Scientific American.

MUSCELLANEOUS.

A Great Saw Mill---Lumber in Canada.

The 'Montreal Herald' gives an account of the lumbering on the Ottawa River, which is said to contain more water than all the rivers in Britain put together. It states that the Messrs. Gilmour have a large saw mill on the Gatineau Falls-a river that falls into the Ottawa: at this point the river is divided into branches by a steep rocky island; the eastern and largest branch being probably some seven hundred and fifty yards wide, with a fall of thirty or forty feet.

The water-power is obtained from the eastern channel, and the whole breadth between the island and the main land is covered with the mill buildings and the necessary weirs, dams, flood-gates, and bridges. These, however, are by no means the most remarkable part of the works. Down to a point which may probably be a third of a mile above the island, the whole of the logs cut upon the river come down together; the only attention paid them being what is required to keep them from driving on shore. But there all the logs intended for the mills must be separated from the rest. Booms are therefore thrown across the river, by which the whole are stopped, and then the logs marked G are sent torward to the mill by a channel, formed partly by chained logs, and partly by a very broad stone wall, faced in one portion of its length by woodwork, placed in a slanting direction to ward office. The laying of the foundation of this wall, placed, as it is, within the boiling water of the cataract, must have been at an immense expense of labor and money.

The mill is a large handsome wooden building containing four gangs of saws, each capable of cutting the largest log into standard planks, and each furnished with butting saws and circular saws for sidings. These saws go day and night; the light for work after dark being supplied by gas made on the premises, in great part by the combustion of the refuse from the mill. Some idea may be formed of the extent of this machinery from the fact that 60,000 and 70,000 logs are got out to be sawn this season, which will make on an average each night eight Quebec standard boards approaching to 500,000 deals during the year. After being sawn each deal is passed into a slide-a kind of wooden trough through which the water runs-and allowed to travel on toward the smooth water below the foot of the rapid. There are a great many of these small slides communicating with all parts of the building, but they all unite in one common slide, and boards are conveyed upon it for a distance of a mile in length .-There are one hundred men constantly employed in the mill.

There is also a farm attached to the concern; for the cost of bringing hay and similar provisions from a distance through the woods, would be too onerous a charge. There are two other farms also, one of eight hundred acres near the shanties in the forests where logs

The present season is one of great hope for parties engaged in the lumber trade, prices being looked upon as amply remunerative. The men employed share in this good fortune. Wages on the Ottawa for men employed in the trade are now \$20 per month besides food and in the shanties, of course lodging. It is pleasing to add that a very great improvement has lately taken place in their deport-

General temperance is, of course, the cause of this change; and the improvement is shared in by the employers as well as by the employed.

Arrived at Quebec, the boards have to be sorted, or as it is there termed, culled into three different qualities, which is done by officers sworn under Provincial authority .-They are there of course shipped for England, being sufficient to load annually 1,200 ships, averaging 300 tons.

Singular Doings on the Lakes.

that the river "that morning was as high as ton, Cheshire, Fitchburg, Grand Junction, to at any time the present season." There is East Boston, and thence over the Eastern something truly remarkable in these "ups Railroad to Portsmouth, N. H., 628 miles, California. Out of three hives taken from New known in Europe till after Ulloa's voyage.

and downs" of river and lake. The small fall in a similar manner, which suggests the idea that all these beautiful sheets of water Michigan. "Clear Lake," near which the opened in Fairhaven, Vt. village of La Porte is situated has risen within a few weeks past to such a height that it has submerged the plank road between Michigan City and La Porte, which would have been deemed hardly possible by those who knew the relative position of each.

Reported Discovery of Anthracite Coal in California.

The New Orleans Picayune, of the 26th ult., has the following information:

Through a friend, who recently arrived in this city, direct from the Pacific coast of Central America, we hear the interesting intelligence that a mine of superior anthracite coal has recently been discovered in the State of San Salvador, on the southern bank of the river Lempa, which empties itself into the Pacific, north of the Gulf of Fonesca, and only a few miles from Realeje. The coal has been tested and contains eighty per cent. of carbon, burning like the mountain and white ash coal of Pennsylvania. The mine is situated within three hundred yards of the river bank, and crops at different points within a space of two and a half leagues. The vein runs northeast and southwest. The indications of the strata are considered by the discoverers as justifying the belief that it is extremely rich if not inexhaustable. If it answers the descriptions given to us, and we have no reason to doubt their accuracy, it is a remarkable and fortunate discovery, and must prove of incalculable importance to steam navigation on the Pacific. Many that use coal now, use that brought across the ocean or from the Atlantic side, at a cost of \$60 a ton. A deposit, at so convenient a place, in such quantities, must be more precious to the owners, and as beneficial to the world as a gold

More Gas.

As is very generally known, says the Fredonia Censor, that our village has for a long time been lighted by natural gas, which issues at certain places spontaneously from fis sures in the underlaying strata of rock. The supply, however, has hitherto been insufficient for the demand. On Thursday afternoon last, while a workman was engaged in drilling for a further supply of water in the well at the Johnson House, a fissure was reached, from which, on the withdrawal of the drill, a large and constant current of gas issued with much force, through the water. Upon placing a tunnel over the jet and applying a candle, the gas ignited, throwing a column of flame to the top of the well, near twenty feet and burning the man severely. Up to the present time, the gas continues to issue unfailingly, and it is the intention of the proprietors of the hotel to apply it to immediate use in lighting their building.

Convention of Tobacco Manufacturers.

The tobacco manufacturers of Lynchburg. Va., have called a convention of all the manufacturers of the article in that State, and of all the agents throughout the United States, to assemble at Richmond on some day not yet designated, to consider the propriety of suspending operations during the winter months -that is, that no tobacco shall be put up to market during the months of January, February, and March. It is contended that under the system now pursued the tobacco put up during those months is forced on the Northern markets in April and May, and must eith- promises to yield in accordance with its preer be sold at a sacrifice, or held over until the fall, when it becomes mouldy, and unfit for chewing purposes.

New Feature in the Business of Boston.

Sixteen cars, loaded with eight sticks of timber, for ship's masts, 84 feet in length, and the square timber and deal trade of Canada 3 feet in diameter, loaded in Buffalo, were lately brought over the Buffalo and Rochester Railroad, Rochester and Syracuse, Syracuse and Utica, Utica and Schenectady, Rensselaer and Saratoga, Saratoga and Washington, Rut The Chicago Journal, of the 27th July, says land and Washington, Rutland and Burling-

To Plaster Wheat in the Fall.

Wheat, when plastered in the fall, obtains more root, and is thus enabled to stand the frosts better; it has the assistance of the plaster at a season of the year when it is almost impossible to go over the fields, and when it is most needed-namely, the very early spring; it gets its growth and ripens in good time; whereas, when applied in the spring, the wheat continues to grow late, sometimes to the injury of the crop-a superabundance of straw, falling down, rust, &c., &c., oftentimes being the consequence.

Scythes.

Workmen often make a complaint of their scythes not acting well, of the edge not cutting uniformly, and the form being wrong, &c.; now the torm best suited to each mower may be tested by a very simple experiment. Let a man with a piece of chalk in his hand, walk up to a high wall, or a barn door, and raising it as high as he can, strike a curve from right to left; the line so traced is the exact torm that his scythe should be; and if he applies the edge of it, and finds it to correspond, it will cut uniformly from point to heel, and save himself much trouble and labor.

The English Language.

Our language is now spoken by seventy five millions of people, and it is exceedingly copious,-Webster's Dictionary, the standard work, contains more than 70,000 words. In our daily life business, we use only about one sixth part of them. There are only about 10,000 in daily use by those who write and speak our language. The Chinese language contains only about 330 words, but by modifying the sounds, a dozen different ideas are expressed by the same character. To appreciate the flexible character of the English language, we have but to read the works of Washington Irving and Carlyle: the language of the two appears to be entirely different.

Spider's Thread.

Austrian papers state that a merchant of Vienna has lately presented to the Industrial Union of that capital the details of a series of experiments made by him to manufacture spider's thread into woven tissues. The thread is wound on a reel, and two dozen spiders produce in six minutes a beautiful and delicate thread, two thousand feet in length. The stuffs manufactured from it are spoken of as being far superior in beauty and delicacy of fabric to those of silk.

Zamanma.

The editor of the Charleston Courier has seen a sample of what the Indians of the Amazon call "zamanma." It is the production of a tree growing wild in that valley, and used by its inhabitants for its fine texture. It somewhat resembles in appearance and fineness our costly Sea Island cottons, but with much less strength of staple. The above sample was sent to Charleston by Lieut. Maury, U. S. Navy, who is now devoting himself to the development of the immense resources of that tertile region, with the earnest hope of making them subservient to the mercantile purposes of this country.

The Rice Crop.

The Winyaw (S. C.,) Observer says:-The rice crop looks remarkably well, and sent appearance. We are informed that the growth on the Santee is luxuriant, and on some plantations the rice is shooting. We have also heard of the appearance of the caterpillar or Sampit, but are happy to learn they were discovered in time to destroy them by a large flow of water. The fall of water has been too large to benefit the corn crop, yet we hear flattering accounts of a bountiful harvest. The health of our town continues

without change of cars. Four car loads of York, he succeeded in crossing the Isthmus lakes also, in Michigan and Indiana, rise and salates were also brought at the same time with one, which arrived at San Francisco reover the Rutland, Cheshire, and Fitchburg cently in a healthy and working order .-Railroads, to the Grand Junction depot, at Great difficulty has been experienced in imhave subterranean communication with Lake | East Boston, from the slate quarry recently porting bees to the Pacific, in consequence of the wax melting in the tropics. Numerous experiments have failed on this account.

Reaping Machines in England---American Models.

The "Royal Agricultural Society" of England recently held its annual exhibition at Lewes, when no less than thirteen reaping machines were exhibited. The late display of the American reapers at the World's Fair has given an unusual impetus to the improvement of English reapers. It is said the English reaping machines are for the most part mere reproductions of the American ones, Hussey's being apparently the favorite, as it has a great many more imitators than McCormick's. The machine which obtained the Society's silver medal is one on Hussey's model, improved by Garrett. The edges of Hussey's cutters are bevelled on both sides; Garrett's improvement consists in bevelling the cutter on one side only, which, cutting against a keen edge guard of steel, similar to a pair of shears, cuts crops of any kind with precision and facility. Mr. Samuelson, of Backing, has made some improvements on McCormick's reaping machine. Instead of a cutter in the shape of a straight saw, working from side to side, the saw is cut into projecting points in zag-zag fashion, while the fingers that seized the corn have been made longer and pointed, and the flappers, by which the corn is thrown into the machine, can be made longer or shorter, as the height of the corn requires. Mr. Croshill has improved Hussey's machine in the form of the knives and their

Alcohol and Camphene Explosions.

On the 16th ult., Dr. Maguire, a dentist of Galveston, Texas, when filling a spirit lamp with alcohol, while it was burning dimly, the tin can, containing about half a gallon, exploded. and spread all over the room, covering his young child, and burning it so severely that it died the same night. Dr. Maguire was also very sevely burned himself.

On the 4th inst., a camphene lamp exploded in a store in Fayette street, Baltimore, burning three females so severely, that the youngest, a Miss Agnes Ficke, died next day.

Two weeks ago we noticed a terrible accident that occurred in Albany, N. Y., by the explosion of a cask of alcohol, in A. McClure's drug store, whereby a Mr. Bamber was so severely burned that he died next morning, and the whole building was burned down. There is no country in the world to compare with our's for accidents; the cause of those explosions was the mixture of atmospheric air in some manner, with the vapor of the alcohol, and the camphene. Alcohol is not explosive of itself, neither is camphene, but when the vapor of either ot these fluids is mixed with a certain quantity of atmospheric air, it becomes an explosive compound, which, by a spark or flame, will explode in an instant with a force like gunpowder. Persons who employ alcohol, or who sell it, should be exceedingly careful to keep the vessels containing this fluid perfectly air-tight. The great explosions which take place in some of the coal mines in England are caused by carburetted hydrogen gas being mixed with air, and then ignited by the flame of some miner's lamp; the cause is the same. It is to be regretted that so many are ignorant of this; they do not read scientific works.

Plantain Leaves.

A correspondent of the New England Farmer states that plantain leaves, if pounded in a mortar, and the juice squeezed out through cloth, will, if mixed with cold water in mild doses, taken on an empty stomach, destroy, the effects of poison ivy, even if its marks cover the whole body.

Platina was first discovered in the gold mines of Choco; the Spaniards called it "juan The Honey Bee in California.

Mr. W. A. Buckley, of Newburgh, N. Y., blanca" (white gold), and "platino del Pinto" (little silver of Pinto). It is first menhas succeeded in introducing the honey bee in tioned by Scaliger in 1601, but did not become