(No Model.)

C. B. BRAINARD.

FRAME FOR SUPPORTING AND STRETCHING WOVEN WIRE MATTRESSES.

No. 250,640 Patented Dec. 13, 1881.

Fig. 1.

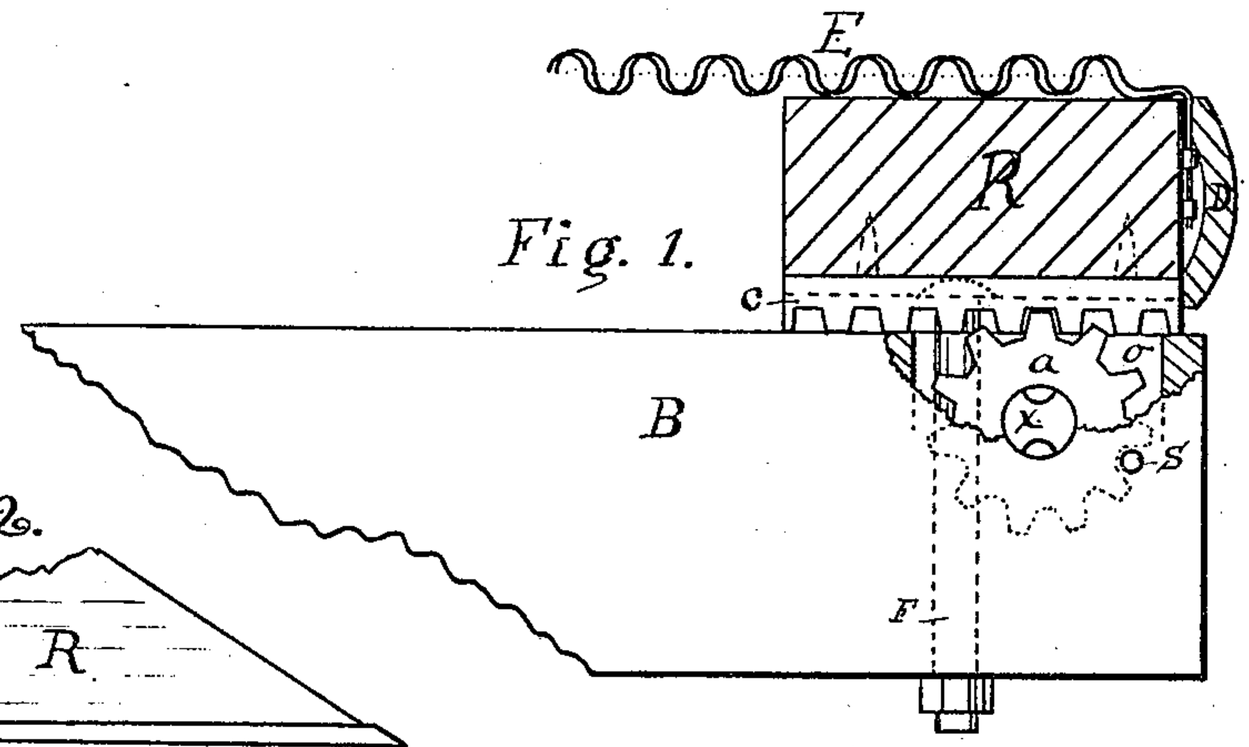


Fig. 2.

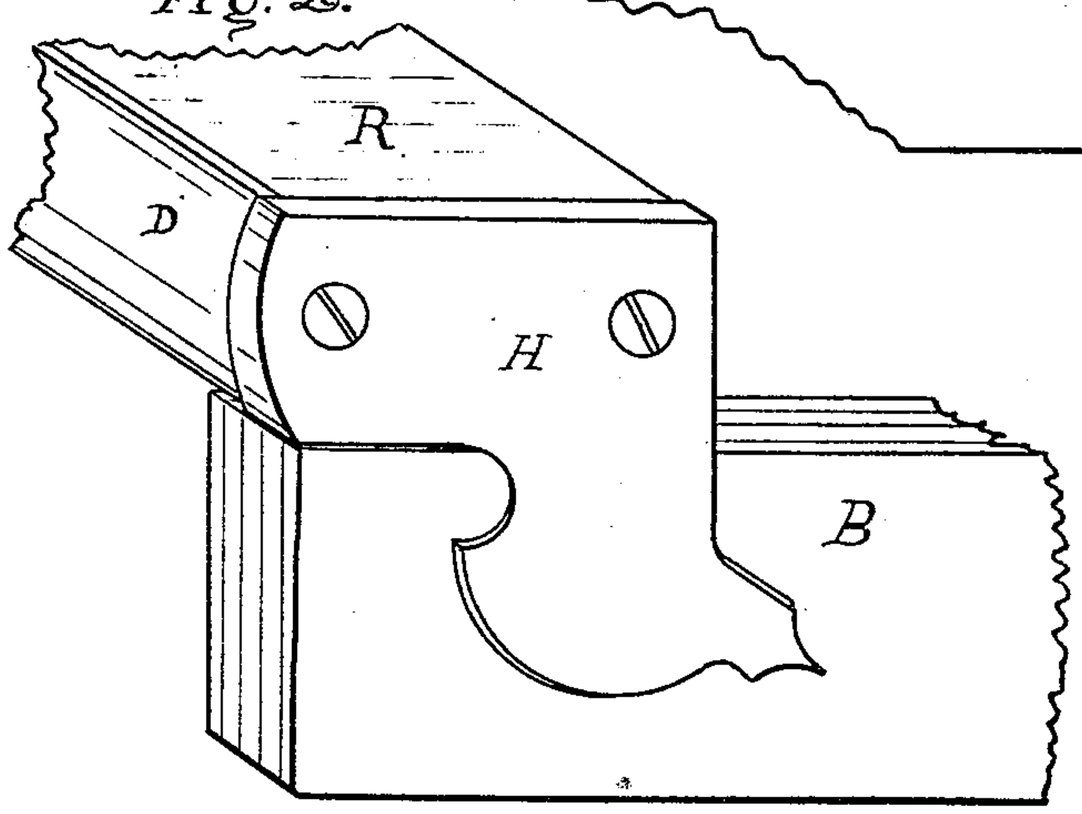


Fig. 3.

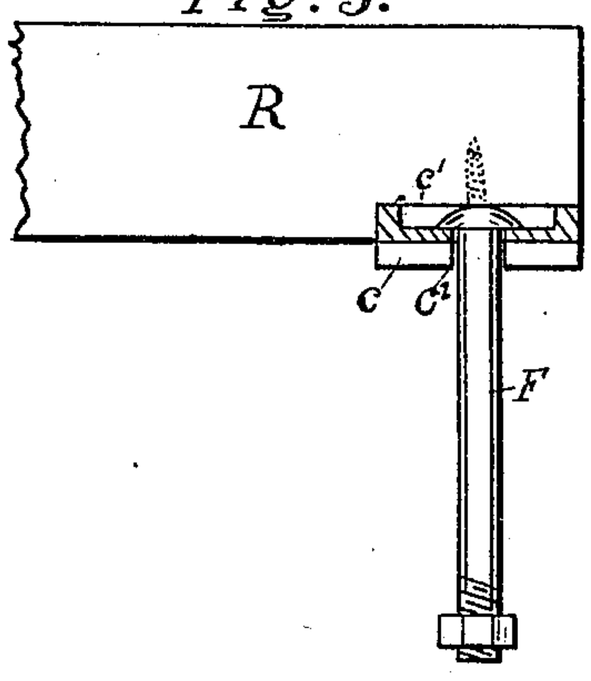


Fig. 4.

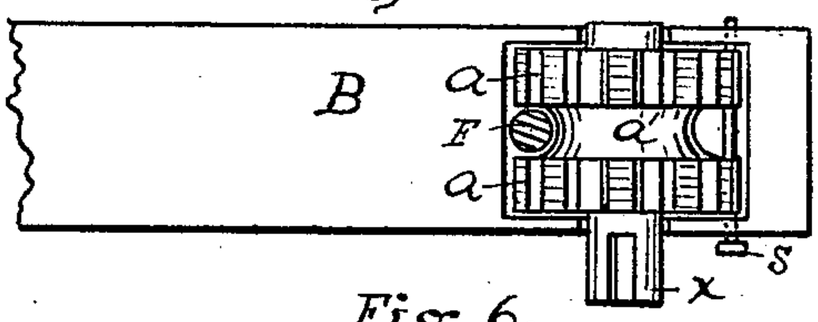


Fig. 5.

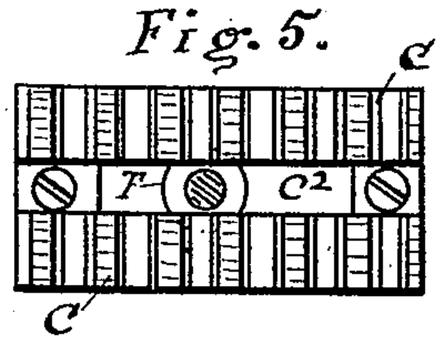
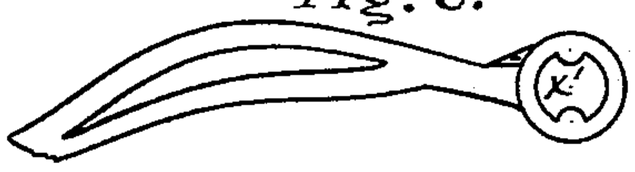


Fig. 6.



Witnesses

Thos H Hutchins

Wm J Hutchins

Inventor

Curtis B. Brainard

UNITED STATES PATENT OFFICE.

CURTIS B. BRAINARD, OF JOLIET, ILLINOIS.

FRAME FOR SUPPORTING AND STRETCHING WOVEN-WIRE MATTRESSES.

SPECIFICATION forming part of Letters Patent No. 250,640, dated December 13, 1881.

Application filed November 2, 1881. (No model.)

To all whom it may concern:

Be it known that I, CURTIS B. BRAINARD, of the city of Joliet, in Will county, and State of Illinois, have invented certain Improvements in Frames for Supporting and Stretching Woven-Wire Mattresses, the construction and operation of which I will proceed to explain, reference being had to the annexed drawings and the letters and figures thereon, making a part of this specification, in which—

Figure 1 is a central longitudinal sectional view; Fig. 2, a perspective view of a corner of the frame; Fig. 3, a front elevation of the cross-bar to which the woven-wire fabric is attached; Fig. 4, a plan view on the top of one end of the side bar, B; Fig. 5, a plan view on the bottom of the toothed rack C, and Fig. 6 a side view of a wrench used to turn the pinion *a*.

The nature and object of this invention consists, principally, in the mechanism for stretching the woven-wire fabric E, which is used for a bed, by an easy and simple process, whereby said mechanism is not liable to get out of repair and is permanent, all as hereinafter set forth and claimed.

In the drawings, B represents one of the side rails of the frame, having a recess mortised in the top at one end for the reception of the pinion *a*, (shown particularly in Figs. 1 and 4,) which pinion *a* is provided with the shaft X, having its inner end under the woven bed run out far enough to receive the wrench X′, Fig. 6, by which the pinion is rotated. The side bars, B, are provided at either end with the ordinary cross-bars, R, to which the woven-wire fabric is attached in the usual mode, as shown in Fig. 1. The under side of the cross-bar R, at one end of the bed, is provided with the toothed rack C between it and the side bar, B, which rack C runs parallel with the side bar, B, as shown in Fig. 1, and supports the cross-bar R at each outer end. This rack C is constructed, as shown in Fig. 5, with a double row of cogs, to correspond with the double row of cogs of the pinion *a*, and is provided with a central longitudinal slot, C^2, for the upper end of the bolt F to slide in as the cross-bar R moves in or out. The rack C is attached to the cross-bar R above it by means of a screw at each end, as is shown in Figs. 1, 3, 5. The upper surface of the rack C is provided with a recess running the length of the slot C^2, as is shown in its cross-section in Fig. 3, so as to provide room for the head of the bolt F to permit it to move along either way in the slot C^2, as stated. The means of attaching the cross-bar R to the side bar, B, is by this bolt F, as is shown in Fig. 1, the bolt F passing down through the slot C^2 of the rack C and a hole in the side bar, B, and provided with a nut at the bottom to hold the parts firmly together. The pinion *a* is provided with the annular groove *a′*, so that the bolt F is inclosed by it, as is shown in Fig. 4, for the purpose of steadying the pinion and preventing lateral motion; also, to form a bearing against which the pinion may impinge and save wear on the journals and boxes of the shaft of said pinion, and also to hold the rack C down as nearly over the center of the pinion as possible for strength.

Fig. 2 shows the cap H on the outer end of the cross-bar R, for the purpose of covering the working parts and by its lower extension to assist in retaining the square shape of the bed.

When it is desired to stretch the woven-wire fabric, the wrench X′ is placed on the shaft X, and by it the pinion *a* is caused to rotate and carry the rack toward the end of the bed. When it is stretched sufficiently the pin S, Figs. 1 and 4, is passed through a hole in the side bar, B, between the cogs of the pinion, so the pinion cannot turn backward, thus holding it at any place desired, and forming a cheap and durable device for stretching such or any other kind of mattress that requires stretching.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. In a frame for supporting and stretching mattresses, the combination and arrangement of the pinion *a*, having the annular groove *a′*, rack C, having the slot C^2, and recess C′, bolt F, pin S, cross-bar R, and cross-bar B, all arranged to operate in the manner and for the purpose set forth.

2. In a frame for supporting and stretching mattresses, the combination and arrangement of the bolt F and slotted rack C, for the purpose of uniting the bars B and R, in the manner and for the purpose set forth.

3. In a frame for supporting and stretching mattresses, the combination and arrangement

of the bolt F and the annular groove *a'* of the pinion *a*, for the purpose set forth.

4. In a frame for supporting and stretching mattresses, the pin S, in combination with the pinion *a* and bar B, for the purpose set forth.

5. In a frame for supporting and stretching mattresses, the combination and arrangement of the annular grooved pinion *a*, rack C, bolt F, and pin S, for the purpose set forth.

6. In a frame for supporting and stretching mattresses, the combination and arrangement of the annular grooved pinion *a* and bolt F within the chamber on the end of the side bar, B, for the purpose set forth.

CURTIS B. BRAINARD.

Witnesses:

WM. J. HUTCHINS,

THOS. H. HUTCHINS.