July 8, 1941. J. C. BOYETTE 2,248,694

PLUG CUTTING IMPLEMENT

Filed Feb. 7, 1940

Fig. 1.

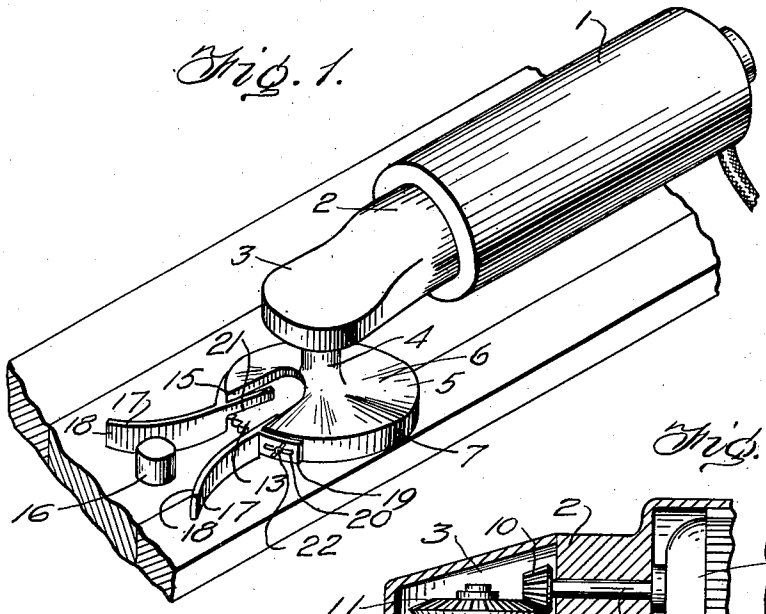


Fig. 2.

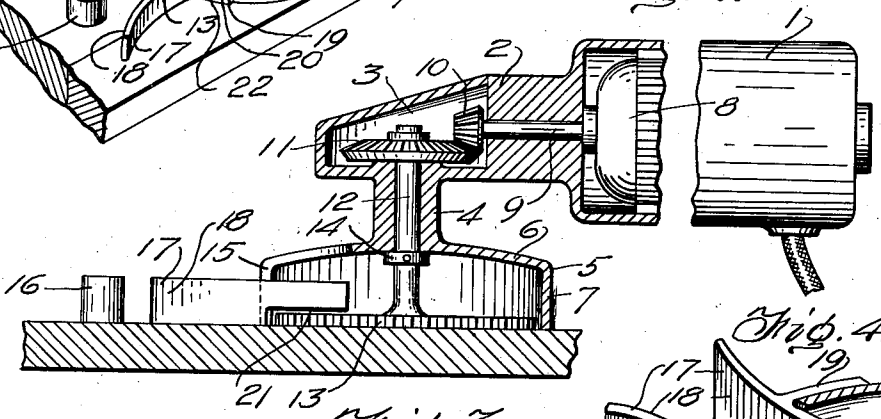


Fig. 3.

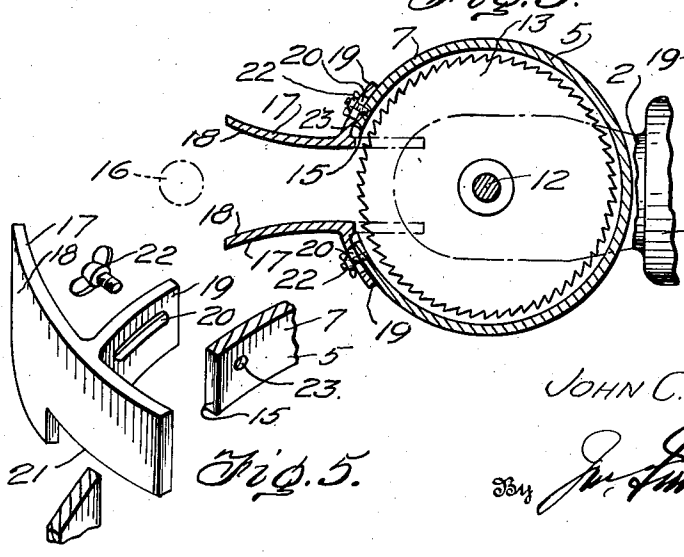


Fig. 4.

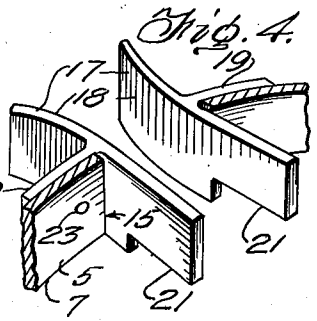


Fig. 5.

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Patented July 8, 1941 2,248,694

UNITED STATES PATENT OFFICE

2,248,694

PLUG CUTTING IMPLEMENT

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Application February 7, 1940, Serial No. 317,755

1 Claim. (Cl. 143—43)

This invention is directed to means for mechanically severing wood plugs ordinarily used in planking boats and other woodwork.

Heretofore an ordinary chisel and driver have been used to cut off the projecting portions of the plugs, and this method ordinarily results in the splitting of a number of the plugs, to thereby cause the additional effort of withdrawing the split plugs and replacing them.

The present invention is designed to provide a power-driven saw provided with a guide which will move lengthwise and receive the plug between them until the saw reaches the plug and makes a clean, smooth cut of that portion of the plug beyond the surface of the planking.

The invention is designed as a portable implement which may be readily carried by the operator and moved from plug to plug for severing purposes. The saw is driven in any desired manner, though preferably through the use of an electric motor, and at a speed to ensure an even, smooth cut of the plug.

The invention is illustrated in the accompanying drawing, in which

Figure 1 is perspective view of the improved implement shown in position to sever a plug on further advance of the implement.

Figure 2 is a longitudinal section, partly in elevation through the same,

Figure 3 is a plan view, partly broken away, showing the relation of the saw and the guides,

Figure 4 is a broken perspective view showing the mounting of the guides,

Figure 5 is a perspective view of a portion of the saw-housing and a guide separated therefrom.

The improved implement comprises a handle portion 1, preferably in the form of a hollow cylinder, to the forward end of which is secured an extension 2, terminating at its forward end in a hollow portion 3 to receive the saw driving elements. The extension 2, in line with the hollow portion 3, is formed with a depending pillar 4, to the lower end of which is secured the saw housing 5, closed at the top as at 6 and with a circular edge wall 7. If the implement is driven by an electric motor the same may be housed in the handle 1, as indicated at 8, and the shaft of this motor 9 extended through the projection 2 and terminally provided with a bevel pinion 10 designed to cooperate with a bevel gear 11, secured on one end of a shaft 12 extending through the pillar 4 and carrying at its lower end a circular saw 13. The shaft 11 is provided with a thrust member 14, and this shaft is of such length that the saw 13 operates in alignment with the lower open edge of the saw housing 5. At a point in the saw housing 5 in alignment with the handle 1, the cylindrical wall 7 of the saw housing is provided with an opening 15 through which the plugs to be cut and indicated at 16 pass to the saw.

In order that the plug may be accurately guided relative to the implement, guides 17 are provided in the form of curved sections 18 having a lateral projection 19, slotted at 20, with the lower edge of the section 18 cut away as at 21. The guides are secured to the circular wall 7 of the saw housing on each side of the opening 15 by arranging the projection 19 over the wall of the part and uniting the guides to the circular wall of the saw housing by thumb screws 22, passing through the slot 20 of the projection 19, taking into a threaded opening 23 in the wall 7. The guides are arranged so that incident to their curved formation they diverge at their free ends to permit ready and convenient reception of the plug to be cut. The slot 20 in the guides permits adjustment to a limited extent in the spread of the guides. The cut-away portion 21 of the guides is formed to avoid interference with the saw, as clearly illustrated in Figure 2.

In use, the implement is laid on the surface from which the plugs project, the lower ends of the guides serving to prevent direct contact of the saw 13 with said surface. The implement is moved forward, causing the guides to embrace the plug and the movement is continued until the saw engages the plug and cuts off the projecting portion thereof substantially flush with the plank surface.

The implement, of course, may be driven from any power source remote or intact, and this forms no material part of the present invention, though the motor drive within the handle portion is preferred.

The implement as a whole is light, easily handled, and will ensure the cutting of plugs in a smooth, even manner, without liability of splitting.

What is claimed is:

An implement for cutting the projecting portions of plugs used in boat building, comprising a handle, a saw housing carried by and depending from the handle, said housing comprising a member having an annular wall, a substantially closed top and being completely open at the bottom, the lower edge of the annular wall providing a guiding contact for the implement in use through bearing directly on the surface from

which the plugs project, a shaft supported in the housing, means for operating the shaft, a saw-like cutting member carried by the shaft within the housing, the lower surface of the cutting member being coincident with the lower edge of the housing, the annular wall of the housing being formed with a relatively narrow opening, and plug-guides secured to the annular wall in substantial line with the edges of the opening and projecting outwardly and inwardly relative to the wall, the outer portions of the plug guides being relatively flared in a direction from the wall and the portions of the plug-guides inwardly of the wall overlying the cutting member to guide the severed portions of the plug.

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