

Scientific, &c.

THE FAMILY RECORD.

The Family is like a book—The children are the leaves; The parents are the cover that Protective beauty gives.

At first the pages of the book Are blank and purely fair; But time soon writeth memories, And painteth pictures there.

Love is the little golden clasp, That bindeth up the trust, Oh! break it not, lest all the leaves Shall scatter and be lost.

TANNING SHEEP SKINS.

The following directions for tanning sheep skins, which we take from the Prairie Farmer, will be useful to some of our readers;

For mats take two long woolled skins, make a strong suds, using hot water; when it is cold, wash the skins in it, carefully squeezing them between the hands to get the dirt out of the wool; then wash the soap out with clean, cold water. Now, dissolve alum and salt, half a pound, with a little hot water, which put in a tub of cold water sufficient to cover the skins; and let them soak in it over night, or twelve hours; then hang over a pail to drain. When they are well drained, stretch or spread carefully over a board to dry. When a little damp, have one ounce of saltpetre and alum, pulverized, and sprinkle the flesh side of each skin, rubbing in well, then lay the flesh sides together, and hang in the shade for two or three days, turning the under skin uppermost every day until perfectly dry. Then scrape the flesh side with a blunt knife, to remove any remaining scraps of flesh, trim off the projecting points, and rub the flesh side with pumice or rotten stone, and wash hands; they will be very white and suitable for a door or carriage mat. They also make good mittens. Lamb skins (or sheep skins, if the wool be trimmed off evenly to about one-half to three-fourths of an inch long), make most beautiful and warm mittens for ladies or gentlemen.

TO PREVENT DECAY OF SHINGLES.

The following is said to effectually prevent decay in shingles: Take a potash-kettle, or large tub, and put in it one barrel of lye of wood ashes, five pounds of white vitriol, five pounds of alum, and as much salt as will dissolve in the mixture. Make the liquor quite warm, and put as many shingles in it as can be conveniently wet at once. Stir them up with a fork, and when well soaked, take them out and put in more, renewing the liquor as necessary. Then lay the shingles in the usual manner. After they are laid, take the liquor that is left, put lime enough in it to make white-wash, and if any coloring is desired, add ochre, Spanish brown, lamp-black, etc., and apply to the roof with a brush or old broom.

This wash may be renewed from time to time. Salt and lye are excellent preservatives of wood. It is well known that leach tubs, troughs, and other articles used in the manufacture of potash, never rot. They become saturated with alkali, turn yellowish inside, and remain impervious to the weather.—Ohio Farmer.

GRINDSTONE SHARPENING.—A correspondent of the Scientific American says:—"The grindstone is a self-sharpening tool, and after having been turned some time (if a hard stone) the motion should be reversed. Sand of the right grit applied occasionally to a hard stone will render it quite effectual.

STEEL DRILLS.—A mechanical journal says that drills should be made as short as the work to be done will allow. Much care is required in hardening them, as it is a very easy matter to make them too hard, or to overheat the steel. After the proper temper is obtained draw the temper a little above the point, and there will be less danger of the drill breaking. Do not use oil as a lubricator when drilling steel; water is much better. All that is required is to keep the drill cool.—Ohio Farmer.

Horse-chestnut wood has great lasting qualities when exposed to moisture, and might be made useful for mill work.

A three-months-old calf, that gives a pint of milk daily, is on exhibition in Illinois.

DON'T BE TOO CERTAIN.

Boys, don't be too certain. Remember that nothing is easier than to be mistaken. And if you permit yourself to be mistaken a great many times, everybody will lose confidence in what you say. They will feel no security in trusting your word. Never make a positive statement, without you know it is as you say. If you have any doubts, remove them by examination, before speaking confidently. Don't be too certain!

"John, where's the hammer?" "It is in the corn-house."

"No, it is not there; I have just been looking there."

"Well, I know it is; I saw it there not half an hour ago."

"If you saw it there it must be there, of course. But suppose you go and fetch it."

John goes to the corn-house, and presently returns with a small axe in his hand.

"O, it was the axe I saw. The handle was sticking out from a half-bushel measure. I thought it was the hammer."

"But you said positively that you did see it, not that you thought you saw it. There is a great difference between the two answers. Do not permit yourself to make a positive statement, even about small matters, unless you are quite sure; for if you do, you will find the habit growing upon you, and by-and-by, you will begin to make loose replies to questions of great importance. Don't be too certain!"—Young Pilgrim.

SOOT.—This is an excellent manure; but, as in many other cases, one must know how to use it. It is: First—Good for all fruit trees; then, for meadows over run with moss, and for clover. In the kitchen garden, reserve it for the onions. For other vegetables it is more harmful than useful. Use it with moderation. In small quantities, soot produces good results; in large, it disorganizes the plants, burns and cauterizes them, eats both leaves and roots. On a rainy day, give your soil a weak dose; prudence says, mingle earth and mud with it. Above all, do not make use of it in hot and dry weather.—La Gazette des Compagnes.

A NEW RIG FOR STEAMSHIPS.—The London Shipping and Mercantile Gazette gives an illustrated description of a new rig for steamships, the chief advantage of which is the avoiding of the resistance offered by the conventional shrouds, yards, &c., when going head to wind under steam. The whole number of sails in the plan are four, viz., jib, foresail, mainsail, mizensail. The bowsprit is very short—a mere billet-head. The masts are secured with one stay and two back-stays each, and are built in with the ship. On each mast there are only two yards—a lower and upper, the former being secured to the mast just above the rail, and works on a sort of semi-circle, and is braced about by means of braces leading both forward and aft. The lower yard has a slit in it from yard arm to yard arm, and inside the yard there is a roller on which the sails roll down. It can be set, inch by inch, or by a foot or a fathom, as it is wanted. The upper yard is secured to the mast by an iron parrot or traveler, and, like the lower, has braces leading both forward and aft, and lifts to steady it. The sails are made in the ordinary manner. The upper yard is, of course, shorter than the lower, and the difference in the spread of the sail at the head and the foot is only sufficient to let each twine of the leach rope, while rolling up, lay inside each other, so as not to overlap, means being provided for preventing the rope from cutting the sail. The upper yard is hoisted by means of halyards which are rove through cheek blocks, one on each side of the masthead, and through a block on the yard, and the sail may be set at either end of the halyards, as they both have purchases on them, one leading down on each side of the mast. A steamer thus rigged may carry all the sail-propelling power of an ordinary sailing ship, with only her pole masts opposed to adverse winds, as the sails when lowered are stowed fore and aft, and thus give no more resistance to the wind than the stowed sails of a fore and aft schooner.

Do not forget, says Horace Greeley, that a fruit tree is like a cow tied to an immovable stake, from which you cannot continue to draw a pail of milk per day, unless you carry her a liberal supply of food.

MESSANGER ALMANACK.

JANUARY, 1870.

Full Moon, January 6th, 5h 9m. afternoon. Last Quarter, " 14th, 2h. 42m. morning. New Moon, " 20th, 8h. 17m. afternoon. First Quarter, " 28th, 9h. 0m. morning.

Table with columns: Day, SUN. Rise, Sets, MOON. Rise, Sets, High Tide at Halifax. Rows for days 1 to 31.

THE TIDES.—The ebb of the Moon's Southing gives the time of high water at Parrsboro', Cornwallis, Horton, Hantsport, Windsor, Newpo, t, and Truro.

High water at Pictou and Cape Tormentine, 2 hours and 11 minutes later than at Halifax. At Annapolis, St. John, N. B., and Portland Maine, 3 hours and 25 minutes later, and at St. John's, Newfoundland 20 minutes earlier, than at Halifax. At Charlottetown, 2 hours 56 minutes later. At Westport, 2 hours 54 minutes later. At Ya-mouth, 2 hours 20 minutes later.

FOR THE LENGTH OF THE DAY.—Add 12 hours to the time of the sun's setting, and from the sum subtract the time of rising.

FOR THE LENGTH OF THE NIGHT.—Subtract the time of the sun's setting from 12 hours, and to the remainder add the time of rising next morning.



NOVA SCOTIA RAILWAY.

WINTER ARRANGEMENT, 1870-'71.

COMMENCING FRIDAY, DEC. 16, 1870.

UNTIL further notice, Trains will run as follows:—

Down Trains.

Table with columns: Stations, Passengers, Mail, Freight, Accommodation. Rows for Halifax, Windsor Junction, Mount Unacke, Windsor, Windsor depart, Kentville, Annapolis, Emsdale, Subenacade, Truro, Do. depart, New Glasgow, Pictou, etc.

Up Trains.

Table with columns: Stations, Accommodation, Passengers, Mail, Freight. Rows for Pictou, New Glasgow, Truro, Do. depart, Emsdale, Subenacade, Kentville, Windsor, Windsor depart, Mount Unacke, Windsor Junction, Halifax, etc.

Stages connect at Truro with No. 1 Train for Londonderry and Amherst, connecting there with Intercolonial Railway to Sackville, Dorchester and Moncton, and with E. & N. A. Railway to St. John, and with Stages for Pugwash, Wallace and Tatamagouche.

Connections are made at New Glasgow with (Lindsay & Co's) St. George Line to Antigonish, Strait of Canso, St. Peters, Sydney and Cow Bay; also for Sherbrooke and Gold Diggings.

The steamers of the P. E. I. Navigation Company, connect with Trains at Pictou during the season.

Through connections are made with the Windsor and Annapolis Railway at Windsor, with the steamer "Emperor" at Annapolis for St. John, and with the steamer of International Line to Portland, and all parts of Quebec and Ontario.

An express train will be run between Annapolis and Halifax, connecting with the steamer, leaving Annapolis at 3 p. m., or on arrival of steamer, (on steamer days only). Through tickets issued at A. & H. Croighton's, Hollis St. East, Halifax, and at the Railway Ticket Office, Richmond.

GEO. TAYLOR, Genl. Supt. Railway Office, Richmond, 10th Dec., 1870.

WINDSOR AND ANNAPOLIS RAILWAY.

TIME TABLE, No. 6.

Commencing 16th Dec., 1870.

Table with columns: Stations, Miles, P.engers and Freight, Passengers and Freight, Steam Boat Expresses & Sars. Rows for St. John, N. B., Annapolis, Roundhill, Bridgetown, etc.

Table with columns: Stations, Miles, Steam Boat Expresses & Sars, Passengers & Freight, Pengers & Freight. Rows for HALIFAX, by N. S. Railway, etc.

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