

(No Model.)

J. SLADDIN.

DEVICE FOR SUPPORTING LOOM HARNESSES.

No. 268,136.

Patented Nov. 28, 1882.

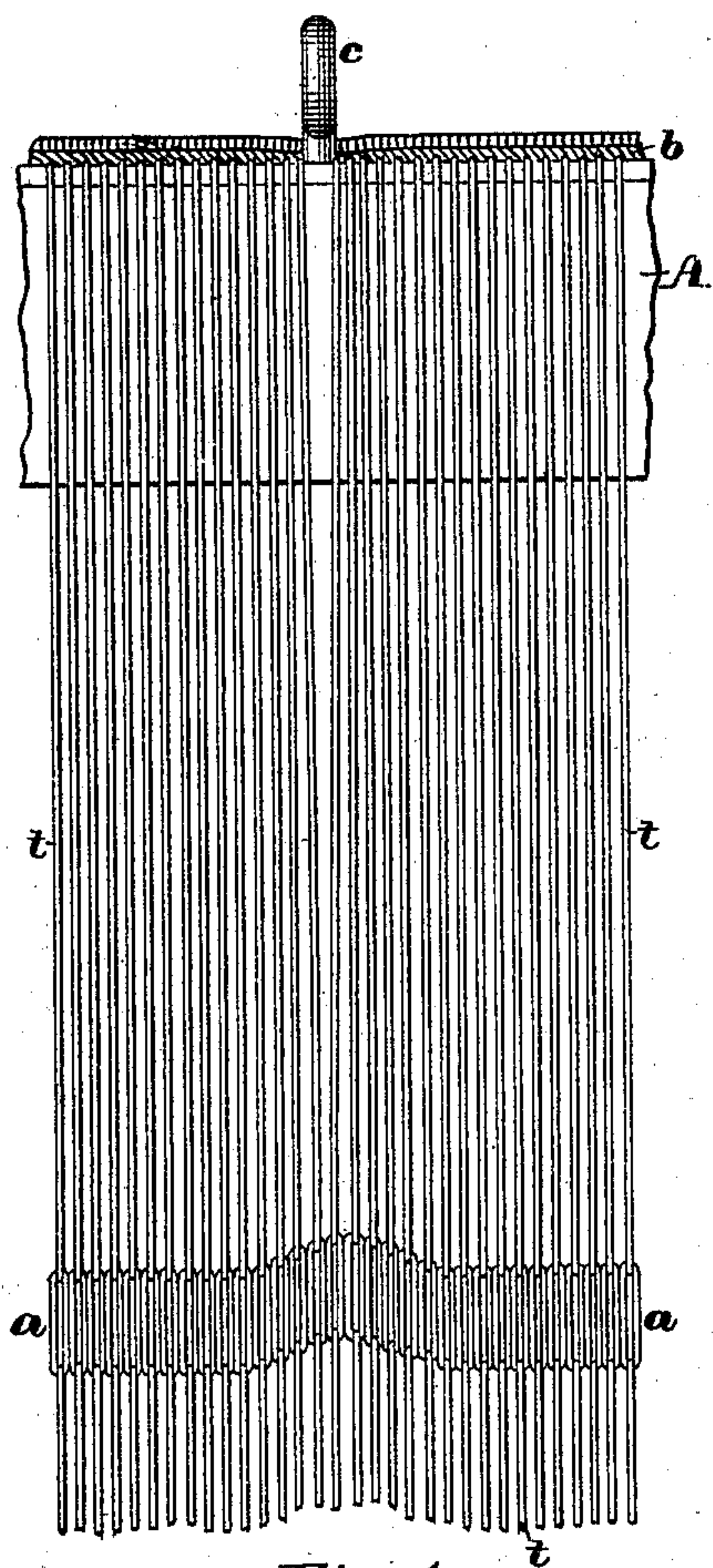


Fig. 1.

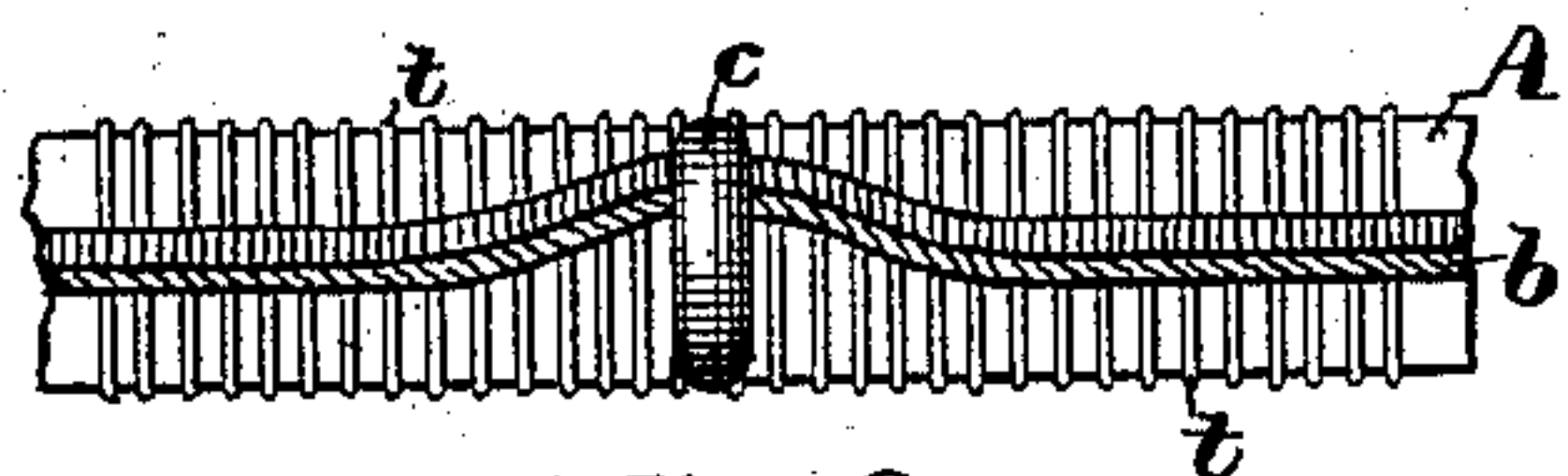


Fig. 2.

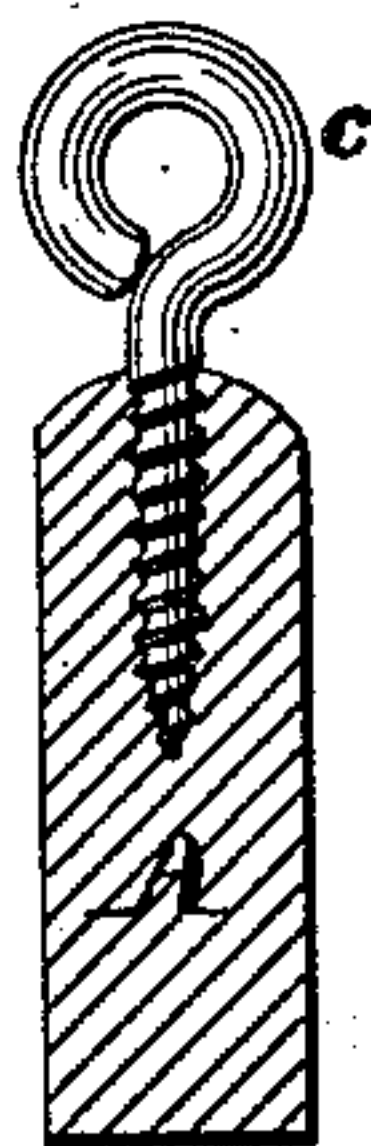


Fig. 3.

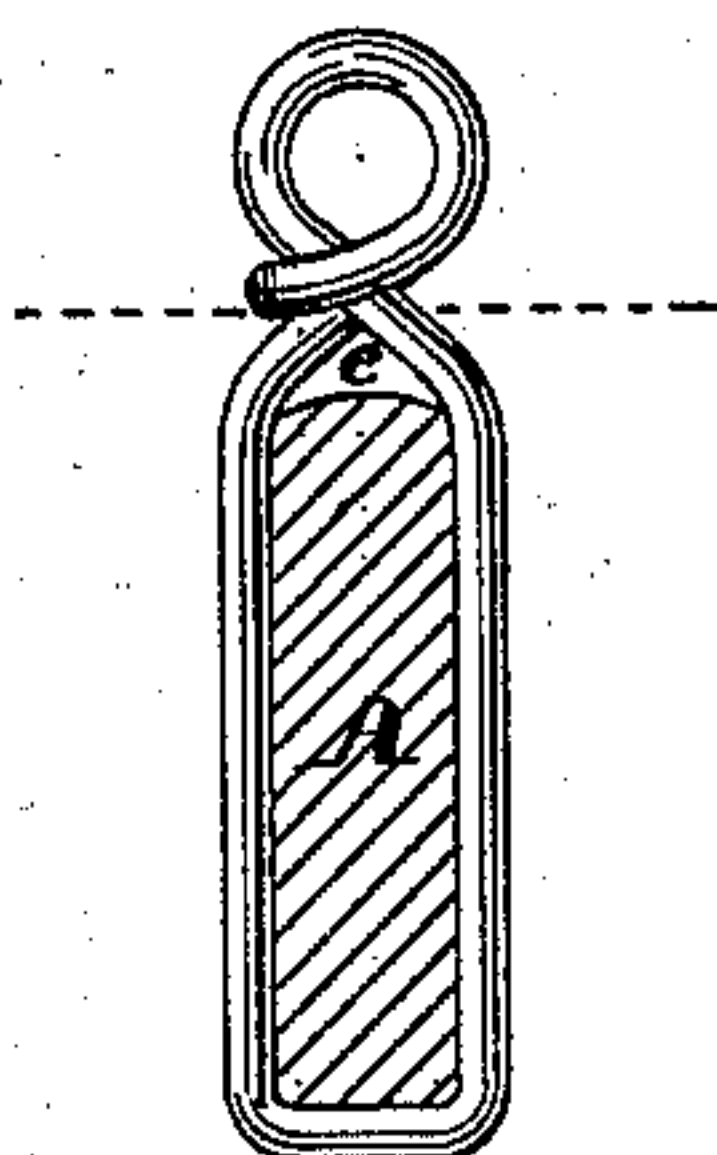


Fig. 6.



Fig. 7.

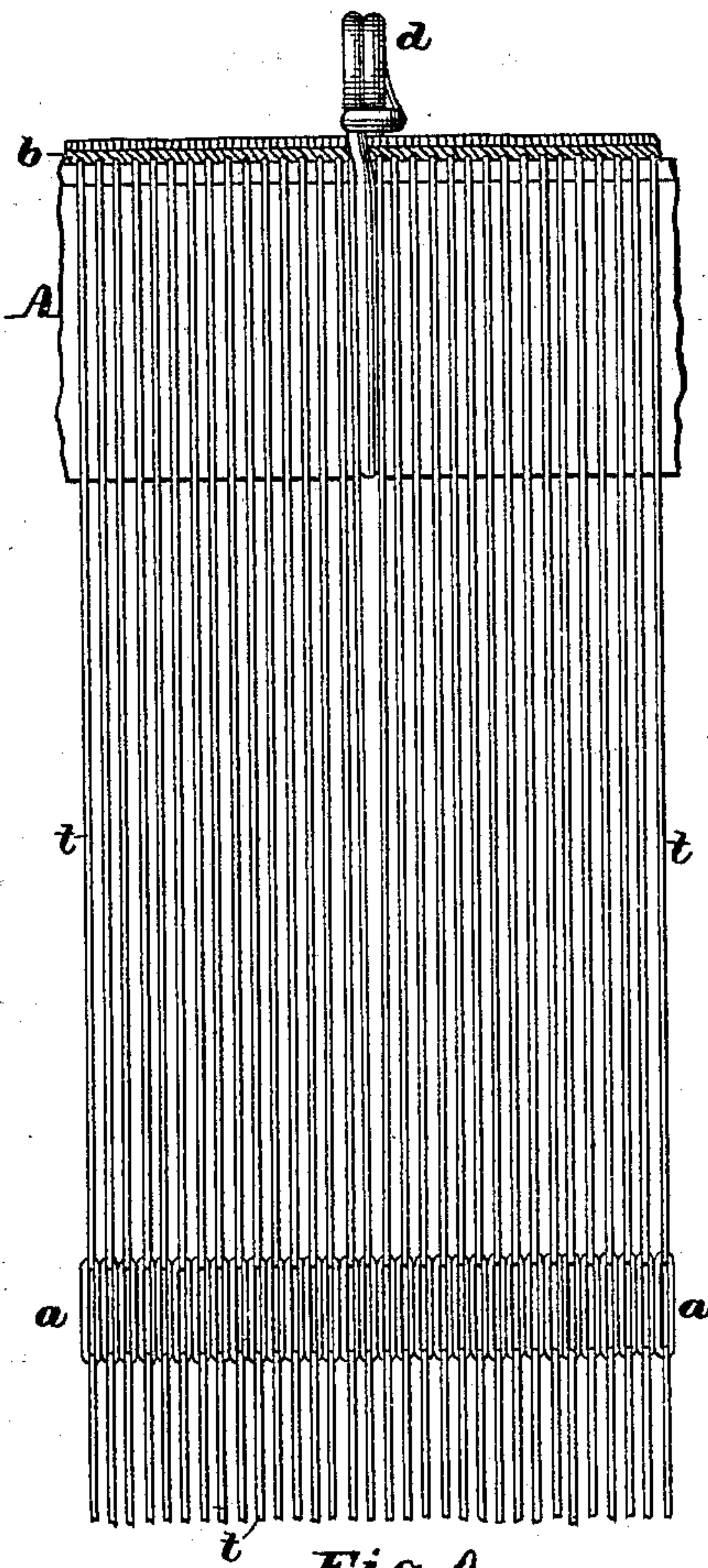


Fig. 4.

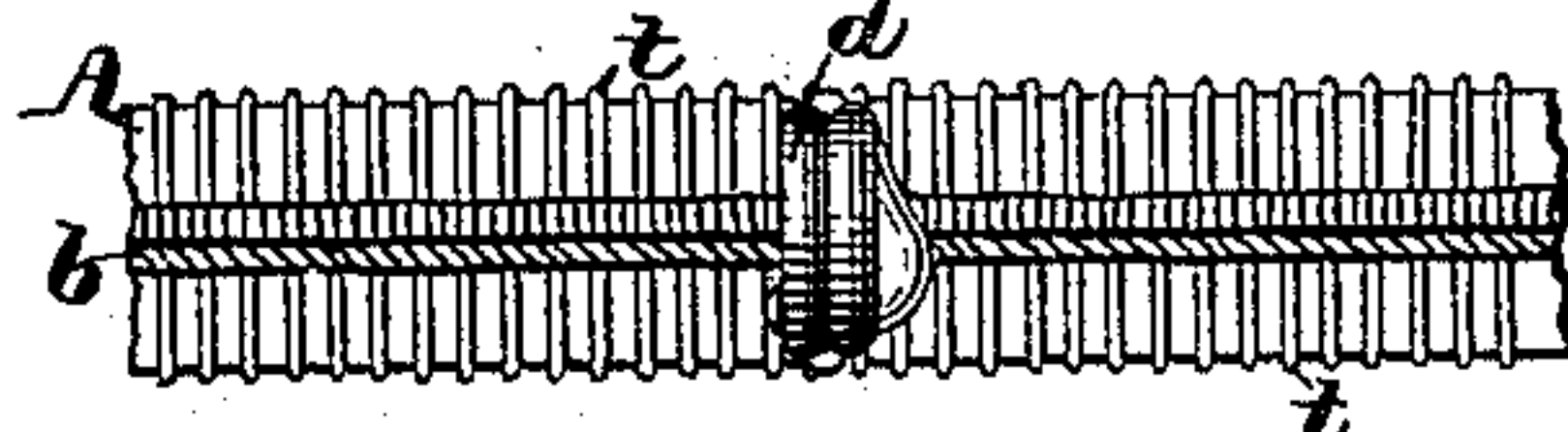


Fig. 5.



Fig. 8.



Fig. 9.

Witnesses:

C. W. Huntington

Walter E. Lombard.

Inventor:

Joseph Sladdin

by N. W. Swan
his atty

UNITED STATES PATENT OFFICE.

JOSEPH SLADDIN, OF LAWRENCE, MASSACHUSETTS.

DEVICE FOR SUPPORTING LOOM-HARNESS.

SPECIFICATION forming part of Letters Patent No. 268,136, dated November 28, 1882.

Application filed May 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SLADDIN, of Lawrence, Massachusetts, have invented a new and useful Device for Supporting Loom-Harnesses, of which the following is a specification, when taken in connection with the accompanying drawings, of which—

Figures 1, 2, and 3 are partial views of sufficient of a harness to exhibit the manner in which harnesses have been supported hitherto, while Figs. 4, 5, and 6 represent so much of a harness as will exhibit the application thereto of my present improvement; and Figs. 7, 8, and 9 represent details of the construction of my device.

Fig. 1 shows a condition which the heddle-eyes (marked *a a*) of a loom-harness are caused to assume in relation to each other by the device usually employed for connecting the harnesses with the cords by which they are suspended and moved. *A* represents the upper one of the two harness-shafts, around which the twines *t* pass. Along the top of this shaft is seen, at *b*, the backing-cord, to which the twines are tied or knotted. At *c*, screwed into the top of the harness-shaft, midway between its two sides, is shown the hook or loop to which the heddle-cord is fastened. The lower shaft (not shown) is provided with a similar device on its lower edge, and a backing-cord runs along the lower edge of the lower shaft in the same way as a backing-cord runs along the upper edge of the upper shaft. It will be observed that these hooks or loops come into the line which the backing-cord takes, except at the point where the hook is inserted. At this point the backing-cord is deflected from a straight line and passes around the hook, as shown at Fig. 2. The effect of this deflection is to pull the heddle-eyes in the twines attached to the backing-cords at that point out of their proper relation to the other eyes and to the harness-shafts, as shown at Fig. 1. This deflection of the backing-cords from a right line, and consequent displacement of the heddle-eyes from their correct position, is an evil, to remedy which several contrivances have already been devised. For instance, the heddle-shafts have been notched for the reception of the twines, whose eyes would otherwise be deflected from their

true position; and, again, the shank of the old form of hook or loop (shown at Figs. 1, 2, and 3) has been made with an offset or recess to receive the backing-cord. But I remedy this evil by providing a device to which the heddle or supporting and moving cords are attached, which, when applied to the harness-shaft, forms an arch or loop across the surface of the shaft, through which the backing-cord passes in a straight line along the middle of the edge of the shaft and directly under or above the heddle-cords, accordingly as the device is applied to an upper or a lower harness-shaft. Thus the supporting or moving cords and the backing-cords are both kept in the vertical plane which passes through the middle of the harness-shafts, and the heddle-eyes are all free to take their proper position between the shafts. The essential feature of this contrivance is, that it leaves a free passage for the backing-cord at the middle of the outer edge or side of the harness-shaft, and at the same time supports the harness in the vertical plane of the backing-cords. The device which I have made and applied to secure these conditions is shown in detail at Figs. 7, 8, and 9, and it is shown as applied to the harness at Figs. 4, 5, and 6. In these figures, as far as applicable, the same letters are used which are used in Figs. 1, 2, and 3 to designate like parts. The said new device is marked *d*. The device is made of a wire bent into a loop at the outer end to receive the supporting or moving cord, and into another loop or clasp at the inner end to go around the harness-shaft, leaving a space between the outer edge or surface of the shaft and the clasp, as seen at *e* in Fig. 6, through which the backing-cord may pass without obstruction, as seen at Figs. 4 and 5. Grooves should be formed in the sides of the harness-shafts to receive the wire, so that it shall not interfere with the placing of the leaves of heddles side by side and shall offer no obstruction to their upward and downward movements. The wire is sprung into these grooves after the shafts have been placed in the twines, and one end is turned at the neck at right angles with the rest, so as to form a lock, to prevent the device from springing away from the sides of the shaft. This device allows the backing-

cord to run in a straight line along the harness-shaft, as seen at Fig. 5, and brings all the heddle-eyes into the same line, as seen at Fig. 4.

The improved device shown in the drawings
5 is represented with a double eye for receiving the supporting-cord; but upon an inspection of Figs. 8 and 9 it is obvious that the left-hand upper loop there shown is unnecessary, it only being requisite that the free end of the wire of
10 the lower loop shall extend far enough beyond the neck of the device to be caught under the other end of the wire, turned as above described.

The essential part of the device consists of
15 a wire bent into two loops to resemble the figure 8, with the ends of the wire meeting and locking at the neck of the figure, and with one loop enlarged and distorted, so that when applied to the heddle-shaft it will closely embrace
20 said shaft upon three sides and leave a space

for the backing-cord, while the other loop forms the ordinary eye for the reception of the supporting-cord.

I claim—

1. The harness-supporting device herein described, consisting of a wire bent into two loops, one forming an eye to receive the supporting-cord, and the other a clasp to surround the heddle-shaft and leave a space for the backing-cord, substantially as described. 25

2. In combination with the shaft of a leaf of heddles, a wire bent into two loops, one forming an eye for the supporting-cord and the other embracing said shaft while leaving a space for the backing-cord, substantially as described. 30

JOSEPH SLADDIN.

Witnesses:

C. W. HUNTINGTON,
W. W. SWAN.