

J. CLASS.
SAWDUST CONVEYER.
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946,336.

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Fig. 1.

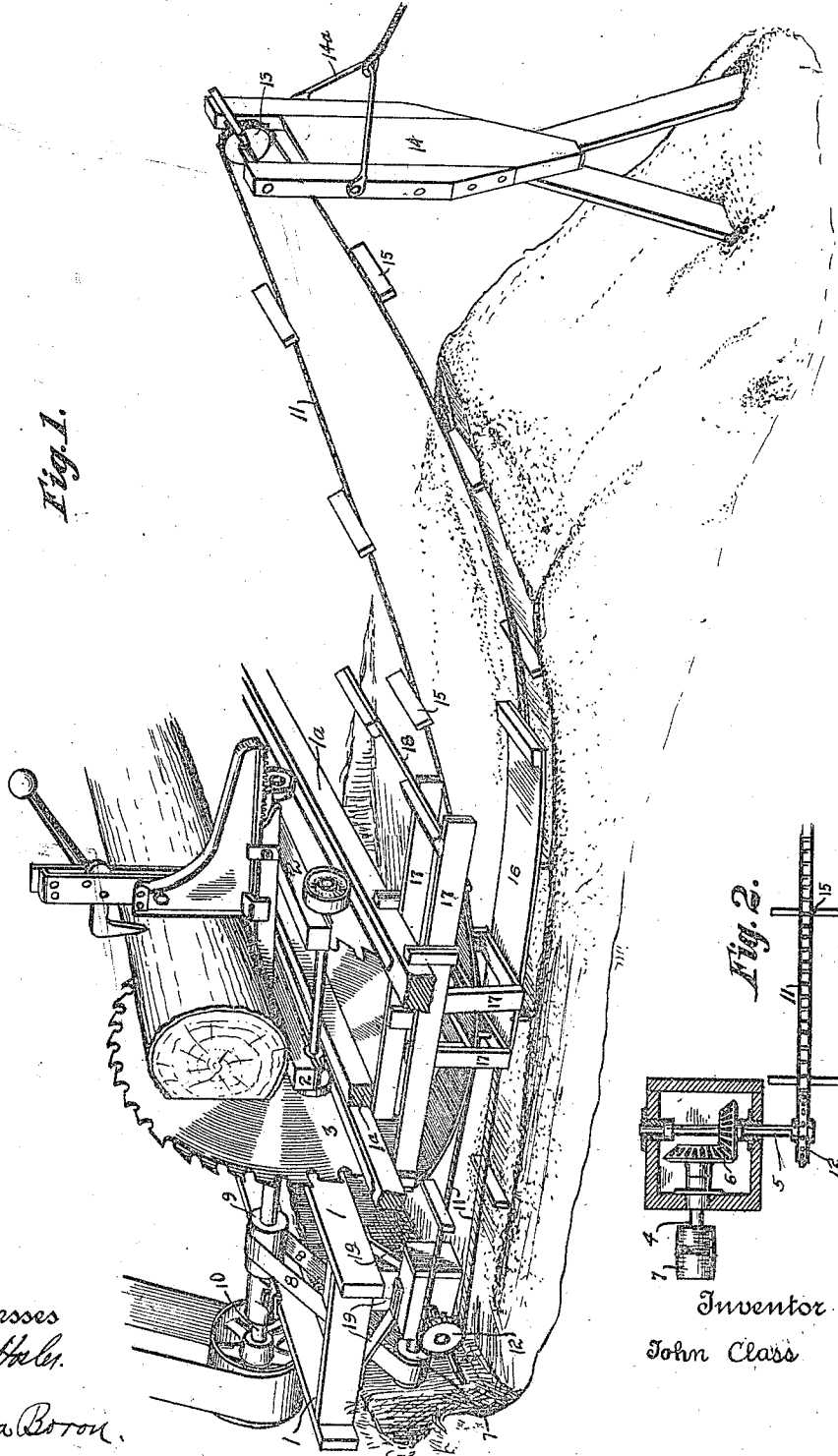
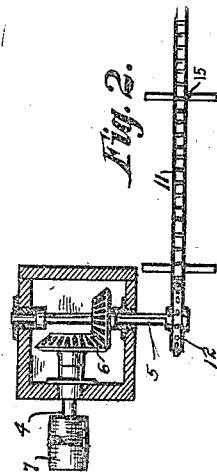


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN CLASS, OF CANTON, OHIO.

SAWDUST-CONVEYER.

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To all whom it may concern:

Be it known that I, JOHN CLASS, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Sawdust-Conveyers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of the present invention is to provide means for removing sawdust from the saw pit by mechanism simple in construction and at the same time designed to be operated from the mill proper through suitable gearings co-acting with the saw mandrel or its equivalent.

In the drawing: Figure 1 is a view showing a portion of a sawmill and illustrating the endless conveyer chain and the conveyer blades carried thereby, together with the upper and lower spring-board in proper relationship in reference to the endless conveyer chain. Fig. 2 is a horizontal section of the gear box showing the miter gear for driving the endless chain and conveyer blade.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the sawmill frame which is of the usual construction, upon the track 1^a is mounted the usual traveling carriage 2. These parts within themselves form no particular part of the present invention.

Below the saw 3 and preferably at one side thereof are located two shafts, 4 and 5, which shafts are geared together by means of the beveled gear wheels 6. The shaft 4 is provided with the pulley 7, which pulley is driven by means of the belt 8 leading from the pulley 9 mounted upon the saw shaft 10; but it will be understood that this gearing may be varied without departing from the nature of the present invention as to the only object is to provide a means for imparting motion to the endless chain 11 by means of a suitable sprocket wheel 12 fixed upon the shaft 5.

The endless chain is extended upward and outward from the saw pit a suitable distance and is held in proper position by means of the sprocket wheel 13, which

sprocket wheel is supported by means of the standard 14, which standard may be of any desired construction as its only purpose is to support the shaft upon which the sprocket wheel 13 is mounted and to hold the endless chain in proper elevation. The construction of the standard as to its detailed construction is immaterial but owing to the fact that more or less pull toward the sawmill pit takes place the standard should be provided with a suitable yoke such as 14^a, to which a guy rope may be attached and the guy rope secured in the usual manner. It is quite well understood that in sawmill conveyers of this class there is considerable vibration of the members of the endless chain, owing to the fact that the pull or strain is not uniform at all times. It is also well understood that the lower member of the endless chain should be held in such a position that the conveyer blades 15 will be held so as to properly convey the sawdust from the sawmill pit.

In order to provide for holding the lower member of the endless chain 11 down in the pit and under the saw, a spring-board 16 is provided, which spring board is secured to the frame 17 in any convenient and well known manner, but said spring-board is extended outward a suitable distance from the frame 17, which outward extended portion is free to spring upward, or in other words the extended portion is free to move up when pressure is brought against the bottom or underside of the spring-board 16, at a point or points beyond the frame 17. This spring-board is of importance, owing to the fact that the lower member of the endless chain 11 can be held in a lowered horizontal position for a distance and at the same time permit a vibration of the lower member, and at the same time holding said lower member of the endless chain with sufficient force to prevent the conveyer blades from riding over coarse material such as bark and other material likely to accumulate in a sawmill pit.

For the purpose of guiding the upper member of the endless chain or more specifically the return member down as it moves down into the saw pit and under the saw the curved guide board 18 is provided, which is connected to the sawmill frame and to the frame 17 in any convenient and well known manner. This guide board 18 is ex-

tended a distance outward and upward from the frame 17 and its outer free end is thus adapted to engage the returning blades 15 for the purpose of guiding the said blades and the chain 11 to which they are attached and quieting the vibrations of the same and carrying the said blades and chain to a sufficient depth in the pit to clear the saw 3.

Especially attention is directed to the fact that the spring board 16 and the guide board 18 are connected to and supported by the same frame 17, which frame in turn is connected to and supported by the sawmill carriage track 1^a. One of the principal advantages of this construction, is that the spring board, guide-board and frame may be put together as a single structure and as such may be lowered into the pit and connected to the track without the necessity of the adjustment and attachment of the various parts of which it is composed, thus reducing the amount of labor and trouble in erecting the device for operation.

It is also to be noted that the two shafts 4 and 5 together with the immediately connected parts are supported by and attached to the sawmill frame 1 by means of suitable braces 19. It will thus be seen that the shafts 4 and 5 and the immediately connected parts may be lowered into position in the pit and properly adjusted with very little trouble and labor in much the same manner and for much the same reason as that referred to in the case of the spring board 16 and guide board 18, as the said shafts are connected to the frame 1 and by the proper placing of the frame 1, the said shafts are brought into proper position.

Having fully described my invention what I claim as new and desire to secure by Letters Patent, is—

1. The combination of a sawmill including a frame and a carriage, an endless conveyer chain provided with conveyer blades, said endless chain and conveyer blades arranged to move the sawdust, a wheel adapted to actuate the endless conveyer chain and spring and guide boards located above the members of the endless chain respectively, substantially as and for the purpose specified.

2. The combination with a sawmill including a frame and a carriage, an endless sawdust conveyer, means for actuating the endless sawdust conveyer and a spring board located above the lower member of the saw-

dust conveyer, substantially as and for the purpose specified.

3. The combination with a sawmill including a frame and a carriage, an endless sawdust conveyer, means for actuating the endless sawdust conveyer and a spring-board located above the lower member of the sawdust conveyer, a guide board located above the upper member of the sawdust conveyer, substantially as and for the purpose specified.

4. In a sawdust conveyer of the character described, a sawmill structure and a saw pit, a sprocket wheel located in said pit, means for rotating said sprocket wheel, an endless chain passing over said sprocket wheel and provided with conveyer blades, said chain extending horizontally across the bottom of said pit and having its outer portion extended upwardly and running over a second sprocket wheel, and a spring board and guide board connected to and supported by a common frame, which frame is connected to and supported by the sawmill structure, the said spring board adapted to hold the lower member of said chain in a lowered horizontal position in said pit and the said guide board adapted to engage the returning blades of the upper member of said chain.

5. In a sawdust conveyer of the character described, a sawmill structure and a saw pit, a sprocket wheel located in said pit and supported from said sawmill structure, means for rotating said sprocket wheel, an endless chain passing over said sprocket wheel and provided with conveyer blades, a second sprocket wheel located outside of said pit, said endless chain passing over said second sprocket wheel and a spring board and guide board located in said pit beneath the sawmill structure and connected to and supported by the same, said spring board adapted to guide the lower member of said chain in said pit across the bottom thereof in its outward movement and the said guide board adapted to guide the upper member of said chain in its returning movement into said pit.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JOHN CLASS.

Witnesses:

JOS. J. HOSLER,
IRENE LUTZ.