

No. 681,788.

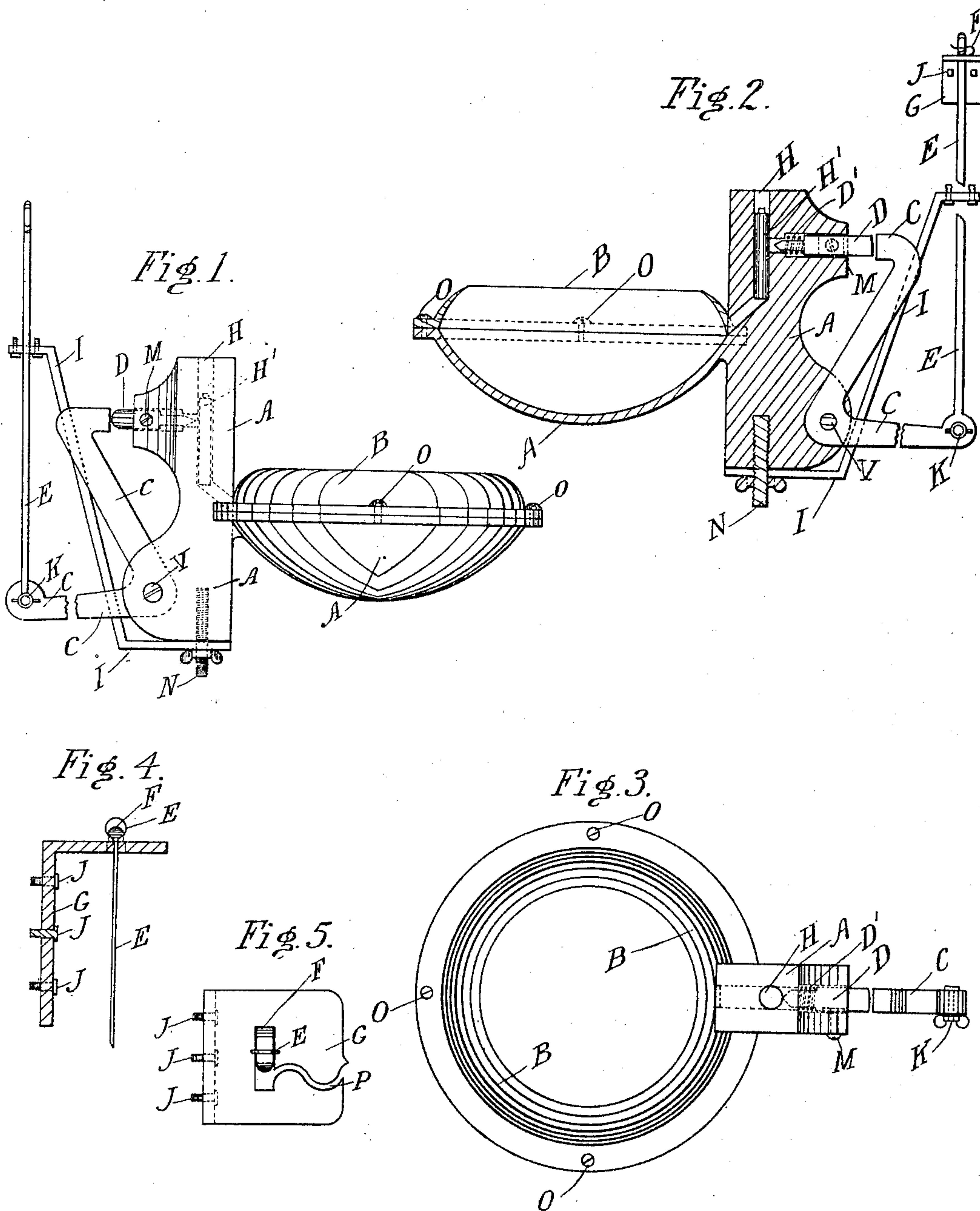
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J. W. HEANEY.

DEVICE FOR LIGHTING FIRES IN FIRE ENGINES.

(Application filed Nov. 28, 1900.)

(No Model.)



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JOHN W. HEANEY, OF LOS ANGELES, CALIFORNIA.

DEVICE FOR LIGHTING FIRES IN FIRE-ENGINES.

SPECIFICATION forming part of Letters Patent No. 681,788, dated September 3, 1901.

Application filed November 28, 1900. Serial No. 38,052. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. HEANEY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Device for Lighting Fires in Fire-Engines, of which the following is a specification.

My invention relates to means to instantly light the fire in fire-engines; and the object is to provide means to accomplish the same. I accomplish this object by means of the mechanism shown in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved fire-engine lighter. Fig. 2 is a central vertical section thereof. Fig. 3 is a plan view of the same. Fig. 4 is a central vertical section of the handle-supporting bracket G, attached to the frame of the engine and the upper part of the handle E. Fig. 5 is a plan of the bracket, showing the end of the handle and the passage-way for the removal of the handle.

In the drawings, A represents a support, to which the magazine B is affixed, and it is securely attached to the leg of the boiler, so that the magazine will be directly under the grates of the fire-box, the upper end of the stay-rod I being secured to the bottom of the boiler and the lower end securely clamped to the support by means of the thumb-screw. Running down from the top of and through the support A to the magazine is an open well H, adapted to receive a vial H', securely corked, containing sulfuric acid. This vial, when placed in the top, will drop down the well to the turn in the same, where the well angles off from the vertical portion to the magazine, where it will be held. The vial while in this position will be in the line of the movement of the firing-pin D, which is mounted in the support A. This pin has a limited movement in an opening in the support by means of the screw M, which projects into a recess cut in the side of the firing-pin (shown in dotted lines in Fig. 2) and limits the movement of the pin. The pin is held in its retracted position and away from the vial by means of the spiral spring D'. The hammer C is pivoted to the support at V and is operatively connected with the handle E at K. The handle extends from this point up

through an opening in the bracket G. From this opening in the center is an open cut or passage-way P, providing a way to receive the handle in disassembling the device. The top of the handle terminates in a ring for grasping it. This handle is held in its normal or depressed position not only by its weight, but it is prevented from being elevated by a spring F, mounted on the top of the bracket G, and is so arranged that by pressing the handle against the spring the free end of the spring will pass through the ring or opening in the top of the handle and will hold the handle against any up movement until the handle is pulled away from and becomes released from the spring. The magazine B, attached to the support A immediately below the grate of the fire-box, is open at the top. An opening in the side communicates with the vial-retaining channel H in the support. This magazine when it is to be used is charged with a powder composed of one part, by weight, of powdered chlorate of potash, one part, by weight, of granulated sugar, and one-sixteenth part, by weight, of wheat-flour. These ingredients are thoroughly mixed dry, and to that end may be put through a sieve.

To make a quick and reliable fire, I preferably place a quantity of shavings or excelsior on the grate. Then on the shavings or excelsior I place a quantity of kindling-wood, and then the coal. The vial H', containing sulfuric acid, made of glass or any brittle substance, being in position in the channel H and the magazine charged and the kindling and fuel as above described, the device is ready for use. In case an alarm for fire is turned in the engineer grabs the ring at the top of the handle, pulls it away from the prong of the spring F, and quickly elevates it. This will throw the hammer against the firing-pin, which will advance into the channel H and break the vial H', the contents of which will run down into the magazine and ignite the charge therein and instantly the kindling is in a blaze. An ordinary magazine of two or three ounce capacity will cause an intense combustion, ample time to kindle any fire.

By the employment of my device there is no mistake or delay in kindling the fire, as is

often the case without the device, owing to the excitement consequent on giving an alarm for fire.

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

A fire-lighter, for use in fire-engines, comprising the magazine B, open at the top and adapted to receive the combustible material; 10 a channel H in support A; an opening in the side of the magazine communicating with the channel H; the support A to support the magazine, the channel H being adapted to hold a vessel containing an acid to ignite the 15 combustible material in the magazine; and adapted to receive a fragile vessel H' in said channel; and means to break said vessel, comprising a firing-pin D, adapted, in its advance movement, to enter the channel H and 20 break the vessel therein; a spiral spring D' encircling said pin and adapted to hold the pin in its retracted position; means to limit

the movement of said pin; a hammer C pivoted to said support, and having an upper and lower member; the upper member being adapted to strike the firing-pin on the 25 elevation of the handle E; attached to the lower member; the handle E, the lower end pivotally connected to the lower member of the hammer, and the upper end projecting 30 through the support A; a ring on the opening in the upper end of the handle; a spring F mounted on the bracket G, the projecting prong of said spring adapted to pass through the ring in the top of the handle and prevent 35 the accidental raising of the handle.

In witness that I claim the foregoing I have hereunto subscribed my name this 16th day of November, 1900.

JNO. W. HEANEY.

Witnesses:

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