METALLIC SHINGLES.

We copy from the *Mail*, of the 18th Sept. a description of metallic shingles, which we understand are being largely used in Ontario, where the ordinary shingles are much cheaper than here. We therefore infer that these metallic shingles require only to be known to come into common use. We understand that a car load has been ordered from Prince Albert, and has been shipped by the manufacturer to that distant point. We would advise architects and persons intending to build to communicate with the manufacturers and obtain full information, as any roofing that combines the advantages of durability while reducing the danger from fire cannot but be matter of general interest.

The description is taken from the *Mail's* report of the exhibits at the Toronto Industrial exhibition: In this class is prominent the exhibit of metal shingles by Messrs. West, Peaching & Montrose, Simcoe. They show a small building roofed and sided with these tin and iron shingles, which are of unique design, being provided with certain corrugations to to stiffen the sheets, while they interlock with each other, forming obstacles against snow or rain driving through the joints, and at the same time presenting an exceedingly ornamental appearance. Contraction and expansion of the metals are provided for by the corrugation and methods of nailing. They are very securely fastened to the roof, having six barbed wire nails through each shingle. These iron shingles are preserved by dipping in composition of pure oil and ironclad paint, which effectually protects from rust. The matter of repainting once in six or eight years must be trifling, as iron does not absorb; one gallon is sufficient for ten or twelve squares. These shingles possess the advantage over slate of being thoroughly fire-proof, of not breaking, and of being lighter. They require no repairs, will conform readily to the shape of the roof, and must beyond doubt be the most durable in this climate. This exhibit should prove interesting to our railway companies, where many stations and buildings are so much exposed to fires from passing trains, especially as the first cost of roofing with this material is very little in excess of wood shingles. This firm is the only one in the Dominion engaged in this line of manufacture. Yet metal shingles are not an experiment, as several firms in the States have been for many years past engaged in the manufacture of a somewhat similar tile, and the rapidly increasing demand proves their merit. They are adopted by many American railway companies as a standard roof. The firm showed us several flattering testimonials from influential men in this country and the States who have their shingles in use.—*Winnipeg Times.*

JAPAN AND AMERICAN WOOL.

Speaking of the exhibit at the forestry exhibition the London *Timber Trades Journal*, among its references to the woods from different countries, has this to say:

"Among the splendid specimens of timber from Japan we may mention a magnificent slab of Retinospora obtusa, which attains to a height of 120 feet and a girth of 20 feet. The timber, which is of superior quality, and is not unlike that of the redwoods of California, is largely used for building houses and ships, and for the making of household utensils, while the bark is used as oakum and for roofing. Other six varieties of the same wood are also shown, some of a white, others of a yellowish color. Alongside may be seen the wood of another conifer, known to us only in its dwarfed habit, that of the highly ornamental Cryptomeria Japonica, which, to judge by the sections of its timber exhibited, grows also to stately proportions. The examples of the beautifully grained camphorwood, with its fragrant perfume, are very fine, and the slabs of maple, bird cherry, junipers, and yews are exceedingly pretty.

The California Redwood Company, 123, George Street, Edinburgh, show a grand specimen of Sequoi sempervirens. The section, which measures 13 feet in diameter, was cut at five feet from the ground. It is 41 feet in circumference, and the height of the tree to first branch is stated as 150 feet—total height 250 feet. The age is estimated at 2,000 years, and the entire tree, when felled, 75,000 super feet board measure, and 26,250 cubic feet, good timber. The exhibit of the company also embraces several articles of furniture made from Sequoia wood. The timber of this conifer seems to lend itself in a peculiarly excellent manner for decorative treatment. Red in color, it is of various shades some of them when polished being exceedingly rich and pleasing; while a specimen of beautiful wavy texture stamps the redwood as one of the best acquisitions to the stock of cabinet making woods, the more especially as it is said to be durable, and not liable to shrink.

PAINTED FLOORS.

That carpeted floors are harbingers of disease is a question which, to those who have been placed in position to fully investigate, having but one side, and since some of our leading journals have called to mind long arrays of unquestionable authorities proving that carpets, however clean, and free of dust apparently, give off at every step or movement infinitesimal germs of lung irritants. The people seem to have indorsed the theory, and in many a fine house carpets have given place to Eastern rugs, which, occupying a central position, leave a fine opportunity for the painter to display his taste in decorating the intervening space between the rug and wainscoting. It will, however, place the work and imperfections of the carpenter more prominently before the people, inasmuch as the floor, being constantly exposed, must be made smoother and of better lumber than often finds its way into the floors of our houses, for when the floors were entirely covered with carpets, damp, unseasoned lumber or timber, or the same affected with dry rot, could be used and the occupants be little the wiser for the deception, but now the floors must be of good lumber and nicely fitted, else the painter, whose work supersedes that of the carpet layer, will not accept the floor as the carpenter left it, for his work, being on top, he will be held responsible for the appearance forever afterward. If this change in fashion brings about this revolution in floor-making, the change will have another argument in its favor; for others, as well as we, have seen damp, unseasoned lumber put in floors, which in turn were lain upon the joists of the same or even worse quality, then a carpet covering all, the poor inmates were compelled to breathe the moisture of seasoning lumber after it was filtered through a carpet, which would tend to render it still more unhealthy, hence we are of the opinion that the carpet is responsible for much less disease than charged with; nevertheless, we are decidedly in favor of the rug system of covering floors, for the reason that it is much more economical, it is hygienically and otherwise a very wise plan, besides the facility of often removing and thoroughly shaking the rugs, without employing an army of workmen to take up, beat and put down again. It looks as though carpets "must go."—*Lumber Trade Journal.*

WATER POWER AND STEAM POWER.

Water-power, for saw mills, flour mills and factories, says the *Monetary Times*, is no longer to the same extent the cheap and desirable motor it was formerly considered to be. Relatively to steam, the use of water pressure as a means of driving machinery, has declined within a score or two of years, in a very marked way in this country as well as in the States. The reasons for the great advance of steam power are not far to seek. Water power is not as reliable as it was before the forests were thinned out or cleared away, while, owing to the improvements in engines and boilers, steam power is now more reliable.

The relative decline in the amount of water-power utilized for business purposes, as compared with steam power, is, says the *American Machinist*, a highly suggestive phenomenon in the industrial progress of the country. "This tendency is all the more suggestive by reason of the fact that no other country in the world is as well endowed with natural water power as the United States. Manufacturing enterprises usually seek water power in a new country, because of its cheapness and availability, but when all the valuable powers have been absorbed by those who are determined to get a steady revenue from them, neither of these two features of original desirability stand forth with much allurement. As water powers are improved they become more costly to the users; as steam power is improved it becomes less costly to the users."

In 1870 the census showed that there were more water wheels in use in the United States than steam engines, and that their horse power was almost as much as the total horse power of the engines. The census for 1880 showed more steam engines than water wheels, and a total power far in excess of the latter. The change is best shown in tabulated form, thus:

	Water Wheels.	Horse Power.	Engines.	Horse Power.	Total.
1880....	55,404	1,225,870	56,483	2,185,468	3,410,337
1870....	51,018	1,130,431	40,191	1,215,711	2,346,142
Pr. ct. of inc.	8.60	8.40	40.54	79	45.38

During the four years since the census was taken, says the *Milling World*, the progress of steam power has been greater than in any other four years of American history. What a census would now show as the relative decline of water power to be, or what the next census will show it to be, can be imagined after a study of the above figures.

THE TUPELO-GUM AND WILLOW-OAK.

The Memphis, Tenn., *Appeal* says:—The tupelo gum and the willow-oak are timbers that are destined to a commercial value never until recently dreamed of. A gentleman residing in Mississippi, who has tested them thoroughly, say the first variety is almost as soft and light as the cork of commerce, and is the whitest wood in the valley. It is extremely light, and cannot be split, and at the same time is very tough and tenacious, and will bear a very heavy strain. It will, some day soon, be used principally for buckets, bowls, pitchers and trays; also for ox-yokes, and for almost all kinds of water vessels. For bread trays it is the finest in the world. This wood grows among the cypress trees, and is far more abundant, and floats like cork. The water, or willow, oak is second only to the live oak, and is almost an evergreen; it takes the coldest weather to make it shed it leaves, and it is almost as hard, when seasoned, as the live oak, and for the rim and spokes of wheels it has no superior. For shipbuilding it will almost equal the live oak. "I have tested the crushing capacity of this wood," this Mississippian says, "and also the transverse strength, and it is one-third stronger than any white, post, red or black oak, and only 1-30th less than live oak. And yet this wood has no market value!"

HOW TO CARE FOR DOWN TIMBER

The Bangor *Courier* of late date had the following:—"The lumber in the region in Piscataquis county that was blown down in the gale one year ago will be in good condition for cutting this winter, but before another season it will be well advanced in the state of decay. Last winter different firms got out a large number of logs there. The weather was good the first part of the winter, and the amount of snow was small, thus making the condition favorable for the saving of the timber. Deep snows cover the fallen trees so that it is extremely difficult to get them out. A number of firms already have men in the woods cutting and hauling the logs short distances. Much work will be done before winter, and the logs will be hauled to the streams and rivers after the snow comes. Atwell & McLeod, of Stillwater, did an extensive business last winter in the district where the trees had been blown down by the wind, and they will probably again send large crews to those places this season."

FURNITURE WOODS.

A generation or more ago the most admired wood for furniture purposes was mahogany. Until quite recently the taste for mahogany has been held in aboyance, and black walnut has long reigned the king of the furniture woods. Before mahogany controlled the popular desire, cherry was a favorite, and our white walnut or hickory was used to a considerable extent. These old fashioned woods are coming into favor again, and very fine effects are produced by the contrasts of cherry and hickory, and by mahogany and hickory. Mahogany and cherry blend admirably as shades of color instead of contrasts. The so-called "branch" mahogany, that in veneers on the fronts of bureaus and in the frames of mirrors formerly produced such impossible effects of grain, has given place to that of plain straight grain, the effect of color rather than of grain being desired.

Except yellow and black birch and the satin and birdseye maple, there are few of our native woods that show a very distinctive grain. This makes them valuable as foils to the to the more erratic grained woods of the tropics. One of these, the *coco bolo*, of a deep red color, with broad straited grain, works up beautifully with the cherry, making a complement of tints, or with the hickory, showing a contrast of color and of grain.

According to the statement of a prominent dealer in furniture woods, our cherry and hickory are coming rapidly into demand, and for foreign woods the mahogany and comparatively little known *coco bolo* are much called for by makers of fine furniture, carvers, and interior finishers.—*Scientific American.*

THE OLD SAW MILL.

There are scenes of our youth that we love to remember,
And others, perhaps, that we long to forget;
A word, or a look, sets afire every ember,
And we find them aflame in our memories yet.
The buzz of a saw set my mind to reflection,
To-day, as I wandered, my soul to regale,
And rose like a picture the fond recollection
Of the busy old saw mill that stood in the vale.
The weather-worn saw-mill—
The musical saw-mill—
The busy old saw-mill
That stood in the vale.

It was built by a brook, far from all habitation,
That left 'twixt the hills 'mid the silence profound;
The mill was the earnest of civilization,
As it sawed out the logs for new dwellings around.
They grew to a village, by thrift and by labor;
And the miller grew old, but still hearty and hale.
How he smiled with delight as he welcomed each neighbor
To the busy old saw-mill that stood in the vale.

When school was dismissed all the children would rally
To play on the planks that were piled on the stream;
And their shouts and glad laughter would fill all the valley,—
I can hear them to-day like sounds heard in a dream.
To the buzz of the saws it was music to listen,
As out from their jaws slid the board and the rail,
Ah, no wonder the tears on my eye-lids will glisten
As I think of the saw mill that stood in the vale.

Where? Where are they all, the familiar old faces,
That made of my childhood a season of joy?
Some are dead, all are scattered, some are filling high places,
The children that knew me when I was a boy.
And the mill, although still to my vision appearing,
Too, is gone; in a storm it blew down with the gale;
And all that remains are the memories endearing
Of the busy old saw mill that stood in the vale.
The weather-worn saw-mill—
The musical saw-mill—
The busy old saw-mill
That stood in the vale.

—*George Birdseye, in the Journal of Progress*

A Church Built With One Tree.

A redwood tree, cut in this country, furnishes all the timber for the Baptist church in Santa Rosa, one of the largest church edifices in the country. The interior of the building is finished in wood, there being no plastered walls. Sixty thousand shingles were made from the tree after enough was taken for the church. Another redwood tree, cut near Murphy's mill, in this country, about ten years ago, furnished shingles that required the constant labor two industrious men for two years before the tree was used up. The above statements are vouched for as true by Supervisor T. J. Proctor, of Santa Rosa.—*Santa Rosa (Cal.) Republican.*