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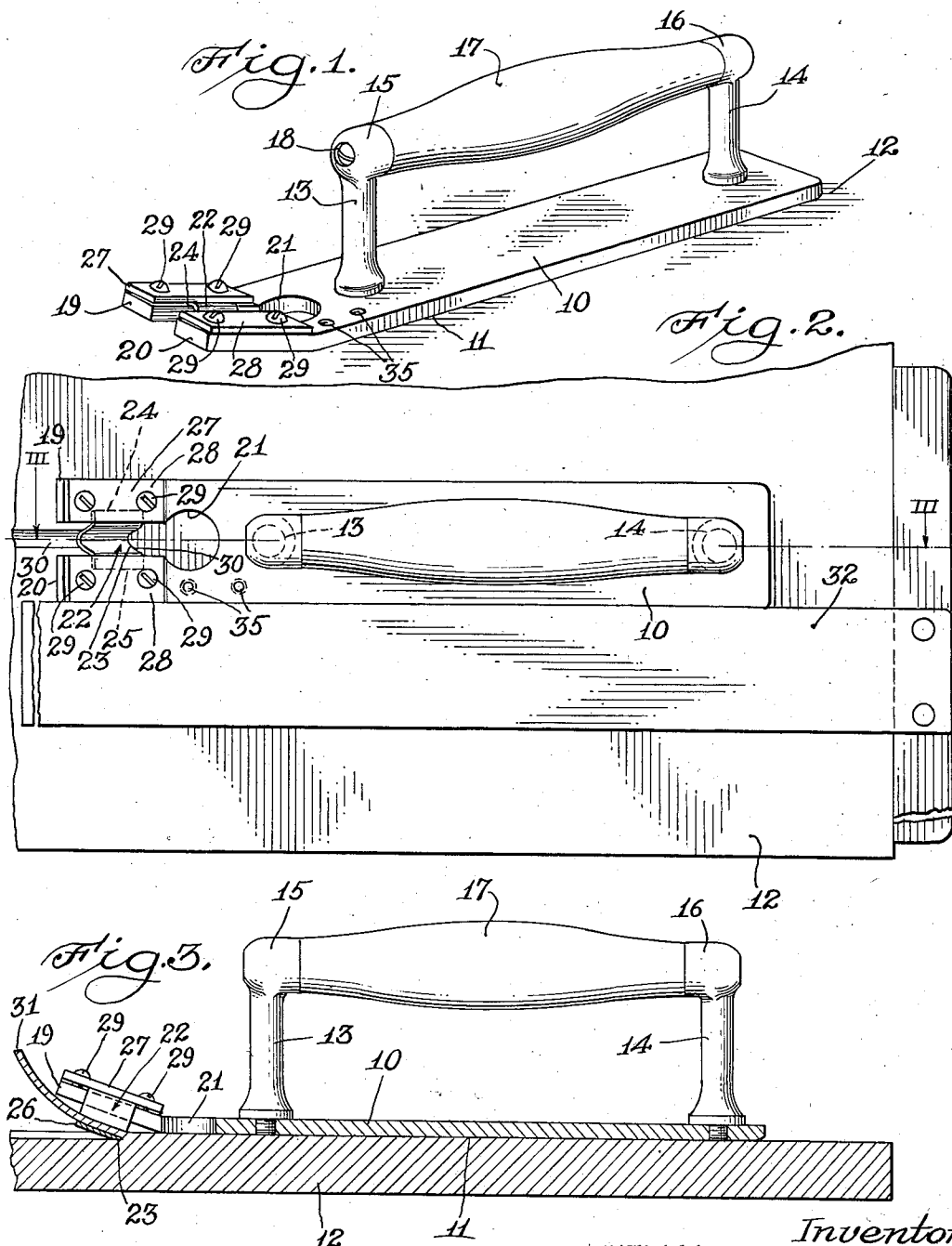
W. HOLZHEIMER

2,013,780

CARVING DEVICE

Filed April 30, 1934

2 Sheets-Sheet 1



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Sept. 10, 1935.

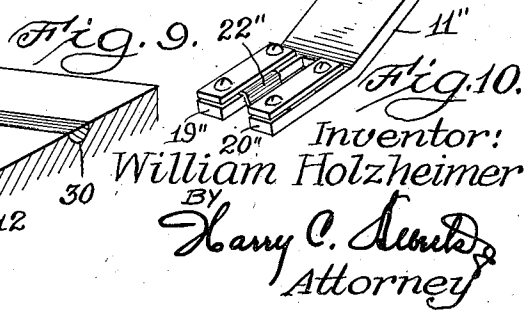
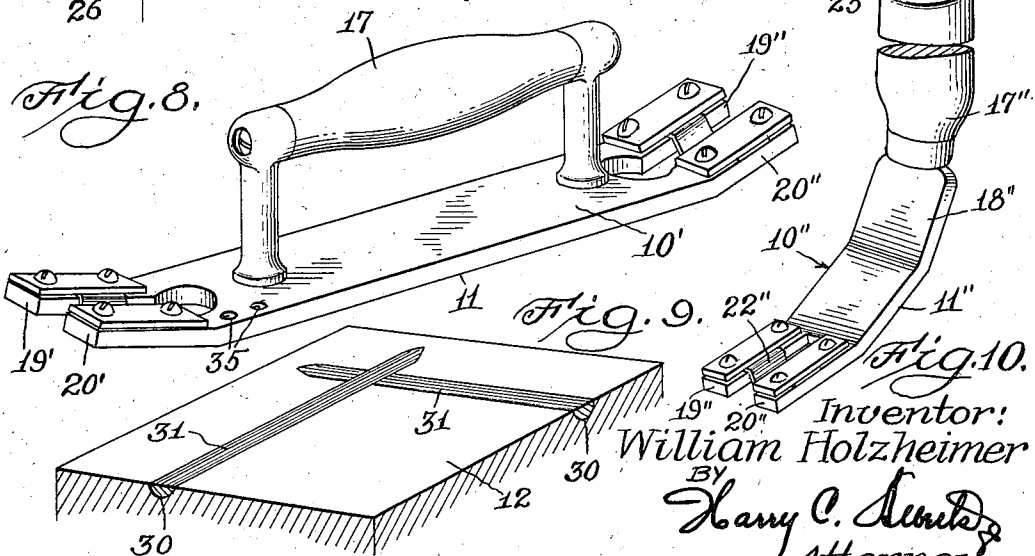
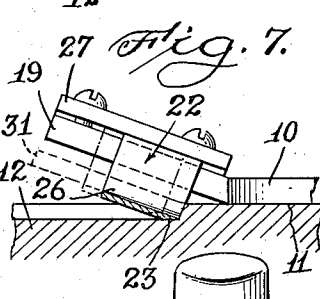
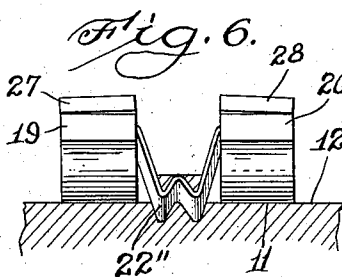
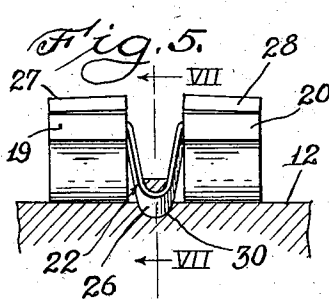
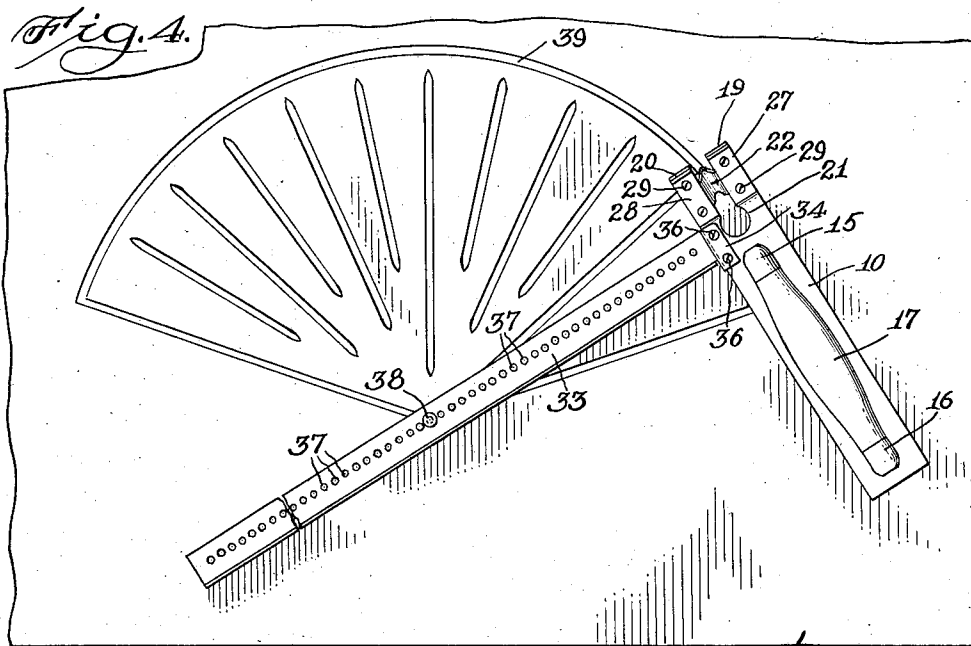
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2,013,780

CARVING DEVICE

Filed April 30, 1934

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,013,780

CARVING DEVICE

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Application April 30, 1934, Serial No. 723,074

5 Claims. (Cl. 145—1)

This invention relates to a carving device and more particularly to a surface grooving mechanism, although certain features thereof may be employed with equal advantage for other purposes.

It contemplates more especially the provision of a simple device for carving the surface of any member so as to impart any selective or ornamental design therein as well as to prepare surface inlays that have a very unique and much sought for appearance in novelties, furniture, and similar articles.

It has long been the practice to groove surfaces of furniture such as tables and other articles of manufacture, and such work is very expensive and substantially increases the cost of the article that is provided with such inlays or designs. The expense thereof is in the difficulty of grooving surfaces or providing inlays therein without entailing appreciable labor, time and skill of trained artisans. On that account, furniture as well as other articles that have been provided with inlays or any grooved designs have been very expensive and not in common use in spite of the desirability thereof.

One object of the present invention is to provide a novel and improved surface carving device that effects grooving or provides inlays without entailing any appreciable time or expense.

Another object is to simplify the construction and improve the operation of wood working tools for surface ornamentation.

Still another object is to provide a surface traversing member provided with a carving device that is inclined relative thereto so as to groove a surface responsive to displacing the member thereover.

A further object is to provide a substantially flat handle member having an inclined extension to serve as a mount for a carving tool adapted to cooperate with the surface in creating any desired groove or configuration therein.

A still further object is to provide a substantially flat member having an inclined mount that adjustably supports a carving device relative to the surface over which the member traverses.

Still a further object is to provide a substantially flat handle member having an inclined extension defining furcations to effect the adjustable tool mounting thereon in a position inclined relative to the surface over which the member is adapted to traverse.

Other objects and advantages will appear from the following description of an illustrative embodiment of the present invention.

In the drawings:

Figure 1 is a perspective view of a device embodying features of the present invention.

Figure 2 is a plan view of the device shown in Figure 1.

Figure 3 is a sectional view taken substantially along line III—III of Figure 2.

Figure 4 is a plan view showing the application of the device with a guide for effecting the traversing along a curved or circumferential path.

Figure 5 is an end view in elevation of a device showing a carving tool of substantially U-shaped curvature.

Figure 6 is a similar view showing a different form of carving tool that is substantially U-shaped with a modified curve in the base thereof to vary the configuration of the groove carved therewith.

Figure 7 is a sectional view taken substantially along line VII—VII of Figure 5.

Figure 8 is a perspective view similar to Figure 1 showing a handle member with both ends thereof provided with carving tools.

Figure 9 is a perspective view of a wood block with grooves carved therein and inlays formed with the material removed in consequence of forming the groove.

Figure 10 is a perspective view of a still further modified embodiment of the invention showing the use of an inclined guided device for curved surfaces, restricted locations and for access to corners and joints.

The structure selected for illustration comprises a substantially flat member 10 which, in this instance, is of rectangular configuration to provide an under surface or bottom 11 serving to sustain the member 10 on a surface 12 that is to be carved or ornamented. As shown, the member 10 is, in this instance, provided with standards 13 and 14 fixed in longitudinal spaced relation to the top surface of the flat member 10 so as to provide confronting extensions 15 and 16, respectively, for supporting a handle 17 therebetween. Screw fasteners 18 preferably extend through the extensions 15 and 16 so as to axially engage the handle 17 and effect the rigid support thereof in relation to the flat member 10 which is guided over the surface 12 by the manual manipulation of the handle 17.

As shown, the member 10 terminates at one extremity thereof in an extension providing spaced furcations 19 and 20 inclined relative thereto. It is to be noted that the furcations 19 and 20 are spaced along a longitudinal median line of the member 10 and there is an enlarged circular opening 21 provided in the region of joinder for communication with the space between the furca-

tions 19 and 20 so as to provide clearance for the carving tool and to afford inspection thereof while in operation. A carving tool 22 of any desired configuration or design is mounted between the

5 furcations 19 and 20 so as to dispose the carving or cutting edge 23 thereof below the bottom surface 11 of the handle member 10 to effect the grooving or carving of the surface 12 over which the member 10 is displaced.

10 To this end, the carving tool 22 is preferably of substantially U-shaped configuration so as to define upstanding arms terminating in laterally directed flanges 24 and 25 which are spaced to rest on the top surface of the furcations 19 and 20.

15 With this arrangement, the substantially U-shaped arms and curved base of the cutting or grooving tool 22 depends downwardly from the furcations 19 and 20 so as to occupy the space therebetween and dispose the cutting edge 23 below the sustaining surface 11 of the member 10.

It should be observed that the substantially U-shaped carving tool 22 has a curved base 26 which is in parallelism with the laterally extending flanges 24 and 25 so as to impart the same inclination thereto as possessed and defined by the top surfaces of the furcations 19 and 20. In order to securely mount or attach the carving tool 22 along the inclined furcations 19 and 20 in any adjusted position, plates 27 and 28 are provided to conform with and confront the furcations 19 and 20 so as to secure the flanges 24 and 25 against the furcations 19 and 20.

To this end, fasteners such as threaded studs 29 project through the plates 27 and 28 so as to engage correspondingly threaded apertures provided in the furcations 19 and 20, thereby securing the carving tool 22 in any adjusted position along the inclination of the furcations 19 and 20. The position of the carving tool along the furcations 19 and 20 determines the position of the severing or cutting edge 23 relative to the bottom sustaining surface 11 of the member 10. In other words, the depth of the groove or cut effected by the tool 22 can be varied depending upon the position thereof along the inclined furcations 19 and 20. The form of the groove or carvings may vary depending upon the configuration of the cutting tool 22 and the position thereof along the furcations 19 and 20 relative to the sustaining surface 11 of the member 10.

The configuration or design of the cutting tool 22 may vary within a wide range depending upon the dictates of commercial practice. As an example thereof, Figure 6 shows a carving tool 22' of substantially W-shaped design so as to create a groove corresponding in configuration therewith. This carving tool 22' still has the upstanding arms and laterally directed flanges similar to the carving device 22 described supra. In a modified form (Figure 8) the member 10' is provided with a pair of inclined furcations 19'—20' and 19''—20'' at both ends thereof, these being preferably of different inclinations and of different size so as to accommodate different types of carving tools of varying capacity and configuration. Otherwise the structural features are identical and the principle remains unaltered.

In the modified embodiment shown in Figure 10, the carving tool or cutter 22'' is mounted between furcations 19'' and 20'' constituting a part of the member 10'' which has a flat portion 11'' and a raised or inclined extension 18'' terminating in a handle member 17''. In this device, the furcations 19''—20'' and the inclined portions 18'' are more or less diverging to present the

cutter or carving tool 22'' clearly accessible to corners, curved surfaces and restricted locations where a device of the type described supra would be inaccessible and incapable of operation. Special design tools may be provided for any particular or special work, and such may take a variety of forms depending upon any individual problem or upon the dictates of commercial practice.

In operation, the substantially flat member 10 or 10' is displaced over a surface so that the carving devices 22 and 22' gouge into the wood, leather or other type of surface 12 so as to form a groove or grooves 30 with the material 31 thereof being removed in a continuous unitary piece conforming in configuration with the groove 30 left in the article 12. The groove 30 may be along straight lines when guided by a T-square or other straight edge 32 or along curved or circumferential paths when guided by a member 33 having a bracket 34 at one extremity thereof for detachable association with the member 10 or 10'.

To this end, the member 10 or 10' is provided with a pair of spaced apertures 35 which are threaded to receive screw fasteners 36 adapted to project through the bracket 34 of the member 33 for securing such to the handle member 10. As shown, the elongated member 33 is provided with a longitudinal series of apertures 37 for receiving a pin or nail 38 therethrough to serve as the fulcrum along which the carving member 10 is displaced in a curved path 39.

The effective radius of the elongated member 33 may be varied depending upon the position of the pin 38 therealong, and numerous types of straight, curved or irregular figures may be provided or effected in this manner. The surface 12 may be grooved and the ornamentation provided in this form or the strip of material 31 removed in consequence traversing the carving member 10 along the surface 12, or may be again utilized in conjunction with the groove 30 from which it is formed. In effecting the desired groove the strips of material 31 are removed intact, and colored or otherwise treated to present a different appearance from its original condition or state. Thereupon, it can be replaced for filling the groove 30 (Figure 9) so as to provide an inlay, thereby imparting the desired ornamentation and configuration to the surface 12.

The nature of the ornamentation may be varied within a wide range and this is likewise applicable to the carving tool 22 which can take many forms depending upon the dictates of the individual. With a device of this character, it is unnecessary to provide a skilled artisan for accomplishing the desired surface ornamentation and such can be effected speedily and without entailing any appreciable labor, material or time. Various changes may be made in the embodiment of the invention herein specifically described without departing from or sacrificing any of the advantages of the invention as defined in the appended claims.

I claim:

1. In a device of the character described, the combination with an elongated member having an extended flat bottom surface for traversing over a surface to be carved, of an upwardly inclined furcated extension on said elongated member, a surface carving tool fixedly mounted between the furcations of said inclined member extension so that the cutting edge thereof is disposed below said flat bottom surface for carving responsive to the movement of said member with

its flat surface in contact with the surface to be carved.

2. In a device of the character described, the combination with a substantially rectangular plate member having an elongated flat bottom surface for traversing over a surface to be carved, of an upwardly inclined furcated extension on an extremity of said rectangular plate member, a surface carving tool mounted between the furcations of said member extension, means for adjustably mounting said carving tool along said inclined extension so that the cutting edge thereof is adjustably disposed below said flat bottom surface for carving responsive to the movement of said rectangular plate member with its flat surface in contact with the surface to be carved.

3. In a device of the character described, the combination with a substantially rectangular plate member having an elongated flat bottom surface for traversing over a surface to be carved, of an upwardly inclined furcated extension on an extremity of said rectangular plate member, a surface carving tool mounted between the furcations of said member extension, fastener screw means for adjustably mounting said carving tool along said upwardly inclined extension so that the cutting edge thereof is disposed between said

furcations and below said surface for carving responsive to the movement of said plate member over a flat surface to be carved.

4. In a device of the character described, the combination with an elongated plate member for traversing over a surface to be carved, of an upwardly inclined furcated extension on an extremity of said member, a substantially U-shaped surface carving tool mounted on said member extension between the furcations thereof so that its cutting edge is disposed below said surface for carving responsive to the movement of said plate member.

5. In a device of the character described, the combination with an elongated plate member for traversing over a surface to be carved, of an upwardly inclined furcated extension on an extremity of said member, a substantially U-shaped surface carving tool mounted between the furcation of said member extension, means for frictionally mounting said carving tool along said extension so that the cutting edge thereof may be adjustably disposed below said surface for carving responsive to the movement of said plate member over the surface to be carved.

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