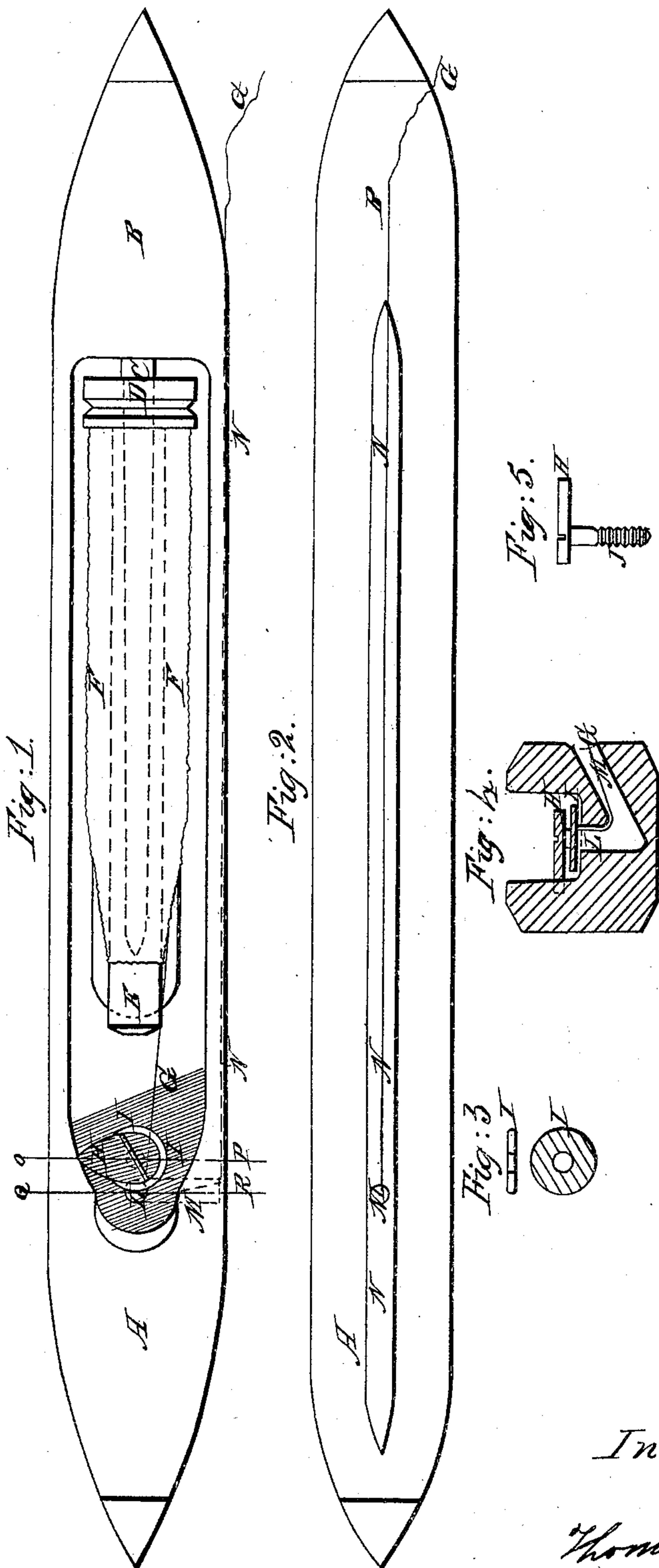


T. Clark. Shuttle.

N^o 44,604.

Patented Oct. 11, 1864.



Witnesses:
Geo. J. Hill
Jerome Gates

Inventor:
Thomas Clark

UNITED STATES PATENT OFFICE.

THOMAS CLARK, OF WARE, MASSACHUSETTS.

IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. **44,604**, dated October 11, 1864.

To all whom it may concern:

Be it known that I, THOMAS CLARK, of Ware, in the county of Hampshire and State of Massachusetts, have invented an Improvement in Shuttles; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters and figures marked thereon.

Figure I is a top view of the shuttle. Fig. II is a side view of the same. Fig. III is a plan of the weight; Fig. IV, a section at O P Q R; Fig. V, a side view of screw and guard.

My improvement relates to the delivery of the yarn from a filling-bobbin contained in a shuttle, the form and construction of the several parts being intended to cause a nearly uniform tension upon the yarn and prevent it from twisting or kinking between the eye of the shuttle and the tip of the bobbin from which the filling is delivered. This difficulty is the greatest when the filling is hard twisted, and usually occurs at the instant the shuttle is struck by the picker or driver and before it enters the cloth. The yarn, at this time being slack, it readily twists upon itself. By the use of my invention this difficulty is obviated, and the thread is held in a fixed position between the shuttle-eye and the tip of the bobbin during the time that there is no draft upon the thread or when there is no delivery of the thread caused by the motion of the shuttle.

The letters refer to the same parts in all of the figures.

The shuttle A B has at its center the spindle C, which holds the bobbin D E, upon which is the filling-yarn F. The bobbin is held firmly to the spindle by a spring or in any other convenient manner.

In the ordinary mode of using the common shuttle the thread G passes from the tip E of the bobbin, thence through the vertical hole L and the lateral hole M to the outside of the

shuttle, and as the shuttle moves forward the thread G lies parallel with it in the groove N. The friction of the thread in the holes or eyes L M is sufficient to hold the filling in a state of tension while the shuttle is passing through the web; but after it reaches the end of the race and begins to move in the opposite direction the thread becomes slack, and kinks are formed between the hole M and the tip E of the bobbin. To obviate this I place a small metallic weight, I, in the shape of a washer, between the bobbin tip and the hole M, which rests upon the thread, and is held in place by the screw J, which passes through the center of the weight and is screwed into the wood of the shuttle. It has a head, H, to prevent the weight from lifting too high or from being thrown off. This head is elongated in one direction, so that its end may be turned against the side of the shuttle, and thus held in place. The lower side of the head may be about an eighth of an inch above the weight I, so as to allow it to rise and fall freely a short distance.

In threading the shuttle the yarn is passed under the weight I, resting below upon the wood of the shuttle, and thence through the holes L M. The weight has its edges slightly rounded, so as to present no obstruction to the escape of the thread; but as soon as the shuttle stops the weight rests upon the thread and holds it in a state of tension, thus preventing it from kinking between the bobbin and the eyes.

What I claim, and desire to secure by Letters Patent, is—

The weight, resting upon the filling-yarn within the shuttle, constructed as herein described, and for the purpose specified.

THOMAS CLARK.

In presence of—

GEO. T. HILL,
JEROME GATES.