrangement for rotating a lubricating roller by the concussions incident to the motion of the car.

In the accompanying drawings Figure 1 is a front view of a railroad journal box with my improvements. Fig. 2 is an axial section of the same.

A, represents the end and A', the journal of the axle.

B, is the external case or grease box.

C, is the step, or journal bearing.

Secured in the bottom of the box B, by cleats *b*, is a frame D, which is at each end provided with a pair of cheeks *d*, which cheeks confine to a vertical path the journal boxes E, of a suitable lubricating roller F. This roller is so disposed as to impinge by the upper part of its periphery against the under side of the axle journal and to have the lower part of its periphery immersed in the lubricating oil at the bottom of the box B. By means of spiral springs G, occupying sockets *g* in the frame D, the summits of the boxes E, E, are held strongly against the axle A A', and being in a line or nearly so, with the periphery of the roller F, limit the pressure of the latter against the journal A', to an extent just adequate to express the desired amount of oil for lubrication and at the same time protect the roller F, from undue friction or strain. In reference to this service the boxes E, are termed by me "guards" or "gage pieces."

H, is a ratchet wheel mounted on the front end of the roller shaft *f*.

I, I', are spring pawls (of which there may be one or several), which being hinged or otherwise fastened to the frame D, engage with the ratchet wheel H, on opposite sides. These pawls act alternately to impart a slow intermittent rotation to the roller F, upon each descent and ascent of the latter consequent on a concussion of the axle. Thus when the roller descends, the pawl I', opposing the descent of the ratchet wheel on that side, obliges it to rotate the distance of a tooth or more, the other pawl simply slipping over the backs of the opposite teeth, and on the ascent of the roller a like partial rotation results from the resistance of the pawl I. Attempts which have been made to move the roller directly by its contact with the journal have resulted in a speedy sticking fast and scorching of the roller and were its rotation by this means practicable the velocity would be a thousand fold greater than that best adapted for effective action. The various automatic lubricators consisting of a series of levers are too liable to derangement or imperfect in their operation to admit of their superseding the use of the lubricating roller.

My invention presents an effective method of maintaining the required slow but positive motion of the lubricating roller by a simple arrangement confined within the limits of the journal box.

I claim as new and of my invention herein.

The guards E, springs G, ratchet wheel H, and pawls I, I', or substantially equivalent devices in the described combination with the lubricating roller F, and axle A A', for the purposes set forth.

In testimony of which invention I hereunto set my hand.

J. C. GEISENDORFF.

Attest:

GEO. H. KNIGHT,
CLEMENT E. BABB.