

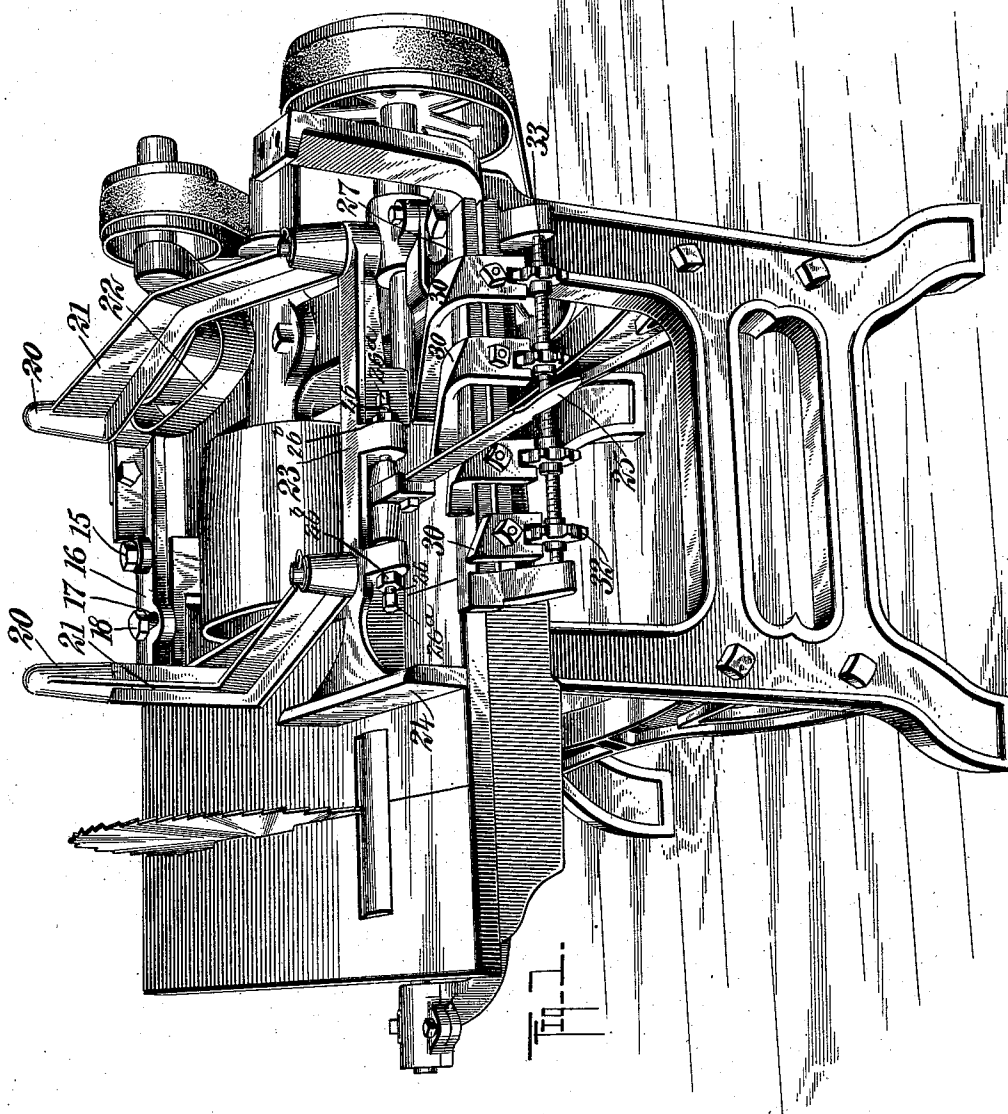
No. 857,443.

PATENTED JUNE 18, 1907.

F. M., R. W. & H. W. CHAPMAN.
WORK GAGE.

APPLICATION FILED MAR. 30, 1905.

2 SHEETS—SHEET 1.



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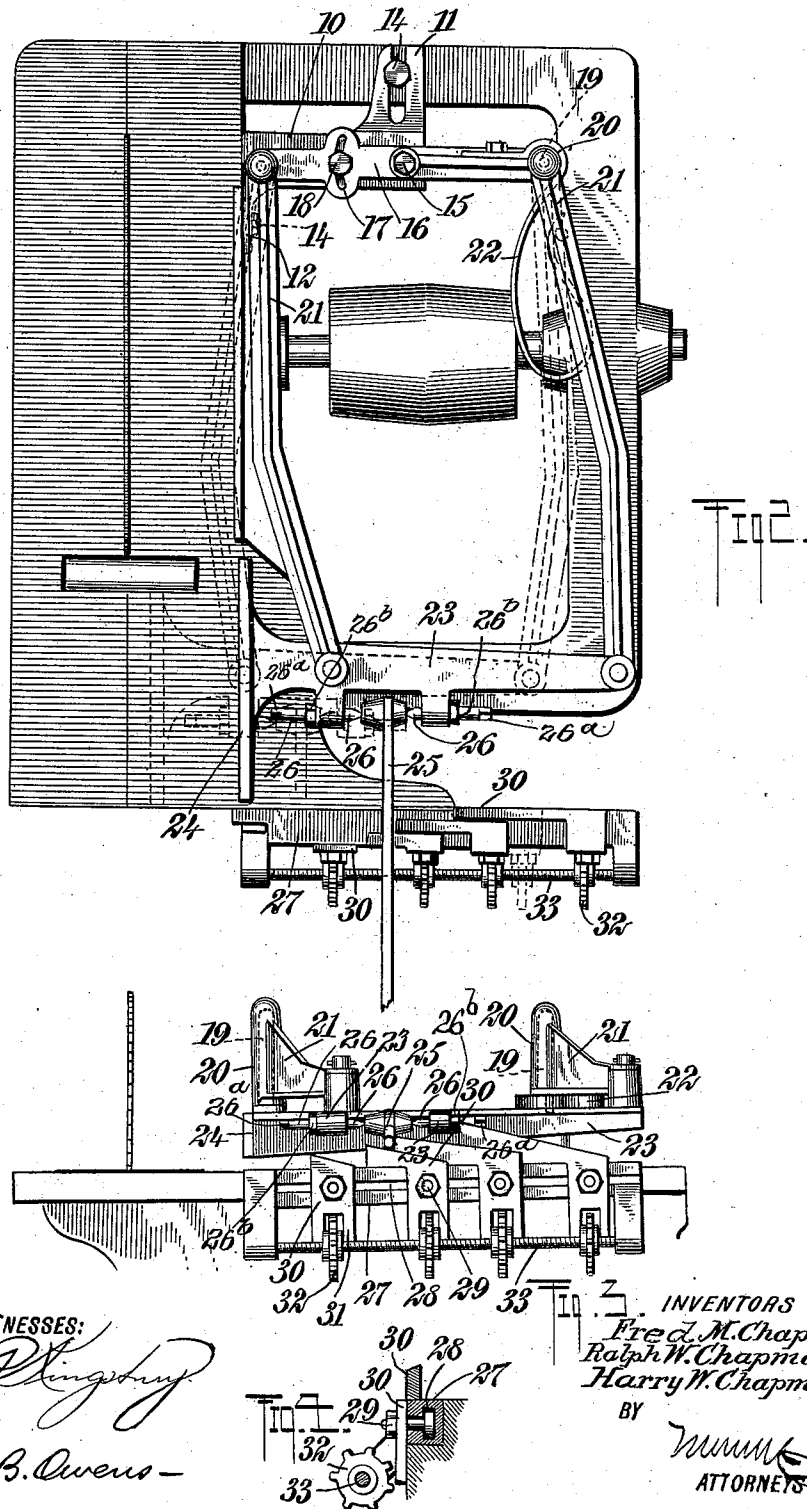
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UNITED STATES PATENT OFFICE.

FRED M. CHAPMAN, RALPH W. CHAPMAN, AND HARRY W. CHAPMAN, OF
OLDTOWN, MAINE.

WORK-GAGE.

No. 857,443.

Specification of Letters Patent.

Patented June 18, 1907.

Application filed March 30, 1905. Serial No. 252,887.

To all whom it may concern:

Be it known that we, FRED M. CHAPMAN, RALPH W. CHAPMAN, and HARRY W. CHAPMAN, citizens of the United States, and all residents of Oldtown, in the county of Penobscot and State of Maine, have invented a new and Improved Work-Gage, of which the following is a full, clear, and exact description.

The invention relates to a work gage intended especially for use in connection with wood working machines, particularly with circular saws, the gage being mounted on the saw table and adjustable toward and from the line of the saw so as to gage the width of the material sawn.

In its preferred embodiment our improved gage comprises a gage proper connected with links constituting what is commonly known as a parallel movement so that the gage may be freely adjusted toward and from the line of the saw, and these devices are arranged to coact with adjustable stops serving to hold the gage in the desired adjustment. The said links are also capable of adjustment to give the gage an angular position with respect to the line of the saw, which position is useful in some classes of work as will fully appear hereinafter.

Reference will now be had to the accompanying drawings which illustrate as an example the preferred embodiment of our invention, in which drawings like characters of reference indicate like parts in the several views, and in which

Figure 1 is a perspective view of a circular wood sawing machine having our invention applied thereto; Fig. 2 is a plan view of the same; Fig. 3 is a front end elevation of the table with the gage and stops mounted thereon; and Fig. 4 is a detail sectional view hereinafter more particularly described.

10 indicates the bracket which is adjustably fastened on the frame of the machine by two lugs 11 and 12, which are slotted to receive the clamping bolts 14, as shown. Arranged to swing on this bracket 10 around the center of a stud bolt 15 is a bar 16 formed with an arc-shaped slot 17, in which is arranged a clamping bolt 18. By these means the bar 16 may be held securely in any desired position. Its normal position is at right angles to the saw line, as shown in Fig. 2. If desired, however, the bolt 18 may be loosened and the angularity of the bar with

respect to the saw line changed within the limits of the slot 17. The bar 16 carries at its ends vertical pins 19 over which are loosely fitted socket pieces 20 carried by or forming parts of two links 21 by which arrangement pivotally to mount the links on the pins.

22 indicates a spring which is attached to the bar 16 and which is turned around one of the pins 19 and engaged with a pin on the under side of one of the links 21, this spring tending to throw the link away from the saw. At their free ends the links are connected by a pivoted bar 23, one end of which is extended and widened to form a gage proper 24.

It will be seen that when the bar 16 is fast in the position shown in Fig. 1, the gage proper may be moved toward and from the saw line with a parallel motion so that the face of the gage will also remain parallel to the line of the saw. In some classes of work it is desirable to adjust the gage to a position diagonal to the saw line, and this may be done by changing the position of the bar 16, as before explained.

The gage is operated by a handle 25 which is pivotally mounted between center screws 26 carried on the bar 23. Said screws are adjustable in the bar 23 and are provided with lock nuts 26^b to hold them. The ends 26^a of the screws are made angular to facilitate the addition of a wrench. This allows slight lateral adjustment of the handle on the bar for a purpose that will hereinafter appear. This handle 25 projects forwardly over the front side of the table of the machine, as shown. A bracket 27 is suitably attached to the front edge of the table, and is formed with a dove-tailed or undercut slot 28 extending horizontally therein throughout the length of the bracket. In this slot are fitted the heads of bolts 29, which bolts are respectively fastened to stops 30 so as to mount said stops on the bracket, and enable them to slide freely longitudinally thereof. Said stops are arranged to overlap each other as shown in the drawings so that they may be adjusted to positions in which their edges will all be coincident, or so that each stop will have its active edge in a different position. The stops are also of different heights, thus enabling the handle 25 to be engaged with any stop desired, the spring 22 pressing the gage

away from the saw line and the handle 25 bearing on the stop surface to hold the gage in the position in which it is placed. The stops are provided with bifurcated portions 5 31 which straddle milled thumb wheels 32, and these wheels are threaded on a stationary screw 33. By operating said wheels the stops may be adjusted to the desired position. Also by threading the pins 26, the 10 handle may be adjusted, thus effecting a slight adjustment of the gage sufficient for example to account for the difference in the thickness of saws.

In the practical employment of the invention, the operator has only to place the stops 15 30 in the desired adjustment and then by swinging the links 21 and bar 23 toward the saw line the proper adjustment of the gage may be reached, after which the handle may 20 be dropped into engagement with the appropriate stop. The parts will retain this position until the handle is again raised and the gage shifted either under the action of the operator or by the action of the spring 22. 25 It will be seen that this arrangement provides for the almost instantaneous adjustment of the gage to any one of the four positions, and this number of positions may be readily increased by increasing the number 30 of stops, and it will also be apparent that the stops themselves may be changed from one position to the other merely by operating the thumb wheels 32. Where only slight adjustment of the gage is necessary to account, for example, for different thicknesses 35 of saws and variations in the set thereof, this may be effected by the screws 26 without disturbing the stops 30.

Various changes in the form, proportions 40 and minor details of our invention may be resorted to at will, without departing from the spirit and scope thereof; hence we consider ourselves entitled to all such variations as may lie within the terms of our claims.

45 Having thus described the preferred form of our invention, what we claim as new and desire to secure by Letters Patent is:

1. The combination of an intermediately pivoted bar, an adjustable means for holding

said bar against pivotal movement, links 50 pivotally connected to the end portions of the bar, a bar pivotally connecting the free portions of the links, a gage carried by the end of the second named bar transversely of the same, a handle pivotally connected to 55 the second named bar, and a series of adjustable stops with which the handle coacts.

2. The combination of an intermediately pivoted bar, an adjustable means for holding said bar against pivotal movement, links 60 pivotally connected to the end portions of the bar, a bar pivotally connecting the free portions of the links, a gage carried by the end of the second named bar transversely of the same, a handle pivotally connected to the 65 second named bar, and a series of adjustable stops with which the handle coacts, the said stops overlapping each other, for the purpose specified.

3. The combination of an intermediately 70 pivoted bar, a means for adjustably holding the bar at the desired position, links pivoted to the ends of the bar, a second bar pivoted to the free ends of the links and having a work gage thereon, and means for swinging 75 the links to adjust the gage and for holding the gage in the desired adjustment.

4. The combination with a saw table, of two links located over the same, means pivotally mounting the links at the rear of the 80 table, the links extending forward toward the front of the table and swinging horizontally over the same, a gage-bar pivoted to the free ends of the links, a handle pivoted to the gage-bar and swinging vertically, 85 stops at the front of the table with which stops the handle co-acts, and means for adjusting the handle horizontally on the gage-bar.

In testimony whereof we have signed our 90 names to this specification in the presence of two subscribing witnesses.

FRED M. CHAPMAN.
RALPH W. CHAPMAN.
HARRY W. CHAPMAN.

Witnesses:

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