

Lawson and Sherman.

Shuttle.

Nº 5,628.

Patented Jun. 13. 1848.

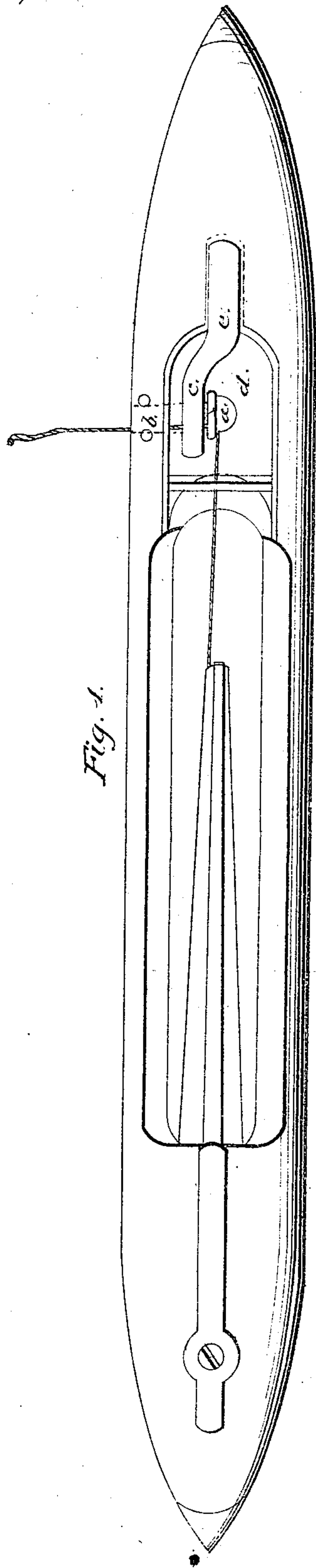


Fig. 1.

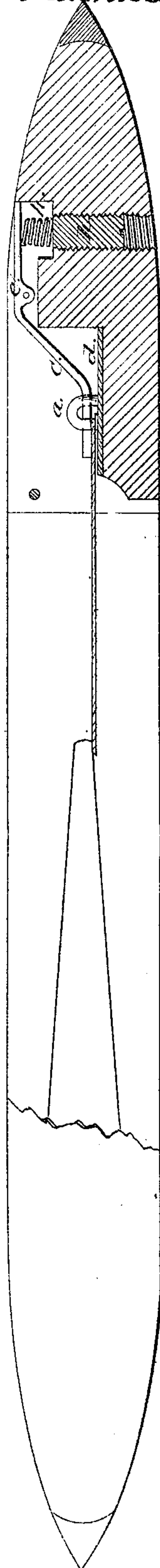


Fig. 2.

UNITED STATES PATENT OFFICE.

PETER LAWSON, OF DRACUT, AND AARON H. SHERMAN, OF LOWELL, MASSACHUSETTS.

WEAVER'S SHUTTLE.

Specification of Letters Patent No. 5,628, dated June 13, 1848.

To all whom it may concern:

Be it known that we, PETER LAWSON, of Dracut, and AARON H. SHERMAN, of Lowell, both in the county of Middlesex, and State of Massachusetts, have invented a new and useful Improvement in Shuttles, and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawing, which illustrates this specification, in which—

Figure 1, is a top plan. Fig. 2, is a vertical section.

Many devices have been resorted to for the purpose of equalizing the tension of the yarn from the spool while delivering it from the shuttle in the act of weaving by which alone an even selvage can be made and without which many important manufactures would have to be abandoned. These devices have been either entirely inefficient in their operation or so fragile in their mode of construction as to render them worthless.

Our invention is for the purpose of remedying these inherent defects and consists of a lever placed lengthwise of the shuttle which has one end operated by a spring that is connected with an adjusting screw to regulate the pressure of the opposite end of the lever which bears on the thread at will, said lever being made to rest upon the thread or yarn between a staple through which it passes and turns at right angles, and the eye through which it issues from the shuttle.

The following is a description of the construction: A staple *a* is put into the shuttle on the line of the axis of the bobbin and opposite the eye *b* through which the yarn passes out of the shuttle; between this staple and the eye there is the end of a lever *c*, this end which lies between said staple and the eye is parallel with the plate *d* to which the staple *a* is fastened; the lever thence bends up and inward to the line of the center of the width of the shuttle and near its upper surface when it assumes a line parallel with the axis of the shuttle; the fulcrum of this lever is at the point *e*, where the lever reaches the upper surface, and under the upper end of the lever there is a spring *h* in a recess there made for the purpose; this

spring *h* bears up this end of the lever and holds its opposite end down on to the yarn which passes under it as before stated; the lever does not rise above the surface of the shuttle, but fits into a recess made for it. Under the spring there is an adjusting screw *h'*, which extends nearly through the shuttle leaving a small recess sunk in on the underside, on which the spring rests; by this screw the tension of the spring is regulated and a proper pressure made on the yarn. All the other parts of the shuttle are of ordinary construction, the yarn *i* passes from the bobbin through the staple *a* and out through the eye.

This improved construction of the shuttle prevents the yarn from throwing back the spring so as to relieve the friction upon it by any sudden action of the shuttle, as is the case when the yarn passes between the spring and the sides of the shuttle before leaving the direction parallel to the axis of the bobbin, and a more perfect tension is given than in ordinary shuttles when springs are used for like purposes, thereby producing more perfect selvages and work generally. It will be obvious that this form of lever is necessary to the use of the adjustable spring.

Having thus fully described our improvement in shuttles, we do not claim a spring pressure lever operating upon the thread between the staple and eye, as this has already been known, but what we do claim, and desire to secure by Letters Patent, is—

The manner in which we arrange the respective parts, in connection with the shuttle, that is to say placing one end of the lever in a groove in the solid end of the shuttle and the spring adjusting screw in a proper opening under it, said opening being extended through the solid end of the shuttle so that the adjusting screw may be entirely buried therein and be operated from the underside of the shuttle, the whole being combined and arranged substantially in the manner and for the purpose set forth whereby great simplicity, compactness, certainty of action, and durability are obtained.

PETER LAWSON.
A. H. SHERMAN.

Witnesses:

J. J. GREENOUGH,
H. G. F. CORLISS.