

J. B. Greene.
Loom Tensile.

N^o 10,206.

Patented Nov. 8, 1853.

Fig. 1.

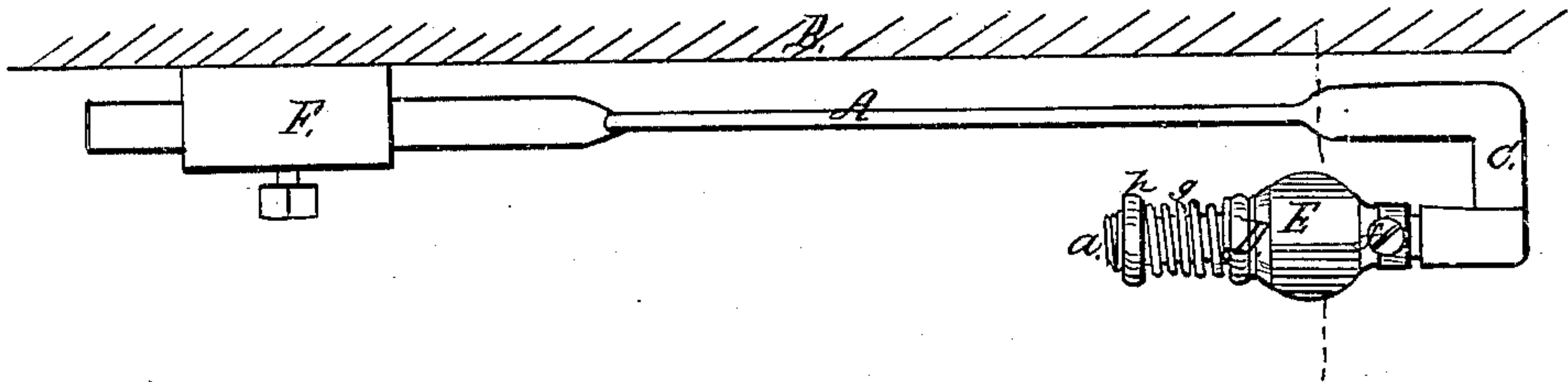


Fig. 2.

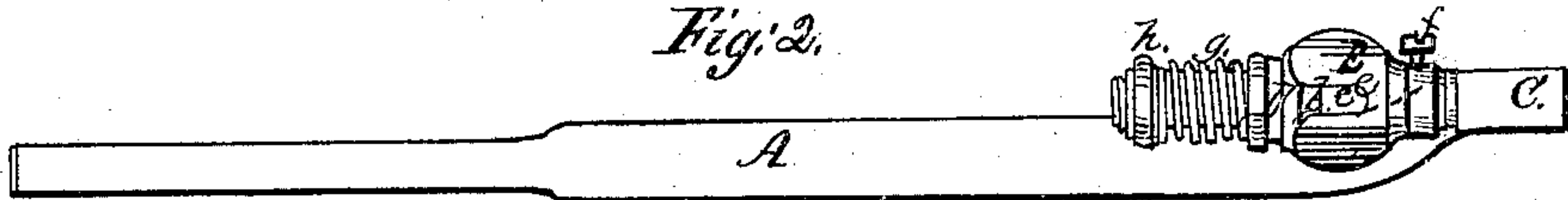


Fig. 3.

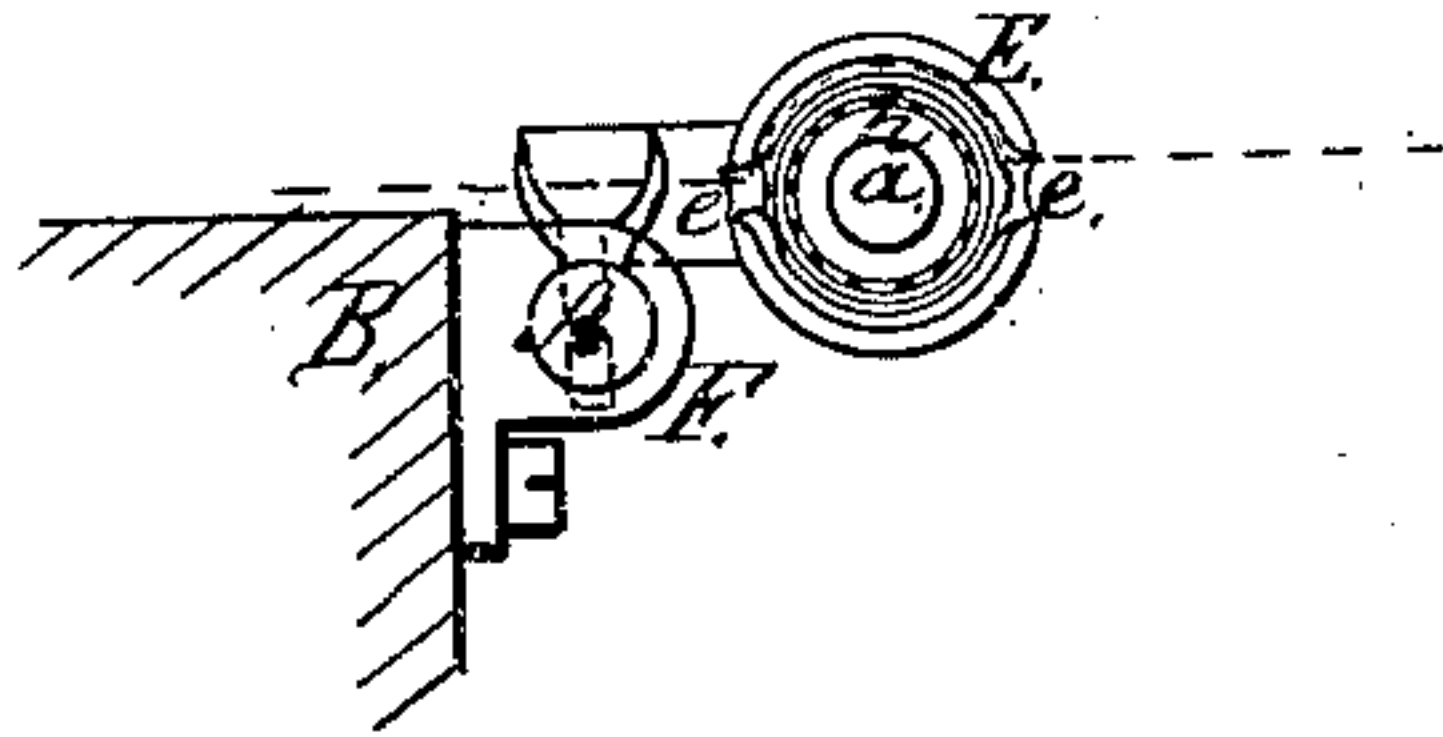


Fig. 5.



Fig. 4.



UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN TEMPLES FOR LOOMS.

Specification forming part of Letters Patent No. 10,206, dated November 8, 1853.

To all whom it may concern:

Be it known that I, JEROME B. GREENE, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Temples for Looms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan of a temple constructed according to my improvements. Fig. 2 is a view of the same as seen looking toward the back of the breast-beam. Fig. 3 is a view of the same as seen looking from the center of the loom. Fig. 4 is a longitudinal section of the same. Fig. 5 is a view of the roller detached.

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

This temple consists of a roller which turns freely on an axle placed parallel with the weft, and it is surrounded or partly surrounded by a guard, which is adjustable on the same axle. The roller and the guard keep the cloth properly stretched either by holding it between two conical surfaces or by pins on the roller, upon which the cloth is held by the guard, the roller being kept in position for holding the cloth by a spring, which will allow it to be withdrawn when necessary. The axle upon which the temple turns forms part of an elastic stem, which gives the temple the necessary elasticity.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the elastic stem, which is of steel, flattened along a part of its length to give it elasticity. It is placed horizontally at the back of the breast-beam, part of which is represented by B. The end C, which is nearest the side of the loom, is bent to make the part *a*, which forms the axle of the roller, present its end toward the center of the loom.

D is the roller, which fits loosely to the axle or spindle *a*. It has a conical part *b*, and also a circumferential row of teeth *c c*, the conical part *b* fitting to a hollow conical face in the guard.

E is the guard, which is of the form of a hollow circular cup encircling the roller D and having slots *d* and *e* on opposite sides. The bottom or closed end of the cup fits to the spindle *a*, and is secured thereto by a set-screw *f*. The wheel is pushed into the guard by a spiral spring *g*, whose pressure is regulated by a nut *h*, fitting to a screw on the end of the spindle. This forces the conical part *b* close to the conical seat in the guard. If no conical faces are used, but merely teeth, there must be a stop for the roller within the cup. The stem A is fitted to a socket F, secured at the back of the breast-beam, and is secured therein by a set-screw, being adjustable lengthwise to set the temple for cloth of different widths.

The temple is made to receive the selvage of the cloth by drawing the roller D by the hand from the guard E and placing the selvage in the guard, so that it passes through the two slots. The roller is then released from the hand, and the spring *g* forces it into the guard, holding it, as shown in Figs. 3 and 4, in which the red line in Fig. 3 exhibits a longitudinal and in Fig. 4 a transverse section of the cloth. The cloth may pass under or over the roller. One-half or any portion of the circle of the guard may be cut away, as all that is required is a piece which will extend round a portion of the roller; but if only one-half or a portion is left it will require to be turned round on the spindle if it is desired to change the cloth from the upper to the lower side of the roller, and vice versa. The temple admitting of the cloth being passed under or over the roller allows the cloth to be properly conducted over the breast-beam. The bending round of the part *a* of the stem allows the point of the pivot of the temple to be presented toward the center of the cloth, which is necessary in order to allow it to be introduced and withdrawn from between the roller and guard, and at the same time it allows the stem to be of the proper length to give the required elasticity and facility for longitudinal adjustment, which could not be done if the stem were straight.

In the particular temple shown the cloth is held between the conical faces of the roller

and guard, and also by the teeth *cc*; but either the cones or teeth would be sufficient. It would be better if teeth or burrs only are used that there should be more than one row.

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

The arrangement substantially as described of the roller *D*, adjustable guard *E*, and spring *g* upon the axle *a*, which is parallel with the

weft, whether the said roller and guard hold the cloth between two conical faces or by teeth on the roller.

JEROME B. GREENE.

Witnesses:

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