J. S. J. LALLIE.

CURRENT INDICATING APPARATUS.

APPLICATION FILED MAR. 24, 1906.

914,959. Patented Mar. 9, 1909.

Fig. 1.

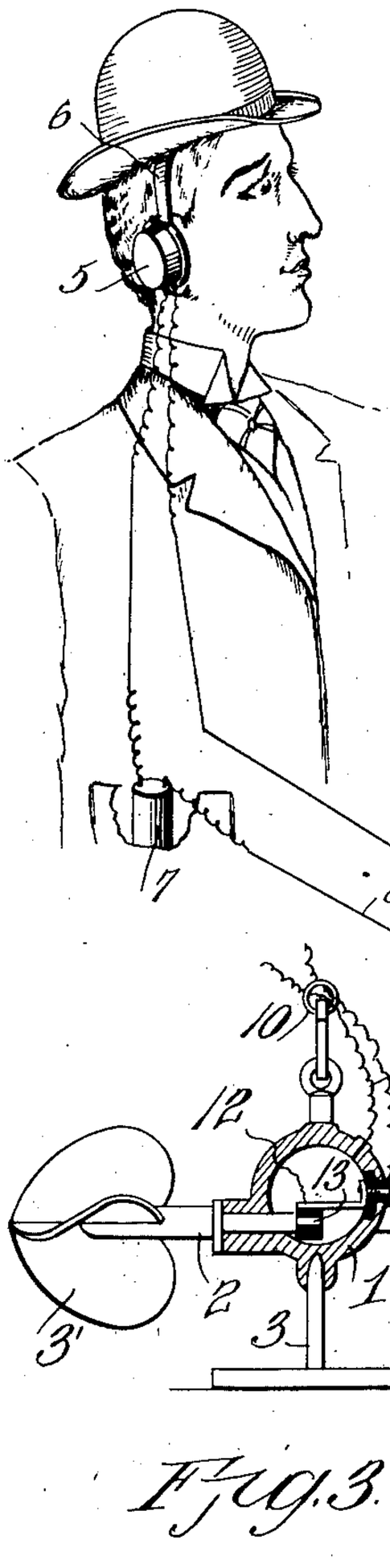
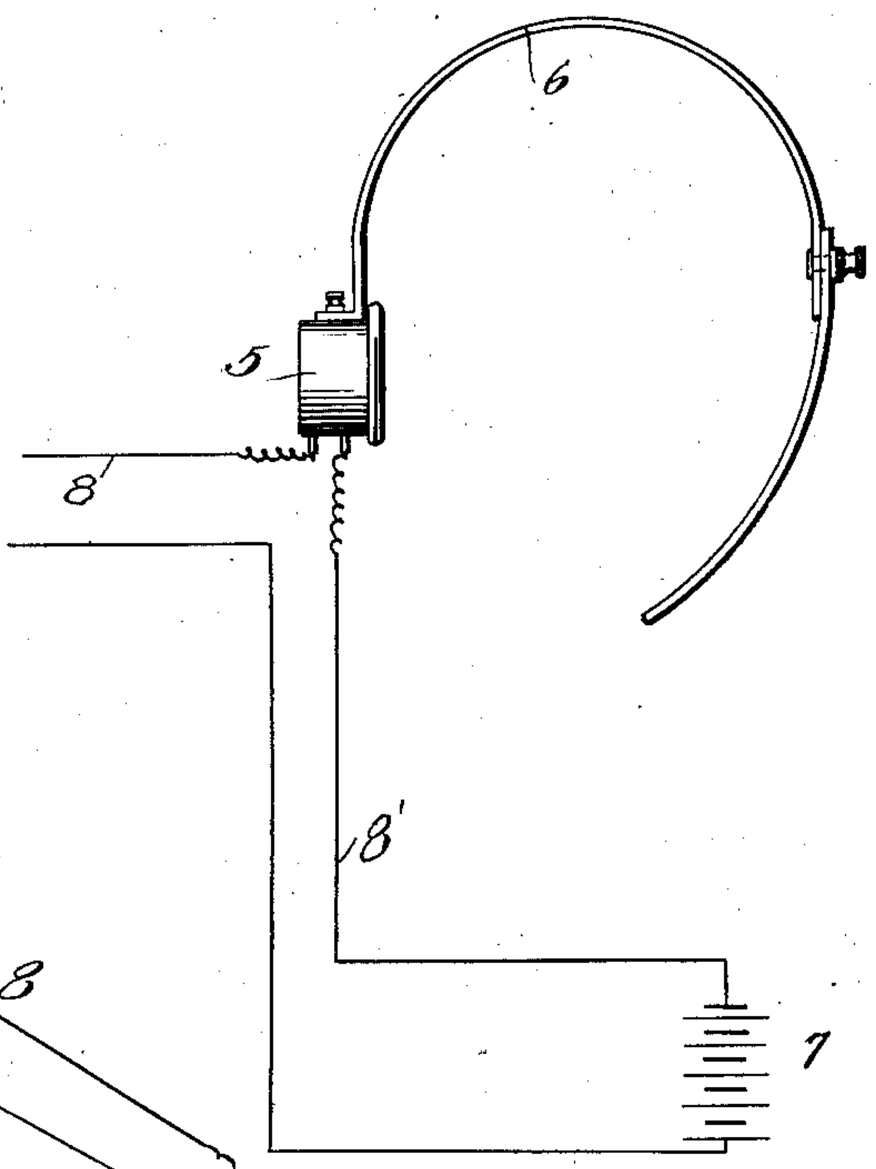


Fig. 3.

Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN S. J. LALLIE, OF DENVER, COLORADO.

CURRENT-INDICATING APPARATUS.

No. 914,959. Specification of Letters Patent. Patented March 9, 1909.

Application filed March 24, 1906. Serial No. 307,883.

To all whom it may concern:

Be it known that I, JOHN S. J. LALLIE, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented new and useful Improvements in Current-Indicating Apparatus, of which the following is a specification.

My invention has relation to a current indicating apparatus, and it consists in the construction and arrangement of parts as will be hereinafter described, and particularly pointed out in the claim.

In the accompanying drawings:—Figure 1 is a view of the apparatus complete, showing the manner of using the same. Fig. 2 is a diagrammatic view of the electrical connection showing the receiver and head-retaining device therefor in elevation. Fig. 3 is a sectional view of the apparatus.

The apparatus contemplated in this invention comprises essentially a casing 1 a rotary shaft 2, a suitable base 3 upon which the casing is journaled, and a bladed propeller 3′ mounted on the shaft for actuating the same. The casing 1 also carries a tail-piece or vane 4 which operates to hold the propeller in line with a current of water in which said meter is placed. The apparatus also comprises a telephone receiver 5 provided with a head spring or clasp 6 adapted to fit around the head of the operator, as shown in Fig. 1 so as to not interfere with his wearing a hat. The apparatus further comprises a small dry battery 7 which may be conveniently carried in the pocket, as shown in Fig. 1.

Under the preferred embodiment this invention is provided with suitable make and break contact pieces 13 on the shaft 2, and conductors 8, 8′, are provided, the one 8 of which is connected to a suitable binding post 11, the other 8′ being connected to the casing, said binding post being connected at its inner end to a spring 12 which has electrical connection with the make and break 13 arranged on shaft 2, whereby the electrical impulses corresponding to the revolutions of said shaft are transmitted through the conductors and battery 7, to the receiver 5 and audibly indicated at the last named point so that the operator may count the revolutions of the shaft 2 and make a record of the same with the aid of a pencil. The conductors 8 and 8′ pass through a link 10 on the upper end of the casing and thence to the battery 7 and to the receiver 5.

Having described my invention what I claim is:

A current indicating apparatus comprising a casing, a shaft therein, a propeller mounted on the shaft, a tail piece connected to the casing, a base upon which the casing is mounted and which is designed to rest upon the bottom of a stream of water by the current of which the propeller is actuated, a make and break device carried by the shaft a contact to engage said device, a pivoted link connected to the upper end of the casing, a telephone receiver, and an adjustable head spring for holding the receiver to the ear, a pocket battery carried by the operator, and electrical conductors connected to the link, one of which is connected to the casing and the other to the contact, said conductors being also connected to the battery and receiver, whereby electric impulses corresponding to the revolutions of the shaft are transmitted to the receiver, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. J. LALLIE.

Witnesses:
ZACH SHED,
THOMAS T. CORNFORTH.