HARDNESS OF WOODS.

It is a great convenience to know the comparative value of different kinds of wood for fuel. Taking shellbark hickory as the highest standard of our forest trees, and calling that one hundred, other trees will compare with it for real value as follows:

Black Birch ..... 62

But it is worth bearing in mind that there is a very considerable difference in wood of the same species, according to the soil and the manner in which they grow. A maple that grows slowly on an upland pasture, standing alone or apart from other trees, will last much longer and give out a greater degree of heat, than one that grows in a swamp or in the midst of a dense forest. A tree that grows in a forest, or on a wet, low rich, ground, will be less solid and less durable for fuel, and consequently less valuable, than a tree of the same kind that grows on a dry and poor soil. For sale, to be sure, one would be just as good as the other. To the purchaser, oak is oak, and pine is pine; but for home, the tree grown on dry upland and standing apart from others, is worth a great deal more. - Journal of Agriculture.

BEET LEAVES FOR FODDER .- Mehay maintains the entire success of his method of so preparing the leaves of the beet as to render them capable of preservation for several months fodder; and at the same time greatly improving their qualities as food for cattle. The method consists simply in placing them in baskets, and immersing them in a tank containing diluted hydrochloric acid of four degrees of Beaume. The result of this is to greatly condense the volume of the leaves, and to render it necessary to add more fresh ones to fill up the basket which has to be again immersed, and finally allowed to drain off. The leaves may then be placed in beds, in dry earth, and kept until needed for use. According to a report of a committee who examined the results of this process domestic animals become extremely fond of the leaves thus prepared; and indeed milk cows fed with them are said to give a large increase of milk, with a decided improvement in the quality of the butter. The tendency to diarrhea in cattle produced by the fresh beet leaves seems not to be developed by this prepared fodder, and for this and many other reasons it is strongly recommended to agriculturists. - Agricultural Report.

Many cultivators of ornamental plants desire especially to raise those which produce fragrant odor, particulary for bouquets, stands and flowervases. In answer to occasional inquiries we name the following sweetscented flowers to which some of our readers may add others: Sweet violet, hyacinth heliotrope, pinks, sweet-scented candytuft, woodbine, sweet-brier, cabbage rose, tea roses, white lily, sweet alyssum, mignionette, sweet pea, carnations, sweet william, and several other sweet-scented perpetual roses. Here are enough to fill a room or garden with perfumes rivalling the "odors from the spicy shores of Araby the blest," if well managed and cultivated .- Exchange.

SWEET MILK .- It frequently occurs in the spring, when the farmers are feeding their cows upon rutabagas or turnips, that the milk becomes so strongly impregnated by their disagreeable taste and odor, as to be unfit for butter making. To obviate this put a pinch of finely powdered saltpetre into every gallon of cream. A little saltpetre worked into butter that has become sour or rancid will render it sweet and palatable.

THREE-HORSE TEAMS should be used wherever possible. There is economy in it. One man can drive three horses as well as two. The "dead weight" of the implement is the same in either case, and it is not unfrequently happens that the power of one machine, wagon or implement, three horses can do as much again real work as two. It is a great mistake to do heavy plowing or harrowing with two horses, and be compelled to let them

rest frequently. Put on three, and keep them steadily at work. In harrowing, especially a rapid gait is much more effective than a slow, dragging pace. Brisk steady work and fewer hours in the field, with better grooming in the stable, would accomplish more work with less fatigue to man and horse.

## Scientific.

SCIENCE AND SEWAGE.

Here are facts worthy of note in Halifax and all other cities. The sewage of London is at last utilized. At Crossness is the reservoir for the southern sewage of the metropolis, and at Crossness are the works of the Native Guano company. The quantity of sewage daily discharged at this point is about 50,000,000 gallons. The area of the sewage reservoir is six acres and a half and is prettily laid out, being surrounded by cottages for the officers and working men. The works of the Guano Company are built on the east side of the government pumping station, and the material they have to operate upon is 500,000 gallons daily, drawn from the sewage brought down by the Metropolitan Board of works. This stuff having been brought from the government premises to the works of the Guano Company, is at once subjected to what is called the A B C process—a process so called because it consists of a mix-ture of alum, blood, charcoal, and 56 minutes later. At Westport, 2 hours 54 clay. These purifying ingredients are minutes later. At Yarmouth, 2 hours 20 minthoroughly mixed up in the proportion of 5000 gallons of the A B C mixture to 5,000,000 gallons of the sewage. The mixture is then conveyed into various mixing pits, whence it is transferred into tanks, where it remainsfrom four to six hours. During this period the precipitated matter accumulates at the bottom as a fine mud; the water being clear, tasteless, inodorous, and fit, by chemical analysis, to pass into any stream .- As soon as the water has been drawn off, sulphuric acid, in small quantities, is added to the mud, for the purpose of decomposing insoluble phosphates, and of fixing as sulphate, any free ammonia, to prevent the loss of the latter in the drying process, and in all future exposure to the atmosphere. The residue is then transferred to drying sheds, and when this process is effected it is screened and stored, ready to be packed in bags for the farmer's use. The price of the native guano is £3 10s. per ton at the works, and the demand is in by Carhart and Needham, N. Y. advance of the power of the company to supply. The cost of the Crossness works is estimated at £7000. Mr. Rawson, the general manager, claims for the process a decided commercial success, and states that each ton of 99 native guano leaves a profit of £2, at which rate the sewage of the metropolis alone would produce an annaul income of £1,282,500. This is certainly a better use for the sewage of great towns than the sending of it into the. nearest river, to pollute its waters and poison the inhabitants. We trust the experiment at Crossness will be so successful as will lead to its adoption on similar raw material at other places.

ANTIDOTES FOR POISON. - Commercial oil of turpentine is a good antidote to poisoning by phosphorus. The two substances form a compound in the stomach resembling spermaceti, and this can readily be removed from the system.

Laudanum or other anodyne is sometimes taken by mistake or otherwise in excess. Swallow strong coffee or the whites of several eggs instantly. All these things are to be done while the doctor is coming. Let every family remember that sweet oil, the whites of eggs and strong coffee antagonize a larger number of poisons than perhaps all other things together.

If laudanum, or any other poison not burning the throat is taken, and is promptly discovered, the best plan is to get it out of the stomach instantly, which is done by stirring a tablespoonful of ground mustard in a tumbler of water, and drinking it down at once; almost before it is down the whole contents of the stomach begin to be ejected.

A new system of casting type is said to be coming into vogue in England, the type being cast in syllables, enabling an average compositor to set five thousand ems an hour. The invention has been patented.

A secret has been defined as " anything made known to every body in a whisper.

HALIFAX, N. S., JULY 17, 1872.

MESSENGER ALMANACK.

JULY, 1872.

New Moon, July 5th, 2h. 11m. afternoon. First Quarter, "13th, 3h. 34m. afternoon. Full Moon, "20th, 9h. 39m. morning. Last Quarter, " 27th, 3h. 4m morning.

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THE TIDES .- The column of the Moon's Southing gives the time of high water at Parrsboro', Cornwallis, Horton, Hantsport, Windsor, Newport, 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

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



## Superior Pianos,

IN VARIOUS STYLES. UPRIGHT, OBLIQUE, &QUARE, Etc.

With all the latest improvements, manufactured by the subscribers, and especially adapted to this climate. An assortment of

"SILVER TORGUE." A very fine toned CABINET ORGAN,

The above are offered to a discriminating public at moderate prices, WM. FRASER & SONS,

70 & 72 Barrington St. June 1.

GRANVILLE STREET. 99

S. S. "DACIAN,"

SLIGHTLY DAMAGED.

BLACK CRAPES, BLACK FRENCH MERINOS

SMITH BROS.

May 1.

## NOVA SCOTIA **Boot & Shoe Factory** 22 # 28 GEORGE STREET.

(North-end of Provincial Building.)

THE Subscriber begs respectfully to intimate to his Friends, and Public generally, that having fitted up his Establishment with the Latest and most Improved divulged. Machinery.

and having secured a STAFF OF SUPERI ARTIZANS, he is now in a position to mas"

BOOTS AND SHOES,

Which for VARIETY, QUALITY, STYLE, FINISH AND CHEAPNESS cannot be excelled by any goods offered in this market, whether Dominion, English or American.

BOOTS AND SHOES, at all Prices BOOTS AND SHOES, in all sizes. BOOTS AND SHOES made after the latest French, English and American designs. Examine for yourselves, compare with other Goods, and if found worthy, encourage Home Manufactures.

WHOLESALE BUYERS Will find our Terms Liberal, and we assure them that their interests will receive our best

GEORGE S. YATES. Halifax, N. S., April 24, 1871.

To Parents and Sabbath School Teachers.

JUST PUBLISHED.

A SCRIPTURE CATECHISM, fer the Family, the Bible Class, and the Sabbath School,

SECOND EDITION-REVISED.

BY S. SELDEN. Price 8 cents or \$6.00 per 100.

GOVERNMENT SAVINGS' BANKS.

Public Notice is hereby given that under authority of Act 34 Vic. Chap. 6 of the Dominion Parliament, Government Savings' Bank Branches will be opened on the 1st July, 1872. at the undermentioned places in the Province of Nova Scotia, and in charge of the following

Agents:			
Agents.	Towns.	Counties.	-
Wm. G Ballam, .	Arichat,	Richmond.	
H. P. Hill,	Antigonish,	Antigonish.	
James Kerr.	Amherst,	Cumberland.	
Thos. A. Gasaga,	Annapolis,	Annapolis.	
Ajexander Cameron,	Baddeck,	Victoria.	
Botsford Viets,	Digby,	Digby.	
Christopher Jost.	Guysboro'	Guysboro'.	
George E. Calkins,	Kentville,	Kings.	ļ.
Arch. J Campbell,	Liverpool,	Queens.	ı
Mrs. A. M. Rudolph	Lunenburg,	Lunenburg.	١
Edward D. Tremain.	Port Hood,	Inverness.	ı
Alex, McPhaill,	Pictou,	Pictou.	١
Robert Martin,	Sydney,	Cape Breten.	١
James Muir,	Shelburne,	Shelburne.	I
John F. Crowe,	Truro,	Colchester.	l
Edward O'Brien,	Windsor,	Hants.	١
J. W. H. Rowley,	Yarmouth,	Yarmouth.	1
Deposits will be re	sceived in sur	us of one dol-	1

lar and multiplies of a dollar up to any amount, and repaid on demand, with interest at the rate of four per cent. per annum, from date of deposit to date of withdrawal.

Government has, however, recently established an issue of Dominion Stock, bearing 5 per cent interest, to which monies remaining on deposit in any Savings Bank for at least one month, may be transferred in sums of \$100, out on the whole not to exceed \$1000 for any one depositor.

The Stock is not transferable, but will be redeemed on three months' notice from depositor; otherwise the interest will be paid half yearly, on the 30th April, and 31st October.

The Offices will, until further notice, be open daily from 10 a.m. to 3 o'clock, p.m. Further information may be obtained on application to

By order of the Minister of Finance. THOMAS D TIMS, Financial Inspector.

CAUTION!! CAUTION!!!

TO THE PUBLIC OF THE BRITISH PROVINCES OF NORTH AMERICA.

I beg most respectfully to acquaint the public of the British North American provinces that in May. 1871, I caused the business at 80, Maiden Lane, New York, for the sale of HoL LOWAY'S PILLS AND CINTMENT, which were up to that time prepare by William Brown, now deceased, to be closed. I regret to say that I have reason to know that the management of the late business had for some years, and in many ways, been most corrupt, and it may be that the Pills and Ointment were not prepared with that care I have always desired.

Those who do not wish to be deceived by buying spurious medicines, which are now likely to emanate frem the States or elsewhere, but to possess themselves of the genuine HoL-LOWAYS PILLS AND CINTMENT, manufactured by me in London, England, will do well to see that each pot and box bears the British Government stamp on which is engraved the words " HOLLOWAY'S PILLS AND OINTMENT," and that the address on the label is 533, Oxford Street, London, where only they are manufactured, and in no other part of the world. The retail prices are on the labels in British currency, and not in dollars and cents.

No representative of mine will ever travel through any part of the British Provinces or the United States, either to sell, or to take orders for my Pills and Ointment, and as I have reason to believe that attempts will very probably be made to deceive the public in this way by persons ealling upon medicine vendors. falsely representing that they are acting for me, and with my knowledge and consent, deem it advisable to put the public on their guard against any such deceptions.

I most earnestly entreat all those who may read this advertisement that they be pleased, in the public interest, to communicate the purport of the same to their friends that they may not be defrauded of their money by purchasing perhaps worthless imitations of the genuine HOLLOWAY'S PILLS AND GINTMENT.

I would ask, as a great favour, that should it come to the knowledge of any person that spurious medicines are being sold in my name, he be pleased to send me all the particulars he can collect respecting the same, that is to say, the name and address of the vendor who is selling the spurious medicines, and likewise the name and address of the House in the United States, or elsewhere, which may have supplied them, so as to enable me, for the protection of the public, to institute proceedings against such evil doers, and I engage to remunerate very handsomely any person who may give me such information, the informant's name never being

Should any person have reason to believe that he has been deceived by buying spurious imitations of these Medicines, he will do well to send me, in a letter, to the address at foot (which he can do at a cost of six cents in post age,) one of the books of instructions which are affixed to the same. I promise to examine it and send a reply, stating whether the Medieines are genuine or not, so that if spurious he may apply to the person from whom he purchased them to have his money returned.

Chemists and Druggists who desire to obtain the Medicines can be supplied at the lowest wholesale prices in quantities of not less than £20 worth—vis, 8s. 6d, 22s., and 34s. per dozen boxes of pills or pots of Ointment, nett, without discount, for which remittance must be sent in advance. I have the honour to be,

With great respect, THOMAS HOLLOWAY. 553, Oxford Street (late 244, Strand) London, W. C., October 1, 1871.

AGRICULTURAL IMPLEMENTS.

The perfection of Mowers.

The Meadow King Mower introduced into Nova Scotia last season, by James P. Dodge, is the most perfect Mower ever invented, it will Mow where every other kind has been clogged, the Knives will run in any position, either horosonta or perpendicular. A Sample Ma-chine can be seen at the Subscribers, whe is SOLE AGENT for Nova Scotia.

JAMES P. DODGE. Middleton, Annapolis Co.



CONDENSED TIME TABLE. JULY, 1873.

HALIFAX TO ST. ST. JOHN.

Miles.	STATION	s.	-10-1	Exp.	Acc.	Pass.
				A. M.	A. M.	P. M.
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39	Newport	- 66		9.59	11 20	5.27
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	Middleton	44		12.59		
	Lawrencetown	- 66		1.15		
	Bridgetown	- 11		1.35		THE REAL PROPERTY AND ADDRESS.
	Annapolis-arri	ve		2.15		

190 St. John by Steamer .... 8.00

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Steamer "Empress" or "Scud" leave St. John on Monday, Wednesday, Friday and Saturday, at 8 a. m., for Annapolis, returning on Tuesday, Thursday, Friday, and Saturday, on arrival of Train from Halifax. International Steamers leave St. John on

Monday, Wednesday, and Friday, at 8 a. m., tor Eastport, Portland, and Boston. Trains of the Western Extension Railway leave St. John at 7.30 a.m. every day for Woodstock, Fredericton, St Stephens, Bangor, Pertland, Boston, and all parts of the United

States and Canada. Tickets by above routes to all parts in the United States and Canada may be obtained at 106 Hollis S'reet, Halifax, at Richmond, and the principal Stations on the Railway.

P. INNES, Kentville, 1st July, 1872. Manager. July 10.

NEW SPRING GOODS Ex " Moravian," " Olympia," " Tiger," " Caspian, ' &c.

132 & 134 Granville St. JENNINGS & CLAY

HAVE much pleasure in announcing to Wholesale and Retail Customers and friends, that their Stock of BRITISH AND FOREIGN DRY GOODS,

Ready Made Clothing. Gents' and House Furnishing Goods, &c., is now COMPLETE in every Department, to

which they invite their attention. May 15.

GRANVILLE STREET. SPRING STOCK COMPLETE.

24 cases of London Goods per S. S "Caspian," embracing Hats, Bonnets, Flowers, Feathers, Mantles, Parasols, Silks, &c., which we now offer both Wholmsals and RETAIL. SMITH BROS.

COTTON WARP.

THE COTTON YARN, Manufactured at the NEW BRUNSWICK COTTON MILLS,

Has the names of the mills and our name on a printed label on the end of the bundle. WHITE, RED and ORANGE YARN is put up in Blus paper; BLUE YARN is put up in BUFF paper.

TAll Yarn made by us is warranted of best quality, full weight, and correctly num-WM. PARKS & SON.

N. B .- Cotton Mills, St. John, N. B., Aug. 1871. Jan 3,

THE CHRISTIAN MESSENGER

Two Dollars a year, when paid in acvance; if payment is delayed over three months \$2.25 when over six months \$2.50. Subscribers beyond the Dominion of Canada, must send in addition to the above, 20 cents a year for prepayment of postage.

ADVERTIZING at usual rates. STEPHEN SELDEN, Proprietor.

OFFICE No. 59 GRANVILLE STREET. HALIFAX, N. S.

PRINTING of Books, Pamphlets, Cards, Handbills, Blank forms, &c., &c., on reasonable terms. Magistrates Blanks always on hand.

Is published every WEDNESDAY. Terms-

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