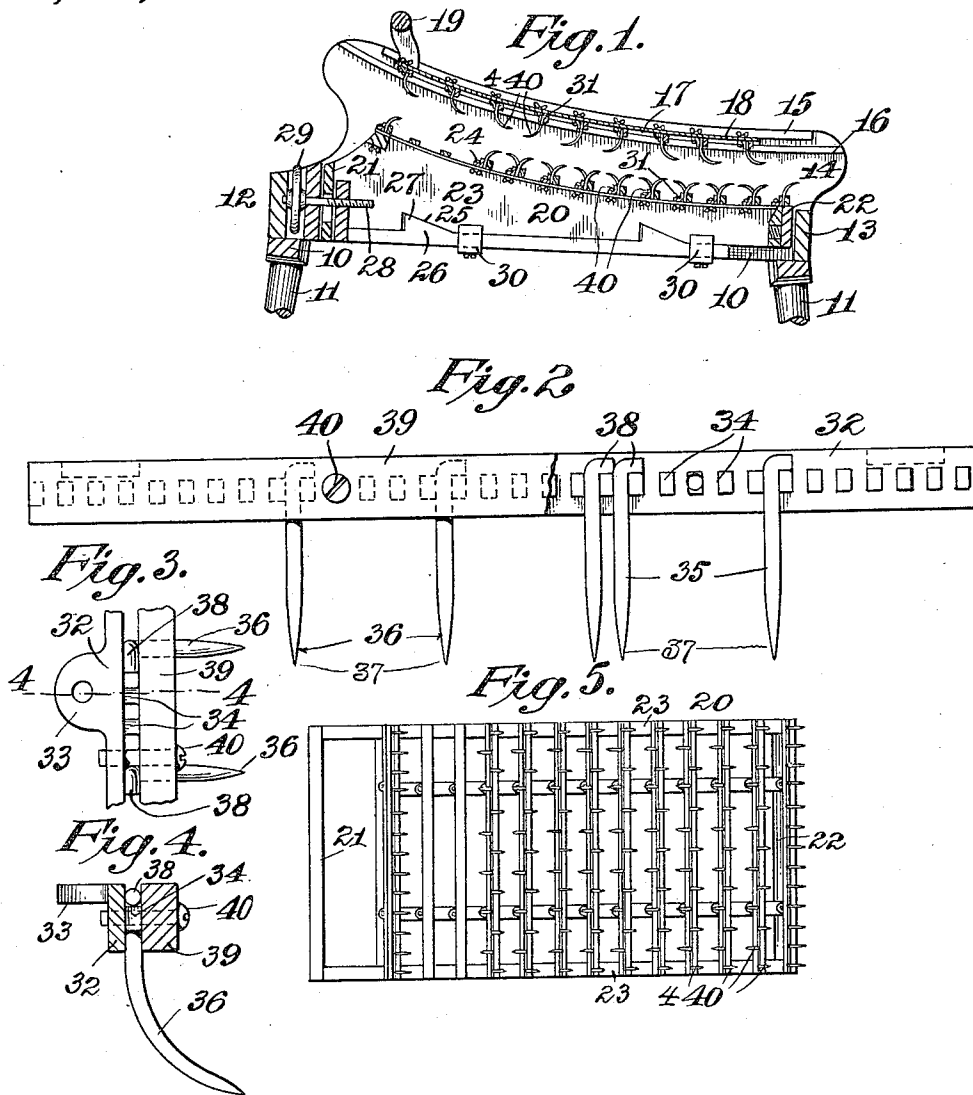


F. J. MAUBORGNE.
CARDING MACHINE.

APPLICATION FILED NOV. 19, 1908. RENEWED MAY 17, 1912.

1,050,966.

Patented Jan. 21, 1913.



Attest:

Sara H. Bourke
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Francis J. Mauborgne, Inventor:
by William R. Baird
his Att'y.

UNITED STATES PATENT OFFICE.

FRANCIS J. MAUBORGNE, OF NEW YORK, N. Y.

CARDING-MACHINE.

1,050,966.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed November 19, 1908, Serial No. 463,417. Renewed May 17, 1912. Serial No. 698,074.

To all whom it may concern:

Be it known that I, FRANCIS J. MAUBORGNE, a citizen of the United States, and resident of the borough of Manhattan, New York, N. Y., have invented certain new and useful Improvements in Carding-Machines, of which the following is a specification.

My invention relates to carding machines and its novelty consists in the construction and adaptation of the parts as will more specifically hereinafter appear.

In the drawings, Figure 1 is a central longitudinal section through the upper part of the machine, the legs being omitted in part to condense the figure; Fig. 2 is an enlarged plan view of one of the hook bars; Fig. 3 is a plan of a portion of one of the hook bars showing the parts assembled; Fig. 4 is a transverse section on the plane of the line 4-4 in Fig. 3; Fig. 5 is a top plan view of the bed frame.

In the drawings, 10 is the frame of the machine supported on legs 11, or in any other suitable manner, and comprising low end walls 12 and 13 and high side walls 14, 14, the latter being concavely shaped on their upper edges and each being provided with guide rails 15 and 16 between which is a guideway 17 for an upper oscillating frame 18. While in Fig. 1 only one side wall is shown, it will be understood that there are two such walls, one on each side of the machine. It is to be noted that the concave upper edges of these walls slope downwardly from the rear of the machine toward the front. A handle 19 is secured to the rear of the frame 18.

Arranged within the lower part of the frame 10 is a sub-frame 20 comprising end walls 21 and 22, side walls 23, 23, which are curved on their upper edges in substantially the same manner as the edges of the walls 14, 14, and which sub-frame is adapted to carry the lower adjustable frame 24 of the machine.

Means are provided for raising and lowering the sub-frame 20 comprising one or more indentations 25 cut into its lower edge and adapted to cooperate with a sliding bar 26 having projections 27 of similar shape and which bar is moved by a threaded rod 28 turning in a threaded aperture in the end wall 21 and terminating in a hand wheel 29. Guide straps 30 prevent the lateral displacement of the bar 26. Each frame 18 and 24 is provided with transverse hook bars 31 provided with projecting carding hooks 440,

and the machine is operated by feeding the hair or other material to be treated at the rear end and oscillating the upper frame 18. Several advantages result from this construction. As the frame 18 is drawn rearwardly a relatively wide space is left between the lower and upper frames and what is more important, if the operator accidentally lets go of the upper frame, as sometimes occurs, it travels downward by gravity away from the operator and he is not liable to get his hand or fingers caught by the hooks. The vertical adjustment of the lower frame is also direct and positive and the threaded adjusting rod can be stopped at any point and the frame will thereafter remain in the position which it has reached without any danger of displacement from slipping.

The hook bars 31 are formed of a base bar 32 provided with a series of ears 33 at intervals whereby they may be secured to either the upper or lower frame of the machine, and also provided with a series of lugs or studs, projecting from the plane faces of the bars and preferably made angular. The hooks 35 are each curved at 36 alternately in opposite directions and pointed at 37 and are provided with laterally turned shanks 38. As shown in Figs. 2, 3 and 4, the hooks 35 are placed between the lugs or studs 34 and engage closely the sides of the lugs with which they are in contact while the shank 38 engages one side of one of the contacting studs. A retaining bar 39 is adapted to fit over the studs 34 and hooks 35 when the latter are in place and is retained in position by screws 40 or other suitable means. This construction is simple and efficient, enables the hooks to be readily replaced should occasion require, and is very cheap to manufacture.

With the base bars 32 and retaining bars 39 both plane faced, it is only necessary to loosen the screws 40 slightly to be able to withdraw the hooks for renewal or repair.

What I claim as new is:—

1. In a machine of the character described, the combination with a hook carrying frame, of a base bar with a plane face, studs projecting at intervals therefrom and at right angles thereto, a hook engaging each stud and lying against the plane face of the base bar, a plane faced retaining bar resting on the hooks and parallel with the base bar, and means for securing it to the base bar.

2. In a machine of the character described,

the combination with a hook frame, of a base
bar with a plane face, studs projecting at in-
tervals therefrom and at right angles there-
to, a hook engaging each stud and lying
5 against the plane face of the base bar, alter-
nate hooks being curved in opposite direc-
tions in planes at right angles to the base
bar, a plane faced retaining bar resting on

the hooks and parallel with the base bar, and
means for securing it to the base bar. 10

Witness my hand this 18th day of Novem-
ber, 1908, at New York, N. Y.

FRANCIS J. MAUBORGNE.

Witnesses:

HERMAN MEYER,

ALAN C. McDONNELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
