

No. 714,115.

Patented Nov. 18, 1902.

J. R. STANLEY.
SELF OILING TROLLEY.
(Application filed May 17, 1902.)

(No Model.)

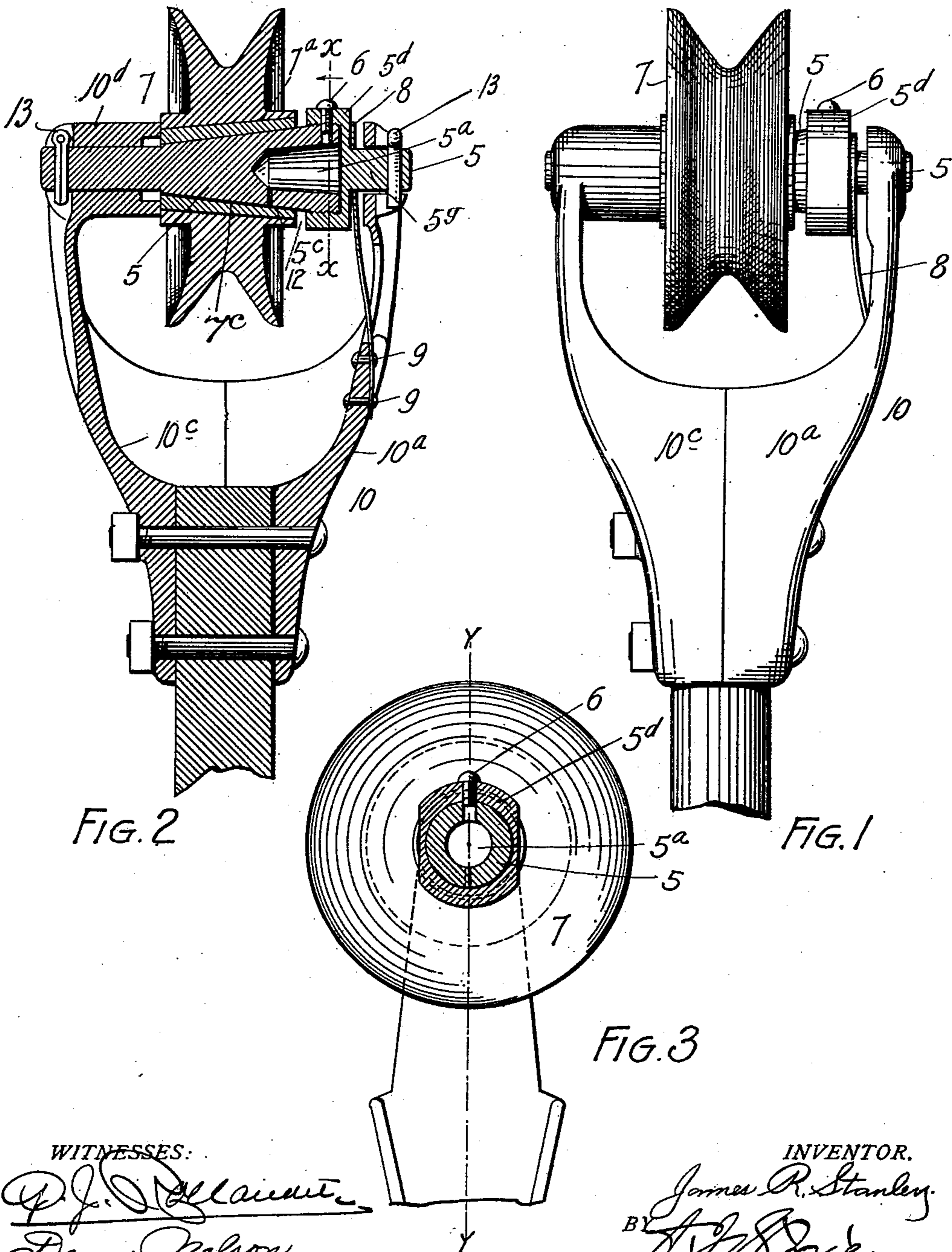


FIG. 2

FIG. 1

FIG. 3

WITNESSES:

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SELF-OILING TROLLEY.

SPECIFICATION forming part of Letters Patent No. 714,115, dated November 18, 1902.

Application filed May 17, 1902. Serial No. 107,727. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. STANLEY, a citizen of the United States of America, residing at Boulder, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Self-Oiling Trolleys; and I do 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 the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in self-oiling trolleys; and it consists of the features, arrangements, and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a front elevation of my improved trolley construction. Fig. 2 is a vertical section taken through the same on the line *yy*, Fig. 3. Fig. 3 is a section taken on the line *xx*, Fig. 1.

The same reference characters indicate the same parts in all the views.

Let the numeral 10 designate the trolley-harp, which is composed of two parts 10^a and 10^c. Mounted in the arms of the harp is a spindle having a conical part 5, in the larger portion of which is formed a lubricant-chamber 5^a, having an outlet 5^c, permitting oil to flow to the outer surface of the spindle. This chamber 5^a is closed at the outer end by a screw-cap 5^d, the extremity of the spindle being exteriorly threaded for the purpose. This cap is provided with a reduced extremity 5^e, which engages an opening in the upper extremity of the harp member 10^a. The cap 5^d is made fast to the body of the spindle by a set-screw 6, which also closes an opening formed through the cap and the body of the spindle and communicating with the chamber 5^a for the introduction of the oil or other lubricating material or substance. The screw-cap 5^d forms a shoulder, located between the hub 7^a of the trolley-wheel 7 and the arm of the harp member 10^a. Between this cap and the adjacent harp-arm is a leaf-spring 8, made

fast to the harp member by rivets 9. The function of this spring is to force the spindle toward the left, referring to Figs. 1 and 2, as the bushing 7^c of the trolley-wheel becomes worn, whereby the wheel-hub is made to fit the spindle perfectly at all times until the bushing of the wheel is sufficiently worn to require renewal. When the parts are new, a space 12 is left between the cap and the wheel-hub. The spindle may be moved into the wheel to take up wear until the shoulder of the screw-cap engages the hub of the wheel. In order to bring the trolley-wheel into the central position between the two harp-arms, a hub 10^d is formed on the upper extremity of the member 10^c. The length of this hub is such as to accomplish the aforesaid result. Its inner extremity engages the wheel-hub extremity remote from the screw-cap 5^d. The spindle is held in place on the harp by keys 13, passed through openings formed in the spindle extremities. The extremities of the keys engage slots formed in the harp-arms, whereby the spindle is prevented from turning in the harp.

When the device is in use, the screw 6 is removed at intervals and the chamber 5^a of the spindle filled with a suitable lubricant, as ordinary machine-oil. The screw is then reinserted, and when the trolley is in use the oil oozes out of the chamber to the engaging surfaces of the spindle and wheel-hub through the orifice 5^c, which is made the proper size to accomplish the aforesaid function.

From the foregoing description it will be understood that my improved construction obviates the necessity of the frequent oiling of trolley-wheels and adds to the life of the wheel-bushing, since the parts are kept constantly lubricated automatically as long as the chamber 5^a contains oil, whereas if the direct oiling of the wheel is left to human agency it will not always be properly done or with sufficient frequency.

Having thus described my invention, what I claim is—

1. In a self-oiling trolley, the combination with the harp and trolley-wheel, of a two-part spindle mounted thereon, the body portion of the spindle having a lubricant-chamber formed therein, and closed at one end by the

other spindle part which is screwed thereon, the spindle being provided with inlet and outlet openings, the former being normally closed, substantially as described.

5 2. In a self-oiling trolley, the combination with the harp and trolley-wheel, of a spindle mounted on the harp composed of two parts, one part having a concave portion constituting a lubricant-chamber, and the other part 10 being screwed thereon to close said chamber which is provided with outlet and inlet orifices, substantially as described.

15 3. The combination with a harp and trolley-wheel, of a spindle composed of two parts screwed together, and provided with a lubricant-chamber having outlet and inlet openings.

4. The combination with a trolley-wheel and a holder therefor, of a conical two-part spindle, provided with a lubricant-chamber 20 having outlet and inlet openings, substantially as described.

5. A self-oiling trolley-spindle comprising two parts, one part having a concave portion constituting a lubricant-chamber, and the 25 other part being screwed thereon to close said chamber which is provided with outlet and inlet orifices.

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

JAMES R. STANLEY.

Witnesses:

F. S. HOWARD,

W. G. HOUSTON.