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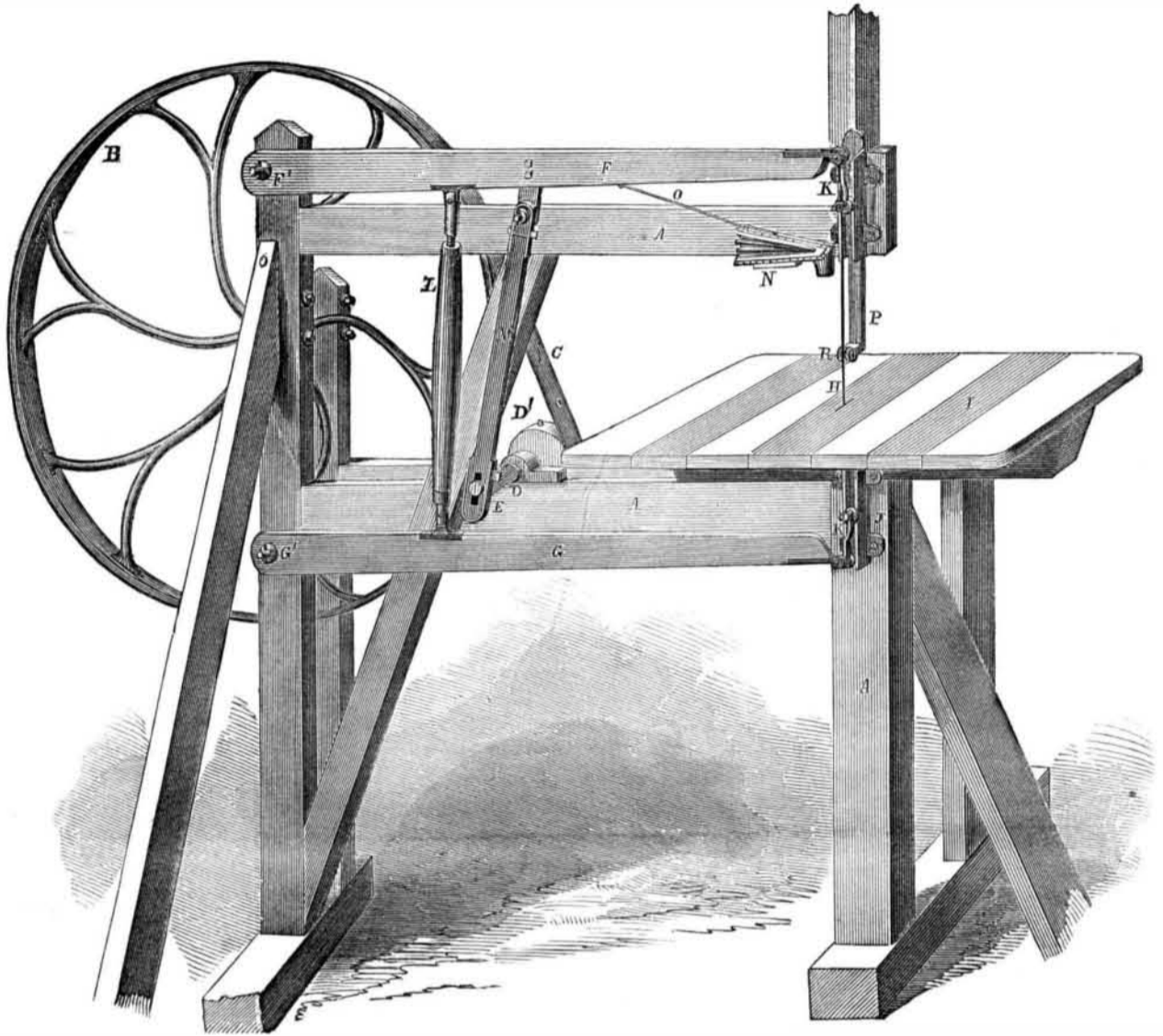
Improved Jig Saw.

The apparatus here represented secures, in an admirable manner, the ends desirable in the small and rapid machines used for cutting scrolls and other fancy and irregular work. The saw is stretched very perfectly, and guided and supported in such manner as to allow the use of a very narrow saw. Its ability to describe short curves is considerably greater than that of most styles of scroll sawing machines.

Fig. 1 is a perspective view of the machine complete, while Figs. 2 and 3 represent a few details on a larger scale. The saw runs in fixed guides, and is stretched between light elastic levers of wood, to which it is connected by short and light links. The saw is supported by a guide wheel at its back, immediately above the surface of the wood which is being sawed. Fig. 2 represents one of the links which connect the saw to the levers; and Fig. 3 represents the steadying or guide wheel, which stands behind the saw.

A represents the frame of the machine, and B the large pulley on the first or driving shaft. C is a belt conveying the motion to the small pulley, D', on the crank shaft. D. E is the crank pin. F is the upper lever, and G the lower lever, turning respectively on their fixed centers, F' and G'. H is the saw, and I the table on which the work is placed. J J are guides, and K K short links connecting the cross-heads or guide pins at the end of the saw to the corresponding levers. L is a straining piece provided with a screw, as represented, and by turning which the tension of the saw may be increased or diminished at pleasure. M is the connecting rod which con-

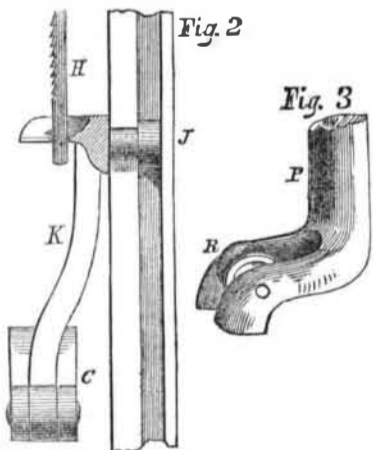
WOOD & DE VAUGHAN'S JIG SAW.



are usually of ash, is amply sufficient for the slight inequalities in the length of the saw and attachments due to the varying angles of the links, K K. All the parts being extremely light, the saw is driven at a very high ve-

locity without serious vibration or other difficulty. The motion is always in a perfectly right line, so that the kerf or thickness of the cut is little or no greater than the width of the saw.

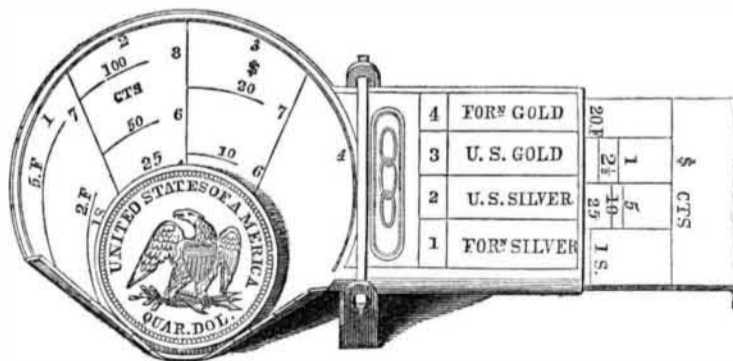
For further information address the inventors, Wm. P. Wood and Saml. de Vaughan, Washington, D. C., who obtained a re-issued patent therefor on the 10th of March last.



veys the motion of the crank pin to the lower lever, G. N represents the ordinary bellows, to remove the saw-dust from the top of the work, and O the spring by which the discharge of air is induced. P represents simply a steadying bracket, the height of which may be readily adjusted by the screw, as represented, to adapt its position to the thickness of the stuff being sawed; and R is a steadying wheel mounted in P, and grooved in such manner as to bear firmly and fairly against the back edge of the saw.

The elasticity of the levers, F and G, which

MARANVILLE'S MONEY SCALE.



The instrument represented in the accompanying figure is both a weighing and a measuring scale, adapted equally to American and the most common foreign money. It is intended to be kept on the shelf or counter of each business man, as a ready means of detecting any fault in the weight or size of either silver or gold coin. It is represented as being used to test, in this manner, an American quarter.

Considered as a measure simply, it will be observed that the coin is laid with its edges in contact with the turned up lips on the lower side. The surface of the lune-shaped portion of the scale remaining uncovered is

divided by radial lines into four parts, numbered 1, 2, 3 and 4. The first, as is distinctly stamped on another portion, is intended to indicate the sizes of the respective foreign silver coins (1 shilling, 2 francs, 5 francs, etc.); the second does the same for American silver, the third for American gold, and the fourth for foreign gold. The lips or rims referred to on the lower or near side, serve, by their varying thickness at different points, to indicate in an equally simple manner, the proper thickness for the rims of the respective pieces, so that the instrument instantly indicates whether the coin is or is not of the exact proper diameter and thickness.

Across the upper surface of the plate is soldered a light triangular bar, as represented, and the overhanging ends of this bar are supported in holes in the upturned ends of a strip of metal, which, stretching across beneath, serves as a support for the whole. An additional part, seen on the right, is mounted so as to be free to slide in or out on the arm of the scale opposite to the coin, and there are graduations on its upper face which denote the exact extent to which it should be drawn out to balance each coin. Thus the apparatus becomes a delicate and very nicely adjustable scale for weighing each coin—not for indicating the absolute weight in pennyweights, etc., but simply for showing whether or not the coin under examination is of a weight equal to its standard.

This invention is very cheap and portable, and is evidently little liable to get out of order. It is represented full size, and can be carried in the pocket with very little inconvenience. Ordinary money scales are capable only of indicating the weight; and when, in order to make up from baser metal the proper weight of a gold coin, the coin is made thicker, or of larger diameter than usual, they have no means of detecting the fraud.

The instrument was patented on the 13th of January last, by H. Maranville, of Clinton, Ohio, from whom any further information respecting it may be obtained.

