

THOSE FOREST FIRES.

GREAT DESTRUCTION OF VALUABLE TIMBER, ETC.,
IN THIS DISTRICT.

MINDEN.—Forest fires have been raging in this neighborhood for the last week, but have not done much damage until within the last two or three days. Hazlett's, Hilliard's and Ulyot, Sadder & Co.'s timber limits are said to have been damaged to a large extent in the township of Stanhope. The crops and fences in some instances have been totally destroyed.

MILLBROOK.—Bush fires have been raging in this vicinity for the past week, destroying barns, grain and fences. A heavy thunderstorm, lasting about six hours, visited here last night, which has greatly stopped the bush fires, though the village is still filled with smoke.

COBOCONK.—The excessive heat of the last few days, together with the long spell of dry weather, has made this entire country one vast tinder-box. Some years ago the whole country to the north and west of this point was swept by fire, killing nearly all the vegetation, since which time the progress of decay in the falling timber has been going on. Now a few small green shrubs with tall, dead trees, and dead decaying down timber cover the face of the ground for some miles. At many places the fire has got a start, and with the gale of wind we had yesterday, its progress was rapid. The smoke was so dense here as to render it almost unbearable. An object could not be discerned one hundred yards away, and falling leaves flow around in every direction, giving the air the appearance of flocks of birds passing steadily in one direction. The inhabitants walked around with handkerchiefs to their eyes, one and all having the appearance of an old toper after a week's holiday. The wind kept up at a high rate until late on Wednesday. Yesterday morning, however, it was almost a dead calm. Had it continued as fiercely as the day before there would have been great danger from a fire approaching from the north-west, and distant not more than three miles, with abundance of fodder to supply it. South from this point two farmers have lost all their fences and buildings, and several more their fences, while to the north numerous fences are burning in every direction. At the north siding where there is a large quantity of cord-wood piled the fire has raged for several days, as also at numerous other points along the line, but has been checked by the employees. The night before last the village of Kirkfield had a narrow escape from being totally consumed. As it was a house and a large quantity of slabs belonging to the Mackenzie Bros. was consumed, and only for the extraordinary exertions put forward by the inhabitants, their large mills would have taken fire. Had such been the case, nothing could have saved the village.

The great want is rain, and unless it comes before long, or the wind keeps a dead calm, the whole country will be in flames.

Another despatch says:—McBain's saw-mill about six miles from here, is burnt. The smoke to-night is very dense. No rain has fallen here for five weeks.

PARRY SOUND.—For the past two weeks, in every direction, we have seen the glare of fire made by the conflagrations. The settlers have been working night and day to save their little all, and still the progress of the devouring element is not stayed. The efforts of those who have been fighting the flames have met with considerable success, and a large number of houses and barns have been saved, but thousands of dollars worth of valuable pine has been burnt. Nearly every farmer has lost more or less by the burning of fences, the fire running over his meadows, or burning some portion of his crop. In the immediate vicinity of the village the fire has been raging with great violence. On Wednesday Parry Harbor was threatened with destruction, and it required a determined fight to prevent the fire creeping up over the hill and catching in the Ontario Bank mill yard. The wind favored the efforts of the workmen in fighting the flames. On Tuesday and Wednesday the residences of Messrs. L. McGowan, S. J. Peako and W. A. Scott were in great danger, but were eventually saved. Yesterday the whole country was enshrouded in a dense smoke, and it is feared that if rain does not soon come the destruction of property will be very much

greater. On Wednesday a fire broke out in the woods near Mr. William Beatty's residence, caused by a fire started by some small boys who had a shanty built there. A large number of men were engaged all night in putting it out, and it is now nearly under control.

OVERHEAD HEATING.

The system of overhead heating in manufactories and mills by means of steam pipes is being very generally adopted in New England, and is recommended by the insurance companies. The first objection usually made is that heat rises, but in point of fact the connection of heat from pipes is by radiation, and does not follow special direction either upward or downward under the usual conditions of a factory. It is simply a question of diffusion, and the best place for the pipe is where the radiation or diffusion is effected in the best manner. One of the greatest dangers to which factory buildings are exposed, and one of the heaviest causes of loss, is the collection of combustible matter on steam pipes, where they are ordinarily placed at the sides of the rooms under the windows. Mr. Edward Atkinson, president of the Boston Manufacturers' Mutual Fire Insurance Company, recently addressed a circular to the managers of fifty-two mills where this system is employed asking a number of questions, to draw from them the results of their experience with the overhead pipes, and received forty-two answers. Out of the forty-two replies two were unfavorable; two were unfavorable, but were qualified by statements that showed their apparatus to be poor; one was favorable with exceptions, and thirty-seven were absolutely favorable. In respect to economy in heating the answers varied from nothing to twenty-five per cent. saved, and the greatest saving was shown where the pipes were away from the wood and brickwork, and therefore lost nothing by having the heat conducted away. Among the mills which sent favorable answers are many of the largest in the country, and that they do not speak until they have thoroughly tested the system. The coils of pipe are generally placed about two feet from the ceiling on hanging brackets from the beams, and one and one-fourth inch pipe is the best adapted for the purpose. In addition to the safety from fire, there is the economy of space, and every inch of floor space is available. The system is one that should commend itself to those who are engaged in the manufacture of inflammable articles.

New Forests.

A writer in a West Virginia paper says that the Shenandoah valley, when first settled, 160 years ago, was an open, prairie-like region, covered with tall grass, on which herds of deer, buffalo and elk fed, and devoid of timber except on occasional ridges; but that after it became settled trees sprang up almost as thickly and regularly as if seed had been planted. These forests, having been preserved by the farmers, cover now a large part of the surface of the valley with hardwood trees of superior excellence. The explanation of this change is that previous to the settlement of the valley annual fires, negligently started by the Indians, burned up the young trees and prevented the formation of forests, but with the arrival of settlers these fires were prevented; and the opinion is asserted that the treeless character of the western prairie is owing to the Indian practice of annually burning the grass. Were it not for that, dense forests would have covered these vast plains for centuries.

How to Give Pine an Oak Color.

Wash the wood carefully in a solution of copperas dissolved in strong lye in proportion of a pound of copperas to a gallon of lye. When the wood is dry, after having been thoroughly saturated with this wash, oil it, when it can be stained and again oiled. Often, when not subjected to hard usage, the color will remain undimmed for several years, only requiring to be oiled occasionally. The color may be put on with a short brush, or the hands being protected with thick buckskin gloves, the wash may be applied with a cloth, which will saturate the wood more evenly. It will blister the hands if they are not well protected.

KOUMISS.

The Tartars and some other equestrian tribes, from time immemorial it is said, have practiced the art of brewing a sort of beer from mare's milk; and in later times they have learned how to distill this beer and procure from it a very potent brandy. Koumiss is the native name of the mare's milk beer, and rack or racky of the koumiss brandy. This koumiss has at times become celebrated among enlightened people as a health reviver—a fact, by the way, not at all extraordinary, and not necessarily dependent upon any good quality of the koumiss. The regular doctors and the standard medicines fail us so often that we must not be too severe on the afflicted, who, in their despair, resort to quacks and the outlandish devices of the barbarians.

The following account of the preparation of koumiss by the Tartars is on the authority of a memoir by Dr. Grievé, in 1788, to the Royal Society of Edinburgh. Take any quantity of mare's milk, dilute it with a sixth of water, pour it into a wooden vessel, and add as a ferment about one-eighth of very sour milk, or better, of old koumiss; cover the vessel with a thick cloth and keep it at a moderate temperature. After standing twenty-four hours, a thick coagulum rises to the top, which must be well mixed in by beating and clarning. After repeating for another day, it is again stirred till it becomes quite homogeneous, and in this state it forms the new koumiss, which has an agreeable sweetish accecent taste. Koumiss keeps well, and, like other beers and wines, with proper care, improves with age in taste and becomes more alcoholic.

It is often preserved and transported in bottles made from horse skin; a complete bottle is made from the skin of the hind quarter, the leg part forming the neck of the bottle. We understand that it is the practice of some of the tribes to prepare koumiss in the skin bottles by simply filling up the bottle with fresh milk as fast as the koumiss is consumed. If the rate of using and filling up be properly regulated, a pretty uniform product would be secured, but of course it would be a sort of "alf and 'alf."

It is to be understood that mare's milk is the basis of the genuine koumiss, and no doubt genuine koumiss has a taste and odor peculiar to and characteristic of mare's milk. But as to chemical constitution, there is very little difference between mare's milk and that of other large mammals, and any kind of milk will produce koumiss closely resembling the genuine; perhaps cow's milk will produce a koumiss which will surpass the genuine. The Tartars use mare's milk because of the abundance of horses in comparison with other milk-giving animals. Horses and Tartars have been constant companions for ages, and thus it has come about that Tartars became experts in the difficult art of milking mares and then invented koumiss. The ancient Scotch made a fermented drink out of milk, but not mare's milk, which is proper to allude to here. The basis of the Scotch drink was whey, which was prepared by keeping it in the ground, undisturbed, for at least a year.

A drink under the name of koumiss has been on sale in some of the saloons of this city, which is prepared from a receipt substantially as follows: To one quart of milk add one tablespoonful of sugar and the same of brewer's yeast; when sufficiently fermented, preserve in strong bottles.

Wine whey, and innumerable punches, and Tom-and-Jerries, which contain milk as an essential ingredient, also are related to koumiss. And there are those, constantly increasing in number, who do not allow that milk can be improved for any useful purpose by the addition of alcohol.

A few days since the news was flashed over the country that koumiss had been recommended in President Garfield's case, and that a supply of it had been forwarded for his use. Koumiss has accordingly become a subject of extensive inquiry, and thus has originated the present article.—*Scientific American*.

THEY ALL DO IT.—Everybody uses "TRABERRY" for the teeth and breath, the newest, brightest, coolest little toilet gem extant. Try a 6 cent sample.

DR. FOWLER'S EXTRACT OF WILD STRAWBERRY cures canker of the stomach and bowels, dysentery, cholera-morbus, and all summer complaints.

THE ELECTRIC LIGHT IN SAW MILLS.

The lighting of saw mills with the electric light is now being tried in various parts of the country, under different conditions, and its utility and economy will be fully tested. That the light in itself is adapted to the purpose there can be no doubt, and when it shall be fairly demonstrated that the machinery for its production can be run by the mill machinery and produce a steady light at less cost than is involved in the use of other means of lighting, or that the reduction in the fire risk or the amount of additional work accomplished shall be sufficient to offset any increase in the expense, the electric light will eventually come into general use. The light is used in the McGaw mill, in this city, and in some of the larger mills in the west and Canada, with fairly satisfactory results.

The experiment of running the generator by the mill machinery is being tried at Alpena, in the bay shore mill of Fletcher, Pack & Co., which was lighted for the first time on the 13th instant. The light is furnished by a Maxim generator, run by the mill machinery. The mill is one of the best saw mills in the State, and contains the latest improvements—steam feed for the circular saws, cant turners, rollers, patent edgers and every modern appliance. The upper story of the mill has three electric lights, which, it is said by the local papers, illuminate the large room almost equal to the light of day. Each lamp has an illuminating power equal to that of two hundred candles. The *Argus* says: "There is a slight flicker to the lights, which is caused by the mill machinery running a little faster at some times than at others. When the saws are cutting logs there is a slight check on the motion of the engine, and the machinery works somewhat slower than when the saws are not cutting. As the same power that drives the mill machinery also drives the electrical machine—the result is that the electric machine is run at different velocities, and thus occasions a slight flicker of the light." The running of the electric generator by water power is also to be tried at Alpena. The *Argus* says: "Negotiations are being made for lighting up the mills, opera house, business places, streets and dwelling houses by the electric light. The motive power will be at the dam, and wires will lead from there to various parts of the city. The cost of putting in such works will not be very expensive, and the light can be furnished cheaper than gas. It is a better, clearer and stronger light than gas, and there is no danger from fire. The lamps with which it is proposed to supply private houses are of thirty candle power, and are said to be almost indestructible—the danger of breaking by fair usage being but little. The dam promises to be of much benefit to the city. It runs a saw mill, furnishes large booming facilities for logs, supplies the power that furnishes the city with water, and now it is proposed to make it furnish light for the mill, streets, stores and houses." At the McGaw mill in this city some difficulty is experienced in keeping the lamps in order. When the lamps are in order the light is satisfactory.—*Lumberman's Gazette*.

The Strength of Small Spruce Beams.

F. E. Kidder performed a series of experiments at the Massachusetts Institute of Technology, their object being the determination of the moduli of elasticity and of rupture in small beams of white spruce (*Abies alba*), and such other information as might be derived from the data obtained. The results of these researches are embodied in a paper read before the American Academy of Arts and Sciences, and printed in the current number of the *Journal of the Franklin Institute*. The conclusions drawn from the results of the experiments are as follows:—The modulus of elasticity depends not only upon the elasticity of the material, but also upon the length of time that the load is applied. When subjected to loads not exceeding one-sixth of the breaking weight, spruce beams do not take a permanent set; but even under very small loads, if applied for any length of time, there will be a temporary set. Knots and gnarls in beams loaded at the center, when not within one-eighth of the span of the centre of the beam, do not materially affect the elasticity under small loads.