

UNITED STATES PATENT OFFICE.

ROBERT B. CODLING, OF BRISTOL, CONNECTICUT.

APPARATUS FOR CARVING.

SPECIFICATION forming part of Letters Patent No. 340,288, dated April 20, 1886.

Application filed July 3, 1885. Serial No. 170,646. (No model.)

To all whom it may concern:

Be it known that I, ROBERT B. CODLING, residing at Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Apparatus for Carving; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in apparatus for carving, the object being to facilitate and improve the execution of such work and to render unskilled labor available for doing it.

With these ends in view my invention comprehends pattern-plates for carving purposes, respectively cut out in non-intersecting lines to form different portions of the same pattern, the breaks in the lines in one plate being supplied in another plate.

My invention further comprehends pattern-plates for carving, cut out to form the pattern, and provided in the lines of the same with elevations or depressions controlling the character of the incision made by the carving-tool.

My invention further comprehends carving apparatus having certain details of construction, as will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figures 1 and 2 are plan views of pattern-plates embodying my invention, and Fig. 3 is a view, partly in elevation and partly in section, showing my improved apparatus in use.

The plates A and B, herein shown, respectively embody different portions of a pattern consisting of a curving stem, C, and branches D, and developed in the former as far as possible without intersection of the branches with the stem and with each other, and completed in the latter, whereby the parts E, F, and G, inclosed by the lines of the design, are not disconnected or cut out, and whereby other undesirable results which would follow intersection are avoided. Those portions of the plate A adjoining the line of the curving stem C are countersunk and beveled, as at H, on a plane gradually rising from the butt to the tip end thereof, for enabling the stem to be cut deeper and wider, and hence heavier than the branches, to preserve the natural proportion

between them. The said plates are provided with centering-holes I I, designed to receive suitable pins or studs, and to insure a right placing of the plates upon the work and coincidence in the lines of the pattern as executed.

Fig. 3 of the drawings shows a plate, J, constructed and adapted to be flexed to conform to the surface to be carved, and so flexed and secured by pins K upon a convex surface, L, and countersunk on a plane rising gradually from the point M to the point N on a line following the line O of the pattern worked out in the plate which supports a carving-tool, P, having a conical or tapering working-face, and carried and rotated by a flexible shaft, Q, through a hand-piece, R, attached to the covering S of the shaft and resting upon and carried over the countersunk portion of the plate, whereby an incision, following the broken line T is formed in the surface L, as shown, the depth and width of such incision being proportional to the degree that the tool entered the wood.

By embodying different portions of a design in different plates patterns of any character and complexity may be easily executed, while by avoiding intersections the lines of the pattern are preserved unbroken for guiding the carving-tool. The flexing of the plates is made possible without disturbing the pattern, and disconnecting or cutting out portions of the plates is avoided.

By the adaptation of the plates to control the depth and width of the incision made by the tool, a wide range of design and effect may be secured without the exercise of skill on the part of the operator; and by the use of my improved pattern-plates and a tool carried by a flexible shaft, and guided and controlled by the plates, the work may be done rapidly and in the best manner.

Preferably, and as herein shown, the plates will be constructed and adapted to be laid upon the work; but, if desired, they may be supported above it, in which case means will be provided for holding it rigidly in position. Preferably, also, a tool carried by a flexible shaft will be employed as requiring less skill in operation, and as offering more rapid and more perfect execution; but, if desired, a hand-tool may be employed in its place.

It is apparent that the apparatus herein de-

scribed and shown is susceptible of some legitimate modification. Thus the centering-holes of the plates may be replaced by other gages or means for insuring coincidence in the carving as executed; and instead of countersinking the plates for controlling the depth of the incision they may be embossed to form shoulders for elevating the tool where shallow lines are required, whereby the same results will be secured as with countersinking; or shoulders for supporting the tool may be applied to the plates, or the plates may be otherwise configured with the same end in view; or suitably configured plates may be used with pattern-plates of uniform thickness. Furthermore, when the pattern involves intersecting lines, intersections may be allowed when they do not have the effect of disconnecting portions of the plates or materially weakening them. I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. Pattern-plates for carving, respectively cut out in non-intersecting lines to form different portions of the same design, the breaks in the lines in one plate being supplied in another plate, substantially as set forth.

2. Pattern-plates for carving, cut out to form the pattern and provided in the lines of the same with elevations or depressions, to regulate the width and depth of the incision made by the carving-tool, substantially as set forth.

3. Carving apparatus consisting of pattern-plates cut out to form the pattern and provided in the lines of the same with elevations or depressions, and a carving-tool rotated by a flexible shaft and controlled in the character of the incision made by it by the described vertical conformations of the plates, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ROBERT B. CODLING.

Witnesses:

E. H. ROGEN,
M. S. SEELEY.