

(No Model.)

L. WHEELER.

ROPE JAR.

No. 335,493.

Patented Feb. 2, 1886.

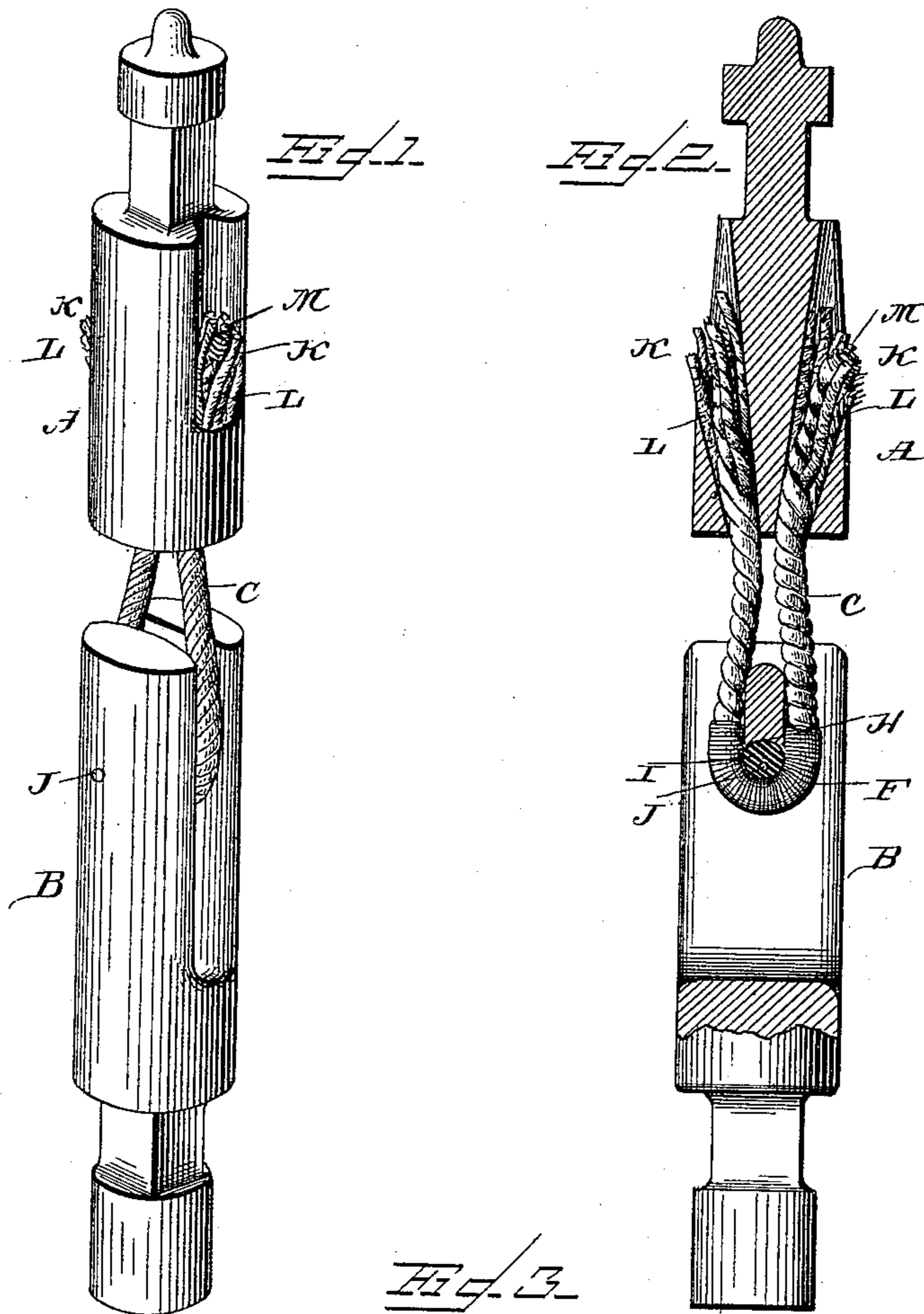
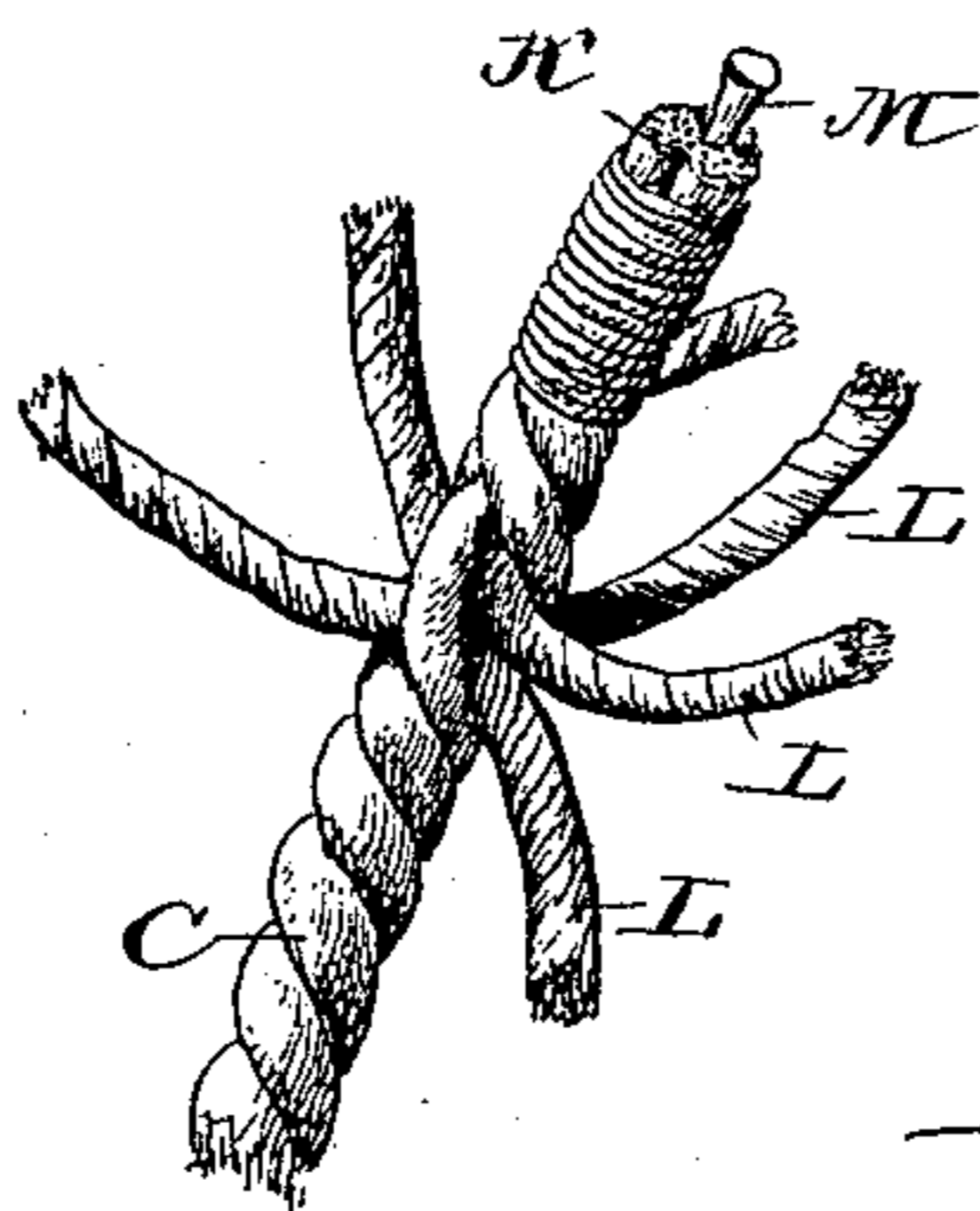


Fig. 3



WITNESSES
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UNITED STATES PATENT OFFICE.

LAMBERT WHEELER, OF ALLENTOWN, NEW YORK, ASSIGNOR TO LIZZIE WHEELER, OF SAME PLACE.

ROPE-JAR.

SPECIFICATION forming part of Letters Patent No. 335,493, dated February 2, 1886.

Application filed December 4, 1885. Serial No. 184,723. (No model.)

To all whom it may concern:

Be it known that I, LAMBERT WHEELER, a citizen of the United States, and a resident of Allentown, in the county of Allegany and State of New York, have invented certain new and useful Improvements in Rope-Jars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved rope-jar. Fig. 2 is a longitudinal sectional view of the same, and Fig. 3 is a perspective view showing the end of the wire-rope loop.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to rope-jars for rock-drills, and it contemplates certain improvements upon the jar for which Letters Patent No. 311,157 were granted to me on the 20th day of January, 1885; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the jar. B is the drill-socket, and C is the rope bight or loop, which is made out of wire rope.

The drill socket and jar are of the same construction as the socket and jar shown in my former patent, with the exception that the inclined perforations D, through which the ends of the loop are inserted into the jar, are carried up to the upper end of a shoulder, E, formed at the upper portion of the jar, so that easier access may be had to the ends of the loop. The lower doubled end of the loop is provided with a covering, F, of leather, hemp, or any other suitable soft and lasting substance, for the purpose of preventing the metal in the slot of the socket from wearing out the doubled end of the loop, my object in this improvement being to prevent metal from bearing against metal, so as to prevent wear upon the wire-rope loop. The upper end of the slot G in the drill-socket is concaved, as

shown at H, and a packing, I, of hemp or other soft material, is placed into the concave end and retained by means of a metallic pin, J, which passes transversely through the sides of the slot and through the packing, holding the packing in place and keeping it compact within the concave or recess in the end of the slot.

When the ends K of the loop have been inserted through the inclined perforations in the jar, they are drawn up through the same and unraveled for a short distance, whereupon strands L, of hemp or other rope, are drawn through the unraveled portions and retained by their doubled ends by again laying the unraveled portions of the ends of the wire rope. These strands of hemp increase the size of the ends of the loop, and likewise prevent the wire rope from bearing against the inner sides of the perforations, and for the purpose of furthermore spreading the ends of the loops pins M of metal are driven into the said ends, causing the ends of the loop to be firmly wedged and retained within the perforations.

The covering for the doubled end of the loop is preferably first laid into the wire rope, and afterward wrapped around the same, so as to retain the covering in place, and the loop will with these coverings combine the strength of the wire rope with the softness of a hemp or similar rope, neither wearing nor being worn out by the contact with the metallic parts of the device.

The packing of hemp or other soft material in the upper concaved end of the slot in the socket serves in the same manner as the covering for the loop, to prevent wear upon the wire rope, forming a soft cushion for the same to strike on when the drill is raised.

By carrying the upper ends of the perforations in the jar up to the top of the shoulder upon the same the ends of the loop are more accessible and may be more readily covered and unraveled and again laid, giving better access to the said ends.

Having thus described my invention, I claim, and desire to secure by Letters Patent of the United States—

1. In a drill-jar, the combination of a jar

having a loop of wire rope secured in it, with a socket for the drill having a slot at its upper end formed with a concave upper portion provided with a packing of soft material retained by a transverse pin, as and for the purpose shown and set forth.

2. In a drill-jar, the combination, with a socket for the drill having a slot at its upper end and grooves extending from the slot to the upper end, and a jar having inclined perforations extending from its lower end out through its sides, of a loop of wire rope provided with a covering at the lower doubled end consisting of a soft and lasting material laid into the rope and wrapped around the same, as and for the purpose shown and set forth.

3. In a drill-jar, the combination of a slot-

ted drill-socket, a jar having inclined perforations extending from the lower end through the sides of the jar, a loop of wire rope passed through the slot in the socket and having its ends inserted through the inclined perforations, and provided with strands of hemp or similar material laid into the ends at their lower doubled ends and laid around the ends of the loop, and tapering pins inserted into the ends of the loop, spreading the same, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

LAMBERT WHEELER.

Witnesses:

JAMES S. M. CONNELL,
SULLIVAN B. MORRISON.