(No Model.)

R. C. IRISH.

LEASE ROD FOR LOOMS.

No. 342,603. Patented May 25, 1886.

Fig. 1.

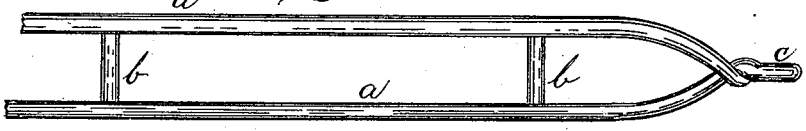


Fig. 2.

Fig. 3.

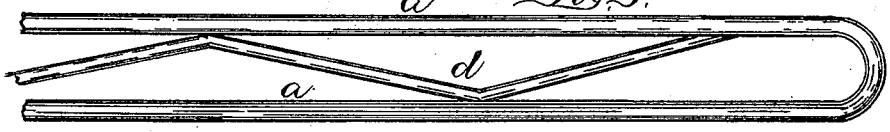


Fig. 5

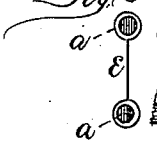


Fig. 4

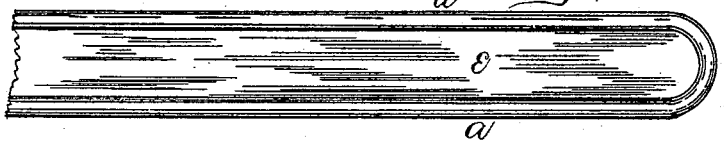
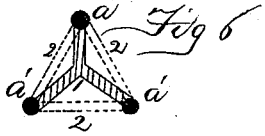


Fig 6



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UNITED STATES PATENT OFFICE.

ROLON C. IRISH, OF AUGUSTA, MAINE.

LEASE-ROD FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 342,603, dated May 25, 1886.

Application filed October 29, 1885. Serial No. 181,310. (No model.)

To all whom it may concern:

Be it known that I, ROLON C. IRISH, of Augusta, in the county of Kennebec and State of Maine, have invented a new and useful Improvement in Lease-Rods for Looms, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1, 2, 3, and 4 are longitudinal views of modifications of my invention. Fig. 5 is a cross-section of Fig. 4, and Fig. 6 a cross-section of a rod having three wires in a triangular form.

Like letters of reference indicate like parts.

The object of my invention is to construct a lease-rod that shall be wholly of metal, light, simple, and strong in its construction, and one not liable to get out of order or be permanently injured.

While I have represented five modifications of my invention, others may be readily conceived, and though I have represented the parts as made of round wire, I do not wish to be understood as limiting my invention to that, for obviously other shapes may be used to advantage; but whether flat, round, half-round, or elliptical, the general make up would be substantially the same.

In Figs. 1, 2, 3, and 4, *a a* is a wire bent as indicated, the two strands running parallel to each other at such distance apart as may be desirable.

When the rod is to be used up edgewise, the wire at the end is twisted, as shown in Fig. 2, and forms the loop *c*, which passes through the strap at the side of the loom and prevents canting of the rod. This loop is at right angles to the body *a a*.

When the rod is to be used flat, the wire is simply bent as indicated in Figs. 3 and 4.

If it is desirable to make the rod stiffer, three wires placed in the form of a triangle, as indicated in Fig. 6, *a' a' a'*, may be used, and joined, as indicated, by brace 1 or by the straight braces 2 2 2.

To strengthen and stiffen the rods, braces of different styles are used. I have indicated four forms. Others will suggest themselves. In Fig. 1 I use simply straight studs *b b* between the wires *a a*. These will be found sufficient for ordinary use. In Fig. 3 a wire, *d*, passes zigzag between the parallel wires *a a*, as indicated. This forms a strong rod. These braces may be either separate pieces secured to the parallel wires by brazing or the like, or they may be integral therewith, the whole rod being in one piece, cast of malleable iron or cut or rolled from strips of iron, brass, or other metal. Again, in Fig. 4 tin, *e*, is used as the brace. The cross section, Fig. 5, shows the manner of securing it to the wire *a a*. This forms a solid brace between the wires, and makes a very stiff rod, especially sidewise.

The operation of my invention and the results accomplished are the same as in the ordinary rod, and it is unnecessary for me to describe them fully.

The advantages of my rod are, cheapness of construction, durability, and in case of injury by bending the parts or the like the ease with which it may be repaired, and whichever form may be adopted the substantial elements—viz., the sides braced and stiffened on the inside—are common to all.

I claim as my invention—

1. A lease-rod composed of wire bent, braced, and stiffened substantially as described and set forth.

2. A lease-rod composed of the wire *a a*, braced and stiffened by the studs *b b*.

3. A lease-rod composed of the wire *a a*, braced and stiffened as described, and twisted at the ends to form the loop *c*, as and for the purposes set forth.

4. A lease-rod having two or more wires parallel to each other, said wires being braced and stiffened, as and for the purposes set forth.

5. A lease-rod composed of metal sides, said sides being braced and stiffened by studs or their equivalent, as fully described.

ROLON C. IRISH.

Witnesses:

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