

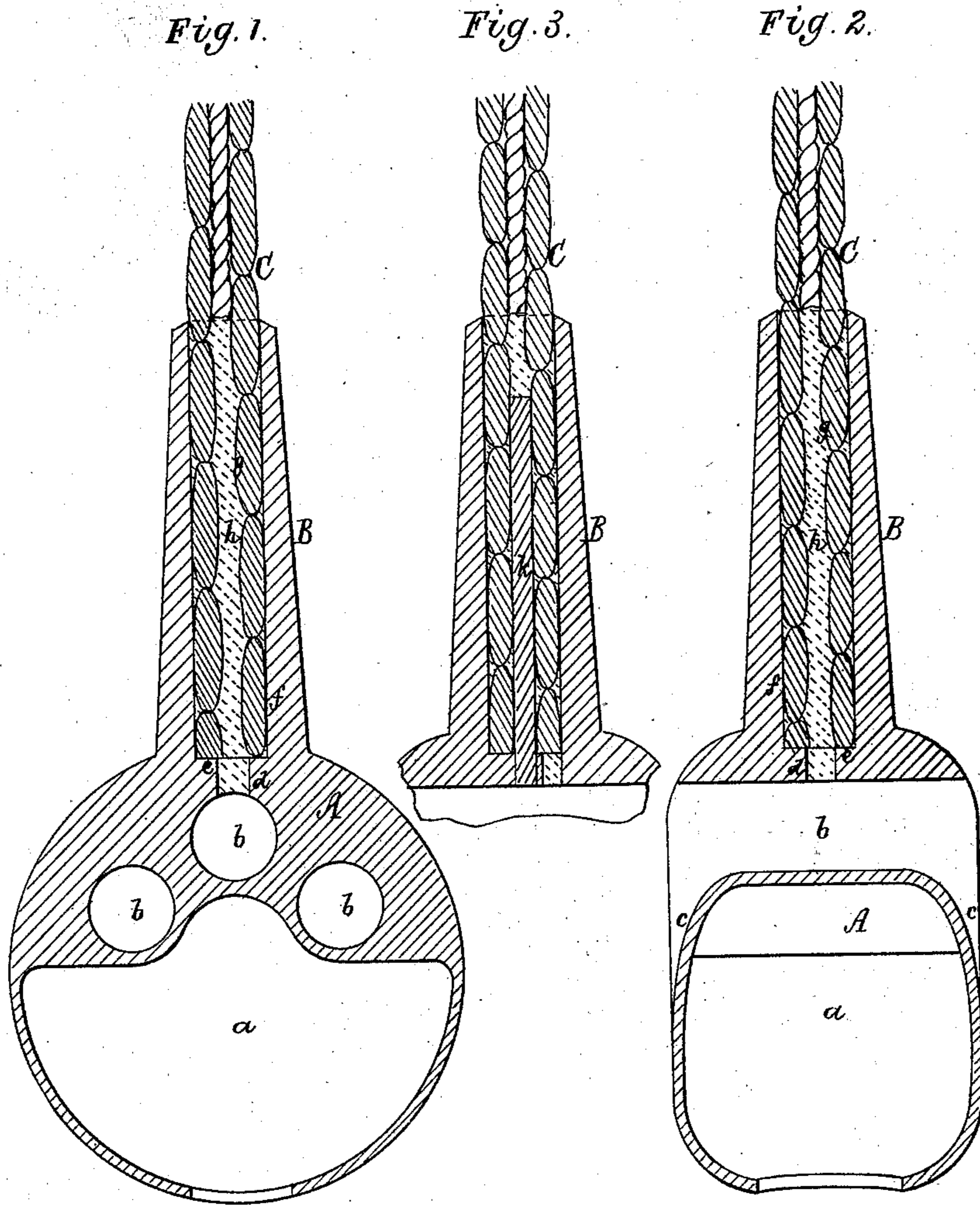
(No Model.)

W. P. HEALEY.

Dead Eyes and their Rope Fastenings.

No. 242,774.

Patented June 14, 1881.



Witnesses.

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DEAD-EYE AND ITS ROPE FASTENING.

SPECIFICATION forming part of Letters Patent No. 242,774, dated June 14, 1881.

Application filed April 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. HEALEY, of Somerville, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Dead-Eyes and their Wire-Rope Connections; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

10 Figures 1 and 2 are lengthwise sections of a dead-eye and its connected wire rope provided with my invention, the nature of which is duly set forth in the claim or claims hereinafter presented.

15 This dead-eye A is of cast iron or metal and chambered, as shown at *a*, and provided with a tubular socket-piece, B. It also has the usual rope-eyes, *b*, going through it laterally, each of them at each of its ends terminating in a downward groove, *c*. There leads from the upper or middle eye, *b*, or into the socket-piece at its bottom an inlet or passage, *d*, which, as shown, goes through the bottom *e* and into the chamber *f* of the socket-piece. All of the
25 dead-eye which is above the chamber *a* is solid except in having in it the rope-eyes *b* and their terminal grooves *c*. The chamber of the socket-piece is open at its outer end to receive the wire rope C, which, previous to being inserted
30 in the said chamber and down, or nearly down, to its bottom, is to have its hempen heart-strand removed from the portion of it to go into the chamber, such being to form within the rope axially thereof a space or chamber, *g*, to receive the metallic filling *h*, to be described. Prior to the insertion of the said filling into the rope and socket-piece I usually dip the socket-piece into muriatic acid or a solution thereof, and afterward into molten tin, in order
40 to cover the inner surface of the socket-piece with a thin layer of tin, which will adhere firmly to the said surface. Having introduced the wire rope into the socket-piece and closed the exterior or outer end of the latter around the rope with clay or a suitable putty, I cast
45 into the socket-piece through the inlet or upper eye and the inlet before described molten metal or composition such as is usually known as "Babbitt metal," such metal filling the space in
50 the rope and that around it and between it and the inner surface of the chamber of the socket-

piece, and thereby not only fastening the rope firmly to the socket-piece, but providing it with a metallic core, which, when solidified, will prevent the rope from contracting within the socket-piece and loosening the connection therewith under strain of the rope. 55

The chamber in the dead-eye serves to reduce the weight thereof in comparison to what it would have were it without such chamber. 60

If desirable the dead-eye, besides its chamber and eyes and their terminal grooves, may have an annular eye to project from it at its lower end. The socket-piece may also be grooved or indented in its inner surface. 65

I sometimes provide the socket-piece with a metallic core arranged within it concentrically and to extend from its bottom into the chamber in the wire rope, the metal on being cast into such chamber surrounding the said core, which may be somewhat tapering. The core in such case aids in fastening the rope in the socket of the socket-piece. Fig. 3 is a section of the socket-piece, showing the metallic core, which is marked *k*. 75

The dead-eye, chambered as shown, has at the lower part of it an opening leading out of the chamber, such opening being for discharge of the core from the chamber and necessarily formed in the dead-eye by the core-supporter. 80 The open chamber, besides serving to lighten the dead-eye, or diminish its weight, can be made to answer a useful purpose—viz., to receive the shroud-straining rope at its upper end, and thereby protect such end, as does the canvas cap or cover usually fixed thereon, thereby saving all necessity of such a cap or like appliance to the rope. 85

The dead-eye, as herein described, differs materially from the shroud attachment shown 90 in the British Patent No. 1,888 for the year 1860, as it has the tightening rope-eyes going through it, and it also has the chamber open at bottom, and furthermore it has the socket-piece with the filling-opening therefrom leading into the middle eye, such not being in the said shroud attachment, which is for a common hempen rope, and not for connection with a rope of twisted wire, as usually made with a hempen core. 95

100 Instead of having the socket-piece and dead-eye cast in one piece, the socket-piece may be

separately constructed and attached to the dead-eye by bolting or hinging the two together, or by other convenient or proper means.

I claim as my invention, as follows, viz:

- 5 1. As an improved article of manufacture, a dead-eye cast of metal in one piece, and provided with the open chamber *a*, rope-eyes *b*, and their terminal grooves *c*, all substantially as set forth.
- 10 2. The dead-eye cast of metal in one piece and provided with the rope-eyes and their terminal grooves, and the metallic socket-piece open at one end and with the filling-inlet at its bottom, such socket-piece and inlet being for
15 the purpose set forth.
3. The socket-piece chambered and open at one end and provided with the inlet at the other end, in combination with the wire rope,

chambered as described, and with the metallic filling cast into the socket-piece through its inlet and into and around the portion of the rope within such socket-piece, all being substantially as shown and described. 20

4. The socket-piece chambered and open at one end and provided with the inlet and metallic core, as explained, in combination with the wire rope, chambered as described, and with the metallic filling or babbitting cast into the socket-piece and into and around the rope and the core, all being substantially as set forth. 25 30

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