(No Model.)

J. L. STRAHL.

GAGE.

No. 438,029. Patented Oct. 7, 1890.

Fig. 1.

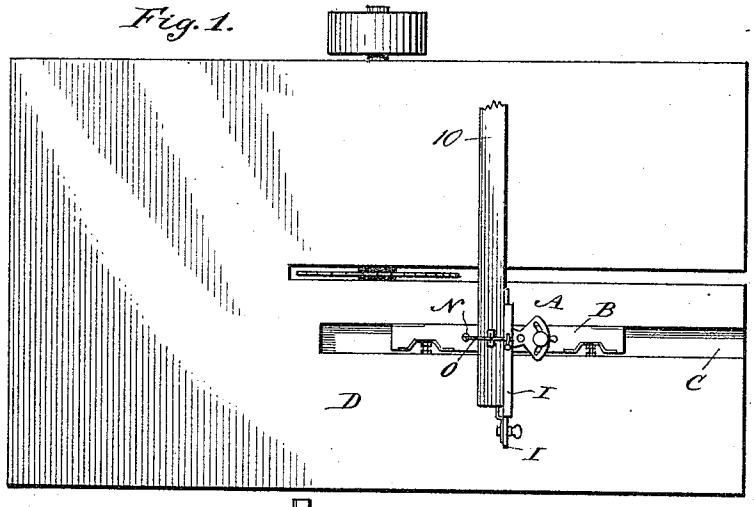


Fig. 2.

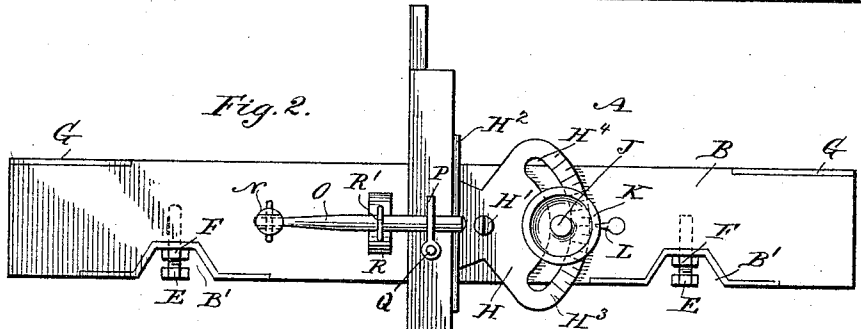


Fig. 4.

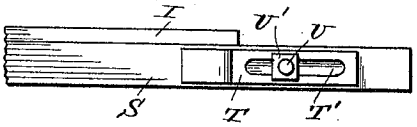


Fig. 3.

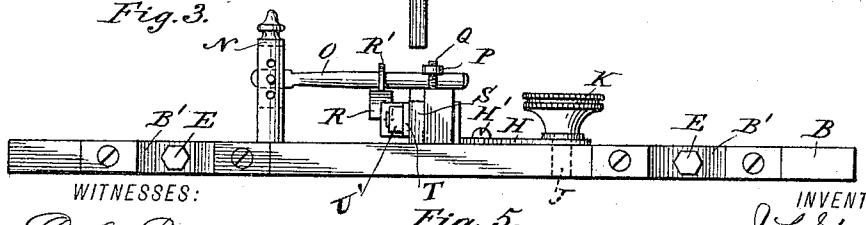
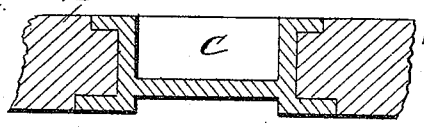


Fig. 5.



WITNESSES:

D. C. Reusch.

C. Sedgwick

INVENTOR

J. L. Strahl

BY

Munn & Co.

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN L. STRAHL, OF GLOUSTER, OHIO.

GAGE.

SPECIFICATION forming part of Letters Patent No. 438,029, dated October 7, 1890.

Application filed July 19, 1889. Serial No. 317,993. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. STRAHL, of Glouster, in the county of Athens and State of Ohio, have invented a new and Improved Gage, of which the following is a full, clear, and exact description.

The invention relates to gages for wood-working machinery; and its object is to provide a new and improved gage, which is simple and durable in construction and can be readily adapted for grooving, gaining, cross-cut-sawing, mitering, &c.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is a plan view of the improvement as applied to a saw-table. Fig. 2 is an enlarged plan view of the improvement. Fig. 3 is a side elevation of the same. Fig. 4 is an end elevation of part of the improvement, and Fig. 5 is an enlarged section of the guideway for the slide in the saw-table where wood-taps are used.

The improved gage A is provided with a slide B, adapted to fit into a groove or guideway C, formed in the saw-table D. The groove C is parallel with the saw and may be formed directly in the wood part of the saw-table, as shown in Fig. 1, or a cast-iron guideway C, as shown in Fig. 5, may be fitted into the saw-table. The top of the slide B is flush with the top of the saw-table.

On one side of the slide B are formed two or more recesses B′, into which extend the bolts E, screwing into the slide B and locked in place by jam-nuts F. The heads of the bolts E press against one side of the guideway C, and as the said bolts are adjustable any wear of the slide can be easily taken up, so that the slide is always in a true position in the guideway. The opposite side of the slide B is provided with metallic corner-pieces G, so as to reduce the wear to a minimum.

On top of the slide B is pivoted at H′ a graduated plate H, provided on one side with a flange H^2, to which is secured an arm I, against which the work to be operated on rests. The other end of the graduated plate H is provided with a graduated segment H^3, having a segmental slot H^4, through which passes a bolt J, screwing into the slide B. The upper end of the bolt J is provided with a handle K for conveniently turning said bolt, so as to clamp the plate H in any desired position on the slide B.

A fixed pointer L is located in the top of the slide B, in the middle of the same, and indicates on the graduated segment H^3. When the latter is in the position shown in Fig. 2, the flange H^2, carrying the arm I, stands, with the latter, at right angles to the slide B. When the bolt J is loosened, the plate H and the arm I can be turned so that the latter assumes any desired angle in relation to the slide B, the degree of such angle being indicated by the pointer L on the graduated segment H^3.

A post N is erected on the slide B in front of the arm I. On the said post N is fulcrumed a lever O, extending over onto the top of the arm I and adapted to be locked in place on the said arm by a nut-arm P, screwing on a screw Q, secured on the top of the said arm I.

On the lever O is held a block R by means of a staple R′, secured to the said block and fitting over the lever O. When the nut-arm P is disengaged from the lever O, the latter can be swung upward, and then the wood to be operated on is placed on top of the slide B and pressed against the arm I. The lever O is then moved down, so that the flat bottom of the block R rests on top of the work to be operated upon, by means of the nut-arm P being moved over the said lever O, as is plainly shown in Figs. 1 and 2. The wood to be operated on is thus held in place on the slide B, and when the latter is moved toward the saw or cutters the wood is cut at an angle indicated by the pointer L on the graduated segment H^3. Thus when the wood, as 10, is in place, as shown in the drawings, Fig. 1, and the slide B is moved onto the saw or the cutters, the wood is cut at right angles to its length. When the graduated plate H is turned, as before described, so that the arm I stands at an angle to the slide B, the end of the wood is cut off at the angle indicated by the pointer L on the graduated plate H^3.

On the front end of the arm I is formed a suitable groove, into which fits a thin rod S, secured in place on the said arm I by screws or other suitable means, and having its ends projecting beyond the ends of the arm. On the outer end of this arm S is held a plate T by means of a bolt U, screwing in the said arm S and passing through a slot T′, formed in the said plate T. The outer end of the bolt U screws into a nut U′, held on the plate T, so that when the bolt U is turned the said plate T is securely locked in place on the rod S. When the bolt U is slackened, the plate T may be moved forward and backward on the rod or arm S to any desired position and then locked in place by the said bolt. This rod S serves for laying out the work for the measuring, crosscut-sawing, gaining, &c.

By projecting the ends of the rods S beyond the ends of the gage-arm the movable stop-plate T may be used on either or on both ends of the said rod. The one shown in the drawings serves to measure the distance between gains in the window-frames, &c. If such a stop-plate is put on the other end of the rod S, it serves to measure the distance to first gain.

The fulcrum of the lever O in the post N is preferably made adjustable, so that the said lever can be raised or lowered to accommodate work of different heights.

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

1. In a gage, the combination, with a slide mounted to slide in a guideway in the saw-table or other wood-working machine, of a graduated plate pivoted on the top of the said slide, and a lever fulcrumed on the said slide and adapted to be locked in place on the said graduated plate, substantially as shown and described.

2. In a gage, the combination, with a slide adapted to support the work to be operated on, of a lever fulcrumed on top of the said slide and serving to lock the work in place, and a graduated guide-plate pivoted on the top of the said slide and against which the work rests, substantially as shown and described.

3. In a gage, the combination, with a slide adapted to support the work to be operated on, of a lever fulcrumed on top of the said slide and serving to lock the work in place, a graduated guide-plate pivoted on the top of the said slide and against which the work rests, and a fixed pointer held on the said slide and indicating on the said graduated plate, substantially as shown and described.

4. In a gage, the combination, with a slide adapted to support the work to be operated on, of a lever fulcrumed on top of the said slide and serving to lock the work in place, a graduated guide-plate pivoted on the top of the said slide and against which the work rests, a fixed pointer held on the said slide and indicating on the said graduated plate, and a bolt for locking the said graduated plate in place on the said slide, substantially as shown and described.

5. In a gage, the combination, with a slide adapted to rest in a guideway and provided in one side with recesses, of bolts screwing in the said slide in the said recesses, and jam-nuts for locking the said bolts in the position to which they have been adjusted, substantially as shown and described.

6. In a gage, the combination, with a guideway formed in a saw-table, of a slide fitted in the said guideway and provided with recesses in one side, bolts screwing in the recesses of the said slide and fitting with their ends against one side of the said guideway, and jam-nuts for locking the said bolts in place on the said slide, substantially as described.

7. In a gage, the combination, with a slide, of a flanged graduated plate pivoted on the said slide and adapted to be locked in place, a gage-arm secured on the flange of the said graduated plate, a post secured on the said slide, and a lever pivoted on the said post and adapted to be locked in place on top of the said gage-arm, substantially as shown and described.

8. In a gage, the combination, with a slide, of a flanged graduated plate pivoted on the said slide and adapted to be locked in place, a gage-arm secured on the flange of the said graduated plate, a post secured on the said slide, a lever pivoted on the said post and adapted to be locked in place on top of the said gage-arm, and a block held on the said lever and serving to engage the top of the work to be operated on, so as to lock it in place against the said gage-arm and on the said slide, substantially as shown and described.

JOHN L. STRAHL.

Witnesses:
JNO. W. SAWYER,
M. K. ATKINSON.