W. H. GILMOUR.

SAWMILL ATTACHMENT.

APPLICATION FILED AUG. 4, 1919.

1,340,042.

Patented May 11, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

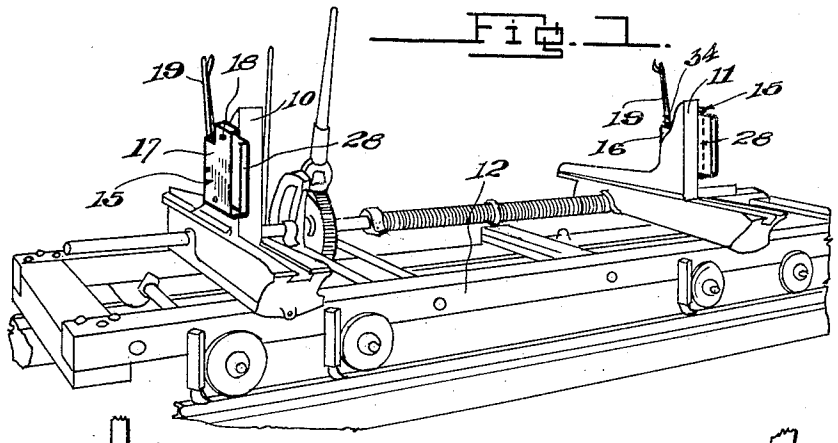
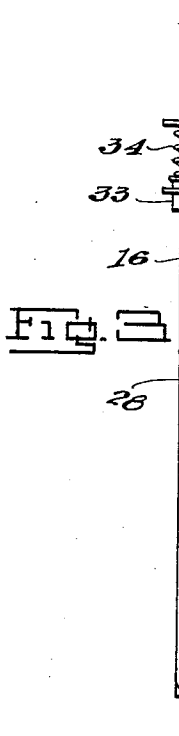


Fig. 2.



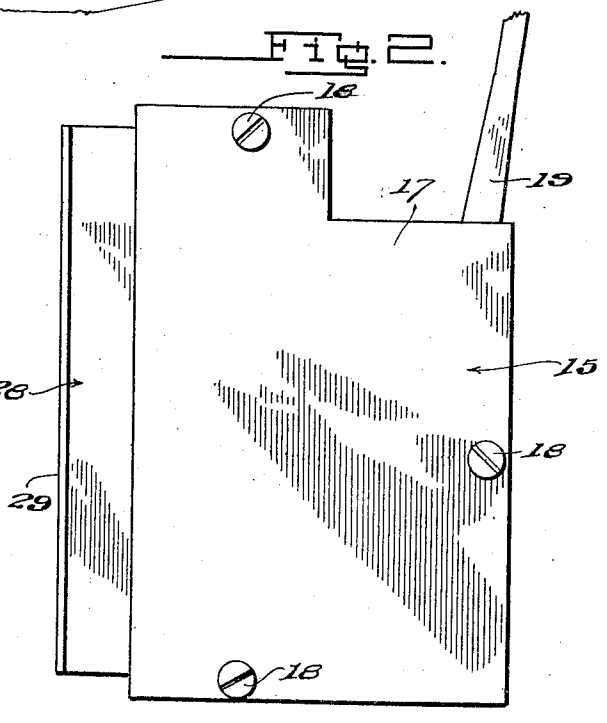
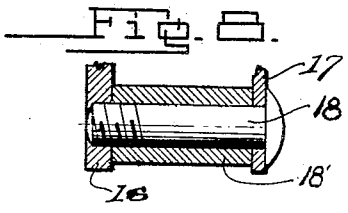


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 6.

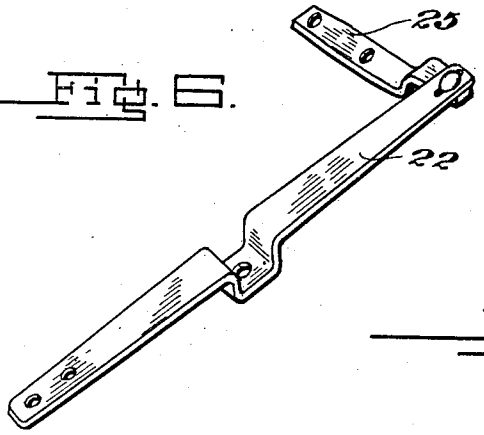


Fig. 4.

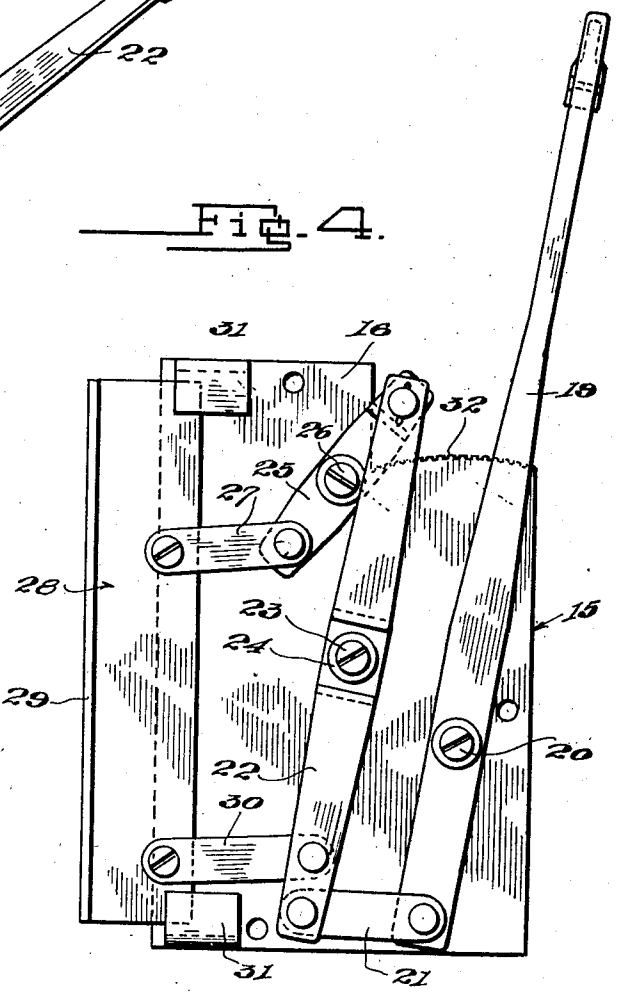


Fig. 5.

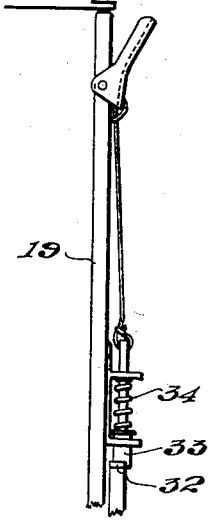
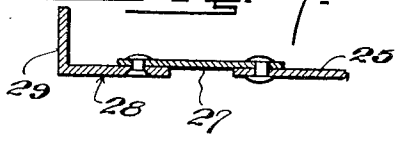


Fig. 7.



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SAWMILL ATTACHMENT.

1,340,042. Specification of Letters Patent. Patented May 11, 1920.

Application filed August 4, 1919. Serial No. 315,199.

To all whom it may concern:

Be it known that I, WILLIAM H. GILMOUR, a citizen of the United States, residing at St. Landry, in the parish of Evangeline and State of Louisiana, have invented certain new and useful Improvements in Sawmill Attachments, of which the following is a specification.

This invention relates to an attachment for the knees of saw mills of the small or medium types, and an object of the invention is to provide means for adjusting the timber or log engaging space of the knee structure, one independently of the other to permit proper positioning of the logs or timber to be sawed to permit the cutting of taper timbers, such as wagon tongues or the like or for cutting a log which tapers toward one end, so as to prevent the waste of relatively good lumber which might be necessary in breaking or squaring the logs.

In the mills used in small or medium sized saw mills, no provision is made upon the knees of the saw carriage for adjusting the relative position of the timber engaging spaces of the knee, and when cutting taper timber or logs of which one end is smaller than the other, the blocks of wood are usually employed to position the timber or logs to be sawed at the proper position with respect to the saw carriage and the saw. This is inconvenient, requires considerable time in properly adjusting the logs and in making and applying a block of the right size and where wagon tongues or analogous shaped timbers are to be cut, the continual changing of the timber and logs as well as the positioning blocks requires considerable time and labor, and it is therefore an object of this invention to provide an attachment for the knees of saw mills of this type which includes a movable member, adapted to engage the timber or logs to be cut which member is adjustable with respect to the shape of the knees to which it is attached and being carried by the knee is movable therewith, so that continuous cutting of tapered materials may be made without requiring the time absorbing and undesirable work in changing a wooden block, and also to provide means whereby this movable knee attachment may be held in various adjusted positions, which adjustment is provided through the medium of a pivotally mounted hand lever.

Other objects of the invention will appear in the following detailed description taken in connection with the accompanying drawings, forming a part of this specification and in which drawings;

Figure 1 is a perspective view of a saw mill showing the improved knee attachment applied thereto.

Fig. 2 is a side elevation of the knee attachment.

Fig. 3 is an edge elevation of the knee attachment.

Fig. 4 is a side elevation of the knee attachment having one housing plate thereof removed.

Fig. 5 is a detail view of the hand lever illustrating the dog mechanism carried thereby for holding the lever and adjustable log engaging lug in adjusted positions.

Fig. 6 is a detail perspective view of a part of the operating lever mechanism of the knee block.

Fig. 7 is a horizontal fragmentary section through the adjustable knee block showing one of the links of the lever mechanism connected thereto, and

Fig. 8 is a detail section through the housing illustrating the means of connecting the housing plates together.

Referring more particularly to the drawings, wherein like characters indicate like and corresponding parts throughout the several views, the knees 10 and 11 of the saw mill 12 each have one of the adjustable attachments 15 mounted thereon. The attachments 15 comprise a housing formed of plates 16 and 17, which may be bolted to the knees by the bolts 18, which also serve to connect the plates 16 and 17. Certain of the bolts 18 only extend through the plates 16 and 17 and the same have spacing sleeves 18′ positioned thereon, which are arranged intermediate the plates 16 and 17 and hold the same in correct relation to each other. A hand lever 19 is pivotally connected as shown at 20 to the inner plate 16, and its lower end is connected by a link 21 to a lever 22. This lever 22 is pivotally mounted intermediate its ends upon a bolt or pin 23, about which a washer 24 is positioned to permit free pivotal movement of the lever 22. A lever 25 which is pivotally supported by a suitable pin 26 is pivotally and slidably connected to the upper end of the lever 22, which lever is in turn connected by a link 27 to the adjustable knee block or plate 28. This plate 28 is preferably made

of angle iron presenting a flat surface 29 for engagement against the log or timber to be cut by the saw mill structure 12. The adjustable knee block or plate member 28 is connected near its lower end by link 30 to the lever 22, below the pivot thereof, and by the rocking movement of the hand levers 19, the adjustable knee blocks 28 may be moved outwardly from or inwardly toward the face of the knee 10 or 11 to which the attachment is secured. Suitable stops 31 are carried by the plates 16 for limiting the inward movement of the adjustable member 28. The plates 16 and 17 have their rear upper corners cut away and teeth 32 are formed upon the upper edge of the plate 16, at the cut out portion the said teeth being adapted to coact with the pawl 33 of the dog mechanism 34, which is carried by the lever 19, for holding this lever in adjusted position, and consequently holding the adjustable knee block or plate 28 in adjusted position. The ears 31 which form guides for the movement of the block or member 28 are formed upon the edges of the plate 16 and are bent downwardly as clearly shown in Fig. 3 of the drawings, having portions thereof parallel to and in spaced relation to the plate 16, the said space between the ears and plate being of sufficient distance to receive the carrying part of the knee block 28 therebetween, for guiding the movement of the block.

As shown in Fig. 6 of the drawings, a lever 22 is offset intermediate its ends, at its pivot, while the lever 25 is offset at the end which is connected to the lever 22, so as to permit the positioning of these levers in a relatively narrow space, without impairing the efficiency of the operation of the device.

Changes in details may be made without departing from the spirit of this invention, but;

I claim:

1. The combination with a saw mill including log engaging and moving knees, of housings detachably carried by said knees; knee blocks adjustably carried by said housings and movable for adjusting the positions of their log engaging faces relative to the faces of the knees.

2. The combination with a saw mill including log engaging and moving knees, of housings detachably carried by said knees, knee blocks adjustably carried by said housings and movable for adjusting the positions of their log engaging faces relative to the faces of the knees, a lever carried to said blocks for operating them, teeth carried by said housings, and dog mechanisms carried by said levers for engagement with said teeth to hold the levers and knee blocks in adjusted positions.

3. A timber tapering attachment for saw mills comprising a housing adapted for attachment to the ordinary knee of a saw mill, a knee block adjustably carried by said housing, and means for adjusting the position of said knee blocks.

4. A timber tapering attachment for saw mills comprising a housing adapted for attachment to a knee of a saw mill, a knee block adjustably carried by said housing, a lever pivotally connected to said housing, and levers and links connecting said hand lever and said knee block for adjusting the position of the knee block upon movement of the lever.

5. A timber tapering attachment for saw mills comprising a housing adapted for attachment to a knee of a saw mill, a knee block adjustably carried by said housing, a lever pivotally connected to said housing, levers and links connecting said hand lever and said knee block for adjusting the position of the knee block upon movement of the lever, ears formed upon said housing and turned inwardly to form guides for movement of the knee block.

6. A timber tapering attachment for saw mills comprising a housing adapted for attachment to a knee of a saw mill, a knee block adjustably carried by said housing, a lever pivotally connected to said housing, levers and links connecting said hand lever and said knee block for adjusting the position of the knee block upon movement of the lever, ears formed upon said housing and turned inwardly to form guides for movement of the knee block, teeth carried by said housing and a dog mechanism carried by said hand lever for engagement with said teeth to hold said lever and knee block in adjusted positions.

7. The combination with a saw mill including log engaging and moving knees, of a tapering attachment for the knees including a slidable block, an operating lever for the block, a lever pivoted intermediate its ends, and arranged intermediate the operating lever and the block, means operatively connecting the operating lever and the second mentioned lever, and means operatively connecting the terminals of the second mentioned lever with the sliding block.

8. The combination with a saw mill including log engaging and moving knees, of a tapering attachment for the knees including a slidable block, an operating lever for the block, a lever pivoted intermediate its ends, and arranged intermediate the operating lever and the block, means operatively connecting the operating lever and the second mentioned lever, and links carried by the terminals of the second mentioned lever and pivotally connected to the slidable block adjacent to its terminals.

9. The combination with a saw mill in-

cluding log engaging and moving knees, of a tapering attachment for the knees including a vertical slidable block, an operating lever pivoted intermediate its ends, a lever pivoted intermediate its ends and arranged intermediate the slidable block and the operating lever, a link pivotally connecting the lower end of the operating lever and the lower end of the second mentioned lever together below the pivot points thereof, a link pivotally connected to the second mentioned lever and to the slidable block adjacent to their lower ends, a third lever pivoted intermediate its ends adjacent to the upper end of the second mentioned lever and the slidable block, a link connecting the forward end of the third-mentioned lever with the block adjacent to the upper end thereof, and means operatively connecting the upper end of the second mentioned lever with the third mentioned lever.

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