N. KROHN.

LAMP.

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947,041.

Patented Jan. 18, 1910.

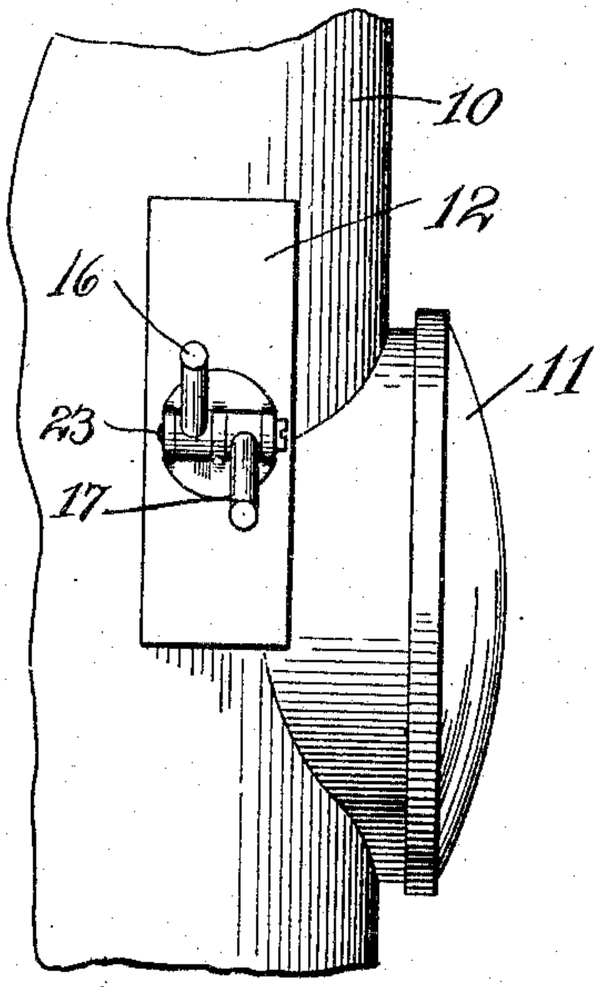

Fig. 1.

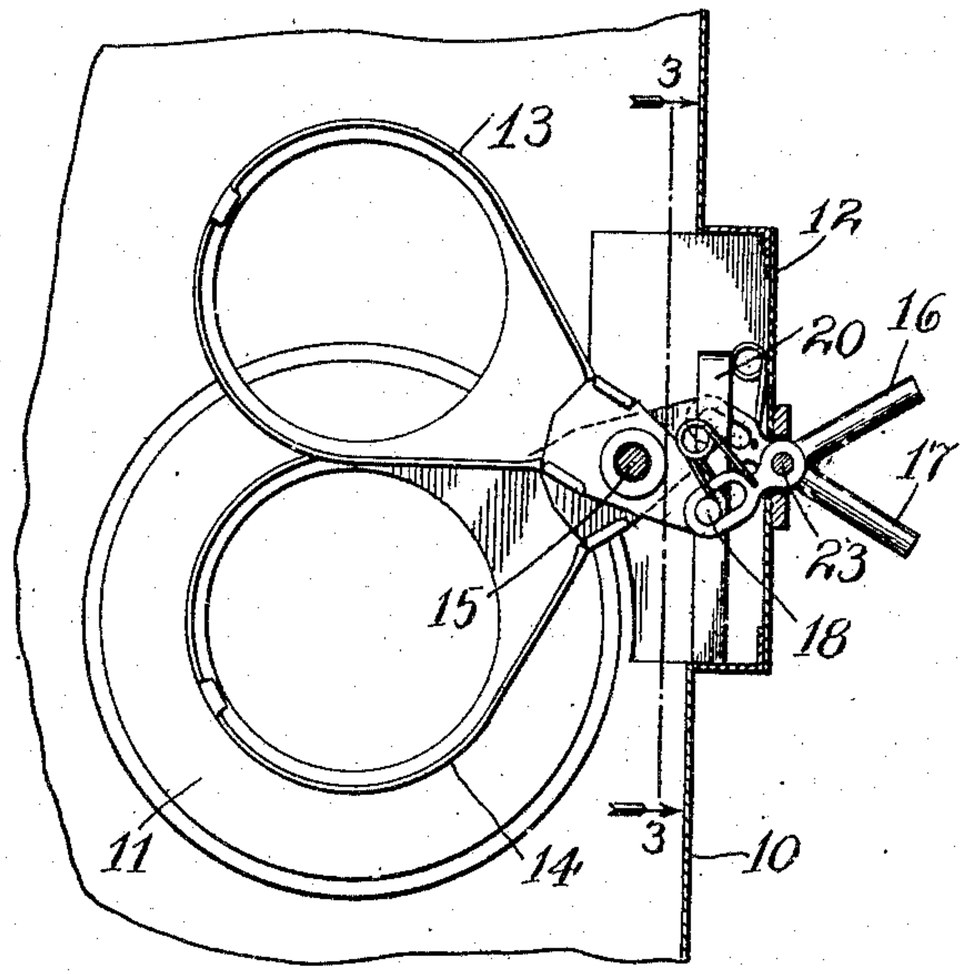

Fig. 2.

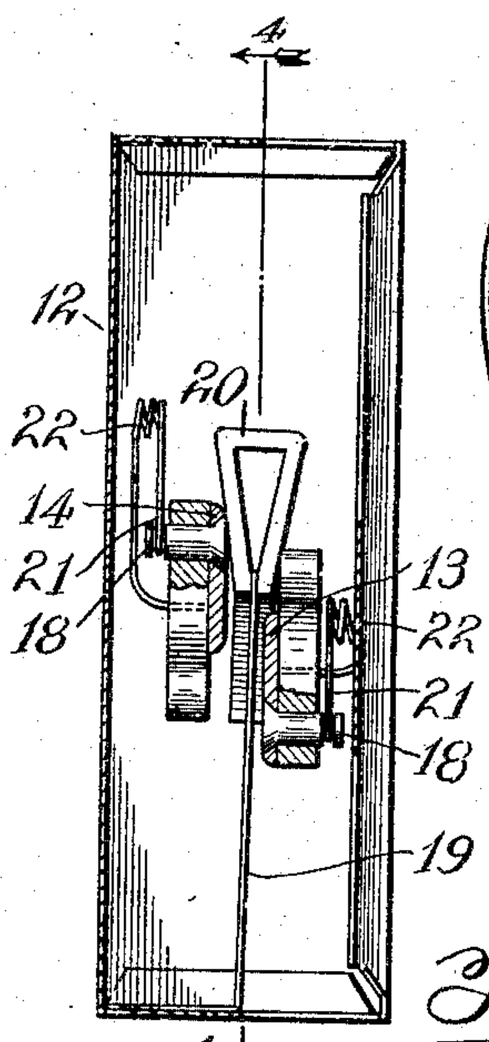

Fig. 3.

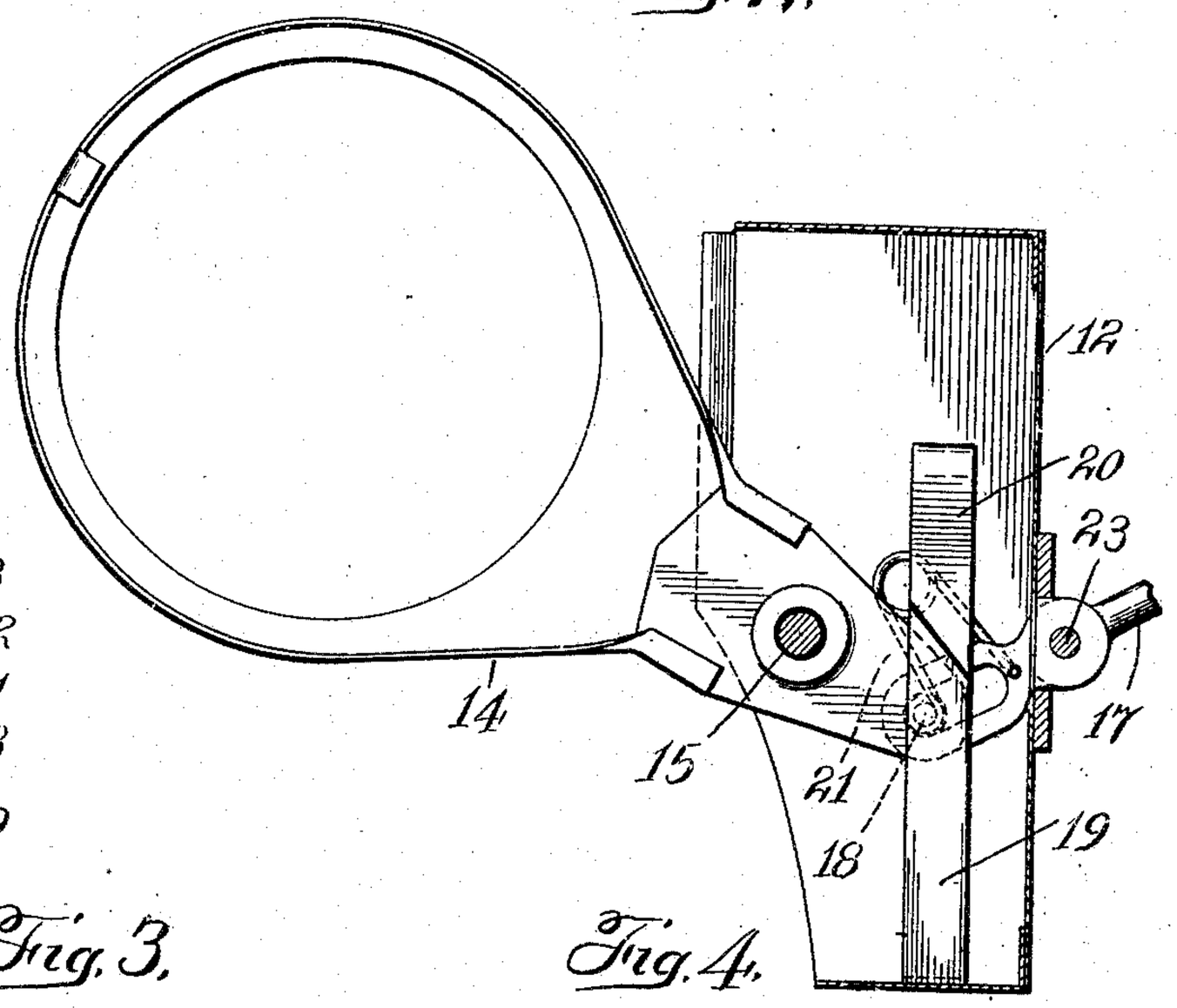

Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

NELS KROHN, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ADAMS & WESTLAKE COMPANY, A CORPORATION OF ILLINOIS.

LAMP.

947,041. Specification of Letters Patent. Patented Jan. 18, 1910.

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To all whom it may concern:

Be it known that I, NELS KROHN, a citizen of the United States, and resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Lamps, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to that class of signal lamps in which there is employed a colorless light emitting lens and one or more colored glasses each carried by an oscillating frame adapted to move into and out of register with the lens.

The invention consists of improved means for controlling the oscillating frames as hereinafter described and as shown in the accompanying drawings, in which:—

Figure 1 shows a side elevation of a lamp, Fig. 2 is a detail section of the lamp showing the oscillating frames in elevation, Fig. 3 is a sectional detail on the line 3—3 of Fig. 2 with the parts differently positioned, and Fig. 4 is a sectional detail on line 4—4 of Fig. 3, one of the parts being shown in elevation.

The body of the lamp is shown at 10 and its light emitting lens at 11, the latter being of clear or colorless glass. To the exterior of the lamp adjacent one side of the lens aperture is affixed a box 12, which opens to the interior of the lamp and within this box are mounted the frames 13, 14 for carrying the colored signal glasses (not shown).

The frames 13, 14 have the form of arms and in the art are commonly known as frame arms and are mounted upon a common pivot 15, affixed in the side walls of the box 12. These frame arms are swung on their pivot by means of levers 16, 17, attached to the box wall, as shown at 23, and project through an aperture therein. The connection between each of the actuating levers and the frame arm with which it cooperates is by means of a pivot 18 fixed in one of the members and running in a slot in the other,—as shown the pin being fixed in the frame arm and the slot being located in the lever.

As is usual in devices of this character a lock is provided for preventing the movement of one of the frame arms when its companion is swung into register with the lamp lens. This lock takes the form of a spring arm 19 shown as secured to an end wall of the box and projecting between the two frame arms 13, 14, the free end of the arm 19 being formed into or carrying a loop as shown at 20, this enlarged head performing the double function of a cam and a stop, the advancing arm sliding upon its inclined face and moving it laterally into the path of the companion frame arm.

For the purpose of preventing the accidental or unintended movement of the frame arms a spring is provided to coöperate with each and hold it in either its retracted or advanced position. For this purpose there is shown a substantially U shaped wire spring 21, preferably provided with a coil 22 at its bow for the purpose of increasing its resiliency. One end of this spring is secured to the frame arm, as shown being attached to the pivot uniting the arm with its actuating lever, and the other end is given a relatively stationary anchorage, as shown being attached to the actuating lever between the pivot 18 and the pivot 23. As, in the movement of the frame arm and its actuating lever, the end of the spring which is attached to the frame arm travels past the line passing through the pivots 15, 23 the direction in which the expansive force of the spring acts is reversed, and hence the frame arm is held in the position to which it is thrown by the actuating lever. An advantage is found in attaching the ends of the spring respectively to the frame arm and the actuating lever in that while the movement of the two ends of the spring is sufficiently differentiated to insure a reversal of its action the spring is not required to spread to the same extent that would be the case if one of its ends were stationary, thereby insuring a strong tension.

I claim as my invention:—

1. In a signaling device for lamps, in combination, a pivoted arm, a hand-piece positively connected therewith, a bowed spring having one end attached to the arm at a point removed from its pivot and having its other end secured independent of the arm and at a point intermediate of the ends of the path of the point of attachment of the spring to the arm.

2. In a signaling device for lamps, in combination, a pivoted arm, a hand-piece positively connecting with the arm, a bowed spring having one of its ends secured inde-

pendent of the arm and in line with the middle position thereto, and its other end attached to the arm at a point removed from its pivot.

3. In a signaling device for lamps, in combination, an oscillating arm, a lever of the first order having one end in pivotal engagement with the arm, the pivot being fixed in one member and engaging a slot in the other member, and a bowed spring having its ends attached respectively to the arm and to the lever.

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