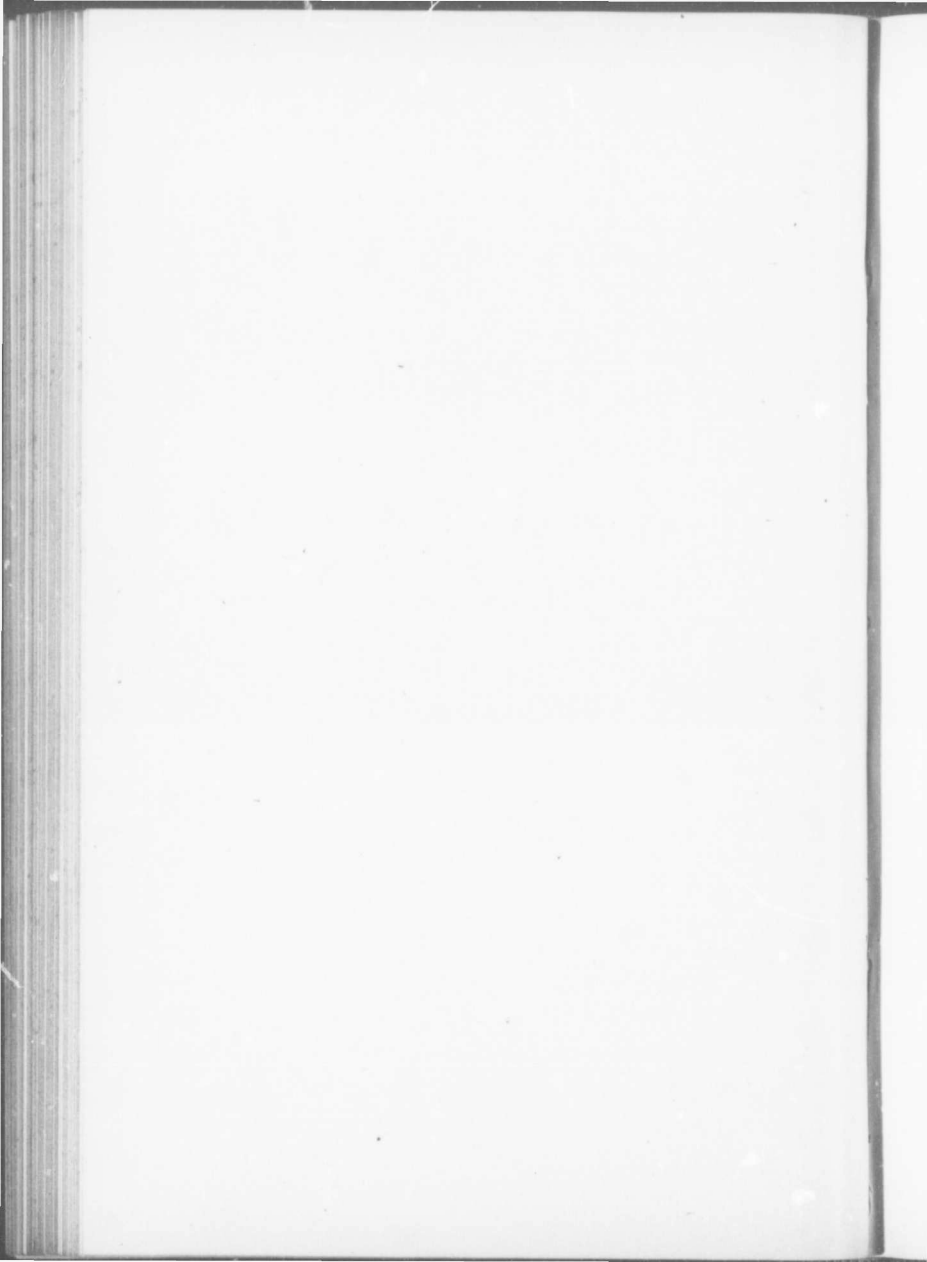


LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 261

TONIC WINES



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OF THE
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TONIC WINES

OTTAWA, June 24, 1913.

WM. HIMSWORTH, Esq.,

Acting Deputy Minister, Inland Revenue.

SIR,—I beg to advise you that on June 15, 1910, the Deputy Minister of Inland Revenue suggested the inspection of medicated wines, as sold in Canada. (See L. 71528). This was consequent upon information received to the effect that certain of these wines contained cocaine without acknowledgment of the fact.

A collection of such wines was ordered September 1, 1910; and analysis of the samples was completed. A report of results was on my desk at the time of the burning of our laboratories, January 4, 1911—and was destroyed. Among the salvage we later discovered portions of the books in which the analyst who did the work had entered his first-hand notes. From these it has been found possible to recover sufficient analytical data to justify publication. This forms Part I of the present report.

On August 26, 1912, you advised collection of a further supply (See L. 95872, F. 99147), and in consequence of this, instructions to collect were issued in December of last year. The results of work upon this collection constitute Part II. of this report.

It will be easily understood that the amount of work required in this is very great; and where our inspectors in different districts have sent in samples of the same brand of wine, I have not considered it justifiable in view of the large amount of labour needed in other classes of foods and drugs, to submit every sample to analysis. Thus, there have been sent in ten samples of the wine known at St. Michel in the collection of 1910; and one sample in the collection of this year. Of these eleven samples, four only have been examined and reported.

The information herein given will be of use to physicians, and to those who use medicated wines. It would be invidious to make comparison among these articles, which are mostly, if not in every case, proprietary. It is sufficient to say, that nothing is found in any of them which need be harmful to the health of the consumer who uses them intelligently.

Cocaine is not permitted to be present in medicated wines, or in any patent medicine, since the Proprietary or Patent Medicines Act came into force (April 1, 1909). No cocaine has been found in samples reported in Part II.

Part I. comprises 58 samples representing 29 different brands.

Part II. comprises 40 samples representing, apparently, 38 different brands.

I beg to recommend publication of this report as Bulletin No. 261.

I have the honour to be, Sir,

Your Obedient Servant,

A. MCGILL,

Chief Analyst.

BULLETIN No. 261—

| 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. | |
|----------------------------|-------------------|----------------|--|-----------|--------|---|--|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. |
| DISTRICT OF NOVA SCOTIA— | | | | | | | |
| 1910. | | | | | | | |
| Oct. 17 | Tonic Wine .. | 42145 | Nat. Drug & Chem. Co., Halifax, N.S. | 3 bots. | 300 | Unknown | Boivin, Wilson, Montreal. |
| " 18 | " .. | 42146 | J. St. Clair Coombs, Hal- ifax, N.S. | 3 " .. | 300 | L. C. Wilson | N. D. & C. Co., Halifax, N.S. |
| ..... | " .. | 42147 | Grace & Gastonguay, Halifax, N.S. | 3 " .. | 190 | Unknown .. . . . | ..... |
| ..... | " .. | 42148 | Kelley & Glassey, Hal- ifax, N.S. | 3 " .. | 300 | " | J. M. Douglas, Montreal. |
| DISTRICT OF NEW BRUNSWICK— | | | | | | | |
| Sept. 12 | Tonic Wine .. | 45334 | Nat. Drug & Chem. Co., Ltd., St. John, N.B. | 3 bots. | 213 | ..... | L. A. Wilson, Montreal. |
| " 12 | " .. | 45335 | " .. | 3 " .. | 250 | ..... | Nat. Drug & Chem. Co., Ltd., Montreal. |
| " 15 | " .. | 45336 | John O'Regan, St. John, N.B. | 3 " .. | 213 | ..... | Boivin, Wilson & Co., Mont- real. |
| " 15 | " .. | 45337 | " .. | 3 " .. | 238 | ..... | Vin de Carmes, Quebec. |
| " 17 | " .. | 45338 | R. Sullivan & Co., St. John, N.B. | 3 " .. | 225 | ..... | J. M. Douglas & Co., Montreal. |
| DISTRICT OF QUEBEC— | | | | | | | |
| Sept. 12 | Tonic Wine .. | 36486 | Jos. Masson, 808 Rue St. Valier, Quebec. | 3 bots. | 225 | A. Toussiant & Cie, Quebec. | Dr. Ed. Morin & Cie, Quebec. |
| " 12 | " .. | 36487 | " .. | 3 " .. | 225 | Unknown | " .. |
| " 13 | " .. | 36488 | Alphonse Martineau, 784 Rue St. Valier, Quebec. | 3 " .. | 180 | " | " .. |
| " 13 | " .. | 36489 | Arthur Drolet, 714 Rue St. Valier, Quebec. | 3 " .. | 225 | Fournier & Fournier, Ltd., St. Hyacinthe. | Mfrs |
| " 14 | " .. | 36490 | W. Brunet & Cie, 139 Rue St. Joseph, Quebec. | 3 " .. | 300 | Franco - American Chem. Co., Mont- real. | " |
| DISTRICT OF MONTREAL— | | | | | | | |
| Sept. 15 | Tonic Wine .. | 40756 | Nat. Drug & Chem. Co., Ltd., Montreal. | 3 bots. | 113 | ..... | ..... |
| " 15 | " .. | 40757 | " .. | 3 " .. | 225 | ..... | ..... |
| " 27 | " .. | 40758 | Hudon & Orsali, St. Paul St., Montreal. | 3 " .. | 188 | ..... | ..... |
| " 27 | " .. | 40759 | " .. | 3 " .. | 200 | ..... | ..... |

TONIC WINES—PART I.

| Inspector's Report. (Is not an expression of Opinion). | Results of Analysis. | | | | | | No. of Sample. | Remarks and Opinion of the Chief Analyst. |
|---|---|--|--------------------------------|---------------|--|--------------------------|----------------|--|
| | Ces. $\frac{2}{100}$ KOH per 100ccs. | Acidity gms. Tannic Acid per 100ccs. | Reducing Sugar as Dextrose. | Total Solids. | Non-Sugar Solids. | Remarks, Alkaloids, etc. | | |
| R. J. WAUGH, INSPECTOR. | | | | | | | | |
| Vin St. Michel..... | | | | | | | | 42145 |
| Wilson's Invalid Port Wine..... | | | | | | | | 42146 |
| Vin des St. Carmes..... | 0.63 | 15.05 | 18.74 | 3.69 | Principally cinchona alkaloids, 133 mgms. per litre. Trace of cocaine. | | | 42147 |
| Red Heart Tonic Wine..... | 0.35 | 17.08 | 19.37 | 2.29 | Specifically undetermined alkaloids, 58 mgms. per litre. | | | 42148 |
| J. C. FERGUSON, INSPECTOR. | | | | | | | | |
| Wilson's Invalid Port..... | | | | | | | | 45334 |
| Vin Mariana..... | | | 8.07 | | Alkaloids 70 mgms. per litre. Contains cocaine. | | | 45335 |
| Vin de St. Michel..... | 0.36 | 17.55 | | | Specifically undetermined crude alkaloids, 45 mgms. per litre. | | | 45336 |
| Vin des Carmes..... | | | | | | | | 45337 |
| Red Heart..... | | | | | | | | 45338 |
| F. X. W. E. BELAND, INSPECTOR. | | | | | | | | |
| ..... | 0.52 | 15.70 | 19.58 | 3.88 | Principally cinchona alkaloids, 123 mgms. per litre. No cocaine. | | | 36486 |
| ..... |  |  |  |  |  |  |  | 36487 |
| ..... | 90.33 | 1.77 | 4.44 | 2.67 | Quinine by titration gms. per litre 1.409. | | | 36488 |
| ..... |  |  |  |  |  |  |  | 36489 |
| ..... |  |  |  |  |  |  |  | 36490 |
| J. J. COSTIGAN, INSPECTOR. | | | | | | | | |
| Morin's Wine. Creso phosphate..... | 0.32 | 8.58 | | | Specifically undetermined alkaloids 48 mgms. per litre. Contains cressote. | | | 40756 |
| Vin St. Michel..... | | | | | | | | 40757 |
| Vin des Carmes..... | | | | | | | | 40758 |
| Vin St. Martin..... | 0.68 | 17.20 | 21.49 | 4.29 | Principally cinchona alkaloids, 187 mgms. per litre. | | | 40759 |

| 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. | |
|-----------------------|-------------------|----------------|--|-----------|--------|---|--------------------------------------|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. |
| DISTRICT OF MONTREAL— | | | | | | | |
| 1910. | | | | | | | |
| Sept. 27 | Tonic Wine .. | 40760 | Hudon & Orsali, St. Paul St., Montreal. | 3 bots. | 212 | ..... | ..... |
| Oct. 4 | " .. | 41063 | Dr. C. P. Verdun, Granby, P.Q. | 3 " .. | 225 | ..... | ..... |
| " 5 | " .. | 41064 | T. H. Welch, Waterloo, P.Q. | 3 " .. | 375 | ..... | ..... |
| " 10 | " .. | 41065 | J. H. E. Brodeur, St. Hyacinthe, P.Q. | 3 " .. | 150 | ..... | ..... |
| " 10 | " .. | 41066 | " .. | 3 " .. | 255 | ..... | ..... |
| DISTRICT OF OTTAWA— | | | | | | | |
| Sept. 23 | Tonic Wine .. | 43094 | The Ottawa Nat. Phar. Ltd., Ottawa. | 3 bots. | 300 | Unknown..... | Lymans Ltd., Montreal. |
| " 7 | " .. | 43095 | Beattie & Argue, Ottawa. | 3 " .. | 300 | " .. | Nat. Drug & Chem. Co., Ltd., Ottawa. |
| " 8 | " .. | 43096 | F. W. Day, Ottawa | 3 " .. | 300 | " .. | " .. |
| " 28 | " .. | 43097 | D. Belanger, Hull, P.Q. | 3 " .. | 300 | " .. | Unknown..... |
| " 28 | " .. | 43098 | Ottawa Drug Co., Ottawa. | 3 " .. | 150 | Dr. Ed. Morin & Mfrs Cie, Quebec. | ..... |
| DISTRICT OF KINGSTON— | | | | | | | |
| Oct. 4 | Tonic Wine .. | 46529 | G. W. Mahood, Kingston. | 3 bots. | 300 | ..... | ..... |
| " 5 | " .. | 46530 | Geo. Thompson, Kingston. | 3 " .. | 225 | H. Kola Ltd., Toronto. | ..... |
| " 5 | " .. | 46531 | E. Beaupre, Kingston .. | 3 " .. | 300 | ..... | ..... |
| " 5 | " .. | 46532 | R. Lawler, Kingston.... | 3 " .. | 375 | The Ont. Grape Growing, St. Catharines. | ..... |
| " 5 | " .. | 46533 | J. B. McLeod, Kingston. | 3 " .. | 300 | H. K. Wampole, Perth, Ont. | ..... |
| DISTRICT OF TORONTO— | | | | | | | |
| Sept. 13 | Tonic Wine .. | 47202 | The Nat. Drug & Chem. Co., Ltd., Toronto. | 3 bots. | 200 | ..... | Boivin, Wilson, Montreal. |
| " 13 | " .. | 47203 | G. Tamblын, 133 Yonge St., Toronto. | 3 " .. | 267 | ..... | Lyman Bros. & Co., Ltd., Toronto. |
| " 13 | " .. | 47204 | Hygiene Kola Ltd., 1383 Queen St. west, Toronto. | 3 " .. | 200 | Vendors ..... | ..... |
| " 20 | " .. | 47205 | The Nat. Drug & Chem. Co., Ltd., Hamilton. | 3 " .. | 225 | L. A. Wilson, Montreal. | ..... |
| " 27 | " .. | 47206 | The T. Eaton Co., Ltd., Toronto. | 3 " .. | 150 | C. Lewis of the T. Eaton Co., Ltd., Toronto. | ..... |

TONIC WINES—PART I—Continued.

| Inspector's Report. (Is not an expression of Opinion). | Results of Analysis. | | | | | Remarks, Alkaloids, etc. | No. of Sample. | Remarks and Opinion of the Chief Analyst. |
|---|--|---|--------------------------------|---------------|-------------------|--------------------------|----------------|--|
| | Cos. $\frac{3}{10}$ KOH per 100ccs. | Acidity fms. Tar- tric Acid per 100ccs. | Reducing Sugar as Dextrose. | Total Solids. | Non-Sugar Solids. | | | |
| <i>Concluded.</i> | | | | | | | | |
| Ovonol | | | | | | | 40760 | |
| Vin St. Martin..... | | | | | | | 41063 | |
| Vin St. Michel ... | | | | | | | 41064 | |
| Vin Morin..... | | | | | | | 41065 | |
| Vin des Carmes..... | | | | | | | 41066 | |

J. A. RICKEY, INSPECTOR.

| | | | | | | |
|---|------|-------|-------|------|---|-------|
| Vin Bonaparte..... | 0.77 | 20.89 | 28.17 | 7.28 | Quinine, 206 mgms. per litre. | 43094 |
| Iodo Quinine. Carter's Aromatic Quinine Wine. | 3.57 | ... | 7.15 | 8.85 | 1.70 Quinine by titration, 0.275 gms. per litre. | 43055 |
| Vin St. Michel..... | | | | | | 43096 |
| Vin des Carmes..... | | | | | | 43097 |
| Vin Morin..... | | | | | | 43098 |

JAS. HOGAN, INSPECTOR.

| | | | | | | |
|---------------------------|------|-------|-------|------|---|-------|
| Wilson's Invalid Port. | | | | | | 46529 |
| ..... |  |  |  |  |  | 46530 |
| Vinho do Porto..... | 0.50 | 10.01 | 12.30 | 2.29 | | 46531 |
| ..... | 0.68 | 16.92 | 19.55 | 2.63 | Volatile acid 0.08 p.c. | 46532 |
| ..... | 0.74 | 13.29 | 16.52 | 3.23 | Extract with chloroform gives test for caffeine. | 46533 |

H. J. DAGER, INSPECTOR.

| | | | | | | |
|--|------|-------|-------|------|--|-------|
| Vin St. Michel..... | | | | | | 47202 |
| Vin Mariana a la Coca du Peru. | | | | | Alkaloids 74 mgms. per litre. Contains cocaine. | 47203 |
| Kola Tonic Wine, Kola Celery and Pepsin. | | | | | | 47204 |
| Wilson's Invalid Port. | | | | | | 47206 |
| Lewis Quinine Wine. | 78.1 | 21.40 | 26.30 | 4.90 | Quinine by titration 1.778 gms. per litre. | 47206 |

| 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. | |
|---------------------|-------------------|----------------|-----------------------------|-----------|--------|---|------------|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. |

DISTRICT OF MANITOBA—

| 1910. | | | | | | | |
|---------|---------------|-------|--|---------|-----|---|---------------------------------|
| Nov. 14 | Tonic Wine .. | 43804 | Anderson's Drug Store, Winnipeg. | 3 bots. | 300 | Unknown | Unknown |
| " 14 | " .. | 45805 | The Public Drug Co., Winnipeg. | 3 " .. | 300 | L. A. Wilson, Mon- treal. | The Nat. Drug Co., Winnipeg. |
| " 14 | " .. | 45806 | The Gordon Mitchell Drug Co., Winnipeg. | 3 " .. | 300 | Unknown | Vendors |
| " 14 | " .. | 45807 | Harrison Bros., Winnipeg. | 3 " .. | 150 | The Hygienic Kola Co., Winnipeg. | " |
| " 14 | " .. | 45808 | " " .. | 3 " .. | 150 | The Martin Bole Wynn Co., Win- nipeg. | " |

DISTRICT OF CALGARY—

| | | | | | | | |
|----------|---------------|-------|---|---------|-----|------------------------------------|---|
| Sept. 22 | Tonic Wine .. | 43929 | The Nat. Drug & Chem. Co., Calgary. | 3 bots. | 300 | ..... | Boivin, Wilson, Montreal. |
| " 22 | " .. | 43930 | The Great West Liq. Co., Ltd., Calgary | 3 " .. | 300 | L. A. Wilson, Mon- treal. | ..... |
| " 22 | " .. | 43931 | James Findlay Drug Co., Calgary. | 3 " .. | 300 | Lyman Sons & Co., Montreal. | ..... |
| " 22 | " .. | 43932 | The Hudson's Bay Co., Calgary. | 3 " .. | 300 | Mariana, 41 Bd. Hausmann, Paris | ..... |
| " 22 | " .. | 43933 | Calgary Wine & Spirit Co., Calgary. | 3 " .. | 300 | ..... | S. B. Townsend & Co., Mon- treal. |

DISTRICT OF VANCOUVER—

| | | | | | | | |
|--------|---------------|-------|--|---------|-----|---------------------------------------|--|
| Oct. 5 | Tonic Wine .. | 38004 | Le Patrourel & McRae Vanc., B.C. | 3 bots. | 375 | L. A. Wilson, Mon- treal. | ..... |
| " 5 | " .. | 38005 | Gold Seal Liquor Co., Vanc., B.C. | 3 " .. | 450 | ..... | W. A. Gillyb. Shipped from Portugal. |
| " 5 | " .. | 38006 | Georgia Pharmacy, Vanc., B.C. | 3 " .. | 300 | Ont. Grape Grow- ers' Association. | ..... |
| " 5 | " .. | 38007 | W. M. Harrison, Vanc., B.C. | 3 " .. | 300 | Northrop & Lyman | ..... |
| " 5 | " .. | 38008 | W. E. Lay, Davie and Granville Sta., Vanc., B.C. | 3 " .. | 150 | Hudson's Bay Co. | ..... |

TONIC WINES.—PART I—Continued.

| Inspector's Report. (Is not an expression of Opinion). | Results of Analysis. | | | | | | Remarks, Alkaloids, etc. | No. of Sample. | Remarks and Opinion of the Chief Analyst. |
|--|----------------------------|---|----------------------------------|---------------|-------------------|--|--------------------------|----------------|--|
| | Cos. % KOH per 100 ccs. | Acidity gms. Tar- taric Acid per 100 ccs. | Reducing Sugar as Dextrose. | Total Solids. | Non-Sugar Solids. | | | | |
| A. C. LARIVIÈRE, INSPECTOR. | | | | | | | | | |
| Vin St. Michel..... | | | | | | | | 45804 | |
| Wilson's Invalid Port Wine..... | | | | | | | | 45805 | |
| Vin St. Michel..... | | | | | | | | 45806 | |
| Kola Tonic Wine.. | 62.9 | | 10.73 | 14.35 | 3.62 | Salicylic acid 0.0733 gms. per 100 ccs. gives reaction for caffeine, indicating kola. | | 45807 | |
| Murray's Orange Quinine Wine. | 38.7 | | 3.60 | 7.01 | 3.41 | Quinine by titration 0.713 gms. per litre. | | 45808 | |
| R. W. FLETCHER, INSPECTOR. | | | | | | | | | |
| Vin St. Michel..... | | 0.30 | 17.80 | | | | | 43929 | |
| Wilson's Invalid Port Wine..... | | | | | | | | 43930 | |
| Lyman's Quinine Wine..... | 129.9 | | 14.09 | 18.24 | 4.15 | Quinine by titration 1.490 gms. per litre. | | 43931 | |
| Vin Tonique Ma- riana..... | 0.49 | | 6.19 after inver- sion. | 8.17 | | Cane sugar 0.52 % alka- loids, 70 mgms. per litre. Contains cocaine. | | 43932 | |
| Vin St. Michel..... | | | 17.13 | | | Caramel in considerable amount in all samples Vin St. Michel. | | 43933 | |
| J. F. POWER, INSPECTOR. | | | | | | | | | |
| ..... |  | 0.47 | 10.92 | | | Specifically undetermined alkaloids 45 mgms. per litre. | | 38004 | |
| ..... |  | 0.37 | 8.55 | 10.51 | 1.96 | Specifically undetermined alkaloids 20 mgms. per litre. | | 38005 | |
| ..... |  | 0.81 | 19.30 | 22.41 | 3.11 | Volatile acid 0.06 p.c., alkaloids by crystalliza- tion 102 mgms. per litre, principally quinine. Quinine by titration = 89.6 mgms. | | 38006 | |
| ..... | 41.61 | | 2.88 | 4.13 | 1.25 | Quinine by titration 0.178 gms. per litre. | | 38007 | |
| ..... |  | 0.76 | 15.83 | 18.09 | 2.86 | Volatile acid 0.16 p.c.... | | 38008 | |

| 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. | |
|---------------------|-------------------|----------------|-----------------------------|-----------|--------|---|------------|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. |

DISTRICT OF VICTORIA—

| 1910. | | | | | | | |
|---------|---------------|-------|---------------------------------------|---------|-----|---------------------------------------|--------------------|
| Oct. 20 | Tonic Wine .. | 44995 | John Cochrane, Victoria, B.C. | 3 bots. | 300 | Lyman's, Ltd., Montreal. | ..... |
| " 20 | " .. | 44996 | Hall & Co., Victoria, B.C. | 3 " .. | 300 | F. Stearns & Co., Windsor, Ont. | ..... |
| " 20 | " .. | 44997 | F. J. Williams, Victoria, B.C. | 3 " .. | 300 | Nat. Drug & Chem. Co., Victoria, B.C. | ..... |
| " 24 | " .. | 44998 | Nat. Drug & Chem. Co., Victoria, B.C. | 3 " .. | 300 | Nat. Drug & Chem. Co., Montreal. | ..... |
| " 24 | " .. | 44999 | Dean & Hiscocks, Victoria, B.C. | 3 " .. | 300 | ..... | Houde & Co., Vanc. |

TONIC WINES—PART I.—*Concluded.*

| Inspector's Report. (Is not an expression of Opinion). | Results of Analysis. | | | | | | Remarks and Opinion of the Chief Analyst. |
|--|---|---|--------------------------------|---------------|-------------------|---|--|
| | Ces. $\frac{1}{2}$ K O H per 100ccs. | Acidity gms. Tar- trates Acid per 100ccs. | Reducing Sugar as Dextrose. | Total Solids. | Non-Sugar Solids. | Remarks, Alkaloids, etc. |  | No. of Sample. |
| D. O'SULLIVAN, INSPECTOR. | | | | | | | |
| Vin De Veal..... | | 0.92 | 17.89 | 22.96 | 5.07 | Specifically undetermined alkaloids 44 mgms. per litre. | 44995 |
| Vin de Stearns..... | | 0.58 | 7.53 | 11.65 | 4.12 | Specifically undetermined alkaloids 46 mgms. per litre. | 44996 |
| Wilson's Invalid Port. | | | | | | | 44997 |
| Quinine Wine.... | 40.6 | | 1.17 | 2.30 | 1.13 | Quinine by titration 0.405 gms. per litre. | 44998 |
| ¹⁰¹ Kemp's Invalid Port. | | 0.33 | 6.82 | 8.66 | 1.84 | | 44999 |

| 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). |
|---------------------|-------------------|----------------|-----------------------------|-----------|--------|---|------------|---|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. | |

DISTRICT OF MONTREAL—

| 1912. | | | | | | | | |
|---------|-------------|-------|---|---------|-----|-------------------------|-------|------------------------------------|
| Dec. 20 | Tonic Wine. | 51031 | Hudson Hebert & Cie, Ltd., St. Sulfice St., Montreal. | 3 bots. | 213 | ..... | ..... | Vin St. Michel. |
| " 20 | " | 51032 | " | 3 " .. | 175 | ..... | ..... | Vin Phoshat au quinquine La Trapp. |
| " 20 | " | 51033 | " | 3 " .. | 175 | ..... | ..... | Vin des Carmes |
| " 20 | " | 51034 | " | 3 " .. | 175 | ..... | ..... | Campbell's Quinine Wine |
| " 20 | " | 51035 | J. H. Goyer, 1759 St. Lawrence B, Montreal. | 3 " .. | 197 | Rex Chem. Co. | ..... | Rex Quinine Wine. |
| " 23 | " | 51036 | Hudon & Orsali, St. Paul St., Montreal. | 3 " .. | 188 | ..... | ..... | Vin St. Martin. |
| " 23 | " | 51037 | " | 3 " .. | 250 | ..... | ..... | Dubonnet |
| " 23 | " | 51038 | " | 3 " .. | 250 | ..... | ..... | Byrrh..... |
| " 23 | " | 51039 | Lyman's Ltd., St. Paul St., Montreal. | 3 " .. | 150 | Vendors..... | ..... | Lyman's Quinine Wine. |
| " 23 | " | 51040 | " | 3 " .. | 213 | H. K. W. Co., Ltd. | ..... | Wampole's Digestive Kola Wine. |
| " 26 | " | 51041 | The Nat. Drug & Chem. Co., Ltd., Montreal. | 3 " .. | 138 | Vendors..... | ..... | Nat. Drug-Co. Quinine Wine. |
| " 26 | " | 51042 | " | 3 " .. | 225 | L. A. Wilson, Montreal. | ..... | Wilson's Invalid Port. |
| " 26 | " | 51043 | " | 3 " .. | 150 | Vendors..... | ..... | Carter's Quinine Wine. |
| " 27 | " | 51044 | John J. Weinfeld, Eberly St., Montreal. | 3 " .. | 275 | ..... | ..... | St. David's Invalid Port. |
| " 27 | " | 51045 | Elp. Ethier, 933 Notre Dame, W., Montreal. | 3 " .. | 255 | F. L. Wooley, Montreal. | ..... | Imperial Quinine Wine. |
| " 27 | " | 51046 | " | 3 " .. | 300 | Universal Drug Co. | ..... | Vin. St. Celestine. |
| 1913. | | | | | | | | |
| Feb. 5 | " | 51047 | The Chapman Dart Co., Craig St. W., Montreal. | 3 " .. | 150 | Vendors..... | ..... | Watson's Tonic Wine. |

TONIC WINES.—PART II.

| Results of Analysis. | | | | | | | | | | No. of Sample. | Remarks and Opinion of the Chief Analyst. |
|--|-----------------------------|---|--|-------------|-------------------|------------------------------------|-----------------------|--------------------------|--|----------------|---|
| Acidity as Tannic Acid, gms. per 100ccs. | Alcohol per cent by Volume. | Extract Calc. from 100 gms. per 100ccs. | Reducing Sugar as Dextrose, gms. per 100ccs. | Cane Sugar. | Non-Sugar Solids. | Quinine by Weight, gms. per litre. | Quinine by Titration. | Remarks, Alkaloids, etc. | | | |

J. J. COSTIGAN, INSPECTOR.

| | | | | | | | | | | |
|------|-------|-------|-------|------|------|-------|-------|--|---|-------|
| 0.41 | 14.84 | 18.63 | 15.71 | 0.71 | 2.75 | | | | Crude alkaloids 6 mgms. per litre, strongly coloured with caramel. | 51031 |
| 0.99 | 13.62 | 17.43 | 14.24 | | 3.19 | 0.066 | | | Cinchona alkaloids 77.3 mgms. per litre. A small amt. of caffeine and alinine dye present. | 51032 |
| 0.50 | 11.75 | 22.25 | 13.45 | 6.94 | 1.84 | | | | | 51033 |
| 0.37 | 16.52 | 3.02 | 1.60 | | 1.42 | 1.269 | 1.232 | | | 51034 |
| 0.58 | 16.33 | 4.16 | 2.00 | | 2.16 | 0.106 | | | | 51035 |
| 0.66 | 11.52 | 21.40 | 18.03 | | 3.37 | | | | Cinchona alkaloids, principally quinine 153.5. Bears an Inland Revenue stamp in stock prior to April, 1909. | 51036 |
| 0.43 | 17.86 | 20.05 | 18.77 | | 1.28 | | | | Principally cinchonidine 93.5 mgms per litre. | 51037 |
| 0.44 | 20.20 | 13.91 | 12.04 | | 1.87 | | | | Cinchona alkaloids 21.7 mgms. per litre. | 51038 |
| 0.81 | 18.03 | 12.35 | 9.59 | | 2.76 | 1.500 | 13.93 | | | 51039 |
| 0.67 | 15.14 | 21.66 | 18.02 | | 3.64 | | | | Caffeine, about 0.75 gms. per litre. | 51040 |
| 0.28 | 16.70 | 1.50 | 0.52 | | 0.98 | 0.447 | 0.445 | | | 51041 |
| | | | | | | | | | | 51042 |
| 0.36 | 16.33 | 6.88 | 3.27 | 2.66 | 0.95 | 0.756 | 0.729 | | | 51043 |
| 0.62 | 15.86 | 16.39 | 13.95 | | 2.44 | | | | | 51044 |
| 0.48 | 15.77 | 13.31 | 5.00 | 5.46 | 2.85 | 0.979 | 0.955 | | | 51045 |
| 0.51 | 15.68 | 10.92 | 8.12 | | 2.80 | | | | Cinchona alkaloids 24.3 mgms. per litre. Contains an aniline dye. | 51046 |
| 0.55 | 13.90 | 12.30 | 3.17 | 6.19 | 2.94 | | | | Cinchona alkaloids, mostly quinine, some cinchonidine 48.7 mgms. per litre. Contains an aniline dye. | 51047 |

BULLETIN No. 261—

| 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). |
|---------------------|-------------------|----------------|-----------------------------|-----------|--------|---|------------|--|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. | |

DISTRICT OF MONTREAL—

| 1913. | | | | | | | | |
|-------|---|-------------|-------|--|--------|-----|---|-------------------|
| Feb. | 6 | Tonic Wine. | 51048 | Lancot & Brault, St. Lawrence Blvd., Montreal. | 3 bts. | 300 | Henri Lancot, Montreal. | Vin de Quinquina. |
| " | 6 | " | 51049 | " | 3 " " | 375 | Burroughs, Wellmore & Co., London, Eng. | Vance Tonic Wine |
| " | 6 | " | 51050 | A. Lefavre, 387 Ontario E., Montreal. | 3 " " | 200 | Vendor | Kina Lefavre. |

DISTRICT OF TORONTO—

| | | | | | | | | |
|------|---|-------------|-------|---|--------|-----|---------------------------------|---|
| Jan. | 8 | Tonic Wine. | 51533 | Liggetts Ltd, 224 Yonge St., Toronto. | 3 bts. | 300 | United Drug Co., Ltd., Toronto. | Rexall Wine of Cod Liver Extract, containing 24% alcohol. |
| " | 8 | " | 51534 | The T. Eaton Drug Co., Ltd., Toronto. | 3 " " | 100 | Vendors | Lewis Quinine Wine. |
| " | 8 | " | 51536 | The United Drug Co., Ltd., Lake St., Toronto. | 3 " " | 103 | " | Rexall Celery and Iron Tonic. |
| " | 8 | " | 51537 | The Turner Co., Ltd., 106 Front St. east, Toronto. | 3 " " | 150 | " | Turner's Invalid Port. |
| " | 8 | " | 51538 | Hygiene Kola Co., Ltd., 12 Agnes St., Toronto. | 3 " " | 225 | " | Hygiene, Kola, Celery and Pepsin. |
| " | 9 | " | 51539 | The Chemists Co. of Canada, Ltd., 92 Sherbourne St., Toronto. | 3 " " | 155 | " | Ontario Chemists Quinine Wine. |
| " | 9 | " | 51542 | The T. A. Lytle Co., Ltd., Sterling Road, Toronto. | 3 " " | 125 | " | Lytle's Medicated Invalid Port. |
| " | 9 | " | 51543 | J. P. Taylor, 1487 Queen St. west, Toronto. | 3 " " | 300 | E. G. West & Co., Toronto. | "Diamond" Brand Invalids' Port Wine à la quinia du Peroo. |

TONIC WINES.—PART II.—Continued.

Results of Analysis.

| Acidity as Tar- taric Acid gms. per 100ccs. | Alcohol per cent. by Volume. | Extract Calc. from sp. gr. gms. per 100ccs. | Reducing Sugar as Dextrose gms. per 100ccs. | Cane Sugar. | Non-Sugar Solids. | Quinine by Weight gms. per litre. | Quinine by Titration. | Remarks. Alkaloids, etc. | No. of Sample. | Remarks and Opinion of the Chief Analyst. |
|---|---------------------------------|---|---|-------------|-------------------|---|--------------------------|---|----------------|---|
| 0-60 | 13-43 | 16-18 | 10-13 | ..... | 6-05 | 0-355 | ..... | A large proportion of cinchonidine. | 51048 | |
| 3-30 | 20-06 | 24-14 | 19-84 | ..... | 4-30 | ..... | ..... | Quinine and cinchonidine, 190 mgms. per litre | 51049 | |
| 0-70 | 13-15 | 12-87 | 10-16 | ..... | 2-71 | ..... | ..... | Quinine 22-6 mgms. per per litre. | 51050 | |

Continued.

H. J. DAGGER, INSPECTOR.

| | | | | | | | | | | |
|------|-------|-------|-------|-------|------|-------|-------|---|-------|--|
| 0-55 | 23-10 | 13-31 | 7-51 | 2-21 | 3-49 | ..... | ..... | No alkaloids..... | 51533 | |
| 0-41 | 8-45 | 24-91 | 14-67 | 7-80 | 2-44 | 1-624 | 1-587 | ..... | 51534 | |
| 0-38 | 18-16 | 17-12 | 11-46 | 0-40 | 5-25 | ..... | ..... | No alkaloids. Ash=0-380 gms. per 100ccs. Iron=6-018 gms. per 100ccs. Fe, O | 51536 | |
| 0-72 | 12-96 | 13-49 | 11-02 | ..... | 2-47 | ..... | ..... | Cinchona alkaloids about 15 mgms. per litre | 51537 | |
| 0-50 | 2-50 | 17-20 | 8-75 | 5-45 | 3-06 | ..... | ..... | Contains salicylic acid and an aniline dye. | 51538 | |
| 0-88 | 14-84 | 10-37 | 7-12 | 0-46 | 2-79 | 0-698 | 0-667 | Caffeine about 75 mgms. per litre, colony extract present, coloured with caranum. Contains a large amount of salicylic acid | 51539 | |
| 0-67 | 9-13 | 19-86 | 15-95 | 1-22 | 2-69 | ..... | ..... | Cinchona alkaloids, principally quinine, 43 mgms. per litre. Contains benzoic acid and an aniline dye. | 51542 | |
| 0-92 | 9-54 | 18-35 | 15-77 | ..... | 2-88 | ..... | ..... | A large amount of salicylic acid and an aniline dye. Trace of alkaloids. | 51543 | |

| 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). |
|----------------------|-------------------|----------------|---|-----------|--------|---|--------------|---|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. | |
| DISTRICT OF TORONTO— | | | | | | | | |
| 1913. | | | | | | | | |
| " 9 | " | 51544 | Canadian Wine Co., 887 Queen St. west, Toronto. | 3 | 165 | Vendors ..... | ..... | Invalids' Fine Old Port Wine. |
| " 11 | " | 51548 | T. F. Carey, 84 Queen St. west, Toronto. | 3 | 210 | ..... | Unknown | Royal Crest Port Wine. |
| " 14 | " | 51586 | G. Tamblin, 1574 Dundas St. west, Toronto. | 3 | 255 | ..... | Vendor | Wilson's Invalid Port. |

TONIC WINES—PART II—Continued.

Results of Analysis.

| | | Remarks of Analyst. | | | | | | |
|---|-------|---|----------------|------|------|-------|---|-------|
| Acidity as Tar- taric Acid gms. per 100ccs. | | Remarks, Alkaloids, etc. | No. of Sample. | | | | | |
| Alcohol per cent. by Volume. | | Remarks and Opinion of the Chief Analyst. | | | | | | |
| Extract Calc. from sp. gr. gms. per 100ccs. | | | | | | | | |
| Reducing Sugar as Dextrose gms. per 100ccs. | | | | | | | | |
| Cane Sugar. | | | | | | | | |
| Non-Sugar Solids. | | | | | | | | |
| Quinine by Weight gms. per litre. | | | | | | | | |
| Quinine by Titration. | | | | | | | | |
| <i>Continued.</i> | | | | | | | | |
| 0.74 | 11.87 | 17.08 | 15.00 | 2.08 | 2.08 | | Contains salicylic acid and an aniline dye. | 51544 |
| 0.71 | 10.88 | 15.48 | 13.17 | 2.31 | 2.31 | | A large amount of sal- icylic acid and an an- iline dye. Alkaloids 13 mgms. per litre. Gives test for quinine. | 51548 |
| 0.63 | 15.12 | 11.86 | 9.25 | 2.61 | 2.61 | | | 51580 |

| 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). |
|----------------------|-------------------|----------------|---|-----------|--------|---|----------------------------------|---|
| | | | | Quantity. | Cents. | Manufacturer. | Furnisher. | |
| DISTRICT OF TORONTO— | | | | | | | | |
| 1913. | | | | | | | | |
| Jan. 7 | Tonic Wine. | 51531 | The Nat. Drug & Chem. Co., Ltd., Toronto. | 3 bts. | 150 | Vendors..... | Na-Drug-Co. Beef, Iron and Wine. | |
| " 8 | " | 51532 | G. Tambllyn, 2321 Yonge St., Toronto. | 3 " | 107 | Vendor | Tambllyn's Beef, Iron and Wine. | |
| " 8 | " | 52333 | The United Drug Co., Ltd., Lake St., Toronto. | 3 " | 100 | Vendors | Predigested Beef, Iron and Wine. | |
| " 9 | " | 51540 | The Druggists' Corporation, 82 Church St., Toronto. | 3 " | 85 | " | Beef, Iron and Wine. | |
| " 9 | " | 51541 | F. E. Karn Co., Ltd., Queen & Victoria Sts., Toronto. | 3 " | 75 | " | " .. | |
| " 10 | " | 51545 | T. P. Hartley, 4113 Parliament St., Toronto. | 3 " | 90 | Toronto Phar. Co., Ltd., Toronto. | " .. | |
| " 10 | " | 51546 | H. O. Wilson, 3743 Queen St. west, Toronto. | 3 " | 200 | Toronto Phar. Co., Ltd., Toronto. | " .. | |
| " 11 | " | 51547 | The Robt. Simpson Co., Ltd., Yonge & Queen Sts., Toronto. | 3 " | 120 | Vendors | Morden's Beef, Iron and Wine. | |
| " 11 | " | 51549 | F. Merck, Danforth Ave. & Main Sts. east, Toronto. | 3 " | 150 | H. K. Wamp-ler, Perth, Ont. | Beef, Iron and Wine. | |

TONIC WINES.—PART II—*Concluded.*

| Results of Analysis. | | | | | | | | | | Remarks and Opinion of the Chief Analyst. |
|---|---------------------------------|-----------------------------------|--------------------------------|-------------|-------------------|------------|---------------------|-----------------|----------------|---|
| Acidity as Tar- tric gms. per 100ccs. | Alcohol per cent. by Volume. | Extract Calc. gms. per 100ccs. | Reducing Sugar as Dextrose. | Cane Sugar. | Non-Sugar Solids. | Total Ash. | Iron as Fe_2O_3 . | Total Nitrogen. | No. of Sample. | |
| H. J. DAGER, INSPECTOR. | | | | | | | | | | |
| 0.40 | 16.24 | 18.43 | 13.31 | 0.90 | 4.22 | 0.435 | 0.143 | 0.022 | 51531 | |
| 0.58 | 14.18 | 12.29 | 9.00 | ..... | 3.20 | 0.230 | 0.007 | 0.020 | 51532 | |
| .93 | 24.78 | 22.39 | 7.87 | 6.75 | 7.97 | 1.557 | 0.237 | 0.294 | 51535 | |
| 0.42 | 12.58 | 13.92 | 6.87 | 1.38 | 5.67 | 0.701 | 0.064 | 0.084 | 51540 | |
| 0.72 | 9.95 | 18.08 | 13.90 | ..... | 4.18 | 0.361 | 0.206 | 0.034 | 51541 | |
| 0.15 | 17.79 | 9.57 | 1.67 | 5.83 | 2.7 | 0.205 | 0.147 | 0.066 | 51545 | |
| 0.16 | 17.26 | 9.08 | 2.23 | 4.72 | 2.13 | 0.294 | 0.143 | 0.058 | 51546 | |
| 0.54 | 14.74 | 13.38 | 7.30 | ..... | 6.08 | 0.597 | 0.206 | 0.248 | 51547 | |
| 0.54 | 15.68 | 19.81 | 16.50 | ..... | 3.31 | 0.252 | 0.113 | 0.034 | 51549 | |