

(No Model)

S. SNOW.
LASTING MACHINE.

No. 583,404.

Patented May 25, 1897.

FIG. 1.

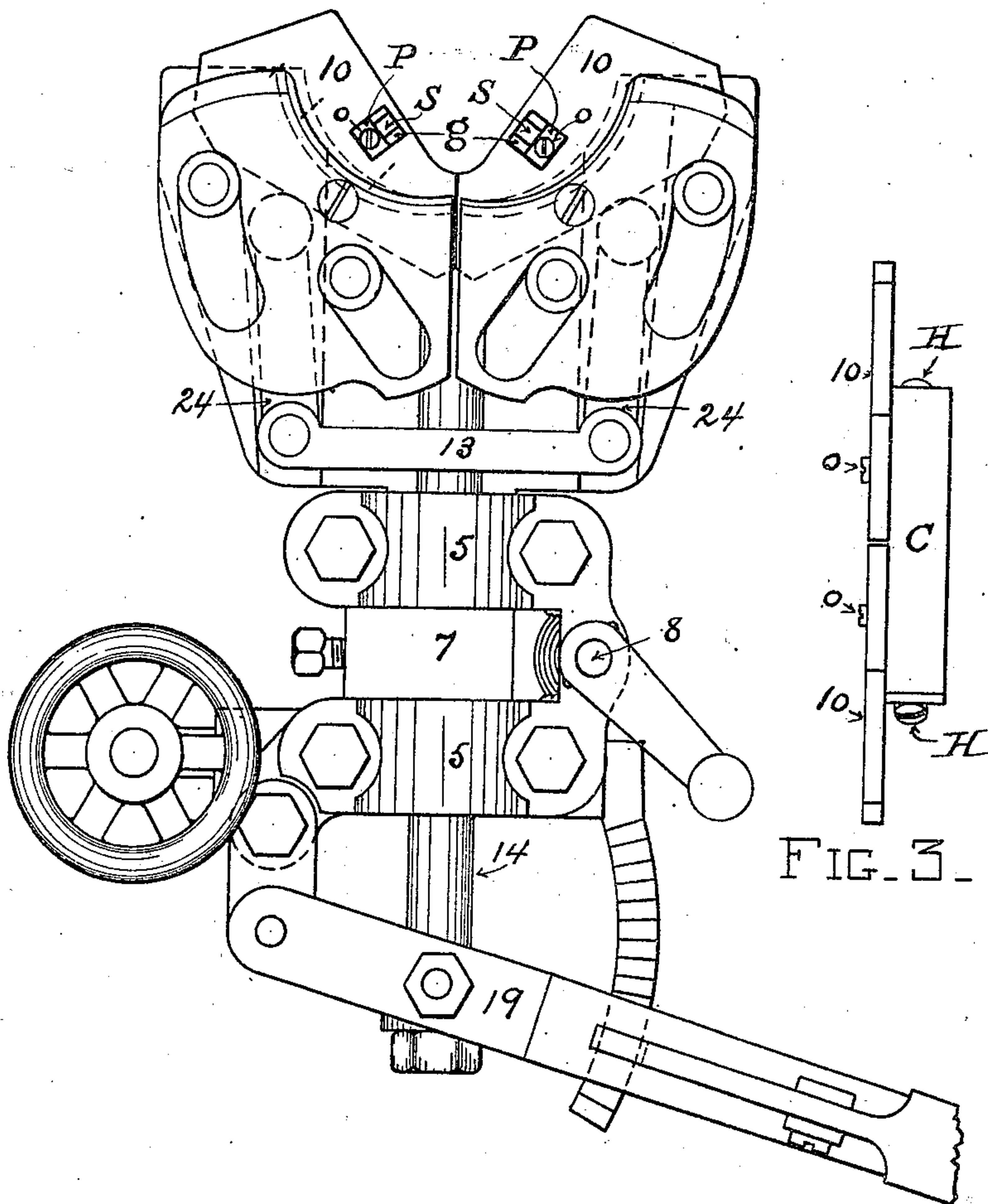
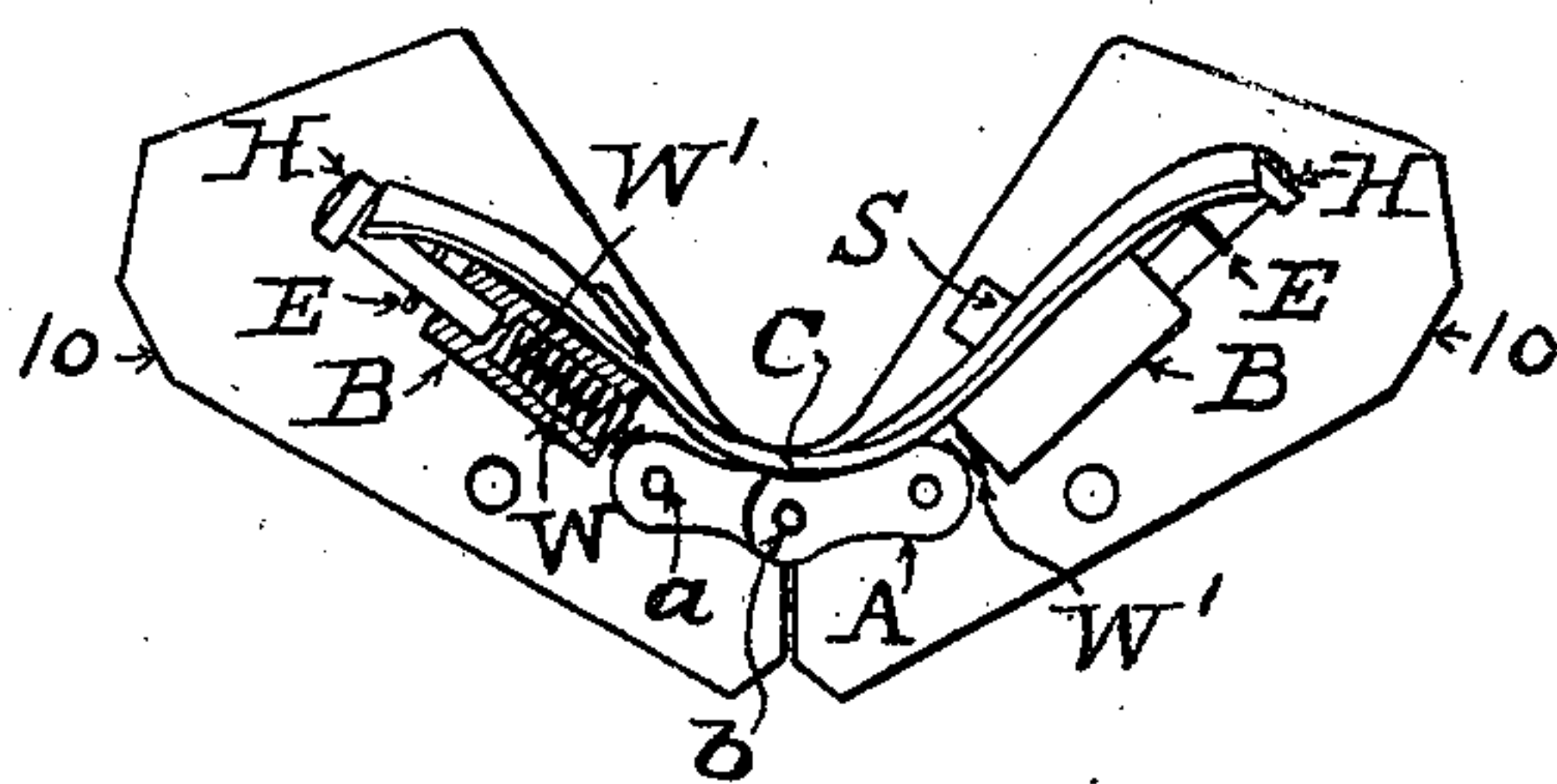


FIG. 3.

FIG. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

STEPHEN SNOW, OF EVERETT, MASSACHUSETTS.

LASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 583,404, dated May 25, 1897.

Application filed May 27, 1896. Serial No. 593,220. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN SNOW, a citizen of the United States, and a resident of Everett, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Lasting-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to lasting-machines in which lasting plates or wipers are employed for wiping the upper over the last at the toe and heel, and more particularly to an improved last band or clamp for use in such a machine.

The object of my invention is to simplify the construction of a lasting-machine of the type mentioned, and to improve its operation by so arranging the last band or clamp that it will be carried by the lasting plates or wipers, and thus be quicker and more accurate in operation than those heretofore used.

A further object is the production of a last band or clamp which shall be readily adjustable to various sizes and shapes of lasts.

To this end my invention consists of a last band or clamp carried by and movable with the lasting-plates; also of a last band or clamp composed of sections elastically connected together in order that it may adjust itself to the end of the last; and it further consists of the details of construction which are hereinafter particularly pointed out and claimed.

My invention is fully described in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a plan of the lasting-head of a lasting-machine with the last band or clamp attached. Fig. 2 is a reverse plan view, partly in section, of the lasting plates or wipers, showing the relative location of the last band or clamp to the edges of the lasting plates or wipers; and Fig. 3 is a front edge view.

For the purpose of illustrating my invention I have shown it as applied to a lasting-machine similar in construction to that shown and described in United States patent to Grandy, dated January 7, 1896, No. 552,834; but it is obvious that my invention relates generally to all that class or type of lasting-machines wherein lasting plates or wipers are

employed. I have selected the toe-lasting devices of this machine for the purpose of illustrating my invention; but I desire to state that it is equally applicable to the heel-lasting devices.

In the drawings the bearing 5, the worm-gear 7, the worm 8, the lasting-plates 10, the stem 14, the cross-bar 13, links 24, and hand-lever 19 are or may be the same as parts designated by similar reference-numerals in the machine of the patent above referred to, the lasting-plates being slightly altered to adapt them to carry the last band or clamp.

My last band or clamp is shown as composed of three sections, but it is obvious that any desired number of sections could be substituted therefor. These sections may be formed of the block B and the intermediate chain-links A, and I have found such a construction to be very satisfactory in use. The blocks B may conveniently be square in cross-section and are each connected to the intermediate section A by some suitable flexible and preferably extensible articulation or connection, so constructed that the sections may have a free relative swinging movement and a limited relative extensible movement. The connection shown has been found to be well adapted for the purpose, and consists of short coiled springs W', which are secured at one of their ends in recesses W in the blocks B, and at their other ends are pivotally connected to the intermediate section A by the pins a. The section A is preferably formed of the chain-links, which are pivotally connected to each other by the pin b. Instead of forming the intermediate section of the links I may substitute therefor a coiled spring of sufficient length to space the distance between the blocks B, the ends being fitted therein, as in the case of the springs W'. The blocks B are each provided with a guide-support for the facing-pad, which may conveniently be formed of the headed guide-rods H, which may be integral extensions of the blocks B or be formed separately and secured in recesses in the ends thereof, as shown.

The facing-pad C, of leather, rubber, or any other suitable material, is attached to the last band or clamp and secured by any suitable means, the ends being held thereto by the

clasps E, which loosely encircle the guide-rods H in such a manner as to have a limited longitudinal movement thereon.

The lasting plates or wipers 10 are each provided with a slot S, and adjacent to said slot on their upper sides with the rabbeted guides g, which are adapted to support and guide the plates P. These plates P have bearings, in which are loosely sustained the headed screws o, to which the blocks B are attached, the construction being such that the blocks B may have a free pivotal movement and also a limited sliding movement toward and from the working edges of the lasting plates, and thus the band or clamp, of which the blocks form a part, may readily adjust itself to the toe of the shoe being lasted.

The operation is as follows: In lasting the toe of the shoe the lasting-plates 10 are forced forward over the toe of the last, causing the central edge portion of the plates to come into contact with the upper and wipe and turn the edge thereof over upon the last. Simultaneous with the forward movement of the lasting-plates the last band or clamp carried thereby is moved forward, and the section A of the last band or clamp comes in contact with the upper and last at the extreme toe portion of the last, and upon the continual forward and closing movement of the wipers, the section A being restrained from further movement by contact with the upper and last, the extensible articulations will permit a further movement of the blocks B and at the same time cause the blocks to turn on their supports and to be brought in close contact with the upper at the sides of the toe portion of the last, the facing-pad C at the same time moving on the guides H, and thus clamping or binding the upper to the last all around the toe, causing it to be smoothed out and fitted to the last and-tightly holding it during the lasting operation.

Having fully described my invention, what I claim as new is—

1. The combination of the lasting plates or wipers with a last band or clamp carried thereby in position to clamp the upper against the end of the last, substantially as described.

2. In a lasting-machine, the lasting plates or wipers in combination with an adjustable last band or clamp carried thereby in position to clamp the upper against the end of the last, substantially as described.

3. In a lasting-machine the combination of

the lasting plates or wipers, of a last band or clamp carried thereby in position to clamp the upper against the end of the last, and means for permitting a limited movement of the last band or clamp relative to the plates or wipers, substantially as described.

4. In a lasting-machine, the lasting plates or wipers in combination with a sectional adjustable last band or clamp carried thereby in position to clamp the upper against the end of the last, substantially as described.

5. In a lasting-machine a sectional last band or clamp comprising swiveling end sections, and a flexible intermediate section, substantially as described.

6. In a lasting-machine, a sectional last band or clamp and the flexible and extensible articulation joining the sections substantially as described.

7. A last band or clamp comprising pivoted blocks, and an elastic and flexible connection between them, substantially as described.

8. A last band or clamp comprising pivoted and freely-movable sections, and an elastic connection between them, substantially as described.

9. A last band or clamp comprising the clamp proper and a facing-pad carried thereby, and having a limited movement on and along the ends thereof, substantially as described.

10. A last band or clamp comprising the pivoted sections, guide-bars thereon, and a facing-pad supported by and movable on said guide-bars, substantially as described.

11. A last band or clamp comprising the swiveling blocks, a flexible connection between the same, and a facing-pad secured to the blocks, substantially as described.

12. A last band or clamp comprising articulated sections and a pad-facing movably attached to and sliding on the same, substantially as described.

13. A last band or clamp comprising recessed end sections and an extensible intermediate section having its ends secured in the recesses in said end sections, substantially as described.

In testimony whereof I have hereunto set my hand, in the presence of two attesting witnesses, this 23d day of May, 1896.

STEPHEN SNOW.

Witnesses:

HARTLEY F. ATWOOD,
BENJAMIN PHILLIPS.