(No Model.)

L. P. DOLLISON.

LUBRICATOR.

No. 270,762. Patented Jan. 16, 1883.

Fig. 1

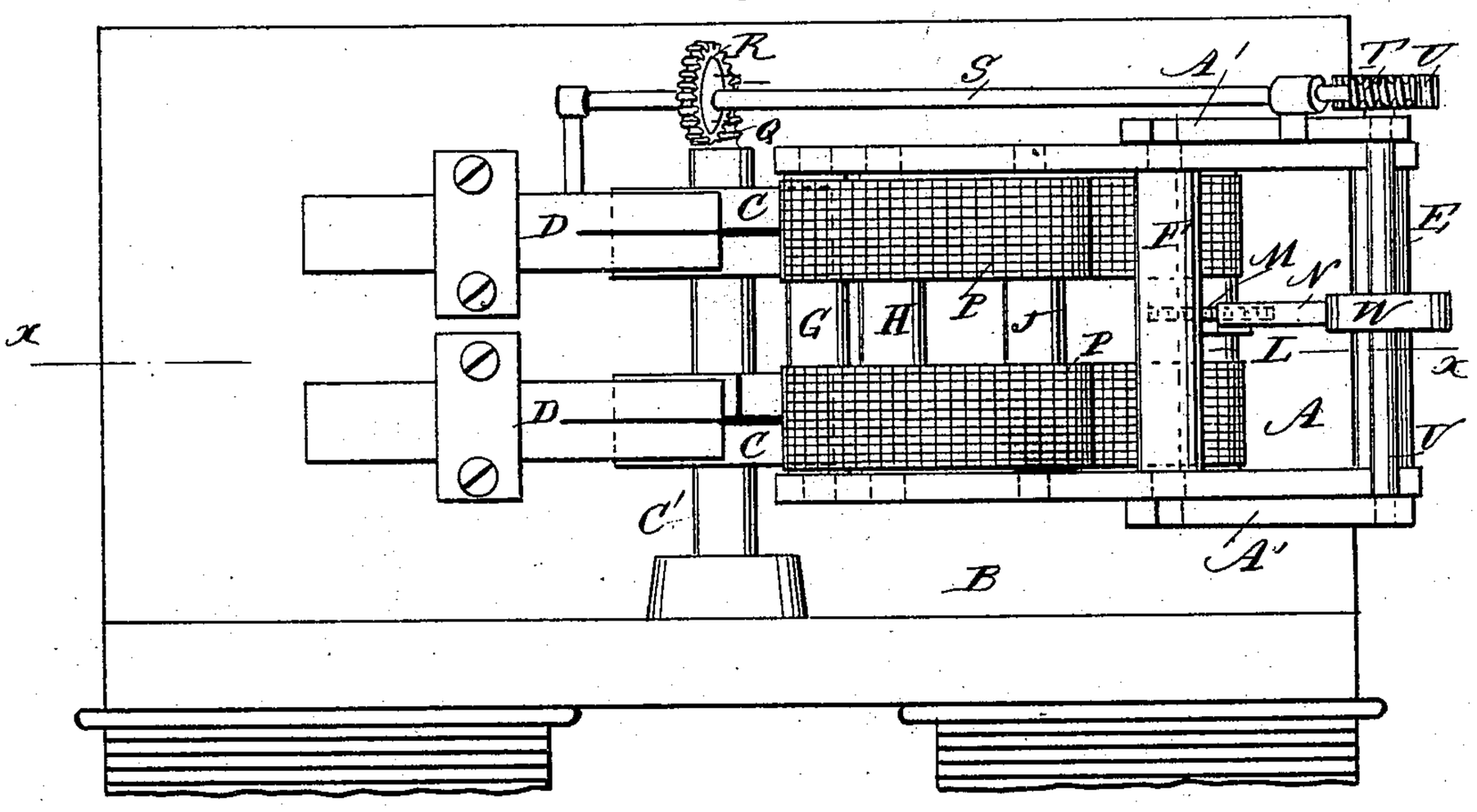
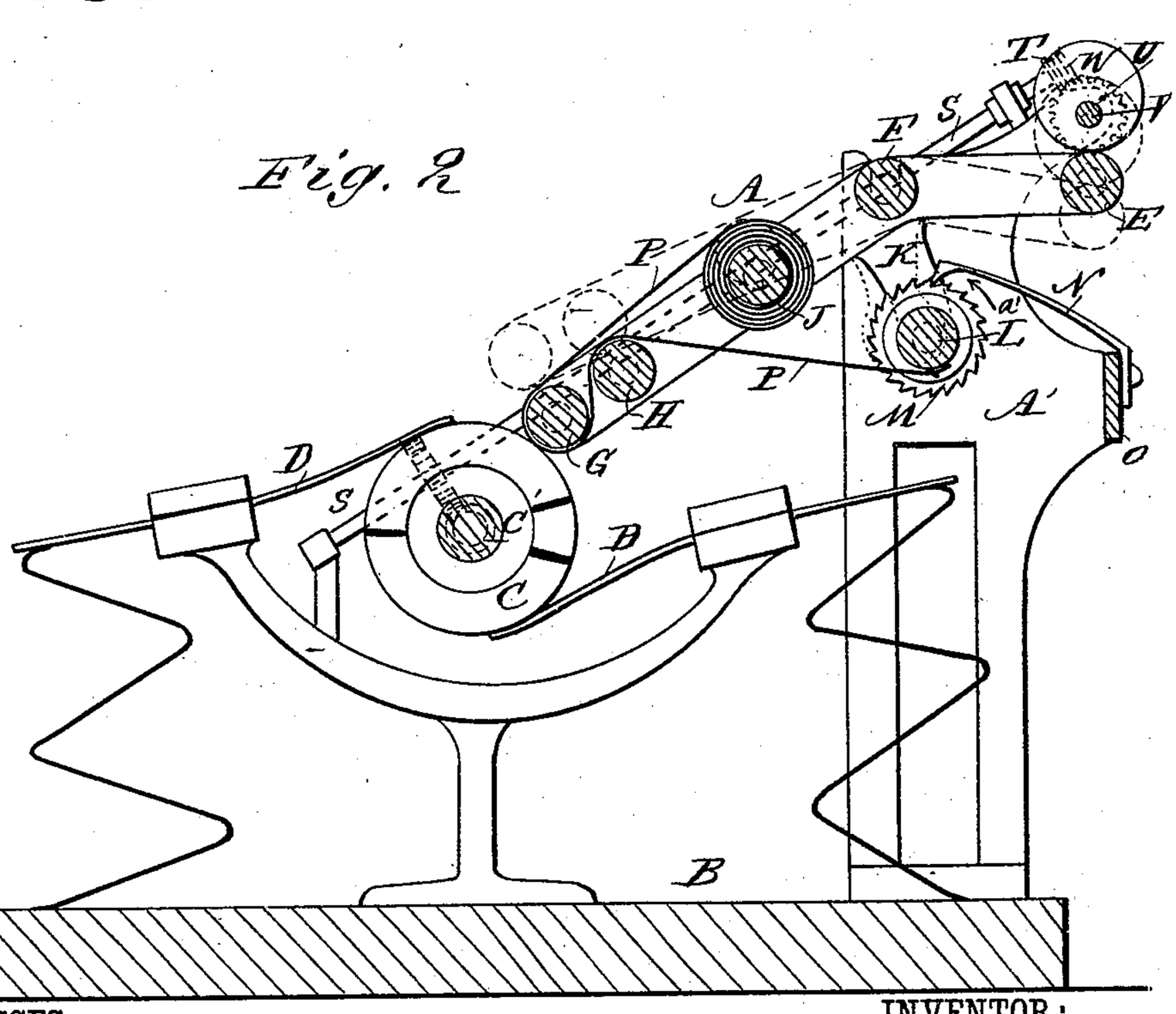


Fig. 2



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LEVI P. DOLLISON, OF WABASH, INDIANA.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 270,762, dated January 16, 1883.

Application filed August 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEVI P. DOLLISON, of Wabash, in the county of Wabash and State of Indiana, have invented a new and Improved Lubricator, of which the following is a full, clear, and exact description.

The object of my invention is to facilitate the lubricating of the commutators of dynamo-electric machines to prevent the brushes from cutting into the commutators.

The invention consists in a rocking frame provided with rollers to which bands saturated with oil are attached and with rollers over which the bands pass, one of which rollers, to which the bands are attached, being provided with a ratchet-wheel with which a fixed pawl-spring engages, thereby rotating the said roller when the frame rocks, and thus winding the bands from one roller to the other, so that a fresh surface of the bands will come in contact with the object to be lubricated every time the frame rocks. The frame is rocked by an eccentric wheel operated from the shaft carrying the object to be lubricated, as will be more fully described hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved lubricator, showing it applied to a dynamo-electric machine. Fig. 2 is a sectional elevation of the same on the line, *x x* Fig. 1.

A frame, A, is journaled or hung in two standards, A′, on the base B of the dynamo-electric machine in such a manner that the lower and longer end of the said frame will be above the commutators C, against which the brushes D rest. The side bars of the frame A are bent slightly at the point at which the frame is hung, as is shown in Fig. 1, and the said side bars are connected at the upper ends by a shaft, E, at the pivot by a shaft, F, at the lower ends by a roller, G, and by a roller, H, a short distance inside of the roller G. The side bars are also connected by a roller or reel, J, between the rollers H and F. The side pieces of the frame A are provided with downwardly-projecting arms K, in the ends of which a roller, L, is journaled, on which a ratchet-wheel, M, is rigidly mounted. A pawl-spring, N, attached to a cross-piece, O, connecting the standards A′, has its free end resting on the ratchet-wheel M. Bands P, of felt, cotton, or other suitable material, are wound on the reel J, pass around the end roller, G, over the roller H, and are then attached to the roller L. The end of the shaft C′ on which the commutators C are mounted is provided with a worm-thread, Q, engaging with a worm-wheel, R, mounted on an inclined shaft, S, provided at its upper end with a worm-thread, T, engaging with a worm-wheel, U, mounted on one end of a transverse shaft, V, journaled in the upper ends of the standards A′, on which shaft V an eccentric wheel, W, is mounted. The inclined shaft S is journaled in projections of the brush-holder and one of the standards.

The operation is as follows: The bands or ribbons P are soaked in oil, and are then wrung out and wound on the reel J and fastened to the reel or roller L, as described. The rotatting shaft C′ rotates the shaft S, which in turn rotates the shaft V on which the eccentric wheel W is mounted. As the eccentric disk or wheel U rotates it alternately depresses and releases the upper end of the frame A. When the upper end of the frame A is depressed the lower end will be raised from the commutators, and when the upper end of the frame A is released the lower end or roller of the frame rests on the commutators, which will be lubricated by the lubricating material in the bands P. Every time the shaft V rotates the bands P will be brought in contact with the commutator, and by changing and adjusting the gearing the number of contacts within a given time can be increased or decreased. The frame A swings on the shaft F, and every time the frame A swings upward the roller L swings forward—that is, from the cross-piece O—and the ratchet-wheel M slides under the free end of the spring N; and when the frame A swings down the roller L swings toward the cross-piece O. The teeth of the ratchet-wheel M catch on the end of the spring N. The wheel M will be rotated in the direction of the arrow *a′*, and thereby the roller L will be rotated, and part of the bands P will be wound on the roller L. A part of the band is wound on the roller L every time the

frame A rocks, so that a fresh surface or part of the bands will come in contact with the commutators every time the frame A swings. As many bands P can be mounted in the frame A as there are commutators on the shaft C′.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A lubricator made substantially as herein shown and described, and consisting of a swinging frame containing bands or ribbons saturated with oil or other lubricating material, which bands are repeatedly brought in contact with the surfaces to be lubricated, as set forth.

2. In a lubricator, the combination, with a rocking frame, of bands wound on rollers of the said frame, and of devices for gradually transferring the bands from one roller to the other by the movements of the rocking frame, substantially as herein shown and described, and for the purpose set forth.

3. In a lubricator, the combination, with a rocking frame, of bands attached to the rollers in the said frame, and of a ratchet-wheel and pawl-spring for winding the bands from one roller to the other by the rocking motion of the frame, substantially as herein shown and described, and for the purpose set forth.

4. In a lubricator, the combination, with a rocking frame, of oiled or prepared bands on rollers in the said frame, and of devices for rocking the said frame from the shaft on which the objects to be lubricated are mounted, substantially as herein shown and described, and for the purpose set forth.

5. In a lubricator, the combination, with the standards A′ of the rocking frame A, provided with rollers over which bands P are passed, the rollers J and L, to which the bands P are attached, the ratchet-wheel M on the roller L, and the spring N on a cross-piece of the standards A′, substantially as herein shown and described, and for the purpose set forth.

6. In a lubricator, the combination, with a rocking frame, A, carrying lubricating-bands P, of an eccentric wheel W for rocking the said frame, substantially as herein shown and described, and for the purpose set forth.

7. In a lubricator, the combination, with the rocking frame A, carrying lubricating-bands P, of the shaft V, the eccentric wheel W, the worm-wheel U on the end of the shaft V, the shaft S, provided with a worm-thread, T, at its upper end, the worm-wheel R, mounted on the shaft S, and the shaft C′ of the machine, which shaft is provided with a worm-thread, Q, engaging with the worm-wheel R, substantially as herein shown and described, and for the purpose set forth.

LEVI P. DOLLISON.

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