(No Model.)

J. A. HOPKINS.

ROPE OILING DEVICE.

No. 470,000. Patented Mar. 1, 1892.

Fig. 1

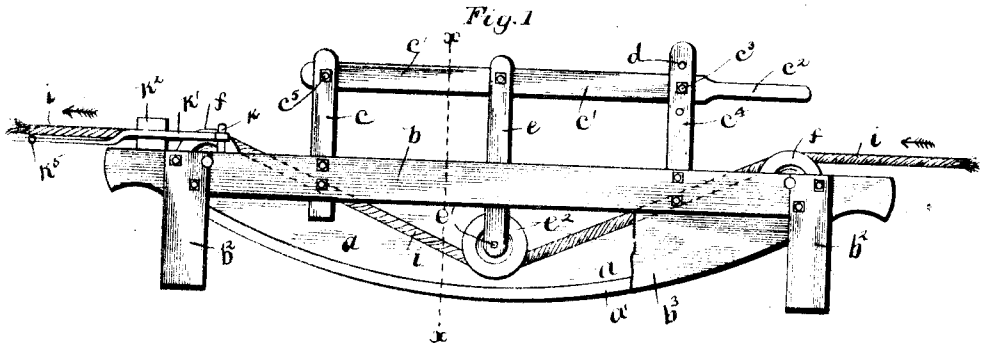


Fig. 2

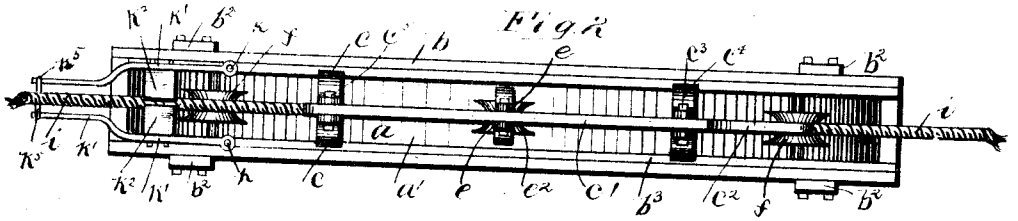


Fig 3

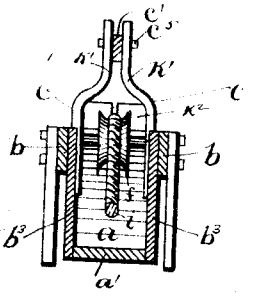
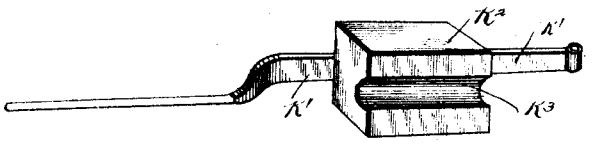


Fig 4



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JOHN A. HOPKINS, OF MURRAY, OHIO.

ROPE-OILING DEVICE.

SPECIFICATION forming part of Letters Patent No. 470,000, dated March 1, 1892.

Application filed September 26, 1891. Serial No. 406,894. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. HOPKINS, a citizen of the United States, residing at Murray, in the county of Hocking and State of Ohio, have invented a certain new and useful Improvement in Rope-Oiling Devices, of which the following is a specification.

My invention relates to the improvement of wire-rope-oiling devices; and the objects of my invention are to provide an oiling device of this kind of superior construction and arrangement, to provide superior means for adjustably retaining the rope within the oil-box or receptacle, to provide in connection therewith improved means for wiping the surplus oil from the rope after its immersion, to construct and operate said device in a simple and inexpensive manner without unnecessary waste of oil, and to produce other improvements which will be more specifically pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved oiling device, showing, for convenience, one of the sides partially broken away therefrom. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view on line $x\ x$ of Fig. 1, and Fig. 4 is a detail view in perspective of one of the wiping-blocks.

Similar letters refer to similar parts throughout the several views.

a represents the oiling-box, which, as shown, is of a general oblong form and the bottom plate of which, as indicated at a', is of a convex or downwardly-bowed form.

b represents the horizontal and parallel side frame-pieces, one of which, as shown, connects the upper ends of each side of the box bottom plate a'. The frame-work thus formed is provided with suitable side plates b^3, which conform in outline with and cover said frame sides. The box thus formed is provided near each end with suitable vertical legs b^2, which are preferably of a length equal to the height of the box at its center.

Secured to the inner sides of the box-frame at opposite points and in the rear half thereof are the lower end portions of two vertical and parallel standards c, which rise above the box, as shown. Between the upper ends of these standards c is fulcrumed upon a pin c^5 the rear end of a lever-bar c', which, extending forwardly, is provided with a handle-shaped termination c^2. Adjacent to this handle-piece c^2 the lever-bar c' is supported upon a suitable pin c^3 between two forward standards c^4, which extend upwardly at opposite points from the inner sides of the forward portion of the box and which are provided with two or more oppositely-located pin-holes d, through which the pin c^3 may be inserted to admit of the lever c' being secured at different heights. At or near the center of the length of the lever-bar c' are secured the upper ends of two downwardly-extending parallel arms e, which normally project within the central portion of the box a below the center of the height thereof. Between the lower ends of these arms e is journaled upon a suitable short cross-shaft e' a sheave or pulley-wheel e^2. Journaled between the said frame-pieces b near each end of the box is a sheave or pulley-wheel f, which, as shown in the drawings, extends partly within and partly without the box end. Rising from the upper side of the box at opposite points are pins k, said pins being preferably located at points opposite the rear sheave f. Each of these pins is fulcrumed or pivoted to the forward end of a rearwardly-extending lever-arm k', the outer end of which projects beyond the rear end of the box, as shown, and which are normally drawn toward each other by suitable connecting links or cords k^5. Each of these arms k' has affixed to its inner side the central portion of a wiping-block k^3, the inner side of which is provided with a horizontal rope groove or channel k^3.

In practice the box is filled or partially filled with a suitable oiling-mixture, which preferably consists of pine and coal tar, together with a small proportion of lime, but which may be otherwise produced. Preparatory to using my improved oiler the lever c', together with the sheave-carrying arms e, are removed by withdrawing the pins $c^5\ c^3$. The rope to be oiled is then so laid as to rest upon the pulleys or sheaves f and the lever again connected with the arms $c\ c^4$. In making this connection of the lever the center of that portion of the rope i which is be-

tween the pulleys f is caught in the groove of the pulley e^2, and by supporting the lever in a horizontal position the rope is depressed to a point within the lower portion of the box, as shown in Fig. 1 of the drawings. Supported in this position the rope is pulled in the direction of the arrows, and in so doing passes over the sheaves f and under the sheave e^2. In this manner a coating of the mixture contained in the box is imparted to the rope, and as the rope passes through the grooves k^3 of the blocks k^2 the surplus oil or tar upon the rope is by contact with said blocks scraped or wiped therefrom and allowed to drop back in the box. In this manner a uniform coating of oil or tar is imparted to the rope throughout its length and but a small proportion of the mixture is wasted. By removing the pins c^3 and inserting the same in a different one of the holes d it is obvious that the degree of depression of the rope i within the box a may be changed at pleasure.

From the construction shown and described it will be seen that a simple, substantial, and effective device may be produced by means of which hoisting or other ropes may be quickly provided with a uniform coating of oil or other liquid mixture.

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

1. In an oiling device, the combination of the box a and frame-work thereof, sheaves f, journaled in the ends of said box, standards c and c^1, rising from the box-frame, lever-bar c', detachably and adjustably supported between said standards, as described, arms e, depending from the lever-bar and projecting within said box, and a sheave e^2, journaled at the lower ends of said arms e, substantially as and for the purpose specified.

2. In a rope-oiling device, the combination, with the box a and the frame-work therefor, of sheaves f, journaled in the ends of said box, as described, arms k', pivotally connected with said frame-work and having their outer ends adjustably connected, as described, blocks k^2, rigidly connected with said arms k', standards c c^1, rising from the box-frame, lever-bar c', detachably and adjustably connected, as described, with said standards, lever-arms e, depending from said bar c', and sheave e^2, journaled at the lower ends of said arms e^2, substantially as and for the purpose specified.

JOHN A. HOPKINS.

In presence of—
C. C. SHEPHERD,
E. C. IRVINE.