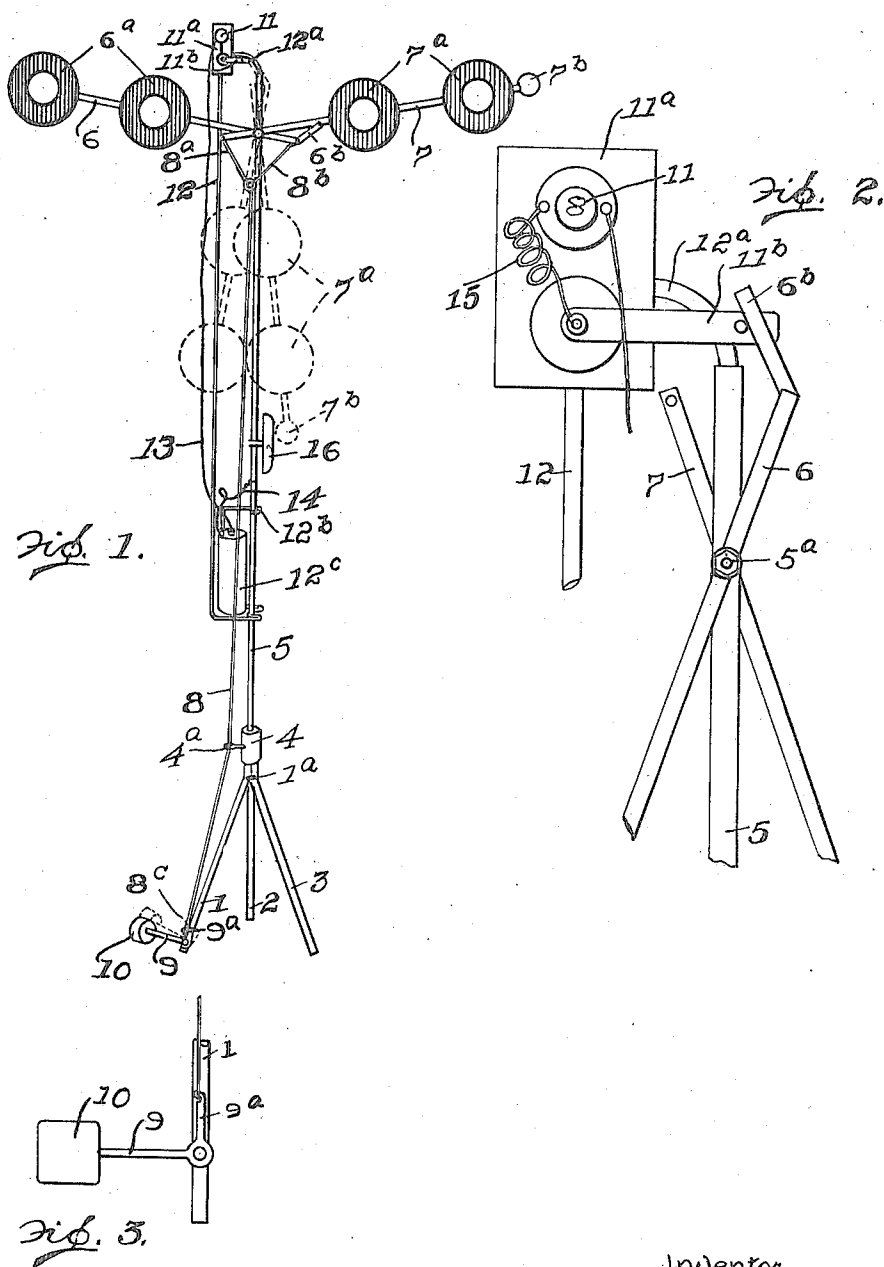


H. E. DOAK.
 SIGNALING DEVICE FOR IRRIGATING.
 APPLICATION FILED DEC. 1, 1916.

1,248,633.

Patented Dec. 4, 1917.



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UNITED STATES PATENT OFFICE.

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SIGNALING DEVICE FOR IRRIGATING.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY E. DOAK, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Signaling Devices for Irrigating, of which the following is a specification.

My invention relates to an apparatus for giving a signal when water reaches a certain point in irrigating land, and the objects of my invention are; first, to provide a device which will give a signal to an irrigator so that he may see it from near the ditch line and stop the water; second, to provide an apparatus of this class which provides a signal that may be seen at night as well as in the daytime for irrigating at night; third, to provide an apparatus of this class with an alarm in connection with the signal for calling the attention of the irrigator; fourth, to provide an apparatus of this class that may be readily taken apart sufficiently to make it easy to handle in carrying it from one land to another, and; fifth, to provide an apparatus of this class which is simple and economical of construction, durable, easy to operate and will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this specification in which:

Figure 1 is a side perspective view of my apparatus complete and showing by dotted lines the position of the arms when the water has reached the point where the apparatus is located and has operated the signal, Fig. 2 is a fragmentary side elevational view of the top portion of said apparatus on an enlarged scale and showing the arms down, and Fig. 3 is a detailed side view of the float mechanism on one of the leg members on an enlarged scale.

Similar characters of reference refer to similar parts throughout the several views.

The leg members 1, 2 and 3, socket 4, central support 5, arms 6 and 7, cable 8, float lever 9, float 10, lamp 11, lamp support rod

12, conductor 13, conductor 14, conductor 15 and gong 16 constitute the principal parts of my apparatus.

The leg members 1, 2 and 3 are preferably composed of pipe and are pivotally connected together at 1^a so that when the socket 4 is removed from the upper ends of said leg members the lower ends will fold together. The socket 4 is adapted to fit over the upper ends and hold said leg members apart at the bottom forming a tripod of them. In one side of this socket member is secured an eye screw 4^a adapted for a guide for the cable 8. Secured centrally on the top end of the socket member 4 is the central support 5 which is preferably a small pipe and near its top end on opposite sides thereof are pivotally mounted the arms 6 and 7 by means of the bolt 5^a so that the arms extend past this pivot point in both directions. Upon the arms 6 and 7 are secured circular members 6^a and 7^a which are preferably painted in two colors, one color around the outside and another color in the center so that they may be readily distinguished from a distance. Mounted on the short extended end of the arm 6 is an angled extended portion 6^b which serves as a contact for closing the circuit to the lamp when the arm 6 is down. Mounted on the longer extended end of the arm 7 is a weight 7^b which is adapted to contact with the gong 16 when the arm 7 drops as shown best by dotted lines in Fig. 1 of the drawings. This gong is secured to the central support 5 positioned to contact with said weight 7^b. Secured to the short extended ends of the arms 6 and 7 are the bifurcated members 8^a and 8^b of the cable 8 which join some distance below forming the single cable 8 which extends down along the central support 5 through the eye screw 4^a and on the lower end is provided a loop 8^c. Pivotally mounted on the lower end of the leg member 1 is the float support 9 which is L shaped provided with a hook member 9^a adapted to engage the loop 8^c of the cable, and when in the position shown by solid lines in Fig. 1 of the drawings will hold said cable and support the arms 6 and 7 as shown by solid lines in Fig. 1 of the drawings. Mounted on the extended end of the support 9 is a float 10 which is adapted to be raised by the water when it reaches the apparatus and release the cable and the arms 6 and 7 will

drop down in the position shown by dotted lines in Fig. 1 of the drawings, at the same time sounding the gong. Mounted on the central support 5 is a readily detachable support 12 which is preferably a small rod the upper end of which is curved at 12^a which is adapted to fit into the upper end of the central support 5, and mounted thereon is a lamp support 11^a to which is secured a small electric lamp 11. Mounted adjacent the lamp on this support is a contact member 11^b which is so positioned as to contact with the contact member 6^b on the arm 6 when said arm 6 is dropped by the raising of the float 10. This lamp 11 is connected to the contact 11^b by means of conductor 15. The support 12 extends down forming a loop which engages with the central support 5 thence extends outwardly and upwardly parallel with said rod, then bent at right angles some distance above said loop, and on its extended end is provided a hook 12^b adapted to engage said central support 5. Mounted above this loop and supported by the support 12 is a battery 12^c. One terminal of this battery 12^c is electrically connected to one side of the lamp 11 by means of a conductor 13. To the other terminal of the battery is secured the conductor 14 which connects with the support 5 so that when the arm 6 is down in the position shown by dotted lines in Fig. 1 of the drawings the circuit is produced from the battery through the conductor 14, central support 5 to the arm 6, through the contact 6^b, contact 11^b, conductor 15 to the lamp and from the other terminal of the lamp to the opposite terminal of the battery through conductor 13 so that when the arm 6 is up in the position shown by solid lines in Fig. 1 of the drawings the circuit is broken and no light is produced in the lamp 11, but when the arm 6 is down as shown by dotted lines the lamp 11 is lighted.

Though I have shown and described a particular construction, combination and arrangement of parts, I do not wish to be limited in this particular construction, combination and arrangement, but desire to include in the purview of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

It is obvious that with this construction

there is provided a signaling apparatus for providing a signal for use in irrigation purposes that will provide efficient signaling when the water reaches a certain point, that the apparatus is applicable for use in the day time or at night, that said apparatus is simple and economical of construction, durable, easy to operate and will not readily deteriorate or get out of order.

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

1. In an apparatus of the class described, the combination of a central vertical support, arms pivotally mounted thereon, a float pivotally mounted near the lower end of said support adjacent the ground, a cable for supporting said arm and connecting with said float so that when said float is raised by the water the cable will be disengaged and said arms dropped down against said central support, and a gong mounted on said central support adapted to engage the end of one of said arms whereby an alarm is given.

2. In an apparatus of the class described, the combination of a tripod, a vertical support detachably mounted thereon, a signaling arm pivotally mounted on said support provided with an overhanging end, a cable secured to said overhanging end, a float mounted on one leg member of the tripod, a hook member mounted in connection with said float adapted to engage a loop on the lower end of said cable for holding said arm in a normally horizontal position when the float is in a certain position, but when the float is raised said arm will drop to a nearly vertical position.

3. In an apparatus of the class described, the combination of a base supporting member, a vertical support detachably mounted thereon, a signal mounted on the upper end of said vertical support, a float mounted on said base member adjacent the ground, a hook member mounted in connection with said float adapted to engage a loop on the lower end of said cable whereby when the float is raised by water the cable will be released and the signal operated.

In testimony whereof, I have hereunto set my hand at San Diego, California, this 23d day of November, 1916.

HENRY E. DOAK.