(No Model.)

J. S. OAKLEY.

FRICTION PULLEY FOR LAMP CHAINS.

No. 326,140. Patented Sept. 15, 1885.

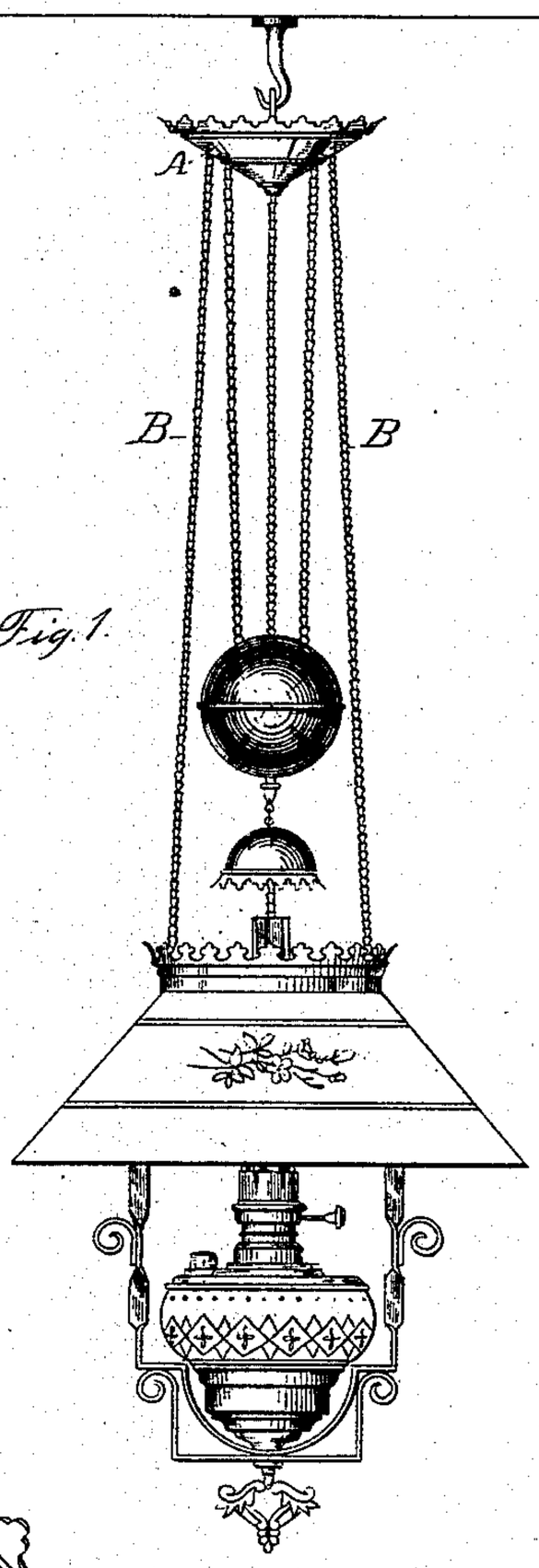

Fig. 1.

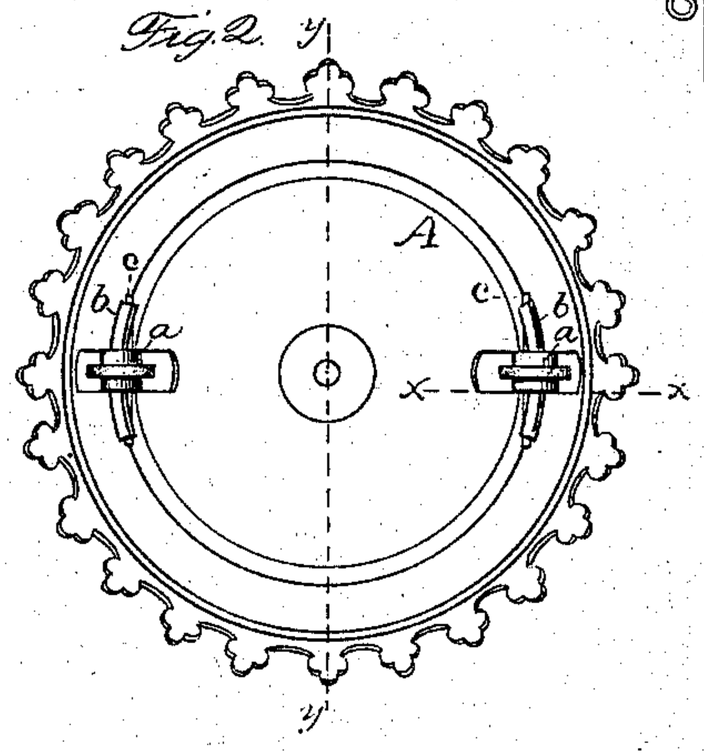

Fig. 2.

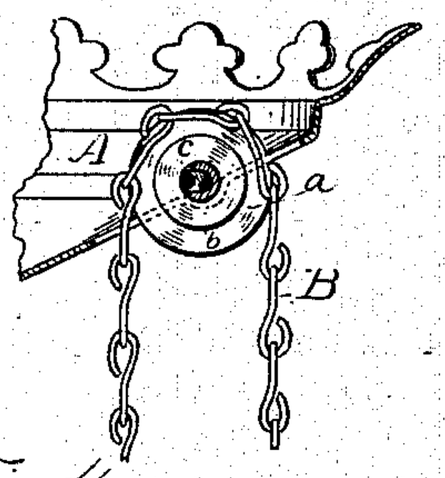

Fig. 3.

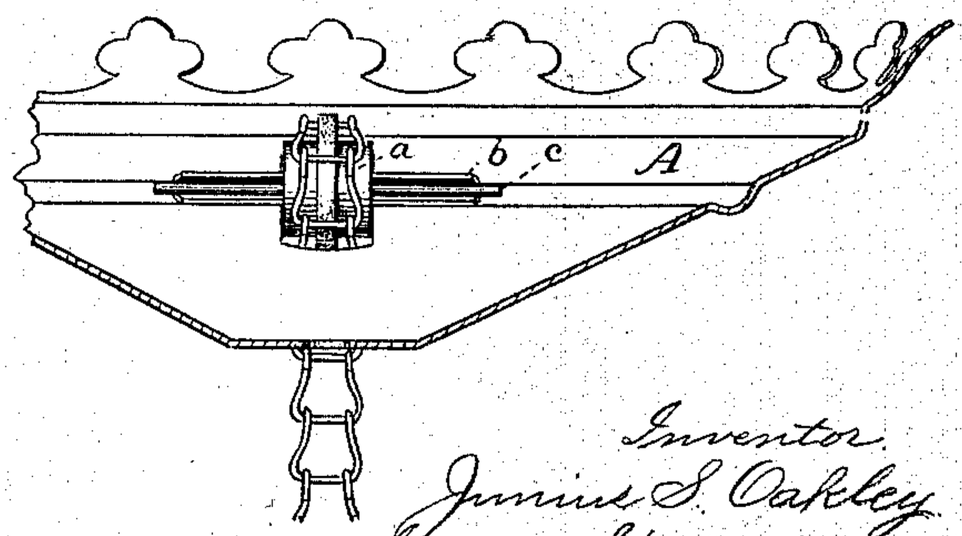

Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

JUNIUS S. OAKLEY, OF FORESTVILLE, ASSIGNOR TO THE BRISTOL BRASS AND CLOCK COMPANY, OF BRISTOL, CONNECTICUT.

FRICTION-PULLEY FOR LAMP-CHAINS.

SPECIFICATION forming part of Letters Patent No. 326,140, dated September 15, 1885.

Application filed February 25, 1885. (No model.)

To all whom it may concern:

Be it known that I, JUNIUS S. OAKLEY, a citizen of the United States, residing at Forestville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Friction-Pulleys for Lamp-Chains, of which the following is a specification.

My invention relates to improvements in that class of hanging lamps which have suspension-chains that pass over friction-pulleys, said pulleys being secured in a suitable pulley-frame that is fastened to the ceiling in any suitable manner.

The object of my invention is to produce a friction-pulley for lamp-chains which will not require the lamp to be balanced, and will allow considerable variation in the weight of the lamp, as by the addition of pendants and jewels or removing the lamp-cup, without causing the lamp-frame to either rise or fall by gravity. I accomplish my desired object by the simple construction illustrated in the accompanying drawings, in which—

Figure 1 is a side view of one kind of lamp that belongs to the class to which my improvement relates. Fig. 2 is a plan view of the pulley-frame. Fig. 3 is a sectional view thereof on line *x x* of Fig. 2, and Fig. 4 is a sectional view of the same on line *y y* of Fig. 2.

A designates the pulley-frame, to which are secured the friction-pulleys *a*, over which the suspension-chains B run. I knurl these pulleys on their edge in order to prevent said chains from slipping.

The pulley-frame A is essentially the same as the ordinary pulley-frame now in use with the hereinbefore-described class of lamps, and is so well known that it needs no particular description.

The friction-pulley *a* is mounted upon a curved axle, *b*. I form this curved pulley-axle *b* hollow or with a groove which opens at one side, as most clearly shown in Fig. 3, for the purpose of inserting therein a piece of spring-wire, *c*. After the spring-wire *c* has been placed in the hollow axle *b*, and the pulley *a* slipped over one end of said axle and spring-wire, I secure the same upon the pulley-frame A, as shown most clearly in Fig. 2.

By curving the axle as shown I accomplish three objects: first, it better fits the circular frame, so that the ends of the axle which project beyond the sides of the pulley can be more conveniently secured thereto; second, the spring can be formed of a straight piece of wire, and, third, the projecting ends of the spring-wire are covered or housed within the hollow axle.

The middle portion of spring-wire within the axle and pulley bears with considerable pressure against the wall of the axial hole through the pulley, thereby creating considerable friction, and this friction insures a much better vertical adjustment of the lamp than has formerly been the case. Heretofore much annoyance has been experienced from the fact that the lamp and its weight must be balanced in order to stay in place; but with my hollow axle and inclosed spring-wire said wire will at all times press firmly against the inside of the pulley, so that the lamp and weight may be considerably out of balance and still stay in place. This enables me to use lamps in connection with a given size of weight, either with or without pendants or jewels, and when the lamp-cup is removed for filling there is no danger of the frame or support for the cup being pulled up by the weight. At the same time the lamp is easily raised and lowered to different heights.

I am aware that a prior patent for sewing-machines shows a bobbin mounted upon a grooved post with a spring so secured within the groove in the post that one end bears against the wall of the axial hole through the bobbin, and the same is hereby disclaimed.

I claim as my invention—

In hanging lamps of the class hereinbefore described, a friction device consisting of the pulley-frame A, an ordinary pulley, *a*, the hollow or grooved axle *b*, curved longitudinally, and having its ends which project from the sides of said pulley secured to said frame, and the spring-wire *c*, inclosed within said curved axle, substantially as described, and for the purpose specified.

JUNIUS S. OAKLEY.

Witnesses:

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