Agriculture, &c.,

COOKED vs. RAW FOOD.

Experiments made by M. M. Raspail and Biot, of the French Academy of Sciences, seem to have resulted in establishing the following points:

"1. That the globules constituting meal, flour and starch, whether contained in grain or roots, are incapable of affording any nourishment as animal food until they are broken.

"2. That no mechanical method of breaking or grinding is more than partially efficient.

"3. That the most efficient means of breaking the globules is by heat, by fermentation, or by the chemical agencies of acids or alkalies.

"4. That the dextrine, which is the kernel, as it were, of each globule, is alone soluble, and therefore alone nutritive.

"5. That the shells of the globules, when reduced to fragments by mechanism or heat, are not nutritive.

"6. That though the fragments of these shells are not nutritive, they are indispensable to digestion, either from their distending the stomach, or from other causes not understood; it having been found by experiment that concentrated nourishment, such as sugar or essence of beef, cannot long sustain life without some mixture of coarser or less nutritive food.

"7. That the economical preparation of all food, containing globules or fecula, consists in perfectly breaking the shells and rendering the dextrine contained in them soluble and digestible, while the fragments of the shells are at the same time rendered more bulky, so as the more readily to fill the stomach."

JUDGING OF A HORSE BY HIS FEET:—The philosophy of those who are under the turf is refuted by those who are on the turf. It used to be said, in regard to horses:

One white foot, buy him;
Two white feet, try him;
Three white feet, deny him;
Four white feet and a white nose,
Take off his shoes and give
him to the crows.

But the advent of Dexter has changed the sinister rhyme to:

One white foot, spy him;
Two white feet, try him;
Three white feet, buy him;
Four feet white and a white nose,
And a mile in 2,17 he goes.

TOO MUCH FAT.—As an example of the excess to which the fattening process is carried, in some of the English show pigs, the *Irish Farmers' Gazette* states that three of the fat pigs at the Islington agricultural show died of apoplexy. It seems that these interesting creatures had been accustomed to pillows, on which they rested their heads when not engaged in eating. The pillows in question, consisting of billets of wood, had unfortunately been forgotten, the pigs dozed off as usual after their meal, and such was their plethoric condition that they passed away in their sleep. It is stated as a fact that some of these fatted pigs require at times such stimulants as port wine and sal volatile to keep them up.

NEW WAY OF COOKING POTATOES.—Wash and wipe the potatoes dry. Place them in a flat-bottomed cast-iron pot, on the back of the stove, covering the kettle with a close-fitting iron or tin cover. The steam of the potato is sufficient moisture for them. They will cook in an hour and ten minutes, and are very nice and healthful.—*Laws of Life.*

STONE FENCES.—Form the foundation 2½ feet wide at the base, place the stones so as to have the largest ends outside, and that all the stones will have a tendency to fall inwards instead of outwards. The two sloping sides thus formed will, if the stones are large enough, bear one against the other; or if too small, they will press against the middle stones used to fill up with; gradual ascent is thus made, and when the wall reaches three feet high, the top is about 12 to 16 inches wide, and is finished with a rounded capping of smaller stones.

Mr. Rawlinson, an eminent English engineer, in a report to Parliament about the sewers of London, estimates the marketable value of the matter accumulated there at £1,000,000, and states that it would enrich 70,000 acres of land.

Scientific, &c.,

BRIDGES FOR THE INTERCOLONIAL RAILWAY.—It appears from the returns respecting this great work that there will be at least sixty-six bridges, embracing sixteen spans of 200 feet each, sixty of 100 feet, ten of 80 feet, nineteen of 60 feet, eighteen of 50 feet, fifteen of 40 feet, five of 30 feet, and two of 24 feet. With regard to the probable cost of these bridges with iron or with wooden spans, Mr. Sanford Fleming, the Chief Engineer states that iron girders will cost about twice as much as wooden trusses in large spans only, but that the adoption of the former would effect a saving in masonry, on the line between Truro and Riviere de Loup of not less than 11,452 cubic yards. In support of this general view he estimates that the spans on wood and masonary would cost in the aggregate $1, 494,459, while in iron and masonry they would only come to $1,295, 609. He consequently recommends that every bridge should be made of iron instead of wood.

VERY POOR GEOLOGY.—Some remarkable facts in confutation of Sir Charles Lyell's theories of the myriad ages of geological evolution are supplied by the investigations of Professor Kjerrulf, of Christiana, who is making the survey of the Norwegian coast for the Government. He has examined the raised beaches and terraces, and declares Sir C. Lyell's theory (which requires 240,000 years for their present elevation) to be utterly baseless. In the first place, he says the uppermost limit of the sea action is only one-tenth as high as Lyell states, and consequently that this single correction would cut down his figures from 240,000 to 24,000 years. Secondly, he proves that the coast has not risen by a constant slow motion, but by a series of sudden elevations, separated by periods of perfect rest; and consequently that all calculations based upon a supposed uniform rate are worthless, and the total time spent in the elavation may have been very short. Finally, he says, the idea that the coast is now rising is entirely erroneous, this being a stationary period.

A THOUSAND BOYS WANTED.—There are always boys enough in the market, but some of them are of very little use. The kind that are always wanted are:

1. Honest. 2. Pure. 3. Intelligent. 4. Industrious. 5. Active. 6. Obedient. 7. Steady. 8. Obliging. 9. Polite. 10. Neat.

Fully one thousand first-rate places are open for a thousand boys who come up to the standard. Each boy can suit his taste as to the kind of business he would perfer. The places are ready in every kind of occupation.

The perfume of a thousand roses soon dies, but the pain caused by one of their thorns remains long after: a sudden remembrance in the midst of mirth is like that thorn among the roses.

A painter in London exhibited a picture representing a friar in his canonicals. At a distance the friar appeared praying. His hands were clasped and his eyes cast devoutly downwards. But a nearer view revealed the fact that he was gazing into a punch-bowl instead of a prayer-book, and instead of clasping his hands in prayer he was squeezing a lemon.

In England, a smoke-consuming apparatus has been perfected, which has been tested with highly satisfactory results. The Directors of the Towerby Bridge Flour Society state that they expended £400 on the apparatus, which not only effected the consumption of the smoke but enabled them to grind a much greater quantity of flour than in the preceding half year, with a saving of fuel of £123.

WHEN you have a hard, cold ride in a cutter, of ten or twenty miles, against the wind, place a spread newspaper over your chest before you button up your overcoat, and you will not become chilled through. Nothing can be cheaper, and, as far as it goes, nothing more efficient.—*Country Gentleman.*

It is a noticeable fact that people who change their mind often never get a good one.

California raises mushrooms a foot in diameter.

MESSENGER ALMANACK.

APRIL, 1871.

Full Moon, April 5th, 10h. 8m. morning.
Last Quarter, " 12th, 1h. 37m. morning.
New Moon, " 19th, 2h. 49m. afternoon.
First Quarter, " 27th, 7h. 33m. afternoon.

D. M.	Day Wk	SUN. Rise	SUN. Sets	MOON. Rises	MOON. South	MOON. Sets	High Tide at Halifax.
1	Sa..	5 44	6 24	2 8	9 16	3 51	3 37
2	SU.	5 43	6 25	3 18	10 7	4 24	5 3
3	M..	5 41	6 26	4 31	10 57	4 56	6 8
4	Tu..	5 39	6 27	5 43	11 48	5 23	6 55
5	W..	5 37	6 28	6 59	morn	5 53	7 36
6	Th..	5 36	6 29	8 16	0 40	6 21	8 13
7	F..	5 34	6 30	9 35	1 33	6 50	8 52
8	Sa..	5 32	6 32	10 52	2 29	7 23	9 32
9	SU.	5 30	6 33	morn	3 27	8 2	10 12
10	M..	5 29	6 34	0 5	4 27	8 49	10 55
11	Tu.	5 27	6 36	1 10	5 27	9 44	11 40
12	W..	5 25	6 37	2 5	6 25	10 45	A. 35
13	Th.	5 23	6 38	2 50	7 20	11 50	1 41
14	F..	5 21	6 39	3 28	8 14	A. 58	3 10
15	Sa..	5 19	6 40	3 59	9 4	2 9	4 41
16	SU.	5 18	6 42	4 25	9 50	3 15	5 53
17	M..	5 16	6 43	4 49	10 34	4 19	6 44
18	Tu..	5 15	6 44	5 12	11 17	5 22	7 26
19	W..	5 13	6 46	5 36	A. 0	6 24	7 59
20	Th..	5 11	6 47	5 58	0 42	7 26	8 33
21	F..	5 10	6 48	6 24	1 26	8 28	9 2
22	Sa..	5 8	6 49	6 54	2 12	9 30	9 33
23	SU.	5 6	6 50	7 27	2 58	10 25	10 4
24	M..	5 5	6 51	8 7	3 46	11 25	10 37
25	Tu..	5 3	6 53	8 52	4 35	morn	11 7
26	W..	5 2	6 54	9 45	5 25	0 18	11 46
27	Th.	5 0	6 55	10 45	6 16	1 5	morning
28	F..	4 59	6 57	11 49	7 6	1 47	0 33
29	Sa..	4 57	6 58	A. 56	7 55	2 23	1 37
30	SU.	4 56	6 59	2 5	8 45	2 54	2 58

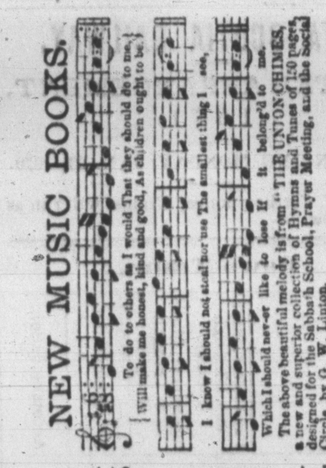
THE TIDES.—The column of the Moon's Southing gives the time of high water at Parrsboro', Cornwallis, Horton, Hantsport, Windsor, Newport, and Truro.

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 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 Yarmouth, 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.

NEW MUSIC BOOKS.



THE VOCALIST. Containing 513 Tunes, Anthems, and Chants. Also 17 Chapters on music, with questions and answers; Articulation, Vocalization, Pronunciation, Time, Accent, Chanting, and the use of the Tuning Fork, by G. W. Linton. Price, $3 per dozen. Single copy, 75 cents.

LINTON'S INDUCTIVE METHOD; or, Musical Analysis and Teacher's Manual. Containing a complete course of lessons in Vocal Music, with Black-board Exercises, Questions and Answers, and Instructions to the Teacher. by G. W. Linton, formerly Professor of Music in Cesarville Seminary. Price, 50 cents per copy.

The above books may be obtained at the "CHRISTIAN MESSENGER" OFFICE, 59 Granville St eet, Halifax

April 1.

Superior Pianos,

IN VARIOUS STYLES,

UPRIGHT, OBLIQUE, SQUARE, Etc.

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

THE "SILVER TONGUE."

A very fine toned CABINET ORGAN, by Carhart and Needham, N. Y.

The above are offered to a discriminating public at moderate prices,

WM. FRASER & SONS,
June 1. 70 & 72 Barrington St.

BRITISH AMERICAN
BOOK AND TRACT DEPOSITORY.
66 GRANVILLE STREET,
HALIFAX, N. S., Dec. 23rd, 1870.

GIFT-BOOKS
FOR THE CHRISTMAS HOLIDAYS.

CHEAP Illustrated and handsomely bound Books in great variety, including all the religious Magazines at the Depository of the BRITISH AMERICAN BOOK AND TRACT SOCIETY, 66 *Granville Street.*

N. B.—Congregations and friends desiring to make their Pastor a valuable and acceptable present, will find here a choice selection of useful Books including Langes Commentary 10 vols. $40.00. Smith's Bible Dictionary (revised and enlarged) 4 vols. $24.00.
Dec. 30.

EAGAR'S
Peruvian Bitters!
COMPOUND
Of Peruvian Bark, Sarsaparilla, Dandelion, Wild Cherry, and other valuable remedies.
AN EXCELLENT
TONIC, APPETIZER, & STIMULANT.

Cures LIVER COMPLAINT, DYSPEPSIA, ACIDITY of the STOMACH, DEBILITY and PAIN in the BACK, RESTORES the VITAL ENERGIES, when exhausted, braces up both the Nervous and Muscular System, PURIFIES the BLOOD, and Restores the Appetite.

Particular attention is called to the fact that the

PERUVIAN BITTERS

are not an Alcoholic preparation, but simply a scientific combination of valuable Roots and Barks, which purifies the Blood and restores the waste, thereby bracing up both the Nervous and Muscular Systems, and giving that permanen HEALTH, STRENGTH and VIGOR both of mind and body which nature intended man should possess.

This BITTERS is not sold as a specific for every disease, but in cases of GENERAL DEBILITY and its effects, such as Dyspepsia, Loss of Appetite, Weakness of the small of the Back, Weak Memory, Indspositon for Exertion, Sense of Fullness after Eating, &c., caused by anxiety over exertion, mental or bodily, late hours, and excesses of every kind, it has no equal.

Although these BITTERS contain no Alcohol, they will most efectually wean the taste from Stimulants and enable the system to dispense with them at once.

The proprietor, although averse to the practice of puffing any medicine, feels it his duty to give publicity to the following certificates.—Hundreds could be added, but such names as Dr. How, Professor of Chemistry at King's College; Capt. Hardy, R. A; Mr. Solomon, Lunenburg; and Dudley de Chair, Esq., Halifax, will be sufficient to establish its reputation as a reliable and valuable medicine.

CERTIFICATES:

I have found Mr. Eagar's PERUVIAN BITTERS beneficial to myself and in my family, and have heard of their being used with good effect in another case in Windsor.
(Signed) HENRY HOW, D.C.L.
King's College, Windsor.

MR. EAGAR,—I have used your PERUVIAN BITTERS in a personal case of Dyspepsia, and have derived the greatest benefit therefrom.
(Signed) C. HARDY,
Capt. R. A.

LUNENBURG, 28th June, 1869.

MR. EAGAR,—I have used your PERUVIAN BITTERS and can highly recommend them, as I have derived great benefit therefrom.
(Signed) EDWARD H SOLOMON,
Dy. Surveyor, Co, Lunenburg.

I have tried Mr. Eagar's PERUVIAN BITTERS, and can strongly recommend them.
Signed, DUDLEY DE CHAIR.
Halifax, June 3, 1869.

FOR SALE in large bottles at 37½ cts. per bottle, and in one dozen and three dozen boxes. Orders from the country will receive immediate attention. Dealers Supplied on liberal terms.

TOOTH ACHE.
EAGAR'S
ODONTINE ESSENCE

gives instantaneous relief in all cases of Tooth Ache arising from hollow teeth and exposure of the nerve.

Thousands of bottles have been sold and in no case has it failed to give satisfaction.

Be sure and obtain Eagar's Odontine Essense; take no other.

The money will be returned if it fails to give relief when used according to directions in cases of tooth, ache from exposed nerve.

25 CENTS PER BOTTLE.

If the above article cannot be obtained at the stores near where you live send the price in stamps to the subscriber's address and it will be forwarded immediately. Dealers supplied on liberal terms

M. F. Eagar.
149 Hollis St.
Halifax.

NEW
WHOLESALE DRUG STORE,
149 Hollis St., Halifax.

The subscriber is prepared to execute orders for Drugs, Chemicals, Perfumery, Patent Medicines' Paints, Varnishes, Oils, Toilet Articles, and all other articles usually supplied by Drug Houses.

Being agent for first class Surgical Instrument makers in London and Paris, their respective priced lists can be seen at his establishment.

His knowledge of the London, Liverpool and Parisian Markets, enables him to offer goods at very low prices for cash as will be seen by a few quotations below:

Hair Oil,	at from....	$0 37	per doz
Perfume,	"	0 60	"
Black Cup Pomade,	"	1 00	"
Box Wood top Pomade,	"	1 00	"
Glycerine & Camphor Roll	....	0 90	"
Soaps,	"	0 25	"

Prices of any articles will be given with pleasure when required.

Should any article purchased at his establishment not prove to be what it is represented, it can be returned at his expense, if not otherwise made satisfactory.

M. F. EAGAR.
149 Hollis St.
Feb. 23. Halifax.

WRIGHT'S
Patent Sectional Spring Bed!

THE Subscribers having been appointed Sole Agents in the Province for the sale of this article, recommend it as being the easiest and most comfortable to rest upon, and together with its durability, and the facility with which it can be taken apart and cleaned, they feel certain that it will be found to be a most convenient article.

May 20. GORDON & KEITH.

Agents for the Christian Messenger.

NOVA SCOTIA.

Amherst—W. F. Cutten, Esq.
Antigonish—T. M. King, Esq.
Aylesford—REV. DR TUPPER, J. Wheelock, Rev. J. L. Read,
Barrington—Rev. W. H. Richan.
Beaver River—Wm. S. Raymond, Esq.
Berwick—John M. Parker, Esq.
Bridgewater—Wellesley J. Gates.
Bridgetown—W. H. Chipman.
Brighton, Digby County—N. R. Westcott.
Brookfield—A. J Leadbetter
Beal's Mountain—John Whitman.
Caledonia—B. L. Telfer.
Chester—Rev. I. J. Skinner.
Chute's Cove.—Rev. J. Melbourne Parker
Clements—Jas. E. Potter, Esq.
Canso—Spinney Whitman, Esq.
Cornwallis—J. E Lockwood.
Do., Billtown—Gideon Cogswell, Esq. Abel Strong.
Do., Canning—Jas. S. Witter.
Do, Lakeville—Melatiah Kinsman.
Digby—Edwin Bent.
Digby Joggins—Wm. Aymar, Esq.
Digby Neck—Rev. J. C. Morse.
DeBert River—Wm. McCully, 4th.
Economy—Thomas Fulton, Esq., Josiah Soley.
Granville—Weston Hall, Esq.
Guysborough—Christopher Jost, Esq.
Hantsport—Wm E. West.
Hillsburgh—Nelson Miller.
Kempt—Joseph D. Masters.
Liverpool—Charles Bill, Esq.
Long Island—Isaiah Thurber, Esq.
Londonderry, Great Village—Ezra Layton.
Maccan, River Hebert—Hance Mills.
Milton, Queen's—G. Whitfield Freeman, Esq.
Mill Village—W. A. Reed.
Musquodoboit—Edward McCabe
New Albany—Asaph Whitman, Esq.
New Germany—Adam E. Durland, Rev. W. E. Hall.
Newport—Joseph Dimock, Wm. H. Knowles.
Nictaux—W. A. Morse.
Onslow—J. B. McNutt, Esq.
Paradise—Asaph Marshall, Esq.
Parsboro—Chas. Y. Snell.
Port Medway—James T. Foster.
Pugwash—Angus McDonnell.
Pubnico—John C. Anderson, Esq.
Rawdon—John McLearn, Esq.
River Philip—Thomas H. Patton.
Rosette, Annapolis—Richardson Harris, Esq.
Locke's Island—Xerxes Z. Chipman, Esq.
St. Mary's Bay, Digby Co.—Charles McNeill.
Sherbrook West—James Lantz.
Springfield—Israel McNayr, Esq.
Stewiacke—Rev. O. Chute.
Sydney, North, C. B.—A. G Musgrave.
Sydney Town, C.B—C H. Harrington, Esq.
Truro—Robt. Chambers, Esq. Rev. D. W. C. Dimock.
Windsor—Andrew F. Shand.
Walton—F. Parker, Esq.
Westport—Holland E. Payson, Esq.
Weymouth—Rev. C. Randall.
Wilmot—Dr. J. Woodbury.
Wilmot, Canaan Road—Samuel Wheelock.
Wilmot Mountain—Rev. J. M. Parker.
Wolfville—G. V. Rand.
Yarmouth—William Churchill.
Do., Carlton—Rev J. A. Stubbert.
Do., Hebron—Wm. R. Doty.
Do., Richmond. B. B. Moses, Esq.
ST. JOHN, N. B.—John F. Masters, Esq.

PRINCE EDWARD ISLAND.

Bedeque—Rev. J. B. McDonald.
Charlottetown—James Deshrisay, Esq.
East Point—Jos. McVane.
Summerville—Dimock Archibald.
Three Rivers—Rev. John Shaw.
West River—Rev. Malcom Ross.

GREAT CLOSING SALE OF
English and American
BOOTS AND SHOES!
AT AND BELOW COST.

THE Subscriber will offer from this date the balance on hand of the above mentioned Goods at REDUCED PRICES. And will continue the sale until the whole is disposed of.

WHOLESALE BUYERS
Will find in this STOCK, some
Very Cheap Job Lots.

TERMS CASH.

GEORGE S. YATES.
22 & 23 George Street.

N. B.—This Stock has no reference to Home Manufactured Goods.
Feb. 3.

To Parents and Sabbath School Teachers.

JUST PUBLISHED.

SECOND EDITION—REVISED.

A SCRIPTURE CATECHISM,
for the Family, the Bible Class, and the Sabbath School,
BY S. SELDEN.
Price 8 cents or $6 00 per 100.

TRY NELSON'S CHEROKEE VERMIFUGE.

THIS valuable Indian combination has been successfully used by physicians, and found to be safe and sure in eradicating worms in persons of all ages. Prepared by
W. J. NELSON,
Bridgewater, N. S.
☞Sold everywhere.
Sept. 14. 1y. c e 3 mths.

THE CHRISTIAN MESSENGER

Is published every WEDNESDAY. Terms—TWO DOLLARS a year, when paid in advance; 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.