

R. H. QUISLING.
FUSE ADJUSTING DEVICE.
APPLICATION FILED APR. 27, 1908.

Patented May 25, 1909.
2 SHEETS—SHEET 1.

922,813.

Fig. 1.

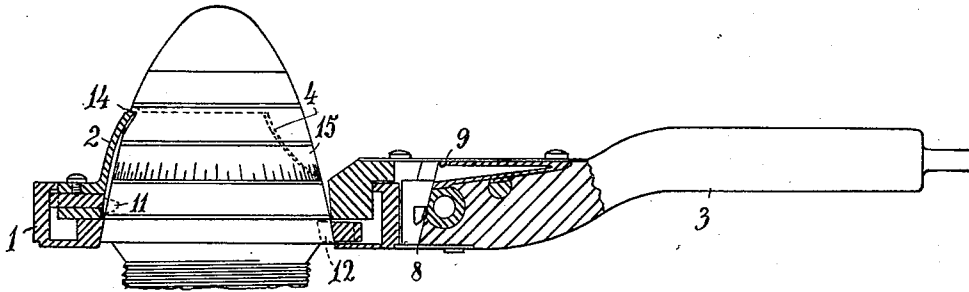


Fig. 2.

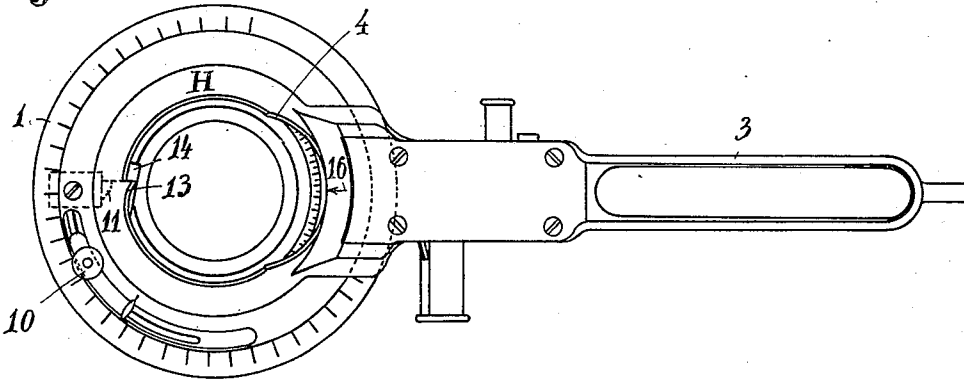
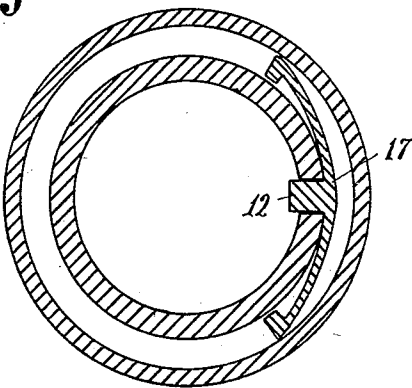


Fig. 3.



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Witnesses.
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att'y.

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Fig. 4.

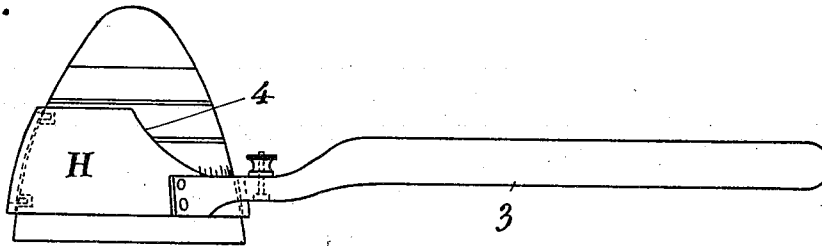


Fig. 5.

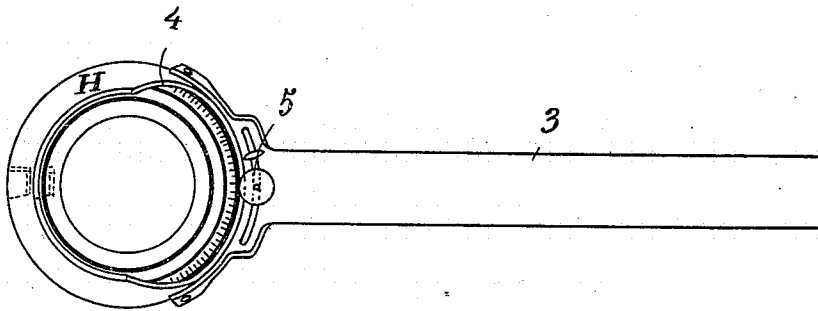


Fig. 6.

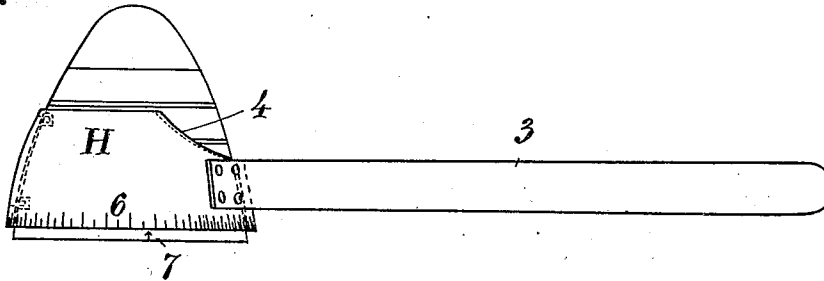
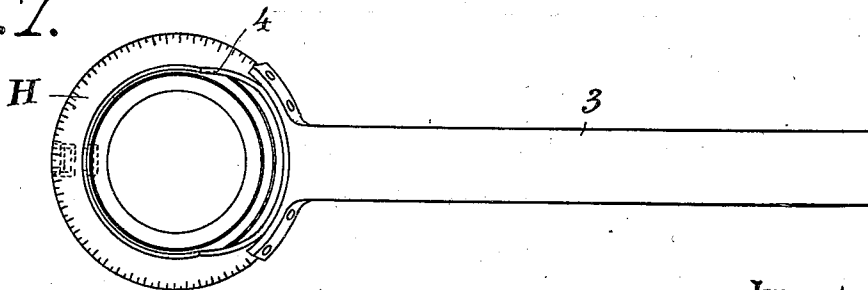


Fig. 7.



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UNITED STATES PATENT OFFICE.

RASMUS HAGBARTH QUISLING, OF CHRISTIANIA, NORWAY.

FUSE-ADJUSTING DEVICE.

No. 922,813.

Specification of Letters Patent.

Patented May 25, 1909.

Application filed April 27, 1908. Serial No. 429,479.

To all whom it may concern:

Be it known that I, RASMUS HAGBARTH QUISLING, a subject of the King of Norway, residing at Christiania, Norway, have invented certain new and useful Improvements in Fuse-Adjusting Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Devices for timing time fuses as hitherto used have either been designed for fuses with only two fuse rings, in which case, consequently, only one fuse ring is actuated, or, if more than two fuse rings have been used, the timing rings have been so connected, that the action of the timing device remains the same, *i. e.* with only one point of application for the timing movement.

My invention relates to a time fuse with more than two fuse rings, whereby, consequently, in being timed, two or more fuse rings are to be imparted the same angular movement, and a timing device for the same. This device is so constructed, that, by the manner in which it is arranged on the fuse, it will be automatically secured to the same and clamp those fuse rings, which to time the fuse must be turned through the same angle.

In the accompanying drawings Figure 1 is a partial longitudinal section of my improved wrench applied to one form of fuse which latter is shown in elevation. Fig. 2 is a plan view of the same. Fig. 3 is a horizontal section of the rings. Figs. 4 and 5 are respectively an elevation and plan of a modified form of wrench and fuse and Figs. 6 and 7 are like views of another modification.

In Figs. 1-7 the device is shown in the form of a conic sleeve (H) embracing the fuse body up to such a height that it may clamp the fuse rings to be turned and at the same time obtain the stability required for the accuracy of the movement. On one side it is provided with a number of projections (11 and 13), corresponding to the number of the timing rings (here 2), and on the opposite side with a handle (3) and a notch (4) to enable the sleeve to be attached to the fuse in a manner that will insure a proper

function of the device. In Figs. 1-3 is shown an executional form, where the said sleeve is applied in connection with an automatic timing wrench as an integral part of the inner ring (2) of the wrench or key, whereby is obtained an automatic timing wrench for fuses with more than two fuse rings.

In Figs. 4-7 are shown another two executional forms embodying my invention designed for reading for each separate timing. In Figs. 4-5 the scale is disposed on the fuse and a movable index (5) on the timing device, while the form of apparatus shown in Figs. 6-7 has the timing scale at the foot (6) of the timing device and an index integral with the fuse (7).

The device is worked in the following manner: The device, in an inclined position to the longitudinal axis of the projectile, is slipped over the head (point) of the fuse, until the lower projection (11) has entered the corresponding notch. The handle is thereupon turned downward in the plane through the axis of the projectile with the said projection as a fulcrum, until the upper projection (or projections) has entered the corresponding notch and the sleeve attained a firm grip around the fuse. Thereupon the handle is turned in the timing direction, until it stops against the projection (notch) of the fuse, or until, by reading on the scale, a correct timing has been ascertained. The device is removed from the fuse by the same operations as used in applying it to the fuse, but in opposite order.

It appears from the way of action of the device that in the form of execution shown in Figs. 1-3 the upper projection (or notch) may be inclined in the opposite direction to the direction of the timing movement (13 and 14), as the automatic timing wrench is turned only in one direction, while those devices necessitating direct reading for each separate timing should also allow the fuse rings to be moved in both directions and therefore in that case both lateral faces of the projections must be square to the surface of the fuse. The notches—particularly those of the upper rings—should be broader than the projections which by means of insections (slots) in the sleeve, parallel to the axis of the fuse (sleeve), may in some degree be caused to act as a spring. Instead of providing the timing device with projections and the fuse rings with notches I may also

provide the timing device with notches and the fuse rings with corresponding projections.

Claims—

- 5 1. A timing device, for time fuses having more than two fuse rings, comprising a sleeve provided with engaging means adapted to engage cooperating means on the rings of a fuse, said sleeve having a notch in its upper
10 edge whereby the device may be inclined relatively to the longitudinal axis of the fuse to permit first the engagement of the lowest engaging means and the subsequent engagement of the upper engaging means.
15 2. A timing device, for time fuses having

more than two fuse rings, comprising a sleeve provided with lugs adapted to take into corresponding recesses in the rings of a fuse, said sleeve having a notch in its upper edge whereby the device may be inclined 20 relatively to the longitudinal axis of the fuse to permit the lowest lug to first engage the lowest notch.

In testimony that I claim the foregoing as my invention, I have signed my name in 25 presence of two subscribing witnesses.

RASMUS HAGBARTH QUISLING.

Witnesses:

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MICHAEL ALGEE.