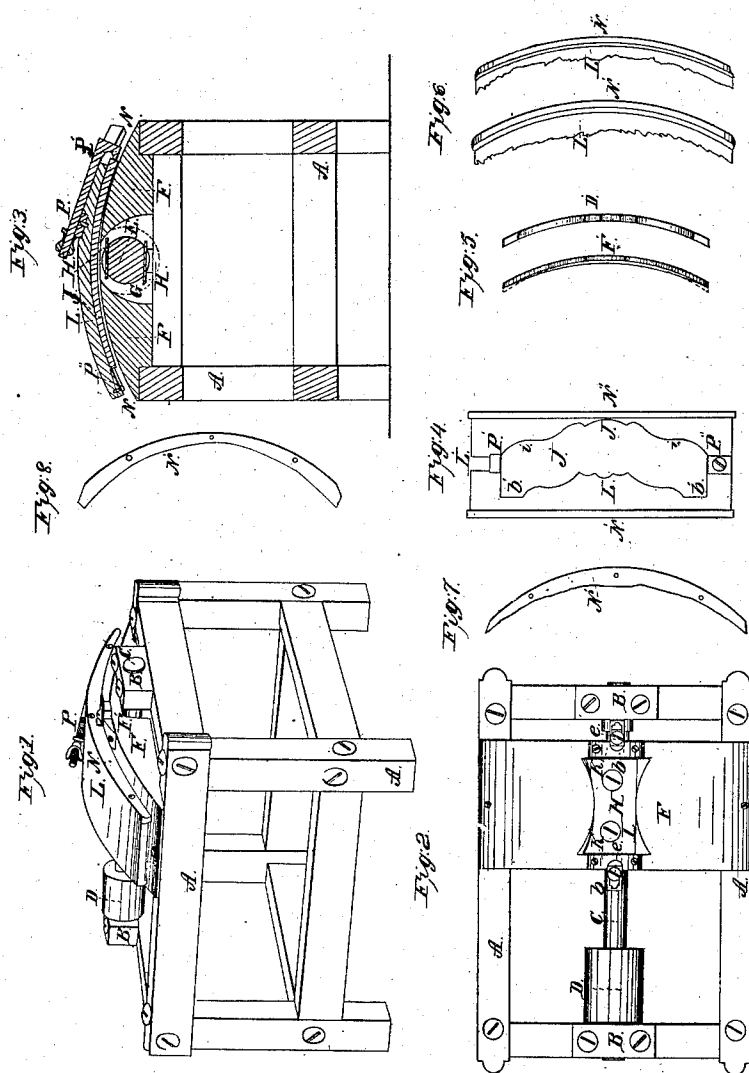


J. A. DYER.
MACHINE FOR DRESSING CHAIR BACKS
No. 32,398. Patented May 21, 1861.



Witnesses:
J. M. Mendenhall
Henry Dyer

UNITED STATES PATENT OFFICE.

JNO. A. DYER, OF NEWBURG, OHIO, ASSIGNOR TO HIMSELF AND H. C. KNOWLTON, OF
SAME PLACE.

MACHINE FOR CUTTING CHAIR-BACKS.

Specification of Letters Patent No. 32,398, dated May 21, 1861.

To all whom it may concern:

Be it known that I, J. A. DYER, of Newburg, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Machines for Dressing Chair-Backs; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification.

Figure 1, is a perspective view. Fig. 2, is a view of the top with the holder removed. Fig. 3, is a vertical section. Figs. 4, 5, 6, 7, and 8, are detached sections, which will be referred to in the description.

The same letters denote corresponding parts, in the different views.

My improvement relates to an arrangement of devices by means of which the backs of chairs can be cut with revolving knives of equal or varied thickness, at the top and bottom edges, whatever may be their curvature.

In the drawings A, represents the frame of the machine. On the top of the frame are secured the pieces B, B, that support the shaft C, on which is the pulley D, and cylinder E, Fig. 3, to which the knives H, H, are screwed.

E, is a table secured to the top of the frame, the upper part of which is circular, and there is a slot F', Fig. 1, in the two sides, through which the shaft C, passes. In the center of this table there is a large opening shown at G, Fig. 3, in which the knives H, H, screwed to the cylinder E, revolve. This opening at the top of the table, is about equal in length and breadth to the knives, as shown at I, Figs. 2 and 3, but is curved outward toward the ends.

To the top of the table at the two sides are secured the circular pieces K, K, on which rest and move the guides N, N, screwed to the sides of the holder L, which is of a circular shape, curved in such a form as to suit the backs of chairs.

P, is a set screw, which screws back and forth in a slot L', Fig. 4, in the holder, by means of which the backs are kept in place, as shown in the same figure, the back J, being placed between the pieces P', and P'',

which serve as dogs, and when P', is screwed up, by means of the screw P, the back is held securely in place, and by unscrewing the same it can be removed.

When the chair back is blocked out, and placed in the holder as described, the holder is placed on the table F, the guides N, N, resting on K, K, and it is adjusted to move easily back and forth, but in place, by means of the pieces b, b, and screws c, c, Fig. 2. The holder is then moved back and forth by hand, the knives being revolved rapidly by means of the pulley D. The pieces K, K, on which the guides move are circular, and concentric with the motion of the knives. The cutting edges of the knives are curved for the purpose of rounding the backs, but the uniform or varied thickness of their edges can be made to depend entirely on the curvature of the guides N, N. For instance, if it is desired to have one side of the back of equal thickness as at D', Fig. 5, (which is a view of the underside of the back J, Fig. 4,) as the knives are curved outward at the ends, if the guide N', was of uniform thickness, as at N', Fig. 6; the ends b', b', of the back, would be cut thin, and gradually thicker toward the center, in proportion to the distance of the edge of the back from the guide N'. To obviate this, it is necessary to have the guide N', wider at the two ends, and narrower toward the center, in proportion to the distance and curvature of the edge of the back. If it is desired to have the upper edge uniformly thin, as shown at F, Fig. 5, J', Fig. 4, being so near the guide N'', it would be cut much thinner than the ends i, i, that is, if the guide N'', was of uniform width, as shown in Fig. 6, but if it was narrow at the two ends, increasing in width toward the center, this difficulty would be obviated. The curvature of the guide depending on the shape of the edge of the back and its distance from it. But if it is required to have F, Fig. 5, narrower at the center, and wider at the ends as indicated, the guide N'', would have to be of uniform width, as shown in Fig. 6. In this way we see that backs can be made of uniform thickness at the edges, or wide at the ends and narrower at the center, or any other variation, by changing

the curvature of the guides, and as they are attached to the sides of the holder by screws, they can easily be changed and adjusted to suit backs of any desired form.

- 5 In the construction of this machine, I do not intend to confine myself to the precise form of holder shown in the figure. I may make the edges straight as in the accompanying drawings, or curve them so as to
10 correspond more nearly with the upper and lower edges of the back, whatever may be its undulations.

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

The holder L, the pieces K, K, and guides 15 N, N', N'', in combination with the revolving knives H, these several parts being constructed and operated substantially as and for the purpose set forth.

J. A. DYER.

Witnesses:

J. BRAINERD,
HENRY VOTH.