

No. 812,574.

PATENTED FEB. 13, 1906.

J. S. LINTON.

SAW GAGE.

APPLICATION FILED SEPT. 9, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

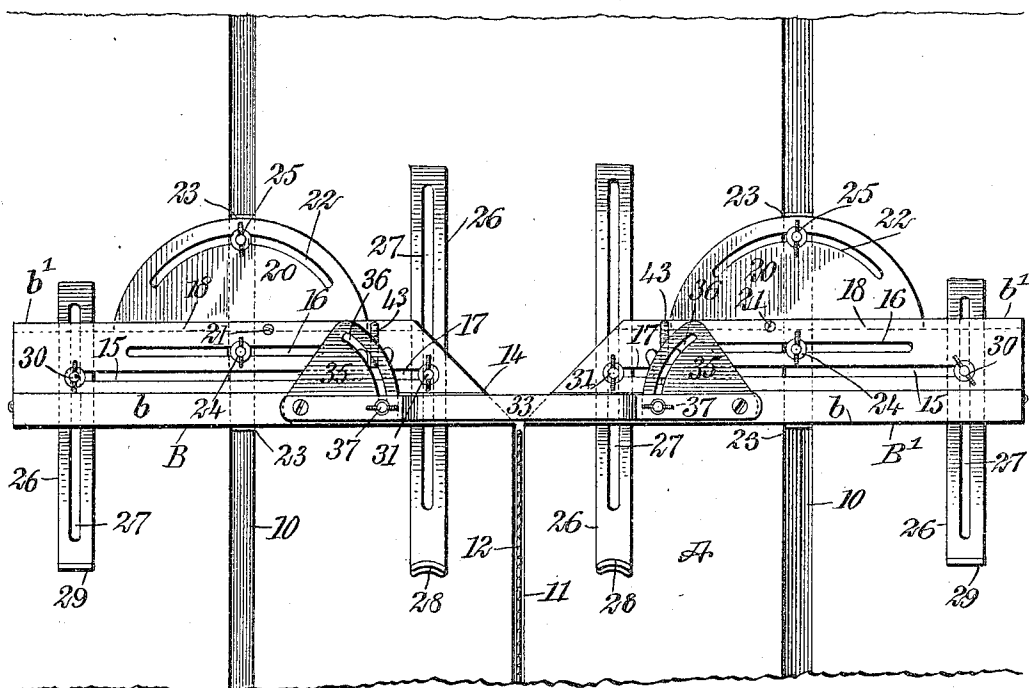
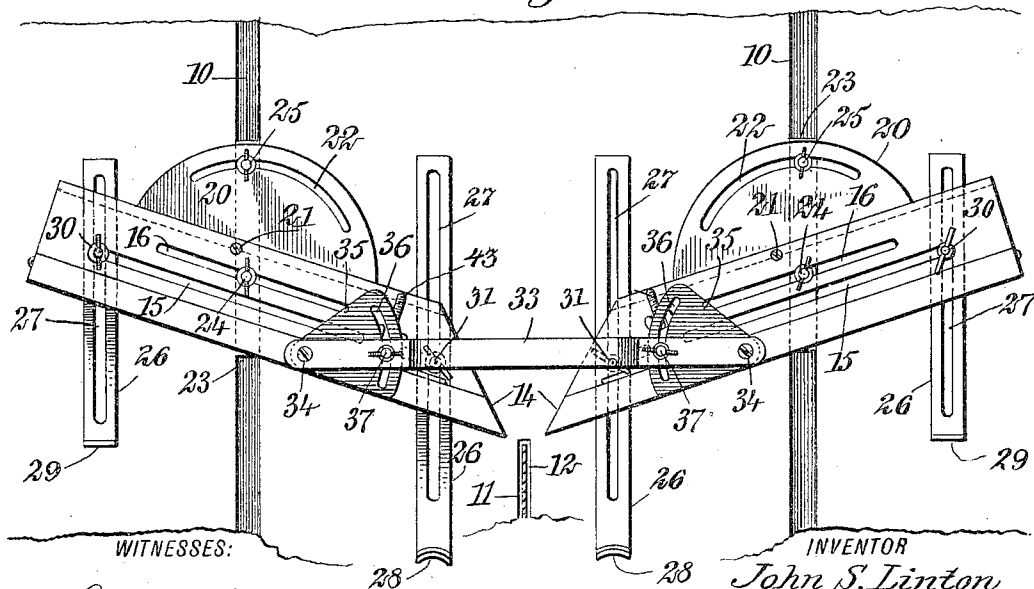


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

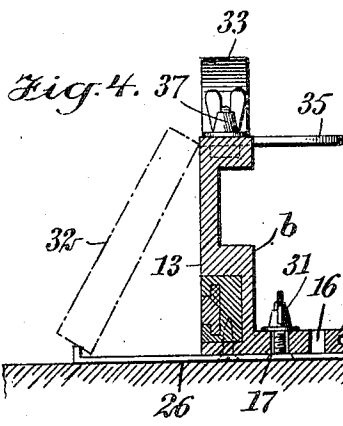
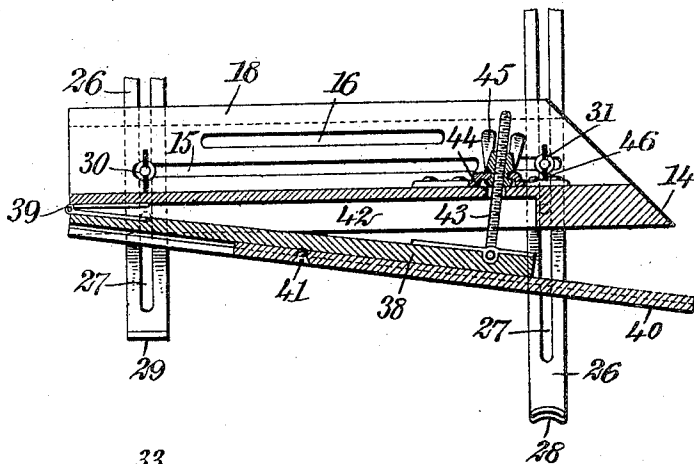


Fig. 5.

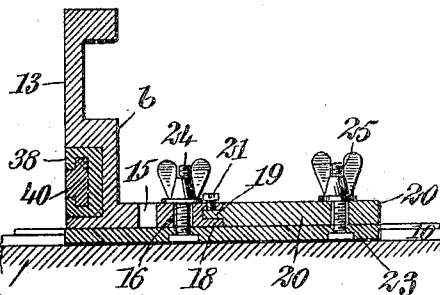
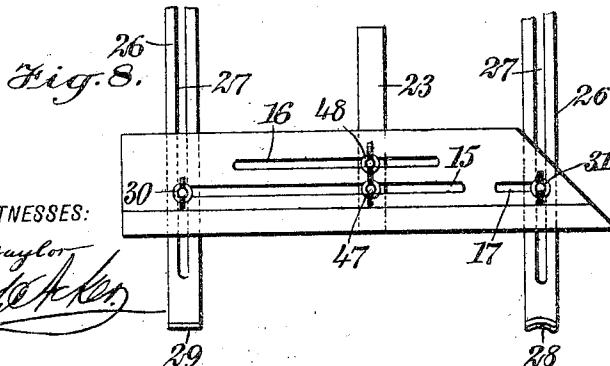


Fig. 6.



Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN SAMUEL LINTON, OF NEW YORK, N. Y.

SAW-GAGE.

No. 812,574.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed September 9, 1905. Serial No. 277,698.

To all whom it may concern:

Be it known that I, JOHN SAMUEL LINTON, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Saw-Gage, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a gage for the tables of machine-saws, which gage can be set so as to guide the cutting operation of two boards in such manner that their mitered edges will be cut to accurately fit together, and, further, to provide a gage of simple, durable, and economic construction adaptable to any saw-table and which can be quickly, conveniently, and readily adjusted to produce cuts of any desired angle or bevel.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the table of a machine-saw and the improved gage applied and adjusted for straight work. Fig. 2 is a view similar to that shown in Fig. 1, but illustrating the position of the gage for cutting mating miters on two boards. Fig. 3 is a horizontal section through one member of the gage, illustrating another adjustment of the gage. Fig. 4 is a vertical transverse section through a member of the gage, illustrating its adjustability to guide the board in an inclined position. Fig. 5 is a central vertical transverse section through one member of the gage. Figs. 6 and 7 are detail perspective views of timbers, illustrating different bevels obtainable by the adjustment of the gage, the bevel shown in Fig. 7 being that produced when the gage is adjustable as shown in Fig. 2; and Fig. 8 is a plan view of a slightly-modified form of the gage.

A represents the table of a sawing-machine, the said table being provided with the customary grooves 10, located one at each side of the opening 11, in which the saw 12 has play.

The device is usually constructed in two members B and B', which are identical in construction, and they are adjustably con-

nected in a manner to be hereinafter described. In the construction of a member of the device a body 13 is provided angular in cross-section, embodying a vertical member *b* and a horizontal base member *b'*. The outer face of the vertical member *b* is that facing against which the board is placed when directed to the saw, and the inner end of the body is beveled or inclined, being given practically a miter surface, as is shown at 14 in the drawings. The base member *b'* of the body is provided with a long longitudinal slot 15, together with a shorter parallel slot 16 and a third yet shorter slot 17 at the end portion of the first-named slot 15 and located also adjacent to the beveled edge 14 of the body. A longitudinal groove 18 is produced in the edge of the base member *b'* of the body, as is shown by full lines by Figs. 4 and 5 and by dotted lines in Figs. 1 and 2. The said groove 18 is adapted to receive a tongue 19, produced on the inner straight edge of the segmental plate 20, and this plate 20 is adjustable on the base and is held in adjusted position by a screw 21 or a like device. The segmental plate 20 is provided with a segmental slot 22 adjacent to its outer edge, and a guide-bar 23 is located transversely beneath the base member and the adjustable plate 20, said guide-bar 23 being adapted to slide in a groove 10 on the table A. A bolt 24 is passed through the guide-bar 23 and up through the slot 16, the bolt being provided with a thumb-nut, and a corresponding bolt 25, also provided with a thumb-nut, is passed up through the said guide-bar 23 and through a segmental slot 22 in the plate. By loosening the nuts of the bolts 24 and 25 the body of the device may be adjusted to any diagonal position required relative to the saw of the machine—for example, as is illustrated in Fig. 2.

Guide-arms 26, usually two in number, are employed in connection with the body 13 of the device, and these guide-arms are provided with longitudinal slots 27, which are arranged transversely beneath and in engagement with the under face of the base member *b'* of the device, being adapted to rest upon the table A. These guide-arms 26 may be of any desired length, and they extend as far as desirable beyond the smooth working face of the device, as is shown in Figs. 1, 2, and 8. An upwardly-extending straight flange 29 is formed on the outer guide-arm 26 at its forward end, and a flange 28 is similarly located

upon the inner guide-arm; but the flange 28 is convexed upon its inner face or that face which is opposite the working surface of the body 13. Both arms 26 are adjustable on the body of the device, a bolt 30 being passed up through the slot of the outer guide-arm and through the slot in the base of the body, while a corresponding bolt 31 is passed through the slot of the inner guide-arm and through the short slot 17 in the base of the body 13, so that the guide-arms 26 are adjustable longitudinally as well as transversely of the device and may be placed in a diagonal position relative thereto, if so desired. The guide-arms 26 can be adjusted forwardly a sufficient distance to permit a board to be placed thereon in an inclined position, (shown by dotted lines in Fig. 4,) so as to cut the end of a peculiar or predetermined bevel.

In Figs. 6 and 7 two pieces of timber are shown, illustrating different cuts; but it will be readily understood that a cut of any desired angle can be obtained by a proper adjustment of the device.

A bridge-bar 33, preferably arched at its center, is pivoted at its ends by suitable bolts 34 or their equivalents to the upper edges of the members B and B', the arched portion of the bridge-bar being opposite the space between the beveled ends of the said members, and this bridge-bar serves to connect the members. The members are readily adjustable, so as to be brought in longitudinal alinement one with the other or at an angle one to the other by securing segmental plates 35 on the upper edges of the body portions of the members of the device, which segmental plates are provided with segmental slots, and bolts provided with suitable thumb-nuts are passed through the slots of the plates 35 and up through the bridge-bar, as is clearly shown in Figs. 1, 2, and 4.

In order to produce an angular cut not readily obtainable by the adjustment of the members of the body relative to each other, an adjusting member 38 is provided for each main member B and B' at the working surface of the upright portion *b* of the body, as is shown in Fig. 3. This adjusting member 38 is hinged at its outer end to said body 13, as is shown at 39 in Fig. 3, and a slide 40 is located in the outer face of the said adjusting member 38, which slide is held in an adjusted position by a suitable screw 41. A recess 42 is produced in the outer face of the upright portion of the body 13, in which the adjusting member 38 fits in such manner that its outer face will be flush with the outer face of the said upright portion of the body, as is shown in Figs. 4 and 5. The adjusting member 38 is adapted to be moved outward at its free end, so as to present any desired angle to the saw, and then the slide 40 is carried out to the saw, so as to support that portion of the timber to be presented to the saw.

The adjustment of the adjusting member 38 is accomplished in the following manner: A screw 43 is pivotally attached to the back of the said adjusting member adjacent to its free end, and said screw is passed through an aperture 44 in the vertical portion *b* of the body and through a thumb-nut 45, which is held to turn in bearings 46, located at the rear face of the body, so that by turning the nut 45 in one direction or the other the adjusting member 38 may be carried outward or may be brought inward, as desired, and held in any position to which it may be adjusted.

In Fig. 8 I have illustrated a substitute for the adjustable plate 20 shown in the other views, and in such Fig. 8 the guide-bar 23 of the body, or that bar which is made to slide in a groove 10 of the table, is provided with two bolts 47 and 48, which are passed up one through the slot 15 and the other through the slot 16 in the body, and said bolts are provided with suitable thumb-nuts.

A device of the character described may have its members so adjusted—as, for example, is shown in Fig. 2—that two boards can be beveled at their ends in such manner that when the beveled edges are brought together an accurate and perfectly-smooth miter-joint is obtained.

It may be here remarked that by adjusting the hinged member 38 to any required angle a board can be cut to any required miter, so as to permit the board to fit any surface it is liable to meet, and it may be further remarked that the guide-arms 26 should always and under all circumstances be kept parallel to the saw, and their adjustment permits such conditions. The sliding bar 40 is merely used as a gage and should always be pushed up toward the saw as near as possible, so as to allow a quick adjustment for cutting.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a saw-gage, a body having an end beveled, a guide-bar adapted for sliding movement upon a saw-table, means for adjustably and pivotally connecting the body to said guide-bar, and guide-arms longitudinally and transversely adjustable upon the body.

2. In a saw-gage, a body-block substantially L-shaped in cross-section and beveled at one end, a guide-bar adjustably and pivotally connected with the base member of the body-block, guide-arms transversely and longitudinally adjustable upon the body-block, said guide-bar and guide-arms being located at the under surface of the body-block, and means for locking said guide-bar and guide-arms in adjusted position.

3. In a saw-gage, a body-bar, substantially L-shaped in cross-section, comprising an upright and a horizontal base member, a guide-bar pivotally and adjustably connected with

the under face of the said body-block, guide-arms mounted for longitudinal and transverse adjustment on the under surface of the base member of the body-block, an adjusting member pivotally located at the working surface of the vertical member of the body-block, which member of the body-block is recessed to receive the said adjusting member, and means for moving the free end of the adjusting member to and from the body-block.

4. In a saw-gage, the combination with a substantially L-shaped body comprising a vertical member and a horizontal base member, a guide-bar pivotally and adjustably attached to the under portion of the base member of the body-block, guide-arms also located at the under face of the base member of the body-block, means for imparting transverse and longitudinal adjustment to the said guide-arms, an adjusting-arm hinged at one end to the end portion of a recess produced in the working face of the vertical member of the body-block, means for moving the free end of the said adjusting member outward and inward, and a slide mounted upon the said adjusting member.

5. In a saw-gage, two body-blocks of like construction, beveled at their inner ends, an adjustable connection between the beveled end portions of the body-blocks, each body-block being substantially L-shaped in cross-section and comprising a vertical and a horizontal base member, a guide-bar adjustably and pivotally connected with the base member of each body-block, guide-arms mounted upon the base member of each body-block, means for adjusting the said guide-arms longitudinally and transversely of the body-blocks, a hinged adjusting member located at the working face of the vertical member of each body-block, the said members of the said body-blocks being recessed to receive the said adjusting members, adjusting means for the adjusting members, and a slide for each adjusting member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN SAMUEL LINTON.

Witnesses:

JAS. M. AIRES,
CHAS. COHEN.