OUR PENCILS.

WHERE THE MANUFACTURERS, FABER & CO., GET THEIR CEDAR.

Cedar Keys is altogether a very lovely group of islands, numbering between thirty and forty isles, often very minute, and the largest not over a mile long. The principal ones are Atsena Otie, Cedar, Piney Point, and Way, Snake and Seahorse Keys, which inclose the port. Seahorse Key lies at the entrance, and is ninety feet high, the loftiest land between Key West and Pensacola. It seems placed there as a breakwater, and a pedestal for the lighthouse which crowns it. It is encircled by a beautiful beach of soft, creamy sand, and is haunted by various legends. Lafitte, the smuggler, is said, with some reason, to have made this islet one of his haunts in the days of his power.

Atsena Otie, which is an Indian name, was originally inhabited by the Indians, and was the first of the group occupied by the whites. The wigwams vanished when Mr. Parsons, then a quartermaster in the army, caused a house to be erected there during the Seminole war. The timbers were brought there already fitted, as he told me. They began to erect the building in the morning, and at night he slept in it, and on the following day filled it with Government stores. A charming beach, fringed with cabbage palms and palmettoes, encircles the isle, and some picturesque residences are grouped in the centre. But Atsena Otie is also the site of the cedar mills of Faber & Co., the famous pencil manufacturer.

This firm was established in 1761, and the present head of the house, A. W. von Faber—he has been ennobled—is the great-grandson of the founder The manufactory is at Stein, in Bavaria; agencies also exist at Vienna, Paris and London, and a very important branch establishment was founded in New York over twenty years ago, which not only manufactures the cheaper grades of pencil, but also, more recently, gold pens and pen handles of excellent quality. Five hundred different kinds of pencils are manufactured by the Fabers. Most of these depend on two materials for their construction —the lead, or graphite, which comes from the celebrated mine of Aibert, in Siberia, and the wood of the cedar tree. To many it will be a surprise to learn that all the cedar employed in pencil making comes from the State of Florida, and is shipped at Cedar Keys. The requisites in wood used for this purpose are a very fine grain, and what is rare with such wood, softness. Red cedar of the best quality possess these conditions. There are many varieties of cedar, of which two are common in the United States. Of these the white cedar, mistakenly called the cypress, is very common in Florida, and grows to a great height. The red cedar grows almost everywhere, North and South, but it is only that which is found in Florida that is available for pencil making, that which grows elsewhere being coarser, more fibrous, and more full of knots. In Florida the red cedar reaches a height of twenty five to thirty five feet, and is divided into the poor quality which can be made into cigar boxes and the like, and the superior sort adapted for pencils. The supply is obtained in the regions watered by the Withlacoochee, the Suwanee, and several other streams emptying into the Gulf of Mexico north and south of Cedar Keys. But as they are all too shallow for ships of large size, the cedar, after being felled in the forests, is hewn into square logs, somewhat larger than railroad ties, and taken to Cedar Keys in flat-bottomed schooner rigged droghers, decked over, and of light draught. At Cedar Keys the logs are made into rafts, and floated out to ships which anchor off Seahorse Key when drawing too much water to enter the port. The Fabers control over half the supply, and ship all the pencil boards which go to Europe, whether for their own or other pencil factories. These boards are all sawn at the mill of Atsena Otie by a very delicate process. They are the exact length of the pencil, and of two thicknesses—one for the groove into which the graphite is laid, and the other to lay over it and complete the pencil. The amount shipped annually averages one million cubic feet, trimmed and ready to be made into pencils and boxes.

It is evident that this traffic gives a bustling air of thrift to Cedar Keys, quite unusual in a Southern sea-board town. The negroes employed in it are a shrewd, comical class. I was particularly interested in one old fellow who was mending his mainsail, and singing Methodist hymns to himself on a pleasant spring morning. His children played in the sand and chatted to him the while, and his nondescript hat near by on the beach was more picturesque than elegant.

Besides the cedar traffic, Cedar Keys is every year gaining in importance as a distributing port for the turtles, the oysters, the oranges, and the vegetables found on the west coast, or grown at Tampa or Silver Spring. The turtles alone are worth $10,000 annually. As a railroad and steamboat terminus, and the starting point of a proposed fast mail line to Cuba, which would meet a certain demand, it seems to have the promise of [illegible]wing prosperity. A few good hotels would also make it an attractive resort in winter, as it is healthy at that season. The Indian or shell mounds of Cedar Keys should also be mentioned as objects of much scientific interest. Composed entirely of oyster shells, and containing remains of pottery, rising to a height of from thirty to sixty feet, and overgrown by live-oaks or vines and palmettoes, the question of their origin will long continue a problem to the geologist or archeologist.

FINE FINISHING.

More attention is now being given throughout the country to the artistic finishing of houses and fine business structures, and more expert carving is done for the purposes named, the appearances indicate, than in the manufacture of furniture, which industry for a long time laid claim upon the greater share of this class of mechanical talent. The reasons for this may not be fully self-evident or patent, but it would seem that it is largely because the real value of hardwood in this direction had never been fully realized or understood in this country, and because, also, the real high art in decorative architecture is scarcely native to American ingenuity and talent, which is famous in other ways, since there are oriental splendors in building and interior display in the palace-like habitations of many a pagan, or uncivilized native, which would never have been deemed possible of execution by our own designers, however artistic their eye, or however deft their touch. Processes and appliances for producing excellent results are known to many European workmen, in whose breasts the secret of such achievements is firmly locked. During the past few years many of these expert operatives in wood-carving have been forced to the shores of America, as it were, through the unsatisfactory state of affairs in their own countries, and their superior abilities have begun manifesting themselves in the wood manufacturing industry of this country, and, latterly, to a very marked extent, so that a *renaissance* in wood-carving may be fairly said to have resulted. The importation and employment of this class of talent led to a responsive sentiment in the community, or such channels of it as evidenced a sufficiently refined or artistic taste to appreciate and encourage a sensible and utilitarian form of art, which was experiencing an important enhancement of its excellence, and now quite a pronounced stimulus has been given the industry of wood-carving, more particularly for house finishing.

The *Scientific American* says regarding wood-carving in New York, that a marked and rapid increase has been made during the past 10 years in the demand for fine wood-carving, and with it a corresponding increase in the number of skilled workmen employed. Ten years ago the 100 skilled wood-carvers in the city were almost wholly engaged upon fine furniture. Now nearly 600 carvers are at work for two firms, and as many as a 1,000 accomplished artists find employment in the city, the larger part of them upon the interior decoration of houses.

A writer for the *Evening Post*, who has lately investigated this (for them) new industry, says that the rapid immigration of skilled carvers from Europe has had the effect of reducing wages considerably, yet they are still good. The very finest workmen, especially those in possession of some secret processes of doing difficult work, receive wages as high as $8 a day. The average pay of good wood-carvers is from $4 to $5 a day. The process of ebonizing cherry wood, for instance, used by one of the firms visited, is a secret known only to the workman who does it. Even the members of the firm have no right to ask what his secret is. The fact that he can get a finer, more ebony-like surface than any other man gives him a high value at once. Although the use of mechanical devices for carving wood are so much disliked by the best workmen that sandpaper is forbidden, machinery is now used to cut away the rough parts of a bit of carving. A peculiar tool driven by steam power eats out the wood wherever it goes, and thus a skillful man blocks out in a rough way as much work in a day as 20 men could have done formerly.

The delicacy and lightness of wood-carving, and the pay which good workmen receive for it, have already attracted many American apprentices, who, untrammeled by union rules, are making rapid headway, and promise to surpass the foreigners. *Northwestern Lumberman.*

LOGGING RAILROADS.

The *Northwestern Lumberman*, in answer to a correspondent, gives the following information regarding logging railroads :—

It is now conceded that the primitive method of logging with sleds on snow or iced tracks is too costly and inconvenient for modern views. *Sledding, necessarily practicable only in the* winter months, is liable to failure with the increasing changeableness of the seasons, and is interrupted at times by a scarcity of snow and at others by an over-abundance. Other devices have been used for hauling logs, and on a small scale it is practicable to use poleroads and animal power; there have also been constructed for use on wooden or iron rails various steam machines of different degrees of badness, which, by reason of defective design or construction, go to pieces after one or two years of patching and tinkering, and then give place to properly built light locomotives.

The best gauge of track for logging railroads is 36 inches, unless connection is to be made with a main line. The standard 56½ inches gauge is entirely practicable and costs very little more to build, except when heavier cars and rails are needed. In the south the 60 inch gauge is used. Old gauges are to be avoided, as the rolling stock is almost unsalable. The gauge is the space in the clear between the rails.

The best rail is T iron, of the weight demanded by the amount of business to be done. Rails from sixteen to thirty pounds weight are commonly used The best pattern of rail has a wide *head. A lighter weight of rail may be used if* laid on a stringer, in which case reversed point spikes are used, and the stringers should be tied across by flat pieces let in on their top faces to prevent rolling or spreading. Wooden rails can be used, and if the labor of keeping them renewed is not objected to, are desirable because cheap, but are only fit for a small business, or for temporary use on branches. A locomotive can only haul about half as much on wood as on iron, and snow and ice are hard to clear off a wood rail.

The cost of track for a logging railroad depends very much on the location and the character of the country traversed. The following estimate may serve as a guide for the cost per mile of a light road with 16-pound rail, suitable for a six-ton locomotive on four driving wheels:

Rails, 16 lbs per yard, 25 and one-seventh tons, at $80	$1,600.00
Cross-ties, two feet between centres, 2,640 at 10 cents	264 00
Spikes, four to each tie, 3×½, 1,710 lbs at 4 cents	68.40
Splices, allowing rails 24 feet long, 440 joints, at 25 cents	110.00
	$1,950 97
Allow for clearing, grubbing, track-laying, timber for cribbing, &c., $500 to $1,000 say	750.00
Total	$2,700 97

For a road with 24-pound rail, suitable for an eight ton locomotive on four drivers:

Rails, 24 lbs per yard, 38 and nine fifty-sixth tons, at $55	$2,098.84
Cross-ties, two feet between centre, 2,640 at 10 cents	264.00
Spikes, four to each tie, 4 - ½, 3,520 lbs, at 3½ cents	123.20
Splices, allowing rails 28 feet long, 378 joints, at 28 cents	105.84
	$2,691.88
Allow for clearing grubbing, track-laying, etc.	850.00
Total	$3,441.88

For a road with 30-pound rail, suitable for a locomotive weighing about twelve tons, on four drivers:—

Rails, 30 lbs per yard, 47 and one-seventh tons at $55	$2,502.80
Cross-ties, two feet between centres, 2,640 at 12 cents	316.80
Spikes, 4½×½, 3,000 pounds at 3½ cents	133.60
Splices, allowing rails 28 feet long, 378 joints, at 30 cents	113.40
	$3,161.60
Allow for clearing, grubbing, track-laying, etc.	1,000.00
Total	$4,161.60

The cost of hauling logs by light locomotives on iron rail, including interest and depreciation and all expenses, varies from about 30 cents to 60 cents per 1,000 feet, according to the length and general character of the road, and the amount of business. The daily cost of operating one locomotive, including the wages of an engineer and the cost of fuel, oil and repairs, is not far from $5 per day. No fireman is required on most logging railroads. The cars used may have four or eight wheels, the latter being preferable, and for hauling long timber, two four wheel truck, with an extension bar, are used for each length of logs. There should be enough cars for two trains, one to be loading while the other is on the road, so that the locomotive need not wait for cars to be loaded. The unloading can be done so quickly as to cause no delay.

A logging railroad often pays for itself in less than a year. In case of a failure in sledding or of windfall or fire, a logging railroad can be put in and the logs saved. When prices are high the output can be doubled without additional investment by running 24 hours per day; or when prices are low and operations suspended, all expenses are stopped. The entire outlay for a steam logging railway with iron rails, is generally about *50 cents for each 1,000 feet of lumber* readily reached by it. When the tract is cut off the road may be moved to another tract at slight expense. Tracts that were considered of little value and inaccessible under the old style of logging, are utilized and made a more profitable investment than lands nearer streams that are held at higher figures. Logging railroads solve the problem also of the profitable production of lumber where the cost of moving logs as the haul increases in length with each season's cut, since logs can be hauled 10 to 15 miles by locomotives cheaper than they can be sledded for short distances. This low cost of transportation enables poorer grades, which would otherwise be left to rot in the woods, to be marketed at a good margin.

The best locomotive for logging roads must be of simple design; strongly and durably made with a liberal use of steel and wrought iron, and of such construction as to be quickly and cheaply repaired, which is attained only by a thorough system of duplicate parts requiring a heavy outlay by the builder. There is no service requiring reliable, well-constructed and properly designed locomotives, more than is required for the severe work of logging railroads, and no place where a cheap locomotive is a more costly investment. It needs no argument to demonstrate the folly of saving a few hundred dollars in a motive power, and by so doing run a constant risk of breakdowns and of enforced idleness of a camp of men, and of failure to fill contracts

A Paper House.

In the Sydney Exhibition there is a house built and furnished throughout from paper. The structure is one storey high, and its skeleton is made of wood. The exterior is moulded in cartonpierre, whilst the exterior is covered with the same material, being plain on the floor forming splendid arabesques on the walls, and moulded in imitation of plaster on the ceilings. The doors, cupboards, and shelves are of the same material, whilst the entire furniture, including chandeliers and a stove, in which a fire can be lighted, is made of papier mache. The carpets and curtains are of paper, and there is a bedroom in which there is not only a large bed made of papier mache, but there are also blankets, sheets, quilts, and female underclothing, dresses, and bonnets, in the latest styles, composed solely of cartonpate. It is proposed to give a series of banquets in this building, in which the plates, dishes, knives, forks, and glasses will all be of paper.