

**CIHM
Microfiche
Series
(Monographs)**

**ICMH
Collection de
microfiches
(monographies)**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1998

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming are checked below.

- Coloured covers / Couverture de couleur
- Covers damaged / Couverture endommagée
- Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- Bound with other material / Relié avec d'autres documents
- Only edition available / Seule édition disponible
- Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.
- Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from filming / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments / Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed / Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies / Qualité inégale de l'impression
- Includes supplementary material / Comprend du matériel supplémentaire
- Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image / Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure, etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.
- Opposing pages with varying colouration or discolourations are filmed twice to ensure the best possible image / Les pages s'opposant ayant des colorations variables ou des décolorations sont filmées deux fois afin d'obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10x	14x	18x	22x	26x	30x
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12x	16x	20x	24x	28x	32x

The copy filmed here has been reproduced thanks to the generosity of:

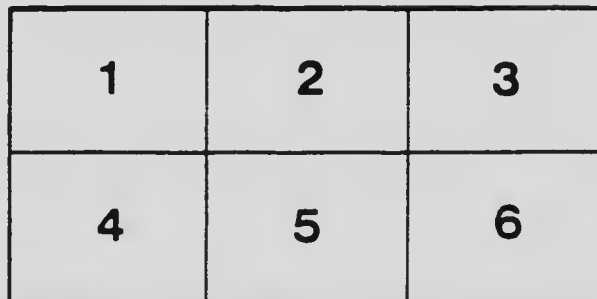
National Library of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

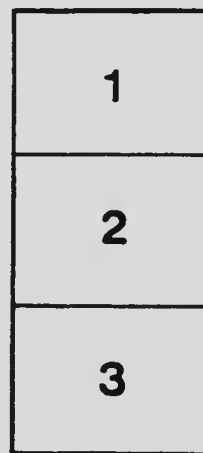
Bibliothèque nationale du Canada

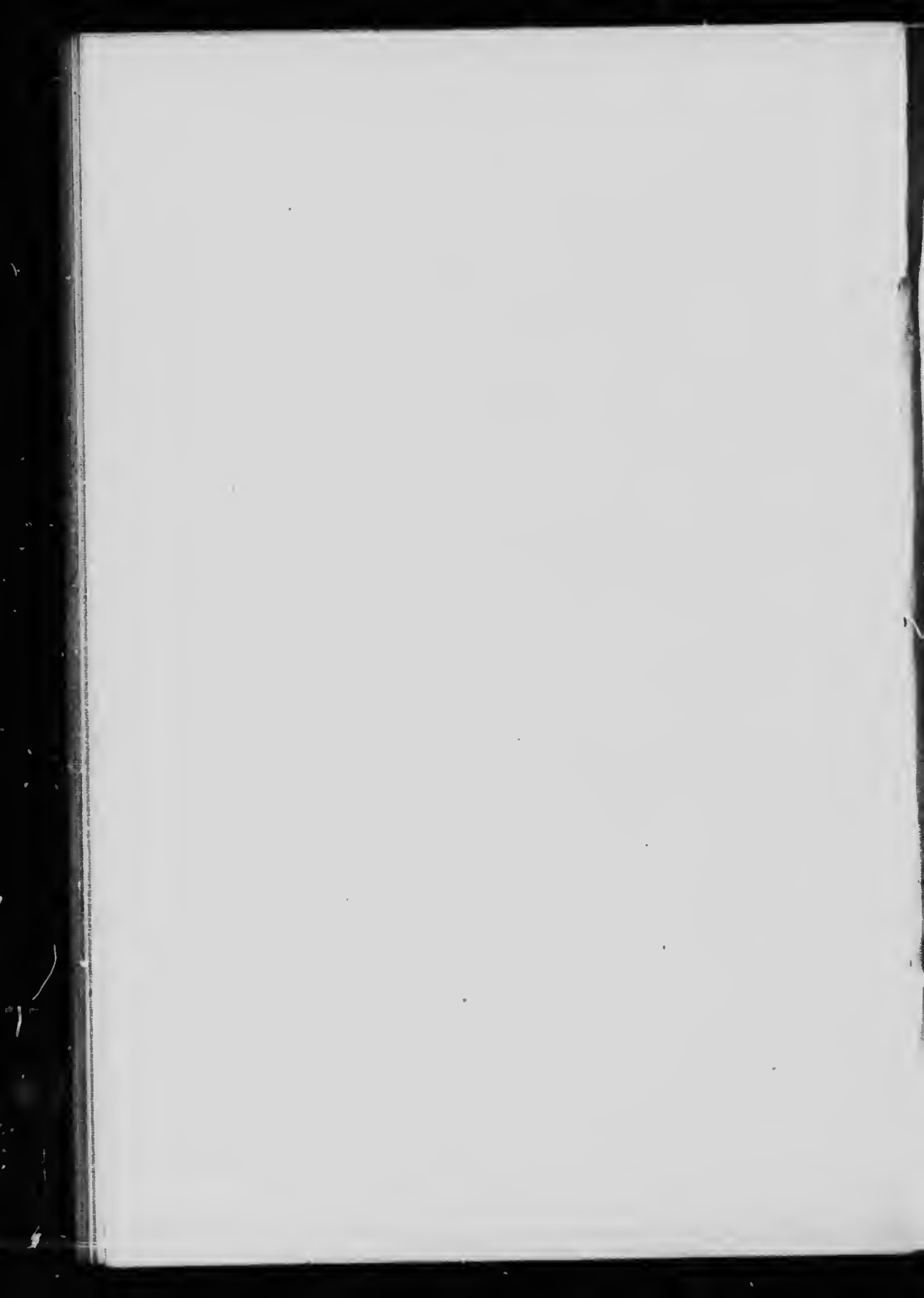
Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.





LABORATORY

OF THE

INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 253

Turpentine Sold as a Drug

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 253

TURPENTINE SOLD AS A DRUG

OTTAWA, March 20, 1913.

WM. HILMSWORTH, Esq.,
Acting Deputy Minister, Inland Revenue.

SIR,—I have the honour to hand you a report dealing with 158 samples of Turpentine, purchased as a drug throughout Canada, in February and March of last year.

Quite extensive work done upon turpentine in these laboratories will be found published as Bulletin No. 79 (1901) and as Bulletin No. 211 (1910). The work referred to had for its object the ascertainment of such constants for turpentine (as used in the arts), as would enable a legal definition for such turpentine to be formulated.

An order in council passed in June, 1912, added turpentine to the fourth schedule of the Adulteration Act; and is published in Circular G. 1022 of this department.

PRIVY COUNCIL, CANADA.

AT THE GOVERNMENT HOUSE AT OTTAWA,

THURSDAY, the 6th day of June, 1912.

PRESENT:

HIS ROYAL HIGHNESS THE GOVERNOR GENERAL IN COUNCIL.

His Royal Highness the Governor General in Council, in virtue of the provisions of section 27 of chapter 133, Revised Statutes of Canada, 1906, 'An Act respecting the Adulteration of Food and other Articles,' is pleased to order as follows:—

Turpentine is hereby added to section 4 of the above described Act and the definition thereof shall be as hereinafter set forth:—

STANDARDS FOR TURPENTINE.

I. When turpentine is sold as a drug, for medical purposes or to the order of a physician, it shall meet pharmacopoeal requirements as provided by section 7 of the said Act.

II. When turpentine is sold under any other conditions than for purposes of medicine, as above, it shall meet the following requirements:—

(1) It shall be entirely free from mineral oil.

(2) Unless sold as wood turpentine, it shall absorb not less than 340 times its weight of iodine (Hubl solution and method). If sold as wood turpentine it shall absorb not less than 240 times its weight of iodine by the same method.

(3) The undissolved (unpolymerized) residue on treatment of 10cc with 40cc of a sulphuric acid containing 20 per cent of the fuming acid, shall not exceed 10 per cent by volume of the sample.

(4) The refractive index of this residue shall be not less than 1.4950 at 20 deg. C.

(5) The refractive index of the sample at 20 deg. C. shall lie between 1.4680 and 1.4730.

(6) The specific gravity of the sample at 20 deg. C. shall not be less than 0.860.

(7) The initial boiling point shall not be lower than 150 deg. C. under ordinary atmospheric pressure.

(8) At least 75 per cent by volume shall distil below 160 deg. C.

(9) The residue on evaporation over a steam bath shall not exceed two (2) per cent.

RODOLPHE BOUDREAU,

Clerk of the Privy Council.

These definitions will render it possible to declare adulteration in the case of fraudulent substitutes for turpentine used as a paint material, or otherwise, in the arts.

But turpentine is also in use as a drug; and for its definition in this regard we must refer to the pharmacopœias. . . .

The British Pharmacopœia (Ed. 1898) thus describes oil of turpentine:—

‘The oil distilled, usually by the aid of steam, from the oleo-resin (turpentine) obtained from *Pinus Sylvestris*, and other species of pinus; rectified if necessary. Limpid, colourless, with a strong, peculiar odour, which varies in the different kinds of oil, and a pungent and somewhat bitter taste. It is soluble in its own volume of glacial acetic acid. It commences to boil at about 160 deg. C. and almost entirely distills below 180 deg. C. little or no residue remaining.’

The United States Pharmacopœia (Eighth Decennial Revision), defines turpentine as ‘A volatile resin obtained from *Pinus palustris*, and from other species of pinus’; and Canadian turpentine as ‘A volatile oil, recently distilled from turpentine. On distillation, the larger part passes over between 155 deg. and 162 deg. C.’

Other specific tests require it to be free from petroleum benzene, kerosene, or similar hydrocarbons.

Forty-two samples of the collection now reported, contain petroleum, and are therefore adulterated under section 7 of the Act. Four other samples are adulterated inasmuch as they fail to meet pharmacopœial requirements, although the character of the adulterant or adulterants is not so clearly made out. Five other samples I have judged ‘doubtful,’ and one sample is evidently a wood turpentine, and must therefore be regarded as adulterated. These results may be summarized thus:—

	Samples.
Adulterated, as containing petroleum.....	42
" " variously.....	4
" " as being wood turpentine.....	1
Doubtful.....	5
Apparently genuine.....	106
Total.....	158

The instructions issued to our inspectors required them to purchase turpentine in drug stores, and as used for dispensing.

These instructions appear not to have been closely followed in all cases. The inspector's reports show that in Nova Scotia one sample was accepted, although the vendor stated that he sold the article for "commercial purposes only," which may be understood to mean technical purposes only.

In Quebec all of the vendors declared that the article offered by them was dispensed only for "External use."

It may be remarked that the Pharmacopocias do not distinguish between turpentine for external and for internal uses.

Correspondence with vendors, subsequent to examination of the article sold, brings statements from many to the effect that they sell turpentine for painters' use, or for removing stains from clothing, and not to any extent for medicinal purposes.

It is perfectly well known that the principal uses of turpentine are such technical uses as in paint or varnish, in shoe polishes, stain removers, etc. Even here it should be true turpentine as defined by Order in Council of June 6, 1912, quoted above.

The presence of petroleums (mineral oils) is equally an adulteration of turpentine whether this is sold for medicinal purposes or for uses in the arts.

This is the main adulteration of turpentine at present; and is evidently the result of a desire to find a market for cheap petroleum fractions at the price of turpentine.

It has been asserted that the intermixture of small percentages of petroleums does not injure turpentine for painters' use.

This statement is very difficult to believe when we consider the different behaviour of terpenes and petroleums to oxygen: but even were it true, the purchaser should be able to buy turpentine when he asks for turpentine, and pays the price of that article. If he desires to add petroleum to it, he can easily purchase the petroleum at its market price, and mix as he may please.

Or, if he is offered a mixture of turpentine with petroleums, the true character of such mixture should be made known to him at the time of sale, and it should not be offered him as turpentine.

Turpentine appears not to be made in Canada.: A large importing house in Montreal writes under date March 29: "Turpentine is an article that it is impossible for the jobber in Canada to control, as there is no turpentine manufacturer in this country; and if it is the intention of the government to prevent adulterated turpentine to be sold in this country, why do they not stop its importation? All the turpentine that we buy is bought for pure; and if it is not pure it is a matter that we have no control over whatever. We think, therefore, that the labour you have gone to, as far as turpentine is concerned, is wasted." This statement is echoed by several other correspondents.

If it be indeed true that Canada has no control over the quality of the article turpentine, the case is a sad one; and it should lead to renewed effort on the part of manufacturers to try still further to obtain a good wood turpentine from the extensive raw materials which are found in our country.

I have seen very good turpentine of Canadian manufacture, produced in experimental plants; and am not without hope that the production of turpentine may yet become a successful Canadian industry.

But, even should we be compelled to rely upon the imported article, it is certain that genuine turpentine is obtainable, if sufficient care in testing samples be taken. This is evidenced by the present report, in which 106 samples out of 158 are found to be pure. That adulterated turpentine is very widely found upon the United States markets is proved by the reports issued by the various Experiment Stations; and the following Notices of Judgment obtained in American courts, and published from Washington, are instructive:—

Notice of judgment.	Manufacturer.	Penalty.
No.		
220	Carolina Pine Products Co.	Goods forfeited.
248	Heekins Turpentine.	Fine \$5.
337	.....	" \$10
539	Gulf Man. Co. Louisiana.	" \$10 and costs.
877	South Carolina Co.	" \$50.
929	.....	Bond given \$100.
1022	.....	Goods destroyed.
1124	.....	"
1373	Barclay Naval Stores Co.	Bond given \$100.
1443	.....	Fine \$20 and costs.
1608	Carolina Pine Products Co.	Goods destroyed.
2109	U. S. Turpentine & Co., N.Y.	Suspended sentence.

In all the above cases, adulteration consisted in admixture of mineral oil in amount varying from 3 per cent to 35 per cent.

I am convinced that most of the importers and distributors of turpentine named in this report, and probably all of the immediate vendors, believed themselves to be supplying genuine turpentine, or, at least, the best article procurable. If this report does nothing more than expose the facts of the case it will, I think, be justified, and if it leads Canadian importers of turpentine to take necessary precautions to procure a genuine article, and to refuse to buy adulterated goods, it will have performed a valuable service to the community. If we have not home-produced turpentine in Canada, we have at least home-produced petroleum and can make such additions of that article as we may think desirable.

As this is the first inspection of turpentine since its legal definition by Order in Council, I think it not unreasonable, in view of this fact, and of the above considerations, to suggest that no legal action be taken by the Department; but that the information furnished be regarded as advisory.

I beg to recommend publication of this report as Bulletin No. 253.

I have the honour to be, Sir,
Your Obedient Servant,

A. MCGILL,

Chief Analyst.

BULLETIN No. 253—TABLE I, PART I—TURPENTINE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.		Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Remarks and Opinion of the Chief Analyst.
			Quantity.	Cent.	Manufacturer.	Furnisher.				
1912.										
Feb. 9	Turpentine.	47001	H. E. Jones, Digby, N.S.	1 pt.	30	Unknown	W. H. Thorne, St. John, N.B.		Genuine.	
" 16	"	47002	Nat. Drug & Chem. Co., Halifax, N.S.	1 "	30	Caroline Pine Tar Products Co., N.Y.			Contains petroleum.	
" 19	"	47003	Brown Bros. & Co., Halifax, N.S.	1 "	30	Unknown	Imperial Oil Co., Halifax, N.S.		Genuine.	
" 19	"	47004	G. A. Burbidge, Halifax, N.S.	1 "	25	"	Nat. Drug Co., Halifax, N.S.		Sold for commercial purposes only.	Contains petroleum.
" 19	"	47005	E. S. Blackie, Halifax, N.S.	1 "	20	"	"		"	"
" 19	"	47006	Buckley Drug Co., Halifax, N.S.	1 "	25	"	Imperial Oil Co., Halifax, N.S.		Genuine.	
" 19	"	47007	Wm. D. Walsh, Halifax, N.S.	1 "	20	"	Nat. Drug Co., Halifax, N.S.		Contains petroleum.	
" 19	"	47008	G. McD. Taylor, Halifax, N.S.	1 "	30	"	"		"	
" 22	"	47009	G. C. McDougall, Kentville, N.S.	1 "	25	"	Canadian Drug Co., St. John, N.B.		Genuine.	
" 25	"	47010	J. J. Kinley, Lunenburg, N.S.	1 "	20	"	S. F. Mack, Lunenburg, N.S.		"	

DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.

DISTRICT OF PRINCE EDWARD ISLAND—WM. A. WEEKS, INSPECTOR.

Feb. 6	Turpentine.	46116	Reddin Bros., Charlottetown, P.E.I.	1 pt.	30		Fennel & Chandler, Charlottetown, P.E.I.		Genuine.	
" 6	"	46117	J. G. Jamieson, Charlottetown, P.E.I.	1 "	50	Lynnans, Ltd., Montreal.			"	

"	9	"	46118	McKinnon Drug Co., Charlotte-1 town, P. E. I.	35	Unknown	W. H. Thorne, St. John, N. B.	Contains petroleum.
"	9	"	46119	The Two Mac's, (Geo. McDon-1 ald) Charlottetown, P. E. I.	30			"
"	12	"	46120	C. D. Rankin, Charlottetown, 1 P. E. I.	20		S. W. Crable, Charlotte- town, P. E. I.	Genuine.
"	12	"	46121	Johnson & Johnson, Charlotte-1 town, P. E. I.	25		Rogers Hardware Co., Ltd., Ch. Town, P. E. I.	"
"	15	"	46122	Gourlies, Ltd., Summerside, P. 1 E. I.	25			Not genuine.
"	15	"	46123	P. N. Eunan, Summerside, 1 P. E. I.	25		Brace McKay & Co., Summerside, P. E. I.	Genuine.
"	21	"	46124	H. J. Mabon, Souris, P. E. I. 1 P. E. I.	35	Nat. Drug & Chem. Co. Halifax, N. S.	Manufacturers	Contains petroleum.
"	21	"	46125	Dr. A. McDonald, Souris, P. 1 E. I.	30	Canadian Drug Co., St. John, N. B.	"	Genuine.

DISTRICT OF NEW BRUNSWICK - J. C. FERGUSON, INSPECTOR

Feb.	13	Turpentine.	45581	E. Clinton Brown, St. John, 1 N. B.	1 pint	25	S. Hayward Co., St. John	Genuine
"	13	"	45582	A. C. Smith & Co., St. John, 3 N. B.	3 "	20	Nat. Drug & Chem. Co., Quebec.	"
"	13	"	45583	The Nat. Drug & Chem. Co., 3 N. B.	3 "	20	Unknown.	Imported by Vendors from Southern States.
"	13	"	45584	Wm. Hawker & Sons, N. B. 3 N. B.	3 "	25		"
"	27	"	45585	Johnston & Watson, St. Stee 3 N. B.	3 "	20		"
Mar.	5	"	45586	Chas. A. Burrehill, Fredericton, 3 N. B.	3 "	30	W. H. Thorne & Co., St. John, N. B.	"
"	6	"	45587	The Baird Co., Ltd., Wood-3 stock, N. B.	3 "	15	De Wolfe Bros., St. Stee- phen, N. B.	Contains petroleum.
"	12	"	45588	B. J. Sharp, Souris, N. B. 3 N. B.	3 "	20	Jas. Neill & Sons, Fred- ericton, N. B.	"
"	13	"	45589	Fairweather & Sons, Moncton, 3 N. B.	3 "	25	W. H. Thorne & Co., St. John.	"
"	14	"	45590	A. E. Shaw, Newcastle, N. B. 3 N. B.	3 "	20	Sumner & Co., Moncton, N. B. Nat. Drug & Chem. Co. St. John.	Genuine.

BULLETIN No. 253—TABLE I, PART I.—TURPENTINE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.		Gross Weight.	Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of Opinion.)	Remarks and Opinion of the Chief Analyst.
			Name and Address of Vendor.	Quantity.		Manufacturer.	Furnisher.		
1912.	Feb. 5	37338	David Gagnon, 30 Rue St. 1 Pierre, Que.	1 pint	25	Unknown	J. M. Noel, Quebec.	For external use.	Genuine.
"	"	37339	Dr. Ed. Morin, 112 Cote montagne St., Que.	1 "	25	"	Comp. Chimie, Quebec.	"	"
"	"	37340	J. E. Livernois, St. Bouillard, Quebec.	1 "	23	Imperial Oil Co., Quebec	Mfrs.	"	"
"	"	37341	"	1 "	67	Unknown	Unknown	"	"
"	"	37342	F. C. Lachetiere, 234 Rue Jean, Quebec.	1 "	75	"	Ed. Drum, Quebec.	"	"
"	"	37343	"	1 "	150	"	Lymans, Ltd., Montreal	"	"
"	"	37344	A. L. Jolicoeur, 338 Rue Jean, Quebec.	1 "	25	"	Unknown	"	"
"	"	37345	A. E. Francoeur, 373 Rue Jean, Quebec.	1 "	60	"	W. Brunet & Cie, Quebec	"	Contains petroleum.
"	"	37346	L. E. Martel, 51 Rue St. Quebec.	1 "	20	"	Unknown	"	Doubtful.
"	"	37347	Estate G. P. Plamondon, 122 Rue St. Joseph, Quebec.	1 "	20	"	J. E. Martineau, Quebec	"	Genuine.

DISTRICT OF QUEBEC—F. X. W. E. BELAND, INSPECTOR.

DISTRICT OF ST. HYACINTHE.—J. C. ROULEAU, INSPECTOR.

Feb. 19	Turpentine.	39001	Dr. Comeau, Farnham.....	1 pint	30	.....	Lyman's, Ltd., Montreal	.....	Contains petroleum.
"	"	39002	P. P. Sabourin, St. Jean ...	1 "	20	.....	Lyman Knox & Co., Montreal.	.....	"
"	"	39003	Dr. Girouard, Drummondville, 1	"	50	.....	N. D. & C. Co., Montreal	.....	"
Mar. 5	"	39004	L. E. Brown, Granby.....	1 "	40	.....	Unknown.....	.....	"
"	"	39005	J. W. Johnson, Cowansville... 1	"	20	.....	Buzzell Bros., Cowansville,	.....	"
"	"	39006	Pharmacie Larocheville, Sorel... 1	"	30	.....	Lyman's, Ltd., Montreal	.....	Genuine.
"	"	39007	Pharmacie Massiotte, Victoria-ville, 1	"	35	.....	Lyman Knox & Co., Montreal.	.....	Contains petroleum.
"	"	39008	Dr. J. B. Drouin, Victoriaville 1	"	35	.....	N. D. & C. Co., Montreal	.....	"
"	"	39009	Phar. Bedard, Richmond ... 1	"	35	.....	" " "	.....	"
"	"	39010	John West, Magog.....	1 "	25	.....	Drug Trading Co., Ltd., Toronto.	.....	Genuine.

DISTRICT OF MONTREAL.—J. J. COSTIGAN, INSPECTOR.

Feb. 6	Turpentine.	32886	J. A. D. Godbout, 54 Craig St., 1	1 pint	40	.....	Lyman's, Ltd., Montreal	.....	Genuine.
"	"	32887	S. Choquet, 153 Amherst St., 1	"	40	.....	.....	.....	"
"	"	32888	R. Martineau, 1445 St. Denis 1	"	25	.....	.....	.....	"
"	"	32889	M. Freeman, 43 St. Catherine St., W., Montreal.	1 "	40	.....	.....	.....	Doubtful.
"	"	32890	L. G. Ryan, 545 Notre Dame St., West, Montreal	1 "	25	.....	.....	.....	Contains petroleum.
"	"	32891	C. L. B. Lippert, 607 Notre Dame St., W., Montreal.	1 "	20	.....	.....	.....	Genuine.
"	"	32892	H. Dugal, 803 Notre Dame St., W., Montreal.	1 "	40	.....	.....	.....	Doubtful.
"	"	32893	O. Brault, 248 St. Antoine St., Montreal.	1 "	30	.....	Lyman Knox Co., .....	.....	Contains petroleum.
"	"	32894	Dr. Brault, 1011 St. Lawrence B., Montreal.	1 "	20	.....	Lyman Knox Co., Ltd., Montreal.	.....	"
"	"	32895	Louis Weinfeld, 1112 St. Lawrence B., Montreal.	1 "	30	.....	Beaver Oil Co., Ltd., Montreal.	.....	"

BULLETIN No. 253—TABLE I, PART I—TURPENTINE—Continued.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
1912.									
Feb. 7	Turpentine.	50101	Medical Hall, Cornwall.	1 pt.	30	Unknown	Queen City Oil Co.	.....	Genuine.
" 9	"	50102	Brock Ostrom & Son, Alexan dria.	1 "	30	"	Lymans, Ltd., Montreal.	.....	"
" 12	"	50103	E. J. Durocher, Ottawa.	16 ozs.	20	"	Ottawa Paint Works, Ottawa.	.....	Not genuine.
" 13	"	50104	The People's Drug Co., Ltd., Renfrew.	16 "	20	"	Queen City Oil Co., Ottawa.	.....	Genuine.
" 13	"	50105	Jas. Clark, Renfrew	16 "	20	"	Lymans, Ltd., Montreal.	.....	"
" 19	"	50106	Jos. G. Valiquette, Dalhousie St., Ottawa.	1 pt.	25	"	Queen City Oil Co., Ottawa.	.....	"
" 20	"	50107	Allen & Cochrane, Ottawa.	16 ozs.	15	"	"	.....	"
" 21	"	50108	T. A. Brownlee, Ottawa	1 pt.	20	"	"	.....	"
" 20	"	50109	W. A. Henderson, Ottawa.	1 "	20	"	Ottawa Drug Co., Ottawa.	.....	Contains petroleum.
" 21	"	50110	Beattie & Argus, Bronson Ave., Ottawa.	1 "	20	"	Queen City Oil Co., Ottawa.	.....	Genuine.

DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.

DISTRICT OF KINGSTON—JAS. HOGAN, INSPECTOR.

Feb. 5	Turpentine	49501	J. B. McLeod, Kingston.	1 pt.	25		N. C. Polson, Kingston.	.....	Genuine.
" 5	"	49502	A. P. Chown, Kingston.	1 "	35		Dalton & Son, Kingston.	.....	"

" 5..	"	49503	W. H. Medley, Kingston	1	"	30	N. C. Polson, Kingston	"
" 6..	"	49504	Geo. W. Mahood, Kingston	1	"	25	A. Chown & Co., Kingston, Ont.	Contains petroleum.
" 7..	"	49505	A. L. Green, Belleville	1	"	25	Southern U.S. Turpentine Co., Cleveland	"
" 7..	"	49506	F. C. Clark, Belleville, Ont.	1	"	30	Canada Paint Co., Montreal	Genuine.
" 7..	"	49507	D. M. Waters, Belleville	1	"	25	Queen City Oil Co., Toronto	"
" 7..	"	49508	T. Geo. Watson, Port Hope	1	"	30	Nat. Drug Co., Toronto	"
" 8..	"	49509	McDermid & Jury, Peterboro.	1	"	25	Canada Oil Co., Toronto	"
" 8..	"	49510	E. L. Payne, Peterboro	1	"	35	Unknown	"

DISTRICT OF TORONTO H. J. DAGGER, INSPECTOR.

Feb. 6	Turpentine.	49337	T. H. Ralph, Dundas	1	pt.	20	Nat. Drug & Chem. Co., Hamilton	Doubtful.
" 6	"	49338	W. M. Stewart Drug Co., Ltd., Grimsby	1	"	25	A. B. Bourne, Grimsby	R. Spec sp. of turpentine.
" 8	"	49339	G. A. Woodhouse, 153 King st. west, Hamilton	1	"	20	Blancher & Reche, Hamilton	Doubtful.
" 13	"	49340	Fred. Murch, Main st. east, Toronto	1	"	25	British Am. Oil Co., Toronto	Contains petroleum.
" 13	"	49341	John Taylor, Port Credit	1	"	20	Nat. Drug & Chem. Co., Ltd., Toronto	"
" 16	"	49342	J. F. Willis, Aurora	1	"	20	Queen City Oil Co., Ltd., Toronto	Genuine.
" 16	"	49343	W. J. Patterson, Newmarket	1	"	25	The Drug Trading Co., Ltd., Toronto	"
" 19	"	49344	J. E. A. White, Shelburne	1	"	25	Unknown	"
" 19	"	49345	L. F. Boyd, Thornbury	1	"	20	Whites Ltd., Collingwood	Wood turpentine.
Mar. 1	"	49346	W. H. Lee, 251 Avenue road, Toronto	1	"	25	Drug Trading Co., Ltd., Toronto	Spts. turpen. Genuine.

BULLETIN No. 253 TABLE I, PART I.—TURPENTINE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of Opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
DISTRICT OF LONDON.—JNO. TALBOT, ACTING INSPECTOR.									
1912.									
Feb. 19	Turpentine.		47883 W. S. Cole, Exeter.	12 oz.	20		Nat. Drug Co., London.		Genuine.
" 19	"		47885 W. H. Howey, Exeter.	12 "	30		Drug Trading Co., Toronto.		"
" 20	"		47893 W. S. R. Holmes, Clinton.	12 "	25		Harden Bros., Clinton.		"
" 20	"		47896 J. E. Hovey, Clinton.	12 "	18		Nat. Drug Co., Hamilton.		"
" 20	"		48203 W. A. McConnell, Clinton.	12 "	30		R. Rowen, Clinton.		"
" 21	"		48210 Chas. Aberhart, Seaforth.	12 "	30		G. A. Sells.		"
" 22	"		48218 E. A. Robertson, Stratford.	12 "	20		G. N. Ward & Son, Stratford.		"
" 22	"		48223 H. M. Myers, Stratford.	12 "	25		Myers Hardware Co., Stratford.		"
" 24	"		48228 Frank H. Smith & Co., St. Mary's.	12 "	40		Canada Paint Co.		"
DISTRICT OF WINDSOR.—JNO. TALBOT, INSPECTOR.									
Feb. 9	Turpentine.		47863 W. T. Strong, London.	12 oz.	25		Queen City Oil Co.		Genuine.
" 9	"		47865 Anderson & Nelles.	12 "	30		Nat. Drug Co.		"
" 12	"		47872 Clement Drug Co., Sarnia.	12 "	30		McKenzie Milne Co., Sarnia.		"
" 12	"		47873 R. T. Geary, Sarnia.	12 "	25		N. D. Rugore, Sarnia.		"
" 13	"		47879 W. T. Rapley, Strathroy.	12 "	20		Nat. Drug Co.		"

"	6	"	"	18076	W. R. Lutz, London.....	12 "	15	Queen City Oil Co.....	"
"	7	"	"	48090	C. T. Allen, London East.....	12 "	25	Parsons Fair London East.....	"
"	8	"	"	48097	Taylor Drug Co., London.....	12 "	15	McLean Hardware Co., London.....	"
"	9	"	"	48099	John E. Platt, London.....	12 "	Nil	Cowan Hardware Co.....	"

DISTRICT OF MANITOBA - A. C. LARIVIERE, INSPECTOR.

Feb.	19	Turpentine..	48621	North End Pharmacy, Winnipeg.	1 pint	35	The Nat. Drug Co., Winnipeg.	Contains petroleum.
"	19	"	48622	H. D. Campbell, Druggist, Winnipeg.	1 "	45	Imperial Oil Co., Winnipeg.	Genuine.
"	19	"	48623	Limo Drug Co., Winnipeg.	1 "	45	Nat. Drug Co., Winnipeg.	Contains petroleum.
"	20	"	48624	Wm. McOntkough, Druggist, Winnipeg.	1 "	45	Winnipeg Oil Co., Winnipeg.	"
"	20	"	48625	The Gordon Mitchell Drug Co., Winnipeg.	1 "	30	Vendors.....	Genuine.
Mar.	12	"	48626	Sanders Drug Store, Carman.	1 "	30		Contains petroleum.
"	14	"	48627	Cowan's Drug Store, Portage La Prairie.	1 "	30	The Nat. Drug & Chem. Co., Winnipeg.	Genuine.
"	14	"	48628	B. M. Conniff, Druggist, Portage La Prairie.	1 "	20	Winnipeg Oil Co., Winnipeg.	Contains petroleum.
"	19	"	48629	Robertson's Drug Store, Brandon.	1 "	50	Winnipeg Oil Co., Winnipeg.	"
"	19	"	48630	McCulloch's Drug Store, Brandon.	1 "	35	Hanbury Hardware Co., Brandon.	Not genuine.

DISTRICT OF CALGARY - R. W. FLETCHER, INSPECTOR.

Mar.	8	Turpentine..	44101	E. Hardisty, Edmonton.....	1 pint	30	T. H. Smart, Edmonton.	Contains petroleum.
"	8	"	44102	J. M. Sisora, Edmonton.....	1 "	30	Somersville Hardware Co., Edmonton.	Genuine.
"	8	"	44103	G. T. McCallum, Edmonton.....	1 "	30	Lyman Bros. & Co., Toronto, Ont.	"
"	8	"	44104	J. H. Lives, Edmonton.....	1 "	30	Somersville Hardware Co., Edmonton.	Contains petroleum.
"	8	"	44105	E. M. Carpenter.....	1 "	30	" "	"
"	18	"	44106	Olivier Bros., Ltd., Calgary.....	1 "	25	C. C. Snowden, Calgary.	Genuine.

BULLETIN No. 253—TABLE I, PART I.—TURPENTINE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
DISTRICT OF CALGARY—R. W. FLETCHER, INSPECTOR—Continued.									
1912.									
Mar. 18	Turpentine.	44107	The McDiarmid Drug Co., Calgary.	1 pint.	25		G. F. Stephens, Calgary.		Genuine.
" 18	"	44108	McFarlane & White, Calgary.	1 "	25		Canadian Oil Co., Calgary.		Contains petroleum.
" 18	"	44109	McCutcheon & McGill, Calgary.	1 "	25		C. C. Snowdon, Calgary.		"
" 18	"	44110	"	1 "	25		"		"
DISTRICT OF NELSON—THOS. PARKER, INSPECTOR.									
Feb. 13	Turpentine.	49487	Mallory Drug Co., Kamloops, B.C.	12 oz.	30		Nat. Drug Co., Montreal.		Genuine.
" 13	"	49603	J. H. Clements, Kamloops, B.C.	12 "	35		N. S. Dalgleish, Kamloops.		"
" 13	"	49604	A. Galloway, Kamloops, B.C.	12 "	30		"		"
" 20	"	49628	W. M. Huston, Ashcroft, B.C.	12 "	30		M. Dumond, Ashcroft.		"
" 26	"	49632	Canada Drug & Book Co., Nelson, B.C.	12 "	25		Nelson Hardware Co., Nelson.		"
" 26	"	49633	Foote Drug Co., Nelson, B.C.	12 "	25		Teeperton & Co., Vancouver.		"
" 26	"	49634	W. Rutherford, Nelson, B.C.	12 "	35		Lymans Ltd., Montreal.		Not genuine.
Mar. 6	"	49636	A. Stewart, Eholt, B.C.	12 "	30		Russell, Law & Caulfield, Greenwood, B.C.		Genuine.
" 7	"	49637	J. Love, Phenix, B.C.	12 "	50		Morrin, Thomson & Co., Phenix B.C.		"
" 8	"	49638	Woodland & Co., Grand Forks, B.C.	12 "	30		Imperial Oil Co., Winnipeg.		"

DISTRICT OF VANCOUVER—J. F. POWER, INSPECTOR.

Feb. 14	Turpentine..	38285	G. H. Cowan Drug Co., Chilliwack, B.C.	Chilli- 1 pint	45	Br. Am. Paint Co., Victoria.		Contains petroleum.
"	"	38286	H. J. Barbor, Chilliwack, B.C.	1 "	50	Unknown		Genuine.
"	"	38287	W. W. Copeland, Abbotsford, B.C.	1 "	60	Nat. Drug Co., Vancouver.		"
"	"	38288	A. Stephen, Mission Jct., B.C.	1 "	45	"		"
"	"	38289	A. R. Willard, Westminister Jct., B.C.	1 "	75	"		"
"	"	38290	H. Ryall, New Westminister, B.C.	1 "	40	Imperial Oil Co., New Westminister.		"
"	"	38291	D. S. Curtis & Co., New Westminister, B.C.	1 "	50	"		"
"	"	38292	T. A. Muir & Co., New Westminister, B.C.	1 "	45	"		"
"	"	38293	McKenzie's Pharmacy, New Westminister, B.C.	1 "	50	"		"
"	"	38294	E. H. Hall, Eburne, B.C.	1 "	30	Durand Imperial Co., Vancouver.		"

DISTRICT OF VICTORIA—D. OSULLIVAN, INSPECTOR.

Mar. 11	Turpentine..	49120	D. E. Campbell, Victoria, B.C.	1 pint	25		B. Am. Paint Co., Ltd., Victoria, B.C.	Genuine.
"	"	49121	W. S. Terry, Victoria, B.C.	1 "	25		The Stanceland Co., Victoria, B.C.	"
"	"	49122	John Cochrane, Victoria, B.C.	1 "	25		Melrose Co., Ltd., Victoria, B.C.	"
"	"	49123	Hall & Co., Victoria, B.C.	1 "	35		B. A. Paint Co., Ltd., Victoria, B.C.	"
"	"	49124	Wm. Jackson & Co., Victoria, B.C.	1 "	35		Melrose Co., Ltd., Victoria, B.C.	"
"	"	49125	Geo. A. Fraser, Victoria, B.C.	1 "	25		Nat. Drug & Chem. Co., Ltd., Victoria, B.C.	"
"	"	49126	F. J. Williamis, Victoria, B.C.	1 "	25		"	"
"	"	49127	Ivel's Pharmacy, Victoria, B.C.	1 "	25		Sprague & Co., Victoria, B.C.	"
"	"	49128	BC. Drug Store, Victoria, B.C.	1 "	25		Nat. Drug & Chem. Co., Ltd., Victoria, B.C.	"
"	"	49129	Nat. Drug & Chem. Co., Ltd., Victoria.	1 "	25		Imperial Oil Co., Vancouver, B.C.	"

BULLETIN No. 253—TABLE I,

RESULTS OF

Name of Inspectoral District.	No. of Sample.	Sp. Gr. 15.5°C.	Residue 10 cc. 40 cc. acid.	Ref. Index 20°C. Residue.	Ref. Index 20°C. Turpentine.	Boiling Point of Fractions from 100 cc.			
						1st 25 cc	2nd 25 cc.	3rd 25 cc.	Next 15 cc.
			cc.			• •	• •	• •	• •
Nova Scotia.....	47001	8689	1.7	1.4794	1.4687	154-155	-159	-163	-172
	47002	8664	4.3	1.4623	1.4552	155-164	-171	-194	
	47003	8950	7	1.5000	1.4750				
	47004	8569	4.3	1.4650	1.4652	156-163	-171	-194	
	47005	8598	4.2	1.4646	1.4662	156-164	-170	-199	
	47006	8709	8	1.5042	1.4705				
	47007	8569	4.4	1.4642	1.4652	155-164	-172	-194	
	47008	8590	4.2	1.4644	1.4664	153-162	-167	-190	-227
	47009	8745	8	1.5060	1.4716				
	47010	8789	7	1.5035	1.4725				
Prince Edward Island	46116	8702	9	1.5013	1.4706				
	46117	8762	8	1.5007	1.4705				
	46118	8514	4.5	1.4584	1.4630	155-164	-170	-191	
	46119	8770	4.1	1.4620	1.4651	153-162	-169	-192	
	46120	8685	8	1.5051	1.4704				
	46121	8799	8	1.5010	1.4720				
	46122	8713	1.6	1.4781	1.4682	153-159	-163	-168	-191
	46123	8718	9	1.5024	1.4700				
	46124	8517	4.4	1.4570	1.4630	150-160	-168	-190	
	46125	8722	9	1.5026	1.4709				
New Brunswick	45581	8712	1.0	1.5023	1.4710				
	45582	8750	8	1.5023	1.4704				
	45583	8808	8	1.5032	1.4725				
	45584	8861	8	1.5024	1.4731				
	45585	8765	9	1.5038	1.4718				
	45586	8739	3.1	1.4572	1.4657	153-160	-166	-181	
	45587	8593	4.2	1.4670	1.4660	156-164	-170	-192	
	45588	8703	3.0	1.4633	1.4680	152-162	-169	-189	
	45589	8766	1.1	1.5014	1.4718				
	45590	8716	9	1.5022	1.4704				
Quebec	37338	8764	9	1.4974	1.4710	154-157	-158	-161	-170
	37339	8766	1.1	1.4900	1.4705				
	37340	8739	9	1.4983	1.4716	154-157	158	-159	-167
	37341	8669	8	1.5010	1.4723				
	37342	8765	9	1.4960	1.4725				
	37343	8831	9	1.5016	1.4728				
	38344	8781	9	1.4994	1.4722				
	37345	8612	2.1	1.4691	1.4650	153-157	-159	-163	-173
	37346	8730	1.3	1.4848	1.4706	154-158	-160	-165	-195
	37347	8987	8	1.4978	1.4756				
St. Hyacinthe.....	39001	8773	1.0	1.5009	1.4705				
	39002	8533	4.3	1.4613	1.4640	153-162	-169	-185	-224
	39003	8508	4.5	1.4589	1.4614	149-160	-166	-177	-202
	39004	8682	3.9	1.4580	1.4651	150-162	-169	-190	
	39005	8477	5.0	1.4560	1.4610	155-164	-170	-193	
	39006	8729	1.0	1.4980	1.4708	154-157	-159	-161	-168
	39007	8508	4.5	1.4597	1.4613	149-159	-164	-176	-205
	39008	8644	4.2	1.4608	1.4660	150-160	-170	-200	
	39009	8513	4.6	1.4601	1.4629	152-162	-169	-187	
	39610	8740	9	1.5027	1.4712				
Montreal	32686	8719	1.0	1.5014	1.4700				
	32687	8740	9	1.5020	1.4701				
	32688	8763	1.0	1.5000	1.4716				
	32689	8688	1.6	1.4687	1.4696	154-158	-158	-163	-173
	32690	8504	4.1	1.4580	1.4617	148-160	-167	-177	-205
	32691	8824	6	1.5049	1.4742				
	32692	8780	1.3	1.4954	1.4714	152-157	-158	-162	-178
	32693	8584	4.2	1.4642	1.4653	155-164	-169	-194	
	32694	8533	4.2	1.4616	1.4631	153-162	-169	-187	
	32695	8601	4.1	1.4616	1.4650	155-163	-170	-194	

PART II—TURPENTINE.

ANALYSIS.

Refractive Index 20°C. of Fractions and Residues.				Volumes obtained from 100 cc										No. of Sample.	Remarks and Opinion of the Chief Analyst.				
I.	II.	III.	IV.	Residual 10 cc.	Residual 25 cc.	Under 156°C	156°-154°	155°-160°	160°-164°	163°-169°	170°-174°	175°-179°	180°-184°			185°-189°	190° and over		
1.4631	1.4655	1.4668	1.4674	1.4862				3	57	20	8	2				47001	Genuine.		
1.4608	1.4634	1.4644			1.4720				9	22	16	13	6	4	3	17	47002	Contains petroleum.	
																	47003	Genuine.	
1.4610	1.4642	1.4646			1.4712				9	24	14	11	8	4	3	17	47004	Contains petroleum.	
1.4623	1.4641	1.4660			1.4725				11	17	20	11	7	5	4	15	47005	" "	
																	47006	Genuine.	
1.4610	1.4638	1.4645			1.4708				8	19	18	12	8	4	3	18	47007	Contains petroleum.	
1.4617	1.4645	1.4654	1.4664	1.4784					2	13	25	18	6	5	4	2	47008	" "	
																	47009	Genuine.	
																	47010	" "	
																	46116	" "	
																	46117	" "	
1.4578	1.4612	1.4630			1.4694				12	19	17	13	6	4	3	16	46118	Contains petroleum.	
1.4580	1.4630	1.4658			1.4746				6	14	15	17	8	7	4	2	46119	" "	
																	46120	Genuine.	
																	46121	" "	
1.4654	1.4673	1.4680	1.4721	1.5054					4	34	27	17	3	2	2	1	46122	Not genuine.	
																	46123	Genuine.	
1.4548	1.4613	1.4646			1.4768				8	15	18	13	8	6	5	2	46124	Contains petroleum.	
																	46125	Genuine.	
																	45581	" "	
																	45582	" "	
																	45583	" "	
																	45584	" "	
																	45585	" "	
1.4573	1.4617	1.4638			1.4873				11	14	18	21	6	4	3	2	45586	Contains petroleum.	
1.4625	1.4646	1.4654			1.4720				7	23	18	12	6	4	3	17	45587	" "	
1.4602	1.4644	1.4670			1.4874				4	9	22	20	7	6	5	2	45588	" "	
																	45589	Genuine.	
																	45590	" "	
1.4677	1.4690	1.4700	1.4720	1.4993					3	61	22	4					37338	" "	
																	37339	" "	
1.4674	1.4682	1.4696	1.4716	1.4944					3	75	9	2					37340	" "	
																	37341	" "	
																	37342	" "	
																	37343	" "	
																	37344	" "	
																	37345	Contains petroleum.	
1.4626	1.4648	1.4625	1.4670	1.4790					5	50	24	7	4				37346	Doubtful.	
1.4655	1.4677	1.4687	1.4727	1.5124					3	40	32	7	4	2	1		37347	Genuine.	
																	37347	" "	
																	37344	" "	
																	39001	Contains petroleum.	
1.4582	1.4620	1.4639	1.4663	1.4790					2	17	23	13	9	7	3	3	39002	" "	
1.4550	1.4604	1.4625	1.4638	1.4793					3	6	15	21	17	9	7	4	3	39003	" "
1.4560	1.4620	1.4644			1.4834				6	14	17	15	10	6	5	2	39004	" "	
1.4560	1.4582	1.4605			1.4710					13	18	18	10	6	5	4	39005	" "	
1.4671	1.4689	1.4700	1.4716	1.4944					4	61	23	2					39006	Genuine.	
1.4564	1.4603	1.4628	1.4635	1.4742					2	7	18	23	14	8	7	3	2	39007	Contains petroleum.
1.4560	1.4622	1.4661			1.4837				8	17	11	11	10	5	5	3	17	39008	" "
1.4564	1.4612	1.4627			1.4705				5	11	24	12	12	6	3	3	14	39009	" "
																	39010	Genuine.	
																	32686	" "	
																	32687	" "	
																	32688	" "	
1.4668	1.4680	1.4684	1.4708	1.4958					2	58	19	8	3				32689	Doubtful.	
1.4560	1.4610	1.4624	1.4634	1.4763					2	7	16	22	14	10	7	4	2	32690	Contains petroleum.
																		32691	Genuine.
1.4682	1.4698	1.4704	1.5061	1.5060					5	57	20	6	1				32692	Doubtful.	
1.4623	1.4647	1.4654			1.4718				8	22	20	10	6	4	3	17	32693	Contains petroleum.	
1.4584	1.4630	1.4632			1.4712				3	14	19	15	11	7	4	5	12	32694	" "
1.4597	1.4628	1.4645			1.4760				6	27	15	11	6	5	3	17	32695	" "	

BULLETIN No. 253—TABLE I

RESULTS OF

Name of Inspectoral District.	No. of Sample.	Sp. Gr. 15.5°C.	Residue 10 cc. 40 cc. acid.	Ref. Index 20°C. Residue.	Ref. Index 20°C. Turpentine.	Boiling Point of Fractions from 100 cc.			
						1st 25 cc.	2nd 25 cc.	3rd 25 cc.	Rest 15 cc.
Ottawa.	50101	8742	1.1	1.4998	1.4716				
	50102	8829	1.0	1.4998	1.4728				
	50103	8513	2.5	1.4620	1.4637	145-154	157	-159	164
	50104	8796	1.1	1.5002	1.4729				
	50105	8671	1.0	1.5010	1.4710				
	50106	8683	1.0	1.4944	1.4628				
	50107	8688	1.2	1.4978	1.4691				
	50108	8730	1.2	1.4923	1.4706	151-159	-163		177
	50109	8512	4.4	1.4590	1.4617	150-160	-161	-173	-197
	50110	8742	1.2	1.4898	1.4718	150-158	-162	-164	-190
Kingston	49501	8707	8	1.5040	1.4700				
	49502	8672	8	1.5066	1.4700				
	49503	8671	8	1.5080	1.4704				
	49504	8522	4.0	1.4600	1.4621	153-159	-163	-170	-193
	49505	8780	3.0	1.4667	1.4651	154-158	161	-167	179
	49506	8697	8	1.5058	1.4701				
	49507	8714	1.2	1.4936	1.4720	155-157	-158	-161	-170
	49508	8724	1.1	1.5020	1.4765	156-158	158	159	-162
	49509	8709	8	1.5051	1.4709				
	49510	8716	8	1.5055	1.4707				
Toronto.	49337	8690	1.3	1.4952	1.4678	156-158	-158	-159	161
	49338	8779	9	1.5034	1.4726				
	49339	8689	1.3	1.4982	1.4696				
	49340	8585	2.5	1.4661	1.4630	152-158	-159	-165	-180
	49341	8547	2.8	1.4594	1.4640	152-159	162	-171	-210
	49342	8761	8	1.4910	1.4670				
	49343	8724	1.1	1.5033	1.4709				
	49344	8665	1.0	1.5030	1.4690				
	49345	8659	1.7	1.4850	1.4688	142-156	-160	-164	-176
	49346	8683	1.1	1.5015	1.4703				
London	47843	8753	9	1.4960	1.4709	152	-160	-164	-196
	47885	8754	9	1.5030	1.4716				
	47893	8714	8	1.5007	1.4701				
	47895	8747	7	1.5039	1.4708				
	48203	8778	1.1	1.4956	1.4718				
	48210	8678	1.0	1.5030	1.4705				
	48218	8747	1.2	1.4939	1.4706	155-158	-159	162	-174
	48223	8702	1.0	1.5049	1.4700				
	48228	8753	1.2	1.4961	1.4710	154-158	-159	-162	-171
	47863	8742	1.0	1.5002	1.4708				
Windsor	47865	8717	8	1.5033	1.4703				
	47872	8711	9	1.4979	1.4707				
	47873	8737	9	1.5020	1.4710				
	47879	8712	8	1.5030	1.4707				
	48076	8700	9	1.4922	1.4702				
	48090	8695	9	1.5020	1.4705				
	48097	8710	9	1.5018	1.4706				
	48099	8685	9	1.5040	1.4700				
	48621	8665	2.1	1.4728	1.4678	154-157	-159	-164	-183
	48622	8716	1.0	1.5024	1.4700				
Manitoba	48623	8620	2.2	1.4727	1.4668	155-158	-160	-163	-185
	48624	8606	2.5	1.4660	1.4666	154-159	161	-166	-199
	48625	8679	9	1.5049	1.4700				
	48626	8703	2.1	1.4633	1.4681	150-157	-160	-167	-202
	48627	8740	1.1	1.4873	1.4692	155-159	-160	-162	-179
	48628	8793	2.1	1.4760	1.4711	153-161	166	-187	
	48629	8639	2.0	1.4696	1.4671	155-158	-160	-165	-195
	48630	8665	1.7	1.4758	1.4679	154-158	-160	-163	-175

PART II—TURPENTINE

ANALYSIS.

I.	Refractive Index 20°C. of Fractions and Residues.				Volumes obtained from 100 cc.										No. of Sample.	Remarks and Opinion of the Chief Analyst.				
	II.	III.	IV.	Residual 10 cc.	Residual 25 cc.	Under 150° C.	150-174	150-179	160-164	165-169	170-174	175-179	180-184	185-189			190 and over			
1 4514	1 4617	1 4658	1 4686	1 4848		5 24	18	13									50101	Genuine.		
																		50102	"	
																		50103	Not genuine.	
																		50104	Genuine.	
																		50105	"	
																		50106	"	
																		50107	"	
1 4667	1 4684	1 4710			1 4986	8 21	29	12	4 3	2 2	2 9							50108	"	
1 4556	1 4619	1 4629	1 4636	1 4725		6 19	27	16	9 5	3 2	3 3							50109	Contains petroleum.	
1 4641	1 4676	1 4685	1 4738	1 5120		8 37	34	5	2 2	1 1	1 1							50110	Genuine.	
																		49501	"	
																		49502	"	
																		49503	"	
1 4583	1 4616	1 4630	1 4637	1 4728		1 23	31	17	5 4	3 2	2 1							49504	Contains petroleum.	
1 4618	1 4619	1 4650	1 4657	1 4750		3 36	31	12	6 2									49505	"	
																			49506	Genuine.
1 4684	1 4690	1 4697	1 4711	1 4887		6 7	19	4										49507	"	
1 4694	1 4700	1 4707	1 4723	1 4875		8 2	8											49508	"	
																		49509	"	
																		49510	"	
1 4678	1 4684	1 4690	1 4700	1 4821		8 2	8											49537	Doubtful.	
																		49338	Genuine.	
																		49339	Doubtful.	
1 4660	1 4640	1 4660	1 4681	1 4968		6 19	24	9 3	2									49340	Contains petroleum.	
1 4627	1 4653	1 4660	1 4642	1 4686		1 6	32	11 6	3 2	2 2	4							49341	"	
																		49342	Genuine.	
																		49343	"	
																		49344	"	
1 4643	1 4675	1 4691	1 4701	1 4830		8 12	29	26	10 4	1								49345	Wood turpentine.	
1 4675	1 4682	1 4694	1 4729	1 5084		5 12	30	5 4	2 1	1 1								49346	Genuine.	
																		47883	"	
																		47885	"	
																		47893	"	
																		47896	"	
																		48203	"	
																		48210	"	
1 4675	1 4682	1 4690	1 4704	1 4954		7 0	13	5 2										48218	"	
																		48223	"	
1 4664	1 4682	1 4690	1 4708	1 4977		2 0	23	5										48228	"	
																		47863	"	
																		47865	"	
																		47872	"	
																		47873	"	
																		47879	"	
																		48076	"	
																		48090	"	
																		48097	"	
																		48099	"	
1 4658	1 4664	1 4673	1 4685	1 4730		3 52	21	8 3	2 1									48621	Contains petroleum.	
																		48622	Genuine.	
1 4647	1 4660	1 4670	1 4675	1 4740		4 8	31	5 3	2 1									48623	Contains petroleum.	
1 4629	1 4653	1 4664	1 4669	1 4762		3 26	45	6 4	2 1	1 2								48624	"	
																		48625	Genuine.	
1 4646	1 4665	1 4680	1 4700	1 4894		5 41	24	8 5	1 1	1 1	4							48626	Contains petroleum.	
1 4933	1 4679	1 4685	1 4702	1 4936		4 8	32	6 2	2									48627	Genuine.	
1 4676	1 4687	1 4704			1 4896	3 17	24	16 7	5 2	2 2	14							48628	Contains petroleum.	
1 4640	1 4664	1 4687	1 4688	1 4820		4 6	29	6 3	2 2	1 1								48629	"	
1 4654	1 4670	1 4680	1 4688	1 4815		3 47	30	7 3										48630	Not genuine.	

BULLETIN No. 253 - TABLE 1,

RESULTS OF

Name of Inspectoral District.	No. of Sample.	Sp. Gr. 15.5 C.	Residue 10 cc. 40 cc. act/l.	Ref. Index 20 C. Residue.	Ref. Index 20 C. Turpentine.	Boiling Point of Fractions from 100 cc.				
						1st 25 cc.	2nd 25 cc.	3rd 25 cc.	Next 15 cc.	
Calgary	44101	8694	2.2	1.4672	1.4664	155	158	160	161	188
	44102	8714	1.1	1.4915	1.4703					
	44103	8708	9	1.5012	1.4700					
	44104	8598	2.5	1.4684	1.4664	154	158	160	166	188
	44105	8648	1.8	1.4718	1.4673	154	158	159	162	179
	44106	8690	8	1.4984	1.4700	151	158	158	159	164
	44107	8698	1.0	1.4895	1.4696					
	44108	8599	2.0	1.4685	1.4668	153	158	160	164	187
	44109	8628	2.0	1.4688	1.4674	151	159	160	166	191
	44110	8622	2.0	1.4705	1.4670	154	158	159	161	190
	Nelson	48487	9218	7	1.5027	1.4757				
49603		8630	1.1	1.4955	1.4700					
49604		8737	1.0	1.4961	1.4710					
49628		8698	9	1.5008	1.4700					
49632		8714	8	1.5068	1.4710					
49633		8714	9	1.5000	1.4701					
49631		8667	1.6	1.4767	1.4678	155	158	158	163	174
49636		8692	1.1	1.4994	1.4695					
49637		8703	1.1	1.5016	1.4708					
49638		8746	1.1	1.5010	1.4708					
Vancouver		38285	8507	4.4	1.4583	1.4618	152	160	167	185	235
	38286	8750	1.0	1.4976	1.4712					
	38287	8742	9	1.5021	1.4707					
	38288	8722	9	1.5026	1.4700					
	38289	8692	9	1.5054	1.4701					
	38290	8724	1.1	1.5009	1.4704					
	38291	8722	1.0	1.5013	1.4718					
	38292	8809	7	1.5003	1.4712					
	38293	8720	1.0	1.5011	1.4703					
	38294	8712	1.0	1.5000	1.4700					
	Victoria	49120	8692	1.1	1.4964	1.4701				
49121		8692	1.1	1.4985	1.4698					
49122		8697	9	1.4978	1.4700					
49123		8704	9	1.4980	1.4703					
49124		8692	1.1	1.4988	1.4708					
49125		8717	8	1.5018	1.4712					
49126		8855	7	1.5036	1.4738					
49127		8730	1.0	1.4990	1.4703					
49128		8825	7	1.5044	1.4726					
49129		8692	8	1.5049	1.4700					

PART II—TURPENTINE.

ANALYSIS.

Refractive Index 20°C. of Fractions and Residues.					Values obtained from 100 cc.								No. of Sample.	Remarks and Opinion of the Chief Analyst.			
I.	II.	III.	IV.	Residual 10 cc.	Residual 25 cc.	Under 150°C	150-154°	155-159°	160-164°	165-169°	170-174°	175-179°			180-184°	185-189°	190 and over
1 4637	1 4645	1 4674	1 4680	1 4782				5	27	5	4	2	1	1		44101	Contains petroleum.
																44102	Genuine.
																44103	"
1 4646	1 4664	1 4675	1 4680	1 4766			3	37	34	7	4	2	2	1		44104	Contains petroleum.
1 4650	1 4668	1 4672	1 4685	1 4810			2	18	31	5	3	1				44105	"
1 4681	1 4690	1 4694	1 4710	1 4848			3	74	13							44106	Genuine.
																44107	"
1 4650	1 4664	1 4670	1 4678	1 4726			3	47	23	8	4	2	1	1	1	44108	Contains petroleum.
1 4653	1 4670	1 4681	1 4686	1 4821			3	47	29	4	4	1	1	1		44109	"
1 4654	1 4670	1 4679	1 4685	1 4776			2	41	32	8	3	2	1	1		44110	"
																48487	Genuine.
																49603	"
																49604	"
																49628	"
																49632	"
																49633	"
1 4631	1 4660	1 4674	1 4683	1 4856				63	17	7	3					49634	Not genuine.
																49636	Genuine.
																49637	"
																49638	"
1 1578	1 4619	1 4631	1 4604	1 4898			6	15	24	13	9	5	5	3	12	38285	Contains petroleum.
																38286	Genuine.
																38287	"
																38288	"
																38289	"
																38290	"
																38291	"
																38292	"
																38293	"
																38294	"
																49120	"
																49121	"
																49122	"
																49123	"
																49124	"
																49125	"
																49126	"
																49127	"
																49128	"
																49129	"

