VIEWS AND INTERVIEWS.

A Camphor Tree.

While camphor was formerly produced in Sumatra, Borneo, and other parts of the East Indies, says the Scientific American, all now known to the trade comes from Japan and Formosa. The camphor tree is a large evergreen of symmetrical proportions, somewhat resembling a linden. It bears a white flower, which ripens into a red berry. Some of the trees are fifteen feet in diameter and live to a great age. A group of trees in province of Toosa, about a century old, are estimated to be equivalent to about 40,000 pounds of crude camphor The camphor is extracted from chips taken from the roots or from the stem near the root, the wood yielding about five per cent of camphor, and the root a larger proportion. The annual export of Japan camphor averages about 5,000,000 pounds. The forests in Japan owned by the people are now almost denuded of timber, but the government still possesses large woods of camphor trees, which, it estimated, will maintain a full average supply of the gum for the next 25 years. Plantations of young trees are also making and are well taken care of, and, although camphor has not hitherto been extracted from trees less than 70 or 80 years old, it is expected that under the present intelligent management equally good results may be realized in 25 or 30 years. The Japanese Department of Forests, which has the control of these woods, is under good management.

Big Wages.

One of the difficult things to hammer into the head of the average workman is that labor done in a perfunctory manner never pays anyone—never the workman. Conscience thrown into work will in the end bring its return. Writing on this line a contemporary sensibly says. "It is common for young persons to determine the quality of their work by the prices which they are paid for it. "I only get," says such a one, "$5 a week and I am sure that I am giving $5 worth of service. If my employer wants more let him pay more; if he wants better let him give better wages." This is a specious reasoning, but it is false, and it is destructive to the best work, and therefore to the best manhood. No man can afford to do anything less well than his best. He who always strives to do his best work, in the very process of striving, will grow better. Not only will he grow more and more skillful in that particular workmanship, but he will be better equipped for workmanship. This is an absolutely universal road to promotion. The man who is careful to give nothing more than he gets, rarely gets more than he gives. The man who works for his own sake, who puts the best part of himself into every blow that he strikes, who mixes all his work with brains and conscience, who studies to render the largest possible service, regardless of the compensation which it brings, sooner or later will find his way on and up. The world learns his worth."

Running Saws.

In a series of ably written papers appearing in the Wood Worker one Junius is discussing what goes to make a successful mill man. In this connection, referring to the matter of running a saw successfully, he says: "It is important for the beginner to learn that a saw can not be run by the guides. A slight inclination one way or the other can be controlled by the guides, but when the saw shows a positive disposition to run "out" or "in," the remedy is not in the guides, but the fitting or shape of the blade must be changed. My rule is to fit the saw square and run in that way. It is bad practice to file a saw "out" or "in" to make it run straight, as it leaves the points in bad condition for swaging the next time, and requires more power to run it. If the tension is right, a few blows of the hammer, placed on the opposite side from the way it inclines to run, and at the proper locality, will balance it up and if the fitting is square the saw will straighten up all right. To find the proper point to place the blows, is the filer's work on the anvil by an examination with his short level. If the saw "snakes," the only remedy is to get it the right tension, and any attempt to hold it with the guides will only aggravate the trouble by heating the rim. Observe closely the actions of your saw, remembering that the same causes produce the same effects, and when your saw acts a certain way you will soon learn to detect the cause—and when you know the cause, it is easy to apply the remedy."

Making an Ice Road.

The operations of the logger and shantyman has always proven a popular theme for magazine writers. In the current number of Cassier's Magazine there is an interesting illustrated article on life in the logging districts, written by one who has evidently a considerable knowledge of the practical side of lumbering. Speaking of the making of an ice road, this writer, Mr. B. W. Davis, says: "The whole outfit necessary for making an ice road consists simply of a water barrel on runners with a stove under it, a four-horse team, and a tool called a marker or rut-cutter. The operation is simple. The first move is to go over the road with a snow plow, making a wide level track, after which the tank on runners is filled with water, the stove under it being kept supplied with dry wood fuel to prevent the water from freezing. The tank has two spouts just over and at the back end of the hind bobs, the entire rig being something like a street sprinkler, except that the water runs out in two solid streams, and the tank is of square section and long to fit a "bob sled." The rut-cutter is attached to the back end of the runner, cutting a groove in the snow and dirt of the road; the water falls into the rut this cut, and Jack Frost does the rest in very short order. The shape of the groove is the reverse of the sled shoes, the runner being convex and the groove concave. By this method it will be readily seen that we have produced a grooved ice railroad in which the logging sleds slip along with very little effort on the part of the horses. As a rule, the logging roads are built beside a brook bottom which flows toward the river, and as a result the loaded sleds are hauled down grade and the empty sleds up grade, making it easy work for the team."

NEW ZEALAND TIMBER.

THE charge has sometimes been made against architects, that whilst they are called upon in their profession to deal largely with the product of the forest, yet few of them have any practical knowledge of timber and timber trees. This is not, however, to be said of all architects. At the meeting of a British Architectural Society recently a paper on the subject of New Zealand timber, and incidently the timber of other countries, showing a comprehensive knowledge of the subject, was read by Mr. C. E. Oliver, F. S. I. Among other things Mr. Oliver said:—

"The architect of the present day must need add largely to the old list of woods of which he should have an intimate knowledge. The fact that the best class of Baltic woods are becoming increasingly difficult to obtain, and the Canadian pine rising to such a high price, together with the extremely low steamer freights now obtained, is bringing many other kinds of wood within our reach, which, but a few years ago, were scarcely known in England outside of Kew Gardens. The British timber market lays under contribution every country in the world- the value of timber annually imported into this kingdom is about £16,000,000 and in London or Liverpool may be found the best stocks of timber ever gathered in any city. From Europe we import some twelve or thirteen different timbers, from Asia about fifteen kinds, Africa twelve or thirteen kinds, North and South America something like fifty kinds, and from Australia and New Zealand six or seven kinds. While as yet there are no signs of that "wood famine" predicted by some, I think that we certainly will be driven further afield for our supplies when quality is of more consequence than quantity. The United States have practically ceased the exportation of yellow pine, and now import immense quantities from Canada. Baltic provinces appear to be simply inexhaustible in point of quantity (but how long can they maintain a supply of the better class of deals is doubtful); however, the huge timber industry of Russia, Finland and Sweeden will for long ensure us in England of having a supply of cheap timber. It is considered by good authorities in the trade that many years will not elapse before lumber will be dearer in America than it will be in Europe, owing to the large increase in the consumption in the United States and Canada itself. The forests of New Zealand, although comparatively small when contrasted with the huge belts of timber land in North America, contain such a large variety of valuable timber trees that they must prove of enormous value in the near future. These forests are said to cover an area of over 20,000,000 acres, about half of which are Crown lands, and the greater part of the remainder is in the hands of the European population. New Zealand is so well watered and so well adapted to the growth of timber, that even when forests are cut down they soon reproduce themselves, but this is no excuse for the wanton waste which often takes place after trees have been felled for timber purposes. The forests are known to contain forty distinct varieties of timber trees, more than twenty of them are suitable for architectural work, cabinet making, and many other purposes. Active steps to promote a large export trade are being taken by the Midland Railway Company of New Zealand and the Kauri Pine Company (Limited), who both possess most valuable concessions of excellent timber lands. For some years past kauri has been imported into this country, and ship builders who are ever pioneers in the use of wood have really acknowledged its splendid qualities. Now it appears to me that if kauri (the most costly of the New Zealand timbers) can be imported here at a price enabling us to use it freely, I think the same might be done with many other woods, such as the red pine, black pine, totara, &c. This, no doubt, you will consider a matter for the timber trade to settle, but I think otherwise. Timber merchants naturally only supply what there is a demand for, but if architects had a better knowledge of the timbers of various lands, and inquired for them no doubt we would soon have a large choice. Of course, shippers will not send woods which are unknown to our profession, and which may have to lie in stock for years before going off. The Colonial Exhibition, and now the Imperial Institute, in London, will, I believe, do a great deal to help this forward, and the day may yet come when our middle-class houses will be fitted with natural woods and the paint pot almost banished. This would be another step towards the "house beautiful." The indigenous forest of New Zealand is evergreen, and the general character of the woods resembles the growth of Tasmani and the Australian continent, most of the woods are harder, heavier, and more difficult to work than the European and North American timbers. They vary, however, very much among themselves, and are mostly very durable. The majority of the trees rise to a height of 40ft. or 50ft. before putting out their branches, a detail which ensures the production of a large amount of clean regular grained wood of great size, an article which is becoming more and more difficult to obtain in Europe and America.

RUSTING OF BOILER SHELLS.

IN a paper read in Germany on the rusting of boiler shells, the author concludes that the most serious cause is the introduction of air with the feed water. If the feed water enters the boiler near the low-water level he concludes that it will soon be expelled with the steam, unless it has a chance to accumulate in pockets. Such pockets rust rapidly. The feeding, he advises, should be completed before stopping for the day, so that the water standing in the boiler over night shall be as free from air as practicable. Faulty construction, the author believes, is the frequent cause of internal rusting. For preventing rusting he recommends. First, while the boiler is working—(1) Removing the air from the feed water before it enters the boiler. (2) Removing air from the water while in the boiler, and preventing its accumulation in pockets, etc. (3) Addition of chemicals to the feed water. (4) Protective coatings applied to the inside of the shell. Second, while the boiler is standing idle - (1) Removing all moisture from the boiler, (*a*) by blowing it off while hot, (*b*) by producing an air current through it, (*c*) by placing hygroscopic bodies inside. (2) Direct protection of the shells, (*a*) by painting with tar, varnish, etc., (*b*) by covering with protecting the shells from varying temperatures by keeping the draft in the flues constant, and so as to prevent moisture alternately depositing and evaporating on the shell. (4) Protecting the shell by completely filling the boiler with water from which all air has been expelled.