No. 842,489. PATENTED JAN. 29, 1907.

E. H. OVERHOLT.

SAW GUIDE.

APPLICATION FILED APR. 21, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

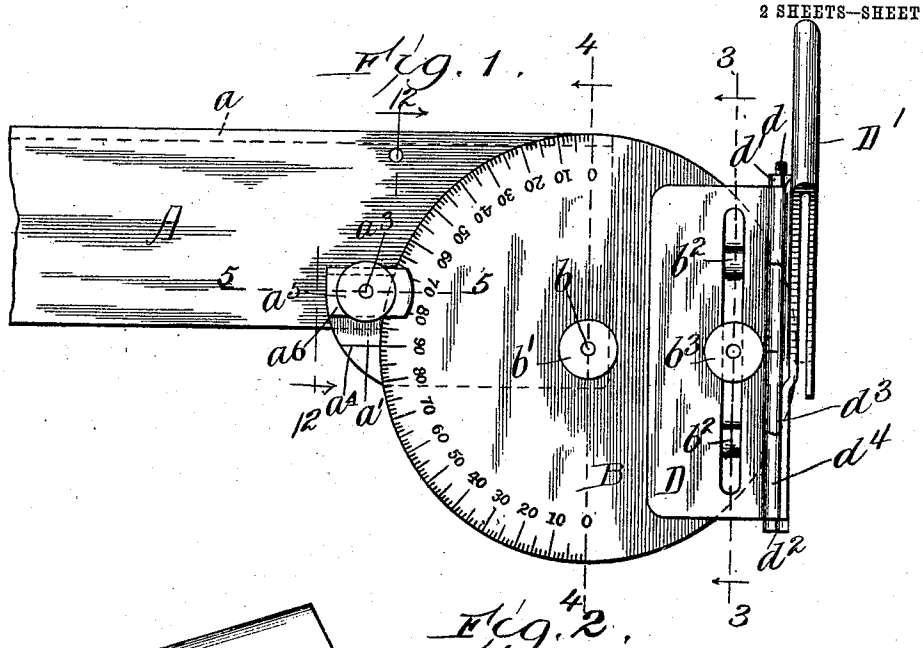
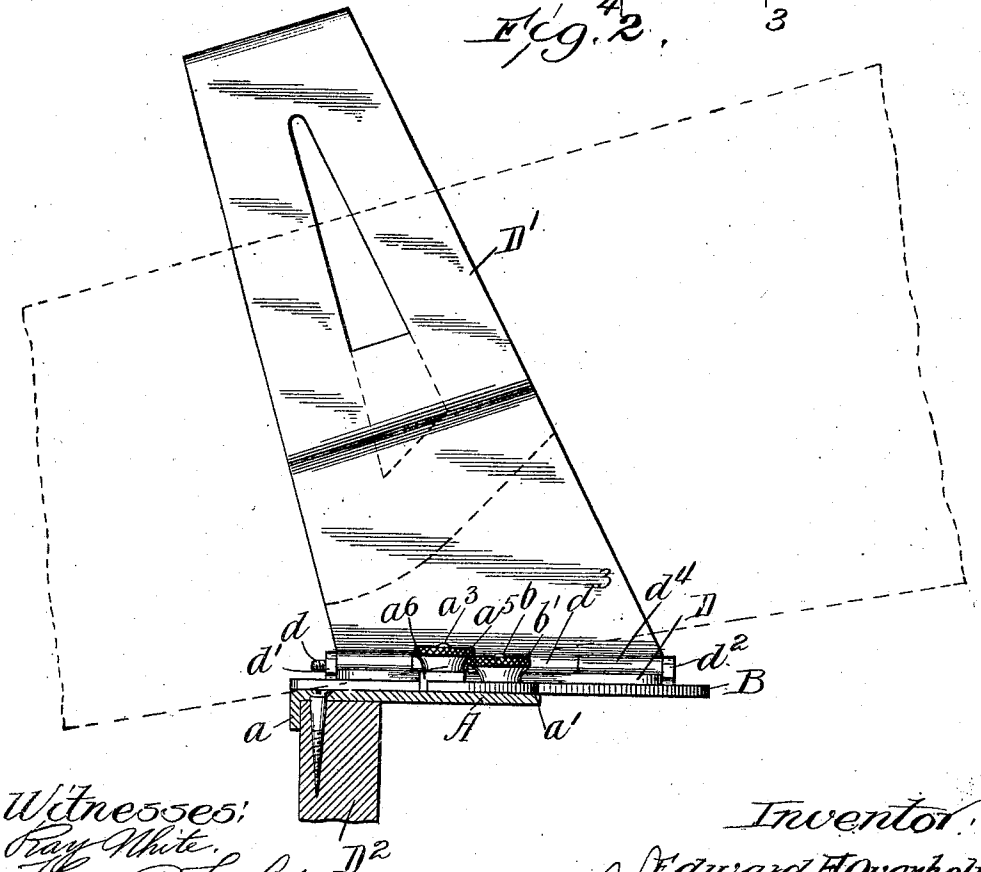


Fig. 2.



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Inventor:
Edward H. Overholt,
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THE NORRIS PETERS CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 3.

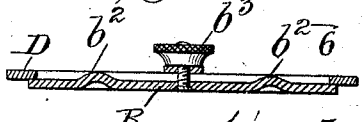


Fig. 4.



Fig. 5.

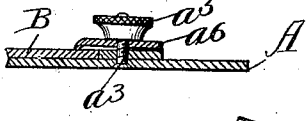


Fig. 6.

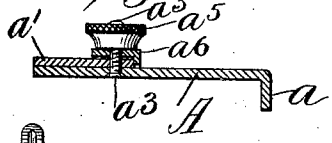


Fig. 7.

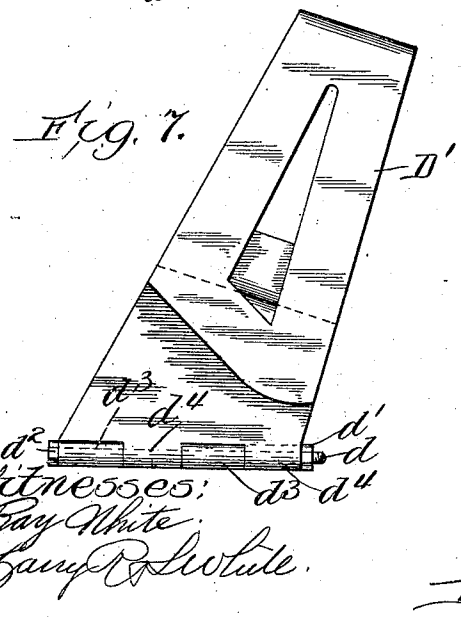
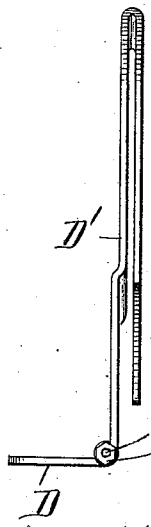


Fig. 8.



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THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWARD H. OVERHOLT, OF STREATOR, ILLINOIS

SAW-GUIDE.

No. 842,489. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed April 21, 1904. Serial No. 204,176.

To all whom it may concern:

Be it known that I, EDWARD H. OVERHOLT, a citizen of the United States, and a resident of Streator, Lasalle county, Illinois, have invented certain new and useful Improvements in Saw-Guides; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in saw-guides, and more particularly to a saw-guide adapted to be adjusted at various angles to the work. Heretofore tools of this class have usually been of such complicated structure as to make them so expensive as to prevent their ready and general introduction into use.

The object of this invention is to provide a combined tool of strong, accurate, and simple construction adapted to lie flat upon the work or the material to which applied.

It is also an object of this invention to provide a saw-guide adapted to be adjusted at any desired angle both with respect to the edge and to the face of the work and which is also capable of being adjusted to and from the work dependent upon the depth of the cut.

This invention embraces many novel features and consists in the matters hereinafter described and more fully defined and pointed out in the appended claims.

In the drawings, Figure 1 is a top plan view of a device embodying my invention. Fig. 2 is a section taken on line 12 12 of Fig. 1. Fig. 3 is a section taken on line 3 3 of Fig. 1. Fig. 4 is a section taken on line 4 4 of Fig. 1. Fig. 5 is a section taken on line 5 5 of Fig. 1. Fig. 6 is a transverse section taken through the locking means for the protractor-disk. Fig. 7 is a side elevation of the saw-guide. Fig. 8 is a front edge view of the same.

As shown in said drawings, A indicates the stock or handle of the tool, which is shown as a plate or strap of metal or other suitable material of a desired length and width and having straight parallel lateral edges, the outer of which is bent downwardly, affording an integral flange a at a right angle with the plane of the strap. Said stock or handle A is provided at one end with a lateral extension on the inner side, as shown in dotted lines in Fig. 1. Journaled near the extremity of said handle or stock and as shown in said lateral extension is the graduated protractor disk or wheel B, which is revolubly secured upon a set-screw b, extending through the center thereof, and a milled nut b' is engaged thereon and acts to jam said protractor-disk against the stock. At points opposite the graduated segment of the protractor-disk and arranged on a chord parallel with the chord thereof are projections b^2, which, as shown, are formed by indenting the disk on the under side. Means are provided for locking said protractor-disk at any adjusted position comprising, as shown, a screw-shaft a^3, seated in the stock A and extending through a laterally-extended plate a', which fits closely to the periphery of the protractor-disk and is provided with an indicator-mark a^4 to facilitate adjustment on said disk. Said screw-shaft is provided with a milled nut a^5, beneath which is provided a clamping-plate or dog a^6, which is flanged at one side to bear upon the stock and one end of which projects upon the protractor-disk and is provided with a downwardly-turned point or edge, which firmly engages the protractor-disk against the stock, as shown in Figs. 4 and 5, thus adapting it to be adjusted with respect to the stock and firmly locked from movement.

A detachable guide is provided for holding a saw to cut at any desired angle with the edge or with the face of the stock or with both simultaneously, as preferred, in lieu of a miter-box. Said device comprises a plate D, slotted longitudinally, as shown in Fig. 1, and adapted to be slidably secured upon the projections b^2 of the protractor-disk, and a saw-guide D′ is hinged thereto, which, by reason of the slidable connection with the disk, is adapted for considerable adjustment along the chord of the arc defined by the projection b^2. As shown, said plate D is provided at its outer edge with knuckles d^3, adapted to receive between the same the corresponding knuckles d^4 of the saw-guide D′, comprising a strap of plate metal or other suitable material of any desired width, bent to receive a saw between the adjacent faces

thereof. A pintle d extends through the knuckles d^3 d^4, affording the axis of the hinge and is provided on one end with a head d^2 and on the other with a threaded nut d', whereby said knuckles on said respective parts are adapted to be jammed firmly together, holding the saw-guide at any desired adjusted angle with the plane of the stock. Obviously, any suitable adjusting means or hinge connection may be used, and, as shown in Fig. 2, the saw-guide inclines forwardly beyond the edge of the stock and is cut away at its free end to avoid contact with the teeth of the saw. The inner side of said saw-guide, or that affording the hinged connection with the plate D, is bent inwardly sufficiently to prevent dulling the saw thereon. If preferred, when it is desired to use this device for sawing miters the stock may be secured on a straight-edge D^2 of any desired width, as shown in Fig. 2, thus affording an extended side against which the material to be sawed or cut lies during the operation, and for the purpose of so securing said stock to a straight-edge or the like screw apertures are provided therein.

The operation is as follows: When the guide is secured upon the protractor-disk, the same may be adjusted at any desired angle with the edge of the stock by loosening the set-nut a^5 and turning the disk until the desired angle is indicated at the indicator-mark a^4, after which the set-nut is again adjusted, locking the guide at the desired adjustment. When it is desired to adjust the guide to or from the work, the set-nut b^3 is loosened and the plate D is adjusted along the chord described by the projections b^2 b^2 to the desired position and is again secured in place by said nut. The guide may also be adjusted at any desired angle with the face of the stock by means of its hinged connection with the plate D and is adapted to fold into very small compass when not in use.

I claim as my invention—

1. A miter-sawing guide, comprising a straight-edge stock, a graduated disk thereon, a saw-guide secured upon the disk and adapted for adjustment at angles with reference to the face and to the edge of the stock and means for adjusting said guide along the chord of the disk with respect to the article operated upon.

2. A miter-sawing guide, comprising a straight-edge stock, a disk thereon, a clamping-plate adapted to engage said disk in adjusted position and a saw-guide slidably engaged upon the disk and adapted for adjustment at an angle both with the face and with the edge of the stock.

3. A miter-sawing guide, comprising a straight-edge stock, a disk thereon having projections on its outer face and an adjustable guide slidably engaged on said projections and adapted for adjustment at an angle with the face and with the edge of the stock.

4. The combination with a stock of a revoluble disk carried thereon and provided with upwardly-directed projections, a spring clamping-plate adapted to hold said disk in adjusted position, a saw-guide slidably engaged on said projection and capable of adjustment at any desired angle with the face and with the edge of the stock.

5. The combination with a stock of a revoluble protractor-disk carried thereon, means carried on the stock adapted to engage the periphery of said disk and hold it in adjusted position, a plate adjustably engaged on said disk and a saw-guide hinged thereon comprising a sheet of metal bent upon itself and offset at each end.

6. In a device of the class described a straight-edge stock comprising a plate of metal bent to afford a flat upper bearing-face and a downturned straight-edge flange at a right angle therewith, a protractor-disk journaled on said upper face a resilient clamping-plate adapted to lock said disk in its adjusted position, there being alined projections on the upper face of said disk and a saw-guide adjustably engaged on said projections.

7. The combination with a sheet-metal stock of a disk revolubly engaged thereon, a saw-guide carried on said disk and adapted for adjustment at an angle both with the face and with the edge of the stock, means for adjusting said guide along a chord of the disk and a resilient plate adapted to lock the disk in its adjusted position upon the stock.

8. In a device of the class described the combination with a stock of a disk pivoted thereon, a laterally-directed plate secured on the stock adjacent to the periphery of the disk, a clamping-plate thereon adapted to engage the disk and hold it in adjusted position and a guide on said disk adapted to be adjusted along a chord thereof.

9. In a device of the class described the combination with a stock having a downturned flange on one margin thereof, of a graduated protractor-disk rotatively engaged on the stock, a laterally-directed plate on the stock closely adjacent to said disk and having an indicator-mark thereon with reference to which the disk is adjusted, a clamping-plate thereon having a downturned end adapted to engage said disk and hold it in adjusted position, raised projections on said disk and a guide adjustably engaged on said projections.

10. A device of the class described, a stock comprising a plate bent to afford a downturned right-angle flange and a flat upper face, a disk rotatably carried on the end of the stock, means adapted to lock the same in adjusted position, a saw-guide upon the disk comprising a base portion slidably engaged along a chord of said disk and a U-shaped

guide hinged thereto adapted to receive the saw-back, a threaded pintle-bolt for said hinge adapted to clamp the guide in adjusted position with respect to the base portion and a straight-edge adapted to be secured beneath and against the flange of the stock affording an extended side wall therefor.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

EDWARD H. OVERHOLT.

Witnesses:

HERMAN Q. NATER,

LOUIS NATER.