

IMPERFECTIONS IN VENEER LOGS.

Rotary veneer cutting has its little worries, like any other industry—and sometimes it has its big ones, too. It is the imperfections in timber that make a man operating a veneer machine keep his thinking-cap on, and, as there are no absolutely perfect logs, the thinking apparatus of the veneer man is kept moving along pretty steadily. The operator of a veneer machine has a task that is at the outset similar to that of the sawyer in a sawmill—to work the log to the best advantage and get all the good stock possible out of it—but as soon as the actual work begins the task before the veneer man takes on some of the peculiarities of rotary-cutting. When a sawyer observes a crack in a log he turns it so as to bring that crack either straight up and down on the carriage, or else levels it up horizontally, much depending on the nature of the special work on hand at the time, and thus the fault in the log is kept within comparatively narrow limits. With the veneer man, however, there is no chance to do anything of this kind, for the process of cutting takes in every part of a log's surface, defects and all, at every revolution.

It is obvious, says "Barrel and Box," that when working for large sheets of veneer there is more waste from cracks and faults than when working for narrow stuff, especially as far as the sheets themselves are concerned. There is the opportunity left to make into smaller dimensions such matter as the defects spoil for the larger ones, but that involves more or less expense, and frequently it is more, but it is the larger sheets that are in the mind of the operator for the time being. Let us assume for example, that after the block is rounded up and the cutting fairly started, that one revolution of the log will produce a sheet that will trim and make two of the size on the order. We can also assume that just at this point the block is free from serious faults, that the crack has not extended near the outside. It will be plain sailing in this case till the crack shows up, and then it takes some thinking—thinking which involves the manner in which the veneer is handled after it leaves the machine.

If the veneer goes directly onto an endless-bed table, where it is piled up to several inches thick and is then cut out to dimensions, the problem involved when a crack develops under the above conditions is that of so placing these short lengths that they will make stock instead of waste. When the log was larger it would make two sheets of stock from one revolution, but it has been growing smaller at every revolution, and by the time the crack is tapped it is too small to make the two pieces. Then suppose that a sheet is so placed in the pile on the table that in cutting out at the clipper it will be cut near the centre; the result is nothing but two pieces of waste, at least so far as the work in hand is concerned, where at least one good piece might have been secured if it had been properly placed. Still, the proper placing of stock of this kind may at times so hamper the operations of the veneer machine that the time lost is of more value than the piece of veneer, and it is just as important for the operator to keep this in mind as it is to try and reduce the waste pile, for profit is the goal in business.

In some factories they get around the matter of hampering the operations of the veneer machine by loading all stock on trucks and taking it entirely away from the rotary cutting machine to do the clipping, and in working fine wood—where the value of the timber is the important item—it is frequently, one might say generally, necessary to do this, but the making of fine veneer is a special industry, and the present discourse has to do especially with the

making of plain veneer from the cheaper woods of to-day, and in work of this kind, especially where the stock cut is thin, it simplifies matters wonderfully to be able to draw it out on a table direct from the machine. It is quite common, too, in this work for the machine crew to cut up blocks enough to make a "table full," and then let the rotary stand while they gather up the odds and ends that were obtained in rounding up, etc., place them properly on the table, ripping out the faulty spots, and reduce it to dimensions on the clipper. There is a way to avoid this, though, when it is desired to keep the rotary moving steadily, by having a "clipper crew" and providing two lengths of endless table. Of course, in this case there is no clipper on the first length, it being used merely to pile on as the stock comes from the machine. As soon as a pile accumulates on the first table of the required size for clipping out to the best advantage, this table is put in motion—it may be either by hand or by power appliance—and the whole pile is shifted to the other table, which stands at the end as if it were a continuation of the first table. By this arrangement the cutting crew works continuously filling the one table as the other is being emptied.

But the veneer man's troubles do not end with the question of cracks in the sheet, not by a whole lot. About the time a crack gets well acquainted with the knife of the machine off will come a few innocent-looking splinters, and the tenacity with which a splinter can cling to the edge of a knife is demonstrated then and there, and the section of knife embraced by these splinters immediately goes out of business for the time being—until the splinters are removed. Did you ever stop and study about what would likely happen with a block revolving and a knife-carriage being fed to it with a rigid power feed if something should suddenly block the cutting qualities of a section of the knife? The carriage moves on—there is no stopping it unless something breaks or the feed is thrown off, the other portion of the knife cuts, and that which is hampered with splinters simply gets up an enormous pressure as it keeps squeezing back the wood it cannot cut. Of course, if the veneer man did not keep an eye out for such things as this something would happen pretty soon after the conditions outlined developed, and then the veneer man and the office would have an unpleasant half-hour together. The amount of energy expended in punching at splinters with a strip and in backing out and cleaning splinters off the knife in the industry would operate the biggest machine built, and it is pleasant to note that the machinery men are now striving to so build machines as to save some of this work and worry.

Nor are splinters the only thing, for there are hard, curly places and knots of all sizes and degrees of hardness. Sometimes a hard lump in a block will cause the knife to shy a little, strain back and cut the stock a little thin, and maybe on the next round the knife will hook under the hard place at the start and cut a little thick. Frequently this would not be a matter for the veneer man to worry over, and again it might. If the stock should be for the glue-room, where it is to be made into built-up lumber and faced with fine veneer, there is a chance for trouble. This fine veneer facing is usually very thin, and some time in the process of converting the built-up wood into a finished article it will be put into machines for finishing and polishing, and wherever there is too much unevenness in the stock the entire facing of fine veneer will be cut away before the whole surface is finished. This means that the stock is spoiled after it reaches the stage where it is most valuable. The veneer man may not be there at the time, but the