

No. 721,452.

PATENTED FEB. 24, 1903.

T. C. LAUER.
HEADLIGHT SIGNAL.
APPLICATION FILED MAR. 10, 1902.

NO MODEL.

FIG. 2.

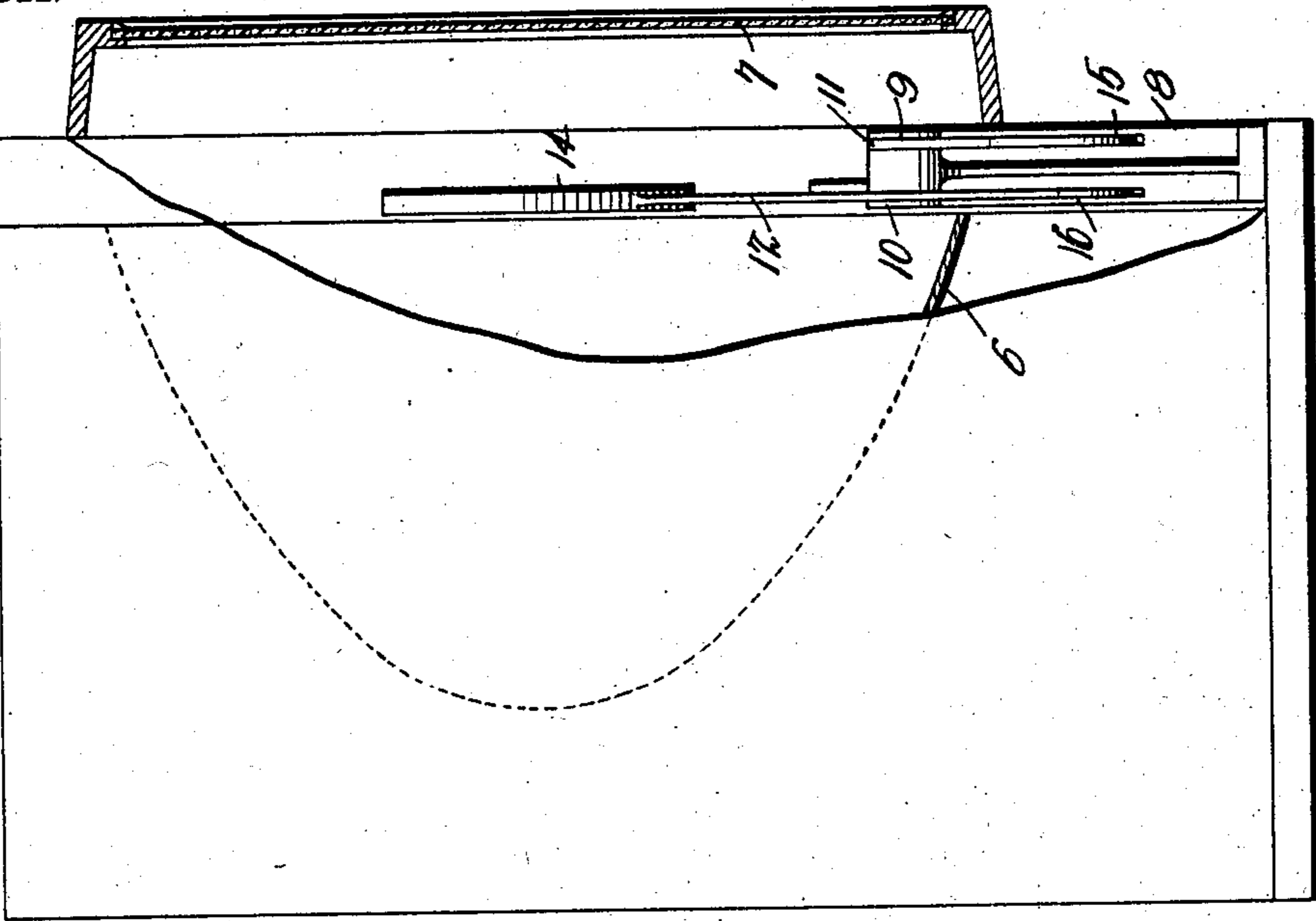


FIG. 1.

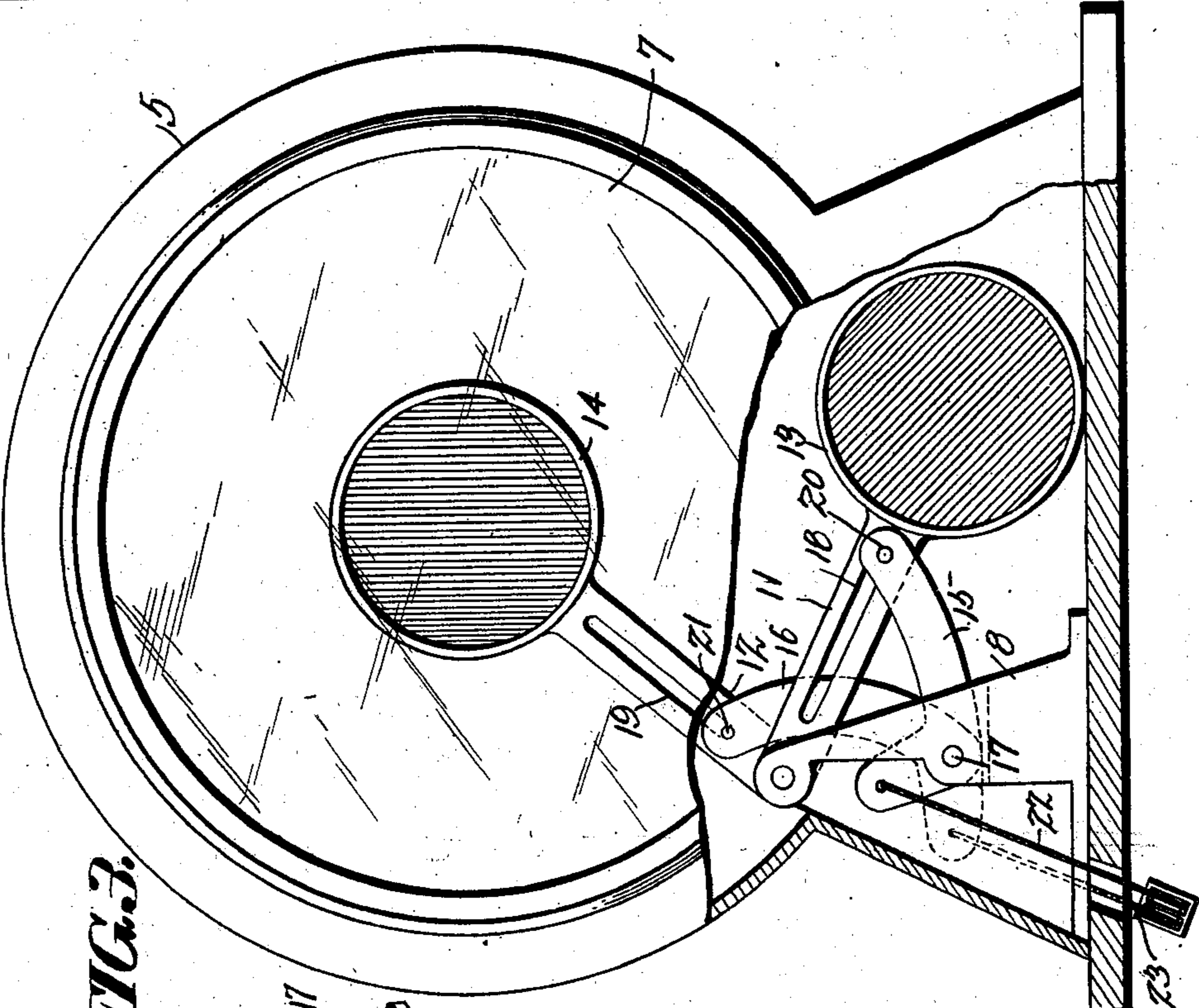
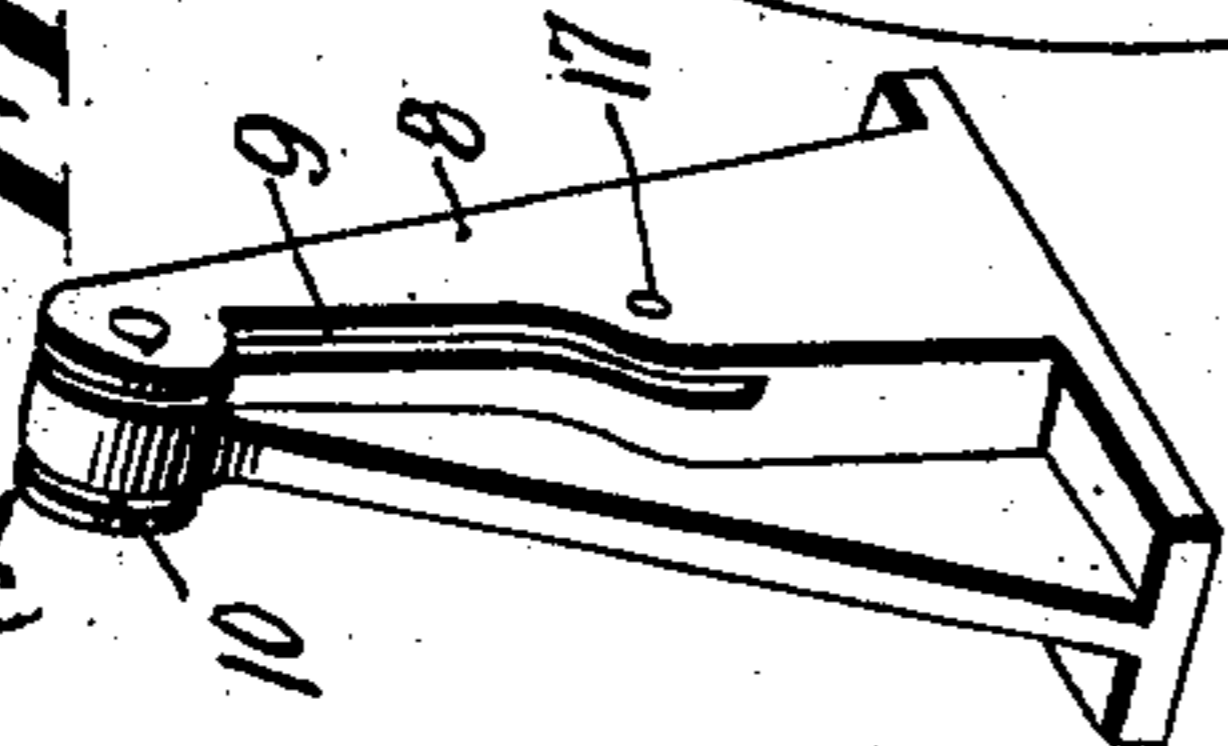


FIG. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

THEODORE C. LAUER, OF TOLEDO, OHIO.

HEADLIGHT-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 721,452, dated February 24, 1903.

Application filed March 10, 1902. Serial No. 97,574. (No model.)

To all whom it may concern:

Be it known that I, THEODORE C. LAUER, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Headlight-Signal, of which the following is a specification.

This invention has for its object the production of a signal-making device adapted more particularly to be operated in connection with a locomotive-headlight, but which may also be employed in connection with other forms of lanterns or lights, whereby various colored or otherwise distinctive signals may be independently projected in the path of the rays of light emanating from the lantern; and the invention consists in certain novel features of construction, as hereinafter shown and described, and specifically pointed out in the claims.

For the purpose of illustration the invention is shown applied to a locomotive-headlight.

Figure 1 represents a front elevation, partially in section, and Fig. 2 represents a side elevation, also partially in section, of a locomotive-headlight with the improvement attached thereto. Fig. 3 is a perspective view of the lever-bracket detached.

The headlight-casing is indicated at 5, the concaved reflector at 6, and the glass protecting front at 7, of the usual construction. Contiguous to the front 7, preferably just in its rear, is arranged a standard 8, formed with spaced vertical slots 9 and 10, as shown in Fig. 3, in its upper end. In the upper part of these slots are pivotally secured two lever-arms 11 12, each having a frame 13 14, respectively, on their outer ends, the frames being preferably circular. The standard 8 is so disposed that when the arms 11 and 12 are projected upward the frames 13 and 14 on their ends will extend across the line of light from the lantern or cut the focal line of the reflector 6, as indicated in Fig. 1. The arms 11 and 12 are arranged to act independently, so that either or both may be projected into or withdrawn from the focal area of the lantern, as required. Two of the arms 11 and 12 are shown; but any number may be employed, as circumstances may require. The frames 13 and 14 will generally contain glass

of different colors, generally red and green for locomotive use; but any desired colors or combinations of colors may be employed, as desired.

When employed on locomotives, means will be provided whereby the arms 11 and 12 and their attached frames 13 and 14 may be actuated from the cab, and such means are shown in the drawings, consisting of bell-crank arms 15 16, pivoted at 17 in the slots 9 and 10 at a point below the pivotal point of the levers 11 and 12, the long arm of each bell-crank pivotally engaging slots 18 and 19 in the levers 11 and 12 by pivots 20 and 21, and the short arms having cords 22 23, leading over suitable pulleys 24 25 and adapted to be conducted to the cab of the locomotive. The cab or other parts of the locomotive are not shown, as they form no part of the present invention. By this simple means, it will be understood, the engineer in the cab of the locomotive may by simply pulling upon the cords 22 23 throw one or all of the frames 13 14 across the focal line of the lantern and either obscure the light or cause a colored light to appear, according to what material the frames 13 or 14 are provided with. Thus if the frames are provided with red and green lights, as will usually be the case in locomotives, a red or green signal may be made, at the will of the engineer, in the ordinary and well-understood system of railway signaling; but it is evident, as before stated, that the device may be employed in causing signals of almost an unlimited variety to be made, and it may be employed by daylight or at night, as may be required. When used by daylight, the frames 13 and 14 may be provided with disks or other characters of different shapes or forms and modified or combined in any desired manner.

All of the apparatus except the operating-cords and guide-pulleys are inclosed within the casing 5 and without altering or enlarging the casing. The device is thus adapted to be attached to the ordinary headlight without alteration or enlargement, which is a great advantage and will render it possible to readily apply it to railway use.

In cases where larger signal-plates are required it may be necessary to form recesses or pockets in the casing 5 to receive the plate when withdrawn.

The cords 23 may be replaced by rods, if required; but neither of these slight modifications would affect the operation or be a departure from the spirit or scope of the invention.

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

1. A signaling device comprising an inclosing casing having a transparent front, a reflector within said casing, a standard within said casing and below said reflector, a plurality of levers pivotally connected with said standard and carrying signaling means adapted to be thrown into the focal line of the reflector, and auxiliary means pivotally connected with said standard for engaging and actuating the signaling means, substantially as described.

2. In a signaling device, an inclosing casing, a lamp within said casing, a standard supported within said casing, one or more slotted levers pivoted to the upper ends of said standards and having signaling characters on their free ends and adapted to project across the lines of light from said lamp when said levers are actuated, one or more supple-

mental levers pivoted in said standards and engaging the slots in said signal-levers respectively, and means for actuating said supplemental levers, substantially as described.

3. In a signaling device, an inclosing casing, a lamp within said casing, a standard supported within said casing and having two or more vertical slots divided by a rearwardly-extended web, levers pivoted in the upper ends in said slots and having signal characters on their free ends adapted when said levers are actuated to project across the lines of light from said lamps, supplemental levers pivoted in said slots below said signal-levers and engaging said signal-levers in advance of said standards and extending rearwardly on opposite sides of said web, and means for actuating said supplemental levers, whereby said levers are maintained in independent relations, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THEODORE C. LAUER.

Witnesses:

JOHN H. BOTEFUHR,
ROBERT E. LAWLESS.