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Rail Road News.

What 1849 has done in Railroad Building.

At the close of the year 1848, there were 1,614 miles of railroad in operation in New York, and on the 1st of December, 1849, there were 2,133, showing an increase, in eleven months, of 510 miles. By the first of January 1850, there will be about 150 miles more in operation, which will make the aggregate length 2,283 miles, and the total increase 669 miles. In the State of New York there has been an increase of about 400 miles. In the Southern and Western States, a great many miles of railroad have been opened this year, so far as our recollection at this moment extends, the total number of miles of railroad put in operation in the United States, during the year 1849, will not be less than 2,000. At the close of the year 1848, it was estimated that there were 6,120 miles of railroad in the United States; to which add the 2,000 opened this year, and the aggregate at the close of 1849, will be 8,120 miles.

Hudson River Railroad.

This road has now been in operation to New Hamburgh a little more than two weeks, and we understand is doing a fine business. At first the cars ran over the new part of the track above Red Hook cautiously, until its solidity and firmness at all points could be tested. But now the track is in fine running order, and the cars generally run at the rate of 35 miles per hour, which will be gradually quickened into still higher speed. The work between Poughkeepsie and New Hamburgh is now driven ahead with great rapidity, the track is nearly all laid, the buildings are getting in readiness, and we shall be surprised if the locomotive is not therewithin two weeks at the farthest.

Model Railroad.

It is said that the Albany and Boston Railroad Company have not paid out during the last year one dollar for accidents on their road. The business has increased by more than $10,000, notwithstanding the sickness of the season, and the consequent diminution of travel.

Caution to Persons in Railroad Cars.

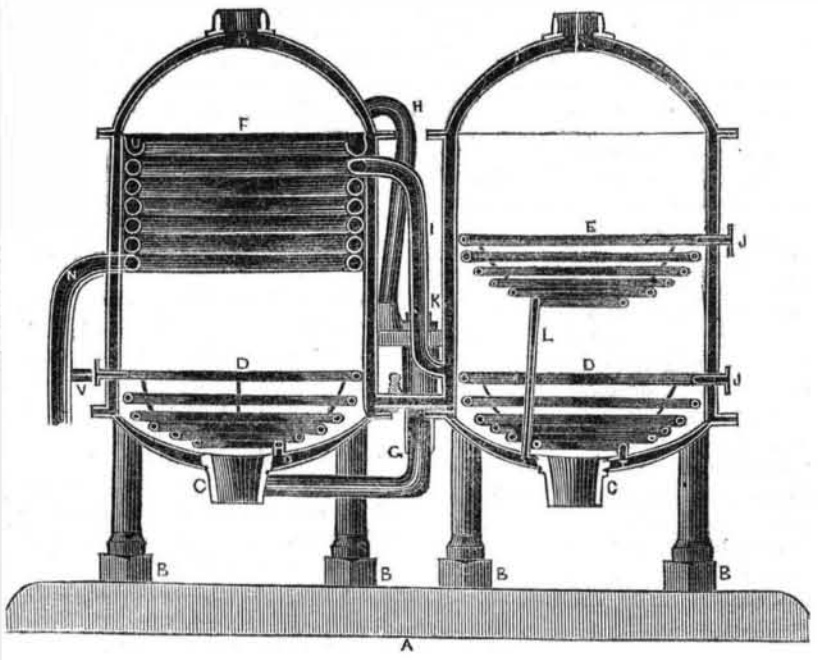
A young lawyer named Andrews, belonging to New Haven, recently lost his life in the following manner:—While standing on the platform of an outward train he incautiously thrust his head so far beyond the car, that it was struck by an inward train which was passing. He was thrown off between the trains, was seriously injured, and narrowly escaped instant death, but was taken to the Hospital, and died next day.

Cayuga and Susquehanna Railroad.

This railroad has been opened, and the cars are now running between Ithaca and Owego, N. Y., on a good road, and passengers can go from Cayuga Bridge, to come to this city, New York, by the Erie Railroad.

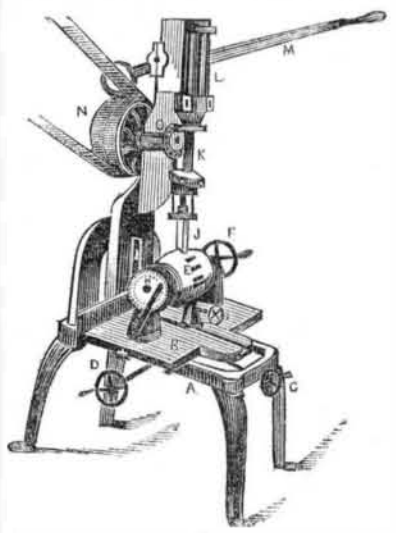
The London Times believes that Whitney's Pacific Railroad project is a grand and simple scheme.

IMPROVED APPARATUS FOR EVAPORATING IN THE SUGAR MANUFACTURE.



This is a patented invention of no small utility, belonging to Messrs. Benson & Day, of Water street, Brooklyn. Its principal feature is having the vacuum pan double, or with a jacket, to prevent the vapor condensing on the inside and dropping on the sugar, so that the sugar is made purer, and the evaporation is conducted at a temperature all of 20° less than by any other. This engraving is a vertical section, showing the whole interior. A is the floor; B B are the posts or legs of the pans, which will be observed are two cylindrical chambers—the right, the finishing, and the left the preparatory, with hollow spherical tops and bottoms. C C are two large bottom openings with close valves on them or proper cocks; D D are coils of pipe, heated by steam; E is another coil of steam pipe, in what is called the finishing pan, which, by the pipe L, lets steam into the hollow steam tight bottom, at S. The lower coil also communicates with the double bottom at T, and out at the back part. Between the outside case or jacket and the inside pan, is a chamber, R, in each pan. This is for the purpose of preventing the vapor condensing upon the inside surface, and dropping on the sugar. Sugar made in this pan; E, is therefore rendered very pure. The steam is let in by the branch pipes, J J, of the finishing pan, and by the small branch pipe with the flange, at the left hand of the preparatory pan N is a pipe to which the air pump is attached. It communicates with the coil of pipe, F, in the preparatory vacuum pan, which coil of pipe communicates with the chamber, R, of the finishing pan, by the pipe I. The vacuum produced in the pan E, is done by the air pump exhausting the warm vapor out of the finishing pan through the pipe, I, and through the coil of pipe, F. This last coil of pipe is therefore somewhat hot, and the juice is kept continually tricking over them from a trough, U, on the top—the juice being continually pumped into it from a receptacle below, as it falls down, by a pump, K, at the back part, drawing the juice repeatedly through the pipe, G, and pumping it in by the pipe, H; V is a small branch pipe of the air pump, which is (but not shown) connected with the chamber, R, in the preparing pan, to produce the vacuum in it. There are other arrangements about vacuum pans not shown here, such as how the juice is conveyed in, &c., but the new and principal parts are pointed out, so that sugar manufacturers, will at once see the real utility of this invention. The finishing pan may be used in combination with the other or not, as manufacturers may choose, but we would advise the use of the two combined.

Swingle's Patent Mortising Machine.



This Mortising Machine was invented and patented by A. Swingle, formerly of Texas, now of Boston.

A are the legs; B the bench; C is a set screw for the out and in movement of the bench, and D for the lateral movement, for any kind of work; E is a hub to be mortised; it is mounted on centres, turned by the handle, F, and there is a retaining ratchet and wheel, H, on the nigh side. There is a rest below the hub, operated by a steadying set screw, I. J is a hollow augur. The augur inside receives a very rapid motion from a bevel wheel, O, gearing into a pinion which drives the spindle, K, of the augur. N is a pulley to drive the wheel, O. M is a lever, fitting into the shoulder, L, and by flanges the spindle is made steady to the back of the frame, works down in guide collars. When the hub, or whatever it may be, is in a correct position, the spindle, K, of the augur is set in motion, and the operator gently brings down the weighted lever, M, cutting out the rectangular mortise. There is but little work for the outside chisel of the augur to perform.

The lever rests on the top of the spindle, and it (the spindle) works by feather and groove, to run down through its gear pinion, to follow the cut to the bottom of the mortise.

Useful Receipts.

Butter Preserved by Boiling.

A physician who has travelled through Switzerland describes a process of preserving butter as adopted in that country, and which he states to be far preferable to the English plan of salting. The process is as follows:—Into a clean copper pan (better no doubt tinned) put any quantity of butter say from 20lb to 40lb, and place it over the fire, so that it may melt slowly, and let the heat be so graduated that the melted mass does not come to boil in less than about two hours. During all this time the butter must be frequently stirred say once in five or ten minutes so that the whole mass may be thoroughly intermixed, and and the top and bottom change places from time to time. When the melted mass boils, the fire is to be so regulated as to keep the butter at a gentle boil for about two hours more; the stirring being continued. But not necessarily so frequent as before.

The vessel is then removed from the fire and set aside to cool and settle, still gradually. This process of cooling is supposed always to require about two hours. The melted mass is then while still liquid, to be carefully poured into the crock or jar in which it is to be kept. In the process of cooling there is there deposited a whitish cheesy sediment, proportioned to the quantity of butter, which is to be carefully prevented from intermixing with the preserved butter. The caseous grounds are very palatable and nutritious, and are constantly used as food. Butter so prepared will last for years perfectly good without any particular caution being taken to keep it from the air, or without the slightest addition of salt.—[Globe.

[This plan of curing butter has been practised by some of the Tartar tribes for centuries. Two weeks ago a claim for a patent to Mr. Merriman, of Ill., appeared in our columns to accomplish the same object, but by very different and more simple means.

Butternut Catsup.

Gather the nuts about the last of June or first of July, and when they are almost fully grown, but still green and so tender that a pin can be easily passed through them. Throw them into boiling water for a minute or two, and then wipe them with a coarse cloth to remove the clamy down that covers them (Some persons omit this.) Then put the nuts into brine, made by saturating cold water with salt, and let them remain there fourteen days, after which soak them in cold fresh water twenty-four hours, and then put them, together with three whole lemons to one hundred nuts into the earthen jars wherein they are to be kept. For every hundred of the nuts take one gallon of pure cider vinegar, and one ounce each, of whole black pepper, allspice, cloves, and rasped ginger; boil these together, and pour the hot liquor and spice over the nuts, cover the jars, and tie them close. They should not be opened for use less than a year.

Animal and Vegetable Chemistry.

Frenisus found about 1,3,000,000 carbonate of ammonia in the air of the day, 1,2,000,000 in night air. Liebig has lately discovered that the composition of the inorganic part of the blood, of urine, and of the aqueous extract from meat, are most strikingly similar and that the whole character of the blood can be changed at will, and that in a very short period, by change of diet—such a variation as implies a material change of character, as, for instance, the replacement of its alkaline phosphates by carbonates.

There is one paper printed in the English language in Paris.