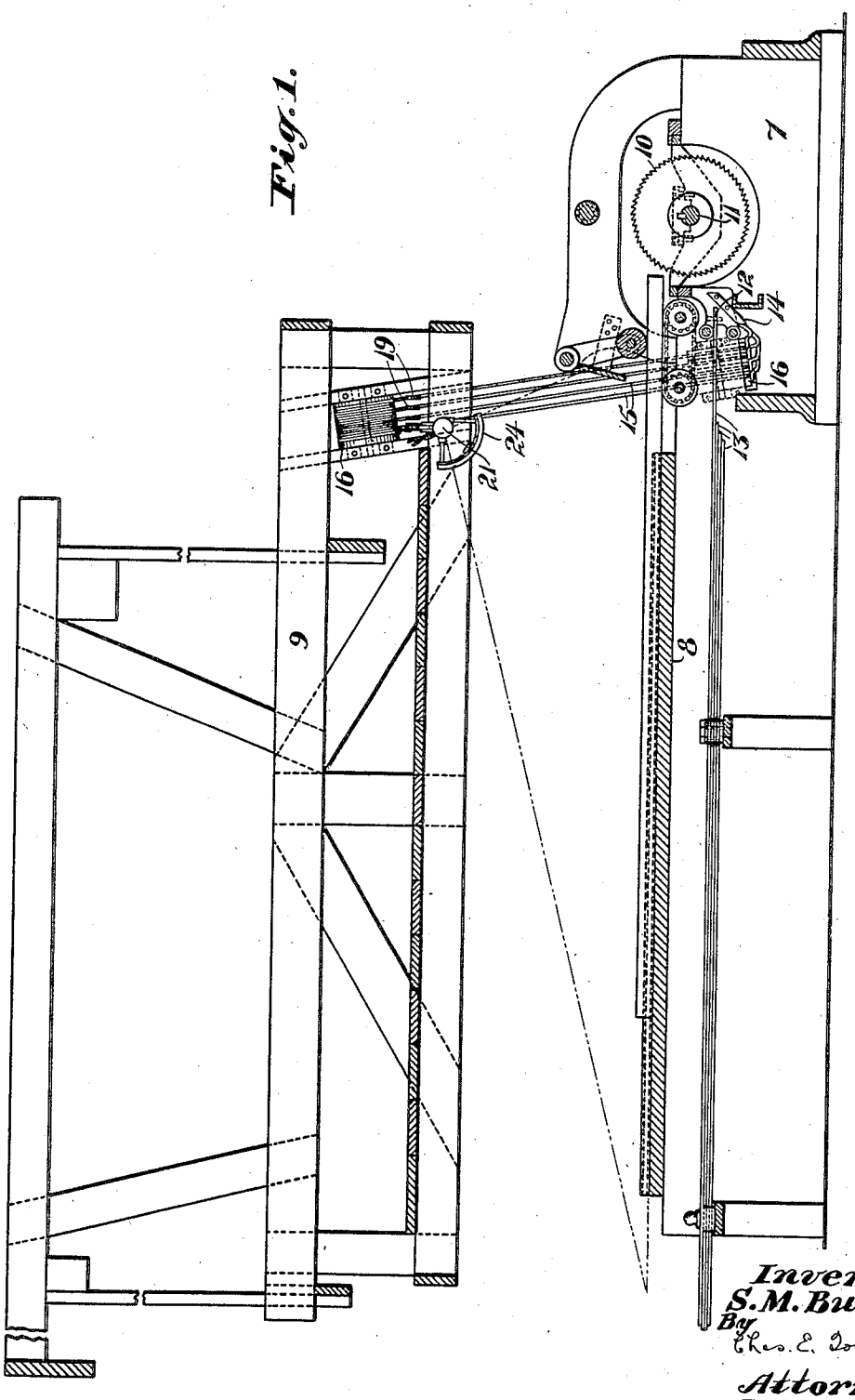
Dec. 4, 1923. 1,476,238

S. M. BUMP

INDICATOR FOR EDGING SAWS

Filed Feb. 20. 1922 3 Sheets-Sheet 1

Fig. 1.



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Filed Feb. 20. 1922 3 Sheets-Sheet 2

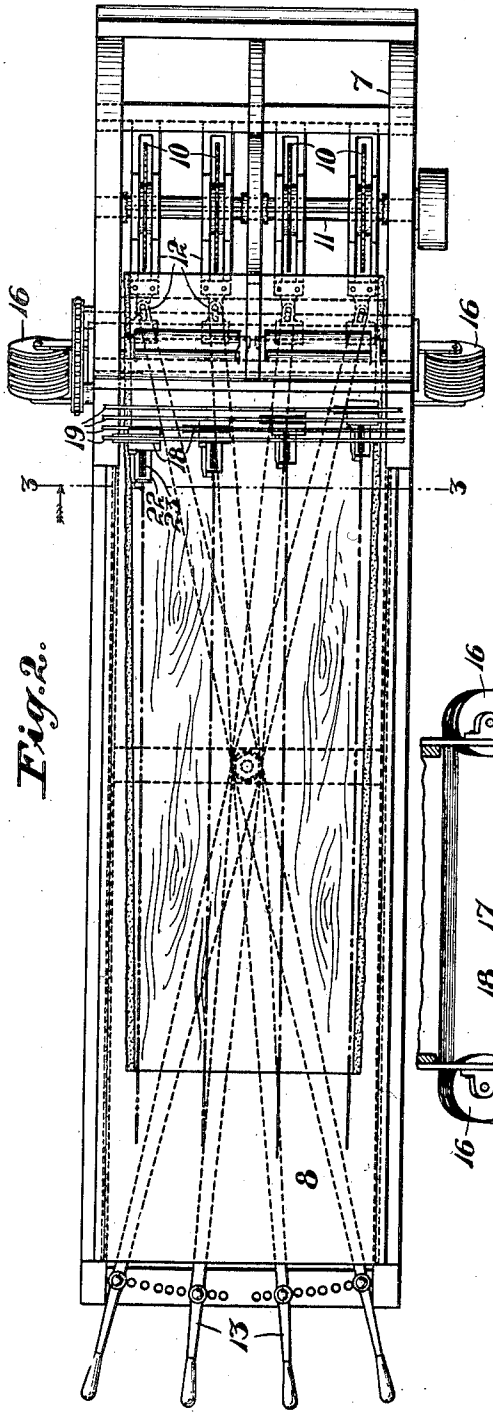

Fig. 2.

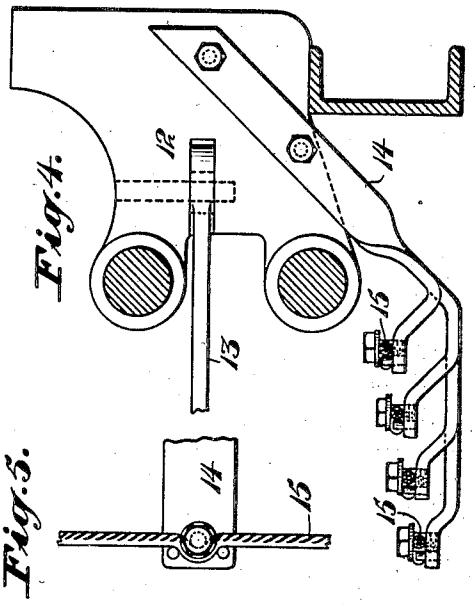

Fig. 4.

Fig. 5.

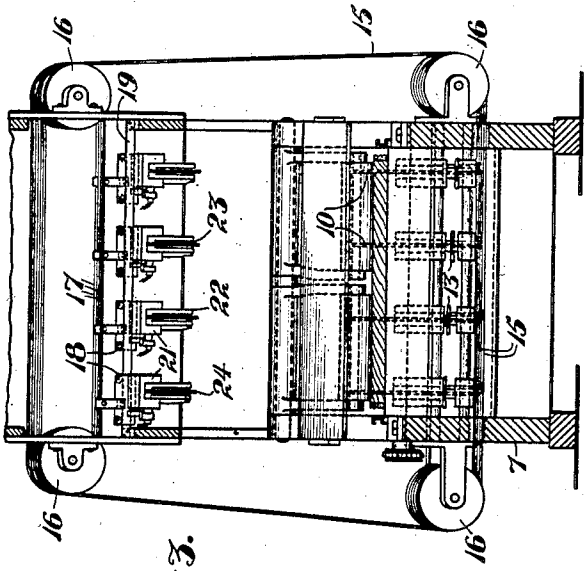

Fig. 3.

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INDICATOR FOR EDGING SAWS

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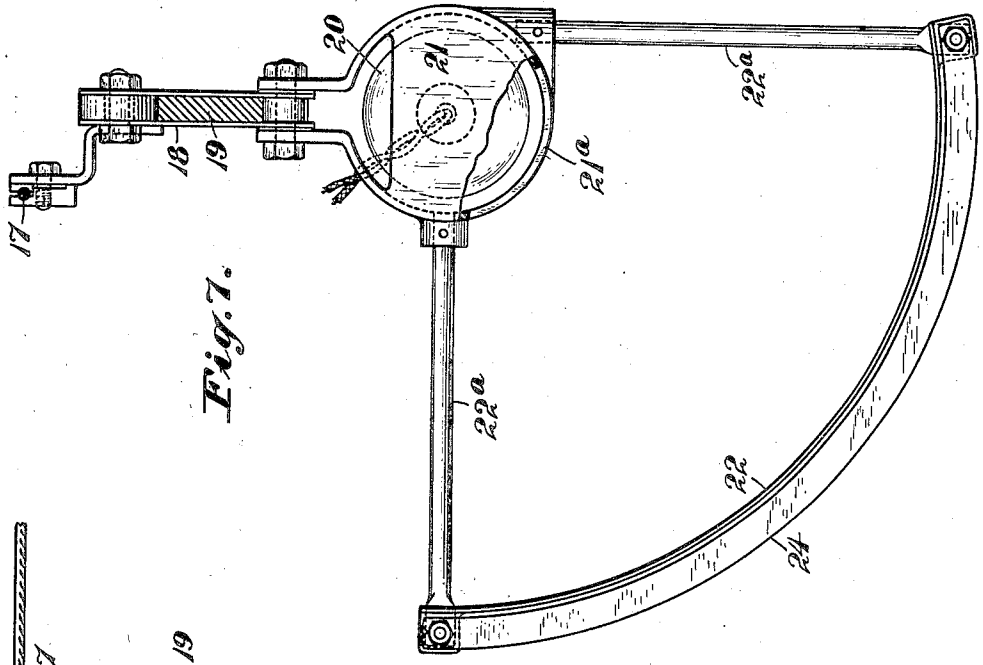

Fig. 7.

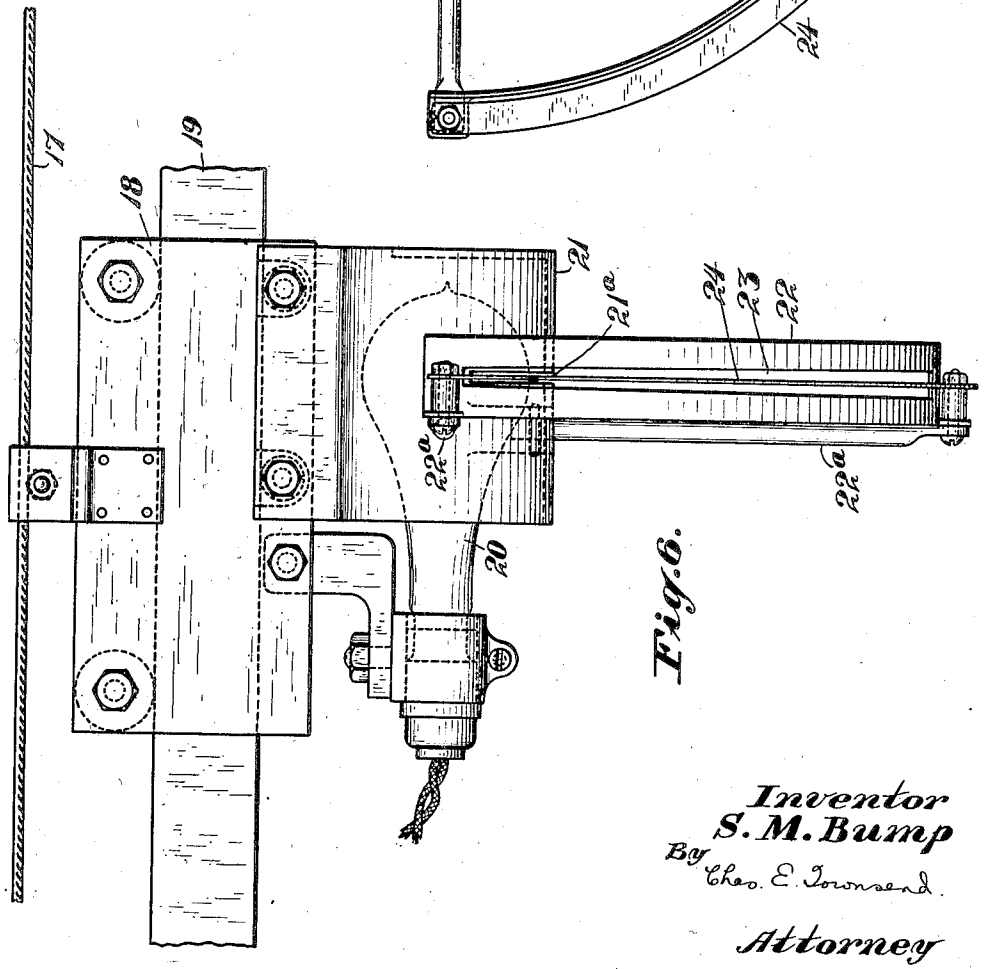

Fig. 6.

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Patented Dec. 4, 1923. 1,476,238

UNITED STATES PATENT OFFICE.

SUMNER M. BUMP, OF SUSANVILLE, CALIFORNIA.

INDICATOR FOR EDGING SAWS.

Application filed February 20, 1922. Serial No. 537,788.

To all whom it may concern:

Be it known that I, SUMNER M. BUMP, a citizen of the United States, residing at Susanville, in the county of Lassen and State of California, have invented new and useful Improvements in Indicators for Edging Saws, of which the following is a specification.

This invention relates to saw mills and particularly to edgers employing either band or circular saws.

In the squaring of the edges of lumber it is of the greatest importance that the largest possible widths be obtained from the log. Heretofore the sawyer has had to depend upon his unaided eye to determine the proper line of cut. Frequently errors occur, resulting either in the waste or spoilage of the lumber through the production of lumber containing knots, which otherwise could have been avoided, or the cutting of narrower widths than was actually necessary.

The object of my invention is to plainly indicate throughout the length of the log the line of cut of each edging saw regardless of the adjustment of the saws. This I accomplish by the provision of lights so arranged as to cast a line throughout the length of the log, the lights being so arranged that lines cast will correctly indicate the line of cut of each saw, no matter what position of adjustment the saws may occupy.

One form which my invention may assume is exemplified in the following description and illustrated in the accompanying drawings, in which—

Fig. 1 shows a side elevation, partly in section, of a device embodying my invention.

Fig. 2 shows a plan view of the same.

Fig. 3 shows a vertical cross sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 shows a detail sectional view illustrating the connection between the saw-shifting means and the actuating means for the guide lights.

Fig. 5 shows a detail view in plan of one of the connections between the cables and saw shifting means.

Fig. 6 shows a front elevation of one of the shiftable lights.

Fig. 7 shows a side elevation of the same, partly in section.

In the form of the invention herein shown, 7 indicates a frame for the saws, 8 the carriage frame and 9 an overhead structure. There is a plurality of edging saws 10 slidably mounted upon a shaft 11 carried by the frame 7. These saws are shifted by means of shifting forks 12 which are controlled by levers 13. Connected to each shifting fork is a rigid arm 14 extending to an endless cable 15 and clamped thereto. These cables, one for each saw, operate over sheaves 16, four for each cable, so arranged that the cables describe a rectangular figure. The bottom run of the cables extends transversely beneath the carriage and the upper run extends transversely of the overhead structure. The sheaves at the upper run are double grooved and also carry endless bands 17 corresponding in number to the cables 15. Each band is connected to a frame 18 slidably mounted on a track 19 extending transversely of the overhead structure. Fastened to each frame is an electric lamp 20 extending into a housing 21. The housing has a narrow, vertical aperture 21^a in its front portion. Lying in the same plane as this aperture and some distance therefrom is an arcuate shield plate 22 supported by rods 22^a fixed to the lamp housing. This plate has a central vertical slot 23 and extending longitudinally and centrally of the slot is a thin blade 24. The blade and shield plate being positioned some distance from the aperture 21^a and in line therewith will be acted upon by rays of light which are substantially parallel, and therefore the shadow cast by the blade 24 will be clearly defined. This shadow will fall upon the log and extend throughout the length thereof.

These lamps are so set with relation to the saws that the shadows cast thereby will properly indicate the path of cut of the connected saw. Shifting a saw will, through the described connections, cause the lamp to be moved a corresponding distance in the same directon. Thus the operator can always determine from the position of the related shadow just where a saw will cut in any of its positions of adjustment. This enables him to see at a glance whether or not he has chosen the greatest available width of cut and also enable him to avoid knots and other defects in the lumber.

Various changes in the construction and arrangement of the various parts herein

shown and described may be made without departing from the spirit of the inventon as disclosed in the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a saw mill, a plurality of adjustably mounted edging saws, means for feeding a log thereto, means for shifting the saws relatively, a lamp positioned in line with each saw and connected with the shifting means for conjoint movement with the related saw, and means in association with each lamp for casting a line throughout the length of the log whereby to indicate the line of cut of the saw.

2. In a saw mill, a plurality of adjustably mounted edging saws, means for feeding a log thereto, means for shifting the saws relatively, a shiftable lamp operatively connected with each shifting means for conjoint movement with the saws, a housing for each lamp, and means on the housing for casting a shadow throughout the length of the log to indicate the line of cut of the related saw.

3. In a saw mill, a plurality of adjustably mounted edging saws, a carriage for feeding a log thereto, means for shifting the saws relatively, a plurality of endless belts extending transversely beneath and above the carriage in front of the saws, each belt being operatively connected with a saw-shifting means for conjoint movement with the saws, a shiftable lamp above the carriage operatively connected to each belt, and means in association with each lamp and casting a shadow line upon the log coincident with the line of cut of the related saw.

4. In a saw mill, a plurality of adjustably mounted edging saws, means for feeding a log thereto, means for shifting the saws relatively and a guide light for each saw including a housing formed with a narrow, vertical, light-emitting aperture, a slotted plate positioned some distance in front of the aperture and in line therewith and a thin blade extending centrally of the slot in the plate to cast a shadow upon a log carried by the carriage.

SUMNER M. BUMP.