(No Model.)

C. A. TAFT.

FLAT SUPPORTING DEVICE FOR CARDING ENGINES.

No. 422,849. Patented Mar. 4, 1890.

Fig. 1.

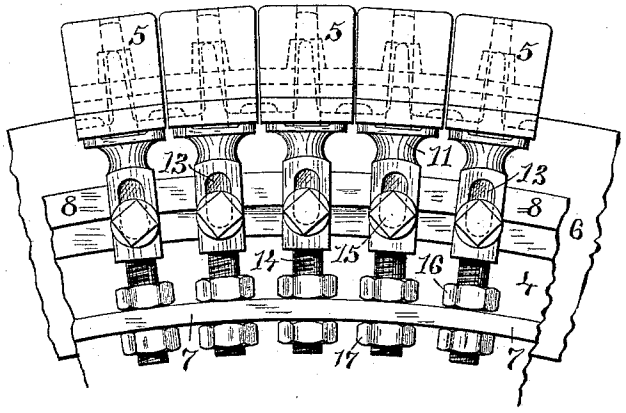
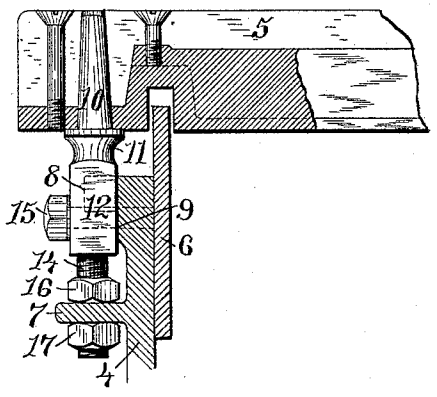


Fig. 2.



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UNITED STATES PATENT OFFICE.

CYRUS A. TAFT, OF WHITINSVILLE, MASSACHUSETTS, ASSIGNOR TO THE WHITIN MACHINE WORKS, OF SAME PLACE.

FLAT-SUPPORTING DEVICE FOR CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 422,849, dated March 4, 1890.

Application filed September 20, 1889. Serial No. 324,532. (No model.)

To all whom it may concern:

Be it known that I, CYRUS A. TAFT, of Whitinsville, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Flat-Supporting Devices for Carding-Engines; and I 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.

This invention has reference to improved devices for adjusting and supporting the top-flats of carding-engines; and it consists in the peculiar and novel construction of the side frames and vertically-adjustable supporting-pins, as will be more fully set forth hereinafter.

Figure 1 is a side view of part of one of the side frames of a carding-engine, showing the ends of the top-flats supported on adjustable supporting-pins. Fig. 2 is a sectional view of one of the end frames and a top-flat, showing, also, the adjustable support in elevation.

In the drawings, the number 4 indicates the upper part of one of the two side frames whereon the top-flats of a carding-engine are supported, and the main carding-cylinder revolves between the two side frames.

All the parts herein shown or described are on one end of the main carding-cylinder; but the same parts are also used on the opposite end of the carding-cylinder.

5 indicates the top-flats.

6 is a shield secured to the side frame 4, it entering a groove in each of the top-flats. The side frame 4 is provided with the projecting flanges 7 and 8 and the raised surface 9. These flanges form segments of a circle, of which the center of the main carding-cylinder is the center.

The adjustable support for each top-flat consists of the conical pin 10, which enters a conical hole in the top-flat and has at its lower end the shoulder 11. The central portion of the support is the square section 12, having the longitudinal slot 13, and the lower portion is formed into the screw-threaded rod 14. In the flange 7 holes are drilled, through which the screw-threaded rod 14 passes, and a seat is formed in the flange 8 to receive the square section 12. The screw 15 passes through the slot 13 and enters a tapped hole in the side frame 9, the head bearing against the outer face of the square section 12 and holding the support firmly in the seat formed in the flange 8 and against the face of the projection 9. The nut 16 bears against the upper surface of the flange 7 and the nut 17 against the lower surface of the flange.

The top-flats of a carding-engine must be adjusted with great nicety to the carding-cylinder, and when adjusted must be supported in the adjusted position. With the improved construction herein shown and described the adjustment can be made with the greatest nicety and accuracy and the support firmly secured against any possible derangement. By slightly loosening the screw 15 and adjusting the nuts 16 and 17 the supporting-pin can be raised or lowered very slightly and firmly secured in the desired vertical position by screwing the nuts tightly against the flange 7 and then tightening the screw 15. As the seat formed in the flange 8 presents square shoulders, between which the square section 12 fits with a sliding fit, the supporting-pin is firmly secured and holds the top-flat against the strain of the carding-cylinder, and as these adjustable supporting-pins are placed on both sides they form a firm support for both ends of the top-flats. The necessary adjustment can be made at any time, or from time to time while the carding-engine is in operation.

I am aware that the top-flats of carding-engines have been secured on pins or daggers secured in and projecting radially from the side frames. I am also aware that top-flats of carding-engines have been secured on such pins or daggers and have been supported on screws tapped in the side frames, so that the top-flats could be adjusted at each side with reference to the cylinder; and I am also aware that it is common in carding-engines to provide the frames on the opposite sides of the arches each with a flange concentric with the main cylinder, having radial holes in which the screw-threaded shanks of supporting-rods are secured by nuts turning on said shanks above and below said flanges for supporting the card-covered rolls which take the place of the ordinary top-flats, whereby by the turn-

ing the said nuts the distance of the bearing from said flanges and the distance of the rolls from said cylinder may be varied.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the side frame of a carding-engine provided with the flanges 7 and 8 and the top-flats, of supporting-pins secured adjustably to the flange 7 and held in seats formed in the flange 8, as described.

2. The combination, with side frame 4, provided with the flanges 7 and 8, and the top-flat 5, of the adjustable support for the top-flat, consisting of the pin 10, the shoulder 11, the slotted square section 12, the screw-threaded rod 14, the nuts 16 and 17, and the screw 15, as described.

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Witnesses:
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