J. C. Tilton.

Loom Temple.

No. 12,879. Patented May 15, 1855.

Fig. 1.

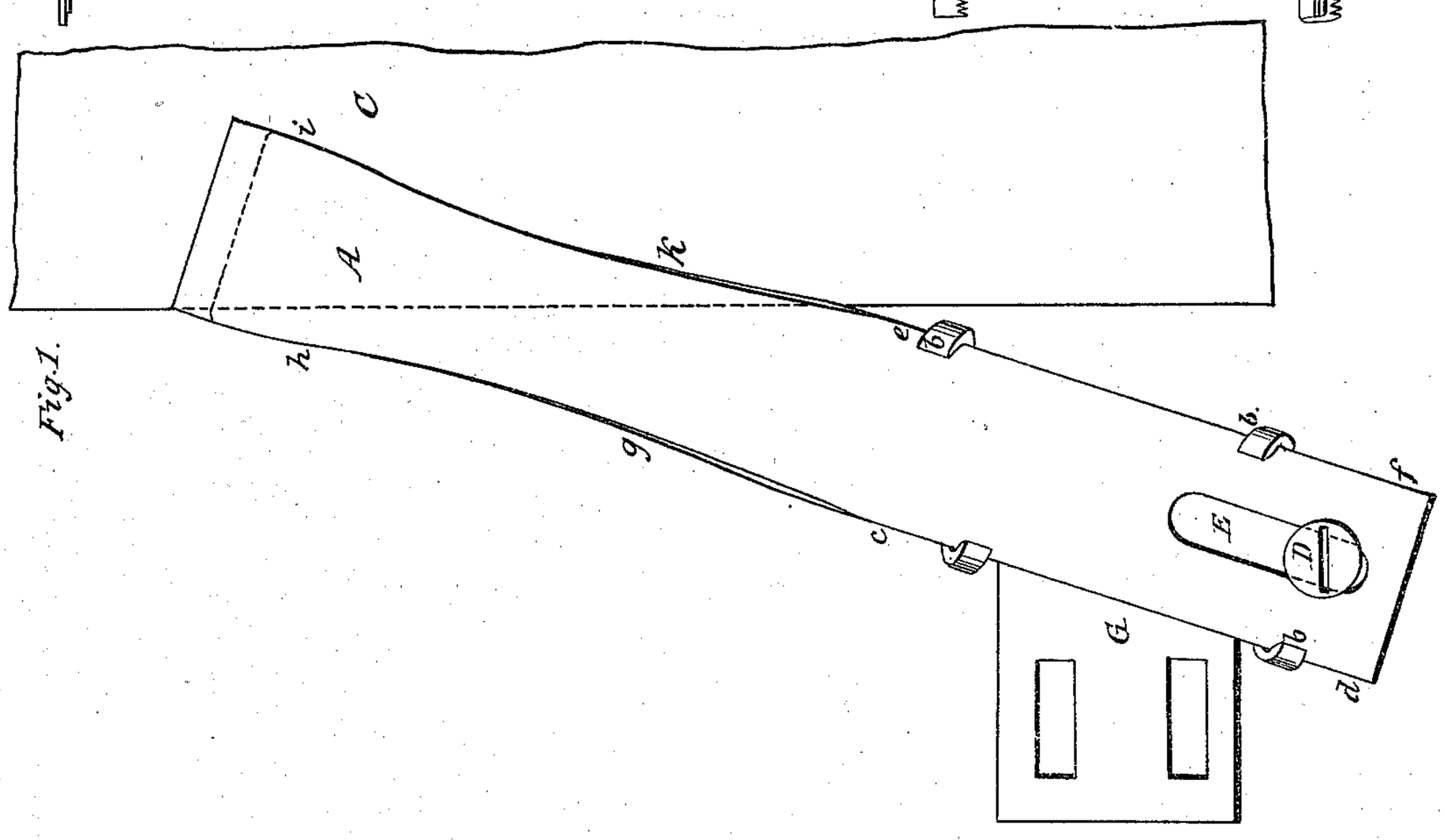


Fig. 2.

Fig. 6.

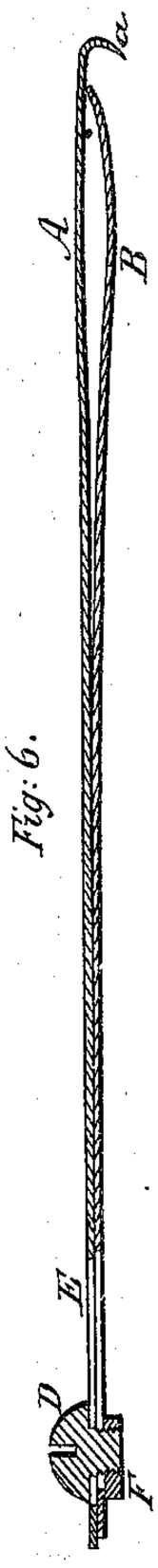


Fig. 5.

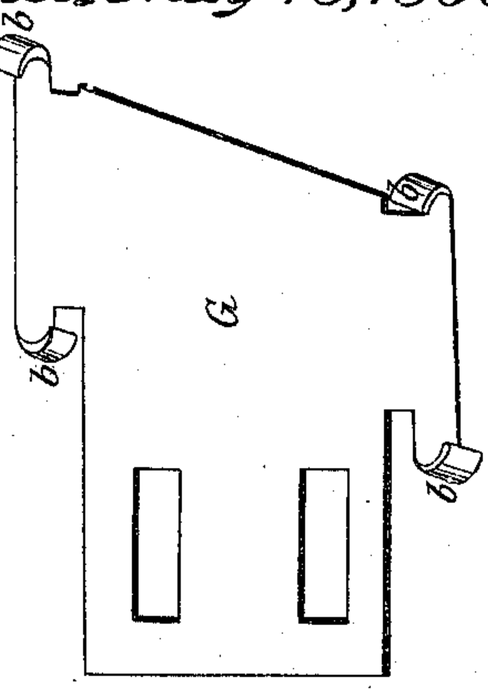


Fig. 3.

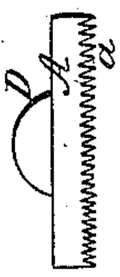
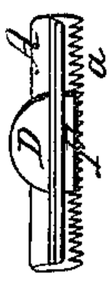


Fig. 4.



UNITED STATES PATENT OFFICE.

JEREMIAH C. TILTON, OF SANBORNTON BRIDGE, NEW HAMPSHIRE.

TEMPLE FOR LOOMS.

Specification of Letters Patent No. 12,879, dated May 15, 1855.

To all whom it may concern:

Be it known that I, JEREMIAH C. TILTON, of Sanbornton Bridge, in the county of Belknap and State of New Hampshire, have invented a new and useful or Improved Loom-Temple; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of such drawings, Figure 1, denotes a top view of one of my improved temples, and its shoe or holder, Fig. 2, is a side elevation of the same, said two figures being also made to exhibit the manner in which the temple is applied to the selvage of a piece of cloth, while the said cloth is being woven by a loom. Fig. 3, is a front end view of the temple. Fig. 4, a rear end view of it. Fig. 5, a top view of the shoe or holder, and Fig. 6, a vertical and longitudinal section of the temple.

In these drawings A, denotes what I term a separated spring hook; it being formed of a thin plate of metal or steel, and with its front end bent downward in the form of a hook and serrated or provided with sharp teeth somewhat like a comb as seen at *a*, in Figs. 2, 3 and 6. Operating in connection with the said part A, is what may be termed the spring cloth bender B, it being a broad thin metallic or steel plate or spring. It is applied to the under side of the shank of the spring hook A, and when the loom is in operation the selvage of the cloth passes between the two parts A and B, as exhibited in Figs. 1 and 2, wherein C, represents the cloth. The cloth bender B, bends the cloth upward in rear of the teeth *a*, in the manner shown in Fig. 2, it serving to insure the seizure of the cloth by the teeth. The two parts A, and B, are confined together at their rear ends by means of a set screw D, which passes through slots (made through both the parts A, B, as seen at E) and has a nut E, screwed upon it as seen in Figs. 1, 4 and 6. By means of the said slots, screw and nut, the distance of the front end of the cloth bender B, from the points of the teeth can readily be adjusted as circumstances may require.

The shoe or holder for supporting the temple upon the breast beam of a loom is shown at G. It is provided with clasps or projections *b*, *b*, *b*, *b*, which are turned upward from it, and are bent, so as to extend over the upper surface of the part A, as seen in the drawings. That portion of the temple which is embraced and held by the clasps, is made with parallel edges, as shown at *c*, *d* and *e f*, in Fig. 1. From the points *c* and *e* toward the front end of the temple the parts A, B, are reduced in size, as shown at *d*, *g*, *h* and *e*, *k*, *i* so as to make it so narrow as that when it is moved backward so as to bring its front half directly between and within the clasps of the holder the temple or parts A, B, may be readily removed from them or lifted from the holder. Thus it will be seen that by such a mode of making the holder and forming the parts A, B, such parts may not only either be removed easily from the handle or applied thereto, but are free to be moved backward as occasion may require during the movements of the lay of the loom toward the breast beam. This also enables the parts A, B, to be used, in either of the two holders employed on opposite sides of the cloth, and fixed to the breast beam, an advantage which will be apparent to weavers. The forward movement of the parts A and B, is arrested by the nut of their screw bringing up against the shoe or holder.

The above described temple has been found to be very efficient in operation, the simplicity of its construction and the manner in which it is affixed to the cloth and the breast beam of a loom gives to it several important advantages over many if not all other kinds of loom temples heretofore used. The part A of the temple may sometimes be employed as a temple without having the bender B, applied to it. It is not however under such circumstances certain to seize the cloth, particularly when the latter is of a thick or hard texture. With the spring cloth bender the serrated spring hook A, is sure in its hold upon the cloth, the inclination of its hook causing it to rise out of and slip forward on the cloth as fast as the latter is moved backward during the weaving process.

I am aware that it has been customary to make a temple with two inflexible jaws, one of which is forced down upon the other by means of a spring, the jaws being simply indented or scored in order to enable them to hold the cloth. In such a temple owing to the inflexiblity of the jaws and the manner in which they were formed, it has be-

come necessary, when the loom is in operation to raise the upper from the lower jaw, by means of cam applied to the lay, or by means of a cam so applied and a lever hinged to the breast beam, the said cam or cam and lever being made to operate or strike against a projection from the upper jaw. A temple of this kind is soon liable to become deranged or get out of order, the same being occasioned by the constant blows which it receives from the cam on the lay—and in order to enable it to hold the cloth between its jaws, a very powerful spring has to be applied to it. I am also aware that a stationary spur plate having pins so inclined at an angle to the breast beam as not only to allow the cloth to be drawn over the tops of said pins as the lay beats up, but to prevent the cloth from receding, during the backward motion of the lay has been used as a temple, and that said stationary spur plate has had a stationary pin projected from it to bear the cloth down upon its spurs. In this latter temple, both pin spur plate and spurs were inflexible or immovable while being used and although they might be employed as a temple on very plain or smooth cloth, yet in many kinds of cloth, particularly, that presenting an uneven surface or one of variable thickness, they will not properly accommodate themselves to such as is the case with a serrated spring hook and a spring cloth bender as applied and made to operate together substantially as hereinbefore stated. I would also remark that such a hook and cloth bender by means of their flexibility and the particular position of the teeth of the former, dispense entirely with any contrivance applied to the lay for elevating the hook and consequently a temple so constructed not only works smoother than the jaw temple, but is not liable to derangement like it from blows of the lay.

I lay no claim to the spring jaw temple made and operated as above described; nor do I claim the stationary or inflexible spur plate temple made of a rigid bar provided with pins or points inclined at an angle to the direction in which the lay beats up—but,

I claim—

The combination of the serrated spring hook and the spring cloth bender as applied and made to operate together substantially in manner as specified.

In testimony whereof I have hereunto set my signature this eighteenth day of January, A. D. 1855.

JEREMIAH C. TILTON.

Witnesses:

CUTTING FOLLANSBY,

BENJAMIN M. COLLEY.