April 22, 1924. 1,491,735

H. H. PAYZANT

LUMBER MARKING DEVICE

Filed Aug. 18, 1922 2 Sheets-Sheet 1

Fig. 1.

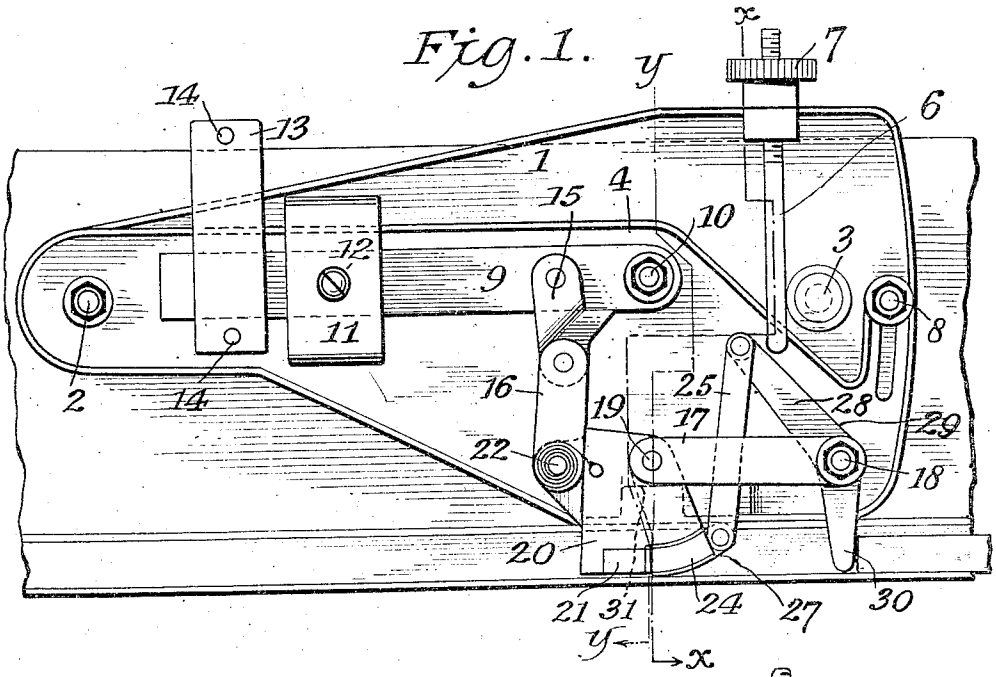
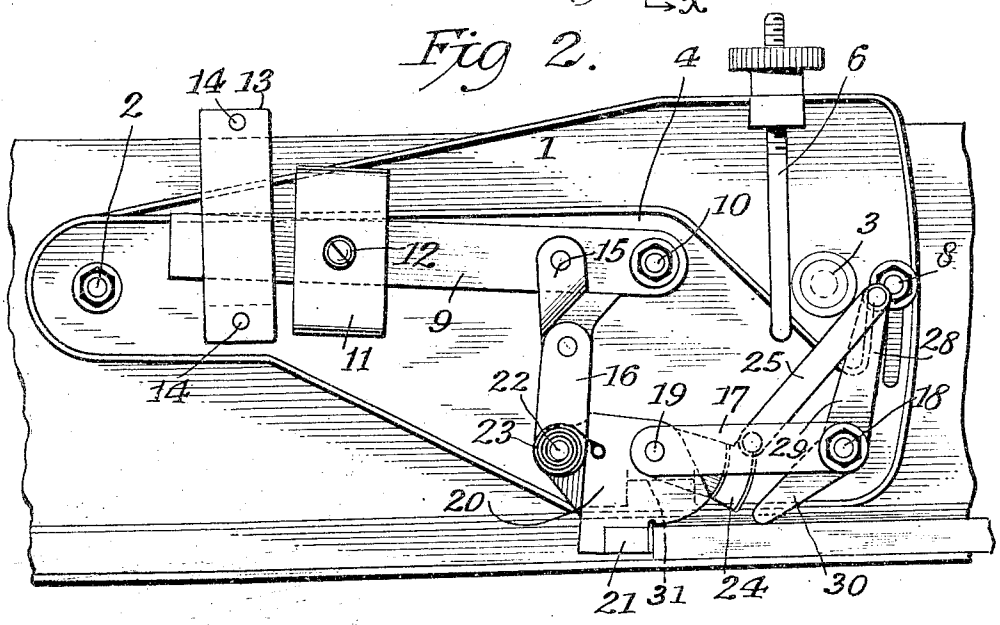


Fig 2.



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Fig. 3.

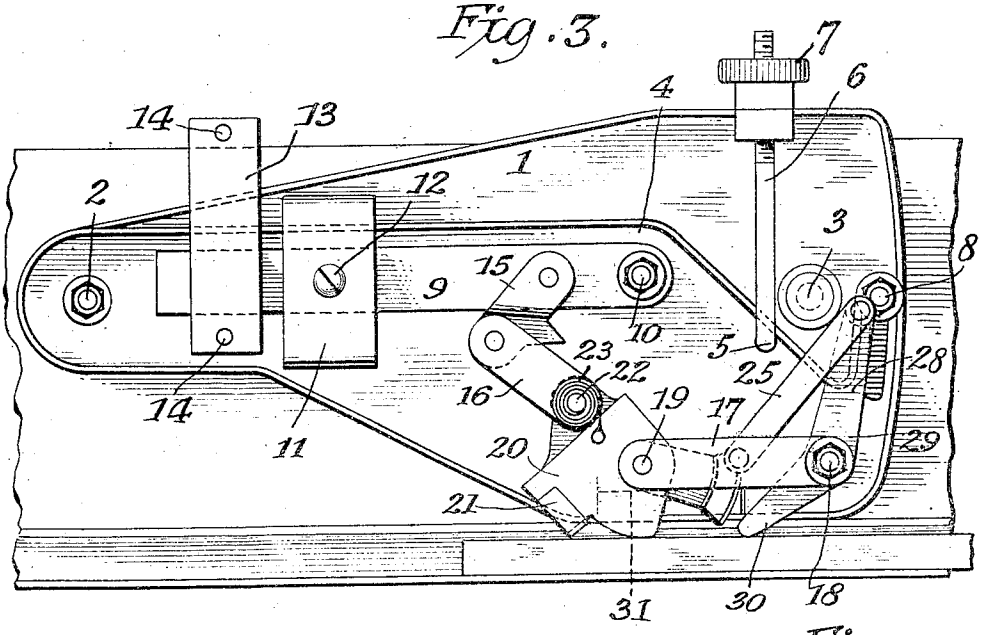


Fig. 6.

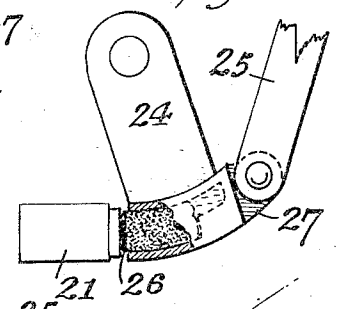


Fig. 4.

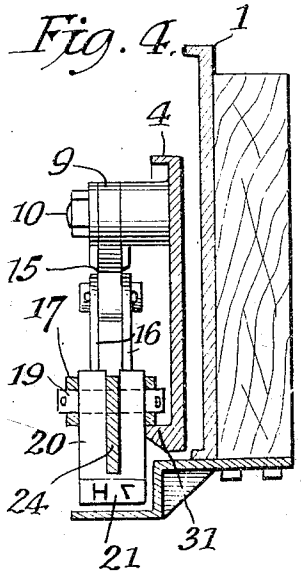
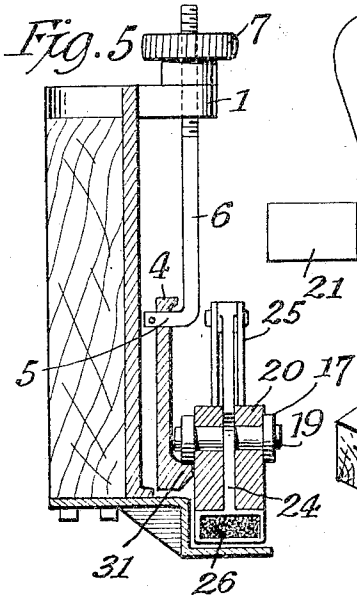


Fig. 5



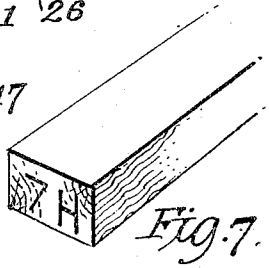


Fig. 7.

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Patented Apr. 22, 1924.

1,491,735

UNITED STATES PATENT OFFICE.

HENRY H. PAYZANT, OF EVERETT, WASHINGTON, ASSIGNOR TO WEYERHAEUSER TIMBER COMPANY, OF EVERETT, WASHINGTON, A CORPORATION.

LUMBER-MARKING DEVICE.

Application filed August 18, 1922. Serial No. 582,731.

To all whom it may concern:

Be it known that I, HENRY H. PAYZANT, a citizen of the United States, and resident of Everett, county of Snohomish, State of Washington, have invented certain new and useful Improvements in Lumber-Marking Devices, of which the following is a description.

The object of this invention is to provide simple, efficient and durable means for marking lumber and similar articles. The nature of the invention will clearly and sufficiently appear from the following description, the drawings and the claims.

Figs. 1, 2 and 3 are side elevations of a machine which is an embodiment of the invention, showing the machine in progressive stages of operation. Fig. 4 is a cross section of Fig. 1 on the line Y—Y viewed from the reader's right. Fig. 5 is a cross section of the same Fig. 1 on the line X—X but viewed from the opposite direction. Fig. 6 is a side elevation, partly cut away, of the inking means and of the die. Fig. 7 is a view of a marked piece of lumber.

In my application, Serial No. 502,176, filed September 20, 1921, I have disclosed a means for marking lumber, wherein the lumber may be marked either at the end or on the side, or both the end and on the side in one operation.

The present invention is concerned with an end marking device, and employs an oscillating weighted die-carrying member and an oscillating ink-carrier, both being actuated by the movement of the advancing material to be marked, which, in this instance, is a piece of lumber. The ink carrier is normally in contact with the die carrier, and is first moved out of the way by the movement of the lumber, the die carrier being then brought into forcible contact with the end of the lumber with sufficient resistance due to the provision of the weighted means, as to make an impression on the end of the piece of lumber.

One of the improvements resides in a toggle connection between the weighted means and the die-carrying member, instead of a direct connecting link, as in the aforesaid application.

Another improvement is in the employment of a pivotally mounted ink carrier which is actuated by the moving lumber, rather than by the die-carrying member, as in the aforesaid application.

Another improvement is the means for adjusting the marking device for different thicknesses of lumber.

Still another improvement is in the connection between the die-carrying member and the inking member, whereby the relation between the face or inking portion of the inking member and the face of the die-carrying member, remains the same, irrespective of either point of contact.

The supporting casting 1 is suitably attached by bolts 2, 3, to a convenient support such as the illustrated wooden framework. Plate 4 is mounted on the casting 1 by bolt 2 and is adjustable vertically through pin 5, rod 6 and hand nut 7, being clamped firmly during operation to casting 1 by adjustable stud 8. The plate 4 carries weight arm 9 by bolt 10, weight 11 being secured by pin 12 to the weight arm. The other end of the weight arm moves freely in parallel guides 13 (only one being shown) connected by pins 14, 14. Upon the weight arm is pivotally mounted toggle arm 15 to which is pivotally connected toggle arm 16.

Parallel links 17, 17 swing on spindle 18, which is attached to plate 4. Pin 19 connects their opposite ends and also pivotally supports the die carrier 20. The die 21 is suitably inserted in the die carrier or may be an integral part thereof.

The die carrier 20 is connected by its pin 22 and spring 23 on toggle arm 16 to said toggle arm the spring being provided so that the toggle arms 15, 16 will not be centered. Ink carrier 24 is hinged on pin 19 and by means of connecting links 25, 25 swings in a vertical plane so that its ink pad 26 will ink the die 21 when the machine is clear of lumber and not being operated, as illustrated in Fig. 6. It is here noted that the pin 19 pivotally connects the ink carrier to the die carrier and also connects the links 17 to these parts. Lug 27 of ink carrier 24 is connected through links 25, to one arm 28 of a bell crank lever 29, which has a trip arm 30 in a pendent position to engage the lumber, which lever swings on spindle 18. Shoulder 31 on plate 4 supports parallel links 17, 17 when the machine is clear, as illustrated in Fig. 5. The ink carrier

and the die carrier are both pivoted by the same pin (19), and hence oscillation of both take place on the same center, whereby the relation between the face or inking portion of the ink carrier and the printing face of the die carrier remain the same irrespective of the point of contact.

The operation is as follows: The log of wood, moving lumber or other article to be marked advances towards the machine, first contacting with the end of trip arm 30. Figure 1. By means of arm 28 the inking die is pulled upwards out of the path of the advancing lumber so that the latter can freely contact with the die 21. Fig. 2. By reason of toggle arms 15, 16 and their connection with the weight bar, the die is forced positively into the end of the lumber as the latter advances against the resistance of the weight, the spring 23 and of other moving parts of the machine. After the die has marked the lumber, the further movement of the lumber turns the die carrier upwards, thus causing the collapse of toggle arms and the release of the weight from pressing upon the die carrier, which then floats freely on the lumber until the latter is clear of the machine. Fig. 3. After the lumber has passed the parts are restored to their normal positions.

The position of the die can readily be adjusted vertically by loosening stud 8 and pin 5, thus allowing plate 4 to be movable vertically. Upon obtaining the desired position, the plate 4 can be again fixed by the same means. By this means the marking device is adjusted to different thicknesses of lumber.

The terms and expressions which I have employed are used as terms of description and not of limitation, and I have no intention, in the use of such terms and expressions, of excluding any equivalents of the features shown or described, or portions thereof, as various modifications are possible within the scope of the invention claimed.

I claim:

1. Means for marking lumber, comprising a pivoted die member in co-operation with a weight member and a toggle-joint connection between them.

2. Means for marking lumber, comprising a pivoted die member, a weight member, a toggle joint connection between the weight member and the die member, and a spring for said connection.

3. Means for marking lumber comprising a pivoted die member, a pivoted weight member, a toggle-joint connection between the die member and weight member, said connection including a pair of arms pivoted to each other and pivoted to the weight member and to the die member, and a spring therefor.

4. Means for marking lumber, comprising a die member oscillating in a vertical plane, a weight member adapted to oppose motion of the die member in the direction of movement of the lumber to be marked, and a toggle-joint connection co-operating with the die member and the weight member to impress the die upon the lumber and after such impression to free the die member from the pressure of the weight member.

5. Means for marking lumber, comprising a pivotally mounted die member, a weight member, toggle-joint connections therebetween, a pivotally mounted inking member, and means for oscillating the latter.

6. Means for marking lumber, comprising a die member movable in a vertical plane, a movable weight member adapted to oppose motion of the die member in the direction of movement of the lumber to be marked, and a toggle-joint connection between the die member and the weight member, said connection collapsing after the lumber has been marked.

7. Means for marking lumber, comprising a die member adapted to mark moving lumber by means of the pressure of said lumber against the die member as the latter is held against the lumber by a movable weight co-operating with the die member through toggle-joint mechanism, the die member being automatically releasable from the force of the weight after marking.

8. Means for marking lumber, comprising a die member oscillating in a vertical plane, a weight member arranged above the die member, a toggle joint connection between the weight member and the die member, and spring means between the toggle joint connection and the die member.

9. Means for marking lumber, comprising a die member oscillating in a vertical plane, a weight member adapted to oppose motion of the die member in the direction of movement of the lumber to be marked, toggle links connecting the die member to the weight member, and a spring connecting one of the toggle links to the die member.

10. Means for marking lumber, comprising a pivoted die member oscillating in a vertical plane, a pivoted weight member also oscillating in a vertical plane, toggle links connecting the weight member to the die member, and a spring connected to the die member and toggle links to throw said toggle links off center.

11. Means for marking lumber, comprising a die member, a weight member adapted to oppose motion of the die member in the direction of movement of the lumber being marked, an ink carrier pivotally connected to the die member and normally in contact therewith, and means for moving the ink carrier out of engagement with the die member, said means being actuated by the movement of the lumber.

12. Means for marking lumber, comprising a die member oscillating in a vertical plane, an ink carrier also oscillating in a vertical plane in advance of the die member, a trip arm actuated by the moving lumber, and means whereby the ink carrier is first moved out of the way of the moving lumber, and the die carrier is then brought into contact with the end of the lumber.

13. Means for marking lumber, comprising a die member, a weight member adapted to oppose motion of the die member in the direction of the movement of the lumber to be marked, a pivotally mounted ink carrier in advance of the die member, a trip arm actuated by the moving lumber, and connections between the trip arm and the ink carrier and between the ink carrier and the die member, whereby the ink carrier is first moved out of the way of the moving lumber, and the die member is then brought into contact with the end of the lumber to mark the same.

14. Means for marking lumber, comprising a pivoted die member, a pivotally mounted ink carrier, said ink carrier and said die member having a common pivotal connection, a trip member, means connecting the trip member with the ink carrier, a weight member, and a toggle connection between the weight member and the die member.

15. Means for marking lumber, comprising a pivotally mounted die member operating in a vertical plane, a pivotally mounted ink carrier also operating in a vertical plane, both the die member and the ink carrier having a common pivotal connection, a trip member in the path of the moving lumber, a connection between the trip member and the ink carrier, the latter being arranged in advance of the die member, a weight member, and a toggle joint connection between the weight member and the die member.

16. Means for marking lumber, comprising a plate having a shoulder, a weight member carried by said plate, a die member, a toggle-joint connection between the weight member and the die member, an ink carrier, a trip member, a device mounted on said plate and connected to said ink carrier and die member, said device being supported on said shoulder when the machine is in its normal position.

17. Means for marking moving lumber, comprising a fixed support, a plate arranged alongside of and spaced from the support, means for pivoting the plate to the support, means for moving the plate vertically relatively to the support, means for guiding and limiting the vertical movement of the plate and for holding it in its adjustment, and marking means carried by the plate and depending therefrom in the path of moving lumber, whereby said marking means may be adjusted to different thicknesses of lumber.

18. Means for marking lumber, comprising a support, a plate arranged alongside of the support having a projecting shoulder, means for pivotally mounting said plate, means for raising and lowering said plate, and marking means mounted on said plate and normally supported by said shoulder.

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