(No Model.)

J. J. BUSENBENZ.

AXLE LUBRICATOR.

No. 549,882. Patented Nov. 12, 1895

Fig. 1.

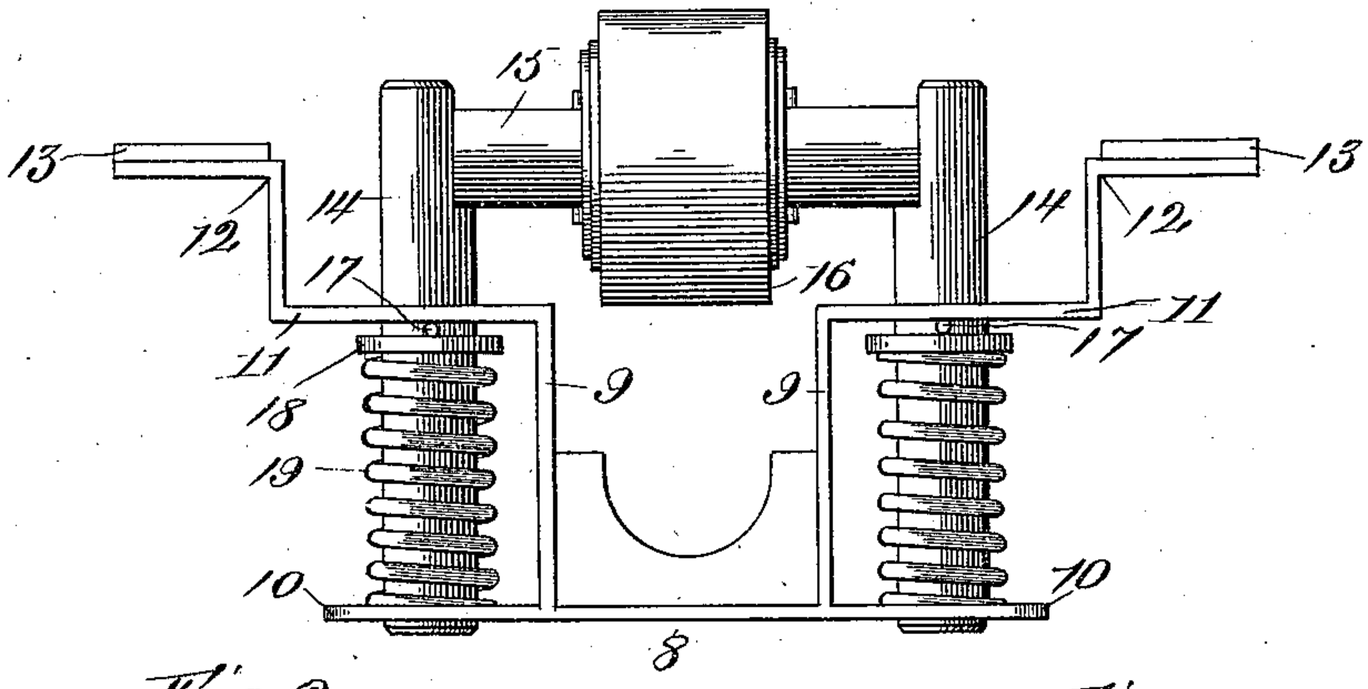


Fig. 2.

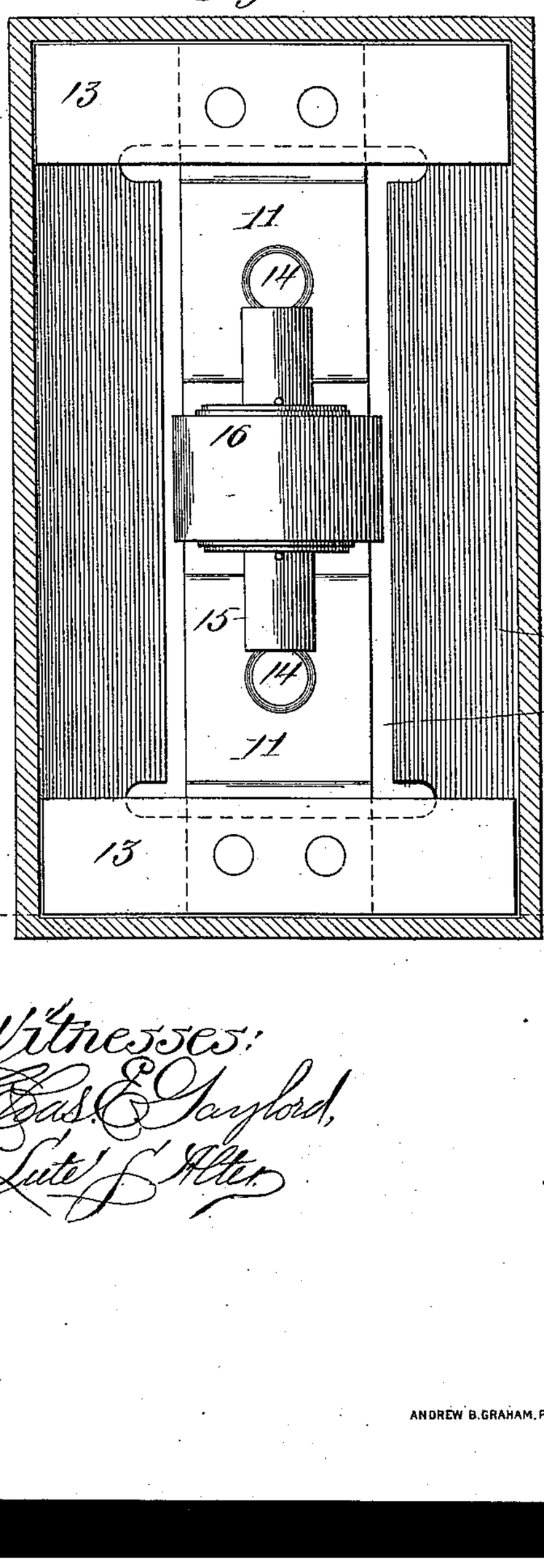
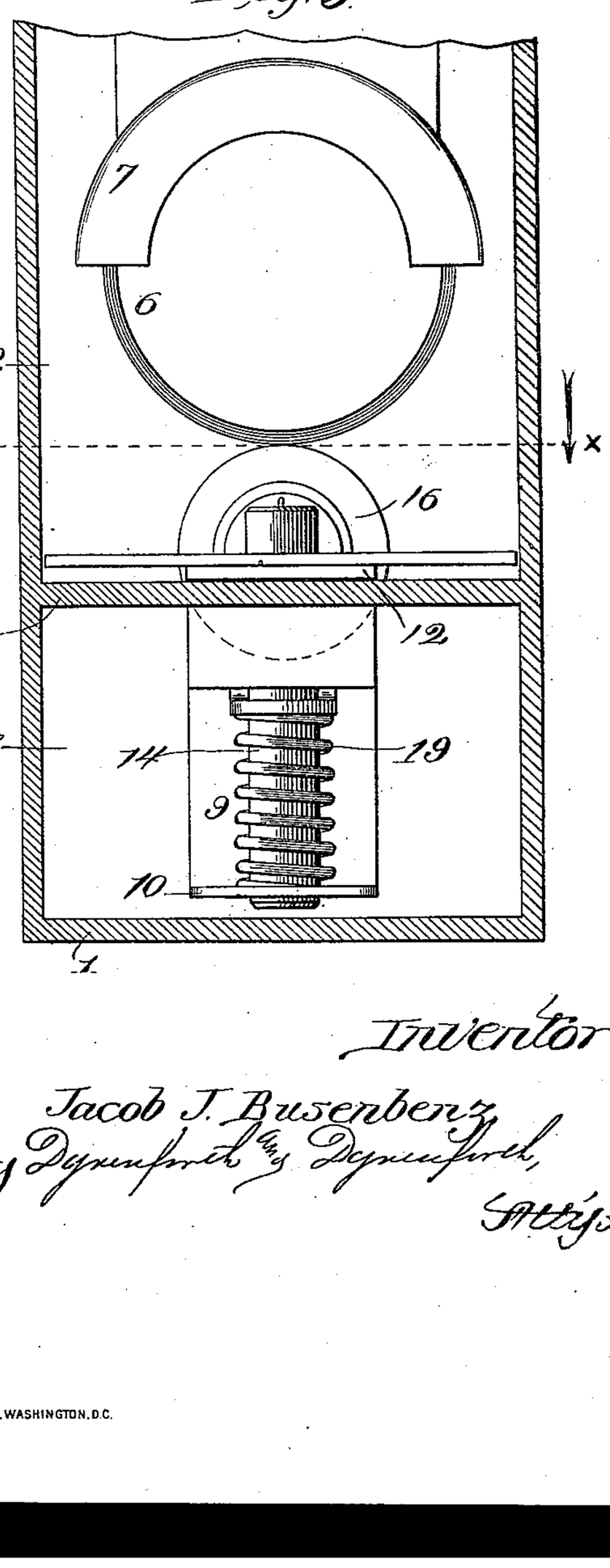


Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB J. BUSENBENZ, OF CHICAGO, ILLINOIS.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 549,882, dated November 12, 1895.

Application filed March 20, 1895. Serial No. 542,439. (No model.)

To all whom it may concern:

Be it known that I, JACOB J. BUSENBENZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Axle-Lubricators, of which the following is a specification.

My invention relates to that class of axle-lubricators having a roller interposed between the journal-axle and the lubricant, the axis of each being in line and such roller held or forced against the journal-axle by spring power; and the objects of my invention are to supply an axle-lubricator to be located within the journal-box and interposed between the journal-axle and the lubricant, wherein the frame in which the lubricant-roller is mounted is seated by hanging it from some portion of the journal-box, preventing endwise and sidewise movement thereof, and utilizing the hangers of the frame, together with the contact of the roller and journal-axle, to prevent vertical movement of such frame; and together with such further and other objects as will be hereinafter explained and claimed.

I will describe and illustrate my invention when used in connection with a journal-box having an upper and lower compartment, the upper being used for housing the journal-axle and the lower being used for storing the lubricant, a partition dividing the two, the connection or intercourse being had by means of a central slot in such partition, this being a well-known form of journal-box used for axles in street-railway cars. I accomplish these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a side view of my device as it appears when removed from the journal-box. Fig. 2 represents a sectional longitudinal view of the journal-box on the line *x x* of Fig. 3, showing a plan view of my device in position therein; and Fig. 3 represents a sectional vertical view of the journal-box, the upper portion cut away on the line *y y* of Fig. 2, showing a front end view of my device in position therein.

Similar numerals of reference refer to similar parts throughout the several views.

1 represents the journal-box; 2, the upper compartment or housing for the journal-axle; 3, the lower compartment or storage depot for the lubricant; 4, the partition between the compartments; 5, the central slot affording the means of intercourse or connection between the two compartments; 6, the journal-axle, and 7 the brass bush.

My invention consists in the frame having the horizontal base 8 and the right-angled vertically-extending uprights 9, from which extend in opposite directions the horizontal bars 10 from the base, and the horizontal bars 11 from the top of the uprights.

At the extremity of each horizontal bar 11 extends a hanger 12, consisting of a bar extending a short distance vertically and then bent outwardly at right angles thereto, and to the upper surface of each hanger I attach a cross bar or rod 13. I construct the frame so that it may enter or drop through the central slot in the partition and be supported therefrom by the upper or horizontal portion of the hanger, while the extremities of such hangers and the extremities of said cross-bars or rods abut against the inner surface of the walls of the journal-box and thus prevent endwise or sidewise movement to said frame.

Each horizontal bar 10 and 11 is perforated or pierced in line vertically to accommodate each post 14, the upper end of such posts being constructed to carry a horizontal shaft 15, upon which is suitably mounted a lubricator-roller 16.

Each post 14 is provided with a pin 17, and adjacent to said pin, beneath the same, is a collar or ring 18 surrounding each said post, and surrounding each said post is a coiled spring 19, the upper end of which abuts each said collar or ring, and the lower end of which abuts or rests upon the horizontal bars 10, extending from the base 8.

It will be observed that each pin 17 limits the movement of each collar or ring upward upon its post, and the upper end of each coil-spring abuts the collar or ring and its lower end abuts the base 8, and hence when the roller is pressed downward such pressure is likewise exerted against the springs by means of the pins and collars, and at the same time such springs exert a force upward.

When my device is placed in position in the journal-box, as shown in Fig. 3, the journal-axle forces the roller 16 downward suffi-

ciently, so that through its shaft, posts, pins, and collars it bears upon said springs, so as to be held firmly against the journal-axle, and the rotation of the latter will cause rotation of said roller. A sufficient quantity of the lubricant is placed in the lower compartment 3 of the journal-box, so the lower portion of the roller while revolving will come in contact therewith, and by this means the lubricant is passed up to and distributed upon the journal-axle.

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, of the frame which is suspended from the central slot in the portion dividing the journal-box in the two compartments, such frame constructed and arranged to fit in said journal-box and not liable to endwise or sidewise movement, and further consisting of posts provided with a cross-shaft adapted to carry the roller, such posts passing through suitable apertures in the frame whereby the coiled spring respectively surrounding each post has a bearing at one end against the base of the frame, and its opposite end against a collar or ring upon such post bearing against a pin therein.

I am aware that it is old in lubricators to arrange the lubricant-roller so that it is held by spring force against the journal-axle, and I do not broadly claim such; nor do I broadly claim the lubricating-roller mounted upon the shaft, the extremities of which are supported by springs.

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

In an axle lubricator, having a roller interposed between the journal axle and the lubricant, the combination of the cross shaft upon which the roller is mounted, the posts supporting the extremities of said shaft, the frame provided with horizontal and parallel extending bars, perforated in line to accommodate said posts, a pin secured in each post, a collar surrounding each post beneath each pin, a coiled spring surrounding each post and each spring interposed between a collar and a lower horizontal extending bar, a hanger attached to the extremity of each upper horizontal extending bar, and a cross-piece attached to an upper member of each hanger, substantially as described.

JACOB J. BUSENBENZ.

In presence of—
M. J. FROST,
J. H. LEE.