

(No Model.)

O. G. SHANE.  
PLAITING MACHINE.

No. 262,135.

Patented Aug. 1, 1882.

Fig 1.

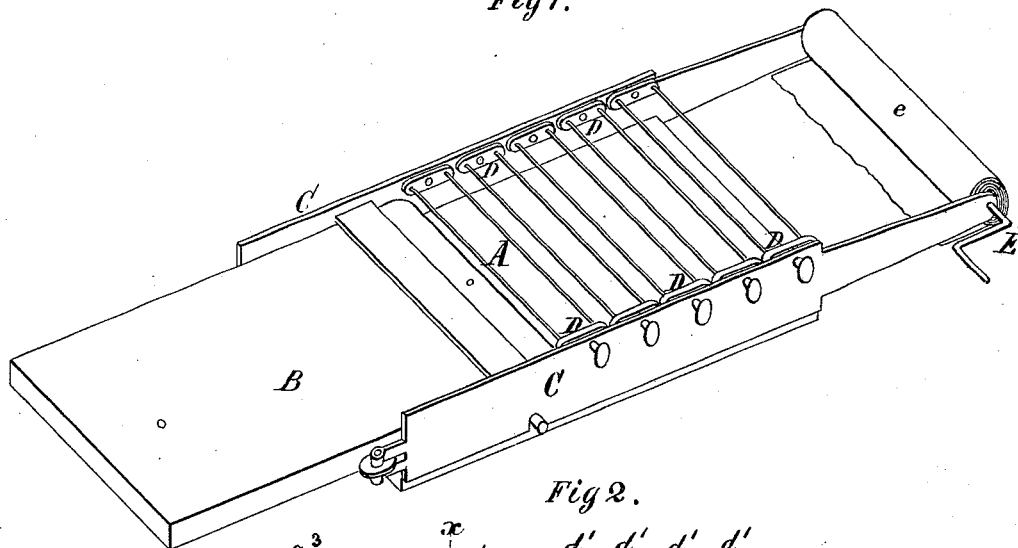


Fig 2.

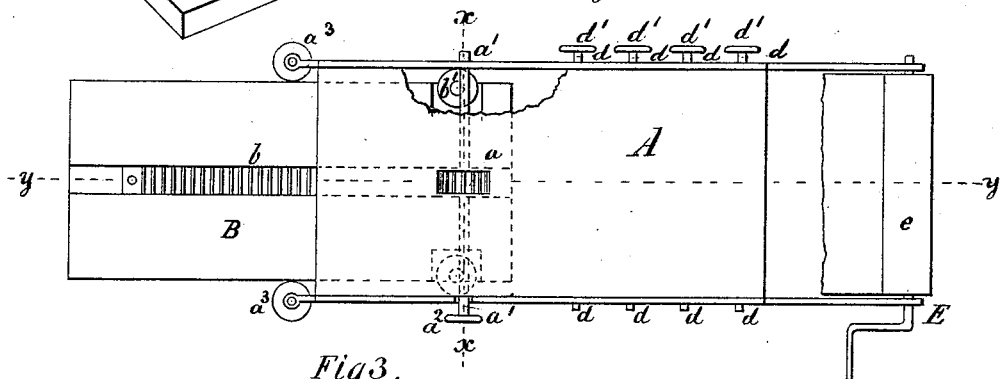


Fig 3.

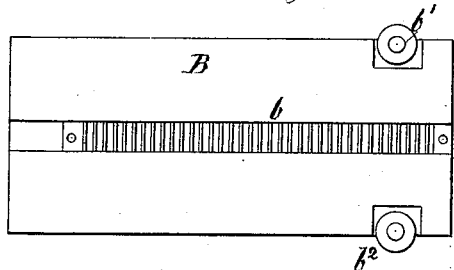


Fig 4.

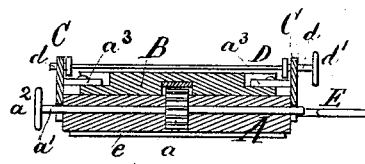


Fig 5.

Fig 7.

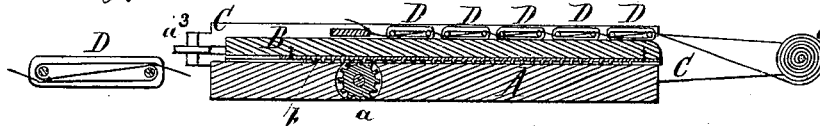
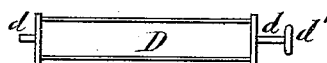


Fig 6.



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# UNITED STATES PATENT OFFICE.

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## PLAITING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 262,135, dated August 1, 1882.

Application filed May 4, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR G. SHANE, a citizen of the United States of America, residing at Blanco, in Blanco county, State of Texas, have invented a new and useful Plaiting-Machine, of which the following is a specification.

My invention relates to machines for forming and ironing plaits, and the object of my invention is to make the plaits with less labor and in less time than could be done by the plaiting-machines heretofore known or used. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

15 Figure 1 is a perspective view of my plaiting-machine as it appears before it is put into operation. Fig. 2 is a bottom view of the same. Fig. 3 is a bottom view of the ironing-board of my machine. Fig. 4 is a transverse 20 vertical section in the line  $xx$  of Fig. 2. Fig. 5 is a vertical longitudinal section of my machine having the plaits formed upon it and being ready for the ironing. Fig. 6 is a detail view of one of the plaiting-frames used in my 25 machine, and Fig. 7 is an enlarged cross-section of one of the plaiting-frames having a plait wrapped upon it.

Similar letters refer to similar parts throughout the several views.

30 A represents a bottom board, upon which the ironing-board B slides, and to the sides of which two boards or flat metal strips, C, are fastened. These strips C extend upward above the board A, and thus serve as lateral guides 35 for the ironing-board B and as supports for a number of plaiting skeleton frames D. They also extend longitudinally beyond the board A, and thus serve as supports for a windlass, E, upon which the plaiting material  $e$  is wound. 40 The plaiting-frames D are open oblong skeleton structures hung in the side strips, C, by means of journals  $d$ , one of which is provided with a thumb-wheel,  $d'$ , in order to enable the operator to turn the frame.

45 The bottom of the ironing-board B is provided with a rack,  $b$ , which gears into a pinion,  $a$ , suitably hung in the board A. The pinion  $a$  is mounted upon a shaft,  $a'$ , which extends beyond the board A, and is provided 50 outside of said board with a hand-wheel,  $a^2$ ,

whereby it may be turned in order to move the ironing-board.

The ironing-board moves between two lateral guide rollers,  $a^3 a^3$ , suitably hung to the side pieces, C, and bearing against the sides 55 of the ironing-board, and it is also provided at its forward end with two similar lateral guide-rollers,  $b' b^2$ , bearing against the side pieces, C.

Operation: The plaiting material  $e$  is wound upon the windlass E. The ironing-board is, 60 by means of the wheel  $a^2$ , moved back and out of range of the plaiting-frames D. The plaiting-frames are turned in an upright position, and the plaiting material is drawn through all of them. The plaiting-frame next to the iron- 65 ing-board is now turned back about three-quarters of a revolution, while the end of the plaiting material is held back firmly, whereby the first plait is formed. The ironing-board B is then moved under this plait, whereby the plait- 70 ing-frame and the plaiting material are prevented from moving. The next plaiting-frame is now operated in the same manner and the ironing-board moved under it, and so on until all the plaiting-frames are supplied with plaits. 75 These plaits are now sprinkled with a weak solution of gum-arabic or some other suitable material, and the plaits are ironed with a hot sad-iron. After this the ironing-board is removed from the plaiting-frames, the plaiting- 80 frames are turned forward three-quarters of a revolution, and the finished plaits are drawn through the same. Thus the machine is ready for the forming of the next set of plaits, which is effected in the same manner as already de- 85 scribed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a plaiting-machine, the combination of a sliding reciprocating ironing-board and backward and forward revolving plaiting-frames D, 90 substantially as and for the purpose described.

2. In a plaiting-machine, the frame A C, having plaiting-frames D, in combination with the longitudinally-sliding ironing-board B, 95 substantially as and for the purpose described.

3. The revolving plaiting-frame D, hung in the side pieces, C, of the frame A C, and having thumb-wheels  $d'$ , substantially as and for the purpose described.

4. In a plaiting-machine, the combination of the revolving frame D, frame-board A, having a pinion, *a*, and an ironing-board having a rack, *b*, substantially as and for the purpose described.

5 5. The combination of the revolving frame D, frame A C, having guide-rollers *a*<sup>3</sup> *a*<sup>3</sup>, and the sliding ironing-board B, substantially as and for the purpose described.

10 6. The combination of the revolving frame D, frame A C, and the ironing-board B, hav-

ing guide rollers *b'* *b'*, substantially as and for the purpose described.

7. In a plaiting-machine, the combination of the frame A C, plaiting-frames D, ironing-board B, and windlass E, substantially as and for the purpose described. 15

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Witnesses:

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