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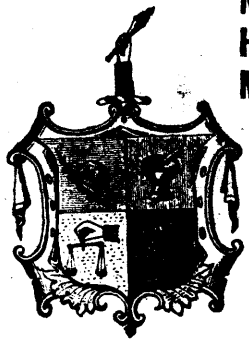
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CANADIAN Pharmaceutical Journal,

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E. B. SHUTTLEWORTH.

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Registrar's Notice.

ONTARIO COLLEGE OF PHARMACY.

The Semi-Annual Examination of candidates for registration as Chemists and Druggists, under the Pharmacy Act, 2871, will be held in Toronto, at the rooms of the College, 116 King Street West, on Tuesday and Wednesday, 4th and 5th February. At least two weeks prior to the above dates, intending candidates must pay to the Registrar the fee of four dollars, with notice of their intention to present themselves, together with satisfactory proof of the time they have actually been engaged in the business of a Pharmacist.

N.B.—No names received after the 22nd January.

The meeting of the Council will be held at the same place on Wednesday, 5th February.

Registrar's Office,
305 Yonge Street,
Toronto, 1st January, 1879.

GEO. HODGETTS,
Registrar.

LACTOPEPTINE

The most important remedial agent ever presented to the Profession for Indigestion, Dyspepsia, Vomiting in Pregnancy, Cholera Infantum, Constipation, and all Diseases arising from imperfect nutrition, containing the five active agents of digestion, viz.: Pepsin, Pancreatine, Diastase, or Veg. Ptyalin, Lactic and Hydrochloric Acids, in combination with Sugar of Milk.

FORMULA OF LACTOPEPTINE.

Sugar of Milk	40 ounces.	Veg. Ptyalin or Diastase ..	4 drachms.
Pepsin	8 ounces.	Lactic Acid	5 fl. drachms.
Pancreatine	6 ounces.	Hydrochloric Acid	5 fl. drachms.
		Powder and Mix.	

LACTOPEPTINE owes its great success solely to the Medical Profession, and is sold entirely by Physicians' Prescriptions. Its almost universal adoption by the profession is the strongest guarantee we can give that its therapeutic value has been most thoroughly established.

One of its chief features (and the one which must gain it a preference over all digestive preparations) is, that it *precisely represents in composition the natural digestive juices of the stomach, pancreas and salivary glands*, and will therefore readily dissolve all foods necessary to the recuperation of the human organism.

The principal reasons why Lactopeptine should entirely supersede the use of Pepsin:

- 1st.—It contains the natural acids secreted by the stomach (*Lactic and Hydrochloric*), without which Pepsin and Pancreatine will not change the character of coagulated albumen.
- 2d.—It will change the *starchy* portions of vegetable food into the assimilable form of Glucose.
- 3d.—It will emulsionize and prepare for assimilation, the oily and fatty portions of food, Pepsin having no action upon this important aliment.
- 4th.—Experiments will readily show that the digestive power of the ingredients of LACTOPEPTINE, when two or more

are combined, is much greater than when separated. Thus, 4 grs. of Pepsin and 4 grs. of Pancreatine, mixed, will dissolve one-third more than the combined digestive power of each agent separately in the same length of time.

- 5th.—IT IS MUCH LESS EXPENSIVE TO PRESCRIBE. *It digests all kinds of food acted upon by Pepsin, besides digesting all other food taken by the human stomach. The digestive power of Lactopeptine, therefore, far exceeds that of Pepsin, yet it is furnished at about the same price.*

PROFESSIONAL OPINIONS OF LACTOPEPTINE.

From over two thousand commendatory letters received from Physicians in this Country, Canada, and Great Britain, enumerating cases which have been treated successfully with LACTOPEPTINE, and in most of which Pepsin alone had failed to benefit, we select the following, and for greater convenience, present them according to the specific diseases to which they refer.

D Y S P E P S I A .

The undersigned, having tested the preparation of Pepsin, Pancreatine, Diastase, Lactic Acid, and Hydrochloric Acid, made according to published formula, and called LACTOPEPTINE, find that in those diseases of the stomach where the above remedies are indicated, it has proven itself a desirable, useful, and well-adapted addition to the usual pharmaceutical preparations, and therefore recommend it to the profession.

NEW YORK, April 6, 1875.

ALFRED L. LOOMIS, M.D.,

Professor of Pathology and Practice of Medicine, University of the City of New York.

LEWIS A. SAYRE, M.D.,

Professor of Orthopædic Surgery and Clinical Surgery, Bellevue Hospital Medical College.

A. VAN DERVEER, M.D.,

ALBANY, N. Y., June 8th, 1878.
Prof. of the Prin. and Prac. of Surg., Albany Med. College; Surg. Albany and St. Peter's Hospitals.

JOHN H. PACKARD, M.D.,

PHILADELPHIA, Pa., May 30th, 1878.
Pres't Pa. Co. Obstet. Society; Surg. Episcopal and Women's Hospitals.

JAS. AITKEN MEIGS, M.D.,

PHILADELPHIA, Pa., June 20th, 1878.
Prof. of the Institutes of Med. and Med. Juris., Jeff. Med. School; Phy. to Penn. Hos.

W. W. DAWSON, M.D.,

CINCINNATI, O., June 21st, 1878.
Prof. Prin. and Prac. Surg., Med. Col. of Ohio; Surg. to Good Samaritan Hospital.

ALBERT F. A. KING, M.D.,

WASHINGTON, D. C., June 19th, 1878.
Prof. of Obstetrics, University of Vermont.

D. W. YANDELL, M.D.,

LOUISVILLE, Ky., March 7th, 1878.
Prof. of the Science and Art of Surg., and Clinical Surg. University of Louisville.

ROBERT BATTEY, M.D.,

ROME, Ga., June 7th, 1878.
Emeritus Prof. of Obstetrics, Atlanta Med. College, and Ex-Pres't Med. Ass'n of Ga.

CLAUDE H. MASTIN, M.D., LL.D.,

MOBILE, Ala., June 8th, 1878.

Prof. H. C. BARTLETT, Ph. D., F. C. S.

LONDON, ENG., February 22d, 1876.

SAMUEL R. PERCY, M.D.,

Prof. Materia Medica, New York Med. College.

F. LE ROY SATTERLEE, M.D., PH.D.

Prof. of Chem., Mat. Med., and Therap. in the N.Y. College of Dent.; Prof. of Chem. and Hygiene in the Am. Vet. College, etc., etc.

"I have given LACTOPEPTINE a good, thorough trial, and have been greatly pleased with the excellent results that have followed its administration."

"I have found great satisfaction in the use of LACTOPEPTINE, and have ordered it frequently in cases of Dyspepsia, especially where there is want of tone and defective secretion."

"I have used LACTOPEPTINE with very good effect in a number of cases of Dyspepsia."

"I have used LACTOPEPTINE with great advantage in cases of feeble digestion."

"I have used LACTOPEPTINE both in hospital and private practice, and have found it to answer fully the purposes for which it is recommended. As an immediate aid to the digestive function, I know of no remedy which acts more directly."

"I have made much use of LACTOPEPTINE and take great pleasure in stating that it has rarely disappointed me. I shall, of course, continue to prescribe it."

"I have used LACTOPEPTINE in a case of Dyspepsia with satisfaction. I think well of the preparation."

"I consider LACTOPEPTINE the very best preparation of the kind which I have ever employed, and for patients with feeble digestion I know nothing which is equal to it."

"I find that the preparation of LACTOPEPTINE contains within itself all the principles required to promote a healthy digestion."

FLUSHING, N. Y., April 20th, 1877.

"It is unquestionably the only perfect remedy that can be prescribed in Dyspepsia and impaired nutrition."
J. KING MERRITT, A. M., M. D.

CLEVELAND, OHIO, Feb. 1st, 1878.

"No physician can afford to do without it, especially in cases of confirmed Dyspepsia."
E. W. ROBERTSON, M. D.

AUGUSTA, KY., January 29th, 1878.

"I have been using LACTOPEPTINE in my practice for more than a year, and, so far as my experience goes, can confirm all you claim for its merits. Indeed I look upon it as one of the indispensables in the treatment of those diseases for which it is indicated. In no instance has it disappointed my expectations."

W. B. McCORMICK, M. D.

MT. VERNON, MAINE, Feb. 4th, 1878.

"I have used LACTOPEPTINE more than two years, and find it an excellent remedy. I should hardly know how to get along without it."

S. BURBANK, M. D.

NEW CASTLE, N. B., February 8th, 1878.

"I have used LACTOPEPTINE for the last eighteen months, perhaps more extensively than any other Physician in the county. I have used it very largely in DYSPEPSIA, Cholera Infantum, Diarrhoea and vomiting of children with most gratifying results. I have tried Pepsin, etc., but with very poor results; but since I commenced prescribing LACTOPEPTINE, my success in treating some of the most obstinate and distressing diseases we have to deal with has been very great. I do not hesitate to pronounce it one of the best remedies for the diseases I have mentioned, extant."

WM. P. BISHOP, M. D.

METROPOLIS, ILL., February 21st, 1878.

"Having tested its virtues in all forms of Dyspepsia, and being fully satisfied, I shall now proceed to prescribe it."
J. H. NORRIS, M. D.

KNOWERSVILLE, N. Y., February 25th, 1878.

"I have tried LACTOPEPTINE in several cases of indigestion and Dyspepsia, and find it works admirably in those and kindred diseases."

JESSE CROUNSE, M. D.

UPPER WICKLOW, N. B., February 24th, 1878.

"It is gratifying to prescribe your LACTOPEPTINE. It has effected a cure of a very obstinate case of Dyspepsia, and I regard it the very best remedy I ever used in such cases."

A. P. WYMAN, M. D.

LONDON, PROV. ONT., CAN., February 28th, 1878.

"The LACTOPEPTINE afforded much relief in a case of Dyspepsia of long standing."
JAMES CATTERMOLLE, M. D.

LONG PRAIRIE, ILL., February 26th, 1878.

"I think it far exceeds any remedy that I have ever used in cases of Chronic Dyspepsia, Constipation, etc., as the remedial effects are constant, which is something that all other remedies fail to produce. It does all, if not more, than you claim for it."

C. W. RODEKER, M. D.

WALKERTON, ONTARIO, CANADA, February 26th, 1878.

"I consider it infallible in Dyspepsia, and believe it will work a revolution."

W. J. WEEKES, M. D.

TIPPECANOETOWN, IND., March 5th, 1878.

"I have used LACTOPEPTINE in cases of Dyspepsia and kindred diseases, with the greatest success."
B. D. BRACKETT, M. D.

HEALDSBURG, CAL., Feb. 25th, 1878.

"I have used LACTOPEPTINE with great satisfaction to myself, and benefit to my patients. In Dyspepsia and the legion ailments resulting from abnormal digestion and mal-assimilation of food, I have found it a veritable samson. I regard it an invaluable addition to our remedial agents."

ELISHA ELY, M. D.

CONTOOCOOK, N. H., May 29th, 1877.

"After a continuous trial for almost four years of daily use, I have no hesitation in pronouncing LACTOPEPTINE the *best* remedy of its class, superseding all others within my knowledge."

GEO. C. BAISDELL, M. D.

CAMDEN, ILL., March 3d, 1878.

"I have thoroughly tested LACTOPEPTINE in Dyspepsia and kindred diseases, with the most happy results, I would not be without it."

B. P. WATTS, M. D.

SULLIVAN, ILL., February 7th, 1878.

"After a failure of the most efficient of our common remedies, in Chronic Dyspepsia with almost incessant vomiting, I gave LACTOPEPTINE, and must say, that in a practice of nearly thirty years, I never saw anything act so like a charm."

A. W. LEFFINGWELL, M. D.

ATHOL, MASS., April 4th, 1878.

"I have tested LACTOPEPTINE in a severe case of Dyspepsia, and the result was highly satisfactory."

W. F. WHITMAN, M. D.

LONDON, ENGLAND, October 6th, 1876.

"The value of LACTOPEPTINE in many forms of indigestion cannot fail to be recognized by every prescriber as soon as the formula for its composition is seen. The proportions in which the active principles are combined are those required for the healthy digestion of the various food matters found in a mixed diet. I consider it, therefore, as perfect a 'digestive' as can well be obtained."

G. OVEREND DREWRY, M. D.

MADISONVILLE, KY., March 16th, 1878.

"I am satisfied that it is an invaluable remedy in Dyspepsia. I am a practicing physician, and have been over forty years. It is the best remedy for Indigestion that I have any knowledge of."

GEO. W. NOEL, M. D.

HENDERSONVILLE, TENN., March 25th, 1878.

"I have used LACTOPEPTINE in a number of cases with perfect satisfaction, it is destined to supersede all other remedies, for indigestion and kindred diseases."

H. J. WELLS, M. D.

Neuralgia arising from Indigestion.

VIRGINIA, NEVADA, April 25th, 1878.

"Since Dr. Ballard brought Pepsin to the notice of physicians in London, over twenty years since, I have used it extensively, but *not* with any positive results. Quite the contrary has been my experience with LACTOPEPTINE. I have been greatly pleased with its happy influence in many cases of 'Sick Headache,' and that troublesome form of Neuralgia dependent on mal-assimilation."

C. F. GILLINGHAM, M. D.

CHAPTICO, ST. MARY'S CO., MD., March 22, 1878.

"Have used it in my own case, neuralgia of intercostal muscles over the heart, caused by impaired digestion, and found prompt and permanent relief to present time. Have suffered from occasional attacks for several years, and have found nothing to afford so immediate relief."

J. WARING, M. D.

Vomiting in Pregnancy.

KNOXVILLE, PA., February 21st, 1878.

"I used LACTOPEPTINE in a case of obstinate Reflex Vomiting, due to Pregnancy which had resisted all the usual remedies employed in such cases. I am more than pleased with the results obtained in this case."

C. A. REESE, M. D.

BROOKLIN, PROV. ONT., CANADA, Feb. 24th, 1878.

"I used your LACTOPEPTINE in cases of Vomiting in Pregnancy, in which it acted like a charm."

F. WARREN, M. D.

HILLSBORO, MO., March 4th, 1878.

"The LACTOPEPTINE came to hand, just when I was about to despair of a case of Vomiting in Pregnancy, I used the remedy, and it acted like magic; since which time I have used it in all forms of Dyspepsia with the most happy results."

CHAS. PIPKIN, M. D.

OLENA, OHIO, March 30th, 1878.

"I have given LACTOPEPTINE a fair trial, and am much pleased with it. I used it in an obstinate case of Vomiting in Pregnancy, and in a case of Dyspepsia, with decided benefit."

D. A. WOOD, M. D.

COON RAPIDS, CARROLL CO., IOWA, April 15th, 1878.

"I have used LACTOPEPTINE for the last two years, in Vomiting in Pregnancy, Diarrhoea, Cholera Infantum, Dyspepsia, and all kindred diseases; in fact, I prescribe it in conjunction with other remedies almost daily."

E. V. BLACKLY, M. D.

RICHMOND, VA., April 24th, 1878.

"I have used LACTOPEPTINE in Vomiting in Pregnancy, in three cases; the result in all of the cases was highly satisfactory. As a general digestive, I know of nothing better."

C. A. BRYCE, M. D.

KNOXVILLE, ALA., April 20th, 1878.

"I have been using LACTOPEPTINE extensively in my practice for the past three years. I have used it for Vomiting in Pregnancy with marked benefit. It is invaluable in Diseases of Children caused by teething. I can testify as to its merits in Dyspepsia in my own case. I would not be without it for any consideration."

THOMAS W. PIERCE, M. D.

DALLAS, TEXAS, April 25th, 1878.

"I have been prescribing LACTOPEPTINE in my practice for about two years, as a remedy in the different forms of Dyspepsia, Cholera Infantum, Vomiting in Pregnancy, etc.; in fact, in every species of enfeebled digestion I believe it has no equal."

R. M. BROWN, M. D.

MALTA BEND, MO., May 2d, 1878.

"I have tested LACTOPEPTINE in Vomiting in Pregnancy, also in Bowel Affections of Children, with good results; have used it also in combination with Quinine and Bismuth in cases where the digestive organs are unable to properly prepare for assimilation the remedy indicated. It has in all cases acted well."

THOS. A. GANCEY, M. D.

OZARK IRON WORKS, MO., May 15th, 1878.

"I have used it in Vomiting in Pregnancy with happy results, and it is my opinion that LACTOPEPTINE is a remedy that has long been needed by the Profession."

E. J. BURNS, M. D.

Cholera Infantum.

UTICA, N. Y., February 18th, 1878.

"I am constantly and have been prescribing your LACTOPEPTINE for a year or more, in all cases of Dyspepsia, Vomiting in Pregnancy, and CHOLERA INFANTUM, and find that it is the best remedy I have ever used for these complaints, and more especially in Cholera Infantum."

JAMES G. HUNT, M. D.

CLOVERDALE, SONOMA Co., CAL., February 24th, 1878.

"I have already used many ounces of your LACTOPEPTINE, and find it to be of great service both with *Children* and Adults. I often combine it with Sub. Nit. Bismuth, for diarrhœal troubles, accompanying teething and otherwise. I find COMP. SYR. LACTOPEPTINE a splendid remedy for the wasting diseases of children, and for consumption in adults in its later stages, especially when they assimilate with difficulty."

Q. C. SMITH, M. D.

ISLE OF HOPE, NEAR SAVANNAH, GA., March 26th, 1878.

"Two years since I had a case of a little girl who had suffered from CHOLERA INFANTUM; she had a fearful appetite, and was dying from starvation, non-assimilation and indigestion. I immediately put her on LACTOPEPTINE, and the cure was miraculous to the fond parents. Since that time I have not been disappointed in a single case with children; with the adults, about two-thirds have been permanently cured—all relieved."

STEPHEN F. DUPON, M. D.

FORT CONCHO, TEXAS, March 20th, 1878.

"I have found the preparation exceedingly valuable in several cases of Dyspepsia, Bowel Complaints and *Infantile Marasmus*."

J. V. DE HANNE, M. D.

MT. MORRIS, N. Y., November 4th, 1875.

"I have been using LACTOPEPTINE in my practice among children, and this is the first summer in a practice of 25 years that I have passed without losing a case of CHOLERA INFANTUM,"

B. G. STEPHENS, M. D.

Chronic Diarrhœa.

FAIR VIEW, FULTON Co., N. Y., February 20th, 1878.

"I have found LACTOPEPTINE a most valuable aid to digestion. I feel it a duty to point out the merits of this article to the Medical Profession, as it is unquestionably the only perfect remedy that can be prescribed in Dyspepsia and *Chronic Diarrhœa*, and impaired nutrition."

S. B. BENNETT, M. D.

BAKERSVILLE, MD., April 9th, 1878.

"LACTOPEPTINE was tested in a case of *Chronic Diarrhœa* of long standing (where all other remedies failed) with marked success, the patient being greatly benefited by the treatment. I used it combined with Bismuth and Iron."

RICHD. I. DUCKETT, M. D.

MILTON, DEL., May 20th, 1878.

"In *Chronic Diarrhœa* it is one of the best remedies I have ever used, and meets the case. Also in Vomiting in Pregnancy it is quite as good."

JAMES A. HOPKINS, M. D.

Lactopeptine compared with Pepsin.

NEW YORK CITY, October 29th, 1877.

"I have used formerly nearly all the preparations of Pepsin, but I do not hesitate to say that LACTOPEPTINE far exceeds them all, both in its immediate and permanent effects."

WM. H. STUDLEY, M. D.

HAMILTON, OHIO, January 31st, 1878.

"LACTOPEPTINE receives my confidence over all Pepsin compounds."

H. BEAUCHAMP, M. D.

OAKFIELD, GENESEE CO., N. Y., Feb. 15th, 1878.

"LACTOPEPTINE has entirely superseded the use of Pepsin in my hands. I can speak with most commendatory terms in its favor as being the most important remedial agent ever presented to the Medical Profession for Dyspepsia, Indigestion and kindred diseases arising from improper nutrition."

A. P. JACKSON, M. D.

PUGWASH, NOVA SCOTIA, Feb. 23d, 1878.

"I have used LACTOPEPTINE for some time in my practice with the utmost satisfaction, especially in obstinate cases of Dyspepsia, in which Pepsin and other remedies had failed."

R. A. DAKIN, M. D.

CALLICOON DEPOT, N. Y., Feb. 28th, 1878.

"I have found it much more useful in many affections than Pepsin."

S. A. KEMP, M. D.

CHESTER CROSS ROADS, OHIO, Feb. 1st, 1878.

"I have no hesitancy in saying that LACTOPEPTINE excels anything of its class within my knowledge. I use no Pepsin since having tried LACTOPEPTINE."

A. D. WARNER, M. D.

ISLE OF WIGHT, November 23d, 1876.

"I am constantly prescribing your LACTOPEPTINE, and increasingly convinced of its excellent value and superiority to Pepsin and all other preparations for Dyspepsia. I believe we have in LACTOPEPTINE a most valuable aid in many disorders of the digestive organs."

CHAS. LOWDER, M. D.,

PETOSKEY, MICH., March 15th, 1878.

"I have used LACTOPEPTINE alone, and in various combinations, in numerous cases of stomach derangement, with marked advantage, more so than from any other preparation I have ever used in that class of cases. I consider LACTOPEPTINE far superior to all Pepsin, both on therapeutical grounds and from practical results."

H. T. CALKINS, M. D.

FAIRFIELD, TEXAS, April 2d, 1878.

"I have been *satisfactorily* prescribing LACTOPEPTINE for a considerable length of time in digestive troubles, to the *entire exclusion* of Pepsin, etc."

J. J. BONNER, M. D.

BRONSON, FLA., February 16th, 1878.

"I have prescribed LACTOPEPTINE with the utmost satisfaction in all cases of indigestion from whatever cause. I consider it superior to Pepsin, Pancreatine, or any other article of its class before the Profession. To infants raised by hand, and where the mother's milk disagrees, it is a boon of inestimable value. When a mother calls on me to prescribe for her infant, and I find, as is so often the case, the abdomen enlarged, the bowels loose, and the child emaciated, I seldom prescribe anything but a nutritious diet and LACTOPEPTINE, and invariably with success."

JAMES C. HOWARD, M. D.

LACTOPEPTINE.

PRICE LIST.

LACTOPEPTINE (Powder in oz. Bottles).....	per oz.	\$ 1 00
“ (Powder in oz. Bottles).....	per doz.	10 00
“ (Powder in $\frac{1}{4}$ lb. Bottles).....	per lb.	12 00

ELIXIRS.

ELIXIR LACTOPEPTINE.....	per doz.	\$15 00
“ “ and BISMUTH.....	“	15 00
“ “ STRYCHNIA and BISMUTH.....	“	15 00
“ CALISAYA with LACTOPEPTINE.....	“	15 00
“ “ and IRON with LACTOPEPTINE.....	“	15 00
“ “ IRON and BISMUTH with LACTOPEPTINE.....	“	15 00
“ CINCHONA, IRON & STRYCHNIA with LACTOPEPTINE.....	“	15 00
“ GENTIAN and CHLO. OF IRON with LACTOPEPTINE.....	“	15 00
“ PHOSPHATE OF IRON, QUINIA and STRYCHNIA with LACTOPEPTINE.....	“	24 00
“ STILLINGIA COMP. with LACTOPEPTINE.....	“	21 00

SYRUPS.

SYRUP LACTOPEPTINE.....	per doz.	\$15 00
“ “ COMPOUND.....	“	15 00
“ PHOSPHATE OF LIME and IRON with LACTOPEPTINE.....	“	15 00
“ PHOSPHATE OF IRON, QUINIA and STRYCHNIA with LACTOPEPTINE.....	“	30 00
“ IODIDE OF LIME and IRON with LACTOPEPTINE....	“	21 00

MISCELLANEOUS.

LIQUID LACTOPEPTINE.....	per doz.	\$15 00
WINE OF LACTOPEPTINE.....	“	15 00
WINE OF CALISAYA with LACTOPEPTINE.....	“	15 00
BEEF, IRON, WINE with LACTOPEPTINE.....	“	12 00
COD LIVER OIL EMULSION with LACTOPEPTINE.....	“	12 00
“ “ “ “ “ “ and PHOS. OF LIME.....	“	12 00

All Correspondence and Communications must be addressed to

THE NEW YORK PHARMACAL ASSOCIATION,

2 & 3 COLLEGE PLACE, NEW YORK.

P. O. BOX 1574.



Your truly
H. Man

CANADIAN
PHARMACEUTICAL JOURNAL

VOL. XII, No. 6. TORONTO, JANUARY, 1879. WHOLE No. CXXVII

Original and Selected Papers.

NOTES ON THE PHARMACOPŒIA.*

BY J. B. STEPHENSON,

*President of the North British Branch of the Pharmaceutical Society
of Great Britain.*

The plan of the following paper is a very simple one. It is merely a noting of ideas or hints, which have either occurred to myself or been suggested by others, on the various preparations of the Pharmacopœia. These notes are exclusively of a simple and practical character and of course are suggested as improvements. I hope it is not presumption in me to say so. I have a very great admiration of our present Pharmacopœia, believing it to be very nearly perfect. Still I think it may admit of improvement. I look on it as peculiarly the chemists' book, so that, as we may put it, all that is necessary to constitute a perfect pharmacist may be summed up in what is implied in an intelligent apprehension of its meaning and a loyal obedience to its requirements—and this view of it brings it, I think, specially within the scope of our criticism. Our body has already had assigned to it a prominent and honorable place in constructing it, and a free criticism and discussion of it by our members would seem to be eminently calculated to bring out suggestions towards its improvement. I shall therefore speak out freely and plainly, hoping thereby to provoke others to come forward with suggestions of their own or with objections to mine, in either of which cases my object will be abundantly accomplished.

Our present Pharmacopœia dates 1867. The former edition of '64 was the first B. P. and occupies a distinguished position as har-

*Reported in the Pharm. Jour. & Trans.

monizing the three previous Pharmacopœias of London, Edinburgh and Dublin, a task which has been accomplished with great skill and judgment. The '67 edition is in many respects an improvement on that of '64. Notably it for the first time arranges all the materia medica and preparations in one alphabetical series, and it not only expresses the formulæ in English, which had been done in the '64 edition and in the Edinburgh Pharmacopœia even prior to that, but it has also adopted the Arabic numerals in expressing the quantities. The advantage, even the necessity, of simplicity of expression and arrangement in a Pharmacopœia is self-evident, and it will be observed all these changes are meant to attain this. By the way, although it may not be desirable nor practicable to write medical prescriptions in English, I have often thought it would be an advantage to express the quantities in the Arabic characters. Compare these with the Roman for such numbers as 8, 12, 18, 24, and so on, and it will be seen at once how much more easily expressed and less liable to be mistaken the former are. The doses of the different articles were also for the first time introduced in this edition, and the authoritative standard of doses which we have thus acquired has been a great boon to us. There is another standard which it is very desirable to have in the Pharmacopœia (I offer this suggestion on far higher authority than my own), viz., that of the quantity or accent of names of medicinal substances. A moment's reflection will bring to mind many words which are pronounced differently—and often very doubtfully as to the right way (I speak for myself). Let me instance Piperita, Conium, Ergota, Camphora, Cubeba and many more. Of course there is already a standard or rule for some of them, but for many, I believe the Pharmacopœia would have to determine the quantity, and it would be very satisfactory to find an authoritative standard for all of them.

Acetum Sci'æ contains an ounce and a half of proof spirit to the pint to prevent it spoiling. I have noticed it mentioned by several parties that this not only did not preserve it, but had the tendency to make it go wrong. Be this as it may, I can testify that it keeps perfectly without it.

My next remark has reference to what I have always looked on as a disregard of that simplicity which I have just alluded to as a characteristic of the Pharmacopœia. I refer to the formulæ for the three diluted acids, hydrochloric, nitric and sulphuric. Now, if great exactness were necessary in the strength of the diluted acids why not ascertain how much water was required to make up the measure, and specify it in the formula? But is such exactness necessary? The acids are used solely for medicinal purposes, where a little variation of strength, such as might arise from expansion or condensation, is of no moment. It can hardly be expected that all chemists will follow out these directions. Most of them will dilute the acid with the full quantity of water at once, in which case there is presented to them a rare facility for blundering.

Let me say a word about Aqua Aurantii with reference to the discussion lately about its strength. I have always understood that distilled waters were saturated solutions of the principles which distil over with the water. The question of dilution is one merely of expense, and must not be entertained with reference to the B. P. water. Let me also insist on the using the Aqua Anethi as distilled from the seeds. It is quite a different article from that prepared by rubbing up the oil, which although good enough at first, becomes quite vapid in a very short time so as to be quite unfit for the purpose it is mostly put to, viz., a carminative for infants. I am induced to mention this from having accidentally come across the vapid article several times lately. The same remark applies to Aq. Cinnamoni as prepared by distillation and by rubbing with the oil.

Emp. Belladonnæ is directed to be made by a very roundabout process. The simpler way would be to introduce into the Pharmacopœia an alcoholic extract of the leaves, or perhaps, better, of the root, an article which is sent out by the London houses, and to dilute this with the resin plaster.

We have two Essences, Anise and Peppermint, about which I have only to say that I think them too strong. Half the strength would be much more convenient.

Ext. Cinch. Flav. Liquid.—I have to repeat an old objection to the strength of this preparation. I find that it throws down in a short time a large mass of crystalline deposit, showing that it cannot retain all the active principles in solution. Would it not be well to reduce the strength, and that of Sarsa as well, to the standard of the other liquid extracts, viz., one ounce of the substance to one fluid ounce of the extract? Ext. Ergotæ Liquid.—It is generally admitted that the washing with ether may be dispensed with, more especially if cold instead of hot water be used. I find cold answers quite well; indeed, the extract made with it is, I think, richer than that made with hot, and I have medical testimony that it is quite as powerful. It is advisable to digest the ergot in it twice or even three times. The liquid aqueous extracts one would expect to prove a most important and useful class of preparations, but in my experience they are somewhat unsatisfactory from their all throwing down in a comparatively short time a large quantity of muddy deposit. Probably in some cases this is inert, yet we cannot always be sure of this, and, at least, it involves considerable loss. The same remark applies to the concentrated infusions, which are a similar class of preparations, and which of late years have almost forced themselves by irresistible considerations of expediency on chemists. I may mention while on these preparations, that I have been very successful in making most of those in common use by cold water percolation. The substance should be in moderately fine powder, and digested for twenty-four hours in enough water to wet it thoroughly, then set to percolate slowly with more water.

The first percolate (say about the same measure fluid as the weight of the solid ingredients dry) is set aside, and the percolation continued until the ingredients are exhausted. This second percolate is evaporated till it is so far reduced that along with the first product, and the spirit necessary to preserve it, it yields the desired quantity. By proceeding in this manner we avoid the application of heat to the first portion, which will generally contain by far the greater part of the strength of the ingredients. This is, of course, a great matter where pungency or flavor is concerned. I may mention, notably, senega as admitting of this treatment, and yielding a beautiful result. But, as I before remarked, however perfect all these preparations are at first, they soon begin to deposit largely, and if re-filtered, soon begin again to deposit as at first. How different from this the comparatively unchangeable character of tinctures!

Glycerinum Acid. Tannici and Glyc. Boracis are inconveniently thick preparations. I was applied to, some time ago, by a doctor about the former, which he found very inconvenient and wasteful as applied with a pencil to the throat. I prepared some with glycerine diluted with one-third part of water, and the result was so satisfactory that I thought it worth while bringing before you. The Glyc. Boracis is a still more satisfactory article when prepared with diluted glycerine. When prepared with pure glycerine it forms a thick tenacious fluid, which retains the air bells for a long time, and in such abundance that the compound is quite white, as if the borax were suspended in it. With one-third water added to the glycerine it forms a clear thickish preparation at once.

Lini Farina is described as "the cake of linseed from which the oil has been pressed, reduced to powder." I cannot doubt but that this definition will be altered to "linseed crushed with the oil," an article which is sent out in great perfection now.

Liniment Aconiti et Belladonnæ.—I cannot help repeating the old grumble that these are far too strong. I have no doubt that by continuing the percolation until we got one half more product, we should obtain a product perhaps as strong, certainly strong enough. Liniment. Potass. Iod. c. Saponæ.—Is it not a mistake to have a formula like this in the Pharmacopœia? Liniment. Saponis.—I am aware that by carefully following the directions as to temperature and proportion of water the risk of subsequent gelatinization is avoided, but why should not proof spirit be ordered as the menstruum? It has always appeared to me the simplest way of avoiding the difficulty, and I know of no objection whatever to it.

In a paper by Mr. Barton read before the Pharmaceutical Conference, consisting of practical remarks very much like those of my own, I find him recommending Liq. Ammonia Citratis to be kept in a concentrated form and diluted as required. I do not think the preparation is in such demand here as to be generally kept in stock,

so that this measure may not be called for in regard to it, but I have found it very applicable with the Liq. Ammon Acet. The 1864 Pharmacopœia ordered it in the concentrated form and to be made from the caustic ammonia, and I found this so much more manageable than the old, which was always going wrong, that I have kept it so ever since. Of course the carb. ammonia as ordered in the 1867 edition may be used, although I confess I have never been able to see the advantage of it. What I wish to point out is simply the advantage of keeping it in the strong form to be diluted as required.

I pause in passing Mucilag. Tragacanthæ to note a wrinkle which I got long ago from a London expert. Put the pulv. tragacanth. into the bottle dry, add a little rectified spirit (about twice as many minims as you have grains of powder), shake together and add the water gradually and with shaking.

Pil Quinæ has 60 grs. quinine and 20 grs. confection of hips. There is here small provision for pills containing 1, 1½, or 2 grains of quinine, and one is puzzled in thinking how the formula ever gained admittance to the Pharmacopœia. In passing let me advert to the circumstance that tartaric acid forms an excellent excipient for forming quinine into a pill mass, a fact which I saw mentioned very recently, but which I have utilized for many years. One drachm of quinine with 6 or 8 grs. tartaric acid and a very little water and a good deal of hearty working forms a perfect pill mass. This plan is very suitable when we want 3 or 4 or 5 grains in each pill. I think we should have a Pil. Opii in the Pharmacopœia. One grain of powdered opium forms with syrup a nice small pill, and seems to meet medical requirements, which the Pil. Saponis Co. does very imperfectly.

Spiritus Chloroformi.—I was surprised to find in the paper by Mr. Barton which I have already referred to, a suggestion that the strength of chloric ether should be recognized as 1 in 10, as in Tr. Chlorof. Comp., and I have heard lately in several quarters a doubt expressed as to what should be sent out as chloric ether. I shall be glad to be put right if I am wrong, but I have always understood that the Pharmacopœia of 1864 afforded us a much needed settlement of the question, by declaring that chloric ether was a solution of chloroform in rectified spirit, and by fixing the strength at what is a very convenient point, 1 in 20.

Most of the syrups are ordered as saturated solutions of the sugar, but if made of this strength they crystallize freely in our stock bottles. Would it not be better to adjust the proportion of sugar so that the syrup would keep fluid under any circumstances? In Syrup Sennæ the quantity of sugar, twenty-four ounces, makes it very thick, sixteen ounces I think would be an improvement.

Tinct. Aurantii can be made by percolation the same as the generality of the tinctures. The orange peel is readily reduced to

powder if previously very slightly heated. *Tr. Ferri Perchloridi* would be better prepared with proof or even a weaker spirit. Indeed as has been often pointed out water is the best diluent for the strong liquor. We want very much a tinct. Iodi of convenient strength for external use. The present is useless in that respect, being apparently intended for inhaling and internal use, and the *Liquor Iodi*, which might do as far as strength is concerned, is a solution in water which is not so suitable as spirit. Tincture of Iodine is largely wanted by the public, who understand its use, and I observe that many doctors order either the old Edinburgh tincture, or a mixture of the present liniment and tincture, so as to bring it to about its strength. I would say, keep the watery liquor, or adjust its strength if necessary, for internal use, and let us have a tincture about the strength of the Edinburgh Pharmacopœia one (3ss. ad ʒi.). The maceration in making Tinct. Myrrh. is worse than needless. It is obtained in perfection by putting the myrrh at once into the percolator, and passing through it the spirit which will quite exhaust it before the process is half over. For Tinct. Valerianæ Am. maceration without percolation is ordered. I do not know why this should be, for one of the greatest advantages of percolation is thereby lost, viz., the more thorough exhaustion of the ingredients, because in pressing the marc after maceration, all the liquid left behind is tincture of full strength, whereas after percolation it is nearly clean spirit. The Tinct. Zingiberis Fort. might have the ordinary directions, which apply to it the same as the other tinctures.

Unguent. Iodi.—A few minims of plain water will dissolve the iodine and iodide more readily than the proof spirit ordered.

Vinum Colchici is still ordered from the corm. I find most medical men order *vin. sem. colch.*, which necessitates the keeping it, and suggests the question whether in view of the preference for it the seeds might not be substituted for the corm. Vinum Ferri is prepared by digesting iron wine in sherry for thirty days. The 1864 Pharmacopœia formula which prescribed *Ferri. tart.* was much more convenient, but the objection to it is the very large deposit which takes place with it in even such a weak alcoholic spirit as sherry. I believe the citrate of iron to be the most suitable form of iron to use for steel wine. It dissolves at once in sherry, and keeps perfectly with scarcely a vestige of deposit. We have it already in the *Vin. Ferri Citratis*, where it is dissolved in orange wine.

We had a supplement to the Pharmacopœia issued in 1874, which I do not think sustains the reputation of the parent work. With the exception of Chloral and Pepsine, there is really nothing to justify the publication. *Pulv. Glycyrrh. Co.* is introduced to represent (and under the same name, which is quite misleading) a preparation which has been popular for some years, but in attempting to improve the German formula by omitting sulphur and fennel, the

authors have given us a different article altogether, which, as far as my experience goes, is already obsolete.

And I conclude these desultory remarks with the reflection which has often forced itself on me that conservative principles should be kept steadily in view in framing a Pharmacopœia. There are so many new remedies constantly being introduced, and highly vaunted, that if even a small proportion of them is to find a place in the Pharmacopœia, not only will the pages be overloaded, but, in a little time they will be the only place in which the articles will be found. The Roman poet's rule to keep his work so many years before publishing it is very applicable to the introduction of new remedies into the Pharmacopœia. Just let any one look back for a few years and recall the many new medicines that have been introduced, each highly spoken of at the time, and then observe how very few have held their ground.

VASELINE IN PHARMACY.*

BY NATHAN ROSENWASSER, PH.G.

Having early last spring been engaged in preparing a few samples of cerates and ointments, with the above mentioned base, for the Paris Exposition, I made a few different kinds, but rather as types indicative of the wide field which it covers. Vaseline is useful both on account of its inalterability when exposed to any ordinary atmosphere and its property of enveloping alterable bodies so as to render them stable. It is also a good solvent, and its freedom from granular structure renders the introduction of powders not perfectly impalpable visible, thereby insuring the physician against an oversight to which the pharmacist is liable with a granular ointment.

VASELINE SIMPLE CERATE.

Vaseline.....	16 ounces.
White wax	8 "

Melt with a gentle heat. This cerate keeps well, is of medium consistence, and can be used all the year round, not being too hard for cold or too soft for warm weather.

RESIN CERATE†

Vaseline.....	16 ounces.
Yellow wax	4 "
Resin	10 "

Melt as resin cerate, U.S.P. This offers no advantage over our lard cerate and requires constant stirring on cooling, as the resin tends to separate readily.

* Druggists' Circular.

CERATE OF EXTRACT OF CANTHARIDES (without alcohol).

There are two ways of making this.

Process No. 1 :

Cantharides (powd)	5 ounces.
Yellow wax.....	6 "
Resin	3 "
Vaseline	2 "

Pack the cantharides in a jacketed funnel, and allow the vaseline to percolate through until seven troy ounces of percolate have passed ; melt the resin and wax, and lastly add the vaseline, stirring until nearly cold. Process No. 2 differs from No. 1 in using coarsely powdered or bruised cantharides, macerating on a hot water bath with eight troy ounces of vaseline for two or three hours, straining with expression, and adding hot vaseline through the strainer till seven troy ounces and one-half are obtained, filtering and adding to the melted resin and wax as in No. 1.

Personal experience convinces the writer that the vesicating properties were dissolved in the vaseline. The product as completed is of a lighter shade than resin cerate. Mr. E. Fougere suggests the use of petroleum benzine in extracting the cantharidin, but I have not tried it as yet.

Pomatum Camphoratum of the French Codex is a very strong solution of camphor in lard and wax. It will, however, turn rancid with keeping. With vaseline it is inalterable, and being a concentrated solution it makes an excellent substitute for the popular "camphorated oil." The formula is as follows :

Camphor	6 drachms.
White wax	6 "
Vaseline	14 "

Carbolic Acid is not soluble in vaseline in a larger proportion than five per cent., whereas the ointment is directed to be made with 12½ per cent. by the U. S. P. Caution will be found necessary in prescribing too strong a solution with vaseline, as it crystallizes throughout the body of the ointment, and might if applied upon a large surface produce a strong local irritation.

Ointment of Iodine.—Iodine is very soluble in vaseline, and I am inclined to believe enters partially into combination with the hydrocarbon, giving rise to considerable effervescence (probably hydrogen being displaced). Iodine dissolves slowly in vaseline if allowed to macerate in it, or if rubbed up with it, but for ointment of iodine the following gives the best results :

Iodine	20 grains.
Alcohol	sufficient.
Vaseline	1 ounce.

Dissolve the iodine in the alcohol, and mix with the vaseline placed

on a hot water bath. Very little iodine will be evaporated during the operation.

Citrine Ointment cannot be prepared with vaseline alone, as the water in the nitrate of mercury solution is repelled by the oil. The vaseline becomes decomposed at 400 F., giving rise to brisk effervescence of nitrous fumes, turning red in color. This color cannot be washed out with water, showing that it is not due to an absorption of the red fumes, but rather to some change produced. A writer in the *Druggists Circular* (August, 1878, p. 141) suggests the addition of one-eighth of vaseline in place of the same quantity of lard, adding it after the decomposition has taken place, as rendering the ointment soft and permanent.

Iodide of Iron Ointment.—If iron be added to a solution of iodine in vaseline, and repeatedly shaken (the whole kept liquid on a water bath), the almost black color of the iodine disappears, and if an excess of iron be employed the color becomes green; and if it be then filtered the ointment will have a beautiful emerald green color through transmitted light and almost black by reflected light.

The following is the formula I used :

Iodine	4 drachms.
Iron filings	12 “
Vaseline	16 ounces.

This iodide of iron ointment is stable and almost without taste. I prepared from it a jelly by adding an equal quantity of very fine sugar, in which manner it could be easily taken by children. Mr. E. Fougere, of Brooklyn, has also prepared a bromide and chloride in like manner, and suggests its use in keeping the protosalts of iron by enveloping them in it.

Ointment of Benzoin.—Though benzoin is introduced into lard to keep it, and this is not needed with vaseline, an ointment made as follows (similar to U. S. P.) yields a preparation that preserves the odor of the resin without dissolving the same, and has when finished an elegant quinescent appearance. As an addition to a lard ointment this would be good, probably preventing rancidity without introducing the irritating effect of the resin.

Tincture of benzoin.....	2 fl. ounces.
Vaseline	16 ounces.

Melt the vaseline on a water bath, add the tincture, stir till all alcohol is dissolved, and pour off the liquid from the precipitated resin which adheres to the sides and bottom of the vessel.

It would be needless to remark that, on account of the difficult solubility of resins in vaseline, ointment of mezereon cannot be made readily with it.

Ointment of Iodide of Sulphur.—This ointment was prepared by Mr. E. Fougere, and holds the iodide in solution, and is inaltera-

ble, whereas when made with lard it has to be freshly prepared.

Belladonna Ointment.—The blending of aqueous extracts with vaseline is difficult, owing to the water they retain. Taking belladonna ointment as a representative of this type, I placed the extract upon a water bath, and mixed with it an equal weight of glycerine, and conducted the evaporation until nearly all, if not all, the water in it had evaporated, leaving the extract soft enough to be intimately mixed with the vaseline. This ointment, like almost all when compared with those made with lard, is smooth and uniform.

Those ointments in which powders are mechanically mixed with the body of the ointment would at first thought be found equally as well made with lard as with vaseline. With many probably there would be no difference, except in their tendency to become rancid. The following is a list of those I prepared :

Ointment of tannin.

- “ “ carbonate of lead.
- “ “ iodide of lead.
- “ “ red iodide of mercury.
- “ “ “ oxide of mercury.
- “ “ yellow oxide of mercury.
- “ “ oxide of zinc.
- “ “ sulphur.
- “ “ nitrate of silver.

The ointments made with impalpable powders are made more evenly divided in vaseline, on account of the translucent character of this body, which renders every opaque particle visible to the operator, who is thus saved the vexation of having his ointment criticised by the physician as “lumpy,” a fault which the unskilful operator is subject to with lard on account of its granular nature and opacity. Of such ointments as oxide of zinc, red iodide of mercury, and yellow oxide of mercury this is especially true.

The *Ointment of Nitrate of Silver* is a new thing in pharmacy. When nitrate of silver is attempted to be mixed with lard or most organic bodies it is decomposed, and the ointment turns black in color. The property of vaseline not being decomposed by nitrate of silver was discovered by a French physician, who desired to use it in ophthalmic practice. He found it inalterable, and wrote to Mr. E. Fougere announcing his discovery. I have succeeded in making an ointment containing one part of the powdered crystallized nitrate of silver to two parts of vaseline. Suppositories of nitrate of silver for urethral and uterine diseases can be made with paraffine and vaseline as a base.

THE MAHWA TREE*

Mr. E. Lockwood has described in the *Journal of the Linnean Society* the varied usefulness of the Mahwa tree, which he calls a "fountain yielding food, wine, and oil" to the inhabitants of the country where it grows. It grows in the plains and forests of Monghyr, is a member of the Sapodilla family, the *Bassia latifolia* of botanists. The tree attains 40 to 50 feet in height, with numerous spreading branches, forming a close, shady, rounded crown. Standing on the Kharakpoor hills, 250 miles north-west of Calcutta, a hundred thousand of the trees are visible in the plains below. They might be mistaken for the mango, but while the mango is uncertain in its yield, the crop of mahwa never fails. The part eaten is the corolla, which is succulent, and falls in great profusion during March and April. Both men and animals enjoy the feast, for the poor villagers collect the fallen corollas, while birds and squirrels help themselves among the branches. At sunset the peacock and the jungle fowl steal out from the jungle for their repast, while the deer and bear, bent on the same object, fall victims to the bullets or arrows of the hunters who are concealed overhead.

Mr. Lockwood was for four years a magistrate in Monghyr, and he calculated that there were not far short of a million trees in that district alone. Each tree yields two or three cwt. of corollas, so that the total yield of flowers cannot be far short of 100,000 tons. Deducting a vast amount consumed by bird and beast, by far the greater portion is collected by the natives, whom it supplies with food. The nourishment is good, for the Santhals, who use it largely, are plump and happy, and are said to be the only people in India who like a hearty laugh. The mahwa had its share in alleviating the Indian famine: every relieving officer knew well the peculiar odour of the corollas as they passed through the villages where they were stored. During the scarcity which prevailed at Behar, 1873-74, the crop, which was unusually abundant, kept thousands of poor people from starvation. We come now upon something pharmaceutical. The residue not eaten is taken to distilleries, and there, in a rude and rather wasteful manner, is converted into a strong-smelling spirit, much like whisky. The Government holds a monopoly of spirit manufacture and at the date just mentioned there was a duty of 8s. for every cwt. of the raw material as it entered the distillery, on supposition that such quantity would only yield 3 gallons of proof spirit. The duty was subsequently raised on its being found that in England over 6 gallons of proof spirit could be produced from 1 cwt. of material. It is suggested that it would be to the advantage of the Indian Government to introduce patent stills. An Italian took out a patent for removing the essential oil; he, in fact, manufactured what we should term a "cleaned spirit." A rapid

*Chemist & Druggist.

fortune seemed likely to reward his ingenuity; orders poured in upon him from Calcutta, and the demand promised to be immense. "Just," says Mr. Lockwood, "as the inventor had taken up a whole side of the Government distillery, and got all his preparations complete, the rum distillers in Calcutta petitioned the Board of Revenue, and a prohibitive duty was imposed, which completely put an end to the manufacture of scentless mahwa spirit. A sample was sent to the Chemical Examiner at Calcutta, and he reported that the spirit was pure and wholesome, and came very near good foreign brandy."

The economics of the mahwa are not yet exhausted; the flowers are still more useful for feeding cattle, and again the same recommendation may be advanced, that while the potato, maize, and barley are uncertain in their crop, there has never been a season when these edible corollas have been known to fail. Their keeping powers are excellent—a ton, dried and put into sacks, were exported, and, examined after two years' time, were found to be undamaged.

The fruit, which follows after the falling of the corolla, yields seeds from which a greenish-yellow oil is extracted. According to Mr. Cook's report on "Oils and Oil-seeds in India," it is worth £35 a ton, and is used in soapmaking. Probably, there is a commercial future for the mahwa, and it is a matter worthy of consideration whether a demand for this article in England would not lead to a profitable result.

WANGA PLANT AND VOODOOISM.

[Some months since, noticing a paragraph in a foreign exchange stating that a powerful narcotic plant, unknown to science, was largely used in Hayti as an ordeal poison, the editor of this journal wrote to the Government of Washington, asking that enquiries be made. Secretary Evarts very courteously and promptly wrote to the minister at Hayti, requesting an investigation, and the result is so interesting that the letter is here published, with the omission of certain non-essential details—*Phila. Med. Times.*]

MR LANGSTON'S LETTER.

Legation of the United States. }
 Port-au-Prince, Hayti, June 24, 1878. }

Honorable Wm. M. Evarts, Secretary of State, Washington, U.S.A.

SIR,—Referring to your No. 12, of January 8 last, I have the honor to state that I have given the subject therein submitted, upon the letter of Professor Wood, due investigation.

The particular plant to which the name of "Wanga" is applied is not known by any one outside of the circle of the high functionar-

ies—the king, the queen, the papalois, and perhaps some of the more distinguished followers of the Voudoux. There can be no doubt that there is, among other things used by the king and queen, or priest and priestess, as they are frequently called, at their initiations and at other times, as occasion may require, a plant of great narcotic power; and that those who use it have the best knowledge of the character and power of its properties, and how to make application of it so as to accomplish the effects which are desired. The testimony borne in this behalf is abundant and reliable; and it comes to the inquirer in forms and methods both curious and interesting. The more intelligent among the common people furnish entertainment by the hour in telling strange things which they witness as the effect of the manipulation of the plant by the waung, the priest, or papalois. And a like testimony is borne by authors who treat of this subject. In his excellent book, entitled “Description de la Partie Francaise de Saint-Domingue,” Moreau, speaking of the Voudoux ceremony of initiation, as translated, says: “The king of the Voudoux makes a great circle with a substance which makes a black mark, and there places the one who is to be initiated, and puts in his hand a packet of herbs, horse hair, pieces of horne, and other things as disgusting. Afterwards, striking him lightly on the head with a little battledoor of wood, he (the king) begins singing an African song, which those in the circle repeat in chorus; when the new member sets himself to trembling and dancing; this is what is called ‘montrer Voudoux.’”

But what the herbs are which the king uses, how they are compounded, what qualities they possess, whether they are the products of this country, and whether he uses more than one, are all matters of conjecture among the uninitiated.

The herb is used on other occasions as well as initiations. Whenever miracles are to be wrought, the sick healed, the dead brought to life, or any display of power that is superhuman and calculated to strike the masses with awe is to be made, the herb is used. It is often told with the most profound sincerity and faith, even by those who declare that they do not belong to the Voudoux, that the papalois, a subordinate official of the sect, or even one of them of a still lower official grade, who is moved by what is called the “Lois,” can and does resurrect the dead. But the herb always, according to their stories, plays its part in connection with such performances.

The “Lois,” as I judge from the statements and explanations of those with whom I have talked on the subject, is a sort of spiritual influence or power, which is sometimes directly bestowed, but more generally inherited. It comes to the child from the parent or grandparent, and when once in the family never forsakes it, but abides forever, descending from mother or father to son or daughter.

The followers of this faith in this country are very numerous, including all grades of social life. It is generally believed that the

Emperor Soulouque was a member. He certainly did nothing, unlike his successor Geffrard, to prevent the increase of its power or its cannibalism. It is well known that the Voudoux are eaters of human flesh, and to secure it do not hesitate to take human life, especially that of small children. With such victims they profess to make sacrifices to their strange god. In connection with these, too, the sacred herb, like the drum and other instruments so constantly used by them, figures conspicuously.

There are several considerations for concluding that the herbs which are used by the Voudoux grow in Hayti.

There is a plant, the product of this country, growing in great abundance, within the reach of all who desire it, whose properties are well known, and which possesses remarkable narcotic power. This plant is often used here on account of its peculiarly narcotic properties, even by the ordinary Haytian not a member of the Voudoux, for medicinal properties, as well as those that are lascivious and base.

In his work of rare merit, entitled "Flore des Antilles," Descourtitz in the third volume describes the *stramoine epineuse*, or Datuara, and states, in connection with its natural history, that people believe in San Domingo, as he is assured by Colonel Deveux, that the discovery of its somniferous properties is due to a negro, who used it to put an old proprietor to sleep, to enable him to steal his bees.

He also tells the story of certain clever negresses who used the same plant to put to sleep the lover whom they did not prefer, while they stole to the embraces of him who was vanquisher.

The juice of the plant, as is well known, has been used not unfrequently to produce temporary blindness, and persons using it have been examined by the surgeons of the government and pronounced blind and unfit for military service, when, after its influence had passed away, the sight was restored, without the least deleterious effect having been produced upon the optic nerve.

Were one to visit the ordinary family of Hayti, and find himself, from fatigue or fear or anguish of mind, wakeful and restless, it is almost certain—if he let his condition be known—that he would be advised of the soporific effects of the datura, and leaves of the plant would be put under his pillow to make him sleep. Five leaves of the plant are said to be sufficient for ordinary cases, under such circumstances.

There are several varieties of this plant found in Hayti. Descourtitz mentions and describes three. In addition to the one already named, he gives the *stramoine sarmenteuse* and the *stramoine cormic*, the three being described as toxic and bitter narcotic. All three, in strange but natural combination, may be used by the king or papalois of the Voudoux. Or it may be the case that these are used in combination with other plants, the properties of which have not been made known to science. For I am advised that only

six hundred of the two thousand varieties of plants in this country have been examined, classified, and their properties determined and defined. Upon this branch of the subject I have had several interviews with Dr. J. B. Delroux, who is altogether the most learned and scientific man of the republic. He informs me also that efforts will be made, though necessarily in a very imperfect way, through the chair of botany which has lately been established in connection with the medical college of the city, of which he is president, to explore, to some extent, this field, which must be full of rich treasures for science.

But we may conclude that the *stramoine epineuse* is the main ingredient of the herbs used by the Voudoux, from the fact that it possesses the qualities, the properties, which work the result which the devotees of this strange religious fanaticism desire; and in this particular species of the plant these peculiar properties are more largely found than in either of the others. Descourtilz, in describing its properties, says:

“Others mix them with tobacco. These seeds, pernicious to man as it is said, have a property for fattening hogs by causing them to sleep a great deal.”

In speaking of it in another connection, he says:

“This plant, a native of America, is found in all the sandy fields of Europe, where it is perfectly naturalized. The magicians, or pretended sorcerers of the colonies, procured for their sick, in the use of this plant, the species of voluptuous enthusiasm which made them forget, during such instants, the afflictions which oppressed them.”

But it must be recollected that it is in the tropic; that this plant grows with its greatest vigor and develops its properties in full power. Here it is a thrifty, handsome plant, with a strong odor and remarkable narcotic power. The same species of plant, known as the “Jamestown weed,” was formerly found in the States [and is still]; and in the early settlement of Ohio and other parts of the West it grew quite thriftily; but not as it does here. Its leaf, blossom, and fruit, as well as limb and trunk, show that here its roots find the sweetest and most natural nourishment.

Everything connected with the Voudoux service—the serpent, the herbs, the horse hair, the pieces of horn, as well as the drum, the song, and the circle—have thrown about them a solemn mystery and are held in their sacred uses and effects as profound secrets. Everything is done, the initiation oath is given and taken, with this object.

All that is said, therefore, with regard to this subject, as already stated, is said on conjecture. It may have truth in it, it may not. With sentiments of high regard, I am, sir,

Your most obedient servant,

JOHN MERCER LANGSTON.

CARLSBAD SALT.*

(*Sal Thermarum Carolinarum*—Latin. *Karlsbader Salz*—German. *Sel de Carlsbad*—French.)

BY H. W. LANGBECK.

There are nine springs of thermal water in Carlsbad: The Sprudel, discovered 1347 by the Emperor Charles IV. in hunting a stag, has a temperature of 165-167° Fahr.; the Hygieaqueelle, of the same temperature; the Bernhardsbrunnen, of 156-160° Fahr.; the Neubrunnen, of 140-142° Fahr.; the Muhlbrunnen, of 133° Fahr.; the Ferdinandsquelle, 127° Fahr.; the Theresienbrunnen, 124° Fahr.; the Schlossbrunnen, 116° Fahr., and the Spitalquelle, 113° Fahr.

The ingredients of the different springs are about the same, only the amount of carbonic acid varies according to the different temperatures. The first analysis was made by Dr. Becher, 1789, who proposed also to prepare the salt by evaporating the water by means of the heat of the springs. In July, 1793, Klaproth found in 100 cu. in. = 29,333 grains.

	Grains
NaOCO ₂	39
NaOSO ₃	70½
NaCl.....	34¾
CaOCO ₂	12
SiO ₂	2½
Fe ₂ O ₃	¼
	158¾
CO ₂	32 cu. in.

Berzelius found in 16 oz. of the water :

	Grains
NaCl	17.9758
NaOSO ₃	19.8691
NaOCO ₂	9.6950
CaOCO ₂	2.3700
MgOCO ₂	1.3696
FeOCO	0.0278
CO ₂	7.0000
	58.3073

Nentwich, and later, Von Creutzburg found besides

	Grains
KI	0.0184

* Chemist and Druggist.

Gott's analysis, 1856, differs from these. It is

	Grains In 16 oz.
KOSO ₃	9·3697
NaOSO ₃	14·9606
NaCl	8·7245
NaOCO ₂	9·0624
CaOCO ₂	2·0198
MgOCO ₃	0·3994
FeOCO ₂	0·0307
Al ₂ O ₃	0·0125
SiO ₂	0·0520
	<hr/>
	44·6415
CO ₂	1·2787

Besides traces of I. Br. As. Cr.

In evaporating the water, the salts soluble only in the presence of free carbonic acid, as the carbonates of magnesia, lime and iron, are precipitated, and the crystallized salt contains sulphate of soda, sulphate of potash, chloride of sodium, and carbonate of soda, the two latter being more soluble than the former, and in smaller quantities.

About four years ago I analysed six samples of Carlsbad salt, and was very much surprised to find that all six consisted merely of sulphate of soda with traces only of sulphate of potash, carbonate of soda, and chloride of sodium. Last week I analysed again the natural salt, and found it to consist of:—

	Grains
NaOSO ₃	43 371
KOSO ₃	1·313
NaOCO ₂	0·516
NaCl	Traces
HO ₂	54·800

100·000

As the price of sulphate of soda is about *1d.* per lb., the price of Carlsbad salt *6s. 6d.* per lb., I resolved to prepare the latter myself, and offer it to my customers as artificial Carlsbad salt.

Different prescriptions exist for the preparation of it. Those given by Dr. Hager and the former Hamburg Pharmacopœia are nearly alike, viz. :—

	Parts.
Sulphate of soda	3
Carbonate of soda.....	2
Chloride of sodium	1

Dissolved in water, evaporated till a pellicle has begun to form, and allowed to crystallise.

In the mother liquor are again dissolved 3 parts of sulphate of soda, and the obtained crystals are mixed.

It is impossible to preserve in a good state the salt prepared in this way. Even kept in stoppered bottles, filled to the neck, it decreases in volume, the crystals in the upper part sticking together so firmly that force has to be employed to bring them out again, whilst the crystals at the bottom become first deliquescent, then crystallise again and break the bottle. To avoid this inconvenience and keep the salt in a dry and good condition I operate as follows:— In about 10 lbs. of water I dissolve 2 lbs. of chloride of sodium, heat to a temperature of 90° Fahr., and keep at the same, adding gradually 25 lbs. of sulphate of soda, 1 lb. of sulphate of potash, and 3 lbs. of bicarbonate of soda, filter through calico, and set aside to crystallise. To the mother liquor heated and kept at a temperature of 92° Fahr. I add again sulphate of soda as much as will be dissolved, and allow to stand until crystals are formed, which, collected, drained, and dried at an ordinary temperature, are filled in bottles. The salt so obtained presents colourless transparent crystals, and can be kept in that condition any length of time.

ELECTRO-PLATING WITH COBALT.

The beauty of cobalt galvanically deposited as well as its hardness, is remarkable. It is not oxidized like iron, and much less care is required to keep its surface in good condition. Its beautiful white colour will make it suitable for the decoration of other metals. The bath used is a neutral solution of the double sulphate of ammonia and cobalt, which does not require nearly so much care as the nickel baths. The anode may be a sheet of platinum, or, better, a plate of cobalt, either cast or forged. To obtain a white and adhesive deposit the current ought to be regulated at the outset at 6 units of electro-motor force of the standard of the British Association, and be brought to 3 units only when the entire surface of the article to be coated has become white.

PLATING IRON WITH PLATINUM.

M. Dode, of Paris, has patented a process for coating iron with platinum. The iron first receives a coating of lead and copper, and then the platinum is applied. The first coating is prepared by mixing 22 parts of borate of lead and 4½ parts of cupric oxide in oil of turpentine, and is applied by means of a fine brush. The platinum coating is prepared by converting 10 parts of platinum into chloride, which is mixed with 5 parts of ether and permitted to evaporate in the air. The residuum is mixed with a viscid combination of 20 parts borate of lead, 11 parts red lead, and some oil of lavender, and 50 parts of amylic alcohol added to the whole. In this mixture the object to be platinised is dipped, allowed to dry in the air, and then heated to a moderate temperature.—*Journal of Applied Science.*

Editorial.

THE Semi-Annual Meeting of the Council of the College will be held on Wednesday, Feb. 5th. The examinations will commence on Tuesday morning previous, at 9 o'clock, sharp. Candidates must send in notice to the Registrar, on or before Tuesday, January 21st.

THE sensational accounts of Mr. Norman Lockyer's discoveries which have appeared in the daily papers during the past few weeks, have awakened no small amount of curiosity in the public mind. The announcement that the transmutation of metals is no longer an alchemist's dream, and that our goodly show of elements may be resolved into one simple body, is certainly calculated to produce a most profound and startling impression. What the possibilities of such a situation would be we dare not even surmise, nor have we at present any disposition to speculate on the existence of a castle of such an airy character. These things may be possible, but nothing is as yet to be discerned save the uncertain shadow of the future, which may be after all but a mirage. The accounts of the reporters are of such a sensational kind that we do not care to reproduce them, and for the present shall content ourselves with a bare statement of the facts of the case as given in the *Pharmaceutical Journal and Transactions*. This simply consists in an announcement which was made on behalf of Mr. Lockyer, in the French Academy of Sciences, "that reasoning from the analogies furnished by the behavior of known bodies, Mr. Lockyer has demonstrated that, independently of calcium, many bodies considered to be elements are really compound bodies. Photographs of spectra and details necessary for 'the conviction of the Academy' were promised, and it is understood that the subject will also be brought before the Royal Society at an early occasion."

WE beg to call attention to *Prices Current* in the present number. The list has been entirely re-written, and many additions made. The quotations will be found as reliable as we have been able to make them.

OBITUARY.

BENJAMIN LYMAN.

The sorrowful event which we are now called upon to chronicle will, no doubt, ere this, have become known to most of our readers, and we are well assured that in alluding to it we touch a sympathetic chord which will vibrate in many a heart throughout Canada. Hundreds of those to whom we speak have lost a kind and valued acquaintance, and many, like ourselves, mourn for a staunch and well-trying friend, whose absence leaves a gap which will indeed be hard to fill.

Mr. Lyman's death, which took place on Friday, Dec. 6th, was very sudden, though for the few days immediately preceding it little hope was entertained of his ultimate recovery. He had not been in the best of health during the entire summer, but had still been able to attend to his ordinary duties, and, a few weeks previous to his death, had come to this city in order to visit the establishment here.

On Thursday night, Nov. 28, he was seized with an attack of pneumonia of such severity that his medical attendants pronounced the danger to be most imminent. The disease continued with little abatement during the week of his illness, and early on Friday morning he expired at the residence of his most intimate friend, Samuel Platt, Esq., M.P., with whom he had been staying while in Toronto. He passed quietly away surrounded by all his immediate relations and some of his friends, and in his death, as well as during his illness, exhibited that quiet composure and Christian resignation which formed such strongly marked characteristics of his life.

On the succeeding day his remains were taken to the Union Station to be conveyed to Montreal, Messrs. Edward Hooper, Wm. Elliott, Hugh Miller, William Hunter, John Lyman and Samuel Platt, M.P., acting as pall-bearers, and a large number of prominent citizens and the *employees* of the firm being in attendance. The funeral took place on Monday, Dec. 9th, at Montreal, the service being held in the American Presbyterian Church, of which deceased was a member. The attendance was very large, the procession being mainly composed of the older residents of the city, who walked two and three deep. The pall-bearers were Messrs. Thomas Workman,

John Kerry, E. Ames, H. A. Nelson, M. H. Gault, M. P., G. W. Read, S. H. May, and Hon. L. H. Holton. The remains were taken to the family burying place in Mount Royal Cemetery.

The following sketch of the life of the deceased gentleman will doubtless be received with interest :

Mr. Benjamin Lyman was born on June 11th, 1810, at Derby, Vermont, where his father, Deacon Elisha Lyman, then resided. The family with which he was connected is of English origin, and can be traced back to Anglo-Saxon times. In the year 1631, Richard Lyman, of High Ongar, Essex, embarked in the ship *Lion* for New England. On the same vessel came Eliot—the celebrated apostle of the Indians—and the wife and eldest son of Governor Winthrop. After a passage of about ten weeks they arrived safely at Boston, and, as usual in those puritanic times, a day of thanksgiving was held in commemoration of the event. Richard Lyman first settled in Charleston, Massachusetts, and subsequently in Hartford, Connecticut, where he died, leaving nine children, from whom sprung the numerous and respectable family of which the subject of our sketch was a prominent and highly characteristic member.

When Mr. Benjamin Lyman was about six years of age his father removed to Montreal, where, as early as 1803, a drug business had been established by his uncle Dr. Micah J. Lyman. This business passed into the hands of Mr. Benjamin's eldest brother William, to whom, when of proper age, he was apprenticed, and in due time he and his younger brother Henry were admitted to the firm. Mr. William—who will be remembered by many of our readers—died in 1857, and Mr. Benjamin became the head of the house, a position which will now doubtless pass to his surviving brother, Mr. Henry Lyman.

The branch business in Toronto was commenced in 1832 by Mr. J. W. Brent, and shortly after carried on under the style of Lyman, Farr & Co. Various gentlemen were afterwards in turn associated with the brothers Lyman, until 1855, when Mr. William Elliot, and subsequently, Mr. R. W. Elliot became partners in the well-known firm of Lyman, Elliot & Co. At the dissolution in 1870, which occurred through lapse of time, the business reverted to the name and style by which it was formerly and is at present designated.

In 1834, Mr. Lyman was united in marriage to Miss Delia Almira Wells, of Waterbury, Vermont, by whom he had thirteen children, four of whom, with Mrs. Lyman, are now alive, namely : Mr. Edwin Wells Lyman, who is connected with the firm in Toronto ; Mr. Charles Lyman, who is a member of the Montreal house, Mrs. G. T. Beard, wife of Mr. G. T. Beard, Toronto, and Miss Lyman of Montreal.

Mr. Lyman's life was a very active one. His name constantly

occurs in connection with the religious, military, political and commercial affairs of the times. During the rebellion in Lower Canada, in 1837, he was a captain of militia in active service for six months, commanding the 5th Company of the Montreal Rifles, then known as the "Cold Water Company," and when he became older it was his delight to recount his participation in the stirring events of that period. About the year 1840, he organized and became captain of a very efficient fire company, and for about fifteen years was a member of the city corporation. He was one of the founders of the Mount Royal Cemetery, and President of the Company that owns it. In 1822, his father was chiefly instrumental in establishing the American Presbyterian Church in Montreal, and Mr. Benjamin Lyman was a member from the first, and for many years before he died an elder and a trustee. He was a leading promoter of the Montreal Auxiliary Bible Society, and of the Montreal Temperance Society, and was also active in the promotion of nearly all benevolent enterprises connected with the city in which he resided. He was a man of the kindest and most sympathetic nature, and exceedingly generous in response to every call for help to the needy. He was connected with many monetary institutions, amongst others the Federal Bank, of which he was a Director. He was also an active member of the Manufacturers' Association of the Dominion, and of the Board of Trade of Toronto.

Mr. Lyman's association with the Ontario College of Pharmacy is well known to our readers. He was one of the first members of the Canadian Pharmaceutical Society, and the first President of the new College, a position which he held for three terms. His loss as a member of the Council will be severely felt, as he spared neither time, trouble, or expense in carrying out what he considered to be the right course.

The portrait given at the commencement of this number may be accepted as an excellent likeness. The deceased was of commanding stature and presence, and though time had left its impress on his hair and in the deepening of the lines of the face, he still preserved the erect carriage of his earlier days, and up to the time of his illness looked strong and rugged. He was not what might be termed a demonstrative man, save perhaps in his friendships, which were quickly formed and firmly fixed. He was slow and careful of speech, but what he said was to the point, and conclusions once arrived at were promptly carried into effect. He was essentially a man of action and of very decided character. He was, and always had been, a strict teetotaller, and a strong advocate of the system. His teetotalism was not of the platform order, but thoroughly practical. What he accomplished was effected by untiring patience and kind persuasion, and in this way he was instrumental in doing a vast amount of permanent good. Though anything but illiberal in his treatment of the religious opinions of others, his own belief was

of that rigid character which was so thoroughly exemplified in his life. He finished well his race, and we doubt not but the Great Master has said "Well done!"

MR. THOS. H. POWERS, senior partner of the well known manufacturing firm of Messrs. Powers & Weightman, Philadelphia, died of pneumonia, on Wednesday, Nov. 20th, in the sixty seventh year of his age. His illness was of very brief duration, lasting only about four days. Mr. Powers was one of the most wealthy and enterprising manufacturers of chemicals in the world.

AMERICAN PHARMACEUTICAL ASSOCIATION.

ANNUAL MEETING.

(Reported by H. J. Rose.)

The custom of holding the annual meetings of the American Pharmaceutical Association at different parts of the continent has no doubt extended the influence of the Association and assisted in advancing the interests of Pharmacy. If, however, instead of a jump of a thousand miles at a time, the places of meeting were gradually changed, by removes of say 300 miles, at each session, it might perhaps tend to keep up a more continuous live interest in the meetings among a larger number of its members. Say that the meeting this year had been in New York or Cincinnati, it is more than likely that many who joined the Association last year would have attended again, and a second visit would cement acquaintances formed, make members more at home in the discussion of the subjects brought up, and render attendance at subsequent meetings more probable; a good attendance of members, prepared to discuss the questions brought up in the papers presented, tends to make the meetings more interesting, and the report of them more valuable. The meeting this year showed a slight falling off in this respect. As will be remembered, it was decided to hold the meeting this year at Atlanta, Georgia, a jump of a thousand miles, or thirteen hundred by rail.

The postponement of the meeting from September to November doubtless affected the attendance materially, many of the most active members being connected with different colleges of pharmacy where lectures commence in October, while the yellow fever plague prevented the attendance of many from the South. The meetings were held in Concordia Hall, the stage being tastefully decorated with southern medical and flowering plants, ferns, &c. The pharmaceutical display being placed in the same room, proved rather a

drawback from the noise caused by visitors walking about and talking while papers were being read. In spite of the frequent calls to order of the chairman; Dr. Menninger seemed to be the only one whose voice covered such interruptions, except to members on the front seats; this must be my excuse for the short notice of many interesting papers read.

The Mayor made a short address of welcome, after which the president, Mr. Saunders, read his address, containing an exhaustive history of pharmacy from the earliest times, tracing the history of cinchona and other medicinal plants, with a tabulated statement of the geographical and botanical sources of the present materia medica, and showing that to less than four per cent. of the known species had been assigned medicinal places, leaving an immense field for investigation. The paper showed a great amount of research, and will be looked forward to, in the published proceedings, with interest.

After a short recess the Committee on Credentials brought in their report, when the roll was called and about fifty new members elected.

The reports of the Secretary and of the Executive Committee, showing a present membership of 1,135, were read and referred to the publishing committee. Invitations were read from the Atlanta Medical College, the State Geologist and others, to visit their buildings, and were accepted, and an invitation given to several medical and scientific bodies to attend the meetings of the Association. After appointing a nominating committee of a delegate from each pharmaceutical society represented, with three others appointed by the chairman, the meeting adjourned. Wednesday, the nominating committee brought in their report, which was adopted as follows: President G. J. Luhn, Charleston, S. C., 1st Vice-President: F. T. Whiting, Great Barrington, Mass., 2nd Vice-President; H. J. Rose, Toronto, 3rd Vice-President; W. H. Cranford, St. Louis, Mo., Treasurer; C. A. Tufts, Dover, N. H., Permanent Secretary; J. M. Maisch, Philadelphia, Local Secretary; appointed subsequently. E. Lilly, Indianapolis, Ind., Reporter on Progress of Pharmacy; C. L. Diehl, Louisville, Ky., Executive Committee Chairman; G. W. Kennedy, Pottsville, Pa., Drug Market Chairman, Wm. H. Wickham, New York; Committee on Papers and Queries, E. Scheffer; Chairman of Business Committee, H. J. Menninger; Chairman of Committee on Prize Essay, C. L. Diehl, Chairman; on Legislation, J. M. Maisch, Chairman.

The new President took the chair after an introduction by the retiring President, and gave a short address of thanks for the honor conferred upon him; when the Treasurer's report was read, showing receipts \$5,313, and disbursements \$4,451 for the past year. The annual Report of Proceedings being smaller than usual last year, the funds of the Association escaped a deficit, finances having

suffered seriously by the depression of business and the retirement of many members, who, after three years of non-payment, are dropped from the roll. He advocated some scheme being adopted to place the Association in a more sound financial condition.

Dr. Menninger read extracts from the report on drug market, giving a very full report of the fluctuations in prices, and the alterations in sources of supply.

A report of committee on the revision of the Pharmacopœia was read, showing the progress made and the efforts to have the work as perfect as possible by making use of the best available talent. Dr. Squibb has consented to work on formulas for fluid extracts; Mr. J. U. Lloyd, Prof. C. L. Diehl, and others. The Secretary of State had rendered the committee valuable aid in applying for and receiving reports of Pharmacopœial changes in contemplation in other countries, with methods adopted for revision.

Replies to queries being reached, and number one, by G. W. Kennedy, as to the best formulas for liquid preparations of coca, read by the author, who recommended a strong spirit as the best solvent, stating that weaker alcoholic solutions were liable to deposit on keeping. The discussion following showed the author to be in a minority in that opinion. Mr. Saunders, and others, had found no difficulty in keeping it with weaker spirit. Mr. Maisch thought water was the best solvent of the active principle, hence a weak spirit should be used. Your correspondent advocated the addition of liquor calcis sacch. to a weak alcoholic solution as the menstruum. Dr. Menninger believed an alkali of some kind would be advisable.

The extent to which glycerine will attract moisture in a damp atmosphere was the next topic, and Mr. Kennedy asked for time to continue his experiments, a sample under examination having already absorbed sixty per cent. and no sign of saturation.

Query No. 7, regarding Damiana, Dr. Menninger said the name and history of this article savoured so strongly of quackery that he advised its being dropped.

Mr. Sheppard's reply to Query 9 was read by Mr. Scheffer, referred to method of keeping compound resin cerate, U. S. P., from getting hard; as it contains turpentine and linseed oil this is found a difficult matter, and the demand for the article is very limited.

No. 10 was a good paper by Prof. Sharples, of Boston, on safe colors for candies. He condemned the anilines, gamboge and mineral pigments. Turmeric lake was recommended instead of the lead chromate which confectioners will use, in spite of every caution, but the fact of its becoming brown in the presence of even the vapor of ammonia prevents its adoption.

The extensive use of silicate of soda in confectionery was condemned by Dr. Menninger. An interesting paper followed on the berries of *Benzoin odoriferum*, spice bush, by A. W. Miller, of

Philada, with specimens of the volatile and fixed oil they contain, to the amount of 60 per cent., having a flavor between pimento, cloves and cajeput.

Mr. Tarrant reported verbally on the next query as to emplastr, thapsiæ, that he had not been able to get any samples, the article not being apparently known in Paris, although it purports to come from there.

Query No. 17, on the removal of the fixed oil from colchicum seeds, was satisfactorily answered by E. L. Boerner, Iowa City, Ind., who showed that it was feasible by means of the lightest petroleum spirit, known as gasoline; that the seeds lost none of their medicinal virtue, and that the fluid extract was improved in appearance by the process.

Prof. Remington's admirable paper in reply to next query, was read by Mr. Saunders, regarding the proper menstruum for rad. glycyrrhiza to produce the best product, for masking the taste of unpleasant medicines. "Justice cannot be done to the paper in a short notice, and with other papers read at the meeting, will appear in full. The result of several experiments was shown by samples, and the most favorable seemed to be a weak alcoholic strength, with the addition of a considerable quantity of ammonia and glycerin.

Query No. 19, responded to by Mr. Shinn, for Mr. Graham, of Philadelphia, regarding the pharmacopœial formula for fl. ext. wild cherry, showed that the addition of almond paste was unnecessary, simple maceration in cold water being alone required to develop the necessary chemical change. He recommended the addition of a small quantity of glycerin, and sufficient sugar to preserve the solution, making the product half the relative strength of the U.S.P. The business of the day was concluded by appointing a committee to draft resolutions on the death of the late Mr. Powers, of Philadelphia.

The banquet in the evening, given by the druggists of Atlanta, was one of the most *recherche* character, and all the arrangements connected with it were perfect. The tables presented an elegant appearance, with their pyramids of tropical fruits and confectionery—while the ebony faces of the waiters in white were reflected in the glassware and silver surrounding each plate. A silver mortar was raised at the end of the room from which the final round of punch was dispensed, the toast being "The American Medical Association; may we hand in hand tread the paths of science, never usurping each others functions, but each dependent on the other for success." The introduction of the toasts and responses between the courses, made the evening pass agreeably, the undercurrent of Southern feeling only bubbling to the surface in the response to the toast of "Georgia," where allusion was made to her sufferings after a visit from a gentleman of the name of Sherman.

Business commenced on Thursday, after routine work, with an invitation from Dr. Land, State Analyst, to visit his laboratory.

The half-hour which a few of us were able to spend there showed a very complete lot of appliances, and our host showed us some of the little improvements he has introduced in the *Journal of Chemistry*, notably, that for estimating carbonic acid—he prevents re-absorption of gas by the introduction of paraffine into the closed tubes.

A resolution favoring the introduction of the metrical system, and recommending as a means of familiarizing the public with the system the publication of U.S. official tables in Centigrade, as well Fahrenheit, also that new coins issued should be stamped with weight in grammes.

A recommendation from the Committee on Ways and Means for the raising of a capital fund by permitting life membership to members of one year's standing on payment of \$75, and twenty years, \$40, with intermediate rates, was, after discussion laid over for consideration.

Mr. Lloyd, of Cincinnati, followed with reply to query on Berberina and its preparation from *Hydrastis Canadensis*. Its enthusiastic reception was well deserved. Operating on 1,500 lbs. of the root, he showed the product in crude and purified Berberina and its salts—Hydrastia isolated and its salts, with processes in full. The publication of this paper will be looked forward to with interest, as also Mr. Lloyd's next paper on Podophyllin. His conclusions were that the different shades of color were produced by the use of more or less concentrated solutions; that the greenish shade, often demanded by the trade, was caused by the precipitation in alum water, and that this product was more griping in its action. He recommended the use of pure water, and drying in a cold atmosphere. Replying to a question as to presence of berberina in Podophyllin, he said he never found it when the roots had been properly picked.

Report of the committee on next place of meeting was brought in, and Indianapolis, Ind., decided upon, the second Tuesday in September.

Mr. Lemberger read his paper on a fluid preparation of Lactucarium, recommending its maceration in benzine, and exhaustion with dilute alcohol.

Prof. Sharples' paper on the methods of distinguishing the alkaloids of cinchona, went to show that when a mixture of definite quantities of the different alkaloids was made, it was found that an analysis did not separate them in the same proportion. Professor Maisch looked upon the paper as an attempt to defend cinchquinine.

The last paper on the list of queries, responded to, was by Mr. Mercein, of Jersey City, on what chemicals may be profitably made by the retail pharmacist. He showed the educational advantages derived from laboratory work in cases where the price did not leave much margin of profit. He gave many of the salts of mercury, iron, and lead, also cit. iron and quinine, as illustrations.

Under the call for voluntary papers, Mr. Saunders read one on

Sachet Powders, giving formulas and showing nice samples of Heliotrope, Jockey Club, &c. Mr. Lloyd presented one on Hydrocyanic acid, showing the advantage of alcohol as a solvent instead of water. He showed some made in 1874, and kept in a large bottle, frequently opened, which still seemed of full strength.

Mr. Lloyd spoke of the introduction of new remedies now so extensively carried on, frequently under fictitious names, and gave the correct names of the following: *Cascara Sagrada* being *Rhamnus Purshiana*; *Yerba Reuma*, *Berberis Aquifolium*; and *Mountain Grape*, *Berberis Repens*, *B*; *nervosa* or *B*, *pinnata*.

A paper of Dr. Squibb's, on Fluid Extracts by repercolation followed, and with his former pamphlet ordered to be published with the proceedings, together with one by Mr. Diehl on the same subject. After the reading of some reports of committees, and election of new members, with a resolution by Mr. Saunders, to have future meetings in the spring months if held in the Southern States; the day's business closed.

In the evening a musical entertainment was given at the hall, of a very pleasant character, refreshments being handed round between the pieces.

Saturday morning was occupied in winding up the business of the meeting. The report on Exhibit of specimens was read in part by Mr. Mohr, and alludes to the fine collection of California materia medica now coming into notice. The chemical display of Messrs. Powers & Weightman, and Messrs. Rosengarten & Son, Philada, Hance Bros. & White, Warner & Co., Wyeth & Bro., and McKesson & Robbins, made large displays of Pharmaceutical preparations. A section of Cork tree and tea leaves, grown in Georgia, shown by Mr. Ingalls, with some Orange flower water, by Mr. Candidus, of Mobile, and a large collection by Dr. Grant, of Georgia, of about 200 well preserved herbarium specimens. Mr. Lloyd's collection of salts of Hydrastis, and a framed display of the analytical results of an important toxicological investigation by Dr. Land, of Atlanta, altogether made a very interesting display.

A resolution of sympathy on the death of Mr. Powers, of Philadelphia, and one commending the heroism displayed by pharmacists of the South and West during the recent yellow fever plague, were carried unanimously.

Thanks were voted to the citizens of Atlanta and the press, and thus closed another successful annual meeting of the American Pharmaceueical Association.

An excursion to Florida, at reduced rates, had been arranged for, and two o'clock on Friday saw a general exodus of visitors, the two trains drawn up together, one carrying a happy party to the orange groves of Florida, the other bearing its load towards the snow, which greeted our return to Canada after a halt at Chattanooga to visit the far-famed Lookout Mountain, and the battlefield above the clouds.

Editorial Summary.

THE export of port wine from Portugal in 1876 amounted to 3,146,891 decalitres—over 8,000,000 wine gallons.

There is now in Canada a slight demand for goa powder—an Eastern remedy for ringworm and some other skin diseases.

The export of cinnamon from Ceylon in 1877 amounted to 1,063,107 pounds of fine quality, and 284,664 pounds of chips.

CHINESE camphor, obtained by distilling the leaves of *Blumea balsamifera* and allied plants, has the following ultimate composition: Carbon 77.56, hydrogen 11.60, oxygen 10.84.

Dr. Aquilla Smith, of Dublin, uses very small doses of nitrate of tellurium in cases of feigned illness or malingering. An intolerable odor of person is thereby produced, and a second dose is never required.

AN examination of Foreign and English insect powder, *Pyrethrum roseum*, reveals the fact that the foreign powder yields double the ash of that pulverized in England, and as the latter is in a much finer state of division it may be claimed to be much superior.

AN adulteration of santonin with 61 per cent. of boracic acid is noted by Mr. W. Stevenson, (*Pharm. Jour. and Trans.*) The sample had the appearance of pure santonin, the boracic acid having apparently been obtained purposely in small crystals. The santonin bore the name of a foreign manufacturer.

A writer in the *Pharm. Jour. & Trans.* expresses the opinion that the price of gas-tar products will be considerably modified if the

electric light takes the place of gas, since many substances now obtained as bye-products will have to be specially manufactured.

DR. HAZARD, (*St. Louis Clinical Record*) says that ten to twenty grains of salicylic acid dissolved in one ounce of bay rum forms a remedy for dandruff, quite as effectual and far more agreeable than a solution of chloral hydrate. The scales disappear after about half a dozen applications.

THE first lime-tree orchards were planted on the island of Montserrat in 1852. There are now over 120,000 trees, and the annual export of juice reaches 2,500 barrels. The juice from the choice fruit is at once put into the receptacles in which it is shipped; that of the inferior fruit is boiled down for the citric acid manufacturers.

A SUBSTITUTE for gutta-percha has been found in the milky juice of the bully tree. It is called *balata*, and comes from the region of the Amazon. Its properties and appearance are very similar to those of gutta-percha, and in some respects it is to be preferred to that substance. It is said that it has already taken an important place as an article of commerce.

DR. ROTHROCK, of Philadelphia, has commenced in that city a course of twenty-five lectures on Plant Form and its Anatomy as applied to Industrial Art. The lectures are illustrated by magnified images of vegetable structures projected on screens. It is said that the effect is similar to that produced by the kaleidoscope, but instead of set figures of geometrical outline there is revealed the diversity and wealth of the intimate laboratory of nature herself.

MR. HOLMES, Curator of the Museum of the Pharmaceutical Society of Great Britain, reports the detection of the adulteration of senega with vincetoxicum root, (*Asclepias vincetoxicum*). The admixture was evidently not accidental, and must have taken place in some European country other than England. Considerable quantities of this adulterated root are to be found in the English market. The amount of admixture is about 33 per cent., by bulk.

A WRITER in *Nature* endeavors to trace a relation between hard times and sun-spot periods. Commercial crises occurred in the years 1772-3, 1783, 1793, 1804-5, 1815, 1825, 1836-9, 1847, 1857, 1866, and 1878. These dates fall into a series, having the average of 10.46 years, which very nearly coincides with Browne's statement of the periodicity of sun-spots, 10.45 years. If there be any truth in this, astronomy will have to be embraced amongst commercial studies, and a piece of smoked glass will become an office necessity.

DR. B. W. RICHARDSON has recently made two additions to the numerous list of medicinal agents for which he has found new applications. These are sodium and potassium alcohols, which are said to be effectual and easily controlled caustics, causing "a gradual destruction of tissue, which may be so moderated as hardly to be perceptible, and may be so intensified as to act almost like a cutting instrument." The action may be stopped instantaneously by the application of a small quantity of chloroform which decomposes the caustic.

IN speaking of nitrite of amyl, Dr. J. Crichton Browne—an eminent English authority on nervous and mental diseases—says: "The result of all my experiments is to convince me that the nitrite will be found invaluable in many cases, in not only postponing, but in altogether preventing epileptic seizures. It will, I believe, supersede other methods of attempting to avert the fit by acting upon indications afforded by the aura." He argues that if by the administration of the nitrite the fit can be averted, a decided step will be made towards recovery, as a pathological habit will have been interrupted, and in thus controlling the fits a limit will be placed on the destructiveness of the disease.

THE *Druggists' Circular* quotes from a St. Louis medical journal to the effect that the salts of salicylic acid possess strongly marked anaphrodisiac properties. In two cases in which salicylate of soda had for some time been administered as a remedy for rheumatism, an effect of this kind was observed, and though the medicine was promptly discontinued a considerable period elapsed before the patients regained their virile powers. It is quite possible that the salicylates may operate in this way, but it is somewhat strange that this property should have escaped observation so far. No doubt the attention of physicians will be directed in this chan-

nel, and we may very shortly expect the report to be confirmed or denied.

THE son of a London (Eng.) optician recently lost his life by the explosion of a retort in which he was preparing oxygen gas. Deceased received a severe wound in the chest, by which the lungs were exposed, and his neck was also frightfully lacerated. He only lived for about thirty minutes after the accident. The cause of the explosion is not clearly shown, but one of our contemporaries, in describing the occurrence, says that during recent years two fatal explosions have occurred in the manufacture of oxygen from binoxide of manganese. In both instances the binoxide was adulterated; in one case with soot, and in the other with black antimony, thus producing mixtures of an exceedingly dangerous character.

IN a paper in the *Philadelphia Medical & Surgical Reporter* Dr. W. S. Koss calls attention to the great danger of using acetate of lead as a collyrium, especially if the cornea is in the least abraded. If the acetate solution, of whatever strength, is used on an ulcerated surface, there will be a deposit of albuminate of lead on the entire extent of the denuded cornea. The opaque, white compound thus formed can only be removed by actual scraping or spudding, and a permanent opacity is generally produced. Several authorities, including Drs. Sidney Ringer, Jacob, and Lawrence, are quoted in support of the writer's statements, and the conclusion is drawn that acetate of lead should be forever laid aside as a remedy for diseases of the eye.

A paper by Prof. E. A. Letts, of Bristol, England, read recently at an evening meeting of the Pharmaceutical Society of Great Britain, gave the result of an examination of certain residues obtained on treating bismuth with dilute nitric acid. These residues were obtained from Mr. Schacht of Bristol, who, as our readers may infer, uses large quantities of bismuth. In the present instance, the metal had been treated with a mixture of two parts of strong acid and three of water, and the residue left was at first brick red, but, after a time, its color changed to gray. A careful qualitative analysis showed it to be composed of tellurium, selenium, gold, silver, and bismuth — probably in the form of tellurides and selenides of the latter metals. The presence of tellurium and selenium in any medicine produces in those to whom it is adminis-

tered a most horrible fetor of breath and person. This effect was noticed in regard to the liquor bismuthi prepared from the metal above mentioned, from which we may conclude that traces of these metals must have been dissolved. During the discussion which followed the reading of this paper, Mr. Schacht said that the most ready method of testing bismuth for these impurities, was that of dissolving the suspected metal in aqua regia, and treating with sulphurous acid, either by passing the gas through the solution, or by using sulphite of soda in sufficient quantity to make the solution smell strongly of sulphurous acid. Selenium, gold and some other metals would thus be reduced. If, after being dissolved in nitric acid, and treated with sulphurous acid, neither a black nor a red precipitate were formed, the absence of selenium and tellurium might be relied on. On the other hand, if a black precipitate were produced, the sample should be rejected.

Practical Formulæ.

CRYSTALLIZED JAVELLE WATER.—This consists of 80 per cent. of washing soda, $8\frac{1}{2}$ per cent. of table salt, $11\frac{1}{2}$ per cent. of hypochlorite of sodium. The fabrics are cleaned and bleached at the same time, so that separate cleaning is not necessary.

LIME JUICE CORDIAL.—The following recipe makes a highly satisfactory preparation :

℞ Glucose (by weight)	ʒiv.
Syrup, B.P.	Oj.
Lime Fruit Juice.....	Oj.
Water	ʒxxxvi.

Tincture of Lemon Peel and Triple Orange Flower Water, of each sufficient to flavour.

M.

KOUMIS.—“ Take quart champagne bottles, put into each two ounces of fresh yeast and one half-ounce of powdered sugar, and fill them with fresh skimmed milk, cork the bottles tightly, and tie the corks with stout cord. Let them stand in a warm place until the liquid begins to thicken, then lay them on the side in the cellar for

about a week, and you will have a splendid article of fresh koumis. In using fresh skimmed milk, you are relieved of a large percentage of casein.

OPAQUE GLYCERIN JELLY.—

Mix in a mortar,	White soft soap.....	4 oz.
With	Glycerine.....	6 oz.
Mix	Oil of thyme.....	2 drachms
With	Almond oil.....	4 lbs.

And add this gradually to the glycerine and soap, taking care to incorporate each portion thoroughly before adding any more oil.

TRANSPARENT GLYCERIN JELLY.—

Dissolve	Transparent soap.....	1 oz.
In	Water.....	4 oz.
	Glycerine.....	4 oz.
With the aid of heat. While still warm add	Glycerine.....	20 oz.

And when cold, add perfume to taste, and pour into glass jars. It is pale amber in colour.

GOOD SHOE-BLACKING.—Dissolve one ounce borax in water, and in this dissolve gum shellac until it is the consistency of thin paste; add lampblack to color. This makes a cheap and excellent blacking for boots, giving them the polish of new leather. The shellac makes the boots and shoes almost water proof. Camphor dissolved in alcohol added to the blacking makes the leather more pliable and keeps it from cracking. This is sold for fifty cents for a small bottle. By making it yourself, a dollar will buy material for a gallon.

IGNITION OF HYDROGEN BY ZINC.—In the chemical works at Ludwigs-hafen, formerly Saame & Co., large quantities of zinc chloride are made, during the preparation of which (by acting on granulated zinc with hydrochloric acid) on several occasions the escaping hydrogen took fire. This was at first attributed to carelessness of the workmen in handling lights, or to smoking in the workroom, but has now been ascertained to have been produced spontaneously. The violence of the reaction between large quantities of zinc and acid throw pieces of metallic zinc, which, on first coming in contact with the air, spontaneously absorb enough oxygen with such an elevation of temperature that the mixture ignites, and hence sets fire to the whole of the hydrogen. The same phenomenon has heretofore been observed in other chemical works. It will therefore be advisable to adopt such precautions as will prevent the contact of the zinc with air, and at the same time will make the ignition of the hydrogen, if it should occur, harmless to the workmen or the buildings.—*New Remedies.*

WHOLESALE PRICES CURRENT.—JANUARY, 1879

DRUGS, MEDICINES, &c.	S c.	S c.
Acid, Acetic, fort	0 12	0 14
Benzoic, pure	0 20	0 22
Carbolic, cryst., med	1 15	1 75
" " con	0 65	0 80
Citric	0 70	0 75
Gallie	1 60	2 00
Muriatic	0 03	0 06
Nitric	0 09	0 15
Oxalic	0 13	0 15
Salicylic	3 20	0 00
Sulphuric	0 03	0 05
Tannic	1 25	1 35
Tartaric, pulv	0 43	0 45
Ammon, carb.	0 20	0 21
Biomide	0 70	0 80
Iodide	6 50	7 00
Liquor, 880	0 20	0 22
Muriatic	0 14	0 15
Æther, Nitrous	0 25	0 33
Sulphuric	0 40	0 45
Antim. Nig., pulv	0 15	0 17
Tart	0 45	0 50
Alcohol, 95 per ct., bbl	2 18	0 00
Arrowroot, Jamaica	0 20	0 22
Bermuda	0 58	0 65
Alum	0 02	0 03
Balsam, Canada	0 25	0 30
Copaiba	0 45	0 65
Tolu	1 30	1 40
Bark, Bayberry, pulv	0 18	0 20
Canella, pulv	0 14	0 16
Peruvian, yel. pulv	0 35	0 50
" " red	1 60	1 70
Prickly Ash	0 20	0 22
Slippery Elm, grd. bulk	0 18	0 20
" " flour, packets	0 28	0 32
Sassafras	0 12	0 15
Wild Ch rry.	0 15	0 17
Berries, Cubebs, ground	0 20	0 25
Juniper	0 06	0 10
Beans, Tonquin	1 25	1 50
Vanilla	17 00	19 00
Bismuth, Trisnit.	2 50	2 60
Carb.	2 60	2 70
liquor	0 50	0 55
Borax, refined	0 10	0 12
Camphor, American	0 37	0 40
English	0 42	0 45
Cantharides	1 80	1 90
Powdered	1 60	2 00
Chiretta	0 28	0 30
Chloroform, Pure	1 50	1 75
D. & F	1 00	2 00
" German	0 85	0 90
Chloral hydrate	1 60	1 75
Cinchonine, Muriate	0 55	0 60
Sulphate	0 50	0 55
Cinchonidine, Sulphate	0 95	1 00
Cochineal, S. G.	0 70	0 80
Black	0 90	1 00
Collodion	0 80	0 90
Cuttie-Fish Bone	0 45	0 50
Ergot	0 55	0 60
Extract Belladonna	1 05	1 80
Colocynth, Co.	1 25	1 75
Gentian	0 50	0 60
Hemlock, Ang	0 95	1 05
Henbane, "	3 50	3 60
Jalap	4 50	5 00
Mandrake	1 75	2 00
Nux Vomica	0 40	0 50
Opium	0 90	1 00
Rhubarb	5 00	5 50
Sarsap. Hon. Co.	1 00	1 20
" Jam. Co.	4 00	4 50
Taraxacum, Ang	0 70	0 80
Flowers, Arnica	0 22	0 25
Chamomile	0 28	0 30
Fuller's Earth	0 02	0 04
Gum, Aloes, Barb	0 30	0 80
" Cape	0 18	0 20
" " powdered	0 25	0 30
" Socot.	0 50	0 75
" " pulv	0 70	1 00
Arabic, Select	0 40	0 50
" " powdered	0 60	0 75
" sorts	0 24	0 26

DRUGS, MEDICINES, &c.—Contd.	S c.	S c.
Gum Arabic Sorts, powdered	0 35	0 50
Assafœtida, powdered	0 20	0 25
Benzoin	0 55	0 80
Catechu	0 12	0 15
" powdered	0 20	0 25
Gamboge	1 15	1 20
Guaiacum	0 35	0 85
Myrrh	0 40	0 85
Sang Dracon	0 40	0 45
Scammony, powdered	5 50	6 00
" Virg.	13 50	14 00
Shellac, Orange	0 25	0 27
Shellac, liver	0 23	0 25
Storax	0 40	0 45
Tragacanth, flake	1 10	1 75
" common	0 24	0 65
Galls	0 23	0 25
Gelatine, Cox's 6d.	1 15	1 20
" French	0 70	0 80
Glycerine, common No. 28	0 18	0 22
" No. 30	0 20	0 25
Prices	0 60	0 65
Honey, Canada, best	0 16	0 17
Iron, Carb. Precip.	0 10	0 20
Citrate Ammon.	0 90	1 00
" & Quinine, oz.	0 50	1 20
" & Strychine	0 17	0 20
Perchloride Solution	0 16	0 20
Sulphate, pure	0 07	0 10
Iodine, good	6 50	7 25
Resublimed	7 25	8 00
Jalapin	1 25	1 50
Kreosote	2 50	2 60
Leaves, Buchu	0 16	0 32
Belladonna	0 30	0 33
Foxglove	0 20	0 25
Henbane	0 25	0 30
Horehound	0 20	0 25
Lobe'ia	0 30	0 33
" pulv.	0 40	0 45
Senna, Alex	0 27	0 35
" E. I.	0 13	0 17
" Tinneville	0 20	0 30
Uva Ursi	0 15	0 17
Lime, Chloride	0 02	0 04
Lime, Hypophosphite	2 20	2 50
Sulphite	0 07	0 10
Lead, Acetate	0 13	0 15
" Brown	0 09	0 10
Leptandrin	0 60	0 65
Lye, Concentrated	1 00	1 25
Liquorice, Solazzi	0 46	0 52
Cassano	0 20	0 35
Other brands	0 14	0 25
Magnesia, Carb.	1 02	0 22
" " 4 oz.	0 18	0 22
Calcined, lb.	0 60	0 65
Citrate	0 40	0 75
Mercury	0 70	0 75
Ammoniated	1 20	1 30
Bichlor	0 73	0 80
Binioidide	4 50	5 00
Chloride	0 88	0 90
C. Chalk	0 50	0 55
Nit. Oxyd	1 05	1 10
Morphia, Acet	2 60	2 70
Mur.	2 60	2 70
Sulph.	2 75	2 85
Musk, pure grain	29 00	0 00
Canton	0 60	0 70
Moss, Irish	0 07	0 10
Oil, Almonds, sweet	0 52	0 55
" bitter	9 50	10 00
Aniseed	2 90	3 00
Bergamot, super	4 50	4 75
Caraway	3 80	4 00
Cassia	1 35	1 45
Castor, E. I.	0 15	0 16
Cedar	0 35	0 40
Citronella	1 38	1 45
Cloves, Ang.	2 00	3 00
Cod Liver, Nor., Imp. Gal	1 95	2 40
" N. F.	1 25	1 40
Croton	1 25	1 30
Hemlock	0 40	0 45
Juniper Wood	0 65	0 70
Berries	2 00	2 50
Lavand, Ang.	1 30	1 35

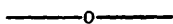
WHOLESALE PRICES CURRENT.—JANUARY.

DRUGS, MEDICINES, &c.—Cont'd	\$ c.	¢ c
Oil, Lavand, Exotic.....lb.	1 25	1 00
Lemon, super.....	2 50	2 70
Orange.....	2 40	2 60
Neroli, super.....	4 50	5 50
Origanum.....	0 65	0 75
Peppermint Ang.....	14 00	15 00
" Amer.....	2 40	2 50
Rose, Virgin.....	12 00	12 50
" good.....	8 00	8 25
Santal.....	7 80	8 00
Sassafras.....	0 55	0 60
Verben.....	1 75	2 00
Wintergreen.....	3 25	3 50
Wormwood, pure.....	4 50	4 75
Ointment, blue.....	0 63	0 67
Opium, Turkey.....	4 75	5 00
" pulv.....lb.	6 75	7 00
Orange Peel, opt.....	0 35	0 40
" good.....	0 20	0 25
Pill, Blue, Mass.....	0 50	0 55
Potas., Bi-chrom.....	0 11	0 12
Bi-tart.....	0 30	0 32
Bromide.....	0 50	0 55
Cyanide.....	0 52	0 55
Carbonate.....	0 13	0 15
Chlorate.....	0 22	0 24
Iodide.....	5 00	5 50
Nitrate.....	0 07½	0 08
Sulphuret.....	0 25	0 35
Pepsin, Boudault's.....oz	1 10	1 20
" Morson's.....oz.	0 83	1 00
Phosphorus.....	1 00	1 05
Podophyllin.....	0 45	0 50
Quinine, Howard's.....	3 60	—
Root, Colombo.....lb.	0 14	0 20
Curcuma, grd.....	0 10	0 15
Dandelion.....	0 17	0 20
Elicampane.....	0 16	0 17
Gentian.....	0 08	0 10
" pulv.....	0 15	0 20
Hellebore, pulv.....	0 18	0 25
Ipecac.....	2 00	2 20
Jalap, Vera Cruz.....	0 50	0 60
Liquorice, select.....	0 12	0 13
" powdered.....	0 15	0 20
Mandrake.....	0 20	0 25
Orris.....	0 20	0 25
Rhubarb, Turkey.....	2 00	2 25
" E. I.....	0 90	1 10
" pulv.....	1 00	1 20
Sarsap., Hond.....	0 30	0 45
" Jam.....	0 77	0 80
Squills.....	0 12	0 15½
Senega.....	0 55	0 60
Spigelia.....	0 30	0 32
Sal, Epsom.....	0 02	0 02½
Rochelle.....	0 30	0 32
Soda.....	0 01½	0 02
Seed, Anise.....	0 12	0 15
Canary.....	0 05	0 06
Cardamon.....	2 30	2 60
Fenugreek, g'd.....	0 09	0 10
Hemp.....	0 05½	0 05
Mustard, white.....	0 12	0 15
Saffron, American.....	0 50	0 60
" Spanish.....	12 00	13 00
Santonine.....	13 00	14 00
Sago.....	0 08	0 09
Silver, Nitrate.....Cash	13 40	15 00
Soap, Castile, mottled.....	0 09½	0 11
Soda, Ash.....	0 02½	0 05
Bicarb. Newcastle, Keg.....	3 50	3 75
" Howard's.....lb.	0 15	0 16
Caustic.....	0 03	0 05
Spirits Ammon., arom.....	0 38	0 40
Strychnine, Crystals.....oz	1 70	1 80
Sulphur, Precip.....lb.	0 12	0 13
Sublimed.....	0 03½	0 04
Roll.....	0 02½	0 03½
Verdigris.....	0 45	0 50
Wax, White, pure.....	0 65	0 75
Zinc, Chloride.....oz	0 10	0 15
Sulphate, pure.....lb.	0 10	0 15
" common.....	0 06	0 10

DYESTUFFS—Continued.	0 05½	0 06½
Blue Vitrol, pure.....	0 05½	0 06½
Camwood.....	0 06½	0 08
Copperas, Green.....	0 01½	0 02
Cudbear.....	0 16	0 30
Fustic, Cuban.....	0 02½	0 03
Indigo, Bengal.....	2 20	2 40
Extract.....	0 23	0 25
Japonica.....	0 05	0 06
Ladye, powdered.....	0 33	0 38
Logwood, Camp.....	0 02½	0 03
Extract.....	0 10½	0 11
" 1 lb. bxs.....	0 13½	—
" ½ lb. ".....	0 14½	—
Madder, best Dutch.....	0 09	0 10
Quercitron.....	0 03	0 05
Sumac.....	0 05½	0 06
Tin, Muriate.....	0 10½	0 12½
Redwood.....	0 05	0 06
SPICES.		
Allspice.....	0 14 @	0 15
Cassia.....	0 21	0 25
Cloves.....	0 50	0 55
Cayenne.....	0 10	0 12
Ginger, E. I.....	0 10	0 17
Jam.....	0 22	0 25
Mace.....	0 87	1 00
Mustard, com.....	0 20	0 25
Nutmegs.....	0 90	1 00
Pepper, Black.....	0 12	0 13
White.....	0 20	0 21
PAINTS, DRY.		
Black, Lamp, com.....	0 08 @	0 10
" refined.....	0 18	0 25
Blue, Celestial.....	0 08	0 12
Prussian.....	0 65	0 75
Brown, Vandyke.....	0 10	0 12½
Chalk, White.....	0 01	0 01½
Green, Brunswick.....	0 07	0 10
Chrome.....	0 16	0 25
Paris.....	0 25	0 28
Magnesia.....	0 15	0 20
Litharge.....	0 05	0 10
Red Lead.....	0 06	0 07
Venetian.....	0 02½	0 03
Sienna, B. & G.....	0 07	0 08
Umber.....	0 07	0 10
Vermillion, English.....	0 75	0 80
American.....	0 20	0 22
Whiting.....roo bs	0 85	1 00
White Lead, dry, gen.....lb.	0 08	0 09
" No. 1.....	0 07½	0 08½
Yellow Chrome.....	0 12	0 15
Ochre.....	0 02	0 03
Zinc White, Star.....	0 09	0 11
COLORS, IN OIL.		
Blue Paint.....	0 12 @	0 15
Fire Proof Paint.....	0 06	0 08
Green, Paris.....	0 30	0 37½
Red, Venetian.....	0 07	0 10
Patent Dryers, 1 lb tins.....	0 10	0 12
Putty.....	0 03½	0 04½
Yellow Ochre.....	0 08	0 12
White Lead, gen. 25 lb. tins.....	2 20	—
" No. 1.....	1 95	—
" No. 2.....less 7½	1 70	—
" No. 3.....	1 45	—
" com.....	1 30	—
White Zinc, Snow.....	2 50	2 75
NAVAL STORES.		
Black Pitch.....	3 75 @	4 00
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No. 1.....	0 90	0 95
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