

T. BEMIS.
SAW GAGE.

APPLICATION FILED SEPT. 8, 1908.

1,028,529.

Patented June 4, 1912.

3 SHEETS-SHEET 1.

Fig-1 -

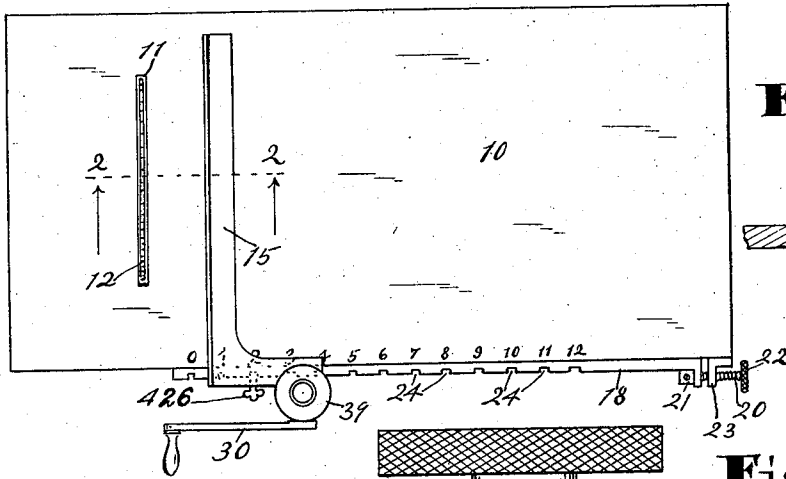


Fig-2 -

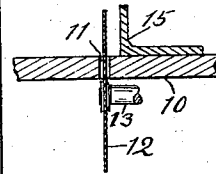
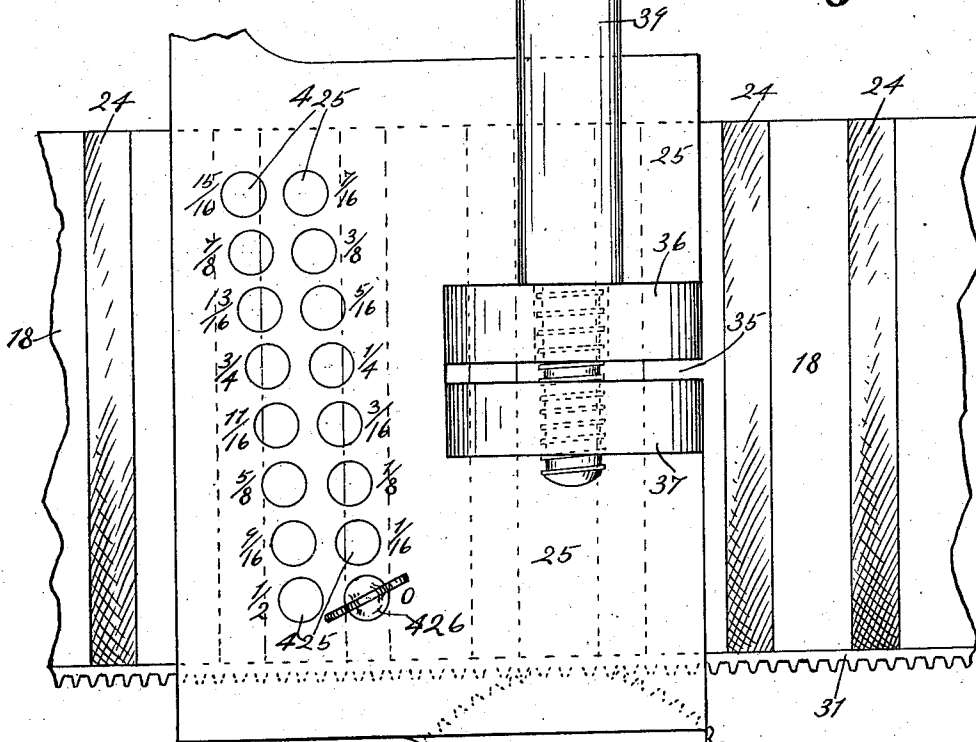


Fig-3 -



WITNESSES:

W. M. Gentie.
O. M. Greener

INVENTOR.

Thomas Bemis.

BY

V. H. Hodson
ATTORNEY.

T. BEMIS.
SAW GAGE.

APPLICATION FILED SEPT. 8, 1908.

1,028,529.

Patented June 4, 1912.

3 SHEETS—SHEET 2.

Fig-4-

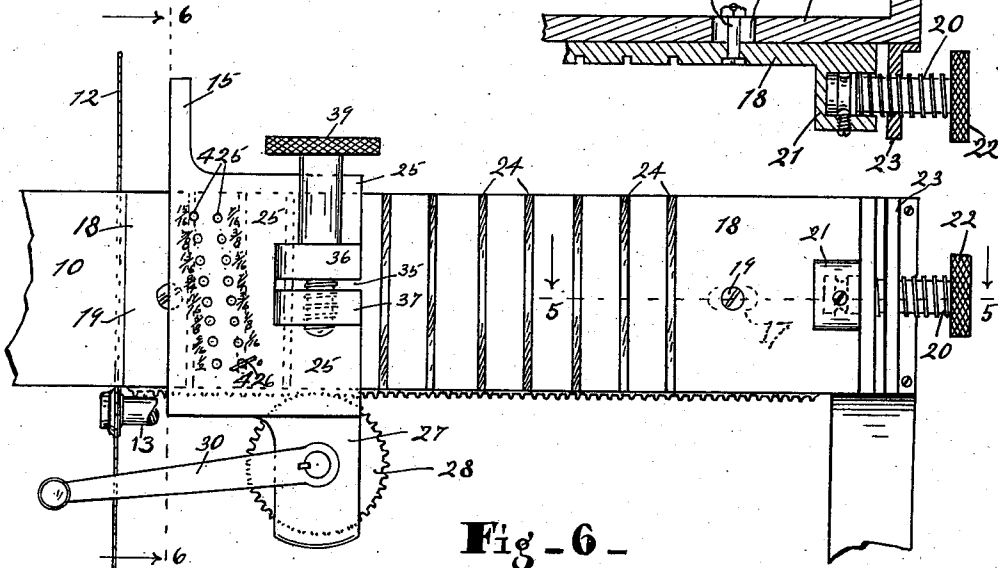


Fig-5-

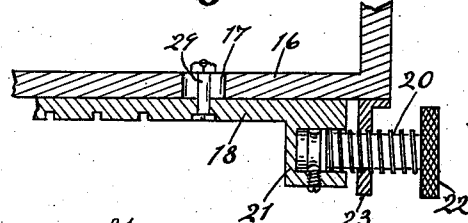


Fig-6-

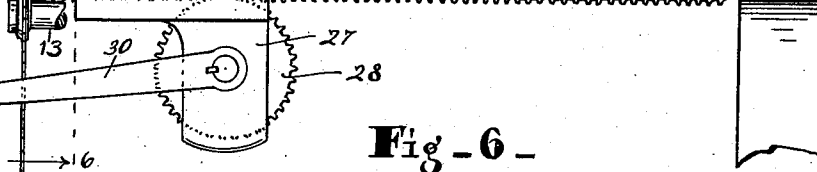


Fig-7-

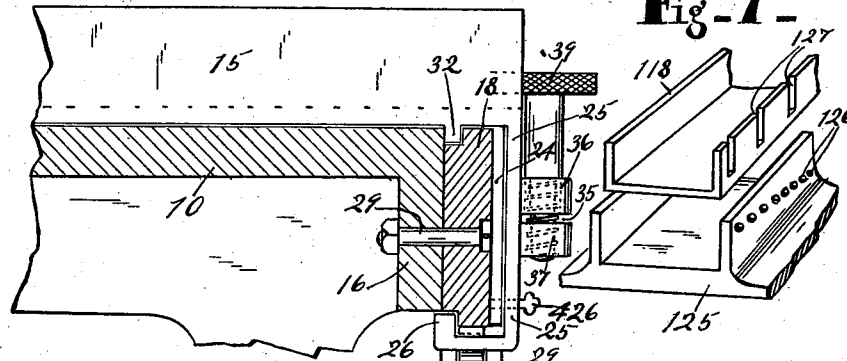
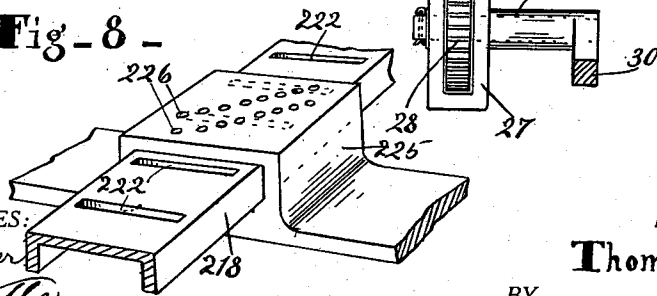


Fig-8-



WITNESSES:
O. M. Greener
N. M. Gentle

INVENTOR.
Thomas Bemis.

BY
V. H. Hockwood
ATTORNEY.

T. BEMIS.
SAW GAGE.

APPLICATION FILED SEPT. 8, 1908.

1,028,529.

Patented June 4, 1912.

3 SHEETS-SHEET 3.

Fig - 9 -

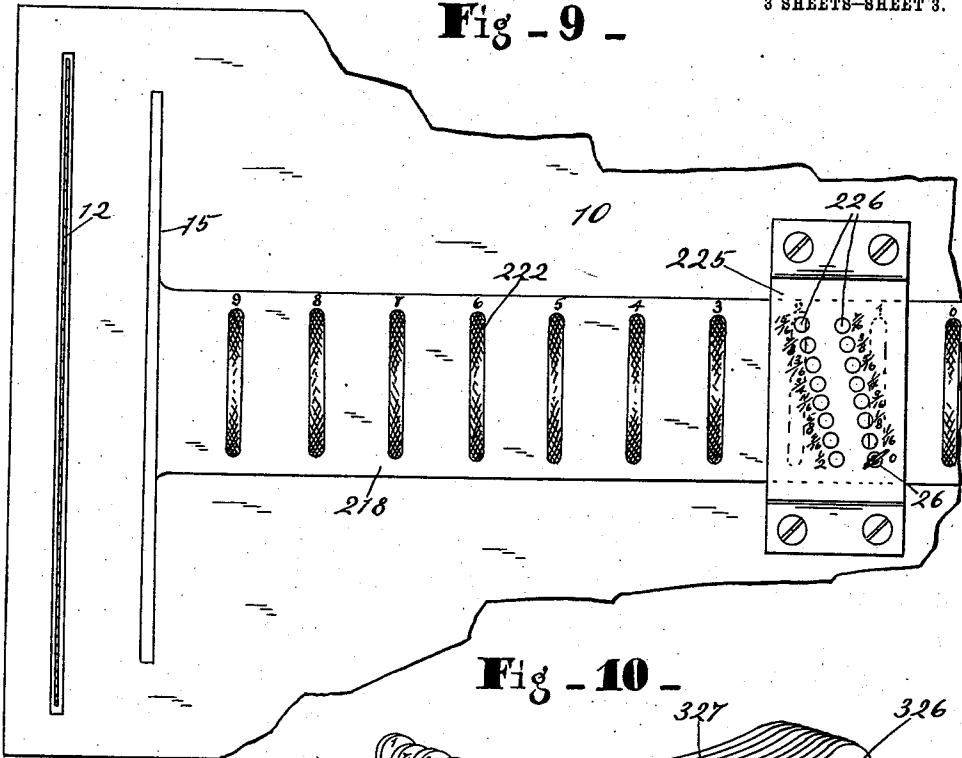
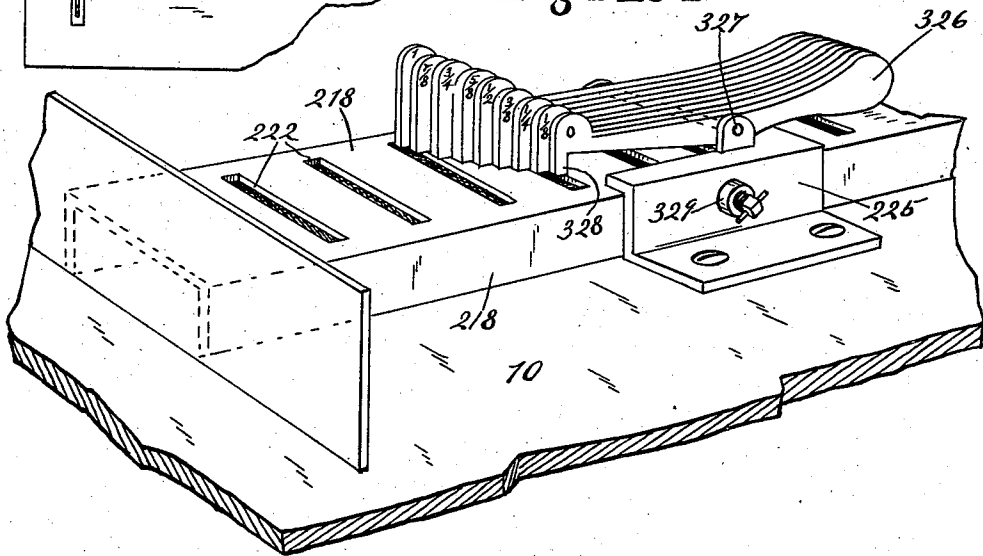


Fig - 10 -



WITNESSES:

W. M. Gentle,
O. M. Greener

INVENTOR.

Thomas Bemis

BY

V. H. Schroed
ATTORNEY.

UNITED STATES PATENT OFFICE.

THOMAS BEMIS, OF INDIANAPOLIS, INDIANA.

SAW-GAGE.

1,028,529.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed September 8, 1908. Serial No. 451,991.

To all whom it may concern:

Be it known that I, THOMAS BEMIS, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Saw-Gage; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

This invention relates to a construction of gages for adjusting the fence for saws.

The chief feature consists in providing a gage bar or member having a series of transverse grooves or slots and ribs, said slots being indicated by numerals, and a plate or other member graduately arranged for registration with said gage bar, said graduation being by fractions of an inch from zero to one inch from the starting point, and a pin or other means insertible in any one of said apertures into the notch or recess in the gage bar whereby the exact location of the fence can be determined. The member secured to the fence moves adjacent the other member longitudinally thereof but has no transverse movement independently thereof, and in connection with said member means can be mounted for the movement thereof longitudinally.

The full nature of this invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a plan view of the mechanism. Fig. 2 is a vertical section on the line 2—2 of Fig. 1. Fig. 3 is an elevation of a portion of the front side of the device as shown in Fig. 1 and on an enlarged scale, parts being broken away. Fig. 4 is an elevation of the front side of the device as shown in Fig. 1 on a smaller scale than shown in Fig. 3 and including a large portion of the device. Fig. 5 is a horizontal section on the line 5—5 of Fig. 4. Fig. 6 is a vertical transverse section on the line 6—6 of Fig. 4. Figs. 7 and 8 are perspective views of modified constructions of the gage bar and fence plate. Fig. 9 is a plan view of the modified form shown in Fig. 8 in combination with the table, parts being broken away. Fig. 10 is a perspective view of a modified form.

In detail 10 represents the table of the machine provided near the left hand end with a transverse slot for a vertically disposed circular saw 12 projecting upwardly

through said slot and mounted on the arbor or shaft 13. A fence 15 extends transversely of the table parallel with the saw and is slidable on the table toward and away from the saw in order to predetermine the width of the board that is to be cut by the saw. The front edge of the table has a downwardly extending flange 16, see Figs. 5 and 6, with short longitudinal slots 17, and a gage plate 18 is adjustably mounted against the outer vertical fence of said flange 16 by means of screw bolts 19 which are secured to said gage bar 18 and project through said slot 17 whereby the gage bar 18 may be longitudinally and horizontally adjustable to a slight extent. This horizontal adjustment of the gage bar 18 is accomplished by an adjusting screw 20 with one end mounted in the head 21 secured to the right hand end of the gage bar 18 and the other end provided with a milled head 22 and the body of the screw operating in a bracket or projection 23 forwardly from the side flange 16 of the table, as shown in Fig. 5.

The gage bar is provided with a series of vertically disposed grooves or slots 24, each slot extending vertically across the gage bar so as to provide between the slots vertically disposed ribs. The slots are arranged one inch apart from center to center and are numbered so as to indicate approximately the width of the board that will be cut by the machine. On the end of the fence 15 there is a downwardly extending fence plate 25 which, see Fig. 6, turns inwardly at the bottom under and beyond the gage bar 18 and has a turned up flange 26 to guide it in its movement along said gage bar. A bracket 27 extends down from said plate 25 to carry the spur wheel 28 having a spindle 29 with a crank 30 thereon for operating it. Said spur wheel is vertically disposed and engages a rack 31 along the under edge of the gage plate 18. On the under side of the fence, see Fig. 6, there is a downwardly extending lug 32 that projects into a groove or guideway formed between the edge of the table and the gage bar 18 and located opposite to the upwardly projecting guide lug 126, whereby the fence will be guided during its movement for adjustment.

The fence plate 25 is horizontally slotted at 35, see Fig. 3, and on each side of said slot there is an outwardly extending flange,

36 above and 37 below, extending from said plate horizontally through which a clamping screw 39 operates that is threaded at its lower end where it projects through the lower flange 37 and shouldered above the upper flange so as to draw the flanges 36 and 37 toward each other slightly when desired and thus clamping the fence plate 25 on the gage bar 18 after it has been adjusted.

The fence plate 25 has two series of pin holes 425 arranged in two rows slightly inclined from a vertical line and the center of each varying from a vertical line through the centers of the adjacent holes one-sixteenth of an inch and adjacent the various holes there are numerals indicating the distance from the center of the first hole in the series marked "0". These holes are drafted to register with the slot in the gage bar 18 so that the pin 426 is inserted in one of said holes and into the registering slot of the gage bar when the fence has been adjusted to position.

The slots in the gage bar are located one inch apart from center to center so that in adjusting the fence it is moved on the gage bar to the desired slot which will indicate approximately the width in inches of the board that will be cut and then the pin 426 is inserted in any one of the holes 425 so as to set the device to cut boards with a width of a number of inches and a fraction of an inch. It is observed that the holes 425 will vary the device sixteenths of an inch. Hence, if one wished to cut a board six and seven-sixteenths inches wide, he would move the fence plate until the hole marked "7/16" registered with the slot in the gage bar marked "6", and then insert his pin. The adjustment of the gage bar by the screw 20 is to provide for the difference in the set of saws or any other possible slight variation necessary to make the device measure correctly.

The modified form shown in Fig. 7 has a plate 125 that is secured to the table and is provided with a series of holes 126 through which pins can be inserted into notches or slots 137 in the gage bar 118 that is movable in relation to the plate 125 and at one end thereof the fence 15 is secured. The notches or slots 127 are shown in this figure to be about $\frac{1}{2}$ inch apart and the holes 126 are arranged to register by eighths of an inch.

The modified form shown in Figs. 8 and 9 is somewhat similar to that shown in Fig. 7, that is the gage bar 218 is secured at one end to the fence 15 and is slidable of the plate 225 that is secured to the table. The gage bar has slots 222 adapted to be engaged by the pin 26 extending through holes 226 in plate 225. The holes 226 are in two series arranged the same as in Fig.

4, the series extending from one slot to the next in the gage bar.

In the modified form shown in Fig. 10 the parts are the same as in Fig. 9 excepting that the plate 225 is modified in form, the top thereof being partially cut away and instead of a series of holes 226 and a pin 26, there is shown nine small levers 326 fulcrumed on the pin 327 about midway their ends but so that the right hand ends will outweigh the left hand ends thereof, as shown in Fig. 10 and thus normally hold the catches 328 on the ends of said levers out of the slots in the gage bar 218. The left hand ends of the levers, that is the catches 328 are graduated in position one-eighth of an inch apart and a series extends from one slot to another in the gage bar. There is also a set screw or clamp 329 for securing the plate 225 to the gage bar when the latter is adjusted.

In operation the gage bar is moved to the desired position and the catch 328 on one of the levers 326 pushed down into the slot that registers therewith and then the set screw 329 is tightened up and the catch released, whereupon its lever resumes its normal position.

Recesses, grooves, ribs, notches or slots may be used in the gage bars with equal effect and without departing from the spirit of the invention and they, as well as the holes for the pins may be at any desired distance apart but it is preferable that the slots or the like in the gage bars be about one inch apart from center to center so as to represent inches in the adjustment of the fence and the holes be arranged to register eighths or sixteenths of an inch and adapted to extend between and the end holes thereof registrable with a pair of the slots or the like in the gage bar.

What I claim as my invention and desire to secure by Letters Patent is:

1. A saw gage including a gage bar, a plate adjacent said gage bar, one of said members being stationary and the other slidable and adjustable in connection therewith, and one of said members being provided with equidistant transversely extending slots and the other member with an inclined series of holes arranged for registration with said slots, said slots being at least as long as the series of holes, a pin adapted to be inserted through any one of said holes and into one of said slots, and a fence connected with the adjustable member.

2. A saw gage including a gage bar, a plate adjacent said gage bar, one of said members being stationary and the other slidable and adjustable in connection therewith, and one of said members being provided with equi-distant transversely extending slots and the other member with an inclined series of holes extending from

one of said slots to another of said slots, said slots being at least as long as the series of holes, a pin adapted to be inserted through any one of said holes and into one of said slots, and a fence connected with the adjustable member.

3. A saw gage including a table, a gage bar having equidistant transversely extending slots therein, a fence slidable on said table, a plate connected with said fence that is slidable and adjustable longitudinally of said gage bar and has an inclined series of holes extending from one slot in said gage bar to another slot therein, said slots being at least as long as the series of holes, and a pin adapted to be inserted through any one of said holes into a slot in said gage bar.

4. A saw gage including a table, a relatively fixed gage bar connected with the table and having equidistant slots transversely thereof, a fence slidable on said table and provided with a fence plate connected therewith that is slidable longitudinally along said gage bar and provided

with an inclined series of holes extending in an inclined row from one slot in said gage bar to the next one, said slots being at least as long as the series of holes and a pin adapted to be inserted through any one of said holes.

5. A saw gage including two gaging members, one of said members being stationary and the other member slidable and adjustable in connection therewith, and one of said members being provided with equidistant slots, means on the other member for engagement of different points in an inclined line thereon with different parts of the slots of said slotted member, and a fence connected with the adjustable member.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

THOMAS BEMIS.

Witnesses:

O. M. GREENER,
V. H. LOCKWOOD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."