(No Model.)

G. W. RODEBAUGH.

SAWMILL CARRIAGE ATTACHMENT.

No. 490,453. Patented Jan. 24, 1893.

Fig. 1.

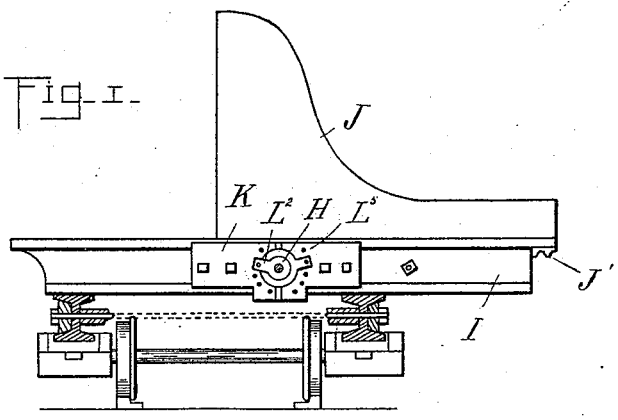


Fig. 5.

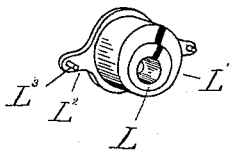


Fig. 2.

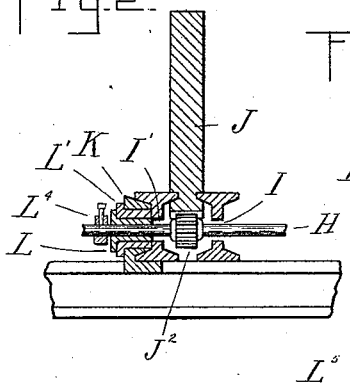


Fig. 6.

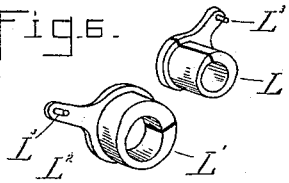


Fig. 3.

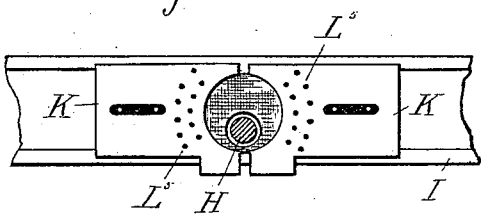
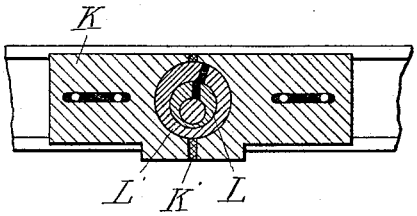


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE W. RODEBAUGH, OF JACKSON, MICHIGAN.

SAWMILL-CARRIAGE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 490,453, dated January 24, 1893.

Application filed August 18, 1891. Serial No. 402,984. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. RODEBAUGH, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Sawmill-Carriage Attachments, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in saw mill carriage attachments and it consists in the peculiar construction and arrangement of parts for adjusting the shaft, hereinafter described, and definitely pointed out in the claims.

In the drawings, Figure 1 is a cross-section of a saw mill carriage showing the head block in side elevation. Fig. 2 is a cross-section through the slides and knee of the head block showing the bearings in section, and the shaft in elevation. Figs. 3 and 4 are enlarged sections of the bearings one showing the adjustable eccentrics removed, and the other showing them in place. Fig. 5 is a detached perspective view of the eccentric bearings. Fig. 6 is a perspective view of the eccentric bearings detached from each other.

A constant source of trouble in saw mill carriages is the wearing out of the bearings, and the setting shaft where the latter passes through the slides of the head-blocks. The wear and tear on these bearings is severe and constant, as the pressure of the timber, its weight or impact in handling and turning it, is brought against the knees, and from there transmitted to the setting shaft and its bearings in the slides.

My improvement to this end consists in the following construction which provides for taking up this wear.

H is the setting shaft, journaled in suitable bearings at its ends, and with a bearing in each pair of transverse slides I. The slides I are firmly secured upon the frame of the carriage and form parallel guides for the knee J, which carries upon the under side the rack bar J′, which engages with the pinion J^2, upon the setting shaft, all of the usual construction. The apertures I′ in the slides through which the setting shaft passes, are enlarged to provide preferably a quarter of an inch or more play all around the setting shaft, and the bearing is formed in the two part box K. This box is preferably vertically divided and each half is longitudinally adjustably secured to the slide. The aperture formed in each half of the box is half circular so that when the two parts are brought together a circular aperture or bearing is formed, and within this aperture two eccentrics, one within the other as more particularly shown in Fig. 6, are secured. The inner eccentric L is cylindrical on the outside, and is eccentrically apertured to receive the setting shaft H. The outer eccentric L′ is also cylindrical on the outside corresponding to the size of the aperture formed in the two-part box K, and the aperture formed within it to receive the eccentric L is formed eccentrically. Each of these eccentrics is provided on the outside with a projecting arm L^2, which has a pin L^3 adapted to enter into any one of a series of adjusting holes L^5 respectively provided for these pins on the outside of the two-part box K. Each of the eccentrics is preferably split open on the thickest part of the rim or strap, as shown, after being formed, so that the spring of the metal will open the severed meeting ends, whereby the eccentrics are adapted to be afterward compressed as will appear more fully hereinafter.

When the carriage is mounted the eccentrics L L′ are preferably adjusted within each other, as shown in the drawings, that is with their thinner portions contiguous to each other and near the bottom or rear side of the shaft H. Suppose after some use the shaft H will be slightly worn where it passes through the bearing, and the inner eccentric L will have worn on the inside where the shaft bears against it; the consequence will be that the setting shaft is thrown out of line by the pressure of the logs against the knees, and the alignment is thus destroyed. With my improvement this can be easily corrected as it will be seen that by turning either eccentric, a measure of adjustment is provided, and by the adjustment of the two eccentrics combined the shaft H may be raised or lowered a definite amount, or adjusted backward

or forward a definite amount as needed to bring it again into proper alignment.

It will be seen that with the help of one eccentric alone no proper adjustment can be made, as one eccentric carries the shaft only in the prescribed path, but with the two combined, any desired adjustment within the limit provided can be obtained.

To take up the wear of the shaft I merely adjust the two halves of the box K closer together, so that the eccentrics will have to close up around the shaft. These boxes K are at first therefore, when the device is mounted, set a little distance apart with suitable packing K′ if desired placed between the meeting edges, and as the eccentrics are split open they will naturally enlarge a little and will fit the two-part box K. From this description any skilled workman will now readily see how the box has to be arranged at the outset to provide the largest measure of adjustment for taking up all wear and tear during the use of the saw mill carriage, it being well understood where the wear and tear on the shaft and in the bearings is going to take place, and what future adjustment of the said shaft and bearings will have to be provided for.

It is obvious that the two-part box K may be made of iron and the two eccentrics of any suitable wearing metal such as so-called gun metal. By means of the arms L^2 with their studs L^3, the two eccentrics are adjustably held in place, but if desired any other adjustable securing means may be provided. A suitable collar L^4 fastened by a set screw upon the shaft will hold the eccentrics removably in position in the box.

The equalizers are of known construction and consist of the blocks M slidingly engaging into recesses in the knees; they are provided with actuating devices so as to project them beyond the face of the knee, or retract them within the recess of the knee, for the purpose of equalizing the timber on the log or sawing wedges.

In the rear of the knee I secure a small standard N, provided with a notched rounded top N′. To this I pivotally secure the lever O, which is provided with an eccentric head O′ which engages with a strap O^2, formed on the rear end of the connecting bar O^3 which is pivotally connected at O^4 to the rear side of the knee. The lever O is provided with a suitable locking latch to hold it in adjusted position on the notched head of the standard, and the eccentric strap is so arranged that when the lever is thrown in the position shown in Fig. 1, where it rests against the rear of the top of the knee, the equalizer M is withdrawn within the knee, this being the normal position of the lever O. It is thus brought entirely out of the way and does not offer an obstruction as in the usual construction of the actuating devices of the equalizer.

As my improvements relate only to the parts herein described, I have omitted all reference to other devices, which, although they form the usual equipment of a saw mill carriage are in no way affected by my improvements and may be of the usual description.

What I claim as my invention is:

1. The combination with a setting shaft of a saw mill carriage of a bearing therefor consisting of an adjustable boxing and independent movable yielding eccentrics in the boxing, through which the shaft passes, means for moving the eccentrics, and means for decreasing the diameter of the eccentrics, substantially as described.

2. The combination and arrangement with the setting shaft of a saw-mill carriage, of an outer stationary sectional box, an adjustable bearing, composed of two split eccentrics, one forming an eccentric bearing for the shaft directly and the other forming an eccentric bearing for it within the stationary outer box, substantially as described.

3. The combination and arrangement with the setting shaft of a saw-mill carriage, of an adjustable bearing for said shaft consisting of two split eccentrics one within the other, the inner one forming an eccentric bearing for the shaft, and the outer one eccentrically supporting said bearing a divided outer box, each of said eccentrics being provided with means for relatively adjusting it independently of each other, substantially as described.

4. The combination and arrangement with the setting shaft of a saw mill carriage, of an adjustable bearing for said shaft consisting of two split eccentrics, one within the other, the inner one forming an eccentric bearing for said shaft and the outer one eccentrically supporting said bearing within an outer box, said outer box being made in halves adjustably secured to the frame of the carriage, substantially as described.

5. The combination and arrangement with the setting shaft of a saw-mill carriage, of an adjustable bearing for said shaft consisting of two split eccentrics, one within the other, the inner one forming an eccentric bearing for said shaft and the outer one eccentrically supporting said bearing within an outer box made in halves, adjustably secured to the carriage, and an arm on each eccentric provided with holding devices for adjustably holding each eccentric in position within the outer box, substantially as described.

6. The combination and arrangement with the setting shaft of a saw mill carriage, of an adjustable bearing for said shaft consisting of two split eccentrics, one within the other, the inner one forming an eccentric bearing for said shaft and the outer one eccentrically supporting said bearing within an outer box, an outer box in vertically divided halves adjustably secured to the carriage, an arm for each eccentric provided with means for hold-

ing said eccentric independently adjustable within the outer box, by engaging directly with the box, substantially as described.

7. The combination and arrangement with the setting shaft of a sawmill carriage, of the two split eccentrics L L′, one within the other, the outer box K made in vertically divided halves adjustably secured to the carriage, the arms L^2 on the eccentrics provided with pins L^3, the adjusting holes L^5 on the box K and a removable collar or sleeve for holding the eccentrics in position upon the setting shaft, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. RODEBAUGH.

Witnesses:
M. B. O'DOGHERTY,
N. L. LINDOP.