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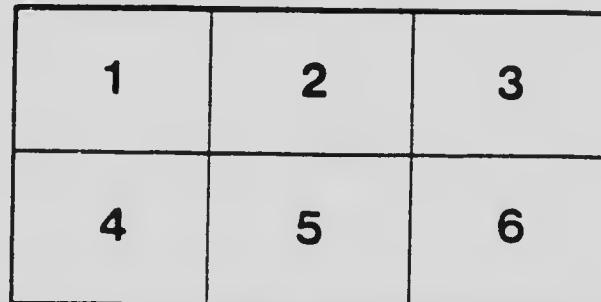
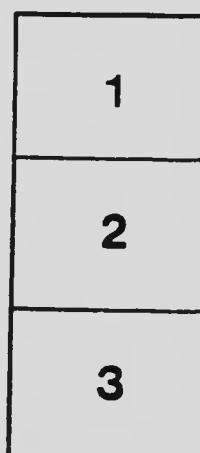
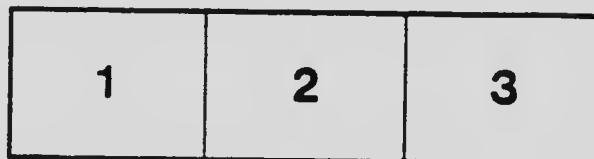
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O. H. M. S.

W. J. Gerald

Deputy Minister.

LABORATORY

OF THE

INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 179

TINCTURE OF GINGER (TINCTURA ZINGIBERIS)

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA.

BULLETIN No. 179.

TINCTURE OF GINGER TINCTURA ZINGIBERIS

OTTAWA, March 30, 1909.

Wm. HIMSWORTH, Esq.,
Acting Deputy Minister of Inland Revenue.

Sir,—I beg to hand you a report upon 75 samples purchased tincture of ginger during the month of January of this year. All the inspectorial districts of Canada are represented.

This report has regard solely to the strength of the alcohol used in these preparations, which were obtained in drug shops, and should conform to the requirements of the pharmacopæias.

The British pharmacopœia demands the employment of 90 per cent. spirit; the United States pharmacopœia demands alcohol of 94·9 per cent.; both percentages have regard to volume.

It will be seen that sixty-one (61) samples constituting above 80 per cent. of the collection, contain alcohol of above 80 per cent. strength in the finished product. These may be looked upon as essentially complying with pharmacopeal requirements, allowing for volatilization of alcohol in opening bottles in dispensing.

The remaining fourteen (14) samples are as follows:—

District.	Number.	Alcohol.
Prince Edward Island	31455	77·20
	31456	71·94
Quebec	36813	76·22
	36814	72·64
	36815	76·50
St. Hyacinthe	943	70·40
	22907	74·82
Ottawa	22908	72·52
	22909	49·96
Kingston	39440	*59·72
	36171	66·30
Toronto	37562	†63·92
	37564	75·24
	37565	†43·78

* Sold as essence. † made from fluid extract of ginger.

As pointed out in Bulletin 110 (Oct. 1907), alcoholic preparations of ginger are known as Tinctures, Essences and Extracts. The tincture is the only one of these which is recognised officially by the British pharmacopoeia. The United States pharmacopoeia (8th revision) describes a fluid extract of ginger, made with alcohol of the same strength as that contained in the tincture, while the quantity of ginger used is five times as much as in the preparation of the tincture. It is possible that a satisfactory tincture might be made from this fluid extract, by dilution with alcohol; but the pharmacopoeia does not authorize preparation of the tincture in this way; and it is not to be taken as proved that a tincture so made could properly be substituted for the official tincture. Under no circumstances could the use of a weaker alcohol in dilution be justified.

Essence of ginger is not a pharmacopeial preparation; and should not be dispensed. As a mode of supplying ginger for culinary purposes, the essences have a proper place in the grocery trade.

It will be seen that one of the samples low in alcohol (No. 39440) is sold as an essence of ginger, and should not have been accepted by our inspector. Two others (Nos. 22909 and 36171) contain less than 70 per cent. alcohol, and cannot by any reasonable interpretation be looked upon as coming up to pharmacopeial requirements. Numbers 37562 and 37565 are stated to be made from the Fluid Extract. Even were such a method of preparing the tincture allowable, the samples in question have been made by dilution with an alcohol much below the strength required by the pharmacopoeia. They must be regarded as adulterated under the Act.

I beg to recommend the publication of this report as Bulletin No. 179.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,
Chief Analyst.

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BULLETIN No. 179—TINCTURE OF GINGER.

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.	RESULTS OF ANALYSIS.				Remarks and Opinion of the Chief Analyst.
							Quantity.	Estimated Weight of Sample.	Estimated Weight of Sample.	Difference.	
							gms.	gms.	gms.	gms.	
1909.											
Jan. 12	Tincture of Ginger	33836	J. McD. Taylor, Halifax, N.S.	4 oz ..	30 Vendor .....	.....	0.8290	0.8297	0.0013	88.48	92.16
" 13	"	33837	C. A. Barnstead, Halifax, N.S.	4 " ..	30 Unknown .....	.....	0.8454	0.8449	0.0005	81.40	86.64
" 15	"	33838	C. E. Huggins, Halifax, N.S.	4 " ..	30 Vendor .....	.....	0.8397	0.8385	0.0012	83.88	88.60
" 20	"	33839	Crowe Bros., Truro, N.S.	4 " ..	30 " .....	.....	0.8276	0.8270	0.0016	88.36	92.04
" 20	"	33840	W. H. Stevens, Dartmouth	4 " ..	35 " .....	.....	0.8272	0.8251	0.0021	89.12	92.64

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

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.	RESULTS OF ANALYSIS.				Remarks and Opinion of the Chief Analyst.
							Quantity.	Estimated Weight of Sample.	Estimated Weight of Sample.	Difference.	
							gms.	gms.	gms.	gms.	
1909.											
Jan. 8	Tincture of Ginger	31453	J. G. Jamieson, Charlottetown	4 oz ..	40 Vendor .....	.....	0.8545	0.8628	0.0017	78.20	84.02
" 8	"	31454	Reddin Bros., Charlottetown.	4 " ..	40 Vendors .....	.....	0.8251	0.8258	0.0007	89.55	92.96
" 11	"	31455	P. N. Enman, Summeride	4 " ..	35 Vendor .....	.....	0.8766	0.8713	0.0046	70.32	77.20 Don't fail.
" 11	"	31456	McAdyen & McLellan, Sum	4 " ..	60 Can. Drug Co., St. John, N.B.	.....	0.8856	0.8851	0.0045	64.52	71.94
" 14	"	31457	Gillie & Sons, Charlottetown	4 " ..	40 Nat. Drug Co., Halifax.	.....	0.8115	0.8385	0.0039	83.88	88.60

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

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

Jan.	7	Tincture of Ginger	29887 Nat. Drug & Chem. Co., Ltd., 4 oz St. John, N.B.	44 Vendors.....	0.8269	0.8270	0.00729	88.36	92.04
"	11	"	29888 William Hawker & Son, St. John, N.B.	35 " ..	0.8249	0.8229	0.0020	90.00	93.28
"	16	"	29889 Hunt & McDonald, Fredericton 4 " ..	40 "	0.8407	0.8401	0.0006	83.27	88.12
"	26	"	29890 J. McD. Cooke, Moncton	40 Vendor.....	0.8243	0.8287	0.0046	87.69	91.54
"	28	"	29891 A. Chipman, Smith & Co., 4 oz Bathurst, N.B.	30 Vendors.....	0.8250	0.8239	0.0011	73.42	79.88

DISTRICT OF QUEBEC—E. BELAND, INSPECTOR.

Jan.	11	Tincture of Ginger	36813 A. Martineau, Quebec.....	4 oz ...	30 Dr. Ed. Morin, Quebec.....	0.8826	0.8739	0.0087	69.25	76.22 Doubtful.
"	11	"	36814 Jos. Masson, Quebec.....	4 " ..	25 Vendor.....	0.8849	0.8833	0.0016	63.29	72.64
"	12	"	36815 G. P. Lamondan, Quebec.....	4 " ..	40 "	0.8765	0.8732	0.0033	69.54	76.50
"	12	"	36816 P. C. Lachewadiere, Quebec.....	4 " ..	40 C. E. Frost & Co., Montreal.....	0.8212	0.8194	0.0049	91.21	94.16
"	12	"	36817 C. P. Delisle, Quebec.....	4 " ..	25 Vendor.....	0.825	0.8245	0.0042	87.38	91.38

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

Jan.	11	Tincture of Ginger	941 Dr. Larose, St. Ours	3 oz ..	25 Vendor.....	0.8485	0.8425	0.0066	82.19	87.26
"	14	"	942 W. H. Griffith, Sherbrooke	4 " ..	40 The Nat. Drug & Chemical Co., Montreal.....	0.8453	0.8434	0.0019	82.09	87.12
"	19	"	943 L. E. Brown, Granby	3 " ..	30 Vendor.....	0.8694	0.8689	0.0005	62.86	70.40 Doubtful.
"	20	"	944 Wright & Co., St. Jean	4 " ..	30 "	0.8257	0.8238	0.0019	70.02	93.09
"	21	"	946 Pharmacie St. Hyacinthe	4 " ..	30 "	0.8284	0.8283	0.0001	87.85	91.66

* Essence of ginger.

BULLETIN No. 179—TINCTURE OF GINGER.

Date of Collection.	Nature of Sample.	No. of Sample.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.				Remarks and Character of the Chief Analyses.
						Quantity	Specific Gravity	Dilution	Alcohol	
Jan. 6	Tincture of Ginger	32676	J. J. Wensfield, 458 St. Law-rence St., Montreal.	45	Nat. Drug & Chem. Co.	0.8380	0.8270	0.0430	96.36	P.C. J.C.
" 8	"	32677	A. Guyette, 141 St. Catherine 4 " ..	35	Lyman, Knox & Co., Montreal.	0.8241	0.8247	0.0433	98.27	"
" 14	"	32678	Dr. J. A. Clement, Lachine, 4 " ..	45	Not known.....	0.8549	0.8555	0.0004	77.08	83.06
" 14	"	32679	E. A. Ranson, Lachine, P.Q. 4 " ..	45	Vendor.....	0.8591	0.8582	0.0009	75.95	82.10
" 22	"	32680	G. H. Christie, Lachute, P.Q. 4 " ..	30	Lyman, Sons & Co., Montreal.	0.8436	0.8382	0.0054	75.95	82.10

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

Jan. 12	Tincture of Ginger	22906	W. J. Hughes, Carleton Place.	4 oz.	40 Vendor	Sold as tincture of ginger.	0.828	0.8326	0.0002	86.19 90.44
" 12	"	22907	D. H. McIntosh, M.D., Carlton Place.	4 "	40 "	"	0.8840	0.8777	0.0023	67.67 74.82 Doubtful.
" 18	"	22908	The Standard Drug Co., Ottawa 4 " ..	35 Vendors.....	"	0.8849	0.8836	0.0013	65.17 72.52	"
" 18	"	22909	W. F. Garland, Ottawa	4 "	35 Vendor	"	0.9359	0.9357	0.0002	41.95 49.96 Adulterated.
" 20	"	22910	Hull Medical Hall, Hull	4 "	40 Vendors.....	"	0.8340	0.8337	0.0003	85.77 90.06

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

DISTRICT OF KINGSTON—JAS. HODGKIN, INSPECTOR.

	8 Tincture of Ginger	39436 W. W. Gibson, Kingston.....	4 oz	40 Vendor .....	.....	0.8519	0.8257	0.0032	87.62	31.54
11	"	39437 D. Blecker, Belleville.....	4 "	50 "	.....	0.8369	0.8257	0.0042	87.48	32.16
11	"	39438 A. L. Glen, Belleville.....	4 "	30 "	.....	0.8361	0.8549	0.0042	77.33	33.26
11	"	39439 W. J. B. Davison, Port Hope. 1 "	28 "	28 "	.....	0.8407	0.8554	0.0063	85.12	39.58
12	Essence of Ginger.	39440 McDermid & Jury, Peterboro	4 oz	40 "	.....	0.9211	0.9138	0.0073	51.88†	72 Collected by mistake.

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

1909.	Jan.	7 Tincture of Ginger	36171 The Broadway Drug Co., 4 oz ..	35 Lyman Bros., Ltd. Toronto.	.....	0.9040	0.8889	0.0061	58.55	66.30	
	12	"	36172 Hawley, ta., Hamilton.....	4 "	35 Vendors.....	.....	0.8287	0.8267	0.0020	88.48	32.16
	12	"	36173 R. C. Reynolds, Hamilton.....	4 "	30 "	.....	0.8314	0.8257	0.0027	87.69	91.7
	15	"	36174 F. W. Jeffs, St. Catharines.....	4 "	40 Lyman Bros., Ltd. Toronto.	.....	0.8462	0.8457	0.0005	81.08	86.38
	19	"	36175 W. H. Lee Toronto.....	4 "	40 Vendor .....	.....	0.8273	0.8273	0.0000	28.16	91.90

DISTRICT OF LONDON—T. K. D. INSPECTOR.

Jan.	11	Spirit of Ginger	30567 W. A. McConnell, Clinton	4 oz ..	40 Nat. Chem. Co., London.	.....	0.8484	0.8442	0.0042	81.68	86.86
"	12	Tincture of Ginger	30571 W. B. Barley, Mitchell	4 "	40 W. B. Barley, Mitchell .....	.....	0.8423	0.8414	0.0009	82.77	87.74
"	16	"	30586 Borguds & Co., Guelph	4 "	40 Vendors .....	.....	0.8508	0.8501	0.0007	79.28	84.99
"	16	"	36887 J. B. Broadfoot, Guelph	4 "	40 J. B. Sutleworth, Toronto.	.....	0.8287	0.8279	0.0008	88.00	91.78
"	16	"	36889 J. D. McKee, Guelph	4 "	40 Lyman Bros., To- ronto.	.....	0.8449	0.8541	0.0008	27.67	81.58

†Orby's Essence.

BULLETIN No. 179—TINCTURE OF GINGER.

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.	RESULTS OF ANALYSIS.				Remarks and Opinion of the Chief Analyst.
							Quantity.	Capacity.	Difference, gr. per cent.	Aleohol Vol. p.c.	
Jan. 7	Tincture of Ginger	34737	R. T. Geary, Sarnia	4 oz . . .	30	Vendor.....	.....	.....	0·8233	0·8190	0·0043 91·36 94·26
" 8	"	34745	J. McRobie, Petrolia	4 " . . .	40	" .....	.....	.....	0·8694	0·5394	0·0100 75·41 81·64
" 8	"	34746	J. E. Platt, London	6 " . . .	60	Not known. ....	.....	.....	0·8388	0·8329	0·0069 86·08 90·32
" 11	"	34749	R. N. Thurlill, Ingersoll	3 " . . .	25	Vendor.....	.....	.....	0·8272	0·8267	0·0005 88·48 92·16
" 11	"	34752	J. G. Gayfer, Ingersoll	4 " . . .	35	" .....	.....	.....	0·8397	0·8329	0·0068 86·08 90·32

DISTRICT OF WINDSOR—NO. TALBOT, INSPECTOR.

Jan.	Tincture of Ginger	Vrooman & McCullough, Winnipeg.	Win. 4 oz . . .	25	Not known.....	.....	.....	0·8723	0·8601	0·0122 75·09 81·34
12	"	35832 The Clarendon Pharmacy, Winnipeg.	4 " . . .	35	Davis & Lawrence, Montreal.	.....	.....	0·8584	0·8585	0·0029 77·08 83·06
13	"	35833 Higginbotham & Son, Virden.	4 " . . .	20	Vendors.....	.....	.....	0·8382	0·8377	0·0005 84·20 88·86
14	"	35834 F. Woodhull & Co., Hartney.	4 " . . .	45	" .....	.....	.....	0·8338	0·8329	0·0008 86·08 90·32
21	"	35835 Brooking's Drug Store, Winnipeg.	4 " . . .	30	" .....	.....	.....	0·8340	0·8340	0·0000 85·62 89·96

DISTRICT OF MANITOBA—A. C. LARIVIÈRE, INSPECTOR.

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

136	Jan. 15	Tincture of Ginger	35387	Oliver Bros., Calgary	4 oz..	25	Vendors	0.8287	0.0000	87.69	91.55
12	" 29	"	35388	J. H. Lives, Edmonton	4 oz..	25	Park Davis & Co., Walkerville.	0.8532	0.0001	79.28	84.30
" 29	"	"	35389	E. M. Carpenter, Edmonton	4 oz..	40	Vendor.....	0.8280	0.0000	87.96	91.75
" 29	"	"	35390	Akronquin Pharmacy, Edmonton	4 oz..	30	John Wyeth & Bro's Ex tract, Philadelphia.	0.8253	0.0020	90.29	93.50
" 29	"	"	35391	Edmonton Drug Co., Edmonton	4 oz..	50	Edmonton Drug Co., Edmonton.	0.8233	0.0007	90.75	93.82

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

Jan. 29	Tincture of Ginger	37561	C. Muddell, Vancouver	1 oz..	50	Lyman & Sons, Montreal.	0.8640	0.0019	74.18	80.54	
" 29	"	37562	Knowton Drug Store, Vancouver	4 oz..	50	Vendor.....	0.9445	0.0035	56.00	63.92	
" 29	"	"	37563	Central Drug Store, Vancouver	4 oz..	50	Made from Park Davis Fluid Ext. Ginger.	0.8293	0.0006	87.69	91.54
" 29	"	"	37564	Owl Drug Store, Vancouver	4 oz..	40	Not known.....	0.8785	0.0019	68.13	75.24
" 29	"	"	37565	McBirney Bros. & Co., Vancouver	4 oz..	40	Vendors.....	0.9457	0.0118	36.72	43.78
						Made from Park Davis Fluid Ext. Ginger.					

DISTRICT OF VICTORIA—D. OSULLIVAN, INSPECTOR.

Jan. 27	Tincture of Ginger	39284	W. Jackson & Co., Victoria	4 oz..	35	Baiss Bros. & Ste- phenson, Lan- don, Eng.	0.8287	0.0004	87.85	91.66
" 27	"	39285	W. S. Terry, Victoria	4 oz..	40	Vendor.....	0.8314	0.0023	79.68	85.24
" 27	"	39286	D. E. Campbell, Victoria	4 oz..	35	"	0.8479	0.0008	80.50	85.90
" 27	"	39287	F. J. Williams, Victoria	4 oz..	50	"	0.8438	0.0012	82.31	87.38
" 27	"	39288	Geo. A. Fraser, Victoria	4 oz..	40	"	0.8280	0.0038	88.27	92.74

