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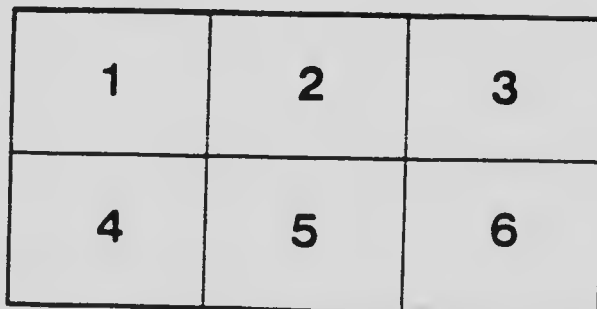
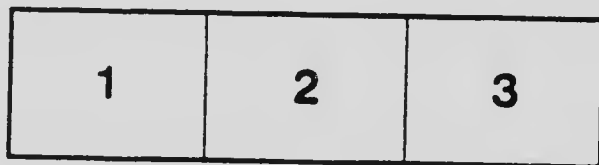
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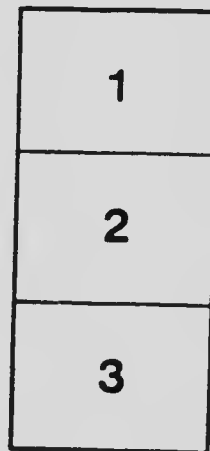
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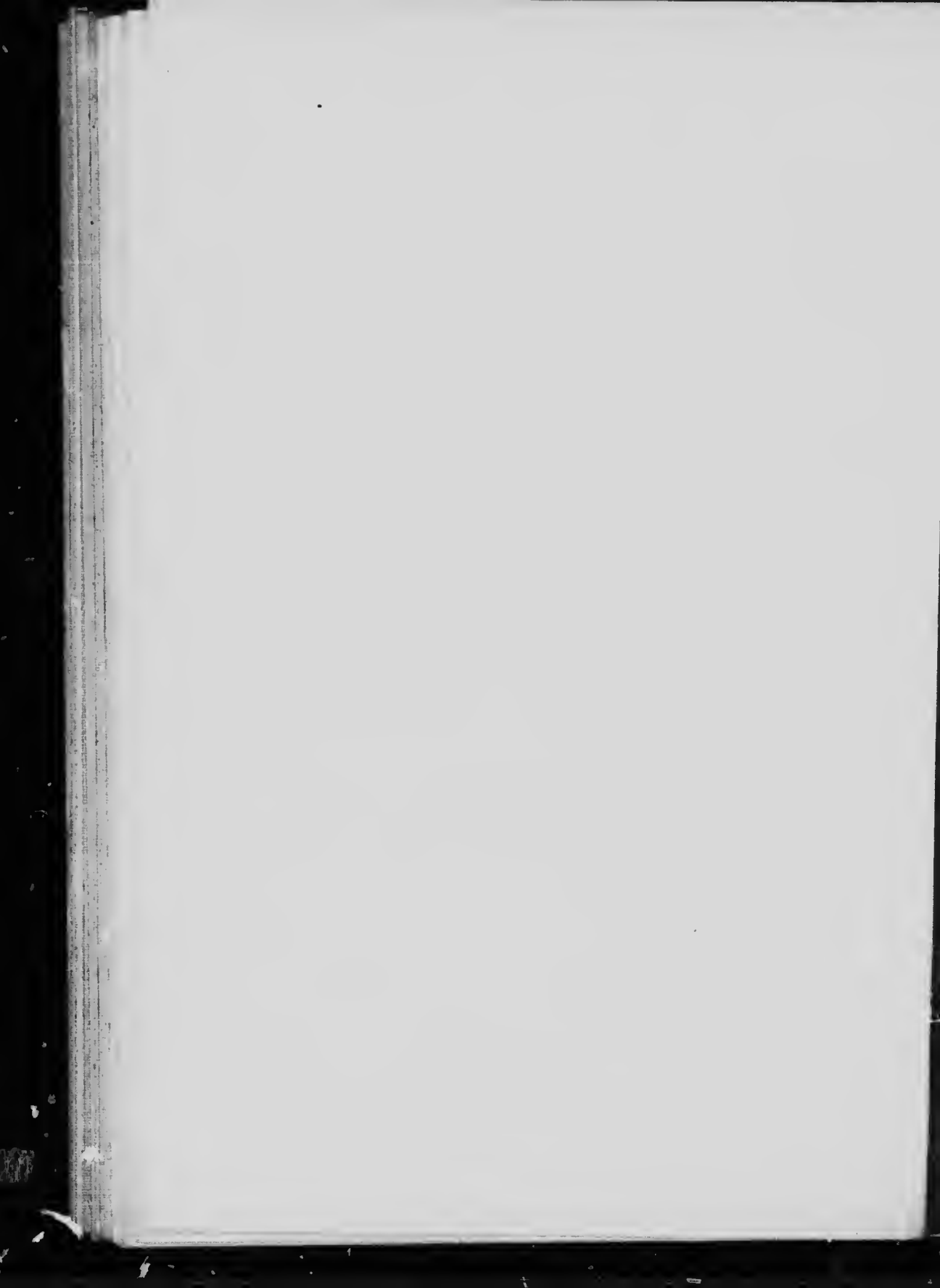
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O. H. M. S.

*W. J. Gerald*  
Deputy Minister.

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LABORATORY  
OF THE  
INLAND REVENUE DEPARTMENT  
OTTAWA, CANADA

BULLETIN No. 209

Spiritus Menthæ Piperitæ.

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INLAND REVENUE DEPARTMENT  
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BULLETIN No. 209

Spiritus Menthae Piperitæ.

OTTAWA, June 15, 1910.

W. J. GERALD, Esq.,  
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you herewith the results of examination of 71 samples of Spirit of Peppermint, purchased throughout Canada in March of this year.

*Spiritus Menthae Piperitæ* popularly known as Spirit of Peppermint, is thus prepared according to the British Pharmacopœia (Edn 1898):—

	Imperial.	Metric.
Oil of Peppermint . . . . .	1 fl. ounce	50 cc
Alcohol (90 p.c.) . . . . .	a sufficient quantity.	

To the oil of peppermint add enough of the alcohol to form 10 fluid ounces (or 500 ce) of the spirit of peppermint

The spirit of peppermint of the British Pharmacopœia of 1885 contained only one-fifth as much oil of peppermint as the above.

The manufacture is very simple, being merely the solution of a proper quantity of the oil in alcohol of correct strength. Hence we find that spirit of peppermint is usually prepared by the local druggist.

Adulteration may consist in (1) using an adulterated oil of peppermint; (2) using incorrect proportion of oil of peppermint; (3) using alcohol of incorrect strength; (4) using wood alcohol (or methylated spirit) instead of ethyl alcohol; (5) using an ingredient not prescribed by the pharmacopœia, such as a dye.

1. Oil of peppermint is, for various reasons, less liable to adulteration than most essential oils. No special examination of the separated oil has been made, in the case of samples now reported.

2. The oil should constitute one-tenth part by volume of the finished preparation. The method of dilution and separation employed in this work is described by Leach (Food Inspection and Analysis, 2nd Edn. p. 865) and yields a very close approximation to the actual content of oil, as proved by working upon samples prepared in the laboratory. Thirty-one (31) samples, being 44 per cent, of the total collection, were found to contain the proper amount of oil of peppermint. The remainder exhibit great carelessness in preparation, and 32 samples contain only 5 per cent of oil, or less than this amount.

3. Alcohol has been approximately determined from the specific gravity of the sample; and exceeds 80 per cent (volume) in 65 samples (92 per cent of the collection).
4. No methyl alcohol is present in any of these samples.
5. Only one sample (38667) is dyed, with an aniline dye. Several samples contain small amounts of turmeric.

It is proper to observe that the above samples were obtained in drug shops, and are, therefore assumed to represent the pharmacopœial preparation.

A spirit or essence of peppermint is used in the kitchen as a flavour in candy making, and for other purposes. Such an article is in reality a flavouring extract, and should not be offered by a druggist, as being identical with the spirit of peppermint of the pharmacopœias. It is possible that samples 38667, 38669, 996, 40417, 42926, 44252, and some others which contain alcohol of distinctly less than prescribed strength, may have been intended by the manufacturer, as *flavouring extracts* rather than as pharmacopœial preparations. Indeed, in the case of one of these (No. 42926) the vendor stated that the article sold, was not the spirit of peppermint of the pharmacopœia. This statement, however, was not made until the sale was completed.

It may be permitted to me to observe that the very indefinite and miscellaneous character of the stocks carried in modern drug shops, has the disadvantage of making these less distinctively apothecary shops than was the case formerly. Many modern drug shops might, with equal propriety be classed as candy shops, refreshment counters, tobacconists, &c. That a druggist should carry peppermint flavouring extract, as well as the B. P. article, need cause us no surprise. It would be folly to inveigh against modern innovations, which may be the natural trend of things in course of betterment. But so long as the distinctive name drug shop is retained, I think it not too much to require that the salesman should be familiar with the preparations of the British Pharmacopœia, and that he should not be permitted to supply other than pharmacopœial preparations, when a customer asks for such, under a name recognized by the Pharmacopœia. Spirit of peppermint, or *spiritus menthe piperite* is a perfectly definite article, having legally recognized composition, and although its nature is such that no particular danger to health is likely to result from the substitution of a flavouring extract of peppermint, yet the same carelessness which permits the substitution, might, in other cases, be followed by very serious consequences.

It will be noted that many of the samples are labelled as essences. This term is not recognized by the British Pharmacopœia, nor by that of the United States of America. The French Codex Medicamentarius uses the word *essence* as synonymous with essential oil; thus *Essence de Menthe Poivrée* is equivalent to our *Mentha piperite Oleum*. It would therefore appear to be quite wrong to label spirit of peppermint as an essence. The word is undoubtedly homologous with the term essential oil, if not identical in meaning, and should be so used. In accepting a sample distinctly labelled 'Essence of Peppermint' our inspectors are at fault, unless they were definitely informed by the vendor that the article supplied was so supplied as equivalent to the spirit of peppermint, or *spiritus menthe piperite* which they were instructed to purchase.

This is the first time that the article named has been officially inspected under the Act; and I beg respectfully to recommend the publication of this report as Bulletin 209.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,

Chief Analyst.

BULLETIN No. 209—SPIRITUS MENTHÆ PIPERITÆ.

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).	RESULTS OF ANALYSIS.			
				Quantity.	Cents.			Sp. Gr. of Sample.	Equivalent (Div. Vol.)	Ignited Oil.	Colour, &c.

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

1910.															
Mar. 10	Spiritus Menthe Piperitæ.	41936	A. A. Thompson, Halifax, N.S.	12 oz.	1.00	Vendor.		0.8282	91.69	10.0	White.		41936		
" 10	"	41937	M. D. Logan, Halifax, N.S.	12 "	1.00	"		0.8342	89.83	10.0	"		41937		
" 10	"	41938	Irwin & Sons, Halifax, N.S.	12 "	90	Vendors.		0.8328	90.35	10.0	Pale yellowish green.		41938		
" 10	"	41939	J. S. Coombes & Co., Halifax, N.S.	12 "	90	Vendor.		0.8290	91.46	10.0	White and turbid.		41939		
" 10	"	41940	G. McDougall, Kentville, N.S.	12 "	90	"		0.8338	90.65	10.0	White.		41940		

DISTRICT OF PRINCE EDWARD ISLAND—THEO. MOORE, INSPECTOR.

Mar. 9	Spiritus Menthe Piperitæ.	38666	E. Keir, Kensington	12 oz.	90	Vendor		0.8347	90.96	10.0	White		38666
" 10	"	38667	McNeill Drug Co., Summerside	12 "	1.20	Pure Gold Co., Toronto.		0.8248	53.81	About	Bright green		38667
" 15	"	38668	H. J. Mabon, Souris	12 "	1.00	Vendor		0.8369	90.90	5.0	Whitish yellow.		38668
" 15	"	38669	Dr. A. A. McDonald, Souris	12 "	1.00	Nat. Dr. & Chem. Co., Halifax.		0.8783	74.59	About	Greenish		38669
" 17	"	38670	A. W. Reddin, Charlottetown	12 "	1.00	Vendor		0.8483	85.49	7.0	Yellow		38670



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

Mar.	4	Spiritus Menthe Piperitæ.	39680	The Nat. Drug & Chem. Co., Ltd., Montreal.	1.00	The Nat. Drug & Chem. Co. Ltd., Montreal.	0.8245	92 21	Alcat. Brownish green.	39680
"	15	"	39681	Chas. A. Burchill, Fredericton, N.B.	1.20	Vendor.	0.8318	90 64	10 0 White	39681
Apr.	5	"	39682	B. J. Sharp, Sussex, N.B.	1.90	"	0.8357	89 48	5 0 Pale yellow	39682
"	5	"	39683	G. M. Fairweather, Sussex, N.B.	1.00	"	0.8318	90 64	10 0 Greenish yellow.	39683
"	6	"	39684	Acadia Drug Co., Moncton, N.B.	1.00	Vendors.	0.8364	89 27	5 0 Yellow.	39684

DISTRICT OF QUEBEC—E. BELAND, INSPECTOR.

Mar.	9	Spiritus Menthe Piperitæ.	36548	V. Giroux, 16 Rue St. Pierre, Quebec.	1.20	Vendor.	0.8451	86 58	10 0 White	36548
"	9	"	36549	G. P. Plamondon, 122 Rue St. Joseph, Quebec.	1.20	"	0.8250	92 66	5 0 Yellowish white.	36549
"	9	"	36550	W. B. Roger, 44 Rue de la Brique, Quebec.	1.20	"	0.8228	93 20	2 0 White	36550
"	9	"	36551	Laehervoliers, 224 Rue St. Jean, Quebec.	1.20	"	0.8416	87 85	5 0 "	36551
"	9	"	36552	C. T. Dehaisle, 369½ Rue St. Jean, Quebec.	1.20	"	0.8405	88 00	10 0 "	36552

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

Mar.	9	Spiritus Menthe Piperitæ.	995	Pharmacie Méricotte, ville.	1.50	Vendors.	0.8285	91 52	7 0 White	995
"	10	"	996	Pharmacie-Chagnon, Sherbrooke.	85	"	0.9067	62 93	3 0 "	996
"	15	"	997	Dr. Verdun, Granby.	90	Vendor.	0.8304	89 75	3 0 "	997
"	16	"	998	G. H. Johnston, Cowansville.	1.00	"	0.8573	82 44	10 0 Pale yellow.	998
"	18	"	999	Dr. Viger, St. Hyacinthe.	90	"	0.8341	89 96	7 0 White	999

\* Aniline dye present.

BULLETIN No. 209—SPIRITUS MENTHÆ PIPERITÆ.

Date of Collection	Nature of Sample	No. of Sample	Name and Address of Vendor	Quantity	Cost	Name and Address of Manufacturer or Furnisher (as given by the Vendor)	Inspector's Report (if not an expression of opinion)	RESULTS OF ANALYSIS						No. of Sample
								Alcohol	Essence of Peppermint	Essence of Spearmint	Essence of Eucalyptus	Essence of Citronella	Essence of Rosemary	

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

1910.																
Mar.	3	Spiritus Menthe Piperite.	40417	Quebecville & Gaerim, 307 St. 12	oz 60	Vendors.						0.9577	48.57	•	White	40417
"	5	"	40418	Drenn Laquet, 285 St. Catherine	12 "	75 Vendor						0.8383	88.67	5.0	"	40418
"	5	"	40419	E. Vaubourcq, 539 St. 12	1 00	"						0.8285	91.21	5.6	"	40419
"	12	"	40420	Catherine E., Montreal	12 "	75 "						0.8253	92.57	2.0	"	40420
"	12	"	40421	E. F. Emery, 667 Notre Dame West, Montreal	12 "	1 25 "						0.8474	86.48	3.0	"	40421

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

Mar.	1	Spiritus Menthe Piperite.	42926	R. B. Gray, Pembroke	12 oz 30	Vendor						0.9138	75.79	7.9	10.0	Deep yellow	42926
"	4	"	42927	J. L. Rochester, Ltd., Ottawa	12 "	1 20 Vendors						0.8323	90.49	10.0	10.0	White	42927
"	8	"	42928	T. Payment, Ottawa	12 "	1 20 Vendor						0.8286	91.57	10.0	"	"	42928
"	10	"	42929	R. S. Harrison, Ottawa	12 "	1 00 "						0.8279	91.78	2.0	6	Pale yellow	42929
"	10	"	42930	Jos. P. Valiquette, Ottawa	12 "	1 20 "						0.8278	91.81	5.0	10	White	42930

After purchase of 0.9138 Sample, Vendor stated that it was not Spiritus Menthe Piperite but Essence of Peppermint.

DISTRICT OF KINGSTON—JAS. HOGAN, INSPECTOR

Mar.	1	Spiritus Menthae Piperitae.	44251	F. Hoag, Kingston	12 oz	1.20	Vendor	0 8311	91 87	10 0	White	44251
"	1	"	44252	C. S. Prouse, Kingston	12 "	75	"	0 8002	69 64	2 0	Yellow	44252
"	1	"	44253	J. McLeod, Kingston	12 "	1.20	"	0 8234	90 17	5 0	"	44253
"	1	"	44254	A. P. Chown, Kingston	12 "	1.00	"	0 8400	85 20	2 0	White and cloudy	44254
"	1	"	44255	McDermid & Jury, Peterboro.	12 "	1.05	Vendors	0 8280	91 49	7 5	White	44255

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR

Mar.	3	Spiritus Menthae Piperitae.	41492	E. L. L. Doane, 1658 Dundas St. E., W. Toronto	12 oz	1.10	Vendor	Labelled Spica. Menth 0 8286	91 28	10 0	White	41492
"	4	"	41493	F. E. York, Aurora	12 "	1.00	"	Pip. Labelled Spica. Menth 0 8327	90 28	10 0	"	41493
"	8	"	41494	Hawkins Ltd., John St. South Hamilton	12 "	75	Vendors	Labelled Fes. Menth 0 8275	91 90	2 0	Yellow	41494
"	16	"	41495	R. M. Black, 15 Ontario St., Catharines	12 "	75	Vendor	Pip. Labelled Spica. Menth 0 8228	93 29	2 0	Pale yellow	41495
"	18	"	41497	G. Tamblin, College Ave., Toronto	12 "	90	"	Pip. Vendor stated strength was 1.10. Labelled Spica. Menth 0 8259	92 20	10 0	Green	41497

DISTRICT OF LONDON—T. KIDD, INSPECTOR

Mar.	15	Spiritus Menthae Piperitae.	44730	Dunlop Druggist, Guelph	6 oz.	60	Vendor	0 8292	91 40	10 0	White	44730
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DISTRICT OF WINDSOR—JNO. TALBOT, INSPECTOR

Mar.	5	Essence mint.	42518	W. T. Strong, London	12 oz.	1.20	Vendor	0 8203	91 08	7 5	White	42518
"	7	"	42519	P. J. Gibbon, Sarnia	12 "	1.05	"	0 8307	90 96	5 0	Pale yellow	42519
"	7	"	42523	R. J. J. J. Sarnia	12 "	1.20	"	0 8250	91 46	5 0	"	42523
"	8	"	42530	Jackson & Co., Petrolia	12 "	1.00	Vendors	0 8256	93 06	5 0	White	42530
"	9	"	42538	Geo. A. Small, St. Thomas	12 "	1.00	Vendor	0 8252	92 00	5 0	"	42538

\* None but smells of peppermint.

BULLETIN No. 209—SPIRITUS MENTHÆ PIPERITÆ.

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).	RESULTS OF ANALYSIS.				No. of Sample.
				Quantity.	Cents.			Sp. Gr. of Sample.	Equivalent in alcohol (By Vol.)	Fe-paral	Oil.	
1910.									p. c.	p. c.		
Mar. 16	Spiritus Menthae Piperitæ.	43406	R. T. Buchart, Minnedosa	12 oz.	1.50	Vendor		0.8298	91.23	10.0	Yellowish green.	43406
" 16	"	43407	Glenboro Drug Store, Glenboro	12 "	1.25	Norman B. Henery, Glenboro.		0.8284	91.63	10.0	Green	43407
" 21	"	43408	W. Collins & Co., Morden	12 "	1.09	Vendors		0.8275	91.90	5.0	White	43408
" 23	"	43409	P. F. Braund, Winnipeg	12 "	1.20	The Boke Drug Co., Winnipeg.		0.8286	91.28	10.0	"	43409
" 24	"	43410	A. J. Brown & Co., Winnipeg	12 "	1.20	Vendors		0.8285	91.31	10.0	"	43410

DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR

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

Mar.	Spiritus Menthae Piperitæ.	35677	A. Archibald, Edmonton	12 oz.	1.25	Vendor		0.8302	91.11	8.0	White	35677
" 8	"	35678	Macdonalds Pharmacy, Edmonton.	12 "	1.50	D. W. Macdonald, Edmonton.		0.8311	90.85	10.0	"	35678
" 15	"	35679	C. S. Pringle, Medicine Hat	12 "	1.25	Vendor		0.8356	89.52	10.0	"	35679
" 15	"	35680	B. F. Souch, Medicine Hat	12 "	1.25	"		0.8336	90.40	10.0	"	35680
" 16	"	35681	W. Maclean, Calgary	12 "	1.25	"		0.8315	90.73	7.5	Green	35681

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

Mar. 14	Spiritus Menthe Piperite.	37843	Marrett & Reid, Vancouver, B.C.	12 oz. 1.25	Vendors.	0.8299	91.20	10.0	White.	37843
" 14	"	37844	Woodwards Dept. Store, Vancouver, B.C.	12 " 1.50	"	0.8318	90.64	8.0	"	37844
" 14	"	37845	Red Cross Drug Store, Vancouver, B.C.	12 " 2.25	Vendor.	0.8307	90.96	4.0	Yellowish, green.	37845
" 14	"	37846	Red River Drug Store, Vancouver, B.C.	12 " 1.50	"	0.8306	90.99	5.0	"	37846
" 14	"	37847	Wilson's Drug Store, Vancouver, B.C.	12 " 1.50	"	0.8607	81.12	3.0	White	37847

DISTRICT OF VICTORIA—D. O'SULLIVAN, INSPECTOR.

Mar. 18	Spiritus Menthe Piperite.	41639	F. J. Williams, Victoria, B.C.	12 oz. 1.25	Vendor.	0.8306	90.39	10.0	White.	41639
" 18	"	41670	W. S. Terry, Victoria, B.C.	12 " 75	"	0.8362	89.33	10.0	"	41670
" 18	"	41671	Hall & Co., Victoria, B.C.	12 " 1.50	Vendors.	0.8326	90.40	10.0	"	41671
" 18	"	41672	Wm. Jackson & Co., Victoria, B.C.	12 " 1.25	"	0.8325	90.43	10.0	"	41672
" 18	"	41673	Geo. A. Fraser, Victoria, B.C.	12 " 1.25	Vendor.	0.8335	90.14	10.0	"	41673

