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TOY LIGHTHOUSE

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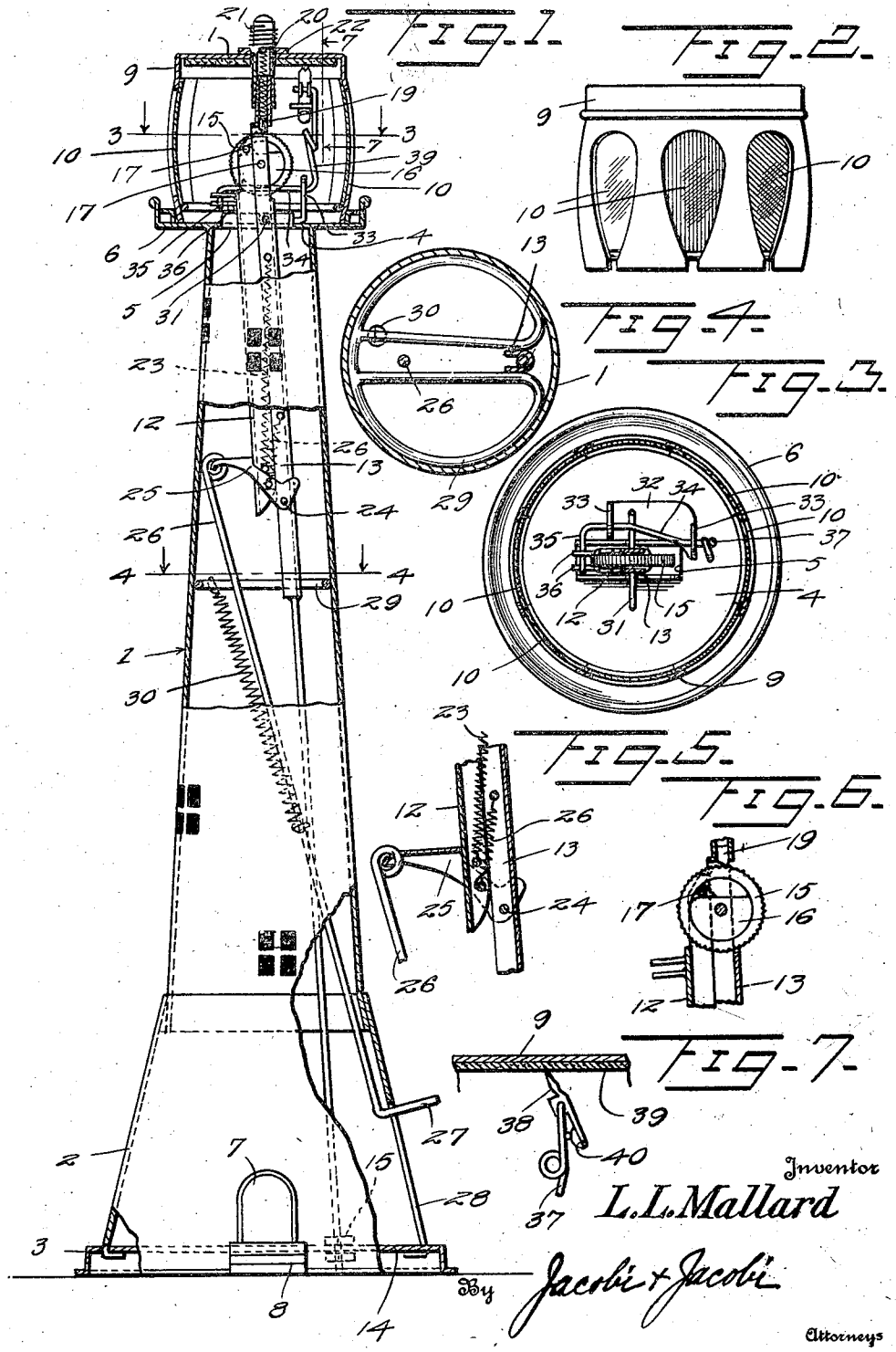


Fig. 1.

Fig. 2.

Fig. 4.

Fig. 3.

Fig. 5.

Fig. 6.

Fig. 7.

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TOY LIGHTHOUSE.

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This invention relates to new and useful improvements in toys and more particularly to toy lighthouses, the primary object of the invention being to provide a toy of this character which is generally attractive in appearance, and capable of a particular form of illumination to provide an exceptional amusing and playful device.

Still another object of the invention resides in the general combination of a toy lighthouse and a manually operable illuminating means in connection therewith.

A further object resides in the provision of a rotatable cabin forming a head for the light tower and provided with varied colored transparent panes through which the illumination therewithin may be observed.

A still further object resides in the provision of a sparking apparatus manually operable from a portion of the device so that the spark occurs within the rotating cabin to cause illumination therewithin.

A still further and important object of this invention resides in the provision of means for simultaneously rotating or partially rotating the cabin of the device upon the operation of the sparking means forming the illumination within said cabin.

Another object is to provide a toy which is simple and durable in construction, comparatively inexpensive to manufacture and one which will be very efficient and amusing in use.

With these and other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts, as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawing, forming a part of this application—

Figure 1 is a side elevation, partly in section and with parts broken away, showing a device constructed in accordance with my invention,

Figure 2 is a side elevation of the cabin head removed,

Figure 3 is a horizontal section as seen on the line 3—3 of Figure 1, looking in the direction of the arrows,

Figure 4 is a horizontal section as seen on the line 4—4 of Figure 1,

Figure 5 is a fragmentary detail section showing the operating link of the sparker mechanism,

Figure 6 is a similar view showing the sparking apparatus, and

Figure 7 is a fragmentary detail section, with parts in elevation, showing the means for partially rotating the cabin with each sparking operation.

In describing the invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views in which 1 designates a body or housing of elongated frusto-conical design provided with a frusto-conical lower portion 2 mounted on a base piece 3. While I have shown the elements 1, 2 and 3 separately, same may be constructed together, if desired.

A top plate 4 is mounted on the upper end of the housing 1, same being provided with a slot 5 for a purpose to be hereinafter described. The upper end of the housing 1 has formed integral therewith or otherwise secured thereto an annular flange or the like 6 which stands outwardly from said member and forms a support for an element to be hereinafter described.

This body 1 with the lower portion 2 and base member 3 are designed to represent a tower forming the basis for a toy lighthouse. Various ornamentations may be applied thereto for the illustration of a lighthouse and while certain illustrations are disclosed in the drawings, I do not wish to be limited to this particular showing, it being understood that various ornamentalities may be made. In carrying out this idea of the lighthouse, a projection 7 is provided at the lower portion of the tower and the member 2 representing a doorway, with steps being designated by the numeral 8.

Supported on the flange 6 is a cup-like member 9 which is designed to form a head piece or cabin for this device. The walls of the member 9 are cut out at intervals to provide openings which are covered with varied colored transparent panes 10. The member 9 is placed on the flange 6 with the open end facing downward and the closed or top end thereof is provided with a central opening 11 through which is received the supporting or guiding element therefor, described herebelow.

In carrying out the idea of a lighthouse, I provide a manually operable sparking device of somewhat conventional design, the sparking thereof taking place within the en-

closure formed by the cabin or head piece 9 so as to illuminate the latter at desired times. This sparking apparatus consists of a pair of normally contacting arms 12 and 13, the arm 13 being of elongated type and adjustably and removably held at its lower end to a cross bar or plate 14 forming a part of the base 3, the securing means between the member 14 and the lower end of the arm 13 being through the means of nuts 15. The upper portions of the arms 12 and 13 project through the slot 5 in the top plate of the member 1. The arm 13 adjacent its upper end is slotted and has rotatably supported therein a serrated wheel 15. Within the wheel 15 is a split disk member 16 which may be turned for convenience by an eccentric, the one section of the disk member being pivoted adjacent its periphery to the upper end of the arm 12 as shown by the numeral 17. The disk 16 is concentrically mounted within the slotted portion of the arm 13 on the pin 18. A flint 19 is spring held in the upper projecting portion of the arm 13 in a conventional manner and a tubular pin 20 is threaded over this projecting portion to hold the flint in frictional contact with the serrations on the wheel 15. The tubular pin 20 projects through the opening 11 in the member 9 acting as a central guide for the latter and said member 9 is yieldingly held in place by means of a coil spring 21 mounted on the upper end of said pin 20 and bearing against a washer 22 applied to the pin and resting on the outer face of the member 9, as clearly shown in Figure 1 of the drawing.

The arms 12 and 13 are held in contact with one another and in a predetermined position through the medium of a coil spring 23 secured at its ends respectively to said members, as shown in Figures 1 and 5 of the drawing. Fulcrumed to the arm 13 as shown at 24 is a link member 25, the latter being pivoted to the lower end of the arm 12. A coil spring 26 has one end thereof engaged with the link 25 and its other end engaged with the arm 13, as shown in Figure 5, normally retaining the link 25 in the position shown in Figures 1 and 5. A pitman rod 26 has pivotal connection with the outer end of the link 25 and projects downwardly through the housing 1 and has its free end bent angularly to form a finger piece 27, the latter being projected through a slot 28 formed in the lower portion 2. A guide bracket 29 is secured to the arm 13 and adapted to frictionally fit within the housing 1 to hold the sparking device within the housing 1. An additional coil spring 30 has one end thereof secured to the guide bracket 29 and its opposite end secured to the pitman rod 26 intermediate the ends of the latter, which spring tends to normally return and retain said pitman rod and adjunctive elements to their initial positions. It may be here stated that this sparking device is of a conventional type and I do not claim the details thereof as my invention, the same having been described in some detail for the purposes of clear understanding of operation and construction of my invention.

It will be seen from the construction shown and described that upon the forcing downwardly of the finger piece 27 a spark will be caused at the upper end of the device to illuminate the enclosure within the member 9. A transverse pin 31 extends through the arm 13 and rests on the upper face of the top plate 4, thus retaining the sparking device in place when downward pressure is placed on the finger piece 27. This pin 31 is readily removable, to enable the parts to be dissembled when desired.

The formation of a spark within the cabin member or head piece 9 will be very attractive and I have provided a means for rotating the member 9 simultaneously with the causing of the spark, thus adding to the attractiveness of the device as a toy. To this end a plate 32 is mounted on the top plate 4, the ends of the plate 32 being bent upwardly to form bearings 33. Received in said bearings for oscillation therein is an arm 34 which has its one end bent angularly as shown at 35 for reception between a pair of laterally projecting pins 36 carried on the arm 12. This arm 34 may be formed of any light metal, such as wire, and the opposite end thereof is bent upwardly as shown at 37. The portion 37 may be looped intermediate of its ends for obvious purposes and its extreme free end is bent angularly and has pivotally mounted thereon a dog 38. The toothed end of this dog faces upwardly and is adapted to engage a yielding surface 39 secured to the inner face of the top of the member 9. This yielding surface may be cloth, cork, rubber, leather or any other desired material. The end of the dog 38 opposite that having the tooth thereon is counterweighted as shown at 40 so as to normally retain the tooth in an upward facing position as appears obvious.

In the normal position of the device the toothed end of the dog 38 is below the surface 39 and upon actuation of the sparking device the laterally projecting pins 36 thrust the angular projection 35 downwardly, oscillating the arm 34 and obviously thrusting the projection portion 37 of said arm in the direction of movement of the arm 34. The dog 38 is thus moved in the arc of a circle and as it moves upwardly will contact with the surface 39 and tends to thrust the member 9 upwardly. The action of the yielding spring 21 overcomes this tendency and in view of the pivotal connection of the dog 38 there will be no ap-

preciable upward movement of this member 9, but said member will be partially rotated, as also appears obvious.

I have described in detail this particular means for rotating the cabin or head member 9 but I do not wish to be limited to this particular construction, as I may desire to use other forms of rotating means if desired.

It is apparent that the device represented as a toy lighthouse will be attractive from its mere general appearance and further apparent that by operation to form a spark or illuminating means with simultaneous rotation of the cabin or head piece, it will be exceptionally attractive and amusing.

From the foregoing description of the construction of my device, the operation thereof will be readily understood and it will be seen that I have provided a simple, inexpensive and efficient means for carrying out the objects of the invention.

While I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described my invention, what I claim is:

1. A toy lighthouse comprising in combination, a self-sustaining support, a chamber thereon and manually operable means in connection therewith for producing illumination within said chamber.

2. A toy lighthouse comprising in combination, a self-sustaining support, a chamber thereon and a manually operable sparking member therewithin for producing illumination within said chamber.

3. A toy lighthouse comprising a housing designed to form a tower, a light cabin at the top thereof, and means for manually rotating and simultaneously illuminating said cabin.

4. A toy lighthouse comprising a housing designed to form a tower, a light cabin mounted at the top thereof, means for manually producing a spark within said cabin to illuminate the latter and means coacting with the last referred to means for rotating said cabin simultaneously with the producing of the illumination.

5. A toy lighthouse comprising in combination, an elongated housing designed to form a tower, a light cabin removably mounted on the top thereof, a manually operable sparking mechanism mounted within said housing and said cabin to illuminate the latter, and means cooperating with and actuated by said sparking mechanism for producing a partial rotation to said cabin each time a spark is produced within the latter.

6. A toy lighthouse comprising in combination, a housing designed to form a tower, a head piece mounted thereon designed to form a light cabin, a manually operable sparking mechanism within said housing and cabin for producing a spark and illumination within the latter and means cooperating with the sparking mechanism and cabin for removably retaining the latter on the housing.

7. A toy lighthouse comprising in combination, a housing designed to form a tower, a head piece mounted thereon and designed to form a light cabin, a manually operable sparking device mounted in connection with said housing and cabin adapted to produce a spark illumination within said cabin and means co-acting with said sparking mechanism for removably retaining the cabin on said housing and giving a partial rotation to the cabin simultaneous with the production of the spark therewithin.

8. In a toy lighthouse, a self-sustaining housing and manually operable means therewithin for producing spark illumination in said housing.

In testimony whereof I affix my signature.

LOGAN L. MALLARD.