Dec. 6, 1955 A. E. BROSTER ET AL 2,725,904

INVERTIBLE PORTABLE HAND POWER-SAW GUIDES

Filed Aug. 24, 1953

2 Sheets-Sheet 1

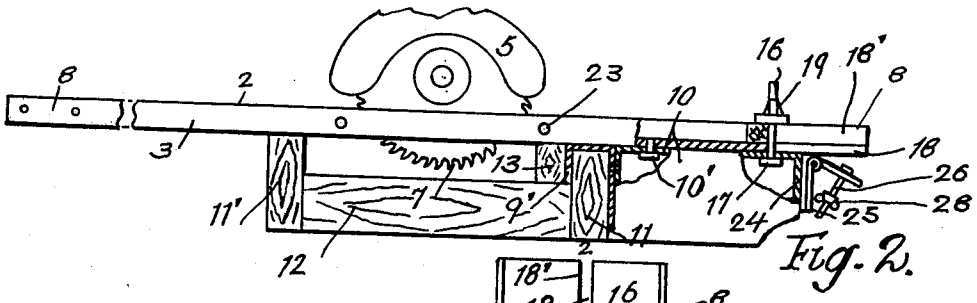


Fig. 2.

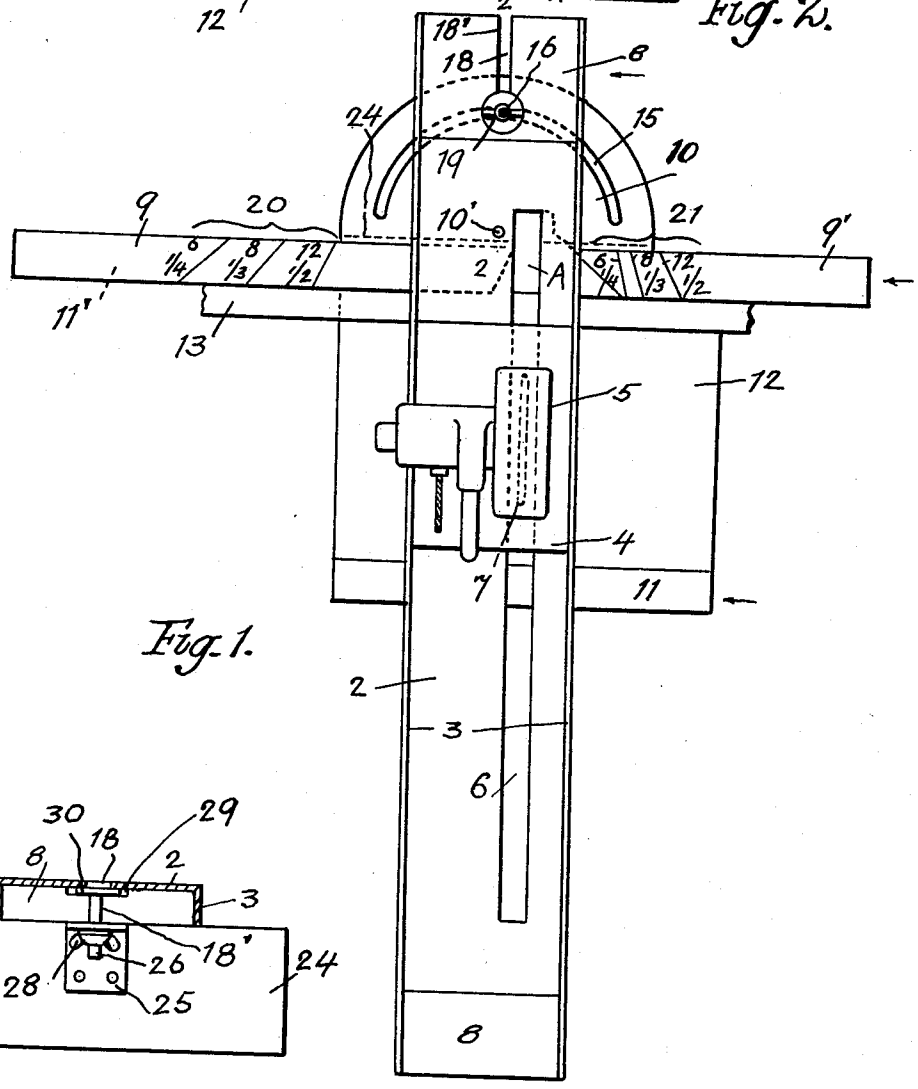


Fig. 1.

Fig. 5.

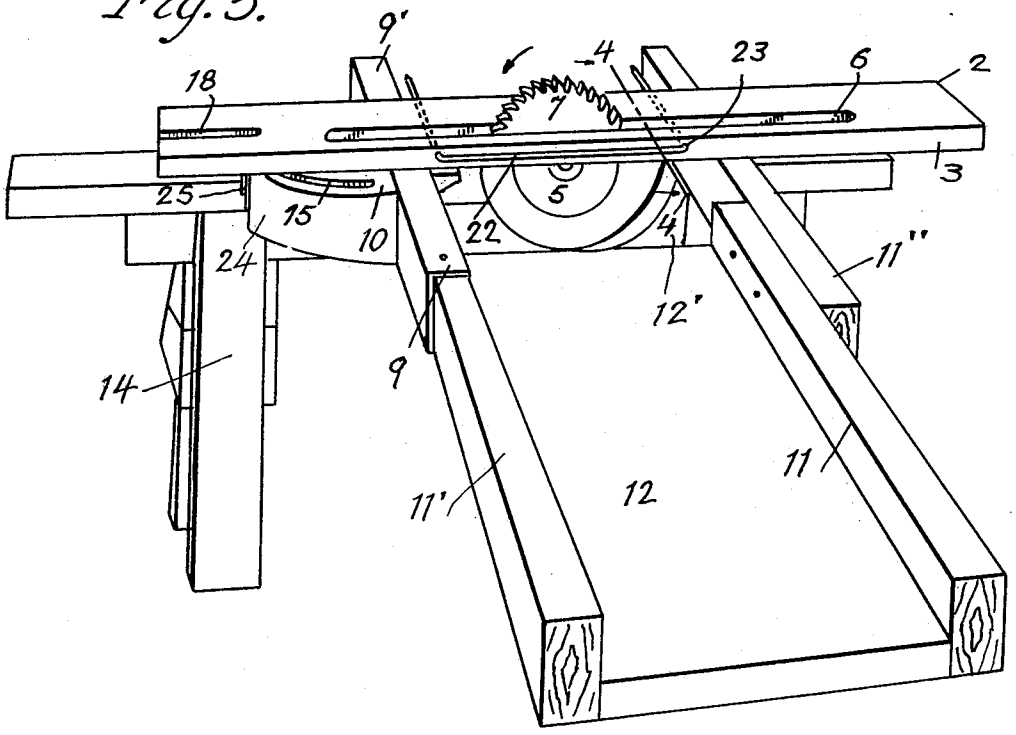
Inventors
A. E. Broster
W. H. Leslie
By Egerton R. Lease
Atty.

Dec. 6, 1955 A. E. BROSTER ET AL 2,725,904

INVERTIBLE PORTABLE HAND POWER-SAW GUIDES

Filed Aug. 24, 1953 2 Sheets-Sheet 2

Fig. 3.



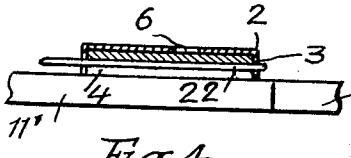


Fig. 4.

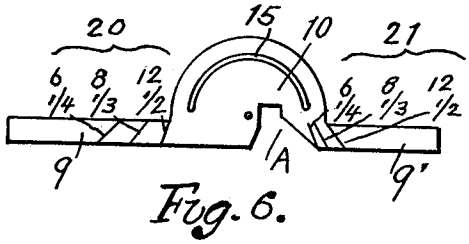
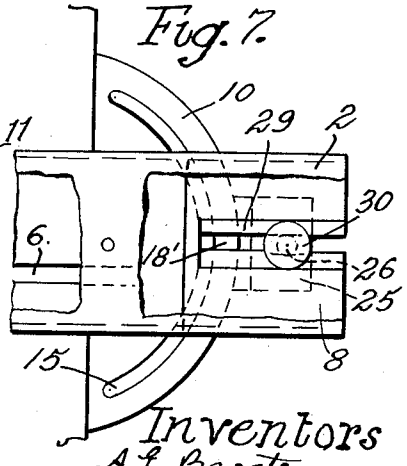


Fig. 6.

Fig. 7.



Inventors
A. E. Broster
W. H. Leahy
By Egerton R. Cage
Atty.

United States Patent Office 2,725,904
Patented Dec. 6, 1955

2,725,904

INVERTIBLE PORTABLE HAND POWER-SAW GUIDES

Alfred E. Broster and Walter H. Leslie, Island Falls, Saskatchewan, Canada

Application August 24, 1953, Serial No. 376,178

2 Claims. (Cl. 143—6)

This invention relates to invertible portable hand power-saw guides and the objects of the invention are:

1. To provide an inexpensive device of this class that can be carried by the carpenter from job to job and readily mounted on any suitable table made from material on the site of operations, and whereby selected angular seat and plumb cuts can be accurately made, particularly on rafters.

2. To guide a type of hand power-saw that may be tilted sideways and moved along a rectilinear path to produce an accurate angular cut, and a cut in which the angle is with respect to the top and bottom surfaces of the rafters.

3. To provide a tray which can be inverted on its table so that the saw carried thereby may be inverted and used as a table saw, as hereinafter more particularly explained.

Broadly considered the invention consists of a tray longitudinally provided with parallel side flanges between which the power-saw is guided along the bottom of the tray with the saw blade operating through a longitudinal slot formed in said bottom; a removable apertured support on which said tray is pivoted, provided with graduations suitable for angular seat and plumb cuts on rafters, the said support being provided with a slot concentric with a pivotal point of said tray so that the tray may be moved into the desired angular position with relation to said pivotal point, and means to hold said tray in said position, as hereinafter more particularly explained.

Figure 1 is a plan view of the guide tray and its support, carrying a power-saw, mounted on a suitable table.

Figure 2 is chiefly a side elevation of Figure 1.

Figure 3 is perspective view of the inverted tray showing the saw in inverted position and mounted for use as a table saw.

Figure 4 is vertical cross section on the line 4—4, Figure 3.

Figure 5 (sheet 1) is an end view of the left-hand end of Figure 3 showing the fastening means for the inverted tray.

Figure 6 (sheet 2) is a plan view, on a reduced scale, of the slot-provided plate and the plates provided with graduations.

Fig. 7 is a plan view of the hinged end of the tray.

In the drawings like characters of reference refer to the same parts.

The tray **2**, Figure 1, is provided with parallel side flanges **3** which act as rectilinear guides for the base **4** of the power-saw generally indicated at **5**. Formed in the floor of the tray is a longitudinal slot **6** through which the saw blade **7** operates. Stops **8** are secured at both ends of the tray to limit the longitudinal movements of the power-saw.

The support for the tray consists of U-shaped plates **9** and **9'** and a horizontal plate **10** to which latter the tray **2** is swivelled by the pin **10'**. The top of the plate **10** and the top of plates **9** and **9'** are in the same plane. The U-shaped supporting plates **9** and **9'** are fitted over

the side member **11** tied to a like member **11'** by the board **12**. These elements form the table on which the work **13** is supported.

The side members **11** and **11'** project well above the board **12** so that they may be cut down during operations, to the top of said board without impairing the table **2** acting as a support. This table is made by the carpenter on the job and is supported by a suitable saw-horse **14** (Figure 3).

Formed in the top of the plate **10** is a slot **15** concentric to the swivel pin **10'**, and held in this slot is a headed bolt **16** holding a washer **17** against the underside of the plate **10**. The bolt **16** extends through a longitudinal open short slot **18** formed at one end in the bottom of the tray **2** and through a slot **18'** formed in one of the stops **8**. By means of a washer-provided wing-nut **19** on the bolt **16**, the tray is held securely in set position for making angular cuts.

Although the plate **10** and the U-shaped plates **9** and **9'** are shown as separately formed in Figures 1 and 2 they may be cast in one piece.

Any conventional type of hand power-saw may be used with this device and these saws are usually constructed to be vertically and angularly adjustable in position for use.

The slot **6** is of convenient width and location with respect to the flanges **3** to permit of any tilting of the saw blade.

Referring to Figure 1 it will be noticed that the top of the plate **9** is provided with graduations collectively indicated by the numeral **20**. These markings indicate respectively angles of a pitch of ½ with a 12 inch rise; a ⅓ pitch with an 8 inch rise, and a ¼ pitch with a 6 inch rise. The markings on the top of the plate **9'** are collectively indicated at **21** and are indicated respectively as a ¼ pitch with a 6 inch rise; a ⅓ pitch with an 8 inch rise, and a ½ pitch with a 12 inch rise. Other graduations may of course be marked on these plates.

To cut rafters at the desired angle the outer side of the appropriate flange **3** of the tray **2**, as this latter is swung on its swivel **10'**, is placed in alignment with the score mark of a given graduation and then the tray is clamped firmly in place by the wing nut **19** on the bolt **16**.

Since the rafters must be cut through, the opposing inner ends of the plates **9** and **9'**, and the plate **10** adjacent thereto, are formed as shown at A, in Figure 6 to provide clearance therewith of the saw-blade while it works.

Figure 3 shows the tray and power-saw in an inverted position for use as a table-saw.

To permit the inversion of the tray **2** the saw is moved into position between the side members **11** and **11'** and the U-shaped holding-pin **22** (Figure 4) is passed through the holes **23** formed in alignment in both of the flanges **3**, over the base plate **4** of the saw, thus clamping the saw securely to said tray. The wing-nut **19** is then retracted and the tray slid away therefrom. This movement is permitted by the slot **18**. This nut and its bolt **16** should be moved out of the way along the slot **15**.

The plate **10** and the plates **9** and **9'** are then shifted from the side member **11** to the side member **11'** (Figure 3).

Carried by the vertical wall **24** of the plate **10**, is a hinge **25** (Figure 5) and through one of the wings thereof is passed a headed bolt **26**. (Figures 2 and 5.) This bolt **26** is raised into vertical position on its hinge **25** and then the inverted tray **2** is slid along the plate **10** until the slot **18'** straddles the bolt **26** and the head **30** of this bolt is housed in the recess **29** formed in the slotted stop **8**. By screwing the wing-nut **28** against the horizontal wing of the hinge the bolt **26** and the tray and saw are securely held in place.

By allowing the tray hinged movement to position the bolt 26 in the slot 18, the saw may be lifted over the member 11 and located at one end of the board 12 in a well 12' located between this board and a member of

at each end of s
of said hand power-s
being provided with an o
the releasable means in the