

UNITED STATES PATENT OFFICE.

FRANK H. CLEMENT, OF ROCHESTER, NEW YORK, ASSIGNOR TO AMERICAN WOOD WORKING MACHINERY CO., OF ROCHESTER, NEW YORK, A CORPORATION OF PENNSYLVANIA.

MACHINE-GAGE.

1,113,153.

Specification of Letters Patent.

Patented Oct. 6, 1914.

Application filed January 20, 1914. Serial No. 813,188.

To all whom it may concern:

Be it known that I, FRANK H. CLEMENT, a citizen of the United States, and a resident of Rochester, county of Monroe, State of New York, have invented a new and useful Improvement in Machine-Gages, of which the following is a specification.

My invention relates to gages or work guides for wood working and other machines and it consists essentially in a tilting fence linked to a rock shaft and operated by a hand lever which is used to adjust the fence from a right angle to forty-five degrees or any intermediate point.

In the accompanying drawings, Figure 1 is a plan view of my invention as applied to an ordinary saw table or buzz planer. Fig. 2 is an enlarged side elevation of the same in the direction of the arrow Y, Fig. 1; Fig. 3 is a side elevation in the direction of arrow X, Fig. 1; Fig. 4 is an enlarged plan view of the rock shaft and attached parts.

A, Figs. 1, 2 and 3, is a base plate which supports my improved gage on a table B. Slots 2 are provided in this base through which clamp bolts 3 pass with hand wheels attached for the purpose of securing and adjusting the gage at any point on the table B.

C is the work guide or fence against which the stock is held as it is passed over the cutter or saw, and is adjustable to an angle with table B as indicated by dotted lines in Fig. 2.

The above parts are in common use and are not new in and of themselves.

My invention relates to means of pivoting and adjusting the fence and clamping it in position.

D, D', are links which are hinged at one end by pivots 5 to ears 4 on the fence C, located at a considerable distance apart so as to better support the fence. The opposite end of these links is rigidly secured to a rock shaft 6 which has bearings in uprights 7 attached to the base plate A. Pivots 5 are fitted to turn easily in the ears 4, and thus the fence C is free to adjust itself as the links D, D', change position, its lower edge resting on the table B, which forms a line of support at any angle to which it may be adjusted.

At a convenient point on the rock shaft 6, I secure a handle lever 8, which is for the purpose of adjusting the rock shaft and

links D, D' and consequently the fence C to any required angle between a perpendicular and 45 degrees. I prefer to attach the links D, D' to said rock shaft as indicated in Figs. 1 and 4; D has a tapering pin 9 through its hub and D' has a set screw 10; behind the link D' is a nut 11, the office of which is to adjust the links toward each other and thus insure a bearing against the uprights 7 and a consequent correct alinement of the fence C with the base A.

By referring to the dotted lines in Fig. 2 it will be seen that when the handle 8 is thrown up the rock shaft carries the links D, D' downward and the fence C is pushed out along the surface of the table to the required angle as described above, and also that the circular arc described by the handle 8 is much greater than that of the index 16, which construction really makes a micrometer adjustment without the usual loss of time in manipulating a supplementary screw.

For the purpose of clamping the handle lever 8 and holding the fence in position I provide a slotted segment E, through which a bolt or stud 13 passes and is secured to the handle 8. A clamp wheel 14 binds the handle lever to the segment E, which in turn is bolted rigidly to the base plate A. To limit the angle to which the fence C adjusts, lugs 12, Fig. 2, are located on the under side of each link D, D', which lugs come in contact with the surface of the table when the fence is at 45 degrees; in like manner the projection 15 on the base A limits the inward movement of the fence C, causing it to take a position at right angles to the table. These are the two principal fixed angles, but for the purpose of adjusting the fence at any intermediate angle, I attach an index point 16 to a projecting portion of the link D, and provide a segment 17 which is attached to the upright 7 and the periphery of this segment is graduated in degrees, so that the operator can readily see the position of the fence when adjusting the handle lever 8.

The advantages of my invention are: simplicity of construction, fewer parts being required than has been heretofore possible; the utilization of the table as one element in the accurate adjustment of the fence; the facility with which the handle lever is manipulated and clamped by the operator when

standing in his usual place: accuracy of adjustment without the interposition of a separate micrometer element.

There might be devised other means for operating the links D, D' simultaneously so as to produce the same result, and equivalent means for clamping the handle lever 8; also it is possible to locate the graduated segment 17 at some other point so as to produce substantially the same result.

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

1. In a machine gage, a work guide or fence hinged to a base by means of pivoted links, a hand lever rigidly connected to the links and means for clamping the adjustable parts at the required angle.

2. In a machine gage, a work guide or

fence hinged to a base by pivoted links, a rock shaft to which the links are fixed and which forms one pivot of said links, a hand lever rigid upon the rock shaft and adapted to adjust the fence to the required angle through said links.

3. In a machine gage, a work guide or fence, links pivoted thereto opposite its working face, a rock shaft upon which the links are rigidly secured at one end, bearings for said rock shaft on the gage base, a hand lever secured to the rock shaft and means for clamping the adjustable parts in the required position.

FRANK H. CLEMENT.

Witnesses:

G. SCHOLAND,
A. C. HETHERLIN.

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