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On the Vesicating Action of Cantharidate of Potassa*.

BY E. DELPECH.

The author, after referring to the ordinary blistering cerate of cantharides of the Codex, and criticising its resinous and fatty ingredients and its uncertainty, suggests that we should look to cantharidin, and says that a mixture of elastic collodion 400 parts, and cantharidin one part, spread on adhesive plaster, possesses a very energetic vesicating power.

The volatility of cantharidin, even at ordinary tempratures, the author alleges as a reason for seeking some means for fixing this principle, and having found the memoir of Messrs. Massing and Dragendorff in a German journal, deems the views therein contained afford the means sought.

These same authors consider cantharidin ($C^{10}H^6O^4$) as an anhydride, which in its combinations with bases fixes two equivalents of water, and which makes the formula of cantharidic acid $C^{10}H^8O^4$, 2HO. This acid does not exist in free state, but is described as forming compounds with the metals.

The cantharidates of potassa soda, and ammonia are soluble in water, whilst the cantharidates, of the common metals are insoluble, and may be obtained by double decomposition.

Cantharidic acid is considered bi-basic. Solutions of the alkaline cantharidates, treated with acetic acid, precipitate, not cantharidic acid, but its anhydride cantharidin. This form of cantharidin is more soluble than the ordinary, due probably to its pulverulent state. The author has not directed his researches to the constitution of this acid, nor has he examined the theory of Messrs. Massing and Dragendorff, which he thinks is not supported by sufficient evidence.

Some particles of cantharidate of potassa placed on the arm caused vesication in a rapid manner, without the intervention of a solvent. A morsel of filtering paper moistened with a cold watery solution of cantharidate of potassa has, after drying, caused a vesication perfectly defined. This paper after fifteen days had lost none of its energy, from which the author infers that it is perfectly fixed and stable. It is also as vesicant as cantharidin. Three blisters were prepared, and applied simultaneously; one dry, the second moistened with vinegar, and the third with water. The first took seven hours, the other two five.

Cantharidates are prepared by the direct action of the alkali on cantharidin in the presence of water, and by the acid of heat. The solution is evaporated and crystallized. It presents the form of fine scales. The ammonia salt loses its base at 212° F.; it is acid to litmus. The cantharidate of potassa, on the contrary, is very stable, and has an alkaline reaction with litmus. The soda salt has the same characters.

The author has found another process for the preparation of the potassa salt. Two grammes of cantharidin are dissolved in 150 grammes of alcohol. Then add 1-6 gramme of caustic potassa dissolved in a very little water, and mix them, when the whole becomes a soft crystaline mass, from which the alcohol is separated by pressure.

*From Jour. de Chem. Med. in Am. Jour. Phar.

The composition of the potassa salt is,

$C^{10}H^6O^4$, KO HO+HO.

98 parts of cantharidin gives 163 parts of cantharidate of potassa. Boiling water dissolves 8·87 per cent.; cold water, 4·13; boiling alcohol 0·92; cold alcohol 0·03 per cent. It is also insoluble in ether and chloroform.

The author proposes the following formula for a blistering tissue, after numerous experiments:

Take of	Gelatin	30 grains.
	Water	150 "
	Alcohol	150 "
	Cantharidate of Potassa,	6 "
	Glycerine a sufficient quantity.	

This liquid is spread uniformly with a brush on gutta percha in thin sheets, so that each square of four inches will contain one centigramme (about one-seventh of a grain) of the cantharidate of potassa. The strength may be varied at will.

Note on Cod-Liver Oil and other Products from Portsmouth, N. H.*

BY W. PROCTOR, JR.

Cod-liver oil as a remedial agent continues to retain its value in the opinion of the medical profession, and any information in regard to it is interesting to pharmaceutists and physicians. Having recently had occasion to converse with Mr. T. E. O. Marvin, engaged in its manufacture under circumstances favorable to its careful production, we took occasion to elicit some facts, and since to obtain some of the by-products which may become useful in medicine and agriculture, which consist of the pulverulent oily matter, constituting chiefly the solid tissues of the cod-livers, in the form left by the press, and of the emulsive aqueous liquid separated from the same along with the oil by pressure, and which retains all the matters soluble in water that the livers contain.

The first condition necessary to the production of cod-liver oil in its unaltered condition is a sufficient supply of the livers in a fresh state. The position of the harbor of Portsmouth, N. H., at the mouth of the Piscataqua River, in relation to the ocean, is so convenient, and never freezes over, that it is well fitted for the fishing trade. There is a large fleet of fishing vessels here, and many more make the harbor a resort to get bait and sell their fish. The vessels run about thirty miles for fish, starting as early as one o'clock, A.M., so as to reach the fishing grounds by daylight. Each vessel carries five small boats or dories, and eleven or twelve men, who go out, two in each dory, and set their trall lines, which are strung with baited hooks about a yard apart. One man rows the boat as fast as he can, while the other "pays out" the line from the tubs wherein it lays coiled, with its thousand hooks, each baited with a piece of fresh herring. When the trall is set it lays along the bottom of the sea like the Atlantic telegraph cable, a mile long, with small anchors at each end and buoys at intervals. As soon as the trall is all down, the men row back to the first buoy, which they find by means of a small flag attached to an ever restless staff upheld by the buoy, and begin the task of "hauling in;" and as it is drawn up the fish are taken off and killed, and by the time the last buoy is reached the boat is usually loaded with noble codfish. Signal is now made to the schooner, which is hovering about the five boats as a hen about chickens. The boats are unladen alongside of the vessel, one by one, and they steer away for home, to sell the fish and bait the hooks for next day. It is in this way that the supply of crude material is obtained. In reply to our query how they made their cod-liver oil, Mr. Martin says: "It can be told in a few words. First we get the livers when they are new and sweet, and subject them to a carefully graduated amount of steam heat, using only the oil-producing healthy livers, carefully washed and drained before their tissues are broken, so that none of the slime from the stomach or intestines goes into the kettle to make the oil taste or smell badly, as it certainly will if that precaution is not observed. The livers are now subjected to a steam heat which ruptures the oil cells, and causes the oil to rise to the surface, when it is skimmed off. The residue is then put in a powerful press, under strong pressure, and allowed to remain twelve hours, by which the mixed oily and watery parts are mainly separated. Power is again applied, and more oil is obtained. The pulpy matter is then taken out almost dry. There is a yet finer pulpy matter, which oozes through the cloth of the press at the bottom and sides."

The practical details of "rendering" the oil, as it is called, involving the proper "cooking" of the livers, require some skill and experience, so as to separate it completely and yet not oxidize or expose it unnecessarily, so as to induce acridity or rancidity. That the oil should keep well it must be entirely freed from watery particles; to be but moderately heated, and the process should be executed promptly. Cod-liver oil rapidly absorbs oxygen from the air if exposed, and always should be enclosed in tight vessels immediately after its preparation. Messrs. Marvin Bros. and Bartlett bottle all the oil they make, and thus secure it from change. A sample of this oil received with the specimens was found to be sweet, and free from acridity or rancidity, with the odor and taste proper to this oil.

The pulpy matter left in the press cloth before alluded to, as we received it, was of a soft cheesey consistence, of a yellowish-salmon color, and possessing the odor of good cod-liver oil; but on keeping it with exposure to the air a few days, it acquires a rank, rancid odor of old cod-liver oil, becomes much darker in color, and contracts greatly from loss of moisture. It is strongly nitrogenous, and when distilled with caustic potassa and cloride of ammonium it yields propylamin among other products. So far its only use has been for agricultural purposes, as a manure.

The watery liquid pressed from the livers is presumed to be the material used in Paris to make the extract of cod-liver pills, of which some notice has been presented in the Journals. We had not time to examine this before it spoiled, no means having been taken to preserve it. It was our intention to examine it for iodine salts and for propylamin. If there be any merit in cod-liver oil due to iodine or bromine, it certainly ought to be found in this liquid,—yet it may be questioned whether these agents have anything to do with the therapeutic value of this popular remedy.

* From the American Journal of Pharmacy.

Test for the Purity of Olive Oil.

BY DR. RAMON C. LANGLIES.

In the numerous experiments we have made to ascertain the purity of olive oil, we have yet found no test giving better indications than that of Hanchecorne. With our experience of this we have adopted a process which will determine, in a positive manner, the presence of seed oils, cotton-seed oil in particular, in any sample of olive oil. The test employed is a mixture of three parts of pure nitric acid, forty degrees, and one part of water. The operation is performed in a test tube or vial: three grammes of the oil to be tested are mixed with one gramme of the test liquid, and the mixture is heated on a water-bath. If the oil be pure, the liquid becomes clearer, and takes a yellow colour, like that of purified olive oil; but if adulterated the transparency will be the same, but the colour red; with five per cent. adulteration the reddish color is characteristic, and with an adulteration amounting to ten per cent. it is decisive. The process occupies but fifteen or twenty minutes, and the coloration of the oil lasts for several days.—*Journal de Pharm et de Chimie.*

The Manufacture of Sugar of Lead.

In a recently published German book, entitled "The Dry Distillation of Wood," Mr. Edward Assmuss, among others, treats of the question, which of the various methods for the manufacture of sugar of lead is most advantageous? Druggists make a distinction between brown and white acetate of lead. For the preparation of the first, which is not much in demand, only rectified acetic acid is employed, while for the white product a perfectly pure acid is required. Both kinds are prepared, either by saturating the acid with litharge, or by treating granulated lead with acid. Among them Mr. Assmuss considers the use of oxide of lead, or litharge, as more advantageous than that of metallic lead, for although the latter may be less expensive than the litharge, and although a concentrated solution is obtained at once, which will not require any evaporation, it is true, on the other hand, that by this plan the lead must first be impregnated with acetic acid and then exposed to the air, so that oxide of lead may be formed, which, in order to produce a solution of acetate of lead, must first be dissolved by the acid. In this operation, which is to be repeated several times, a considerable amount of acid is lost by volatilization. This loss is more important, because if an equally concentrated solution is to be obtained, a strong acetic acid must be employed. In this case, the manufacturer would, on the one hand, gain by the cheapness of the metallic lead, as compared with the oxide of lead, but, on the other hand, he would lose double or triple the gain by the loss of acetic acid.

In the preparation of white sugar of lead from litharge, three methods are to be distinguished: 1, that with steam; 2, the one by direct fire; and 3, the one by acetic acid vapors. In the first, a wooden tub, lined inside with sheets of lead, is filled half full of acetic acid of 1.057 specific weight. An equal weight of well ground litharge is then stirred in, and finally steam is turned on. After having been heated in this manner for a while, the liquid ceases to yield an acid reaction; acetic acid is then added till blue litmus paper is slightly turned red; when it is again turned blue, fresh acid is poured in, until all the litharge is transformed into a neutral salt, whereupon the steam is cut off. The liquid is now filtered through felt into evaporating pans, or decanted after several hours rest.

In using direct fire, leaden pans may be employed, which should rest upon plates of cast iron of at least three-quarters of an inch in thickness; but copper pans are preferable, on the bottom and borders of which leaden stripes are fastened, so as to afford protection against the action of the acid. Both the evaporating and boiling pans are placed in the steam furnace, the latter being heated by the fire gases passing over the bottom of the evaporating pan. Into the former, equal parts of litharge and acetic acid are put, and agitated for some time with a stirrer in the form of a shovel. When the liquid is neutralized, it is drawn off by a stop-cock into the evaporating pan (first passing through a small filter,) until the pan is three-quarters full, when the boiling kettle is filled with fresh portions of acid and litharge.

In using acetic acid vapors, the acid being heated in a particular vessel, its vapors are conducted into chambers containing the oxide of lead. The generating vessel should consist of an upright standing cylinder of sufficiently thick sheeted-copper, holding about one thousand pounds of liquid. A bent copper pipe leads from the upper part into a wooden barrel, three feet in diameter and five feet high, lined inside with sheet lead. The pipe should enter at the top and come down to the bottom. The barrel is provided inside with four finely perforated bottoms of lead, of at most one-quarter of an inch thickness, from each of which, alternately at the right and left, should ascend a lead pipe of from two to three inches high and one and a half inch diameter, open at both ends. There should be three such barrels for one generator. Upon each bottom is then to be placed a layer of litharge of two or three inches thickness, after having previously been covered with a loose linen cloth. When the covers have been put on, the barrels are connected with each other by means of pipes that lead from the upper part of one to the lower part of the succeeding one, the third barrel being in connection with the vessel of condensation. In being evolved from the generator, the said vapors enter from below into the first barrel, ascend through its partitions, and pass from the top over into the second barrel, &c. On their way through the many layers of litharge, they take up lead, neutralizing themselves finally, till forming a perfectly basic solution. When the liquid condensed in the lower part of the barrels has been concentrated so far as to yield crystals in cooling, it is drawn off into the evaporating vessel.

In regard to the merit of the three plans, the advantage is decidedly to be given to the one last described, the employment of the steam being also superior to that of direct fire. The only disadvantage of the last method is that its product is not as white as that obtained by the employment of steam, which is to be accounted for from the fact that in evaporating over free fire the formation of brown carbonized oxide of lead cannot be prevented, which of course will impart to the liquid as well as to the salt a yellow appearance. As to the use of steam, the advantages are, that a proportionately larger quantity of leys may be evaporated by means of a small steam generator, which besides may yield steam for many other purposes. With respect to the manufacture of sugar of lead by means of acetic acid vapors, it is still more profitable from the fact that evaporation can be dispensed with, and, what is of especial importance, that the locality will always be free from lead vapors, which is not the case in the other methods. In fine, it is not necessary that a perfectly pure acetic acid be employed, as only the vapors come in contact with the oxide of lead.

Whether it would be desirable to the manufacturer to prepare his own oxide of lead, or to buy it in the form of litharge, it is to be considered that the litharge is generally only five per cent. higher in price than metallic lead, although it may contain so many impurities that only eighty-eight out of one hundred pounds are taken up by the acid. From this it appears to be more profitable to buy the metallic lead, and convert it into oxide. Where, however, litharge can be obtained at the same price as metallic lead, or even cheaper, it is evidently preferable, as the conversion of the latter into an oxide cannot be accomplished without expenditure of time and fuel.—*Journal of App. Chem.*

Mineral Water Syrups.

Mr. G. M. Hambright contributes the following formulæ to the Chicago *Pharmacist:*

SIMPLE SYRUP.

Take of White sugar, 14 lbs. (com.)
Water, 1 Gal.

Dissolve with the aid of a gentle heat, strain, and when cold add the whites of two eggs, previously rubbed with a portion of the syrup, and mix thoroughly by agitation. [The egg albumen is added to produce froth.]

LEMON SYRUP.

Take of Oil of lemon, 25 drops.
Citric acid, 10 drachms.
Simple syrup, one gal.

Rub the oil of lemon with the acid, add a small portion of syrup, and mix.

ORANGE SYRUP.

Take of Oil of orange, 30 drops.
Tartaric acid, 4 drachms.
Simple syrup one gallon.

Mix as above.

VANILLA SYRUP.

Take of Fld. ext. vanilla, 1 ounce.
Citric acid, ½ "
Simple syrup, 1 gal.

Rub the acid with a portion of syrup, add Ext. vanilla, and mix.

GINGER SYRUP.

Take of Tinct. ginger, 3 ounces.
White sugar, 7 pounds (com.)
Water ½ gal.

Heat the sugar and water until the sugar is dissolved, raise to the boiling point, then gradually add the Tinct. ginger, stirring briskly after each addition.

SYRUP SARSAPARILLA.

Take of Simple syrup, 1 gal.
Comp. syr. sarsap. *ad lib.*
Powd. ext. licorice, 1 ounce.
Oil sassafras.
Oil wintergreen, aa, 15 drops.
Oil anise, 10 "

Rub the oils with powdered licorice, add a portion of syrup, rub smoothly, and mix the whole together by agitation.

ORGEAT SYRUP.

Take of Cream syrup, ½ pint.
Vanilla syrup, 1 pint.
Simple syrup, ½ "
Oil bitter almonds, 5 drops.
Mix.

COFFEE SYRUP.

Take of Ground roasted coffee, 4 ounces.
Boiling water, 2 pints.
Sugar, 4 pounds (com.)

Infuse the coffee in the water until cold, strain, add the sugar, and make a syrup.

STRAWBERRY SYRUP.

Take of Fresh ripe strawberries 10 quarts.
White sugar, 24 pounds.
Water, ½ gal.

Spread a portion of the sugar over the fruit, in layers, let it stand four or five hours, express the juice, strain, washing out the marc with water; add remainder of sugar and water, raise to the boiling point, and strain.

SYRUP OF RASPBERRY.

Proceed as for Strawberry syrup.

PINE-APPLE SYRUP.

Take of ripe pine-apples, No. 2 or 3.
White sugar, 16 pounds.
Water, q. s.

Cut the fruit in thin slices, spread sugar over them, let stand 12 hours. Pour off juice and sugar, and set aside, Express the fruit, adding a little water. Then take water, q. s., to make, with the above liquid (juice and sugar), 1 gal. Form a syrup with the sugar and water, and boil the pieces of the fruit already expressed. When the syrup is nearly completed add the fluid and boil a few minutes, to clarify. Remove scum and strain. These three fruit syrups should be bottled when warm, corked tightly, and when wanted for use add equal parts of the fruit syrup and simple syrup. They will keep a year without change.

NECTAR SYRUP.

Take of Vanilla syrup, 5 pints.
Pineapple " 1 "
Strawberry or Raspberry 2 pints.
Mix.

CREAM SYRUP.

Take of Fresh cream, ½ pint.
" milk, " "
Powd. sugar, 1 pound.

Mix, by shaking. Keep in a cool place. The addition of one half drachm bicarb soda to this syrup will prevent rapid change.

Lime Juice.

The *Chemist and Druggist* gives the following particulars in regard to the lime tree, and the collection of the juice of the fruit, as carried on at Montserrat:—

The lime tree, a native of Western Africa, seems early to have found a congenial *habitat* in Montserrat. In the autobiography of a negro, who obtained his freedom about the year 1750, he mentions his first profitable adventure, as consisting in trading in this fruit to the neighbouring islands. The tree, however, has never been made an object of extended and systematic cultivation till within the last twenty years. Its form is that of a large Lauristina bush, spreading in some instances over the ground for twenty to thirty feet; its foliage is like that of the myrtle, but with leaves of brighter green. It is armed with sharp thorns, making it often difficult to gather the fruit from the interior of the tree. The blossom is smaller than that of the orange, with a powerful fragrance. The crop is principally gathered in the months commencing with July, and ending with February, the trees often displaying at the same time the blossom and the ripe limes, with the green fruit in all its intermediate stages of growth.

The plantations ranging along the shore for about two miles, extending in one direction to about 1,500 feet up the mountain steeps, with space between the trees to admit of the pasturage of cattle among them.

During the season of crop, the fields are traversed by a large company of young negroes, with a woman superintending them, who gather the ripe fruit into wide open baskets. When these are all filled, they are taken direct to the presses at the boiling houses, and a large company of "little people," as they are termed proceeding with quick step in long Indian file, with the bright yellow fruit on their heads contrasting with their dusky figures, now lost among the lime trees, now emerging into the open path, presents to the stranger a curious and novel spectacle unique in its kind.

So the fruit, on it reaching the works, is passed through a machine driven by the mountain stream, which cuts it into slices, when it is transferred to the presses for the expression of juice, which is then evaporated to about the consistency of honey for the manufacture of citric acid.

When, however, it as to be shipped as fresh juice, the fruit is first carefuly sorted, and the unripe or over-ripe limes rejected, and when transfered to the presses, only two-thirds of the juice is pressed out for this purpose; it being found that the last portion resulting from extreme pressure is of diminished strength and quality. This purer juice, being run from the presses at once into casks, is immediately secured from the air, so as not to be opened till its arrival in England.

The lime tree requires a period of from seven to ten years from the time it is planted before it makes any considerable return in fruit.

Montserrat, like the adjoining islands, is occasionly visited by earthquakes. In that of 1843, occuring in dry weather, the large quantity of rocks and boulders detached from the mountain summits enveloped them in such an atmosphere of dust, that the captain of the intercolonial mail steamer, passing at the time, reported that the island had, in the convulsion, sunk under the ocean.

American Quercitron and Sumac.

Alex. C. Macrea, Anglo-American Produce Broker at Liverpool, England, sent out circulars last fall, showing the value of these two articles of commerce. Of sumac he states that Liverpool frequently imports from Sicily 6,417 bags in a day, and exports to America in one day 1,200 bags, and then goes on to explain the utter fallacy of our permitting such a foolish work. He says that from actual experiments, the American sumac contains from 10 to 20 per cent more tannin than any other, and yet we import the product of other countries. Mr. Macrea asserts that we should be reaping the benefit of selling thousands of tons of this article, at $125 per ton, instead of importing the same, as it grows in great quantities in Maryland, Virginia, and other States. Of quercitron (ground black oak bark), he says:

"Our chief supply of quercitron has, ever since its general introduction fifty years ago, reached us from Philadelphia and Baltimore, with occasional consignments from New York. Philadelphia bark comes in hogsheads, as is well known, and from the fact that in Philadelphia it is branded 'first sort,' and must consequently be up to the mark in quality, gives a reputation to that port, which no other rivals. Baltimore comes in bags, and most of it is intrinsically the same as that which comes from Philadelphia, but from the fact that it is not so carefully ground or packed, fetches, as will be seen by the quotations, a much lower price: 1st Philadelphia, in hogsheads, $60 per ton. 1st and 2nd Baltimore, in bags, $55 to $45 per ton."

"As this article abounds in untold quantities in Maryland, Pennsylvania, Virginia, etc., and as the consumption in Europe is enormous, it may be well to call attention to a 'new feature,' which will give more general employment, and benefit everybody. The 'new feature' is to send the bark 'pulverized' like flour or florine. This attained, port of shipment or place of production makes no difference, whereas the value increases to $70 to $80 per ton. Indeed, in the first instance, I myself made $90 per ton, and fully believe in perpetuity this will be nearer value. Wherever bark or sumac mills abound, their present machinery can readily be adjusted to do the work of fine 'grinding;' when nothing remains but its being packed in hogsheads lined with paper, and shipped to England from any contiguous port. The consumption will be largely increased."—*Scientific American.*

Application of Picric Acid for Imparting to Ivory Bone, and Horn a Beautiful Red Color.

According to C. Mene the following recipe will impart the required color. Take 4 grms. of picric acid, and disolve in 250 grms. of boiling water; add, after cooling, 8 grms. of liquid ammonia. Dissolve also 2 grms. of crystallized fuchsine (magenta) in 45 grms. of Alcohol, dilute with 375 grms. of hot water, and next add 50 grms. of ammonia. As soon as the red color of the magenta solution has disappeared, the two solutions are mixed together, making a bulk of liquid amounting to about half liter, which is a sufficient quantity for dyeing from four to six sheep's skins. Ivory and bone should be placed in very weak nitric or hydrochloric acids first, before being immersed in the ammonical liquid; wood cannot be dyed by this liquid, unless it has been previously painted over with paste made from flour. When, to the ammonical liquid, some gelatin solution is added, it may serve as a red ink which does not attack steel pens. By varying the proportions of the magenta and picric acid, the tints obtained may be varied from a blush red to a bright orange red. The desired colors do not appear until the ammonia has evaporated.—*Scientific American.*

ONTARIO COLLEGE OF PHARMACY

PRESIDENT, - - - WM. ELLIOT, ESQ.

The regular meetings of the College take place on the FIRST FRIDAY *evening of each month, at the Mechanics' Institute, when, after the transaction of business, there is a paper read, or discussion engaged in, upon subjects of interest and value to the members.*

The College admits as members, Chemists and Druggists of good standing, and their assistants and apprentices, as associates, on payment of the following fees:

Principals, - - - - - $4 00 per Annum
Assistants & Apprentices, 2 00 "

The JOURNAL *is furnished* FREE *to all members.*

Parties wishing to join the College may send their names for proposal to any of the members of the College. A copy of the Constitution and By-laws of the College will be furnished on application.

HENRY J. ROSE, *Secretary.*

THE CANADIAN

Pharmaceutical Journal.

E. B. SHUTTLEWORTH, EDITOR.

TORONTO, ONT., JULY, 1870.

Correspondence and general communications, of a character suited to the objects of this JOURNAL, are invited, and will always be welcome. The writer's name should accompany his communication, but not necessarily for publication.

Subscriptions will not be acknowledged by letter, as our sending the paper may be taken as sufficient evidence of the receipt of the money.

All communications connected with the paper to be addressed, post-paid,

"EDITOR CANADIAN PHARMACEUTICAL JOURNAL TORONTO."

REVISION OF THE CONSTITUTION AND BY-LAWS.

In another column will be found the Constitution and By-Laws, as amended by the Committee of Revision, and adopted by the Society. The numerous alterations made by the Committee appointed by the Legislature to consider the Pharmacy Act, necessitated corresponding changes in the Constitution of the Society. New officers were required, the number of the Council was increased, and new and increased powers were granted. Having thus ensured the requisite conformity, we hope in a few months to be able to inform our readers of the official recognition, by the Government, of the Ontario College of Pharmacy.

THE ONTARIO COLLEGE OF PHARMACY.

In order to conform with the requirements of the coming Pharmacy Act, the name of the Society has been changed to "the Ontario College of Pharmacy." During the passage of the Act through Committee, it was suggested by members, that as the Society would ultimately become an educational body, the term "College" would be most appropriate, and more in keeping with the designation of other bodies of like purpose—the Royal College of Dental Surgeons, for instance. The title is somewhat pretentious, but we trust, in time it will not be undeserved.

In the present number will be found a full list of the Members of the Society, up to July 1st, of the present year. If any removals have taken place, of which we have not been apprised, members will oblige both the Secretary and ourselves, by sending the necessary corrections at once.

ANNUAL REPORT, 1870.

In reviewng the operations of the past year, the Council cannot forbear expressing a feeling of pleasure, inasmuch as the task before them promises much which invites congratulation, and but little calling either for censure, or regret. The progress of the Society has been steadily onward; during the last twelve months, fifty-six new members have been elected; making the total membership amount to three hundred and twenty-eight This number includes, with but very few exceptions, all the qualified druggists in Ontario. With such a strong representation, our Pharmaceutical interests, whether political or otherwise, should not suffer; and while thus united in purpose, and effort, the Society should be able to perform all the work—however arduous—which has been assigned to it. In this connection, your Council cannot help adverting to the harmony which has, heretofore, characterised the workings of the Society; to this co-operation and good feeling on the part of members, our success is, mainly to be attributed, and on this the future alike depends.

FINANCIAL STATEMENT

For the year ending June 30th, 1870.

Receipts.

Balance on hand July 1st	$344 58	
Members' subscriptions	680 50	
		$1,025 08

Expenditure.

Appropriation to JOURNAL	$575 00	
Chemistry Class	9 21	
Printing, Circulars, &c	8 10	
Postage	7 35	
Discount on Silver	0 65	
	$600 30	
Balance on hand	424 78	
		$1,025 08

Audited and found crorect.

W. BRYDON.
E. B. SHUTTLEWORTH.

The Museum and Library have had several valuable additions, amongst which may be noted an interesting case of opium products, from the Messrs. Macfarlane, of Edinburgh.

The most important business brought before the Council, this year, has been in regard to Pharmaceutical Legislation. The Pharmacy Act, which at the time of our taking office, had already obtained a first reading, was on the 25th of November last, again introduced by Dr. McGill, and obtained a second reading. A select Committe of the House, composed of Hon. Mr. Wood, Messrs. Boulter, Baxter, Rykert, Pardee and Matchett, was appointed to consider the provisions of the Act. A Committee from the Society, composed of Messrs. W. Elliott, Dunspaugh, Miller, R. W. Elliot, Shapter and Shuttleworth, were in attendence to offer any explanations which might be required. The result was that a number of alterations and additions were made. These were embodied in an amended bill which, we regret to say, despite the best indeavours of all concerned, failed in obtaining a final reading, owing to important government measures which demanded the only remaining time at the disposal of the House before the termination of the somewhat hastily closed session. Since that time nothing has, of course, been done; it now remains for our successors to bring the matter to an issue, and to this their attention should be directed at as early a period as possible, so that the Bill be brought before the assembly before the press of business becomes great.

Towards the close of the year, a Chemistry class was organized and continued through the winter, under the direction of Mr. Shuttleworth; some eight students attended, with more or less regularity. Owing to the want of apparatus, and the interest consequent on experiments, this number was, doubtless, much smaller than it would have been, but those who did attend gave ample evidence of the solidity of their knowledge of the principles of chemical philosophy, to the impart which the main efforts of the teacher were directed. The Council have made no provision for the coming term, but would recommend that the Society secure a suitable suite of rooms, one of which could be litted up as a laboratory for the use of students.

The Constitution and ByLaws, have, during the year, suffered no material change, but a Committee has been appointed to make the necessary alterations respecting conformity with the Pharmacy Act. These changes will considerbly modify the basis upon which the Society was organized, but as the report of the Committee will not be presented until our term of office expires we do not deem it proper to particularize.

Before closing this report, your Council cannot help calling attention to the bad attendence usual at ordinary meetings, and to the lack of interest shown by members in presenting papers to the Society, and would suggest that a Committee be appointed whose business it shall be to secure the reading of at least, one paper, each evening of meeting.

All of which is respectfully submitted.

ANNUAL GENERAL MEETING.

The third Annual Meeting of the Society was held on Friday evening, July 8th, in the lecture room of the Mechanics' Institute. The President being absent in Europe, Hugh Miller, Esq., Vice-President occupied the chair, Mr. Hodgetts officiated as Secretary.

The minutes of the former meeting were read and confirmed. Three applications for membership were received, and the necessary conditions having been complied with, the following gentlemen were proposed and elected.

R. H. Nelles.....St. Thomas.
R. S. Strong.....Galt.
W. F. Tibbets.....Port Dover.

A communication was received from W. T. Barker, of Trenton, in regard to a correction of the list of members elected at the May meeting. The names D. V. Bogart, M. D., and Alfred White, Trenton, as reported in the minutes, should read D. P. Bogart, Carleton Place, and Archibald White, Carleton Place.

As the Constitution requires the appointment of two auditors to examine the accounts of the Society, it was moved by R. W. Elliott, and seconded by Mr. Dillworth, "that Mr. Shuttleworth act as auditor, on behalf of the meeting," Mr. W. Brydon was appointed by the Chairman.

The Report was received and adopted and ordered to be printed in the next number of the journal.

The next business was the election of officers for the coming term. The ballot was proceeded with, Messrs. Dillworth and Bredin acting as scrutineers.

The following gentlemen were declared elected :—

Mr. William Elliot, President.
" Hugh Miller, Vice-President.
" W. H. Dunspaugh, Treasurer.
" H. J. Rose, Secretary.
" W. Brydon, Cor. Secretary.
" E. B. Shuttleworth, Librarian.

COUNCIL.

Mr. J. T. Shapter.
" R. W. Elliot.
" George Hodgetts.
" W. S. Robinson.
" W. Hunter.
" J. L. Howarth.
" J. L. Margach.
" C. E. Hooper.

The Committee appointed for the revision of the Constitution and By-Laws, brought in their report. The business of this Committee was to make such alterations as were necessary to conformity with the Pharmacy Act, as reported by the Committee of the Provincial Legislature. After a lengthy discussion on the several clauses of the amended articles, it was moved by Mr. Elliot, seconded by Mr. Dilworth,—

"That the Report of the Committee be received and adopted, and that the amendments proposed do now become part and parcel of the Constitution and By-Laws of the Ontario College of Pharmacy."—Carried.

There being no further business, the meeting adjourned.

GEORGE HODGETTS,
Secretary *pro tem.*

CONSTITUTION AND BY-LAWS OF THE ONTARIO COLLEGE OF PHARMACY.

As revised and adopted at the Annual General Meeting, July 1870.

ARTICLE I.

That the name of the association be the Ontario College of Pharmacy.

ARTICLE II.

That all persons in business in Canada on their own account, and any person who at the time of the passing of the Pharmacy Act of Ontario, has served an apprenticeship of three years, and has acted as a druggist's assistant for one year, shall upon payment of a fee of four dollars to the Treasurer of the said Society, be entitled to be enrolled as a member of the said College, and every person so engaged as a clerk, assistant or apprentice, on payment of a fee of two dollars, shall be entitled to be enrolled as an associate of the said College.

ARTICLE III.

Any associate may, upon passing such an examination as may be prescribed by the Council, be admitted and enrolled as a member of the said College.

ARTICLE IV.

Any person being registered as a member, or associate of the College shall be entitled to receive a certificate in the form in Schedule A, or to the like effect, under the corporate seal of the said College, and signed by the Registrar, and shall be entitled to receive a similar certificate annually upon payment of the said fee of four dollars.

ARTICLE V.

Honorary members shall be persons of high standing, who are eminent for their scientific attainments.

ARTICLE VI.

Life members shall be persons who make donations of forty dollars, in money, or specimens for the museum (the later to be valued by competent persons,) or who may be elected as such at the genera' meeting of the College, for important services performed, and after due notice has been given, as in the case of alteration in the laws.

ARTICLE VII.

Every person desirous of being examined, touching his qualifications to become a member of the College, and to act as a Chemist and Druggist, shall at least two weeks before the sittings of the Council, pay into the hands of the Registrar the required fees, together with a notice of his intention to present himself for such examination.

ARTICLE VIII.

Any person having passed such examination to the satisfaction of the majority of the examiners, shall become a member of the College. Such examinations may be conducted by the members of the Council, or persons appointed by them.

ARTICLE IX.

Every ordinary member shall be considered as belonging to the College, and as such, liable to the payment of an annual subscription of four dollars, payable on the first day of May in each year, until he has either forfeited his claim, or has signified to the College, in writing, his desire to withdraw, when his name shall be erased from the list of members.

ARTICLE X.

No person shall be entitled to any of the privileges of a Pharmaceutical Chemist, or member of the College, who is in default in respect to any fees payable by him by virtue of this Constitution.

ARTICLE XI.

Upon a resolution of the Council of the said College being passed declaring that any person in consequence of his conviction for any offence or offences against the Pharmacy Act is, in the opinion of the Council, unfit to be on the register, the Lieut.-Gov. in Council may direct that the name of such person shall be erased from such register, and it shall be the duty of the Registrar to erase the same accordingly.

ARTICLE XII.

The officers of the College shall consist of a President, Vice-President, Registrar, Corresponding Secretary, Treasurer and Librarian, who shall be elected by ballot, on the first Friday in July in every second year and the persons qualified to vote at such election, shall be such persons as are members of the College ; the registrar to act as Returning officer.

ARTICLE XIII.

The President shall take the chair at all meetings of the College at which he is present, and shall regulate and keep order in the proceedings. It shall likewise be his duty to state and put questions according to the sense and intention of the meeting, and to carry into effect the regulations of the College.

ARTICLE XIV.

In the absence of the President, it shall be the duty of the Vice-President to preside at the meeting, and regulate the proceedings; but in the case of the absence of both President and Vice-President, the members present may elect any one of their number to take the chair at that meeting.

ARTICLE XV.

The Treasurer shall take charge of all moneys belonging to the Society, and when the funds amount to $50, shall deposit the same in one of the chartered banks of the city of Toronto, on account and for the use of the College.

ARTICLE XVI.

No sum of money payable on account of the College shall be paid at any time, except by order, signed by the President and Registrar; but in the absence of these officers the Treasurer shall have power to pay any claim which he may consider just and right, to be certified to by them on their return.

ARTICLE XVII.

The duties of the Registrar shall be to attend the meetings of the College; to take minutes of all their proceedings, and enter them in the proper book; to read the minutes of the preceding meeting with a view to their verification, and have them signed by the Chairman as an attestation of their accuracy.

ARTICLE XVIII.

It shall also be the duty of the Registrar to take and keep a correct Register, in accordance with the provisions of the Pharmacy Act, as shewn in Schedule "B," of all persons who shall be entitled to be registered under the Act, and to enter opposite the names of all registered persons who shall have died, a statement of such fact, and from time to time to make the necessary alterations in the addresses of persons registered under the Pharmacy Act, and shall cause to be printed and published on or before the fifteenth day of June of each year, an alphabetical list of the members who were on the first day of June of that year entitled to keep open shop as Pharmaceutical chemists.

ARTICLE XIX.

No names shall be entered in the Register except of persons authorized by the Act to be registered, nor unless the Registrar be satisfied by proper evidence that the person claiming is entitled to be registered, and any appeal from the decision of the Registrar may be decided by the Council of the said College, and any entry which shall be proved to the satisfaction of such Council to have been fraudulently or incorrectly made, may be erased from or amended in the Register by order of such Council.

ARTICLE XX.

The duty of the Cor. Secretary shall be to announce any donations made to the College; to give notice of any candidate proposed for admission, or to be voted for, and to read the letters and papers presented to the College in the order of time in which they were received, unless the Council shall otherwise determine, also to keep the accounts of the College and to keep an account of all money passing through his hands.

ARTICLE XXI.

The Librarian shall have charge of all books, plans, drawings etc., and of all models and specimens for the museum, and shall have the general superintendence of the same, under the direction of the Council.

ARTICLE XXII.

The Council of the College shall consist of the President, Vice-President, Registrar, Correspondency Secretary, Treasurer and Librarian, with seven other members to be elected at the general meeting every second year, who shall have the direction and management of the affairs of the College.

ARTICLE XXIII.

The said Council shall hold, at least, two sittings in every year for the purpose of granting certificates of competency, at such times and places as they may by resolution appoint, of which due notice shall be given in the Ontario *Gazette*.

ARTICLE XXIV.

At every meeting of the Council, five members shall constitute a quorum.

ARTICLE XXV.

The Council of the said College shall, subject to the supervision and disallowance thereof by the Lieutenant-Governor in Council, have authority to prescribe the subjects upon which candidates for certificates of competency shall be examined; to establish a scale of fees to be paid by associates of the said College, and other persons applying for examination, and to make by-laws, rules, and orders, for the regulation of their own meetings and proceedings, and those of the College, and for the admission of druggists' assistants and apprentices as associates of the said College, and for the remuneration and appointment of examiners and officers of the said College, and for the payment of the actual members of the said Council in attending its sittings, or in attending upon the business of the said College, and in respect to any other matters which may be requisite for the carrying out of the Pharmacy Act.

ARTICLE XXVI.

The Council shall have power to appoint committees for Special objects in the management of the College, and the report of such committees shall be submitted to the Council, previously to their being read to the College.

ARTICLE XXVII.

The Council shall draw up a yearly report on the state of the College, in which shall be be given an abstract of all proceedings, and the receipts and expenses of the past year, to be accompanied by vouchers, and such report shall be read at the annual general meeting.

ARTICLE XXVIII.

Any member of said Council may, at any time, resign by letter directed to the Registrar of said College; and in the event of any vacancy occuring, the remaining members of the Council shall fill up such vacancy from the members of the College.

ARTICLE XXIX.

The officers shall enter upon the discharge of their respective duties on the meeting following their election, and the Council for the past year shall continue in office until that time. If the general meeting for the election of officers shall not take place on account of the day appointed falling upon a holiday, the officers for the time being shall continue in office until their successors are elected.

ARTICLE XXX.

Two auditors shall be appointed at the close of each year, one by a motion of the members at the last general meeting, the other by the chairman, who shall audit the accounts of the College for the past year, and present the same at the annual meeting to the chairman.

ARTICLE XXXI.

The Ontario College of Pharmacy shall have power to acquire and hold real estate, not exceeding at any time in annual value $5,000, and the same, or any part thereof may alienate, exchange, mortgage, lease or otherwise charge or dispose of, as occasion may require, and may erect buildings for the purpose of accommodating Lecturers on Chemistry or Pharmacy, or for a Library, Pharmaceutical Museum, or specimen room for the use of the members and associates of said College, and all fees payable under the Pharmacy Act shall belong to the said College for the purposes of the Act.

BY-LAWS.

I.

The annual term of the College shall commence on the first Friday in July, and ordinary meetings shall be held on the first Friday in each successive month during the

year, in such place as the Council may appoint.

II.

The chair shall be taken by the officer or member entitled to the same, and the business of the evening commence at 8.30 precisely, and be conducted in the order prescribed in the By-Laws.

III.

Every member shall have the privilege of introducing two visitors, to be present at the public business of the College, by ticket of admission, on which the name and address of such visitors must be written.

IV.

The general meeting for the election of officers shall be held on the first Friday in July, at 8.30 p. m. to receive and deliberate on the report of the Council on the state of the College, and every second year to elect the officers and members of the Council for the ensuing year; should that day fall upon a holiday, the meeting to take place on the following Friday evening.

V.

The Council may at any time call a special general meeting for a specific purpose, giving six days notice to members, and they are at all times bound to do so, on the written requisition of five members, who shall specify the nature of the business to be transacted.

VI.

No By-Law or regulation shall be altered, or a new one adopted at a meeting, special or otherwise, except notice of the alteration proposed, and of the meeting at which it is to be considered, shall have been given at two consecutive ordinary meetings prior thereto.

VII.

The whole of the property and effects of the College, of whatever kind, shall be vested in the Council, and subject to its control for the time being.

VIII.

Any paper which may be presented to the College shall be considered the property thereof, and the Council may publish the same in their transactions, or in any other form, with the consent of the author. No communication shall be published by any other person but the author, without the previous consent of the Council.

IX.

At the ordinary meetings of the College, the following order of business shall be observed as closely as circumstances will admit:—

1. The minutes of the previous meeting to be read and confirmed, and signed by the chairman, and no entry shall be considered valid until this is complete.

2. New members present to be introduced to the meeting.

3. Names of candidates for admission to be announced, and candidates to be elected.

4. Business arising out of the minutes to be entered upon.

5. Communications received to be announced and read if required.

6. Donations received and acknowledged.

7. Communications from the Council to be brought forward.

8. New business and notices of motion.

9. Papers on the list to be read.

10. The minutes of discussion taken by the Secretary, resolutions passed, reports of committees, and all printed circulars, or other printed papers sent over by the Council, shall be carefully pasted in a book, in the order in which they occur, that they may be preserved as the original records of the College.

11. Any gentleman addressing the meeting shall stand for this purpose, in order to prevent interruption, and to command the attention of the meeting, and the person first rising shall have the precedence in speaking, upon which, if there be any doubt, the chairman shall decide.

SCHEUDLE A.

I hereby certify, that C. D., having passed the examination prescribed by the Pharmaceutical Council, (or having been in business, or qualified assistant, prior to the Pharmacy Act of 1870 as the case may be), was on the day July, registered as a member of the Ontario College of Pharmacy, and is authorized to carry on the business of Chemist and Druggist in the Province of Ontario, from the day of A.D., to the day of A.D.

(Signed) E.F.
[Corporate Seal.] Registrar of the Pharmaceutical Society.

SCHEDULE B.

NAME.	RESIDENCE.	QUALIFICATION.	REMARKS
A. B.	Kingston.	In Business prior to Pharmacy Act.	Dead.
C. D.	Hamilton.	Examined and certified 12th July, 1870.	Erased by order of Lieutenant-Governor, dated 14th October, 1880.
E. F.	London.	Served Apprenticeship and as Assistant.	

LIST OF MEMBERS OF THE CANADIAN PHARMACEUTICAL SOCIETY,

PRIOR TO ITS ENROLMENT AS THE ONTARIO COLLEGE OF PHARMACY, JULY, 1870.

Date of Admission.	Member's Name.	Address.
June, 1867.	* Hugh Miller	Toronto.
"	* W. H. Dunspaugh	"
"	* George Hodgetts	"
"	* John Coombe	"
"	* J. T. Shapter	"
"	* Neil C. Love	"
"	* C. E. Hooper	"
"	* A. Matheson	"
"	* J. Howarth	"
"	* W. Hunter	"
"	* E. B. Shuttleworth.	"
"	* George Massey	"
"	* George Leslie	Yorkville.
"	* J. C. Lander	Toronto.
"	* John Henderson.	"
"	* Richard R. Owen	"
"	* William Brydon	"
"	* H. P. Brummell	"
July,	Robert W. Elliot	"
"	J. Davids	"
"	William Elliot	"
"	J. Dilworth	"
"	F. McCallum	New Hamburg.
"	L. P. Stickney	Toronto.
"	H. J. Rose	"
"	George Matheson	"
October.	Jos. W. Cull	Mitchell.
"	Jos. Greaves	Collingwood.
"	G. J. Waugh	Stratford.
"	J. C. Allen	Acton.
November.	John Lowe	Amherstburg.
"	W. E. Everest	Fenelon Falls.
"	H. Maclagan	Lindsay.
"	Edmund Gregory	"
"	William Saunders	London.
"	J. H. Gerrie	Whitby.
"	J. B. Woolhouse	Port Hope.
"	Alex. Fowler	Packenham.
"	N. A. Bosworth	Toronto.
"	John A. Kane	Amherstburg.
"	James Brown	Ottawa.
"	A. H. Joseph	Toronto.
"	Isaac Lewis	"
"	James Watson	"
December.	Joseph Coombs	Smith's Falls.
"	F. Brendon	Brantford.
"	W. Hewitt	Vittoria.
"	William Turner	Millbrook.
"	R. W. Turner	"
"	John Bond	Aurora.
"	William Johnson	Smith's Falls.
"	J. L. Howarth	Toronto.
"	Jos. R. Lee	"
Jan'y, 1868.	John Roberts	Ottawa.
"	H. F. McCarthy	"
"	Jos. Skinner	"
"	William Massey	New York, U.S.
"	William Hearn	Ottawa.
"	J. P. Featherstone	"
"	George Mortimer	"
"	C. F. Austin	"

* Members of Toronto Chemists' and Druggists' Association, June, 1867.

Date of Admission.	Member's Name.	Address.
Jan'y, 1868	W. A. Lloyd	Pembroke.
"	C. R. Jones.	Montreal.
"	H. Morton	Ottawa.
"	F. R. Davidson	"
"	D. Kenly	"
"	M. Patterson	"
"	W. J. McCartney	Thorold.
"	C. J. Riddell	Toronto.
February.	A. D. Calder	Dundas.
"	W. D. Lazier	Buffalo, U. S.
"	J. L. Margach	Toronto.
"	C. Stork	Brampton.
"	R. H. Hodgins	"
"	Jos. Deacon	Bradford.
"	A. Fullerton	Greenwood.
"	Edwin Stork	Brampton.
"	T. G. Poyntz	Orangeville.
"	W. S. Robinson	Yorkville.
"	Chas. Howarth	Toronto.
March.	Jos. Wright	"
"	A. W. Wallis	"
"	D. McTavish	Georgetown.
"	Thomas Stevenson	Orangeville.
April.	William Parkinson	Toronto.
"	William B. Ruston.	"
"	A. O. Harding	Prescott.
"	W. P. McLaren	Watford.
"	James M. Thornton.	Perth.
"	John S. Hoffman	Berlin.
"	George Keele	Lindsay.
"	A. S. Nichol	Perth.
"	R. H. Perry	Fergus.
May.	Charles Britton	Lindsay.
"	R. C. Love	Drummondville
"	James Killman	Newmarket.
"	W. H. Bowman	Berlin.
"	Hugh Davidson	Walkerton.
"	George Willoughby	"
"	L. H. Youmans	Mount Forest.
"	S. J. Parker	Owen Sound.
"	R. S. Priddy	Windsor.
"	E. Plummer	London.
"	R. Wilson	Cobourg.
"	W. McConnell	"
June.	George Denham	Petrolia.
"	Charles G. Wilson	Madoc.
"	Alfred Leach	Millbrook.
"	Sidney Fraleigh	St. Mary's.
"	David Hunter	Toronto.
"	John Williams	London.
"	F. Lane	Perth.
"	Martin F. Eby	Normanton.
"	R. H. Hall	Rondeau.
"	Wm. A. Sanderson.	Richmond Hill.
"	George W. Cottrell.	London.
"	George Chudleigh	"
"	John Cullingford	Cobourg.
"	Frank Beamish	"
"	Rob't McL. Coombs.	Perth.
"	H. A. Zoellner	Waterloo.
"	Albert V. Palmer	Barrie.
"	C. J. Burrows	Dundas.
"	M. W. Heathfield.	London.
"	John H. Priestley	"
"	John Flynn	"
"	J. Y. Savage	Elmira.
June, 1868	Thomas Hey	Windsor.
"	Robert Wightman	Owen Sound.
"	Richard Corbett	Rosemont.
"	William Steward	Toronto.
"	A. W. Gissing.	Princeton.
"	Charles E. Perry.	Fergus.
"	Thomas Mitchell	Paris.
"	Edward Bannister	Brampton.
"	George Thexton	Goderich.
"	John R. Magurn	Brampton.
"	John W. Gilmour	Peterboro.
"	Egerton Walton	"
"	Henry Rubidge	"
"	E. R. Carpenter	Collingwood.
"	Charles McCallum.	St. Mary's.
"	John Muir	Merrickville.
"	D. Thurston	Toronto.
"	M. McLeod	Bradford.
July.	John Garbutt	Elmira.
"	Thomas Matchett	Omemee.
"	W. H. Stratford.	Brantford.
"	S. Clark, M.D.	Dresden.
"	James H. Coombs.	Clinton.
"	Henry Harper	Cookstown.
"	J. McLean, M.D	Simcoe.
"	J. G. Cormack	Pembroke.
"	J. R. Grant	Dingle.
"	A. W. Kemp	Peterboro.
"	F. W. Watts	Clinton.
"	J. R. Bond	Schomberg.
"	John Roper	Caledonia.
"	David Stott	Bowmanville.
"	Henry Parker	Durham.
"	W. H. Hurdon	Kincardine.
"	Robert Fothergill	Newcastle.
"	M. F. Barclay.	Wardsville.
"	W. A. McCollum	Port Burwell.
"	J. A. Hacking.	Listowell.
"	James Coleleugh	Mount Forest.
"	S. Tapscott	Brantford.
"	F. Jordan	Goderich.
"	John B. Dale	Wyoming.
"	A. Harvard	Toronto.
"	William Bray	Bothwell.
"	Thomas Ruston	Georgetown.
"	S. McCammon	Gananoque.
"	J. R. McNeillie	Omemee.
"	F. D. Appleton,	Clinton.
"	R. W. Walton	Nassagaweya.
"	R. B. Gray	Pembroke.
"	Charles Thomson	Woodstock.
"	A. R. Hildreth	Paisley.
"	John R. Rush.	Peterboro.
"	C. W. Kempt	"
"	Louis Garland	Hamilton.
"	D. Graham	Schomberg.
"	R. H. Appleton.	Stratford.
"	John A. Walker	Caledonia.
"	Charles Stott	Bowmanville.
"	Charles Shepherd	Durham.
"	Henry Manley	Owen Sound.
"	G. A. Grier	Kingston.
"	D. R. Blackadar.	Brantford.
"	John P. Wright	Kincardine.
"	R. T. Course.	Toronto.
"	G. A. Powell.	London.
July, 1868	Thos. A. Huffman.	Napanee.
"	William Coleleugh	Mount Forest.
"	Wm. A. Fleming	Pembroke.
"	William Jordan	Goderich.
"	R. J. McGilton	Ottawa.
"	R. T. Daniells	"
"	S. Williams	London.
"	Joseph Williams	"
"	William M. Rose	Toronto.
"	H. M. Ross, M.D.	Kincardine.
"	John E. Brown.	Thorold.
August.	C. W. Brent	Port Hope.
"	R. Lumsden	Seaforth.
"	George W. Berry	Lucknow.
"	Robert G. Bredin	Toronto.
"	D. G. Sutherland	Seaforth.
"	A. Jeffrey	Toronto.
"	David Oliphant	Toronto.
"	M. F. Eager	Halifax, N.S.
September.	A. Hamilton	Hamilton.
"	W. T. Barker	Trenton.
"	Richard Smith	Cavan.
"	J. W. Spencer	Toronto.
"	Edward Taylor	Whitevale.
October.	Thomas Carre	Meaford.
"	W. H. Oliver	Galt.
"	E. H. Parker	Kingston.
"	H. Carter	Hawkesville.
November.	J. A. Nasmyth	Stratford.
"	George Rankin	Toronto.
December.	John Gibbard, Jr.	Strathroy.
"	Samuel Smith	Mount Forest.
"	L. Yeomans	Belleville.
"	W. Nuthall	Toronto.
"	J. Heakes	"
"	J. Blogg	"
"	R. Whitehead	"
"	John Buchan	"
"	William Mitchell	"
"	H. Macdonald	"
"	E. LeMaitre	"
"	Fred. Clarke	"
"	F. Barrett	"
"	T. Jones	"
"	Kenneth Miller	"
"	J. Hutty	"
"	W. K. Graham	Brampton.
"	Albert Cornell	Hawkesville.
"	Dr. Henderson	Ailsa Craig.
"	William Fead	Stouffville.
"	John E. Nevils	Ailsa Craig.
"	Charles Scott	Clinton.
"	John S. Lesslie	Orangeville.
Jan., 1869	T. J. O'Connor	Toronto.
"	M. Springer	Waterloo.
"	S. Snyder	"
"	R. E. Byewater	Colborne.
"	William H. Cox	Brantford.
"	A. B. Bennett	"
"	N. McEachren	Buffalo, N.Y.
"	F. Lobb	Toronto.
February.	Arthur Boyle	St. Catharines.
"	C. H. Kermott	Bell Ewart.
"	J. F. Hopkins	Dundas.
March.	J. G. King	Kingston.
"	A. T. Tickey	Lynn.
"	William H. Lutz	Woodstock.

Date of Admission.	Member's Name.	Address.
March, 1869..	Charles Lugsdin	Barrie.
"	...William Johnson....	Detroit, U. S.
April.	...William A. White..	Hamilton.
"	...J. C. Holden	Belleville.
"	...John A. Tidey.....	Norwich.
"	...E. H. Menzie	Clifton.
May.	...Gordon Servis.....	Iroquois.
"	..M. Wilson.....	Madoc.
"	...F. A. Gemmell.....	Sarnia.
"	...Paul Zoellner.....	Tavistock.
"	...E. Miller	Dresden.
June.	...G. Jackson.....	Egmondville.
"	...P. Cruickshank.....	Parkhill.
"	...T. B. Fraser.....	Napanee.
"	...W. H. Clarke.....	"
July.	...C. G. Rich.....	St. Thomas.
"	...C. H. Simpson	Newmarket.
"	...T. A. Parrish.....	Wallacetown.
"	...C. Dawson	Warkworth.
"	...George Orchard.....	Strathroy.
"	...R. A. Wood	Toronto.
"	...J. C. Huffman... ...	Napanee.
"	...John Hurdon.....	Kincardine.
"	...Earnest Brown.....	Sarnia.
"	...C. Mitchell	St. Thomas.
"	.. George Wood.....	Strathroy.
"	...M. Barrett.....	Toronto.
August.	...D. Thompson.....	Toronto.
October.	...S. Holden.....	Markham.
"	...John Urquhart.....	Oakville.
"	...Henry Pafford	Niagara.
"	...J. P. May..	Toronto.
"	...G. Ellis	Brantford.
November....	James Aylesworth...	Tamworth.
"	...C. T. Bell	"
December.....	W. O. Foster.....	..Simcoe.
"	...N. L. Holmes	Toronto.
"	...James Stork..... .	Bolton.
"	...S. W Howard.....	Horning's Mills
"	...Wm. R. Howse.....	Toronto.
Jan., 1870....	J. Hamilton Burgar.	Welland.
"	...E. Harvey.....	Guelph.
"	...Thomas Scott	Woodstock.
"	...James White.....	"
"	...G. S. McLean.....	Sarnia.
"	...E. Chandler, Jr.....	Belleville.
"	...C. VanFelson.....	Chatsworth.
"	...S. G. M. Fead.....	Stouffville.
"	...Gilbert McIntyre....	St. Mary's.
February. ..	Robert T. Deans....	Colborne.
"	...John Dawes.	Brooklyn.
"	...John Higginbotham	Bowmanville.
"	...G. M. Everest.....	Arkona.
"	...George McKendrick.	Kincardine.
"	...S. W. Trott.....	Collingwood.
"	...George F. Spreule...	Brantford.
March.	...T. G. Jackson...	Wingham.
"	...J. A. Harte	Montreal.
"	...A. D. Weeks	Uxbridge.
"	...Charles Stratford ...	Brantford.
"	.. William G. Smith...	Guelph.
April.	...G. J. B. Lang.....	Owen Sound.
"	...J. T. Robinson.....	Oshawa.
"	...D. F. Lucas.....	Gananoque.
"	...W. Brown	Owen Sound.
"	...Joseph Bell...	Meaford.
"	. .W. A. Card	Orono.
May.	...W. P. Bogart, M.D.	Carleton Place.
"	...A. White.....	"
"	. C. A. Van Felson...	Chatsworth.

Yield of Essential Oils.

The following particulars in regard to the yield of essential oils, appears in the *Journal of Applied Chemistry*. The statement was prepared by C. F. W. Simon, and is based on the results of ten years experience in destillation, wherein many thousands of pounds of each of the different substances were operated upon :—

Oil of Caraway.

This is prepared from the seed of the plant; they are not crushed, and 100 pounds of seed gives 4.13 pounds of the oil. The product is white, but yellow if distilled from copper by direct action of heat; of a burning, but sweetish taste, and lighter than water. If exposed to air and light the oil turns yellow, and subsequently brown, acquiring also a bad odor.

Oil of Cloves.

This is prepared from the buds of *Caryophyllus Aromaticus*. The cloves are softened in cold water over night, taken out the next day, and put in the still. After the still has been filled with the water in which they have laid, distillation is commenced. When completed, the water that has passed over is put back in the still and distillation continued, thus saving a considerable portion which would otherwise be wasted. One hundred pounds of cloves yield 16.28 pounds of oil, which is white, clear, like water, and has an odor much like cloves; it is of an agreeably burning taste, somewhat thicker and heavier than water. The oil gradually turns yellow, and finally becomes brown. That sold in drug stores is sometimes adulterated with the oil obtained from the petioles of the flowers of the same tree.

Oil of Crisp Mint.

This is prepared from the early flowers of the herb, which are cut off, and yield 2.17 pounds of oil to 100 pounds of flowers. The oil is white, turning a reddish yellow after a time, of a penetrating odor, the taste is spicy, bitter, afterwards cooling: it is lighter than water

Oil of Fennel.

This is prepared from the seeds, which are subjected to distillation without being crushed, and yield 3.28 pounds of oil to 100 pounds of seed. The oil is white, of a sweetish taste and strong odor, resembling fennel, and is lighter than water. It solidifies below 50° F. to a crystalline mass; when distilled by the direct action of heat its color is yellow.

Oil of Flag.

This is prepared from the root; the dried root is cut into small pieces, the vapors being allowed to act on them for awhile before distillation is begun; 100 pounds of dried root produces 0.67 pound of oil, which is pale yellow, somewhat thick, with an odor of the flag, and in taste is burning and spicy; it is lighter than water. In time this oil becomes darker and resinifies.

Oil of Marjoram.

This is prepared from the flowering herb. After being cut the plant is immediately distilled, producing 1.67 pounds of oil to 100 pounds of the herb. This is white, of a warming, sharp, bitterish taste, and is lighter than water. If distilled from copper the oil soon becomes brown and thick.

Oil of Peppermint.

This is prepared from the herb, and is immediately distilled after being cut, 0.90 pound of oil to 100 pounds of herb. The color is white, or greenish white if distilled in copper stills, of a strongly penetrating odor; its taste is aromatic and refreshing, and it is lighter than water.

Oil of Rue.

This is also prepared from the flowering herb, and distilled the same as the two preceding, producing 0.26 pound of oil from 100 pounds of the herb; of a white color, though sometimes a pale yellow, and is of a sharp, bitterish taste. If kept in tin it becomes brown and thick, and loses its peculiar odor.

Oil of Sassafras.

This is prepared from the wood and the roots, is treated in the same manner as cloves, and produces 1.71 pounds of oil from 100 pounds of material. Its color is white, but becomes yellow and red in time, and is often adulterated with turpentine. The odor is pleasant, the taste pungent, and it is heavier than water.

Oil of Serpolet.

This is prepared from the entire flowering plant, which is cut and gently pressed in the still, producing 0.10 pound of oil from 100 pounds of the plant. The oil is of a reddish yellow color, pungent odor, spicy taste, and is lighter than water. It is sometimes, but rarely, employed in medicine.

Oil of Star-Anise.

This is prepared from the seeds with the capsules, which are crushed and soaked in eight times their weight of water, and produce 3.40 pounds of oil to 100 pounds of seed. Its color is white, changing in time to yellow, reddish yellow and thick. In odor it is sweetish, like anise, and in taste, warming; lighter than water.

Oil of Thyme.

This is prepared from the entire flowering plant, cut and distilled, producing 2.46 pounds of oil from 100 pounds of the plant. The color is white, or yellow if distilled by the direct action of heat; taste, spicy and burning. On attaining age the oil assumes a brown color, losing at the same time its peculiar odor.

Oil of Bitter Almonds.

This is prepared from the seeds, which are finely crushed, passed through a wire sieve, and freed of a portion of their oil in a press, which, however, must not be heated. The cakes which are first crushed and sifted, are used for distilling, and produce 0.77 pound of oil to 100 pounds of the cakes; it is of a yellow color, penetrating odor, burning taste, and is heavier than water. This oil is a very dangerous poison, of which care must be taken not to inhale too much. The cold pressed oil can be taken with impunity.

Oil of Anise.

This is prepared from the seeds, which are not crushed, but a little steam is turned on in the beginning, so that the slowly ascending vapors will thoroughly soften them. One hundred pounds of the seeds give 2.84 pounds of oil, which is white, or pale yellowish of a sweet aromatic taste and weak. It solidifies in prisims at 50° F., and liquefies at 62.6° F.

Oil of Cassia (erroneously called oil of cinnamon).

This is prepared from the bark of the tree, which is reduced to coarse pieces, and steam turned on slowly, producing 0.70 pound of

oil to 100 pounds of bark. It is of a golden yellow color, of an agreeable odor, resembling cinnamon, sweet, burning taste, and is heavier than water. It becomes brown in time, and is often mixed with oil of cinnamon flowers, in order to make it more fluid, and of a weaker odor.

Solvent powers of Glycerine.

The solubility of various chemicals in 100 parts of glycerine, is thus stated by Klever, (*Pharm. Zeitsch. f. Russ* in *Am. Journal of Pharmacy.*)

Acid Arseniosum	20
" arsenicum	20
" benzoicum	10
" boracicum	10
" oxalicum	15
" tannicum	50
Alumen	40
Ammon. carb	20
" murias	20
Antimonii et Potass. tart	5·50
Atropia	3
Atrop. sulph	33
Barii chlorid	10
Brucia	2·25
Calcii sulphid	5
Cinchonia	0·50
Cinch. sulph	6·70
Cupri acetas	10
" sulph	30
Ferri et Potass. tart	8
" lactas	16
" sulphas	25
Hydrarg. chlor. corr	7·50
" cyanid	.27
Iodinium	1·90
Morphia	0·45
Morph. acetas	20
" murias	20
Phosphorus	0·20
Plumbi acetas	20
Potassæ arsenias	50
" chloras	3.50
Potassii bromid	25
" cyanid	32
" iodid	40
Quinia	0.50
Quiniæ tannas	0·25
Sodæ arsenias	50
" bicarbon	8
" boras	60
" carbonas	08
" chloras	20
Sulphur	0·10
Strychnia	0·25
Strychn. nitras	4
" sulphas	22·50
Urea	50
Veratria	1
Zinci chlorid	50
" iodid	40
" sulphas	35

Cultivation of Cinchona in India.

According to a recent report by the Assistant Superintendent of the Botanic Garden at Calcutta, the cinchona tree is successfully produced in Madras and Bengal. The number of plants at Darjeeling, on an area of 905 acres, exceeds 3,000,000, the increase during the past year being 673,654. The tallest plants grown there are nineteen feet high.—*Med. and Surg. Rep., Phila.*

Chinese Therapeutics.

The Chinese divide medicinal substances into heating, cooling, refreshing and temperate. Their Materia Medica is contained in the work called the *Pen-taoscang-mon*, in 52 large volumes, with an atlas of plates. Most of our medicines are known to them and prescribed, also mineral waters, with which the country abounds. They also have animal magnetizers, called *Cong-fou*.

They divide their prescriptions into seven categories, viz.:—1st, the Great prescription; 2d, the Little Prescription; 3d, the Slow Prescription; 4th, Prompt, or Through-by-day light Prescription; 5th, the Odd Prescription, for fools, madmen, hypochondriacs, and the hysterical; 6th, the Even Prescription, for the wise and good; 7th, the Double Prescription, for those in the family way.

Each of these recipes is applied to particular cases, and the ingredients that compose them are weighed out with the most scrupulous accuracy.

The physician never pays a second visit unless sent for, and sometimes his services are no longer needed.—*Scientific American.*

Hard and Soft Water.

Dr. Letheby considers moderately hard water better suited for drinking than that which is very soft—an opinion which is confirmed by that of the French authorities, who took the Paris water from chalk districts instead of from sandy strata. He also stated that a larger percentage of French conscripts are rejected from soft water districts than from neighborhoods supplied with hard water, and that English towns supplied with water of more than ten degrees of hardness have a mortality of four per one thousand less than those whose inhabitants use soft water.—*Med. and Surg. Rep., Phila.*

Miscellaneous, &c.

Action of Permanganate of Potassa upon Quinine.

Dr. G. Kerner.—One part of pure quinine is dissolved in excess of nitric or hydrochloric acid in such a manner that the bulk of 100 c.c. contains about 1 grm. of the alkaloid; this solution is heated to between 50° and 60°, and there is then added to it a concentrated solution of two parts of crystallised permanganate of potassa in water, care being taken to keep the fluid well stirred. After removal of the peroxide of manganese, the liquid (which should have an alkaline reaction) is evaporated to about one-eighth of its previous bulk, and next acidified, whereby the newly-formed product of oxidation is precipitated. After having been purified, by frequent re-crystallisation from water, added for the removal of some colouring matter, by animal charcoal, a hard crystalline substance is obtained, difficulty soluble in cold water and alcohol, but more readily so in these liquids at their boiling temperature. In many respects, excepting taste and alkaline reaction, this substance exhibits properties very similar in character to those of quinine. The formula of this body, which is dihydroxyl-quinine, is $C_{20}H_{22}N_2O_4+4H_2O$, and its formation from quinine is represented by $C_{20}H_{24}N_2O_2 + H_2O + O = C_{20}H_{26}N_2O_4$.—*Jour. f. Prac. Chem.*

Adulteration of Cochineal.

E. Baudrimont.—The author states that the more common kinds of this dye material are first softened and swollen, by means of steam, and next rolled about in an artificial sulphate of baryta, whereby the substance assumes the appearance of a superior article. The fraud can, however, be readily detected, since, in the first place, the genuine article contains only from 4 to 6 per cent. of water, and this mode of adulteration increases that quantity to 11 per cent.; secondly, the quantity, as well as the quality of the ash, is entirely changed. The author found from 19·5 to 20 per cent. of sulphate of baryta in the ash, which, when no adulteration has been attempted, contains no trace of this salt.—*Journal de Pharmacie et de Chimie*, Feb., 1870.

Glycerine for Burns.

Glycerine as an application to burns is recommended (Bresl Gewerbebl), by J. Fuchs. Through the explosion of a spirit lamp the greater portion of his face had been covered with rather deep burns, which healed in a week, by the immediate and oft-repeated application of glycerine without producing blisters or festering, or leaving any scar.—*Am. Jour. Phar.*

Indian and China Isinglass.

J. L. Souberain.—The author states that the different varieties of this article, as met with in the trade, may be recognised as follows:—Russian isinglass dissolves rapidly and instantaneously in hot water, leaving hardly ever more than at most 2 per cent. insoluble residue; Bengal isinglass dissolves readily, but leaves from 7 to 13 per cent. of residue. The taste of Russian isinglass is pleasant and sweet; it yields a very firm gelatine, which is perfectly transparent. The Bengal, or Indian kind, often has a fishy taste, and the gelatine it yields is not clear. The Brazilian isinglass yields an opaque, milky-looking gelatine, and its taste is acrid. China isinglass is a rare article in the European markets.—*Journal de Pharmacie et Chimie*, Feb., 1870.

Lard Adulterated

With 50 per cent. of crystallized carbonate of soda has been observed by Vidal, of Lyons. —*Wittsteins Viertel Fahr Schrift, in Pharmacist.*

Pellucid Glycerine Soap

Is prepared by dissolving well-dried soap in an equal weight of glycerin by aid of gentle heat, and constant stirring; after perfect solution it is poured into moulds.—*Ibid.*

Extract of Liquorice.

Of the market, adulterated with powdered charcoal has been observed by St. Martin.—*Ibid.*

Brandreth's Pills.

Dr. Herman Hager has, by analysis, determined the following to be the composition of this American nostrum:—

R.—Extracti podophylli	gr.	x.
Succi bacc. phytolaccæ decandræ inspissati	gr.	xxx.
Croci	gr.	x.
Rad. podophylli pulv.	gr.	x.
Caryophyllum pulv.	gr.	xv.
Olei menthæ piper.	gtt.	iij

M. f. pil. No. 39, rad. liquir, pulv. consperg.

—*Hagar's Pharm., Centralhalle.*

To Destroy Aphidæ or Plant Lice.

A writer in the *Gardener's Magazine*, recommends that plants infested with these little pests be dipped in water heated to a temperature of 120°, F. The insects quickly perish, and no injury is done to the plants.

Oil Refining.

M. de Keyer.—This process is equally applicable to all fat, or fixed oils. Take for 100 kilos. of oil 600 grms. of liquid ammonia. diluted with the same quantity of water; the mixture is vigorously stirred for about half-an-hour, and next left quietly standing for three days, care being taken to keep the vessel containing the mixture well closed. The oil having been decanted from the sediment (which is applied for soap-making), is ready for use after washing with water and filtration. —*Moniteur Scientifique.*

Adulteration of Coffee.

The *Manufacturer and Builder* informs its readers that coffee beans are now produced by an artificial process. The material is a pale greenish clay, which is moulded into a form resembling ordinary coffee, by a machine constructed after the fashion of a bullet mould. The dried *beans* are then roasted with a due proportion of genuine coffee, by which the necessary color and odor, are imparted. This interesting product can be manufactured for a cent a pound, so that it is likely that the staple product—burnt peas, or rye—will be completely driven out of the market.

To Remove Silver Stains.

Put half a pound of Glauber salts, quarter of a pound of the chloride of lime, and eight ounces of water, into a little wide-mouthed bottle, and when required for use pour some of the thick sediment into a saucer, and rub it well over the hands with pumice stone or a nail brush, and it will clean the fingers quite equal to cyanide, but without any danger. This will do to use over again until exhausted, and should be kept corked up. The disagreeable smell may be entirely avoided by the liberal use of lemon juice, which not only entirely removes the smell, but whitens the hands.—*Photographic News.*

Notes and Queries.

H. T. S. asks—"what is EAU DE JAVELLE?" It is a solution of hypochlorite of potash, made by passing chlorine gas into a solution of potash, until saturated. It is used for removing ink or fruit stains. For all practical purposes, the *liq. sodæ chloratæ* of the British Pharmacopœia answers as well, and the formula for that solution may be used. The P. B. directs the chorine evolved from a mixture of four ounces of chloride of sodium, three ounces of oxyd of manganese, two and a half fluid ounces of sulphuric acid, and three ounces of water, to be passed into a solution of twelve ounces of carbonate of soda in thirty-six ounces of water. The solution should have a sp. gr. of 1·103.

CLEANING SILVER PLATE.—Make a solution as follows:—

Soda hyposulph.	1 lb.
Ammon. murias.	8 oz.
Liq. Ammonia	4 "
Potas. cyanide	4 "
Aqua	1 gal.

After half an hour's immersion, take out the articles; rinse in several waters, and dry with chamois.

MARINE GLUE is made by dissolving 1 part of India rubber (not vulcanized) in naphtha; adding two parts of shellac, and applying heat until perfect solution. The mixture should be poured on iron plates to cool, and when required for use, must be remelted, and applied warm.

Soap Boiler, C. W.—ALUMINATE OF SODA. —This substance is obtained from *cryolite*, a mineral obtained in Greenland. It is used, as you intimate, in the manufacture of dense soap—and for many other purposes, as calico printing, manufacture of glass, porcelain, &c. We do not know where it can be purchased, directly, but think any of our wholesale houses could obtain it for you.

R. H. Perry.—The annual fee for membership is, for principals, four dollars; for assistants, two dollars. We have changed the address of your paper, as required, but we had, previously, no notification of your removal.

The *Scientific American* notices a disinfecting pad, for removing the disagreeable odor of perspiration. One ounce each of pulv. carbo. lig., and acacia, are made into a paste with water; the mixture is spread between sheets of paper or cloth, the wrinkles smoothed out, and the sheets allowed to dry, when they may be cut up into suitable shape for use as inner soles, &c.

Changes.

W. Mitchell has removed his stock from Yorkville, and gone into partnership with H. A. Joseph, Yonge street, Toronto. The business will be carried on under the style of Mitchell & Joseph.

The business recently purchased from W. L. Holmes, Queen street, Toronto, by Dr. Hildreth, has been discontinued, and the stock transferred to the shop of his son, A. Hildreth, Paisley.

The old established business on King Street, Toronto, formerly conducted by Dr. Richardson, and subsequently by H. P. Brunell, has been purchased by W. Brydon, late manager of the business of Messrs. Dunspaugh and Watson.

Henry Manley and Brother have purchased the business of the late R. H. Foster, Meaford.

Trade Report.

Since our last issue, trade has been very good, and the month's sales will probably be the largest of the season.

There have been few marked changes in price. Alcohol has advanced, on account of the rise in the grain market. Vanilla Beans are still advancing, and cannot be laid down at our present quotations; having been very low for a number of years, they will probably maintain their high figure for some time. Castor Oil is also held very firm at advanced rates. Opium is once more baffling the best of calculations, and has taken a decided advance. Oil of Peppermint is also scarce, and dearer.

Articles lower in price are Bismuth, and its preparations. Leptandrin, Oil Sassafras, Cantharides, continue a little easier.

Dyestuffs are somewhat easier, and in moderate demand.

The approach of harvest time has made a brisk demand for Lubricating Oils. Linseed Oils are also still in active request, and maintain their advanced prices.

WHOLESALE PRICES CURRENT.—JULY, 1870.

Drugs, Medicines, &c.	$ c.		$ c.
Acid, Acetic, fort	0 12	@	0 14
" Benzoic, pure	0 28		0 35
" Citric	0 75		0 85
" Muriatic	0 05		0 07
" Nitric	0 11½		0 15
" Oxalic do	0 24		0 30
" Sulphuric	0 04½		0 07
" Tartaric, pulv.	0 37		0 45
Ammon., carb. casks	0 18		0 19
" " jars	0 18		0 20
" Liquor, S80	0 18		0 25
" Muriate	0 12½		0 15
" Nitrate	0 45		0 60
Æther, Acetic	0 45		0 50
" Nitrous	0 27		0 30
" Sulphuric	0 42		0 50
Antim. Crude, pulv.	0 11		0 15
" Tart. "	0 50		0 60
Alcohol, 95%	1 77½		1 87½
Arrowroot, Jamaica	0 20		0 22
" Bermuda	0 45		0 65
Alum	0 02½		0 03½
Balsam, Canada	0 24		0 30
" Copaiba	0 78		0 80
" Peru	3 80		4 00
" Tolu	1 20		1 40
Bark, Bayberry, pulv.	0 20		0 25
" Canella, "	0 17		0 20
" Peruvian, yel. pulv	0 42		0 45
" " red "	1 50		1 60
" Slippery Elm, g. b.	0 18		0 20
" " flour, pkt's	0 28		0 32
" Sassafras	0 15		0 18
Berries, Cubebs, ground	0 25		0 35
" Juniper	0 08		0 10
Beans, Tonquin	0 60		1 10
" Vanilla	13 00		13 50
Bismuth, Alb.	5 00		4 60
" Carb.	5 00		4 60
Camphor, Crude	0 40		0 45
" Refined	0 45		0 55
Cantharides	1 40		1 50
" Powdered	1 55		1 65
Charcoal, Animal	0 01		0 06
" Wood, pow'd.	0 12		0 15
Chiretta	0 25		0 30
Chloroform	1 25		1 50
Cochineal, S. G	0 85		1 00
" Black	1 30		1 75
Colocynth, Pulv.	0 80		0 90
Collodion	0 67		0 70
Elaterium oz.	4 50		5 00
Ergot	0 70		0 80
Extract, Belladonna	2 00		2 20
" Colocynth, Co.	1 25		1 75
" Gentian	0 50		0 60
" Hemlock, Aug.	1 12		1 25
" Henbane, "	3 20		3 30
" Jalap	5 00		5 50
" Mandrake	1 75		2 00
" Nux Vomic...oz	0 60		0 70
" Opium	Variable.		
" Rhubarb	7 50		—
" Sarsap. Hon. Co	1 00		1 20
" " Jam. Co	3 25		3 70
" Taraxicum, Aug	0 70		0 80
Flowers, Arnica	0 25		0 35
" Chamomile	0 30		0 40
Gum, Aloes, Barb. extra	0 70		0 80
" " " good	0 42		0 50
" " Cape	0 15		0 20
" " pow'd	0 25		0 30
" " Socot.	0 50		0 75
" " pulv.	0 90		1 00
" Arabic, white	0 60		0 65
" " " pow'd	0 57		0 65
" " sorts	0 31		0 37
" " " pow'd	0 50		0 60
" " com. Gedda	0 13		0 16
" Assafœtida	0 31		0 35
" British or Dextrine	0 13		0 15
" Benzoin	0 48		0 55
" Catechu	0 15		0 20
" " pow'd	0 25		0 30
" Euphorb, pulv.	0 32		0 40
" Gamboge	1 40		1 60
" Guaiacum	0 32		0 50
" Myrrh	0 48		0 60
" Sang Draco	0 60		0 70
" Scammony, pow'd	5 00		—
" " Virg. "	14 50		—
" Orange	33		0 35

Drugs, Medicines, &c. *Continued.*	$ c.		$ c.
Gum, Shellac, liver	0 30	@	0 35
" Sforax	0 65		0 75
" Tragacanth, flake	0 80		0 90
" " common	0 35		0 40
Galls	0 32		0 37
Gelatine, Cox's, 6d.	1 10		1 20
Glycerine, com.	0 25		0 30
" Vienna	0 30		0 40
" Price's	0 65		0 75
Honey, Canada, best	0 17		0 20
" Lower Canada	0 15		0 18
Iron, Carb. Precip.	0 20		0 25
" " Saccher	0 40		0 45
" Citrate Ammon.	0 90		1 00
" " & Quinine oz.	0 43		0 48
" " & Strychnine"	0 17		0 25
" Sulphate, pure	0 08		0 10
Iodine, good	4 50		5 00
" Resublimed	5 60		6 00
Jalapin oz.	1 40		1 60
Kreosote	1 60		1 70
Leaves, Buchu	0 25		0 30
" Foxglove	0 25		0 30
" Henbane	0 35		0 40
" Senna, Alex.	0 30		0 60
" " E. I.	0 12½		0 20
" " Tinnevilly	0 20		0 30
" Uva Ursi	0 15		0 20
Lime, Carbolate brl.	5 50		—
" Chloride	0 04½		0 06
" Sulphate,	0 08		0 12½
Lint, Taylor's best	1 20		1 25
Lead, Acetate	0 14		0 17
Leptandrin oz.	1 30		—
Liq. Bismuthi	0 50		0 75
" Opii, Battley's	6 60		8 00
Lye, Concentrated	1 50		2 00
Liquorice, Solazzi	0 40		0 45
" Cassano	0 23		0 40
" Other brands	0 14		0 25
Liquorice, Refined	0 35	@	0 45
" " Hessin's doz	2 00		
Magnesia, Carb 1 oz.	0 20		0 25
" " 4 "	0 17		0 20
" Calcined	0 65		0 75
" Citrate...gran.	0 37		0 50
Mercury	0 65		0 75
" Bichlor	0 70		0 80
" Biniodid oz.	0 25		0 35
" Chloride	0 90		1 00
" C. Chalk	0 45		0 60
" Nit. Oxyd	0 90		1 00
Morphia, Acet	6 00		—
" Mur	6 00		7 00
" Sulph.	6 20		—
Musk, Pure gran. oz.	21 00		—
" Canton	1 00		1 20
Oil, Almonds, sweet	0 43		0 55
" " bitter	14 00		15 00
" Anniseed	4 00		4 50
" Bergamot, super.	5 70		6 50
" Carraway	4 00		4 20
" Cassia	2 50		3 00
" Castor, E. I.	0 15		0 17
" " Crystal	0 22		0 25
" " Italian	0 26		0 28
" Citronella	1 60		1 85
" Cloves, Aug.	1 00		1 10
" Cod Liver	1 55		1 60
" Croton	1 70		2 00
" Geraninm, pure, oz	2 00		2 20
" Juniper Wood	0 80		1 00
" " Berries	6 00		7 00
" Lavand, Aug	19 20		20 00
" " Exot.	1 40		1 60
" Lemon, super.	3 30		3 60
" " ord.	2 60		2 80
" Orange	3 00		3 20
" Origanum	0 65		0 75
" Peppermint, Aug.	15 00		17 00
" " Amer.	4 00		4 20
" Rose, virgin	7 75		8 00
" " good	4 40		5 50
" Sassafras	0 85		0 95
" Wintergreen	5 00		5 50
" Wormwood, pure	5 80		50
Ointment, blue	0 65		0 70
Opium, Turkey, about	10 00		11 50
" " pulv.	13 20		15 50
Orange Peel, opt.	0 43		0 50
" " good	0 12½		0 20
Pill, Blue, Mass	0 70		0 75

Drugs, Medicines, &c. *Continued.*	$ c.		$ c.
Potash, Bi-chrom	0 15	@	0 20
" Bi-tart.	0 25		0 28
" Carbonate	0 10		0 20
" Chlorate	0 40		0 45
" Nitrate	8 50		9 00
Potassium, Bromide	1 60		1 80
" Cyanide	0 65		0 75
" Iodide	3 80		4 50
" Sulphuret	0 25		0 35
Pepsin, Boudault's oz.	1 25		1 50
" Houghton's, doz	8 00		9 00
" Morson's oz.	0 85		1 10
Phosphorus	0 75		0 85
Podophyllin	0 50		0 60
Quinine, Pelletier's	1 80		—
" Howard's	1 85		1 90
" " 100 oz. case	1 75		—
" " 25 oz. tin	1 70		—
Root, Colomba	0 14		0 20
" Curcuma, grd.	0 12½		0 17
" Dandelion,	0 25		0 35
" Elecampane	0 14		0 17
" Gentian	0 08		0 12½
" " pulv.	0 15		0 20
" Hellebore, pulv.	0 17		0 25
" Ipecaac	2 40		2 60
" Jalap, Vera Cruz.	1 55		2 —
" " Tampico	0 90		1 —
" Liquorice, select.	0 13		0 17
" " pow'd	0 15		0 20
" Mandrake, "	0 20		0 25
" Orris "	0 20		0 25
" Rhubarb, Turky.	4 40		5 50
" " E. I., China	1 25		2 00
" " " pulv.	1 40		2 50
" " " 2nd	1 30		1 50
" French	0 75		—
" Sarsap., Hond	0 45		0 50
" " Jam.	0 75		0 80
" Squills	0 10		0 15½
" Senega	0 97		1 00
" Spigelia	0 35		0 40
Sal., Epsom	3 00		4 00
" Rochelle	0 23		0 35
" Soda	0 02		0 03
Seed, Anise	0 16		0 30
" Canary	0 05		0 06
" Cardamon	3 50		4 00
" Fenugreek, grd.	0 10		0 15
" Hemp	0 05½		0 05½
" Mustard, white	0 14		0 16
Saffron, Amer.	3 00		3 50
" Spanish	15 00		16 00
Santonine	10 50		12 00
Sago	0 07½		0 09
Silver, Nitrate, cash	14 50		16 50
Soap, Castile, mottled	0 11½		0 14
Soda Ash	0 03		0 04
" Bicarb. Newcastle	3 75		4 00
" " Howard's	0 14		0 16
" Caustic	0 04½		0 05
Spirits Ammon., arom.	0 25		0 35
Strychnine, Crystals	2 30		2 75
Sulphur, Precip.	0 10		0 12½
" Sublimed	0 4		0 05
" Roll	0 03		0 04½
Tamarinds	0 15		0 20
Tapioca	0 15		0 18
Veratria oz.	0 25		0 30
Vinegar, Wine, pure	0 55		0 60
Verdigris	0 35		0 40
" Pow'd	0 45		0 50
Wax, White, pure	0 90		0 95
Zinc, Chloride oz.	0 20		0 25
" Sulphate, pure	0 10		0 15
" " com.	0 06		0 10

Dyestuffs	$ c.		$ c.
Annatto	0 40	@	0 60
Analine, Magenta, cryst	5 00		—
" " liquid	2 00		—
Argols, ground	0 15		0 25
Blue Vitriol, pure	0 08		0 10
Camwood, pure	0 06½		0 09
Copperas, green	0 01½		0 02½
Cudbear	0 16		0 25
Fustic, Cuba	0 02½		0 04
Indigo, Bengal	2 40		2 50
" Madras	1 15		1 20
" Extract	0 28		0 35
Japonica	0 05½		0 06½
Lacdye, pow'd	0 35		0 40
Logwood	0 02		0 03

Dyestuffs—*Continued*	$ c.		$ c.
Logwood, Camp	0 02	@	0 03½
" Extract	0 11		0 14
" " 1lb bxs	0 14		—
" " ½lb "	0 15		—
Madder, best Dutch	0 15		0 18
" 2nd quality	0 14		0 15
Quercitron	0 03		0 05
Sumac	0 06		0 08
Tin, Muriate	0 10½		0 12½
Redwood	0 05		0 06

Spices.			
Allspice	0 08½	@	0 10
Cassia	0 48		0 50
Cloves	0 12½		0 15
Cayenne	0 18		0 25
Ginger, E. I.	0 12		0 14
" Jam.	0 25		0 30
Mace	1 35		1 40
Mustard, com.	0 20		0 25
" D. S.	0 40		0 45
Nutmegs	0 70		0 75
Pepper, Black	0 11½		0 12½
" White	0 20		0 22

Paints, Dry.			
Black, Lamp, com.	0 07	@	0 08
" " refined	0 25		0 30
Blue, Celestial	0 08		0 12
" Prussian	0 65		0 75
Brown, Vandyke	0 10		0 12½
Chalk, White	0 01		0 01½
" Red	0 05½		0 10
Green, Brunswick	0 07		0 10
" Chrome	0 20		0 25
" Paris	0 30		0 35
" Magnesia	0 20		0 25
Litharge	0 08		0 09
Pink, Rose	0 12½		0 15
Red Lead	0 06½		0 08
" Venetian	0 02½		0 03½
Sienna, B. & G.	0 10		0 15
Umber, "	0 07		0 10
Vermillion, English	0 90		1 00
" American	0 25		0 35
Whiting	0 85		1 25
White Lead, dry, gen.	0 07½		0 09
" " " No. 1	0 06½		0 08
" " " No. 2	0 05½		0 07
Yellow Chrome	0 12½		0 35
" Ochre	0 02½		0 03½
Zinc White, Star	0 10		0 12

Colors, in Oil.			
Blue Paint	0 12	@	0 15
Fire Proof Paint	0 06		0 08
Green, Paris	0 32		0 37½
Red, Venetian	0 07		0 10
Patent Dryers, 1lb tins.	0 14½		0 16
Putty	0 03½		0 04½
Yellow Ochre	0 08		0 12
White Lead, gen. 25lb tins	2 35		—
" " No. 1 "	2 10		—
" " No. 2 "	1 90		—
" " No. 3 "	1 65		—
" " Com. "	1 30		—
White Zinc, Snow	2 75		3 25

Naval Stores.			
Black Pitch	4 50	@	5 50
Rosin, Strained	3 75		4 50
" Clear, pale	5 75		10 00
Spirits Turpentine	0 52		0 60
Tar Wood	3 40		4 00

Oils.			
Cod	0 70	@	0 70
Lard, extra	1 25		—
" No. 1	1 12½		—
" No. 2	1 00		—
Linseed, Raw	0 77½		0 80
" Boiled	0 82½		0 85
Olive, Common	1 30		1 35
" Salad	1 80		2 30
" " Pints, cases	4 20		4 40
" " Quarts	3 60		3 00
Seal Oil, Pale	0 80		0 90
" " Straw	0 75		0 80
Sesame Salad	1 30		1 35
Sperm, genuine			
Whale, refined			