St. John Chronicle.

"COLONIAL CONSERVATIVE."

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THE ST. JOHN CHRONICLE,

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Visiting and Business Cards, (plain and ornamental) Handbills, Blanks, and Printing generally neatly executed.

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All letters, Orders, Communications, &c., must be post-paid, and addressed to

WILLIAM DURANT,
Chronicle Office, Saint John, N. B.

☞ Archibald M'Allister, is an authorised Agent for the *Chronicle* at Gagetown, and vicinity.

Stephen Wiggins, is an authorized Agent for Grand Lake.

☞ The *Chronicle* is filed, and may be seen free of charge at Professor Holloway's Establishment, 244 Strand, London. Professor Holloway is duly empowered to receive all monies due our establishment in London, and whose receipts will be regarded by us as valid.

Mutual Insurance Company.

JOSEPH FAIRWEATHER, Esqr., *President.*

Directors—J. W. LAWRENCE, S. K. FOSTER, C. H. ETTINGOOKS, JOHN ANDERSON. *Solicitor*—J. M. ROBINSON, Esqr. *Secretary*—ISAAC WOODWARD, Esquire.

☞ Applications for Insurance against Fire to be made at the office of the Secretary, Wiggins' Brick Building, Princess-street. May 23.

WILLIAM H. LESTER,

GROCER and Provision DEALER,
CORNER PRINCESS AND CHARLOTTE STREETS.

Goods sent to all parts of the City free of charge
September 19, 1856.

CHARLES W. WELDON,

Attorney at Law & Notary Public
OFFICE—Over Messrs. Ranney, Sturdee & Co
Prince William-street, St. John, N. B.
May 23, 1852.

MR. W. P. DOLE,

Attorney and Barrister-at-Law,
HAS REMOVED to the Office lately occupied by Charles Watson, Esquire, in Messrs. Deveber's building, Prince William Street.
August 22, 1856.

NOTICE TO THE PUBLIC.—The Subscriber having been lately appointed a Licensed AUCTIONEER for Queen's County, treats from the Public a Share of Business which shall receive his prompt attention, on most reasonable terms. ARCHIBALD McALLISTER.
Gagetown, August 22, 1856.

GEORGE WHITMAN,

Auctioneer, Commission Merchant
AND DEALER IN DRY GOODS,
GROCERIES AND HARDWARE,
CHAMPERDOWN, N. S.

DOOLEY'S

MERCHANTS EXCHANGE HOTEL,
State Street, Boston. Conducted on the European Plan.

Rooms per day,	50 cts.
Rooms per week,	$3,00
Lodging	37 1-2 cts.

N. B.—A Restaurant is attached, where Meals will be served at all hours of the day.
January 11, 1856. 1y.

SOAP & CANDLE MANUFACTORY.

GEORGE WOODS,

Princess Street next adjoining Dunn's Steam Saw Mill, a few doors from the corner of Germain Street.

ST. JOHN, N. B.
August 29.

Paints, Oils, Varnishes, &c.

Ex *Ann Rankin*, and *Courier*, from London:—

1000 KEGS Brandram's No. 1, White LEAD;
230 Kegs Yellow, Red, Black, Green, and Blue PAINTS;
50 Kegs Zinc Paint;
35 Hhds. Boiled and Raw Linseed OIL;
3 Bbls. Copal and Oak VARNISH;
7 Cans Carriage and White Copal do.;
1 Cask Brandram's Liquid Dryer;
5 " do. Patent do.;
50 ddz. Deep GOLD LEAF;
5 " Patent Glaziers' DIAMONDS.

For Sale at No. 1, North side Market Square.
Nov. 14. W. O. SMITH.

Oysters! Oysters!!

JUST received per steamer "Adelaide," from Boston:—12 bbls. Prime OYSTERS—fresh from the beds. Also—On hand, a few barrels of Fresh Shediac Oysters, which will be served up in any style required, at

JAMES KENNY'S
Eating House Water street.

N. B.—MEALS served up at the shortest notice—Day and Evening. J. K.
St. John, N. B., August 29.

FUR CAPS—In every variety of Fur—made up on the premises, in the latest styles.
D. H. HALL,
October 24. 41, King-street.

TEA.—Just received, and Imported expressly for Family use:—
10 chests Souchong TEA;
10 catty boxes do. do.;
10 chests Breakfast Oolong do;
10 catty boxes do. do;
10 chests good retailing do.—For sale low.
August 29. JOHN McCOSKERY.

Beans and Shad.

40 BUSHELS N. S. White BEANS; 20 half-barrels good SHAD. For Sale by JOHN MARVEN,
Feb. 20. Ward-street

RUBBER CLOTHING.

COATS, CAPES, PANTS, LEGGINGS, Cars, &c., &c., of the very best quality just received from the manufactory.

—ALSO—

A new and superior article of RUBBER COATS, *price only* 20s. THOS. R. JONES,
5, Dock-street, one door above the Old Stand.
Oct. 3.

GLASS—23, Dock Street.

F. CLEMENTSON respectfully solicits the attention of purchasers to his Spring Stock of GLASS.

On the arrival of the *John Duncan*, the assortment of CUT GLASS will be completed, which will be superior in design to any previous importation. (July 10.) FRAS. CLEMENTSON.

GRASS HATS at 62 each; Best quality Men's Calf BROGANS, at 7s. 6d. per pair.
B. O'BRIEN,
July 24. No. 69 Waverly House.

A MEDICAL REVOLUTION!

THE WORLD UNANIMOUS.

HOLLOWAY'S OINTMENT.

THE GREAT COUNTER IRRITANT!

The virus of disease often makes its way to the internal organs through the pores of the skin. This penetrating Ointment, melting under the hand as it is rubbed in, is absorbed through the same channels, and, reaching the seat of inflammation, promptly and invariably subdues it, whether located in the kidneys, the liver, the lungs, or any other important organ. It penetrates the surface to the interior, through the countless tubes that communicate with the skin as summer rain passes into the fevered earth diffusing its cool and regenerating influence.

SKIN DISEASES & GLANDULAR SWELLINGS.

Every species of exterior irritation is quickly reduced by the anti-inflamatory action of this Ointment. Angry ERUPTIONS, such as SALT RHEUM, ERYSIPELAS, TETTER, RINGWORM, SCALD HEAD, NETTLE RASH, SCABIES (or ITCH) &c., die out, to return no more under its application. Hospital experience in all parts of the world proves its infallibility in diseases of the skin, the muscles, the joints and the glands.

ULCERS, SORES, AND TUMORS.

The effect of this unrivaled external remedy upon Scrofula, and other virulent ulcers and sores, is almost miraculous. It first discharges the poison which produces suppuration and proud flesh, and thus the cures which its healing properties afterward complete are safe as well as permanent.

WOUNDS, BRUISES, BURNS, AND SCALDS.

In cases of the fracture of the bones, injuries caused by steam explosions, BRUISES, BURNS, SCALDS, RHEUMATISM, STIFFNESS OF THE JOINTS, and contraction of the sinews, it is employed and warmly recommended by the faculty. This marvellous remedy has been introduced by its inventor in person into all the leading Hospitals of Europe, and no private household should be without it.

UNDENIABLE TESTIMONY.

The Medical Staff of the French and English Armies in the Crimea have officially signed their approval of Holloway's Ointment, as the most reliable dressing for sabre cuts, stabs, and gun-shot wounds. It is also used by the surgeons of the Allied Navies.

Both the Ointment and Pills should be used in the following cases:

Bunions,	Rheumatism,	Sore Throats,
Burns,	Ringworm,	Sores of all kinds
Capped hands,	Salt Rheum,	Sprains,
Chilblains,	Scalds,	Stiff Joints
Pistula,	Skin Diseases	Tetter,
Gout,	Swelled	Ulcers,
Lumbago,	Glands,	Venereal Sores,
Mercurial	Sore Legs,	Wounds of all
Eruptions,	Sore Breasts,	Kinds.
Piles,	Sore Heads,	

*** Sold at the Manufactories of Professor Holloway, 80, Maiden Lane, New York, and 244 Strand, London, by all respectable Druggists and Dealers in Medicine throughout the United States and the civilized world, in pots, at 25 cents, 62½ cents, and 1$ each.

☞ There is a considerable saving by taking the larger sizes.

N. B.—Directions for the guidance of patients in every disorder are affixed to each pot.

S. L. TILLEY, *Provincial Agent*, No. 2, King Street, St. John, N. B.; A. Coy & Son, Fredericton; W. T. Baird, Woodstock; Alex. Lockhart, Quaco; James Beck, Bend of Petitcodiac; O. K. Sayre, Dorchester; John Bell, Shediac; John Lewis, Hillsborough; John Curry, Canning; and James G. White, Belleisle.

☞ CAUTION!—None are genuine unless the words "HOLLOWAY, NEW YORK & LONDON," are discernible as a WATER-MARK in every leaf of the book of directions around each pot or box; the same may be plainly seen by "holding the leaf to the light." A handsome reward will be given to any one rendering such information as may lead to the detection of any party or parties counterfeiting the medicines or vending the same, knowing them to be spurious.

THE SECRET INFIRMITIES OF YOUTH AND MATURITY.

Price 1s. sterling, with numerous Engravings and Cases.

NERVOUS DEBILITY: its Causes, Symptoms, and Cure.—An Essay on a Species of Nervous and Muscular Debility, resulting from Indiscretion and Excess in Indulgence, with plain directions for perfect restoration to healthy and populed Observations on a new mode of detecting Spermatorrhœa and other Urethral Discharges, by a Physician.

BY SAMUEL LAYMAN, M.D.,

27, Bedford-square, London. Doctor of Medicine, Matriculant of the University of Edinburgh, Honorary Member of the Royal Hospital Medical Society, Associate of Apothecaries' Hall, &c.

Sold by MORTON AND COGSWELL, Halifax, Nova Scotia, and by H. CHUBB & Co. St. John's, New Brunswick.

Price One Shilling sealed.

Now landing ex the 'Arthur White' from London.

7 TONS Brandram's No. 1 ground WHITE LEAD, in 1, 1-2, 1-4, and 1-3 cwt. kegs.
2 tons Brandrams No. 1 COLOURED PAINTS;
6 cwt. Dry PAINTS, consisting of Red Lead; Rose Pink; Orange & Lemon Chrome Yellow; Prussian Blue; Ultramarine Blue, &c., &c.
1 Tin Brandram's Patent Liquid Dryer.
20 Bbls. common Whitening; 12 casks PUTTY in Bladders;
6 Casks Raw Linseed Oil; 1 Can White Spirit Varnish.
6 Casks Double Boiled do.; 1 can Superfine Coach do.;
2 Chests INDIGO; 1 Cask Red Chalk;
14 Boxes Lescher's Blue Starch: 1 Cask Cream of Tartar;
10 Kegs Coleman's S. F. Mustard; 1 Cask Blue Vitriol;
2 Casks Mixed Pickles; 1 case Spanish Liqurice;
1 Case Black and Red Currant Jelly; 1 do. Orange Marmalade.
5 Bags Black Pepper; 1 Case Nutmegs;
12 Half chests Florence Oil; 2 Casks Saltpetre;
1 Cask Hemp Seed; 1 Case Deep Goldleaf;
And 8 other Packages, containing a large assortment of Drugs, Medicines, Soaps, Perfumery, Brushes, Combs, &c., &c. For Sale, Wholesale and Retail, by S. L. TILLEY.
May 29, 1857. No. 25, King-street.

Notice.

ALL Persons having any legal demands against the Estate of Andrew Sherwood late of the Parish of Upham, in King's County, (deceased) are requested to present the same duly attested within eighteen months from this date and all persons indebted to the said Estate are required to make immediate payment to

RICHARD C. SHERWOOD, } *Executors*
JOHN F. SHERWOOD,
Upham, K. C., March 7th, 1857.

REMOVAL.

THE Subscriber has removed his Entire Stock in Trade from his old stand, to 27 North side King street, next to Mr. Frost's Shoe Store, and directly opposite Canterbury street, where will be found a general assortment of *HATS* and *CAPS*, Foreign and Domestic.

A. MAGEE Hatter, &c.,
27 North side King street.

☞ The Latest Fashions always on hand.
Feb. 27.

'Saint John Hotel Building,'

82, KING STREET.

JUST RECEIVED by the subscriber, in good order, per the schooner "Mary Jean," "Wren," "Trident," "Caroline," and "Catherine Brown," the following Goods, which he will sell wholesale and retail at moderate rates:—

20 chests superior Breakfast Souchong TEA;
4 boxes Tomato Ketchup; 3 barrels Beans;
200 lbs Ground Pepper; 5 boxes ground Pimento;
1230 do. green Java Coffee; 1 bag whole do.
10 bladders Scotch Snuff; 3 boxes Yeast Powder;
1 case Olive Oil; 3 boxes Cream of Tartar;
2 boxes Lemon Syrup; 1 do. Sperm Candles;
2 casks Trails Saleratus; 4 reams Letter Paper;
3 cases American Matches;
20 reams Straw Wrapping Paper;
10 do Crown do do;
4 reams Foolscap Paper; 18 doz Lead Pencils;
5 doz Carpenter's Pencils;
2000 buff, straw, and White Envelopes;
10 gross Leather-headed Tacks;
300 papers Carpet do; 3 bbls Dried Apples;
50 lbs. Cut do; 1014 Cocoa Nuts;
5 barrels Porter's Burning Fluid;
5 doz Whip Handles; 2 gross Fluid Wicking;
3 doz Raw Hide Whips; 3 bales Candle do;
5 boxes Ground Ginger; 2 bales Cotton Batting;
10 " Harper's Diamond 10s. Tobacco, a superior article;
3 " Wine Sap do.; ½ Lumps do., extra quality for chewing;
6 dozen Washboards; 12 doz. Corn Brooms;
2 doz Corn Brushes; 1 do. Patent do;
10 boxes Clothes Pins, No. 1;
1 doz Mincing Trays; 3 doz setts Measures;
10 Children's Willow Basket Carriages, new varieties;
4 gross patent spring'd Clothes Pins;
2 doz Wooden Spoons; 2 doz Butter Ladles;
2 doz Wooden Pawcetts; 3 doz Alicant Watts;
5 boxes Sullivan's Blacking.

—IN STORE—

60 drums Fresh Figs; 3 Puncheons Alcohol
2 casks pale and brown Sherry Wine;
1 " Port do;
4 hhds Hollands Gin; 1 pun. Scotch Whiskey;
5 pipes Hennessy's Brandy;
6 cases sparkling Champagne;
3 cases Old Jamaica Rum;
3 bbls Nova Scotia Cider;
10 quintals No. 1 Codfish;
1½ Tons Oatmeal;
250 lbs. No. 1 Starch;
ORANGES and LEMONS;
Bed Cords, Clothes Lines, Shoe and Scrubbing Brushes, Nuts, Castor Oil, London Pickles, Chocolate, Broma, Corn Starch, Tripoli, Digby Herrings, Bird Cages, Citron Peel, together with a general assortment of Groceries too numerous for enumeration.

Hourly expected—5 tierces RICE.
may 15 ROBERT STEWART.

London Groceries.

Just received ex Arthur White, from London:—

20 CASKS Mixed PICKLES;
1 do. assorted do.;
10 kegs Coleman's MUSTARD;
8 bbls. Barclay & Co's PORTER;
8 do. Bass's Pale ALE;
4 cases Coleman's STARCH;
4 boxes " Black Lead;
4 " " Extra MUSTARD;
2 " Tomato Ketchup;
" " Olive Oil.
Also—10 cases Jules Duret & Co.'s COGNAC;
1 qr-cask Fine Old Port WINE;
1 cask Old Jamaica RUM.

For Sale cheap by T. & F. McMACKIN,
June 12. 16, Dock Street.

A SPLENDID ASSORTMENT

SUMMER CLOTHING!

Cloths, Cassimeres, Vestings, and Summer Coatings.

Personally selected by the Subscriber in the leading British Markets.

☞ GARMENTS made in a superior manner, at LOW PRICES.
May 22. THOMAS R. JONES.

Butter, Oranges, &c.

RECEIVED per Admiral from Boston—
10 Tubs Prime New BUTTER;
15 Boxes of ORANGES;
500 COCOA NUTS;
1 Brl. Cucumber PICKLES, in Vinegar;
2 Boxes new Goshen CHEESE;
500 Lbs. Sugar Cured HAMS.
W. H. LESTER,
June 5. 3½ Bustin's Corner.

For City and Country Trade!!!

GOOD CLOTHING,

OF THE BEST QUALITY, AND AT LOW PRICES.

The Cheapest and largest Stock of Ready-made CLOTHING,
is at Granite Hall, No. 5, Dock-street.

Every article warranted to make it as represented, or the money returned.

☞ GARMENTS made to measure at low prices, and in a superior manner.
May 29. THOS. R. JONES.

Per Arthur White, from London.

100 CHESTS Souchong TEA;
5 tons Brandram's No. 1 WHITE LEAD;
1 ton Brandram's Coloured PAINTS;
Casks Boiled and Raw OIL;
3 do. PUTTY; 1 cask STARCH;
4 cases INDIGO;
1 case Ladies' BOOTS;
1 do. STATIONERY.

For Sale at the lowest market rates.
June 12. L. H. DEVEBER & SONS.

LIVERPOOL OAKUM.—Landing ex "John Duncan"—5 Tons Liverpool OAKUM. For Sale by JOHN WALKER,
May 29. Ward-street

MACINTOSH Reversible Rubber Coats!

GOT up expressly for London Retail trade, in Silk and Alpaca. The same article that gave so much satisfaction to my customers in 1854—Patronised by His Excellency the Lieutenant Governor, Judges of the Supreme Court, &c. &c.
August 7. THOS. R. JONES.

HAY RAKES.—100 Dozen HAY RAKES, of superior quality, for sale at 10s. and 12s. 6d. per dozen.
August 7. THOMAS C. EVERITT.

CHINA!

Per *Middleton* and *Alamode*—

THE Subscriber has received by the above Ships, a choice selection of DINNER SETS, ETRUSCAN CHINA TEA SETS, VASES, Stone PITCHERS, and China Toilette SETS.

FRAS. CLEMENTSON.
St. John, June 30, 1857.

Gents. Dress Shirts.

A Few Dozen London made Gents. Volkomen Dress SHIRTS, superior to anything made in the City, as regards style or durability.
August 7. THOMAS R. JONES.

BRANDY.—20 cases of old vine growers' Case BRANDY. Just received and for sale by
T. & F. McMACKIN,
16, Dock-street.
ALSO,—1 cask Fine Old Jamaica RUM.
August 7. T. & F. McM.

Miscellany.

FROM THE HAND-BOOK

OF HOUSEHOLD SCIENCE.

BY EDWARD L. YOUMANS,

Author of the "Class-Book of Chemistry," "Chemical Atlas" and "Chart," "Alcohol and the Constitution of man."

Now in Press by D. Appleton & Co., New York.

ALTERATIONS PRODUCED IN BAKING BREAD.

Temperature of the Oven.—Bread is usually baked by heat radiated or conducted from the brick walls or iron plates of which ovens are made. The oven should be so constructed that the heat may be equal in different parts, and remain constant for a considerable time. If the heat be insufficient the bread will be soft, wet and pasty; if on the other hand the heat be too great at first a thick burnt crust is produced, forming a non-conducting carbonaceous covering to the loaf, which prevents the heat from penetrating to the interior. Hence a burnt outside is often accompanied by half-raw dough within. If, however, the temperature be proper, the heat passes to the interior of the loaf and produces the necessary changes before the outside becomes thickly crusted. If we cut open a well-baked loaf, immediately from the oven, and bury the bulb of a thermometer in the crumb, it will rise to 212°. This heat is sufficient to carry on the inner chemical changes of baking, and it is obvious that the heat cannot rise above this point so long as the loaf continues moist. Bread might be baked at a temperature of 212° (by steam), but then it would lack that indispensable part the crust. The baking temperature of the oven ranges from 350° to 450° or 500°, and bakers have various means of judging about it. If fresh flour strewn upon the oven bottom turns brown, the heat is right; if it chars or turns black, the heat is too great.

Heat causes a loss of Weight.—The loaf loses a portion of its weight by evaporation. The quantity thus lost depends chiefly upon the size and form of the loaf. If it be small or thin, it will part with more water in proportion than of cubical shape. Something depends upon the quantity of the flour and the consistence of the dough. Various experiments would seem to show that bread parts with from one-sixth to one-tenth of its weight in baking. In those places where bread is required by law to be of a certain weight, this loss must be calculated upon and a proportionate amount of additional flour used. Prechtl states from experiment that loaves which, after baking and drying, weigh one pound, require that an extra weight be taken, in dough, of six ounces; if the loaves are to weigh three pounds, twelve ounces additional must be taken, and if six pounds, sixteen ounces.

How Heat Enlarges the Loaf.—When the loaf is exposed to the heat of the oven, it swells to about twice its size. This is owing to the expansion of the carbonic acid gas contained in its porous spaces, the conversion of water into steam, and the vaporizing of alcohol, which also rises into the gaseous form and is driven off, as is shown by the spirituous odor yielded in the baking process.

Chemical Changes in producing the Crust.—The heat of the oven falling upon the surface of the loaf causes first the rapid evaporation of its water, and then begins to produce a disorganization of the dough. The starch-grains are ruptured and its substance converted into gum; as the roasting continues chemical decomposition goes on, and organic matter is produced of a brown color, an agreeable bitter taste, and soluble in water, which has received the name of *assamar*. The formation of hard crusts on the loaf may be prevented by baking it in a covered tin, or it is said, by rubbing a little melted lard over it after it is shaped and before it is set down to rise.

Chemical Changes in Producing the Crumb.—As the temperature within the loaf does not rise above 212°, no changes can go on there except such as are produced by the heat of the aqueous vapor. This is sufficient to stop fermentation, destroy the bitter principal of the yeast, and kill the yeast plant. In baking, about one-fourteenth of the starch is converted into gum; the rest is not chemically altered, as may be shown by moistening a little bread-crumb and touching it with a solution of iodine, when the blue color will prove the presence of starch. The gluten, although not decomposed, is disunited, losing its tough, adhesive qualities. The gluten and starch-paste are intimately mixed, but they do not unite to form a chemical compound.

Moisture Contained in Bread.—In newly-baked bread the crust is dry and crisp, while the crumb is soft and moist, but after a short time this condition of things is quite reversed. The brown products of the roasting process attract moisture, and the crust gets daily softer, while the crumb becomes dry. Bread, two or three years old, loses its softness, becoming hard and crumbly. But this apparent dryness is not caused by evaporation or loss of water, for it may be shown by careful weighing that stale bread contains almost exactly the same proportion of water as new bread that has been completely cold. The change to dryness seems to be one of combination going on among the atoms of water and bread. That the moisture has only passed into a state of concealment may be shown by exposing a stale loaf in a closely covered tin for half an hour to a boiling heat, when it will again have the appearance of new bread. The quantity of water which well-baked wheaten bread contains amounts, on an average, to about 40 per cent. The bread we eat is therefore, nearly one half water. It is in fact, both meat and drink together. One of the reasons why bread retains so much water is, that during the baking a portion of the starch is converted into gum, which holds water more strongly than starch does. A second is, that the gluten of flour when once thoroughly wet is very difficult to dry again, and that it forms a tenacious coating round every little hollow cell in the bread, which coating does not readily allow the gas contained in the cell to escape or the water to dry up or pass off in vapor; and a third reason is, that that the dry crust which forms round the bread in baking is nearly impervious to water, and, like the skin of the potato we bake in the oven or on the hot cinders, prevents the moisture from escaping.—(*Johnston.*)

Qualities of Good Bread.—In baking bread, it is desirable to avoid the evils of hardness on the one hand and pastiness on the other, nor should it be sour, dense or heavy. It should be thoroughly and uniformly kneaded, so that the carbonic acid will not be liberated in excess in any one place, form large hollows and detaching the crumb from the crust. The vessicles should be numerous, small, and equally disseminated, nor should the crust be bitter and black, but of an aromatic agreeable flavour. "If the yeast be so diffused throughout the whole mass as that a suitable portion of it will act on each and every particle of the saccharine matter at the same time, and if the dough be of such consistency and temperature as not to admit of too rapid a fermentation, then each minute portion of saccharine matter throughout the whole mass will, in the process of fermentation, produce its little volume of air, which will form its little cell, about the size of a pin's head and smaller, and this will take place so nearly at the same time in every part of the dough, that the whole will be raised and made as light as a sponge before the acetous fermentation takes place in any part. And then, if it be properly molded and baked, it will make the most beautiful and delicious bread, perfectly light and sweet, without the use of any alkali, and with all the gluten and nearly all the starch of the meal remaining unchanged by fermentation.—(*Graham.*)

INFLUENCE OF FOREIGN SUBSTANCES IN BREAD.

Common Salt, Alum, &c.—It has been found that certain mineral substances influence in a remarkable degree the aspect and properties of bread, causing that made of inferior flour to resemble, in appearance, bread made from the best quality. Common salt produces this effect in a decided degree. It whitens the bread and causes it to absorb and retain a larger amount of water than the flour would otherwise hold. In consequence of this influence, and under cover of the fact that salt is a generally admitted element of diet, it is often introduced into bread more freely than is consistent with health. Alum has exactly the same effect on bread as common salt, but in a much more marked degree. A small quantity of it will bring up a bad flour to the whiteness of the best sort, and will enable it to hold an extra dose of water. It is much used for this purpose, and the baker who employs it not only practices upon the consumer a double imposition, but drags him with a highly injurious mineral into the bargain. Mitchell detected in ten four pound loaves 319 grains of alum, the quantity in each loaf ranging from 24 to 110 grains. *Sulphate of Copper* (blue vitriol,) in exceedingly minute proportions, exerts a striking influence upon bread in the same manner as alum. *Carbonate of Magnesia* has a similar effect, and its use in so large quantities as from 20 to 40 grains to the pound of flour has been recommended on scientific authority.* This substance has been also recommended for correcting acidity in yeast, dough, &c., instead of soda, and because it is less powerfully alkaline. But from its difficult soluble earthly nature, it tends to accumulate in the system in the highly objectionable shape of concretions and deposits.

Liebig Recommends Lime-Water in Bread.—However it is to be lamented, it is nevertheless a fact, that enormous quantities of flour, more or less deteriorated, are purchased in the markets of this country; and if there be any method of improving its condition by means that are not essentially injurious, they are certainly most desirable. Indeed, it is well known that flour is injured by *time* alone, so that freshly ground flour is always more prized than that which is several months old. The scientific reason is apparent. Vegetable gluten in contact with water becomes chemically changed, and loses its peculiar tough elastic properties. As these are essential to bread-making, flour that has been stored in this way necessarily makes a bad dough. Now flour is in a high degree a water-absorbing substance, so much so that it attracts and combines with the moisture of the air, and is thus injured. This can only be avoided by artificial drying and protecting thoroughly from the air. The effect of the substances noticed in the previous paragraph is to combine with the gluten thus partially changed, and in a measure to restore its lost properties. Upon investigating this subject, Liebig found that *lime-water* is capable of producing this effect and thus of greatly improving old or low grade flour.

How Lime-Water Bread is Prepared.—To make lime-water chemists usually employ water that has been *distilled*; very pure soft water, as clean rainwater, may, however, be used. Mix a quarter of a pound of slaked lime in a gallon of such cold water in stoppered bottles or vessels kept tight from the air. The mass of the lime falls to the bottom, leaving the liquid above, which has dissolved 1-600th its weight of lime, clear and transparent. This is to be poured off when required for use and replaced by pure water. Liebig recommends 5 lbs. or pints of lime-water to every 10 lbs. of flour, although this quantity of lime-water does not suffice for mixing the bread, and of course common water must be added, as much as is requisite. "If the lime-water be mixed with flour intended for the dough, and then the yeast added, fermentation progresses in the same manner as in the absence of lime-water. If at the proper time more flour be added to the risen or fermented dough, and the whole formed into loaves and baked as usual, a sweet, beautiful, fine grained elastic bread is obtained of exquisite taste, which is preferred by all who have eaten it for any length of time to any other."—(*Liebig.*) The use of lime water removes all acidity from the dough, and also somewhat augements the proportion of water absorbed.

Its Physical Claims.—The quantity of lime introduced into the system by the use of this bread is by no means large. A pound of lime-water suffices for 4 lbs. of flour, which with the common water added, yields 6 lbs. of bread; and as the pound of lime-water contains but 4-600th of lime, with this accidentally added the cereal grains still contain less of it than peas and beans. Indeed, Liebig has suggested that experience may yet prove the cereal grains to be incapable of perfect nutrition, on account of their small proportion of the bone-forming element.

Digestibility of Bread.—Rice flour added to wheaten flour enables it to take up an increased quantity of water. Boiled and mashed potatoes mixed with the dough cause the bread to retain moisture, and prevent it from drying and crumbling. *Rye meal*, a dark-colored bread, and is capable of being fermented and raised in the same manner as wheat. It retains its freshness and moisture longer than wheat. An admixture of rye flour, with that of wheat, decidedly improves the latter in this respect. *Indian-Corn* bread is much used in this country mixed with wheat and rye, a dough is produced capable of fermentation, but pure maize meal cannot be fermented so as to form a light bread. Its gluten lacks the tenacious quality necessary to produce the regular cell-structure. It is most commonly used in the form of cakes, made to a certain degree light by eggs or sour milk and saleratus, and is generally eaten warm. Indian corn is ground into meal of various degrees of coarseness, but is never made so fine as wheaten flour. Bread or cakes from maize require a considerably long time to be acted upon by heat in the baking process than wheat or rye. If ground wheat be unbolted, that is, if its bran be not separated, wheat *meal or Graham flour* results, from which *Graham* or *Dispepsia* bread is produced. It is made in the same general way as other wheaten bread, but requires a little peculiar management. Upon this point Mr. Graham remarks: "The wheat meal, and especially if it is ground coarsely, swells considerably in the dough, and therefore the dough should not at first be made quite so stiff as that made of superfine flour; and when it is raised, if it is found to soft to mold well, a little more meal may be added." It should be remarked that dough made of wheat meal will take on the acetous fermentation, or become sour sooner than that made of sour flour. It requires a hotter oven, and to be baked longer. Puddings, in which flour is an ingredient, are changed by the baking process in the same way as bread. They are usually mixed with milk instead of water, and made thinner than dough. Yeast is not used to raise them, eggs being commonly employed for this purpose, and sometimes other substances.

White and Brown Bread—A New Fire on Flour.—M. Mouries, of Paris, has announced some new views of bread-making, theoretic and practical, upon which a commission of the French Academy has just reported favorably. He claims the discovery of a nitrogenious substance called *cerealine*, which is a very active ferment, rendering starch soluble, altering gluten to a brown substance, and actively producing lactic acid instead of carbonic acid and alcohol. It resides near the surface of the wheat grain, so that in grinding it is nearly all separated in the bran, leaving but little in the white flour. M. Mouries states that in bread made from unbolted flour, the tendency to sourness, the softness, crumbleness, and want of firmness of the crumb, *and the brown color also* of the bread, are due to *cerealine*. He says cerealine ferment will make a brown bread of the whitest flour, whereas, if it be neutralized, a *white bread can be made from a dark flour containing bran.* He grinds so as to separate it into about 71 per cent of fine flour, 19 of brown meal, and 10 of bran. The brown meal is then so acted on by yeast as to neutralize the cerealine. The product in a liquid form is used to mix white flour into dough, which is baked as usual. The claims of this method are, a larger economy of ground products, making a white bread from dark materials, preventing the liability to acidity, and a yield of the finest, lightest and sweetest bread, comprising the largest portion of farinaceous materials.

THE COMMANDER OF THE FORCES IN INDIA.

Lieutenant General Sir Colin Campbell, Knight Grand Cross of the Bath, Grand Officer of the Legion of Honor, Knight of the Sardinian Order of Maurice and St. Lazare, was born in Scotland, of the old Highland clan Campbell, in 1791, and entered the 9th Regiment of Foot in the year 1808. General Campbell has all the characteristics of his fighting ancestry—those tough Scots who battled under all flags, for all purposes and in almost every part of Europe. Whether in the Palatinate or on the Rhine—in France or in Sweden—upon the banks of the Tweed or their own rocky fastnesses—on the field of Inverlochy, fighting all the Western clans, under the banners of the Cavaliers or the Roundheads, following the Pretender or fighting against him—everywhere could be found the Campbell plaid; and worse than that, the Campbell claymore. Intelligent beyond the measure of their fellows—brave almost to rashness, and wily as a Camanche—the Campbells made the best of cut throats. Sir Colin seems to be animated by the ancient fire. He followed the roll of the British drum around the globe. Before he was twenty years old he went with his Regiment to the Peninsula, and served with distinction throughout the war. He carried the colors of his regiment through the thickest of the fight at Vittoria, and saw the death of Sir John Moore at Corunna. He participated in the misery and pestilence of the Walcheren expedition. He was at Barosa, Tarifa and Tarragona, and led his company to victory at Malaga and Osma. At the siege of St. Sebastian, [July, 1813,] which for vigor of assault, tenacity of defence and slaughter has hardly been equalled in military history, Captain Campbell led the assault upon the enemy's outworks, and received two severe wounds. We next find him in the United States, in the war of 1812-15, as Major in the 60th Rifles; but peace being made soon after the arrival of this regiment he had no opportunity to distinguish himself here. In 1823 he was stationed at Demerara, and assisted as Brigade-Major in quelling the insurrection. In 1842 he received the command of the 98th Regiment—went to China, assaulted and captured Chin-Kiang-Foo, and participated in the operations against Nankin. Six years after the Chinese war we find the formidable Sikh war breathing out in the Punjaub, and of course our Highlander was there. Throughout the campaign of 1848-9 he commanded the third division of the army of the Punjaub, and it may readily be believed that he kept it pretty busy. The British opponents were often overwhelmed by the cowing Hindoo, but whenever the foe became very daring the British bayonet was always ready to settle it. Sir Colin distinguished himself in the battle of Ramnagger, the passage of the Chenab, and the affair of Sevodapore. The crowning act of this campaign was a brilliant charge by Sir Colin's division at Chillianwallah, where he was severely wounded. The quantity of his share in that engagement from the relation of Lord Gough, who pronounced it one of the finest fairly overcome by a British army, [illegible] as the British army has done [illegible] thing, [illegible] In 1851-2, when Sir Colin Campbell was commander in India, General Campbell was one of his most valuable officers. He commanded the [illegible] devoted, and was constantly [illegible] what call "guerilla war," [illegible] all the [illegible] and under the direct [illegible] forced [illegible] Kohat Pass. The Mounds [illegible] at this time very troublesome to Sir Colin, and Sir Colin was not less troublesome to them. After repeated skirmishes, Sir Colin at the head of a small detachment of cavalry and horse artillery met the combined tribes, numbering 8,000 fighting men, at