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WHEEL GUARD AND TRACK CLEANER.

APPLICATION FILED NOV. 24, 1915.

1,174,835. Patented Mar. 7, 1916.

Fig. 1.

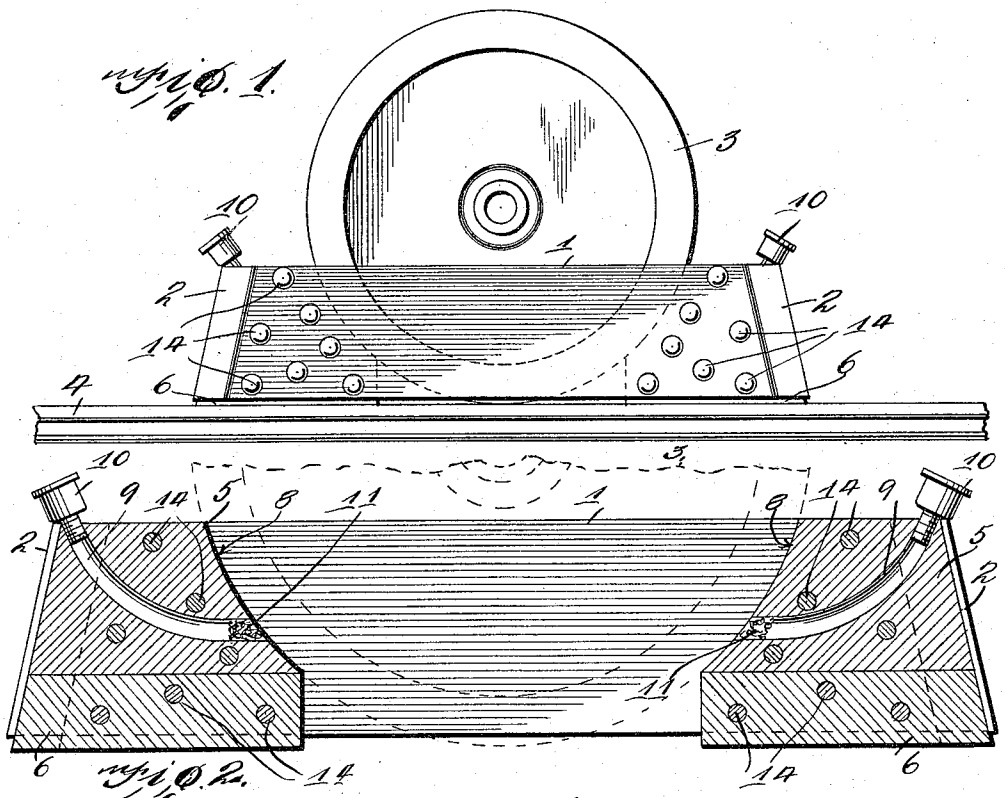


Fig. 2.

Fig. 3.

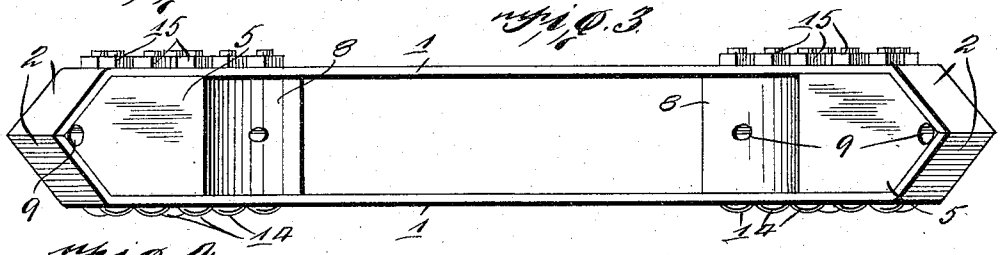
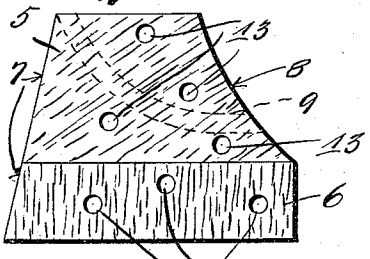


Fig. 4.



Witnesses

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WHEEL-GUARD AND TRACK-CLEANER.

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To all whom it may concern:

Be it known that we, JOHN A. DURKEE and DAVID W. BARTRAN, citizens of the United States of America, residing at Laurel, in the county of Jones and State of Mississippi, have invented certain new and useful Improvements in Wheel-Guards and Track-Cleaners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a wheel guard and track cleaner and has special references to devices of such character which are used in connection with the wheels of the carriages employed in saw mills so as to clear the surface of the track of bark, saw dust, and like refuse, as well as the periphery of the wheels of the carriage.

Another object of this invention is the production of a wheel guard and track cleaner wherein fiber blocks are removably carried by the straps which constitute the wheel guard and track cleaner, whereby these blocks may be easily removed and new blocks substituted when the old blocks become worn.

Another object of this invention is the production of a wheel guard and track cleaner wherein blocks which are removably carried by the straps are positioned so as to allow the end of the grain of wood of each block to receive the wear, thus greatly prolonging the life of the blocks.

Another object of this invention is the production of a wheel guard and track cleaner wherein a plurality of blocks are provided with oil chambers communicating with the surface of the blocks engaged by the periphery of the wheel so as to allow this surface to be thoroughly lubricated, thus greatly reducing the friction of the wheel and not only prolonging the life of the blocks, but also facilitating the moving of the wheel guard and track cleaner.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawing: Figure 1 is a side elevation of the wheel guard and track cleaner as constructed in accordance with this invention. Fig. 2 is a central longitudinal section through the device. Fig. 3 is a top plan view of the wheel guard and track cleaner. Fig. 4 is a side elevation of one of the two of the blocks removed from engagement with the straps.

Referring to the accompanying drawing by numerals it will be seen that the wheel guard and track cleaner comprises the side straps 1 which are carried at spaced distances apart, as clearly disclosed in Fig. 3. The ends 2 of each strap 1 are bent inwardly with respect to the body portion of each strap, extending in an oblique angle with respect thereto, whereby when the two straps 1 are positioned in their parallel spaced relations, the ends thereof will engage each other. It is intended that the straps 1 be spaced far enough apart so as to allow the wheel 3 to fit snugly therebetween for engaging the rail 4. The straps 1 are provided adjacent their ends with a wheel engaging block 5 and track engaging block 6. These blocks 5 and 6 are used in pairs, while the block 5 rests upon block 6, as clearly shown in Figs. 2 and 4. It will be noted that the inwardly bent ends 2 of the straps 1 slant outwardly toward their lower portions, as shown clearly in Figs. 1 and 2, and, therefore, the blocks 5 and 6 are provided with the slanting side portions 7 conforming in contour to the shape of the inner portions of the inwardly bent ends 2. Therefore, these blocks will be carried adjacent each end of the wheel guard and track cleaner upon the inwardly bent ends 2 of the strap 1. The grain of the track engaging block 5 extends vertically, as clearly shown in Fig. 4, so as to cause the end of the grain of this block to bear upon and ride along the rail 4. It is, of course, understood that these blocks are to be formed of wood so as to minimize the expense of their production and also for the purpose of reducing wear upon the rail as well as upon the wheel when the wheel guard and track cleaner is in use. The grain of the wheel engaging block 5 extends in a plane of substantially 45° to the longitudinal horizontal axis of the strap 1, so as to allow the end of the grain to extend to the concave face 8 which is engaged by the periphery of the wheel 3.

In order to facilitate the moving of this

wheel guard and track cleaner each wheel engaging block 5 is provided with a downwardly curved oil channel 9 communicating with the concave face 8 which is engaged by the periphery of the wheel 3, as above set forth. Oil cups 10 which may be of any suitable construction are carried by the wheel engaging blocks 5 so as to communicate with the oil channels 9, as clearly shown in Fig. 2. Therefore, as the oil is dispensed from the oil cups 10 it will pass downwardly through the oil channels 9 to the surface 8 of the wheel engaging block upon which the particular cup is mounted. In order to prevent the oil from being too freely dispensed there may be positioned within the lower end of the oil channel 9 a quantity of packing or waste 11 which will absorb the oil and will freely oil or lubricate the outer periphery of the wheel 3. It is very essential to oil the periphery of the wheel 3 for by so doing the friction between the wheel 3 and the wheel engaging blocks 5 will be greatly reduced and will allow the wheel to rotate as the same engages the concave face 8, thus causing the wheel guard and track cleaner to be moved along the rail 4 without any tendency of the wheel climbing over the end of the wheel guard and track cleaner. In order to retain these blocks in detachable engagement with the side straps 1 adjacent the end portion thereof, the track engaging blocks are provided with the openings 12, while the wheel engaging blocks 5 are provided with similar openings 13. The bolts 14 pass through these openings 13 and also through the straps 1 so as to carry the nuts 15 upon their projecting ends whereby the bolts will be removably retained in engagement with the straps and blocks.

By referring to Figs. 2 and 4 it will be noted that the openings 13 formed in the wheel engaging blocks 5 are formed upon the opposite side from the oil channels 9 formed therein. Consequently, the blocks will be so greatly reinforced as to eliminate any possibility of the blocks becoming broken, owing to the fact that the oil channel extends centrally therethrough. Furthermore, it will be seen that because of the fact that the oil channels are curved downwardly throughout their entire length any tendency of the oil to remain in any one position is prevented since the curved structure will cause the oil to creep along downwardly until the same engages the waste 11 after which it will be dispensed upon the periphery of the wheel 3.

It is a well known fact that a wheel guard is very essential in connection with the wheels of the carriage of a saw mill for by the use of such a device saw dust, bark, and like refuse may be easily swept to the side portions of the rail, leaving a clean upper surface for engagement by the wheel or wheels of the carriage. If such a wheel guard were not used the refuse upon the track would cause the carriage to tilt and ride unevenly, thus causing the lumber which is being produced by the saw mill to be defective because of the uneven riding of the carriage.

By having the portions of the track engaging blocks extending for a distance below the lower edges of the straps 1 it will be seen that the blocks 6 will support the weight of the wheel guard and track cleaner. Since the end of the grain of each block will bear upon the track the life of the block will be greatly reduced, although because the same is formed of wood it will not wear upon the track with sufficient force to shorten the life of the track to any perceptible degree. Furthermore, since the oil is dispensed directly to the periphery of the wheel the friction between the wheel and the wheel engaging blocks will be greatly reduced and thus the wheel will be allowed to freely rotate, while only a small portion of the oil will be dispensed to the surface of the rail, thus causing only a sufficient amount of the oil to engage the rail for reducing to a certain extent the friction of the track engaging blocks and the track.

Since the blocks are detachably secured to the strips 1, any one of the blocks or all of the blocks may be quickly removed and new ones substituted. Since the blocks are formed of wood they are very cheaply manufactured and, therefore, after the same become worn to a slight degree new ones may be substituted so as to allow the track cleaner to ride evenly at all times. Furthermore, since the blocks are formed of wood the wear upon the track as well as upon the wheels of the carriage is so greatly reduced as to prolong the life of these elements to the maximum.

What is claimed is:

1. In a device of the class described, the combination of a pair of side straps, a track engaging block and a wheel engaging block carried adjacent each end of said straps, said wheel engaging block resting upon said track engaging block, said wheel engaging block having concave surface, means for holding said blocks upon said straps, the grain of said track engaging block extending vertically, whereby the end of the grain may engage the surface of a rail, the grain of said wheel engaging block extending at an angle of approximately 45° to the horizontal longitudinal axis of said strap so as to allow the end of the grain to form the concave surface, said concave surface being adapted to be engaged by a wheel, the end of the grain of the blocks being adapted to prolong the life of the blocks by preventing the blocks from wearing very rapidly, said

blocks being adapted to remove refuse from the surface of a rail and the periphery of a wheel.

2. In a device of the class described, the combination of a pair of side straps, a track engaging block and a wheel engaging block carried adjacent the ends of said straps, means for removably securing said blocks upon said straps, said track engaging block being adapted to engage the surface of a track and said wheel engaging block being adapted to engage the periphery of a wheel, whereby as the wheel rotates the device may be moved so as to remove particles of refuse from the periphery of the wheel and from the surface of the rail, and means carried by said wheel engaging block for supplying oil to the periphery of the wheel, thereby reducing the friction between the wheel and said wheel engaging block.

3. In a device of the class described, the combination of a pair of side straps, a track engaging block and a wheel engaging block carried adjacent the ends of said straps, means for retaining said blocks in position, each wheel engaging block having a concave surface, each track engaging block being adapted to ride upon the surface of a track, said concave surface of said wheel engaging block being adapted to engage the periphery of a wheel, whereby the wheel may drive the device, at which time said concave surface may remove particles of refuse from the periphery of the wheel, while said track engaging block will remove particles of refuse from the surface of the track, said wheel engaging block provided with an oil channel extending therethrough, and means for supplying said oil channel with oil, said oil channel extending so as to terminate evenly with said concave surface, whereby the oil passing through said oil channel may be directly dispensed upon the periphery of the wheel so as to reduce the friction between the wheel and said wheel engaging block.

4. In a device of the class described, the combination of a pair of side straps, a track engaging block and a wheel engaging block carried adjacent the ends of said straps, means for retaining said blocks in position, said wheel engaging block having a concave surface, said track engaging block being adapted to ride upon the surface of a track, said concave surface of said wheel engaging block being adapted to engage the periphery of a wheel, whereby the wheel may drive the device, at which time said concave surface will remove particles of refuse from the periphery of the wheel, while said track engaging block will remove particles of refuse from the surface of the track, said wheel engaging block being provided with an oil channel extending therethrough, said oil channel being curved downwardly throughout its entire length and terminating evenly with the concaved surface of the block, an oil cup carried by the upper surface of said block and communicating with the upper end of said oil channel for dispensing oil thereinto, waste positioned within the end of said oil channel and bearing upon the periphery of the wheel, whereby oil may be dispensed through said waste upon the surface of the wheel for reducing the frictional engagement between said wheel and the wheel engaging block, said channel being curved throughout its entire length so as to prevent oil from clogging or ceasing to flow at any portion within the oil channel.

5. In a device of the class described, the combination of a pair of side straps, a track engaging block and a wheel engaging block carried by said straps adjacent their ends, said wheel engaging block being provided with an oil channel, means for supplying oil thereto, said track engaging block being adapted to ride upon the surface of a track, said wheel engaging block being adapted to engage the periphery of a wheel, whereby as the wheel rotates the device may be driven, the oil from said oil channel being adapted to be dispensed upon the periphery of the wheel so as to reduce the frictional engagement thereof with the wheel engaging block, and means for retaining said blocks in detachable engagement with said straps, whereby said blocks may be easily removed when desired, said means engaging said wheel engaging block upon the opposite side from said oil channel, whereby any possibility of said wheel engaging block becoming broken when in use is prevented.

6. In a device of the class described, the combination of side straps having straight side edges, thereby increasing the strength of the straps, a track engaging block and a wheel engaging block positioned adjacent the ends of said straps, said blocks being formed of wood and having their grain extending so as to receive the wear upon the end of the grain, said track engaging block extending for a distance below the lower side edges of said straps so as to bear upon a track for removing refuse from the surface thereof as the device is moved, said wheel engaging block having a concaved surface for engaging the periphery of a wheel, an oil channel extending through said wheel engaging block, means for supplying said oil channel with oil, said oil channel communicating with said concave surface so as to directly lubricate the periphery of a wheel for reducing the frictional engagement thereof with the concave surface, said blocks being provided with a plurality of openings, said openings of said wheel engaging block

being formed upon opposite sides and adjacent said oil channel, bolts passing through said straps and said openings for dismountably retaining said blocks in engagement with said straps, whereby said blocks may be easily removed and new ones substituted when necessary, said bolts being adapted to retain said wheel engaging block upon the sides of said channel whereby any possibility of said wheel engaging block becoming split or broken when in use is prevented.

In testimony whereof we hereunto affix our signatures.

JOHN A. DURKEE.
DAVID W. BARTRAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."