VIEWS AND INTERVIEWS.

Creosoting Timber. Some of the drawbacks that come of creosoting timber are stated by the representative of a New Haven, Conn., firm, that has just finished working a lot of 60,000 feet of timber that had been creosoted for a building being erected at Yale College. It cost $11.50 per thousand to creosote it and a great deal of it was badly cracked and warped by the operation, so that from whatever benefits are gained by the creosoting must be taken the injury to the timber by the creosoting process. It would seem from this that the remedy in this case was as bad as the disease could have been.

Wood for Smoking Pipes. There is good news for the smoker of a pipe, and there is a supply of comfort therein in the pipe, we mean. The official organ of the New South Wales agricultural department announces that a new and altogether superior wood from which to manufacture smoking pipes has recently been discovered in that province. It is obtained from a small tree or large bush which grows in moderate profusion in the interior. It is known by various names: the natives call it "ury," because it has prickly leaves it is called "needle-bush," because a supply of water can be obtained by the thirsty traveller from its fleshy roots it is called the "water tree," and on account of its color and texture it is called "beef wood." The official reporter recommends it thus: "Being a smoker, I can say confidently that it surpasses cherry, briar, or any other pipe material I have ever seen."

Wormy Oak The theory usually given as to why oak does not always stay sound and firm, is that it passes through the prime of life like man, and after that time begins to decline. This is the most reasonable logic, but there is another reason given for wormy timber, and it seems correct, too, and that is the occasional falling of a tree knocks off limbs from other trees, and insects attack the broken branches near the body while fresh, and thus form an entrance into the trunk of the tree and destroy it. Standing a worm-rotten stick against the bark has been said to give the worm a chance to eat into the tree. The woodsman sometimes blazes a tree; hacks a chip or so out to remind him if he comes that way that he had been on that ground, and thus gives insects a chance to get a foothold. Woodpeckers, it is believed by some, cause worms to get into trees, but I would think they were a great benefit by hunting out the insect for food

Wooden Clothes. Time was when references to a "wooden overcoat" were understood as the irreverent equivalent of measuring a man for a coffin; but it would seem that suits of clothes made of wood may soon be an accomplished fact, says an English paper. The writer is indebted to a merchant of the city of cloth (Leeds) for a glimpse of a species of cloth, and also a sort of cotton, made wholly out of wood fibre, these two woven pieces having all the appearance of attractive articles of their own kind. Both these textile fabrics are the result of prolonged experiments with pine wood and spruce, which have been ingeniously torn to pieces in the first instance, and then bleached by an elaborate process. After several chemical treatments the wood becomes a soft white pulp, which is run through perforated plates, the resulting threads being dried by a steaming process. These threads can be woven, and the material is susceptible of taking readily any sort of dye. The fabric can be made at an astonishingly cheap cost; it looks well, has a certain amount of strength—experiments in this connection are now being carried out—and its appearance on the market, sooner or later, is absolutely certain, especially in the form of imitation cotton.

CIRCULAR RESAW MACHINES.

RESAW machines designed for running solid saws are usually comprehended, says Theron L. Hiles in the Wood Worker, within three sizes—for 24, 36 and 44-inch saws. There is also a heavier machine for 46-inch saws. The smaller size is principally used for resawing siding or clapboard stock, and is sometimes used for resawing cigar-box lumber and for making stove board stock, for which latter purpose two saws are run on the same arbor, making three pieces at each cut. The 36-inch machine will cut boards 14 inches wide and is used for resawing box and trunk lumber, panels, furniture stock, etc. Boards are resawed in the center and planks cut into three or more pieces.

The 44-inch machine will cut boards 18 inches wide and perform the same general line of work. The 46-inch machines are of the same general construction, but are heavier than the average; they have longer journals, larger bearings, heavier rolls and in other features are unusually substantial. All these machines have a similarity of design and operation, the salient features of which, being well known, will not be recounted here. The details of construction vary considerably, but the same ends are attained without any very radical variations being made.

All the manufacturers provide for setting the arbor nearer to the feed rolls as the saw is reduced in diameter. Only one maker, at least so far as the writer has observed, provides for raising and lowering the saw in the frame for cutting wide or narrow stock and using the top of the saw in both cases. There is an advantage in this: the teeth cutting more in the direction of the grain, the sawing is more easily done, and the friction is reduced to the minimum by using the thinnest portion of the saw only. Some attempts to accomplish the same end are made by sawyers who fit a board on top of the bed-plate, thus raising the lumber to be sawed. Some provision for readily raising and lowering the saw or the bed-plate would be a desirable feature on all resawing machines.

It sometimes occurs that where one board does not butt up against the end of the one preceding it in the rolls, the end of the latter, as soon as free from the pressure of the rolls and before the saw has cut entirely to the end of the board, is caught in the teeth of the saw and driven with great force against the bed-plate. The shock is usually damaging to the saw, often breaking out teeth, which lodge in the lumber and strip others off the saw before it can be stopped.

There have been some efforts made to extend the jaws at the back of the feed rolls so that they would support and hold the boards close up to the edge of the saw. This is an important point, but usually such jaws are not given sufficient support and fail in a measure to accomplish the end in view. Spreaders, attached to the bed-plate at the sides of the saw, are useful in relieving the side pressure and consequent heating of the saw. A large spreader is set at the rear of the saw.

It would prove the efficiency of some machines if the frame were extended above the rolls to give them more support on top and hold the lumber as surely on the top as on the bottom edge. Such a construction would also have the advantage of providing ample support for the jaws. There are some considerations in favor of extending a top frame to the back of the machine, having the easy adjustment of the bed-plate in view.

The arbors are of special importance in determining the proportions of resaw machines. They are better for having yoked bearings arranged for self-oiling and provided with dust-excluders. The bearings should be large and carefully fitted, as an arbor which runs hot cripples the saw.

The arbor collars are of more than passing interest, as a slight defect here will be multiplied many times at the tooth of the saw. Correctly-made, they clamp first at the extreme edge of the collar and do not strike the saw at all below a line three-fourths to one inch from the edge of the collar. The nut, if a tight fit, will pinch the collar on one side and cause the saw to run out of true.

Upon the form and weight of the frame depend many points for or against the successful operation of resaws. Weight and stiffness are essential. No possible strain from crooked lumber should cause any part to yield or spring from its place. The action of the pressure-bar must be sensitive to the slightest variations in the thickness of the lumber, and the force exerted very powerful.

The distribution and proportions of metal in the frame, to give support to all parts commensurate to the stress in different parts of the machine, is a subject which requires observation and experience combined with a thorough technical knowledge, to secure correct construction. If the frame is too light for the work it is given to do, it is soon out of condition and the saw not only lacks support but is subjected to strains and concussions which it is not designed for or able to bear. A frame not equally strong in all parts is little if any better than a slight one. The weak point determines the capacity of the machine.

The frames of resaw machines are self-contained and designed to be placed upon any level floor to which they can be secured. No recommendation as to the value of a solid, heavy foundation is usually given to the purchaser by the maker. There is a prevalent opinion that the machine, being self-contained, can be set up most anywhere. As the responsibility of the maker does not extend beyond the machine itself, the setting is usually left entirely with the user.

Indifference as to a lack of knowledge regarding the value of a proper foundation upon which to place machinery of this description, would be dispelled by a thoughtful consideration of the subject by almost any practical mill man. The sensitiveness of saws running at high speeds, and the thinness to which the plate is reduced, make it obvious that all strains and vibrations which it is practicable to avoid should be carefully eliminated.

There is a rapid variation in the resistance of the lumber to the saw. Wide or narrow boards; knots, few or many, hard or soft, transverse or shearing, tight or loose in their sockets; some boards sound, others shaky; some dry, others wet or green; some pieces hug the saw, others spring clear; some warped or winding, while others have short kinks—these and other variances produce many different effects on the saw and machine. Some cause a variation in power consumed in driving the saw; others act like a blow struck against the saw. Shocks and vibrations are absorbed or dissipated by a heavy foundation, which would otherwise give trouble. A steady power, ample for the heaviest demands, keeps the saw running up to speed. The accommodation of the feed to the peculiarities of the lumber depends upon the expertness of the sawyer.

Electricity will doubtless be applied both to driving resaws and feeding the lumber. A motor properly proportioned to the requirements of the saw and feed would furnish an ideal driving power. The current consumed by the motor varies directly with the labor to be performed, so that there is always just enough force to mantain the set conditions. Electro-magnets for feedways would have decided advantages over the prevalent arrangements of feed rolls. It is to be hoped that so promising a field for the extension of the practical application of electricity in the mechanical world, will not long remain unexplored.

TESTING MOISTURE IN STEAM.

A METHOD of testing the amount of moisture in steam has been discussed by the Institution of Engineers and Shipbuilders, Scotland. The principle in this case, more particularly applicable to marine engines, consists in comparing the saltness of the steam with that of the water in the boiler. The test, as explained, is carried out by means of nitrate of silver, and the reaction is so delicate that, with only one per cent. of salt in the boiler, 1 per cent. of priming water can be accurately determined to the second decimal. To one part of salt boiler water there is added 100 parts of pure condensed water, and into this is poured a small quantity of concentrated solution of yellow chromate of potash: then a nitrate of silver solution containing about 1-10 per cent. of this salt is slowly added. With each drop the salt water turns locally red, but this color disappears at first; later on, when all the salt has been acted on, the whole fluid changes color from pale yellow to orange. The quantity of nitrate solution is noted, and then the experiment is repeated on the condensed steam from the engine undiluted with distilled water. The ratio of the quantities of nitrate of silver solution used in the two tests expresses the amount of priming in per cent.