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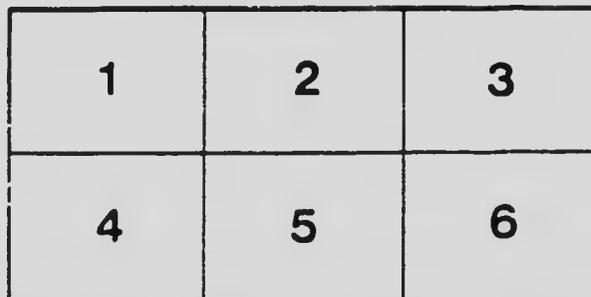
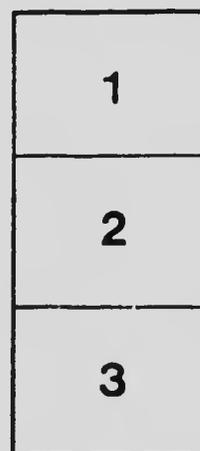
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LABORATORY  
OF THE  
INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

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BULLETIN No. 221.

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ARSENIC AS AN IMPURITY IN DRUGS  
(EFFERVESCENT PHOSPHATE OF SODA)

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LABORATORY  
OF THE  
INLAND REVENUE DEPARTMENT  
OTTAWA, CANADA.

BULLETIN No. 221.

ARSENIC AS AN IMPURITY IN DRUGS

(EFFERVESCENT PHOSPHATE OF SODA).

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

OTTAWA, December 10, 1910.

SIR,—Since the historic case of Arsenical beer (Manchester, Eng., 1900), where it was found that the malt used had become contaminated with dangerous amounts of arsenic through having been dried in the fumes from pyritous coal; while glucose used as an adjunct in beer manufacture contained arsenic from sulphuric acid, used in hydrolysis of starch,—many investigations of drugs have been made, specially directed towards determinations of their content of arsenic.

There is no question of intentional adulteration in this matter, but arsenic is so widely distributed in nature, and especially so in the materials employed in the manufacture of sulphuric acid—which latter is, in its turn, a principal agent in many chemical manufactures that, unless special precautions are taken, more than negligible traces of arsenic may occur in very many drugs.

Bulletin 181 of this Department, contains the results of work upon 448 samples (Sulphates of magnesia and soda, and phosphate of soda) examined in June, 1909—Below is a synopsis of results:—

|                           | ARSENIC. |   |  |  | Total<br>Samples. |
|---------------------------|----------|---|--|--|-------------------|
|                           | None.    | Less than<br>one-half<br>milligram<br>per hundred<br>grams. | Less than<br>one milli-<br>gram per<br>hundred<br>grams. | More than<br>one milli-<br>gram per<br>hundred<br>grams. |                   |
| Sulphate of magnesia..... | 120      | 26  | 4  | 0  | 150               |
| Sulphate of soda.....     | 99       | 35  | 10   | 6  | 150               |
| Phosphate of soda.....    | 117      | 25  | 6  | 0  | 148               |
|                           | 336      | 86  | 20   | 6  | 448               |

Bulletin 202 (March, 1910) reports upon 151 samples of Borax; of which

|   |        |           |     |           |     |     |          |
|---|--------|-----------|-----|-----------|-----|-----|----------|
| 1 | sample | contained | 1.0 | milligram | per | 100 | grammes. |
| 7 | "      | "         | 0.5 | "         | "   | "   | "        |
| 3 | "      | "         | 0.4 | "         | "   | "   | "        |
| 1 | "      | "         | 0.3 | "         | "   | "   | "        |
| 4 | "      | "         | 0.2 | "         | "   | "   | "        |

The accompanying report deals with an examination of 134 samples of effervescing phosphate of soda, purchased throughout Canada. Of this number, 131 samples (98 per cent of the collection) have been found entirely free from arsenic, or containing quite negligible traces. Of three samples which gave distinct reaction for arsenic, one sample contained one part in 100,000, and two samples, contained half of this amount.

The smallest medicinal dose of arsenic fixed by the British Pharmacopoeia is  $\frac{1}{10}$  of a grain; (0.001 gramme). This amount is contained in 100 grammes (about 3 ounces) of the sample 36492. Of this drug  $\frac{1}{2}$  to  $\frac{1}{4}$  ounce is the usual dose.

I beg to recommend publication of this report as Bulletin 221.

I have the honour to be, sir,  
Your obedient servant,

A. MCGILL,  
*Chief Analyst.*

BULLETIN No. 221.—EFFERVESCENT PHOSPHATE OF SODA.

| Date of Collection | Nature of Sample        | No. of Sample | Name and Address of Vendor           | QTY.  |           | Name and Address of Manufacturer or Furnisher, as given by the Vendor. | Inspector's Report<br>(Is not an expression of opinion) | Results of Analysis<br>Arsenic per 100 grains. |
|--------------------|-------------------------|---------------|--------------------------------------|-------|-----------|--|---|--|
|                    |                         |               |                                      | Cent. | Quantity. |  |   |  |
| 1910.              |                         |               |                                      |       |           |  |   |  |
| Oct. 17            | Eff. Phosphate of Soda. | 42160         | Nat. Drug & Chem. Co., Halifax, N.S. | 25    | 4 oz.     | Vendors<br>H. K. Wampole Co., Manufacturers<br>Perth, Ont              | Labelled Moyes' Granular Eff. Phosphate of Soda         | None.  |
| " 18               | "                       | 42161         | C. E. Huggins, Halifax, N.S.         | 25    | "         | Moyes Chemical Co., Toronto.   |   |  |
| " 18               | "                       | 42162         | J. St. Clair Combes, Halifax, N.S.   | 25    | "         | H. K. Wampole, Perth, Nat. Drug & Chem. Co., Halifax.                  |   |  |
| " 18               | "                       | 42163         | Irwin & Sons, Halifax, N.S.          | 25    | "         | Nat. Drug & Chem. Co., Halifax.  |   |  |
| " 18               | "                       | 42164         | M. D. Logan, Halifax, N.S.           | 25    | "         | H. K. Wampole, Perth, Ont.   |   |  |
| " 19               | "                       | 42165         | Brown Bros. & Co., Halifax, N.S.     | 30    | "         |  |   |  |
| " 19               | "                       | 42166         | John Rawley, Halifax, N.S.           | 25    | "         |  |   |  |
| " 19               | "                       | 42167         | C. A. Barnstead, Halifax, N.S.       | 50    | "         | Jas. Wyeth & Bro., Philadelphis.                                       |   |  |
| " 20               | "                       | 42168         | G. C. McDougall, Kentville, N.S.     | 25    | "         | Nat. Drug & Chem. Co., Halifax.  |   |  |
| " 20               | "                       | 42169         | H. C. Wilson, Windsor, N.S.          | 25    | "         | H. K. Wampole, Perth, Ont.   |   |  |

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

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BULLETIN No. 221. EFFERVESCENT PHOSPHATE OF SODA. *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.<br>(Is not an opinion of provision of opinion.) | Results of Analysis.<br>Arsenic per 100 grams. |
|--------------------|-------------------------|---------------|-----------------------------------|-----------|-----------|---|---|--|
|                    |                         |               |                                   | Quantity. | Per Cent. |   |   |  |
| 1910.              |                         |               |                                   |           |           |   |   |  |
| Sept. 10           | Eff. Phosphate of Soda. | 45981         | E. A. Foster, Charlottetown       | 1 lb.     | 20        | Toronto Pharmacy Co., Toronto.  |   |  |
| " 10               | "                       | 45982         | Geo. E. Hughes, Charlottetown     | "         | 20        | H. K. Waupole, Perth, Ont.  |   |  |
| " 10               | "                       | 45983         | McKinnon Drug Co., Charlottetown. | "         | 15        | Wyeth Bros., Philadelphia.  |   |  |
| " 10               | "                       | 45984         | Reddin Bros., Charlottetown.      | "         | 15        | H. K. Waupole, Perth, Ont.  |   |  |
| " 10               | "                       | 45985         | J. G. Jamieson, Charlottetown.    | "         | 20        | Packe, Davis & Co., Walkerville.                                      |   |  |
| " 13               | "                       | 45986         | Johnson & Johnson, Charlottetown. | "         | 20        | H. K. Waupole, Perth, Ont.  |   |  |
| " 23               | "                       | 45987         | Dr. F. W. Jardine, Kensington     | 1 bot.    | 25        | Nat. Drug & Chem. Co., St. John, N.S.                                 |   |  |
| " 24               | "                       | 45988         | McFadyen & McLellan, Summerside.  | 1 lb.     | 20        | Parke Davis, Walkerville.   |   |  |
| " 24               | "                       | 45989         | McNeill Drug Co., Summerside.     | 1 bot.    | 25        | H. K. Waupole, Perth, Ont.  |   |  |
| " 27               | "                       | 45990         | Gillis & Sons, Charlottetown.     | "         | 35        | Bro. Wyeth & Bro., Philadelphia.                                      |   |  |

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

Name.

Contains Boric phosphate medium

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

| State    |       |  |                   |    |   |        |  |  |
|----------|-------|--|-------------------|----|---|--------|--|--|
| Sept. 15 | 45359 | Nat. Drug & Chemical Co., St. John, N.B. | St. John, N.B.    | 43 | Nat. Drug & Chemical Co., Ltd., Montreal. | Quebec | 100 grams contain 50 grams sodium phosphate. |  |
| "        | 45360 | W. Hawker & Son, N.B.                    | St. John, N.B.    | 35 | Jno. Wyeth & Bro., Philadelphia.          |        |  |  |
| "        | 45361 | E. Clinton Brown, N.B.                   | St. John, N.B.    | 20 | H. K. Wampole & Co., Perth, Ont.          |        |  |  |
| "        | 45362 | Burpee E. Brown, N.B.                    | St. John, N.B.    | 20 | Jno. Wyeth & Bro., Philadelphia.          |        |  |  |
| "        | 45363 | A. Chipman Smith & Co., N.B.             | St. John, N.B.    | 25 | Parke Davis & Co., Walkerville.           |        |  |  |
| Oct. 4   | 45364 | R. T. Mack, Fredericton, N.B.            | Fredericton, N.B. | 25 | H. K. Wampole & Co., Ltd., Perth, Ont.    |        |  |  |
| "        | 45365 | D. W. C. Stevens, Woodstock, N.B.        | Woodstock, N.B.   | 15 | Nat. Drug & Chemical Co., Ltd., Montreal. |        |  |  |
| "        | 45366 | Leger Drug Co., Moncton, N.B.            | Moncton, N.B.     | 35 | H. K. Wampole & Co., Ltd., Perth, Ont.    |        |  |  |
| "        | 45367 | J. D. B. F. MacKenzie, Ham, N.B.         | Ham, N.B.         | 50 | Jno. Wyeth & Bro., Philadelphia.          |        |  |  |
| "        | 45368 | A. E. Shaw, Newcastle, N.B.              | Newcastle, N.B.   | 25 | H. K. Wampole & Co., Ltd., Perth, Ont.    |        |  |  |

BULLETIN No. 221.—EFFERVESCENT PHOSPHATE OF SODA.

| Date of Collection | Nature of Sample | No. of Sample | Name and Address of Vendor | Cost.   |        | Inspector's Report.<br>(Is not an expression of opinion.) | Results of Analysis.<br>—<br>Arsenic per 100 grams. |
|--------------------|------------------|---------------|----------------------------|---|--------|---|---|
|                    |                  |               |                            | Quantity.   | Cents. |   |   |
|                    |                  |               |                            | Name and Address of Manufacturer or Furnisher as given by the Vendor. |        |   |   |
|                    |                  |               |                            | Manufacturer.   |        |   |   |
|                    |                  |               |                            | Furnisher.  |        |   |   |

DISTRICT OF QUEBEC—E. BELAND, INSPECTOR.

|       |          |                         |       |   |    |   |             |
|-------|----------|-------------------------|-------|---|----|---|-------------|
| 1910. | Sept. 12 | Eff. Phosphate of Soda. | 36491 | Joseph Masson, 809 rue St. Valier, 1/2 lb. Quebec.        | 40 | Chas. E. Frost & Co., Montreal.             | None.       |
|       | " 13     | "                       | 36492 | A. Martineau, 732 rue St. Valier, 1/2 " Quebec.           | 30 | " "   | 1 milligram |
|       | " 14     | "                       | 36493 | W. Brunet et Cie, 139 rue St. J. " Joseph, Quebec.        | 18 | " "   | None.       |
|       | " 14     | "                       | 36494 | " " " " " " " "   | 40 | John Wyeth & Bro., Lyman's, Ltd., Montreal. | "           |
|       | " 14     | "                       | 36495 | " " " " " " " "   | 25 | Parke Davis & Co. Walkerville.              | "           |
|       | " 14     | "                       | 36496 | " " " " " " " "   | 27 | S. K. Wampole & Co., Perth, Ont.            | "           |
|       | " 15     | "                       | 36497 | Estate Geo. P. Pionoudon, 122 1/2 rue St. Joseph, Quebec. | 50 | Parke Davis & Co., Walkerville.             | "           |
|       | " 15     | "                       | 36498 | Ludger E. Martel, 91 rue St. J. Joseph, Quebec.           | 30 | " "   | "           |
|       | " 15     | "                       | 36499 | " " " " " " " "   | 45 | Wyeth Bros., Philadelphia.                  | "           |
|       | " 15     | "                       | 36500 | " " " " " " " "   | 35 | H. K. Wampole & Co., Perth, Ont.            | "           |

DISTRICT OF ST. HYACINTHE—J. J. COSTIGAN, ACTING-INSPECTOR.

|          |                      |       |                                  |         |    |       |                                 |       |
|----------|----------------------|-------|----------------------------------|---------|----|-------|---------------------------------|-------|
| Sept. 17 | Eff. Phosphate Soda. | 41033 | Dr. Viger, St. Hyacinthe         | 1/2 lb. | 25 | ..... | .....                           | None. |
| " 17     | "                    | 41034 | J. H. E. Brodeur, St. Hyacinthe. | 1 bot.  | 25 | ..... | Nat. Drug & Chem. Co., Ltd.     | "     |
| " 19     | "                    | 41035 | W. H. Griffiths, Sherbrooke      | "       | 25 | ..... | Parke Davis & Co.               | "     |
| " 19     | "                    | 41036 | A. E. Du Berger, "               | "       | 50 | ..... | Jno. Wyeth & Bro.               | "     |
| " 20     | "                    | 41037 | J. C. Sutherland, Richmond, P.Q. | 1/2 lb. | 25 | ..... | Chas. E. Frost & Co.            | "     |
| " 20     | "                    | 41038 | J. C. Bedard                     | 1 bot.  | 50 | ..... | Jno. Wyeth & Bro.               | "     |
| Oct. 4   | "                    | 41039 | Dr. C. P. Verlun, (Granby)       | "       | 25 | ..... | Nat. Drug & Chem. Co., Ltd.     | "     |
| " 5      | "                    | 41040 | T. H. Welch, Waterloo            | "       | 25 | ..... | Nat. Drug & Chem. Co., Ltd.     | "     |
| " 5      | "                    | 41041 | A. Vaillancourt                  | "       | 35 | ..... | Parke Davis & Co.               | "     |
| " 5      | "                    | 41042 | Wright & Co., St. Johns, P.Q.    | "       | 35 | ..... | Chas. E. Frost & Co., Montreal. | "     |

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

|          |                      |       |  |         |    |       |                                       |       |
|----------|----------------------|-------|--|---------|----|-------|---------------------------------------|-------|
| Sept. 15 | Eff. Phosphate Soda. | 40748 | Quenneville & Guerin, 2,002 St. Lawrence B., Montreal. | 1 bot.  | 35 | ..... | H. K. Wampole & Co., Perth, Ont.      | None. |
| " 15     | "                    | 40749 | J. E. Bergeron, M.D., 334 Clark St., Montreal.         | 2 "     | 50 | ..... | Parke Davis & Co.                     | "     |
| " 15     | "                    | 40750 | F. E. Morgan, 181 Fairmount, Montreal.                 | 1 "     | 25 | ..... | Chas. E. Frost & Co.                  | "     |
| " 16     | "                    | 40751 | Jno. J. Weinfield, 458 St. Lawrence B., Montreal.      | 1/2 lb. | 25 | ..... | .....                                 | "     |
| " 16     | "                    | 40752 | Henry R. Gray, 198 St. Lawrence B., Montreal.          | 1 bot.  | 25 | ..... | Nat. Drug & Chem. Co. of Canada, Ltd. | "     |
| " 22     | "                    | 40753 | F. E. Morgan, 43 Prince Arthur E., Montreal.           | 1/2 lb. | 25 | ..... | Nat. Drug & Chem. Co. of Can., Ltd.   | "     |
| " 22     | "                    | 40754 | Romeo Casgrain, 440 St. Catherine E., Montreal.        | 1 bot.  | 50 | ..... | Jno. Wyeth & Bro.                     | "     |
| " 22     | "                    | 40755 | J. H. Nault, 42 St. Catherine E., Montreal.            | 1/2 lb. | 25 | ..... | Parke Davis & Co.                     | "     |
| " 22     | "                    | 40756 | X. Bourque, 20 St. Catherine W., Montreal.             | 1 bot.  | 25 | ..... | Nat. Drug & Chem. Co. of Can., Ltd.   | "     |
| " 22     | "                    | 40757 | Nat. Pat. Medicine Co., 294 St. Lawrence B., Montreal. | 1 "     | 25 | ..... | Wampole                               | "     |

BULLETIN NO. 221.---EFFERVESCENT PHOSPHATE OF SODA.

| 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<br>(Is not an expression of opinion.) | Results of Analysis:<br>Arsenic per 100 grams. |
|--------------------|---------------------|---------------|--|----------|-------|--|--|--|
|                    |                     |               |  | Quantity | Cents |  |  |  |
| 1910.              |                     |               |  |          |       |  |  |  |
| Sept. 9            | Eff. Phosphate Soda | 43121         | S. E. Johnston, Armprior                                   | 4 lb.    | 20    | Nat. Drug & Chem. Co., Manufacturers Ltd.                            |  | None.  |
| " 13               | "                   | 43122         | E. H. Elridge, Vankleek Hill                               | "        | 20    | Wyeth Bro. .... Lymana, Ltd., Montreal.                              | Wyeth's  | "  |
| " 14               | "                   | 43123         | F. A. Girdwood, Perth, Ont.                                | "        | 20    | H. K. Wainpole & Co., Manufacturers Perth, Ont.                      |  | "  |
| " 21               | "                   | 43124         | James Clark, Renfrew                                       | "        | 20    | Wyeth Bro. .... Lymana, Ltd., Montreal.                              |  | "  |
| " 27               | "                   | 43125         | W. F. Garland, Ottawa                                      | "        | 25    | H. K. Wainpole & Co., Manufacturers Ltd., Perth, Ont.                |  | "  |
| " 27               | "                   | 43126         | R. M. Arbutnot, Ottawa                                     | "        | 20    | Wyeth Bro. .... Unknown  | Wainpole's   | "  |
| " 28               | "                   | 43127         | D. Belanger, druggist, Hull, P.Q.                          | "        | 15    | Nat. Drug & Chem. Co., Manufacturers Ltd.                            |  | "  |
| " 28               | "                   | 43128         | The Ottawa Nat. Pharmacy Co., Ltd., Dalhousie st., Ottawa. | "        | 10    | Nat. Drug & Chem. Co., Ltd.  |  | Less than 1/2 milligram.                       |
| " "                | "                   | 43129         | J. A. Musgrove, Ottawa                                     | "        | 30    | Wyeth Bro. .... Lymana, Ltd., Montreal.                              |  | None.  |
| " 28               | "                   | 43130         | Allen & Cochrane, Ottawa                                   | "        | 15    | Parke Davis & Co. .... Manufacturers                                 |  | "  |

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

DISTRICT OF KINGSTON—JAS. HOGAN, INSPECTOR.

| Oct. | 4 Eff. Phosphate of Soda. | 46544 F. Hoag, Kingston           | 1/4 lb. | 25 | Moyes Chem. Co., Toronto.     | None. |
|------|---------------------------|-----------------------------------|---------|----|-------------------------------|-------|
| "    | 4                         | 46545 C. S. Trouse, Kingston      | "       | 15 | "                             | "     |
| "    | 4                         | 46546 A. P. Chown, Kingston       | "       | 15 | Toronto Pharmacy Co.          | "     |
| "    | 4                         | 46547 W. W. Gibson, Kingston      | 3 bots. | 75 | H. Wampole, Perth, Ont.       | "     |
| "    | 4                         | 46548 L. T. Best, Kingston        | 1/4 lb. | 25 | Moyes Chem. Co.               | "     |
| "    | 10                        | 46549 A. C. Green, Belleville     | "       | 15 | Parke Davis Co., Walkerville. | "     |
| "    | 10                        | 46550 J. S. McKnowns, Belleville  | "       | 20 | Wampole, Perth                | "     |
| "    | 11                        | 46551 McDermide & Jury, Peterboro | 3 bots. | 75 | Parke Davis Co., Walkerville. | "     |
| "    | 11                        | 46552 Warne Drug Co., Peterboro   | 1/4 lb. | 20 | Wampole                       | "     |
| "    | 11                        | 46553 W. Madill, Peterboro        | "       | 15 | Moyes Chem. Co.               | "     |

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

| Sept. | 13 Eff. Phosphate of Soda. | 45159 R. W. W. McIntyre, 388 Queen St. W., Toronto.    | 4 oz. | 25 | H. K. Wampole & Co. Ltd., Perth, Ont. | None |
|-------|----------------------------|--|-------|----|---------------------------------------|------|
| "     | 13                         | 45160 G. W. Ferrer, 233 College St., Toronto           | "     | 25 | The Moyes Chemical Co. Ltd., Toronto. | "    |
| "     | 14                         | 45161 The F. E. Karm Co., Ltd., Queen St. E., Toronto. | 4     | 35 | Jno. Wyeth & Bro., Philadelphia       | "    |
| "     | 16                         | 45162 W. J. Nichol, 170 King St. E., Toronto.          | 4     | 35 | Toronto Pharmaceutical Ltd., Toronto. | "    |
| "     | 15                         | 45163 C. P. Plater, 1340 Queen St. W., Toronto.        | 4     | 25 | Parke Davis & Co., Walkerville.       | "    |
| "     | 20                         | 45164 C. J. Cunningham, 426 Kings St. W., Toronto.     | 4     | 25 | Nat. Drug & Chemical Co., Hamilton.   | "    |
| "     | 20                         | 45165 Hawkins Ltd., 643 Barton St., Toronto.           | 4     | 20 | Nat. Drug & Chemical Co., Hamilton.   | "    |
| "     | 22                         | 45166 Dr. Lang and J. J. Gilchrist, Owen Sound.        | 1     | 20 | H. K. Wampole & Co., Perth, Ont.      | "    |
| "     | 23                         | 45167 D. A. Cameron & Co., Owen Sound                  | 4     | 25 | Lymans Ltd., Montreal and Toronto.    | "    |
| "     | 26                         | 45168 J. E. Willis, Whitby                             | 4     | 20 | E. G. West & Co., Toronto.            | "    |

BULLETIN No. 221—EFFERVESCENT PHOSPHATE OF SODA.

| 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.<br>(Is not an expression of opinion). | Results of Analysis.<br>—<br>Arsenic per 100 grams. |
|--------------------|-------------------------|---------------|-----------------------------|----------|-------|---|---|---|
|                    |                         |               |                             | Quantity | Cent. |   |   |   |
| 1910.              |                         |               |                             |          |       |   |   |   |
| Sept. 20           | Eff. Phosphate of Soda. | 44618         | D. S. Marrow, Beeton.       | 4 lb.    | 20    | Nat. Drug Co., Hamilton Toronto.                                      |   | None.   |
| "                  | "                       | 44628         | E. A. Robertson, Stratford. | "        | 20    | Moyes Chemical Co., Walkerville.                                      |   | "   |
| "                  | "                       | 44637         | Chas. Aberhart, Seaforth.   | "        | 25    | Parke, Davis & Co., Walkerville.                                      |   | "   |
| "                  | "                       | 44639         | W. S. R. Holmes, Clinton.   | "        | 25    | Parke, Davis & Co., Walkerville.                                      |   | "   |
| "                  | "                       | 44643         | Nat. Drug Co., Toronto.     | "        | 15    | Nat. Drug Co., Toronto.   |   | "   |
| "                  | "                       |               | H. C. Dunlop, Goderich.     | "        | 25    | Moyes Chemical Co., Toronto.  |   | "   |
| "                  | "                       |               | Fred A. Hind, Wingham.      | "        | 25    | Lyman Bros. & Co., Toronto.   |   | "   |

DISTRICT OF LONDON—T. KIDD, INSPECTOR.

## DISTRICT OF WINNIPEG—JOHN TALBOT, INSPECTOR.

|          |                        |       |                                |       |    |                              |                                      |       |
|----------|------------------------|-------|--------------------------------|-------|----|------------------------------|--------------------------------------|-------|
| (Oct. 3) | Eff. Phosphate of Soda | 42443 | F. A. Lenon & Co., St. Thomas. | 6 oz. | 25 | Moyes Chemical Co., Toronto. | Demoyes Chem. Co., Toronto.          | None. |
| " 3      | "                      | 42447 | W. W. Taylor, St. Thomas.      | "     | 25 | Moyes Chemical Co., Toronto. | "                                    | "     |
| " 3      | "                      | 42453 | R. E. Crane, St. Thomas.       | "     | 20 | Moyes Chemical Co., Toronto. | Canada Pharmacal Co., Toronto.       | "     |
| " 3      | "                      | 42459 | J. E. Richards & Co., Aylmer.  | 4 lb. | 15 | Moyes Chemical Co., Toronto. | "                                    | "     |
| " 4      | "                      | 42467 | Em. A. Campbell, Aylmer.       | 6 oz. | 20 | "                            | Shuttlesworth Chemical Co., Toronto. | "     |
| " 4      | "                      | 42470 | W. A. McCollom, Tilsonburg.    | "     | 25 | "                            | National Drug Co., London.           | "     |
| " 5      | "                      | 42475 | W. S. McDonald, Tilsonburg.    | "     | 30 | "                            | Drug Trading Co., Toronto.           | "     |
| " 6      | "                      | 42484 | J. S. Pepper, Woodstock.       | "     | 40 | Parke Davis, Walkerville.    | "                                    | "     |

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

|          |                        |       |  |        |    |                                 |   |   |
|----------|------------------------|-------|--|--------|----|---------------------------------|---|---|
| Sept. 22 | Eff. Phosphate of Soda | 43974 | National Drug & Chemical Co., Calgary. | 1 bot. | 20 | Parke Davis & Co., Walkerville. | " | " |
| " 23     | "                      | 43975 | R. Harvey, Calgary.                    | "      | 50 | "                               | " | " |
| " 23     | "                      | 43976 | Bruce Drug Store, Calgary.             | "      | 50 | H. K. Wainpole & Co., Perth.    | " | " |
| " 24     | "                      | 43977 | Oliver Bros., Calgary.                 | "      | 50 | Parke Davis & Co.               | " | " |
| " 24     | "                      | 43978 | McDermid Drug Co., Ltd., Calgary.      | "      | 50 | "                               | " | " |
| " 29     | "                      | 43979 | H. I. Higgs, Wetaskiwin.               | "      | 50 | "                               | " | " |
| " 29     | "                      | 43980 | J. H. Walker, Wetaskiwin.              | "      | 50 | C. Frost & Co., Montreal.       | " | " |
| " 30     | "                      | 43981 | E. M. Carpenter, Edmonton.             | "      | 50 | J. Wyeth & Bro., Philadelphia.  | " | " |
| " 30     | "                      | 43982 | Lavell Pharmacy, Edmonton.             | "      | 35 | Nat. Drug Co., Ltd.             | " | " |
| " 30     | "                      | 43983 | J. H. Liver, Edmonton.                 | "      | 35 | Parke Davis & Co., Walkerville. | " | " |

BULLETIN No. 221—EFFERVESCENT PHOSPHATE OF SODA.

| 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.<br>(Is not an expression of opinion.) | Results of Analysis.<br>Arsenic per 100 Grains. |
|--------------------|-------------------|---------------|-----------------------------|-----------|--------|---|---|---|
|                    |                   |               |                             | Quantity. | Cents. |   |   |   |

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

|       |                         |       |                                      |       |    |                                   |  |             |
|-------|-------------------------|-------|--------------------------------------|-------|----|-----------------------------------|--|-------------|
| 1910. |                         |       |                                      |       |    |                                   |  |             |
| Oct.  | Eff. Phosphate of Soda. | 38034 | D. D. Curtis & Co., New Westminster. | 4 lb. | 35 | Park, Davis & Co., Toronto.       |  | None.       |
| "     | "                       | 38035 | F. A. Muir & Co., New Westminster.   | "     | 35 | National Drug & Chemical Co.      |  | "           |
| "     | "                       | 38036 | Post Office Drug Store, Vancouver.   | "     | 30 | H. Wampole & Co., Perth.          |  | "           |
| "     | "                       | 38037 | Marrett & Reid, Vancouver.           | 4 "   | 75 | Jno. Wyeth & Co., Montreal.       |  | "           |
| "     | "                       | 38038 | Vancouver Drug Co., Vancouver.       | 4 "   | 35 | Chas. E. Frost & Co., real.       |  | "           |
| "     | "                       | 38039 | H. W. Ferguson & Co., Vancouver.     | 4 "   | 49 | Lorimer & Co., London, Eng.       |  | "           |
| "     | "                       | 38040 | Campbell Burns Drug Co., Vancouver.  | "     | 50 | Henderson Bros., Vancouver.       |  | "           |
| "     | "                       | 38041 | Woods Pharmacy, Vancouver.           | 4 "   | 75 | W. R. Warner & Co., Philadelphia. |  | "           |
| "     | "                       | 38042 | McDuffee Bros., Vancouver.           | 4 "   | 50 | Jno. Wyeth & Bro., Philadelphia.  |  | "           |
| "     | "                       | 38043 | David Spencer, Ltd., Vancouver.      | 4 "   | 35 | Chas. E. Frost & Co., real.       |  | 4 milligram |

## DISTRICT OF VICTORIA - J. O'SULLIVAN, INSPECTOR.

|         |                        |       |                                    |   |   |    |   |  |       |
|---------|------------------------|-------|------------------------------------|---|---|----|---|--|-------|
| Oct. 20 | E.F. Phosphate of Soda | 45000 | D. E. Campbell, Victoria           | 4 | " | 25 | Lyman Sons, Ltd., Montreal.                   |  | None. |
| " 20    | "                      | 47501 | Jno. Cochrane, Victoria            | 4 | " | 25 | National Drug & Chemical Co., Ltd., Victoria. |  | "     |
| " 20    | "                      | 47502 | W. S. Terry, Victoria              | 4 | " | 50 | Jno. Wyeth & Bro., Philadelphia.              |  | "     |
| " 20    | "                      | 47503 | Hal' y Co., Victoria               | 4 | " | 35 | Parke, Davis & Co., Walkerville.              |  | "     |
| " 20    | "                      | 47504 | Wm. Jackson & Co., Victoria        | 4 | " | 35 | Lyman, Ltd., Montreal.                        |  | "     |
| " 20    | "                      | 47505 | F. J. Williams, Victoria           | 4 | " | 50 | Jno. Wyeth & Bro., Philadelphia.              |  | "     |
| " 20    | "                      | 47506 | Geo. A. Fraser, Victoria           | 4 | " | 35 | H. K. Wampole & Co., Perth.                   |  | "     |
| " 24    | "                      | 47507 | Neil Drug & Chemical Co., Victoria | 4 | " | 25 | National Drug & Chemical Co., Montreal.       |  | "     |
| " 24    | "                      | 47508 | Dean & Hiscock, Victoria           | 4 | " | 40 | Parke, Davis & Co., Walkerville.              |  | "     |
| " 24    | "                      | 47509 | B. C. Drug Co., Ltd., Victoria     | 4 | " | 25 | "   |  | "     |

