

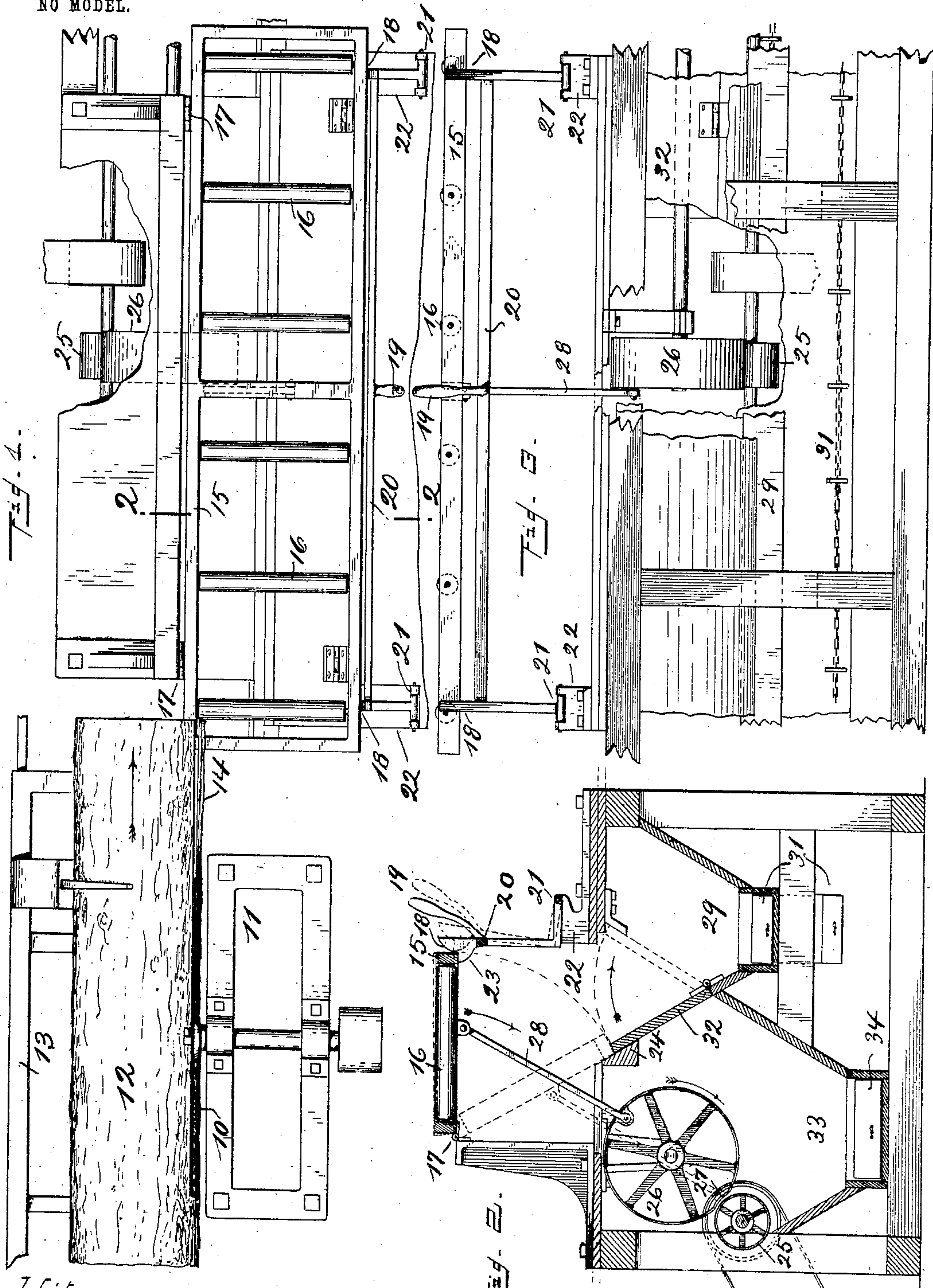
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E. M. SCHANTZ.  
OFF-BEAR TABLE FOR SAWMILLS.

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NO MODEL.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## OFF-BEAR TABLE FOR SAWMILLS.

SPECIFICATION forming part of Letters Patent No. 771,836, dated October 11, 1904.

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*To all whom it may concern:*

Be it known that I, EDWIN M. SCHANTZ, a citizen of the United States, residing at Zimmerman, Greene county, State of Ohio, have  
 5 invented certain new and useful Improvements in Off-Bear Tables for Sawmills; and I do declare the following to be a clear, full, and exact description thereof, attention being called to the accompanying drawings, with the  
 10 reference characters marked thereon, which form also a part of this specification.

This invention relates to improvements in a device forming an adjunct to a sawmill outfit. It concerns the so-called "off-bear" table, being a device upon which the cuttings  
 15 drop immediately after completely severed and thrown off by the saw and from which table they are distributed according to their nature, condition, and intended future use. At present this distribution is entirely by  
 20 hand—that is to say, each piece or cutting is handled for the purpose of removing it from the off-bear table.

The object of my present invention is to obviate such handling for at least part of the  
 25 stuff cut, thereby lessening the manual labor and rendering the operation of a sawmill to a corresponding degree more convenient and less laborious.

In the following specification, and particularly pointed out in the claims following, is found a full description of the invention, together with its manner of operation, parts,  
 30 and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 is a top view of a sawmill outfit, showing a customary saw, the moving feed-carriage supplying it and the off-bear table.  
 40 Fig. 2 is a vertical cross-section on line 2 2 of Fig. 1. Fig. 3 is part of an elevation of Fig. 1 with parts broken away.

In the drawings, 10 shows a customary circular saw mounted in a suitable frame 11.

12 represents a log secured upon a feed-carriage 13, by which it is carried back and forth past the saw for the purpose of reducing it to  
 45 lumber, the log after each cut being also moved laterally and closer to the saw-blade in the usual manner. The cuttings or boards 14, as  
 50

assumed in this case, drop upon a so-called "off-bear" table as soon as completely severed and immediately after the log has traveled its length past the saw. While so deposited upon  
 this table a particular cutting may be inspected for the purpose of determining its further  
 55 disposal according to its condition. If nothing further is to be done to it, it may go to one certain pile for stacking. Again, it may first go to a certain other machine or a series  
 60 of machines—as, for instance, an edging-machine or edger or a resaw. Finally, if it is poor material, bark, waste, or a so-called "slab" it will be disposed of in a different direction again. In this latter case such stuff  
 65 is generally considered as refuse or waste and sometimes disposed of by being used for fuel purposes, and frequently a conveyer is used upon which such stuff is dropped and whereby  
 70 it is carried to the place of its use or deposit. As before stated, each piece after thrown off by the saw and arriving upon the off-bear table is handled by being carried or thrown in  
 a certain direction, according to its condition and to the particular plan of arrangement ob-  
 75 taining. Waste stuff, defective lumber, and slabs are usually dropped upon a conveyer, while the good lumber is carried away and may be stacked. The more particular object  
 80 of my invention is to obviate the handling of one of these two classes of cuttings, which may be either, thus lessening the hand labor to a corresponding degree. The procedure  
 85 consists, essentially, of dropping the table whenever a cutting pertaining to a particular class arrives thereon and dumping such piece without handling it. In the present case it is  
 assumed that one class of cuttings, which may be the waste stuff—such as slabs, bark, and defective lumber—are dumped by the table,  
 90 while the good stuff is taken away from it in the usual manner for stacking. The handling at this stage of one class of the stuff cut is thus avoided. The dumped stuff after  
 95 dropped may be removed in any suitable manner—as, for instance, it may be deposited upon a moving conveyer, whereby if it is waste stuff it may be carried at once to the boiler-furnace and used as fuel.

Off-bear tables consist usually of a rectan- 100



gular frame 15, mounting between its longitudinal members a number of rollers 16, which facilitate removal of the lumber and which permit the same to be readily slid over and  
5 rolled off from the table.

The novel feature of my off-bear table consists in the fact that the same is hinged on one side, as shown at 17, and it is held in a normal (horizontal) position by one or preferably two trip-catches 18. 19 is an operating-handle for these trip-catches, it being, in case there is more than one catch, secured to a rod 20, which connects all the catches, so that they may all be simultaneously manipulated. As to construction in detail these catches may vary. The essential requirement is that they may be moved from under the edge of the table, so as to permit this latter to drop, and that they return again to a normal position, preferably automatically, to support the table as soon as this latter has again been raised and returned to its normal position. As shown, I secure them hingedly at 21 and let them rest on a shoe 22, which limits the  
25 movement of the catches, so as to hold them in a position in which they are capable of supporting the table. This position is a yielding one, so that when the table is raised up to its normal position its edge coming in contact with incline 23 will displace these catches, which latter, as soon as the table has passed above them, move again forward and in under the table to hold the same. This latter movement may be impelled by springs or  
35 weights. As shown, it is the weight of the catches and the manner of hinging which causes them to assume their proper position.

The operation is a simple one. The pieces as they arrive upon the table after cut and  
40 thrown off by the saw are quickly scrutinized and according to their condition and nature rolled either over the table and passed on or dumped. In the latter case the catch or catches are moved out from under the table, permitting the same, with the wood thereon, to  
45 drop. This drop in order to dump the wood need not be one to the full vertical limit, and I prefer to intercept it by a stop, which may be a rail or timber 24, against which the free  
50 edge of the table drops and comes to rest. After that the table is raised up again to its normal position, in which it is held by the catches until to be dropped again when one of the pieces to be dumped arrives. The raising of the table to its normal position may be  
55 entirely manual or assisted by mechanical means or counterweights or by mechanical means altogether, involving no further attention or work. This mechanism consists of  
60 two friction-pulleys 25 and 26, of which the first one is the driver and the other the driven one. The first one may rotate all the time and for its motion may be readily connected with any of the pulleys and shafting of the  
65 sawmill and its feed-carriage. It is prevent-

ed from rotating pulley 26 when such is not needed by a depression at 27 in the face of this latter which interrupts the contact between the two. Pulley 26 connects to the table by means of a push-rod 28. The points  
70 of connection of this latter are arranged as shown in Fig. 2, with the connection to pulley 26, while the latter is in its normal position, to one side of or beyond the center line of motion, the object being to enable the dropping  
75 table by its weight to start pulley 26, which it readily does. This start causes the working periphery of pulley 26 next to gap 27 to come in contact with pulley 25, which now at once transmits its rotation accordingly. 80  
The first part of this rotation, during which the table completes its drop, is of no particular significance, since the mere weight of the table would be sufficient for this; but it causes the parts to gain a momentum which aids during  
85 the final part of the rotation when the table is raised. It will be noted that while the dropping and raising of the table is a continuous movement such is merely due to the particular means used here and does not necessarily have to be  
90 so. By the time the table has been returned to its normal position above catches 18 depression 27 is also again opposite the face of pulley 25, whereby the contact between the two is broken, and the rotation of pulley 25 is no  
95 longer effective for transmission upon pulley 26. While so being raised the table is carried up a little higher than would be necessary to merely bring it above catches 18, (see dotted lines in Fig. 2,) the object being to carry the  
100 lower end of push-rod 28 again beyond the center of motion, so that the table on its next drop may readily start again pulley 26 into contact with pulley 25, as already explained. The further disposal of the stuff after it leaves  
105 the table may be arranged to suit facilities, needs, and requirements. For instance, it may drop into a gutter 29, in the bottom of which moves a conveyer 31, being usually an endless chain moving over rollers. This conveyer may carry the stuff, if it is waste and refuse, to a boiler-furnace to be used as fuel. Again, this stuff or other stuff if handled may be switched, so that it is not carried away by conveyer 31. This is done by opening a hinged  
115 flap 32 and throwing it into a position as shown in dotted lines. When so switched, the stuff may be deposited into a second gutter 33 and upon another conveyer 34, by which it is carried to a different place. Flap 32 may be operated in any convenient way by hand or foot, or a rod may be used and provided with a hook or permanently connected.

Having described my invention, I claim as new—

1. In combination with a sawmill outfit, an off-bear table which receives the cuttings of the saw, the same being hingedly secured and held up by a movable support in a normal, substantially horizontal position and whereby it  
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may be dumped, a set of friction-pulleys and a push-rod connecting one of them operatively to the table, the arrangement and construction being such that the dumping of the table causes  
5 the connected pulley to rotate for the purpose of returning the dumped table to its normal position.

10 2. For a sawmill outfit, an off-bear table in shape of a rectangular frame located and adapted to receive cuttings of the saw as they drop, the same being supported in a fixed position which is normally horizontal and from which it may be dumped to drop its load, mechanism to restore it to its normal position and operative connection between it and this mechanism whereby the dumping of the table starts  
15 the operation of this mechanism by which the table is returned to its normal receiving position.

3. For a sawmill outfit, an off-bear table in 20 shape of a rectangular frame located and adapted to receive the cuttings of the saw as they drop therefrom, hinges on one of its sides and releasable trip-catches on the other whereby the table may be dumped to drop its load, 25 mechanism to restore the table to its normal position and operative connection between it and this mechanism whereby the dumping of the table starts this mechanism to operate, to restore the table to its normal receiving position. 30

In testimony whereof I hereunto set my signature in the presence of two witnesses.

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Witnesses:

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ALBERT A. MOEBUS.