United States Patent

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[54] GUIDED GAGE FOR BAND SAWS
5 Claims, 5 Drawing Figs.

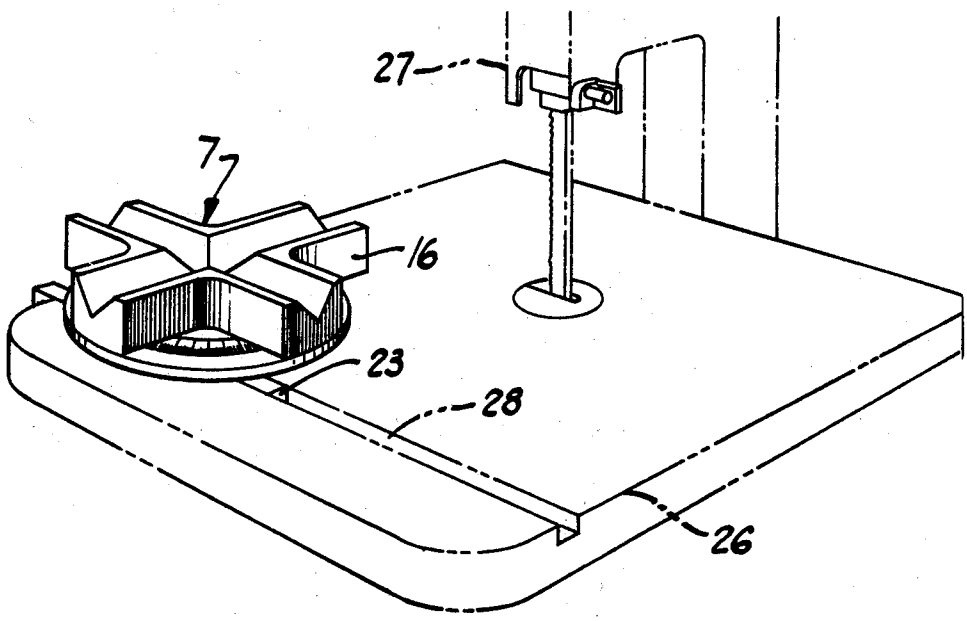
[52] U.S. Cl. 143/169, 33/174, 143/6, 143/26, 269/57, 269/289
[51] Int. Cl. B27b 27/08
[50] Field of Search 143/169, 168, 171, 6, 6.2, 26, 26.1, 26.2, 51; 83/201, 581; 77/63, 64; 144/154, 216, 217; 269/55, 57, 289, 309; 33/174TR, 174TA, 174P

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ABSTRACT: This invention consists of a circular base plate; a graduated rotationally stationary ring that encircles the base plate; and another ring that encircles the graduated ring. The last mentioned ring having a work holder secured to the top thereof. When viewed from the top, the work holder is in the shape of a cross which is V-shaped when viewed from the end of each arm of the work holder. A guide bar is provided with two vertically disposed and spaced pins that project upward into recesses located in the underside of the aforesaid graduated ring for holding the guided gage on the table of a bandsaw or other power tool when the guide bar is placed in the slot that is located in the table of the bandsaw or other power tool.



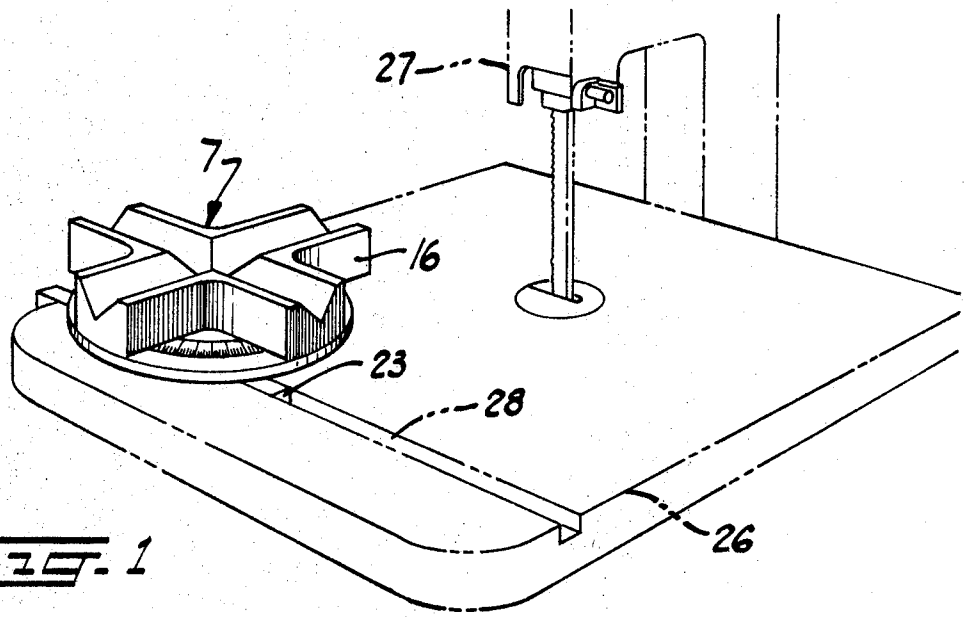


FIG. 1

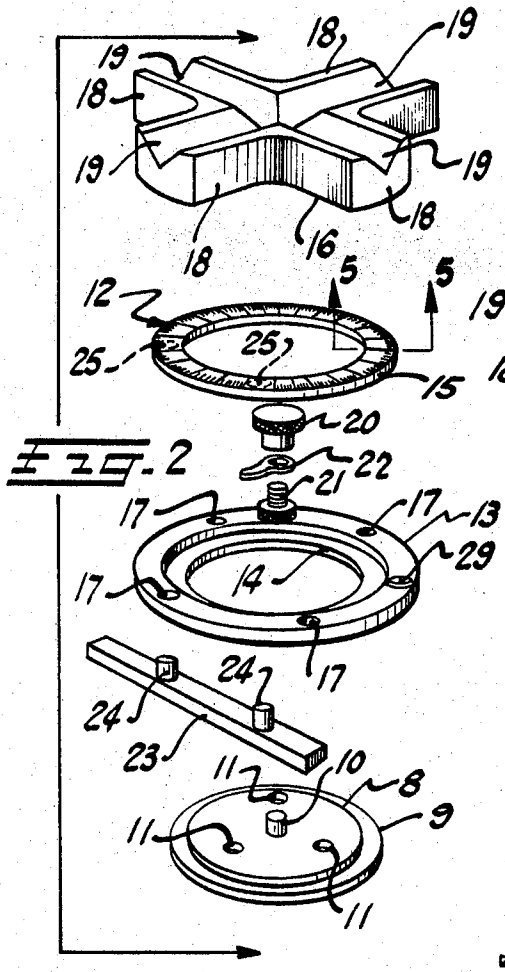


FIG. 2

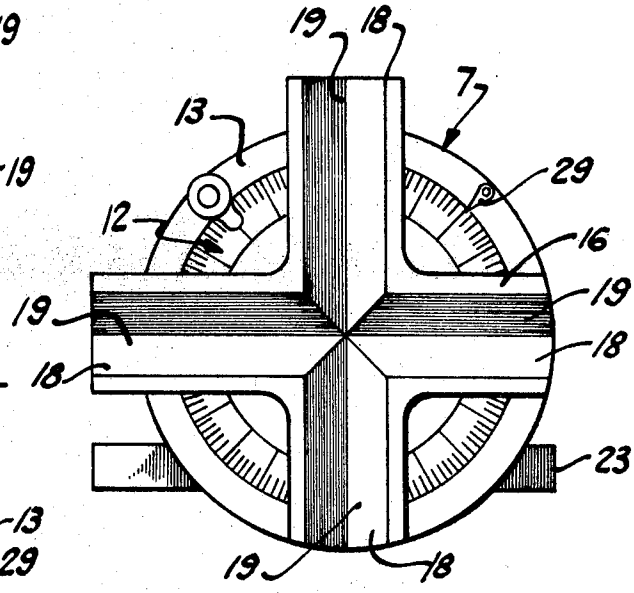


FIG. 3

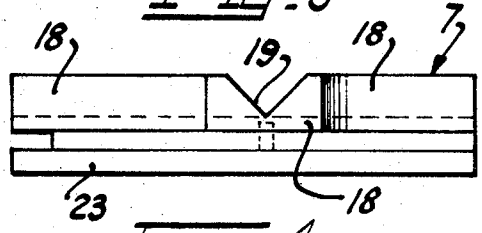


FIG. 4

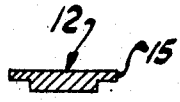


FIG. 5

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GUIDED GAGE FOR BAND SAWS

This invention relates to both gages and band saws; more particularly, to a gage that is guided by the operator'hand on the table of a band saw during the sawing of material, as will hereinafter be described.

It is the principal object of this invention to provide a guided gage for bandsaws that will permit the operator of the saw, or any other tool having a table, to make any number of combinations of irregular shapes in various materials without the use of other tools.

Another object of this invention is to provide a guided gage for bandsaws that will greatly increase the heterogeneity of the bandsaw in producing precision cut objects by a person of limited experience in the handling of tools.

Still another object of this invention is to provide a guided gage for bandsaws, the gage having a minimum number of parts so assembled as to take up a minimum amount of space on the table of the saw.

Other objects and advantages of this invention of the various parts of this invention and how they are assembled into the guided gage as set forth in this specification and the appended claims and illustrated in the accompanying drawing in which:

FIG. 1 is a perspective view of this invention, ready for use on the table of a bandsaw;

FIG. 2 is an exploded perspective view of the various parts of this invention ready for assembly;

FIG. 3 is a top view of this invention;

FIG. 4 is a front view of this invention; and

FIG. 5 is a sectional view of one detail of this invention, taken along line 5–5 of FIG. 2, and viewed in the direction indicated by the arrows.

In the several views of this invention, like parts are indicated by like reference numbers.

The reference number 7 indicates this invention in its entirety.

Directing ones attention to FIG. 2 of the accompanying drawing it will be seen that this invention consists of a number of parts. These parts include a circular guide or base plate 8 having a horizontally disposed flanged periphery 9 and a centrally located vertically disposed centering pin 10 as well as three equally and radially spaced mounting openings 11. A graduated rotationally stationary ring 12, that is seen to be basically T-shaped when viewed in cross section as is illustrated in FIG. 5 of the accompanying drawing, circles the aforesaid base plate 8. A second ring 13, having a horizontally disposed internal peripheral flange 14, encircles the just-mentioned graduated ring 12 with the internal peripheral flange 14 being under the external peripheral edge 15 of the graduated ring 12. A work holder 16 is secured by a plurality of equally spaced screws to the upper surface of the aforesaid base plates 8 and to the ring 13. Screws project upward through the openings 17 in the second ring 13 when this novel invention is assembled. The work holder 16 is in the shape of a cross having four arms 18 that are all at right angles to one another. Each arm, when viewed from the end, is seen to have a V-shaped upper surface 19 in which work to be cut by the bandsaw is placed.

Looking now at FIG. 4 of the drawing it will be seen that a knurled knob 20 is screwed into the vertically disposed screw 21 of the often mentioned ring 13. The aforesaid knob 20 is placed on top of the spring clamp 22 that has its outer end pressing down on the graduated ring 12 when the knob 20 is tightened on the screw 21, thereby firmly holding the second ring 13 in any desired position.

Directing ones attention to both FIGS. 2 and 4 it will be seen that this invention embodies a guide bar 23 having two vertically disposed pins 24 in spaced relation to one another. The pins 24 project upward through the recesses 25 in the underside of the aforesaid graduated ring 12.

The assembly of the above described parts of this invention will be clearly understood by those experienced in the art upon examination of the accompanying drawing and no detailed explanation of the assembly is considered necessary.

The way in which this invention of a guided gage for bandsaws is used will be understood by examination of FIG. 1 of the accompanying drawing and the following explanation.

The invention is placed on the table 26 of the bandsaw 27 with the aforesaid guide bar 23 in the slot 28 of the just-mentioned table 26. The piece of material to be sawed (not shown in any of the views of the accompanying drawing) is now placed on the desired V-shaped upper surface of the aforesaid work holder 16 which is rotated to produce the desired configuration of the material being sawed. It is of course necessary to unscrew the aforesaid knurled knob 20 before rotating the work holder 16, then tighten the knob. The pointer or indicator 29 will indicate the exact rotational position of the aforesaid rotating ring 12 of this invention in order that a given saw cut can be duplicated at any time.

It is to be understood that this invention is not to be limited to use on a bandsaw but can be used in connection with any cutting tool having a table that is provided with a slot in which the aforesaid guide bar 23 of the invention 7 may be placed.

This invention is subject to any changes in its detailed design and/or modifications one may care to make in the same in so long as the changes and/or modifications fall within the scope and intent of the appended claims.

I claim:

1. A guided gage for bandsaws comprising a base plate having a vertically disposed and centrally located centering pin that projects upward in the center of the underside of a work holder; and the said work holder being secured to both the said base plate and to a ring that encircles the said base plate; and a rotatably stationary graduated ring that is basically T-shaped in cross section, the said graduated ring being located within the first mentioned ring; and means of holding the said gage on the table of a bandsaw or other power tool having a table.

2. The invention of claim 1, wherein the said base plate is not only circular when viewed from the top but is also provided with a horizontally disposed flanged periphery that projects over the internal peripheral flange of the said graduated ring when the said gage is assembled.

3. The invention of claim 2, wherein the said work holder is in the shape of a cross when viewed from the top that has four arms that are at right angles to one another, and the said arms being provided with an upper surface that is V-shaped when viewed from the ends.

4. The invention of claim 3, wherein the first mentioned ring is provided with a vertically disposed screw on which is placed a spring clamp that has its outer end resting on the upper surface of the said graduated ring when the said gage is assembled; and a knurled knob that is screwed onto the said screw to act on the said clamp and thus firmly hold the said first mentioned ring in any desired position.

5. The invention of claim 4, wherein the means of holding the said gage to the said table is by a guide bar having two vertically disposed and spaced pins projecting upward into recesses in the said graduated ring.