(No Model.)

J. B. FAISANT & J. EICHER.

TENSION DEVICE FOR LOOM SHUTTLES.

No. 492,395. Patented Feb. 28, 1893.

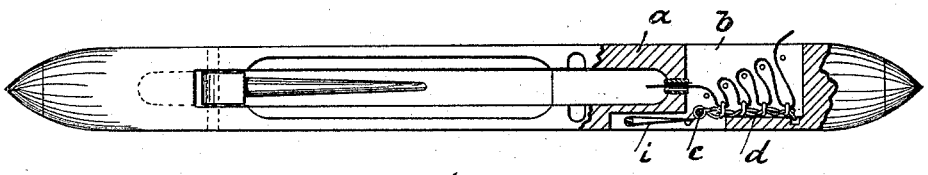

Fig. 1.

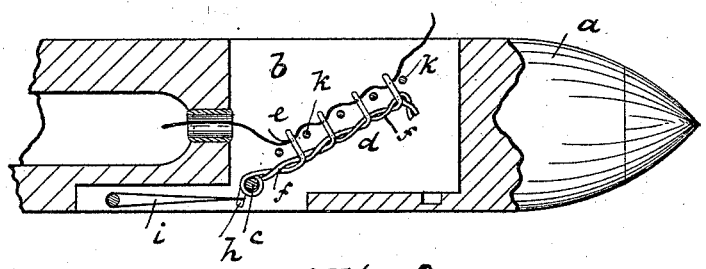

Fig. 2.

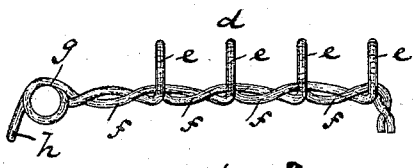

Fig. 3.

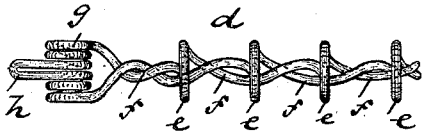

Fig. 4.

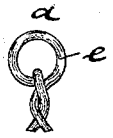

Fig. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN B. FAISANT AND JOSEPH EICHER, OF PATERSON, NEW JERSEY.

TENSION DEVICE FOR LOOM-SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 492,395, dated February 28, 1893.

Application filed May 2, 1892. Serial No. 431,509. (No model.)

To all whom it may concern:

Be it known that we, JOHN B. FAISANT and JOSEPH EICHER, citizens of the United States, residing at Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Tension Devices for Loom-Shuttles; and we do hereby 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 letters of reference marked thereon, which form a part of this specification.

The object of our invention is to provide a thread tension device for loom shuttles, simple and durable in construction and easily attachable to the various shuttles generally used in the trade.

The invention consists in the improved and peculiarly constructed thread tension device for shuttles, in the connection and combination of the same with the shuttle body, substantially as will be hereinafter more fully described and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1. is a top plan view of a shuttle, with our improved tension device secured thereto, part of the shuttle body being shown in section, the tension device being in its normal position. Fig. 2. is a similar enlarged view of that end of the shuttle, in which the tension device is arranged, the latter being shown in a raised position, and Figs. 3, 4 and 5 are enlarged detail views of the tension device.

In the drawings *a* represents a shuttle body of the ordinary construction, provided with the recess or groove *b*, in one end, in which is arranged and fulcrumed on the pin *c*—the thread tension device *d*. The said tension device consists of a wire, of suitable length, bent at its center to form a loop *h*, and at right angles thereto, and at each side of said loop, a series of circular coils *g*, the latter being adapted to form the bearing for the tension device (on pin *c*). The free ends of said coils are twisted, as shown at *f*, and bent into loops *e* alternately; said loops are at right angles to the twists, and the latter at right angles to the coils *g*, as clearly shown in Figs. 3 and 4. As can be seen from the drawings, said series of coils (*g*) will form a substantial and strong bearing on the pin *c*. To the loop *h* is secured in any desired many an elastic band (or spring) *i*, adapted to hold the tension device in its normal position. Within the groove *b* is arranged diagonally a series of pins *k*. The thread passes over said pins and through the loops *e* alternately.

In operation, the tension device, with its wire loops *e* engaging the thread, turns freely on pin *c*, in a plane at right angles to said pin, and is controlled by the elastic band *i*. As the wire coils *g* form a wide bearing on the pin all lateral motion of the tension device is eliminated, as will be manifest.

By our improved tention device, a uniform strain is exerted on the thread, and thus breakage or tearing of the latter is entirely prevented.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A tension device for shuttles consisting of a single piece of wire having a double twisted shank *f*, tension loops *e* integral with said shank and depending at right angles therefrom, a coiled sleeve *g*, integral with the shank and adapted to slip over the pin *c* of the shuttle, and a looped arm *h* integral with the sleeve *g* and band *i*, engaging the said arm *h* and the pins *k*, in the shuttle body, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 19th day of April, 1892.

JOHN B. FAISANT.
JOSEPH EICHER.

Witnesses:
ALFRED GARTNER,
WM. D. BELL.