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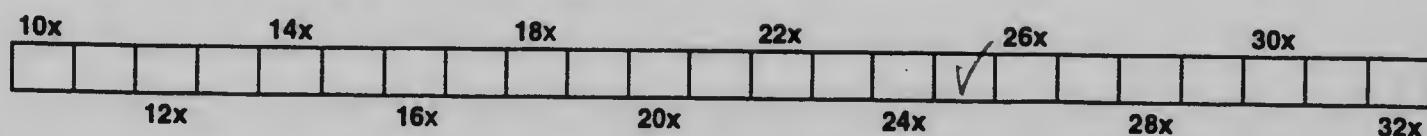
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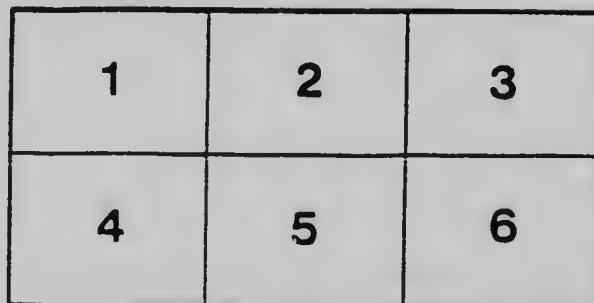
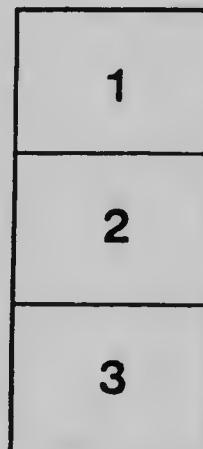
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O. H. M. S.

W. J. Gerald
Deputy Minister.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA.

BULLETIN No. 174

BAKING POWDERS.



LABORATORY
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BULLETIN No. 174.

BAKING POWDERS.

OTTAWA, February 22, 1909.

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

SIR.—I have the honour to report upon the examination of 158 samples of Baking Powders, purchased throughout the Dominion of Canada in October, 1908. The following table gives further details:—

Inspectoral District.	Classification of Baking Powder.			
	Cream of Tartar.	Alum Phosphate	Alum.	Total.
Nova Scotia	8	2	0	10
Prince Edward Island	6	4	0	10
New Brunswick	7	3	0	10
Quebec	0	7	4	11
St. Hyacinthe	3	6	1	10
Montreal	1	5	4	10
Ottawa	4	6	0	10
Kingston	10	0	0	10
Toronto	1	9	0	10
London	4	9	4	17
Windsor	3	6	1	10
Manitoba	0	10	0	10
Calgary	2	8	0	10
Vancouver	5	5	0	10
Victoria	6	4	0	10
	—	—	—	—
	60	84	14	158

One sample (No. 22742, Ottawa), while owing its chief acidity to Cream of Tartar, contains also burnt alum, and should not, in strict accuracy, be classified with the Cream of Tartar Powders.

Baking powders have, on two previous occasions, been made the subject of examination in this laboratory. The first report was published in Bulletin No. 10, in June, 1889; the second as Bulletin No. 68, in April, 1900. At the time of the first report, several samples were found to contain carbonate of ammonia, as a gas producing constituent; a few contained free tartaric acid as the acid component, and one brand contained bi-sulphate of potash.

Baking Powders, as now found in commerce, owe their gas producing power to bi-carbonate of soda, in admixture with one or other of the following:—

(1) Cream of Tartar, with, in some cases the addition of small amounts of free tartaric acid; (2) Burnt Alum, (3) A mixture of burnt alum with acid phosphate of lime. It is interesting to compare the proportions of these three types of Baking Powder, as found on inspection in 1889, 1900 and 1908.

Date of Inspection.	Cream of Tartar.	Alum.	Alum Phosphate.	Total.
1889	73	5	59	137
1900	54	31	83	168
1908	60	14	34	108
	187	50	236	463

It is apparent that the type known as alum phosphate baking powder, has become increasingly popular since 1889.

The qualities demanded in a satisfactory baking powder, are:—

- 1. Efficiency as a gas producer.
- 2. That the gas be generated gradually, and only completed at the temperature of the oven.
- 3. That the powder keep well, either on the grocer's shelves or in the kitchen.
- 4. That the residues left in the bread should be harmless to health, and without undesirable taste or discolouring power.
- 5. That the powder be sold at a low price.

I have not attempted to enumerate these conditions of value in the order of their importance, for the simple reason that this will be different for different people. It must be inferred, from the table above given, that the alum phosphate powder meets the case, in the opinion of the Canadian consumer. A few words of comment and explanation may be offered.

1. *Efficiency as gas producer.* Since the gas, (carbon dioxide) evolved from any one of these types of baking powder is dependent upon the decomposition of bi-carbonate of soda, contained therein, it would seem at first sight, that the powder containing most bi-carbonate of soda would be the best. Unless, however, the acid component be present in sufficient amount to completely decompose the bi-carbonate, a residuum of carbonate of soda remains in the bread, and gives a yellow, mottled appearance, and a soapy taste to it. For this reason, the amount of bi-carbonate of soda that can be present in a baking powder is limited to the acid-value of the complementary component. The maximum amount of bi-carbonate of soda which can be (theoretically) present in the three types of powder here considered, is as follows:—

	Bi-Carbonate of Soda.	Available gas.
1. Cream of Tartar powder	30·8 p.c.	16·18 p. c.
2. Alum Powder (See Bull. 10, p. 28)	51·5 "	27·00 "
3. Alum phosphate powder (See Bull. 26, p. 22)	39·65 "	20·77 "

(As a matter of fact, it is not possible to fix a limit value to the alum phosphate powder, since varying proportions of the alum and phosphate of lime in the mixture cause the acid values to vary between the limits for 100 per cent. alum and 100 per cent. acid phosphate of lime. For a commercial sample of the latter (Bull. 26, p. 22) the values 29·5 p.c. bi-carb. soda = 15·5 p.c. gas, were found).

Quoted in Bull. 208 -

The theoretical limits above quoted are not available in practice for the reason that, unless some third substance, of an inert character, is added, the mixture will more or less rapidly deteriorate, through the presence of traces of moisture in the powder itself or by access of moisture from the air. It is usual to employ starch (flour or maize) as the filler; but in alum phosphate powders, sulphate of lime (*terra alba*), as well as starch, is usually found. This *terra alba* is not necessarily added intentionally, but is a bye product in the manufacture of acid phosphate of lime. It is further to be noted that the limits mentioned are only possible where the acid component is chemically pure, a condition not to be looked for, and very seldom occurring in commerce. If we assume commercial cream of tartar of good quality to be 94-95 per cent. pure and a filler (starch) to be added in the proportion of 20 per cent. by weight, the resultant baking powder would have the following composition :—

	Per cent.
Bi-carbonate of soda.....	23·7
Cream of Tartar	56·3
Starch	20·0
	<hr/> 100·0

Such a baking powder is capable of developing 12·38 per cent. by weight of gas, and may be considered as a typical, high class, Cream of Tartar powder.

2. Gradual development of the gas is important because gas must be continuously produced while the bread is in the oven, and until the dough "sets," i.e. becomes hard enough to retain its size and shape when cool. Otherwise, collapse of the loaf results, and the bread is "heavy" or "sad." Fulfilment of this condition depends chiefly upon the sparing solubility of the acid ingredient of the powder. Cream of tartar, alum (dehydrated), and alum phosphate of lime are found to meet necessary conditions. Doubtless the too ready solubility of tartaric acid, bi-sulphate of potash and acid phosphate of lime (*per se*) is the reason why these substances are now so seldom used in baking powders.

3. The keeping qualities of the powder depend upon the thorough drying of the components, separately; the proper employment of a filler, and the careful protection of the finished powder from atmospheric damp.

4. With exception of the starch used as a filler, the components of baking powders have no food value, and must be regarded as, at best, indifferent and perhaps positively harmful. When cream of tartar is the acid component, the residue is Rochele salt, a gentle aperient and probably doing no harm to healthy people.

With alum, the residue is a mixture of alumina and sulphate of soda (Glauber's salt), the latter a powerful purgative and the former an insoluble substance. In alum phosphate powders, the residue is a mixture of phosphate of alumina, or alumina; Glauber's salt, and phosphate of soda. The last is a gentle purgative.

A great deal of discussion has taken place regarding the harmful effects of these various residues; and the matter cannot be taken as finally settled.

The above statements assume that the reaction between bi-carbonate of soda, and the acid ingredient of the powder, is completed during the process of baking; and that the components have been so nicely balanced, that the resultant bread is free from either component in excess. It is safe to say that this condition is very seldom, and probably never fulfilled. In such case, if any considerable excess of bi-carbonate of soda exists in the powder, the resultant bread will contain yellow spots, due to carbonate of soda (same as washing soda) and will have a soapy taste. If the acid used be in excess, the resultant bread will contain unchanged cream of tartar, or alum. The last named is known to be injurious to health, and its possible presence is the main reason for preferring powders made without alum. Manufacturers seek to prevent the possibility of residual alum by adding a distinct excess of bi-carbonate of soda, to these powders. By consulting the appended tables it will be seen that this excess, in the case of alum-phosphate powders runs from three to four or more per cent. The number given in the column headed "residual carbon dioxide" must be multiplied by $\frac{4}{3} = 1\cdot91$ to give the excess in terms of bi-carbonate of soda.

It is not necessary to add so great an excess of bi-carbonate to a cream of tartar powder, because the reaction between cream of tartar and bi-carbonate is more definite than that between burnt alum and bi-carbonate. The great insolubility of burnt alum renders the completion of the reaction, at the temperature of baking, and in presence of the limited amount of water present in dough, very uncertain.

5. The question of cheapness in a baking powder is too complex to be discussed at length in this place. Bi-carbonate of soda is quoted at \$1.50 per 100 lbs. f.o.b., Montreal; Cream of Tartar at \$18 per cwt.; burnt alum and acid phosphate of lime are low-priced articles; but I have not been able to get actual figures.

It is evident that the cost of making a baking powder is chiefly dependent upon the price of the acid component. The cost of using a baking powder is a different matter. Here the question of effect upon the health comes into consideration, and the price of the article may cut a small figure in the transaction.

In the absence of any legal definition of Baking Powder, it is, of course, impossible to classify the samples now reported, as genuine or adulterated, so long as they do not contain anything known to be injurious to health. This report serves the purpose of furnishing information regarding baking powder, as now found on the Canadian market; and it is to be hoped that this knowledge may enable a definition of baking powder to be formulated.

Under the heading "Available carbon dioxide" in the accompanying tables, will be found the maximum percentage weight of leavening gas obtainable in baking. From what has been already said, we know that a good cream of tartar powder should yield about 12.5 per cent. of gas. Any powder which yields more than this amount, almost certainly contains free tartaric acid, or burnt alum. Since any baking powder deteriorates more or less on keeping, we can only expect 12.5 per cent. of gas in a perfectly fresh powder. Experience proves, however, that a well-packed baking powder may be kept for several months, or even for a year, without very material change. I am of opinion that a minimum limit of 10 per cent. available gas would be quite reasonable; and that there is no necessity for having on the market any baking powder possessing less than 10 per cent. of available gas production.

When the reaction between the bi-carbonate of soda and the acid present in the powder is completed, the further addition of acid will cause the evolution of more carbon dioxide gas, provided that an excess of bi-carbonate of soda is present in the powder. The amount of such gas evolved affords a measure of the excess of bi-carbonate in the powder. It must be understood that this additional gas, while available to the analyst in the laboratory, is not available to the cook, in ordinary baking operations. The column headed "Residual carbon dioxide" contains the numbers so obtained. This number should be small, in a carefully prepared powder.

The starch component in a baking powder is of no importance, except so far as the presence of a high percentage of starch necessitates a lowered percentage of the active components. On account of its high acidity burnt alum permits the use of a high starch percentage, and it is no unusual thing to find from 45 to 50 per cent. of starch in alum powders. Alum phosphate powders usually contain from 35 to 45 per cent. of starch. As already shown, a good cream of tartar powder cannot contain much above 20 per cent. of starch. This may, however, be considerably increased without lowering the efficiency of the powder, if free tartaric acid is made to take the place of an equal weight of cream of tartar.

Sulphate of lime (terra alba) is an undesirable filler. It is usually present in phosphate powders, as the acid phosphate of lime is manufactured by treatment of the neutral phosphate with sulphuric acid, leaving in the product an equivalent weight of sulphate of lime. Less objection can be taken to this modicum of sulphate of lime, than to the addition of terra alba, as such, to the baking powder. While having no positively harmful effect, terra alba has the objectionable qualities of great insolubility and total lack of food value.

It is sometimes claimed for it that being less hygroscopic than starch, it makes a better filler, enabling the powder to be kept longer without deterioration. I believe that the majority of consumers would prefer some form of starch, and with reason.

In the following table the different samples of like brands have been brought together, and average results calculated. These averages must not be taken for more than they are worth. The length of time that a sample has lain on the grocer's shelves, and the mode of its packing have much to do with the findings of analysis. Every baking powder is at its best when quite fresh.

CREAM OF TARTAR (TARTARIC ACID) POWDERS.

ACORN.

Number.	Available gas.	Total gas.	Residual gas.	Excess Bi-carbonate Soda.
31388.....	8·13	10·10	1·97	3·76
29848.....	9·22	12·43	3·21	6·13
Means.....	8·65	11·26	2·60	4·94

BUTTERMILK (CONTAINS ALUM).

22742	16·84	16·84	0·00	0·00
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CLEVELAND'S SUPERIOR.

36049.....	11·06	11·92	0·86	1·64
36051.....	11·08	11·87	0·79	1·51
36063.....	10·22	10·87	0·65	1·24
36142.....	10·14	10·81	0·67	1·28
36061.....	10·15	10·77	0·62	1·19
Means.....	10·53	11·25	0·72	1·37

COOK'S FRIEND.

848.....	9·27	10·40	1·13	2·16
22745.....	9·61	10·94	1·33	2·54
Means.....	9·44	10·67	1·23	2·35

DEARBORN'S PERFECT.

31381.....	10·54	11·98	1·44	2·72
29815.....	11·87	12·85	0·98	1·87
29822.....	12·10	13·51	1·41	2·60
Means.....	11·50	12·78	1·28	2·44

ENGLISH CREAM.

22739.....	12·12	13·06	0·94	1·79
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IMPERIAL.

39247.....	7·08	7·88	0·80	1·53
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JOHNSONS.

31385.....	10·79	12·30	1·51	2·89
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MC LAREN'S INVINCIBLE.

Number.	Available gas.	Total gas.	Residual gas.	Excess Bi-carbonate Soda.
34368.....	10.28	10.83	0.55	1.05
39250.....	11.58	12.54	0.96	1.83
29819.....	8.75	9.77	1.02	1.95
29823.....	9.10	10.34	1.24	2.37
Means.....	9.93	10.87	0.94	1.80

PERFECT CREAM OF TARTAR.

31366.....	9.15	9.15	0.00
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PRICES CREAM.

35449.....	12.02	12.76	0.74	1.41
35452.....	12.23	12.86	0.63	1.20
34362.....	11.59	12.45	0.86	1.64
39242.....	11.80	12.84	1.04	1.99
Means.....	11.91	12.73	0.82	1.56

PURE GOLD.

31390.....	9.46	9.64	0.18	0.34
36046.....	10.38	10.38	0.00	0.00
36055.....	10.38	10.83	0.45	0.86
Means.....	10.07	10.28	0.21	0.40

ROYAL.

33738.....	11.55	12.30	0.75	1.43
31383.....	11.36	12.36	1.00	1.91
29816.....	11.68	12.20	0.52	0.99
850.....	12.67	12.92	0.25	0.48
22741.....	11.59	12.39	0.79	1.51
36047.....	11.82	12.80	0.98	1.87
36050.....	12.21	13.06	0.86	1.62
36054.....	11.49	12.31	0.82	1.57
30960.....	12.45	13.22	0.77	1.77
34365.....	12.44	13.44	1.00	1.91
39251.....	11.17	11.95	0.78	1.49
Means.....	11.86	12.63	0.78	1.52

ST. GEORGE'S.

33739.....	9.57	11.10	1.53	2.92
31386.....	10.55	12.10	1.55	2.96
29814.....	8.54	9.98	1.44	2.75
32751.....	10.14	10.99	0.85	1.62
36048.....	9.37	10.99	1.62	3.00
30067.....	9.61	10.10	0.49	0.93
34361.....	10.19	11.56	1.37	2.61
39246.....	9.73	11.22	1.49	2.84
850.....	8.74	10.84	2.10	4.01
Means.....	9.60	10.99	1.38	2.64

STRONGS.

Number.	Available gas.	Total gas.	Residual gas.	Excess Bi-Carbonate Soda.
36052	11·30	12·87	1·57	2·99
30547	12·10	13·61	1·51	2·88
34627	12·29	14·10	1·81	3·46
Means	11·89	13·53	1·63	3·11

SCHILLINGS' BEST.

39244	13·79	15·00	1·21	2·31
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WOODILL'S GERMAN.

33740	8·37	8·67	0·30	0·58
33741	8·01	8·16	0·15	0·29
33742	8·51	8·84	0·33	0·63
33744	8·80	10·02	1·22	2·33
33745	8·44	8·74	0·30	0·58
33746	8·38	11·03	2·65	5·06
Means	8·42	9·24	0·82	1·58

NO BRAND NAMED.

34666	12·45	12·45	acid reaction.	—
34677	13·23	13·68	0·45	0·86

ALUM BAKING POWDERS.

Brand.	Number.	Available gas.	Total gas.	Residual gas.	Excess bi-carbonate soda.
Capital	34421	8·01	8·88	0·87	1·66
Champlain	34422	12·17	12·57	0·40	0·77
Excelsior	32748	9·70	10·46	0·76	1·45
Harvest home	30516	17·04	17·04	0·00	0·00
Kitchen Queen	32747	11·17	11·88	0·71	1·36
"	30994	11·02	11·85	0·82	1·57
"	30534	11·62	12·30	0·68	1·29
Means		11·27	12·01	0·74	1·40
Gem	853	12·30	12·30	neutral reac. tion.	
Laurier	34418	6·41	6·41	acid in excess.	
Ocean	32746	9·66	10·00	1·24	2·37
Princess	32755	13·28	14·30	1·02	1·95
Star	34631	16·34	16·69	0·35	0·57
"	34428	12·59	13·96	0·67	1·26
"	30507	9·55	10·30	0·75	1·43

ALUM PHOSPHATE POWDERS.

Brand.	Number.	Available gas.	Total gas.	Residual gas.	Excess bi-carbonate soda.
Art.....	32754	8·30	9·17	0·87	1·66
	36137	9·43	10·77	1·34	2·56
Means.....		8·86	9·97	1·10	2·11
Bee.....	31384	10·94	10·94	0·00	0·00
	29821	9·62	11·55	1·94	3·70
	27743	1·95	1·95	acid.	
Means.....		7·50	8·15	0·64	1·23
Blue Ribbon.....	35748	11·17	12·08	0·91	1·74
	35446	10·05	11·35	1·30	2·49
	35448	10·40	11·69	1·29	2·46
	35454	10·30	11·79	1·49	2·84
Means.....		10·48	11·73	1·27	2·38
Chagnons.....	32750	10·81	12·85	2·04	3·89
Conley & Gost	35742	10·36	11·45	1·10	2·10
Cooks Choice.....	31389	8·00	9·58	1·58	3·01
Crescent.....	39249	5·75	5·75	acid.	
Crest.....	36139	12·00	13·35	1·35	2·58
	30538	10·84	13·03	2·19	4·18
	30542	10·56	12·70	2·14	4·09
Means.....		11·13	13·03	1·80	3·62
Export.....	34419	11·73	13·93	2·20	4·20
Feather Light.....	39243	12·16	13·96	1·80	3·44
Forrest City.....	36136	10·38	11·49	1·11	2·12
	30512	9·04	11·18	2·14	4·09
	30543	10·90	12·60	1·70	3·25
	30992	10·44	12·07	1·63	3·11
Means.....		10·19	11·83	1·65	3·14
Gold Cross.....	34433	11·18	11·88	0·70	1·34
Golden Crown.....	34367	3·30	4·16	0·86	1·64
Gold Standard.....	35743	11·34	12·85	1·51	2·89
Gold Star.....	34426	12·24	12·24	0·00	0·00
Golden West.....	34363	12·07	13·41	1·34	2·56
Green & Whitakers.....	35453	9·00	10·88	1·83	3·40
Hortons.....	36145	12·11	13·32	1·21	2·31
Jersey Cream.....	36140	3·95	4·89	0·94	1·79
".....	34639	7·06	7·77	0·71	1·36
Means.....		5·50	6·33	0·83	1·58
Kings.....	851	10·88	13·15	2·27	4·33

ALUM PHOSPHATE POWDERS—Concluded

Brand.	Number.	Available gas.	Total gas.	Residual gas.	Excess Bi-carbonate Soda.
Magic.....	33737	9.52	11.31	1.79	3.41
	33743	5.76	7.34	1.58	3.01
	31382	12.02	13.67	1.63	3.11
	31387	7.17	9.15	1.98	3.78
	29817	8.44	9.54	1.10	2.10
	34420	11.79	13.47	1.68	3.21
	32752	12.28	14.01	1.73	3.30
	22740	12.49	14.10	1.61	3.08
	22746	12.41	14.12	1.71	3.27
	22748	10.23	11.62	1.39	2.67
	36141	10.80	12.43	1.63	3.11
	30508	7.08	8.50	1.42	2.71
	30522	12.31	13.94	1.63	3.11
	30533	13.16	14.40	1.24	2.37
	30996	11.53	13.54	2.01	3.84
	34628	13.34	15.04	1.70	3.25
	34638	13.13	14.26	1.13	2.16
	35744	12.05	13.81	1.76	3.36
	35747	11.78	13.65	1.87	3.57
	35447	12.77	14.14	1.37	2.61
	35451	13.55	14.85	1.30	2.49
	35455	11.26	12.46	1.20	2.29
	34360	13.07	14.68	1.61	3.08
	39245	22.41	14.51	2.10	4.01
	858	9.11	10.98	1.84	3.51
Means.....		11.18	12.78	1.61	3.06
Maple Leaf.....	36138	10.12	12.36	2.24	4.28
New York.....	855	11.60	12.42	0.82	1.57
Ocean.....	849	10.63	12.53	1.90	3.63
Ocean Wave.....	36143	11.29	13.00	1.71	3.27
O. K.....	852	8.55	9.24	0.73	1.39
Our Flag.....	34432	10.53	11.40	0.87	1.66
Purity.....	22747	10.12	11.42	1.31	2.50
Quaker.....	22744	12.59	14.47	1.88	3.59
Quaker Maid.....	35749	10.68	13.20	2.52	4.81
Queen.....	34424	9.95	11.87	1.92	3.67
Red Cross.....	35746	10.19	11.90	1.71	3.27
Reliance	35450	9.34	10.69	1.35	2.58
	39248	8.44	9.34	0.90	1.72
Means.....		8.89	10.01	1.12	2.15
Richmond Special.....	32753	10.70	13.30	2.60	4.97
St. Jerome.....	854	13.28	13.70	0.42	0.84
Stewarts.....	35741	11.85	13.37	1.52	2.90
Sutherland.....	35740	11.90	13.64	1.74	3.32
Tip Top.....	36144	13.51	14.30	0.79	1.51
White Lily.....	34369	10.66	11.74	1.08	2.06
White Rose.....	32749	9.65	10.20	0.55	1.05
White Star.....	35745	10.72	11.97	1.25	2.39
	34364	7.12	8.61	1.49	2.84
Means.....		8.92	10.29	1.37	2.61
White Swan.....	29620	13.46	14.27	0.81	1.55
".....	34431	6.06	16.92	10.86	20.73
".....	34611	11.03	12.37	1.34	2.56
".....	34614	11.78	14.20	2.42	4.62
".....	34633	7.44	8.02	0.58	1.11

I would respectfully recommend the publication of this report as Bulletin No. 174.

I have the honour to be, Sir,

Your obedient servant,

A. MCGILL, Chief Analyst.

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.
				Quantity.	Cents.		

DISTRICT OF NOVA SCOTIA—

Oct.	14	Bak'g Powder	33737	R. P. Stevenson, Sydney, N.S.	3 tins.	30	E. W. Gillett Co., Toronto.	Magic Brand (195).
"	15	"	33738	Angus & Pollock, Truro, N.S.	3 "	45	Royal Baking Powder Co., New York	(Royal).
"	16	"	33739	Cornwallis Trading Co., Canning, N.S.	3 "	45	Nat. Drug & Chem. Co. of Canada.	St. George's Brand
"	17	"	33740	H. W. Richardson, Windsor, N.S.	3 jars.	30	W. M. D. Pearman, Halifax, N.S.	Labeled Woodill's German Baking Powder.
"	19	"	33741	T. W. Brown, Halifax, N.S.	3 pkgs	15	" " "	" ..
"	19	"	33742	A. J. Findlay, Halifax, N.S.	3 "	15	" " "	" ..
"	20	"	33743	A. D. Bruce, Halifax, N.S.	3 tins.	30	E. W. Gillett Co., Toronto, Ont.	Magic Brand (Old label.)
"	20	"	33744	J. J. Skerry, Halifax, N.S.	3 pkgs	10	W. M. D. Pearman, Halifax, N.S.	Woodill's German.
"	21	"	33745	E. W. Crease & Co., Halifax, N.S.	3 "	15	" " "	" ..
"	21	"	33746	E. A. Thomas, Halifax, N.S.	3 "	15	Woodill Mfg. Co., Halifax, N.S.	(Woodill's new process.

DISTRICT OF PRINCE EDWARD ISLAND—

Oct.	28	Bak'g Powder	31381	Wright Bros., Victoria	3 cans	36	St. John Coffee & Spice Mills, St. John, N.B.	"Dearborn perfect" Baking Powder. Absolutely pure. A pure Cream of Tartar powder.
"	28	"	31382	Ewen McKinnon, Hampton.	3 "	30	E. W. Gillett, Toronto.	Magic Baking Powder (238).
"	28	"	31383	J. F. Maher, Charlottetown.	3 "	60	Royal Baking Powder Co., New York.	Absolutely pure. Vendors Authorized to guarantee it to Customers (Royal).
"	28	"	31384	F. L. Smith, Charlottetown.	3 "	30	Snowdon, Forbes & Co., Montreal.	"Bee" Brand Baking Powder.
"	28	"	31385	George R. Macnamara, Charlottetown.	3 "	60	Johnson & Johnson, Charlottetown.	"Johnson's" Baking Powder guaranteed chemically pure.
Nov.	3	"	31396	John McKenna, Charlottetown.	3 "	45	Nat. Drug & Chem. Co. of Canada, Ltd., Montreal.	(St. George's).
"	5	"	31387	Thos. Wilkinson, Alberton.	3 "	45	E. W. Gillett & Co., Toronto.	"Magic" Baking Powder, (183).
"	6	"	31388	G. A. Shelfoone, Tignish.	3 "	75	Maritime Spice & Coffee Co. Ltd., St. John, N.B.	(Acorn)
"	6	"	31389	Robert Ellis, O'Leary	3 "	36	Cook's Choice Baking Powder.	(Cook's Choice) . . .
"	10	"	31390	McDonald & Son, Murray River.	3 "	30	Pure Gold Mfg. Co.	(Pure Gold)

BAKING POWDER.

RESULTS OF ANALYSIS.					Character of Powder.	Style of Package.	Remarks, and Opinion of the Chief Analyst.
Carbon Dioxide.		Starch.					
Avail- able.	Resid- ual.	Total.	per cent.	Kind.			

R. J. WAUGH, INSPECTOR.

p. c.	p. c.	p. c.	p. c.				
9·52	1·79	11·31	37·32	Maize.....	Alum Phosphate....	Can.....	
11·55	0·75	12·30	24·80	"	Cream of Tartar	"	
9·57	1·53	11·10	25·18	"	"	"	
8·37	0·30	8·67	41·02	Wheat....	"	Tumbler paper covered	
8·01	0·15	8·16	41·26	"	"	Paper Package.....	
8·51	0·33	8·84	38·93	"	"	"	
5·76	1·58	7·34	40·83	Maize.....	Alum Phosphate...	Can.....	
8·80	1·22	10·02	35·68	Wheat.....	Cream of Tartar ...	Paper Package.....	
8·44	0·30	8·74	42·89	"	"	"	
8·38	2·65	11·03	37·38	"	"	"	

THEO. MOORE, INSPECTOR.

10·54	1·44	11·98	17·05	Maize.....	Cream of Tartar	Can.....	
12·02	1·65	13·67	39·07	"	Alum Phosphate ...	"	
11·36	1·00	12·36	29·93	"	Cream of Tartar	"	
10·94	Slight acid reat'n	10·94	46·50	"	Alum Phosphate.....	"	
10·79	1·51	12·30	19·90	Rice.....	Cream of Tartar	"	
10·55	1·55	12·10	23·46	Maize.....	"	"	
7·17	1·98	9·15	41·40	"	Alum Phosphate.....	"	
8·13	1·97	10·10	18·97	Maize and wheat.	Cream of Tartar	"	
8·00	1·58	9·58	49·07	Maize.....	Alum Phosphate.....	"	
9·46	0·18	9·64	19·26	"	Cream of Tartar	"	

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.
				Quantity.	Cents.		

DISTRICT OF NEW BRUNSWICK—

Oct.	15	Bak'g Powder	29814 F. S. Purdy, St. John, 3 tins. N.B.	30	Nat. Drug & Chem. Co., St. John, N.B.	St. George's Brand.
"	16	"	29815 G. S. Dibble, St. John, 3 " . . . N.B.	30	Dearborn & Co., St. John, N.B.	Dearborn Perfect Baking Powder.
"	16	"	29816 Robt. McConnell, St. 3 " . . . John, N.B.	45	Royal Baking Powder Co., New York.	Royal Baking Powder.
"	16	"	29817 Robertson & Co., St. 3 " . . . John, N.B.	30	E. W. Gillett & Co., Ltd., Toronto	Magic Baking Powder, (154).
"	20	"	29818 G. E. Barbour Co. 3 " . . . Ltd., St. John, N.B.	30	Vendors.....	Acorn Brand....
Nov.	6	"	29819 D. E. Richard, Moncton, N.B.	30	Hamilton Coffee & Spice Co. Ltd.	McLaren's Pure Baking Powder "Invicble."
"	11	"	29820 S. Holdengräber, Bathurst, N.B.	36	The Robt. Greig Co., Toronto.	Greig's "White Swan" Baking Powder.
"	12	"	29821 W. H. Marquis & Co., 3 " . . . Campbellton, N.B.	36	Snowdon, Foobes & Co., Montreal and Quebec.	"Bee" Brand Baking Powder.
"	18	"	29822 C. H. Burt, Fredericton, N.B.	30	Dearborn & Co., St. John, N.B.	Dearborn Perfect Baking Powder.
"	19	"	29823 J. Rankin Brown, 3 " . . . Woodstock, N.B.	45	Hamilton Coffee & Spice Co. Ltd., Hamilton, Ont.	McLaren's Pure Baking Powder "Invicble."

DISTRICT OF QUEBEC—

Oct.	9	Bak'g Powder	34418 Jos. Gaumond, St. Jean Port Joli.	3 Boxes	45	J. Morissette & Cie, (Laurier), Levis.	
"	9	"	34419 A. Morin, St. Jean Port Joli.	3 " . . .	38	Unknown.....	(Export),
"	9	"	34420 Francois Lavallé, St. Jean Port Joli.	3 " . . .	50	.....	Magic Baking Powder (199).
"	9	"	34421 Gilbert Caron, St. Jean Port Joli.	3 " . . .	45	Langlois & Paradis, (Capital), Quebec.	
"	10	"	34422 D. Cloutier, Trois Saumon.	3 Pkgs	36	Bedard & Frere, Quebec.	(Champlain)
"	10	"	34424 Moise Rosa, Trois Sau- mon.	3 Boxes	45	Quebec Preserving Co., Quebec.	(Queen)
"	10	"	34426 Emile Cloutier, Trois Sau- mon.	3 " . . .	45	A. Carrier & fils, (Gold Star), Levis.	
"	10	"	34428 Arthur Caron, Trois Saumon.	1 lb ..	06	J. B. Bedard & Frere, Quebec	. . . . .
"	10	"	34431 Mad. Louis Morneau, St. Jean Port Joli.	1 " . . .	05	Abel Turcotte, Quebec	. . . . .
"	12	"	34432 Enavier Lavallé, St. Aubert.	3 Boxes	35	S. H. Ewing & Sons, Montreal.	(Our Flag)
"	12	"	34433 " " . . .	3 " . . .	36	Talon Bros., Toronto.	(Gold Cross)

BAKING POWDER.

RESULTS OF ANALYSIS.					Character of Powder.	Style of Package.	Remarks, and Opinion of the Chief Analyst.
Carbon Dioxide		Starch.		per cent.			
Available.	Reduced. Total.	Total.	Kind.				

J. C. FERGUSON, INSPECTOR.

p. c.	p. c.	p. c.	p. c.				
8·54	1·44	9·98	23·53	Maize.....	Cream of Tartar.....	Can.....	
11·87	0·98	12·85	14·94	".....	".....	".....	
11·68	0·52	12·20	29·75	".....	".....	".....	
8·44	1·10	9·54	41·29	".....	Alum Phosphate.....	".....	
9·22	3·21	12·43	17·78	".....	Cream of Tartar.....	".....	
8·75	1·02	9·77	19·39	".....	".....	".....	
13·46	0·81	14·27	26·48	".....	Alum Phosphate.....	".....	
9·62	1·94	11·56	46·96	".....	".....	".....	
12·10	1·41	13·51	14·17	".....	Cream of Tartar.....	".....	
9·10	1·24	10·34	19·90	".....	".....	".....	

E. BELAND, INSPECTOR.

6·41	Stro'g acid reat'n	6·41	16·19	Rice.....	Alum.....	Can.....	Terra alba as fil- ler.
11·73	2·20	13·93	36·39	Maize.....	Alum Phosphate.....	".....	
11·79	1·68	13·47	40·74	".....	".....	".....	
8·01	0·87	8·88	40·88	".....	Alum.....	".....	
12·17	0·40	12·57	39·37	".....	".....	Paper Package.....	
9·95	1·92	11·87	37·91	".....	Alum Phosphate.....	Can.....	
12·24	Slight ly acid reat'n	12·24	49·01	".....	".....	".....	
12·59	0·67	13·26	45·39	".....	Alum.....	Bottle put up by In- spector.	
6·06	10·86	16·92	27·58	".....	Alum Phosphate	".....	
10·53	0·87	11·40	48·63	".....	".....	Can.....	
11·18	0·70	11·88	48·58	Rice and maize.	".....	".....	

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.
				Quantity.	Cents.		

DISTRICT OF ST. HYACINTHE—

1908.							
Oct. 8	Bak'g Powder	848	Mongeau freres, Mont- real.	3 pkgs	30	W. D. McLaren, Ltd., (Cook's Friend)....	
" 8	"	849	N. Vincent, Montreal	3 " ..	15	Ocean Mill, Montreal	Ocean.....
" 8	"	850	English Provision Co., Montreal.	3 " ..	75	Royal Baking Pow- der, New York.	Royal.....
" 9	"	851	B. Robinovitch, Mont- real.	3 " ..	15	P. Adelstein, Mont-	King.....
" 12	"	852	C. F. Dufour, St. Agathe des Monts.	3 " ..	15	Raoul Provost, 1414 O.K. Boul, St. Laurent, Montreal.	
" 13	"	853	J. B. Gougon, St. Jerome	3 " ..	15	Hudson & Organi, (Gem) Montreal.	
" 13	"	854	B. Beaulieu, St. Jerome	3 " ..	30	Not known.....	St. Jerome ..
" 14	"	855	Adelard Hétu, Joliette	3 " ..	30	Marcotte, Leblanc & Cie, Sole Agents, Montreal.	New York.....
" 16	"	856	L. P. Gates, Viauville	3 " ..	30	Nat. Drug Co. of (St. George's)....	
" 29	"	858	H. R. Smith, Coteau Station.	3 " ..	30	E. W. Gillett & Co., Toronto.	Magic.....

DISTRICT OF MONTREAL—

Oct.	5	Bak'g Powder	32746	Joseph Chartier, St. Johns, P.Q.	3 tins.	15	.....	Ocean Brand.....
"	5	"	32747	Eugene Rodier, St. Johns, P.Q.	3 " ..	45	.....	Kitchen Queen Brand.
"	5	"	32748	F. Giroux, St. Johns, P.Q.	3 " ..	30	.....	Excelsior Brand ..
"	8	"	32749	C. Labelle & Cie, Sorel, P.Q.	3 " ..	30	J. V. Boulet, 28, Mont- real.	White Rose Brand
"	8	"	32750	F. N. Chagnon, Sorel, P.Q.	3 " ..	45	Not given	Made specially for vendor ; name not give. "Chag- non's Brand."
"	9	"	32751	Bray Bros., Sher- brooke.	3 " ..	75	Nat. Drug & Chem. Co.	St. George's Brand
"	10	"	32752	McRae Bros., Rich- mond, P.Q.	3 " ..	30	.....	Magic Brand ..
"	10	"	32753	A. W. Beausoleil, Rich- mond, P.Q.	3 " ..	60	Ocean Mills, Mont- real.	Richmond Special Brand. Put up specially for ven- dor.
"	19	"	32754	F. X. Giroux, Farn- ham, P.Q.	3 " ..	36	Mayell & Co., Toron- to, Ont.	" Art" ..
"	20	"	32755	C. Vincent, Granby	3 " ..	60	.....	Princess Brand, put up expressly for vendor. Name not given.

BAKING POWDER.

RESULTS OF ANALYSIS.					Character of Powder.	Style of Package.	Remarks and Opinion of the Chief Analyst.
Carbon Dioxide.			Starch.				
Avail. able.	Resi- dual.	Total.	per cent.	Kind.			

J. C. ROULEAU, INSPECTOR.

p. c.	p. c.	p. c.	p. c.				
9·27	.1·13	10·40	27·81	Rice.....	Cream of tartar.....	Paper package.	
10·63	1·00	12·53	39·34	Maize.....	Alum phosphate.....	Can.	
12·67	0·25	12·92	28·92	"	Cream of tartar.....	"	
10·88	2·27	13·15	50·00	"	Alum phosphate.....	"	
8·55	0·73	9·28	15·86	"	"	Cardboard can.....	Terra alba as filler
12·30	Neutral reaction	12·30	51·98	"	Alum.....	Can.....	
13·28	0·42	13·70	18·82	Wheat....	Alum phosphate.....	"	
11·60	0·82	12·42	23·14	Maize....	"	"	
8·74	2·10	10·84	26·84	"	Cream of tartar.....	"	
9·11	1·84	10·98	42·23	"	Alum phosphate...	"	

J. J. COSTIGAN, INSPECTOR.

9·66	1·24	10·90	51·33	Maize.....	Alum.....	Can.	
11·17	0·71	11·88	52·21	"	"	"	
9·70	0·76	10·46	34·18	Rice.....	"	"	
9·65	0·55	10·20	54·34	Maize and wheat.	Alum phosphate.....	"	
10·81	2·04	12·85	33·03	Maize....	"	"	
10·14	0·85	10·99	24·75	"	Cream of tarter.....	"	
12·28	1·73	14·01	39·89	"	Alum phosphate .. .	"	
10·70	2·60	13·30	49·02	"	"	"	
8·30	0·87	9·17	35·93	"	"	"	
13·28	1·02	14·30	51·00	"	Alum.....	"	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Quantity.	Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
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DISTRICT OF OTTAWA—

1908.								
Sept. 30	Bak'g Powder	22739	J. C. Brown & Co., Vankleek Hill.	3 tins.	30	F. F. Dally Co., Hamilton.	English Cream Baking Powder.	
Oct. 1	"	22740	Luloff & Co., Eganville.	3 " ..	25	E. W. Gillett & Co., Ltd., Toronto.	Magic Baking Powder, wholesome, pure.	
" 3	"	22741	E. Wiltsie, Kemptville	3 " ..	30	F. J. Castle Co., Ottawa.	Labelled absolutely pure. (Royal).	
" 6	"	22742	Geo. Illingorth, Almonte.	3 tumblers	30	C. H. Cochrane & Co., Ottawa.	Labelled "Buttermilk" Baking Powder. The highest standard of quality, strength and purity.	
" 7	"	22743	P. A. Gagne, South Indian.	3 tins.	30	Snowdon, Forbes & Co., Montreal.	"Bee" Brand Baking Powder.	
" 10	"	22744	Hamilton & Co., Finch	3 tumblers	30	Not known.....	"Quaker" Baking Powder.	
" 12	"	22745	W. H. McCreery, Ottawa.	3 pkgs.	24	Provost & Allard,	"Cook's Friend" Baking Powder. Prepared on correct chemical principles.	
" 13	"	22746	A. Boivin, Ottawa	1 tins.	30	E. W. Gillett & Co., Ltd., Toronto.	"Magic" (220) Baking Powder. Full weight, wholesome, pure.	
" 13	"	22747	J. H. Primeau, Ottawa	3 " ..	30	The J. J. Fanning Co., Ottawa.	"Purity" Baking Powder.	
" 13	"	22748	Forde Bros., Ottawa.	3 " ..	45	E. W. Gillett Co., Ltd., Toronto.	"Magic" (145, old label) Baking Powder. Full weight, wholesome, pure.	

DISTRICT OF KINGSTON—

Nov.	3	Bak'g Powder	36046	H. Crozier, Cobourg	½ lb.	30	Pure Gold, Toronto.	(Pure Gold)....
"	3	"	36047	T. R. Harvey & Son, Cobourg.	1½ "	75	Royal Baking Pow. dei Co.	(Royal).....
"	3	"	36048	Guillett Bros., Cobourg.	1½ "	75	Nat. Drug Co.....	(St. George's)....
"	3	"	36049	J. D. McIntosh, Cobourg.	½ "	45	Cleveland's Superior.	(Cleveland's Superior).
"	3	"	36050	Hovey & Son, Cobourg	1½ "	75	Royal Baking Pow. dei.	(Royal).....
"	"	"	36051	W. Burnet, Cobourg.	1½ "	75	Cleveland's Superior.	(Cleveland's Superior).
"	3	"	36052	S. Fourt, Port Hope	1½ "	75	W. T. Strong's, London.	(Strong's).....
3	"	"	36053	J. Dunfee, Port Hope	½ "	45	Cleveland's Superior.	(Cleveland's Superior).
"	3	"	36054	T. H. Brown, Port Hope.	½ "	45	Royal Baking Pow. der.	(Royal).....
"	3	"	36055	W. D. Stephens, Port Hope.	1½ "	75	Pure Gold, Toronto.	(Pure Gold).

BAKING POWDER.

RESULTS OF ANALYSIS.					Character of Powder.	Style of Package.	Remarks, and Opinion of the Chief Analyst.
Carbon Dioxide.			Starch.				
Avail- able.	Bread- ing m.	Total.	per cent.	Kind.			
p. c.	p. c.	p. c.	p. c.	p. c.			

J. A. RICKY, INSPECTOR.

12·12	0·94	13·06	52·12	Maize. . . .	Cream of tartar.	Tumbler.	
12·49	1·61	14·10	40·59	"	Alum phosphate.	Can.	
11·59	0·79	12·39	28·47	"	Cream of tartar.	"	
13·84	Neutral reaction	16·84	28·63	"	"	Tumbler.	Contains alumina
1·95	Acid re- action.	1·95	32·87	"	Alum phosphate.	Can.	
12·59	1·88	14·47	37·53	Rice. . . .	"	Tumbler.	
9·61	1·33	10·94	27·21	"	Cream of tartar.	Paper package.	
12·41	1·71	14·12	39·94	Maize. . . .	Alum phosphate.	Can.	
10·12	1·31	11·42	35·60	"	"	"	
10·23	1·39	11·62	39·75	"	"	"	

JAS. HOGAN, INSPECTOR.

10·38	Neutral reaction	10·38	20·47	Maize. . . .	Cream of tartar.	Can.	
11·82	0·48	12·80	28·00	"	"	"	
9·37	1·62	10·99	24·44	"	"	"	
11·06	0·86	11·92	34·96	"	"	"	
12·21	0·85	13·06	28·37	"	"	"	
11·08	0·79	11·87	33·96	"	"	"	
11·30	1·57	12·87	10·68	"	"	"	
10·22	0·65	10·87	34·67	"	"	"	
11·49	0·82	12·31	27·28	"	"	"	
10·38	0·45	10·83	19·30	"	"	"	

Contains free tar-
tatic acid.

BULLETIN No. 174—

Date of Collection.	Nature of Sample.	No. of Sample	Name and Address of Vendor.	Cost.	Quantity.	Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
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DISTRICT OF TORONTO—

Oct. 12	Bak'g Powder	36136	S. Scott, Durham	3 tins.	30	Gorman Eckert & Co., Ltd., London.	"Forest City" Baking powder pure and wholesome.
" 13	"	36137	Appel & Fisher, Walkerton.	3 " "	75	Mayell & Co., Toronto	"Art" Baking Powder guaranteed for strength purity and wholesomeness.
" 13	"	36138	John Woods, Southampton.	3 " "	45	W. H. Gillard & Co., Hamilton.	"Maple Leaf" Baking powder.
" 13	"	36139	Henry Ebert, Point Elgin.	3 pkg.	25	Canada Spice & Grocery Co., Ltd., London.	"Crest" Brand Baking powder.
" 14	"	36140	F. Carter & Sons, Paisley.	3 tins.	15	Lumsden Bror., Standard Mills, Hamilton.	"Jersey Cream" standard strength.
" 14	"	36141	J. N. Scheftet, Mildmay.	3 " "	30	E. W. Gillett Co. Ltd., Toronto.	"Magic" (195) Baking powder wholesome and pure.
" 15	"	36142	E. F. Graff & Co., Hanover.	3 " "	60	Cleveland Baking Co., New York.	"Cleveland Superior" Baking powder, purity, strength, absolutely the best baking powder.
" 15	"	36143	Duncan McLean, Chesley.	3 " "	30	Hamilton Coffee & Spice Co., Hamilton	"Ocean Wave" Baking powder.
" 16	"	36144	G. A. Graves, Wiarton.	3 " "	30	Capstan Mfg. Co., Toronto.	"Tip Top" Baking powder. Vendor said it is a pure powder. Perfect satisfaction. Guaranteed.
" 16	"	36145	Horton Bros., Owen Sound.	3 " "	30	Robt. Greig Co.,	"Hortons" Baking powder, mfg. especially for Horton Bros.

DISTRICT OF LONDON—

Oct.	7	Bak'g Powder	30501	Hay the Grocer, Kincardine.	3 tins.	50	Eby Blain & Co.	(Cleveland's Superior.)
"	7	"	30507	N. Krotz, Listowell.	3 pkg.	15	F. F. Dally Co.,	Hamilton.
"	7	"	30508	"	3 " "	30	E. W. Gillett & Co.,	(Magic (180))....
"	8	"	30512	Cardeno Bros., Seaford.	3 cans	25	Gorman Eckert & Co.,	(Forest City)....
"	12	"	30516	William Lindon, Clinton.	3 " "	25	London.	Coffee & Spice Co., (Harvest Home)....
"	15	"	30522	J. D. Smith & Co., St. Marys.	3 " "	30	E. W. Gillett & Co.,	(Magic (229))....
"	15	"	30533	Mrs. Jane Davies, Stratford.	3 " "	30	Stratford Wholesale	(") (238)....
			30534	H. T. Barker, Stratford	1 lb..	10	Grocery Co., Stratford.	
							F. F. Dally Co.,	(Kitchen Queen)....
							Hamilton.	

BAKING POWDER.

RESULTS OF ANALYSIS.					Character of Powder.	Style of Package.	Remarks and Opinion of the Chief Analyst.
Carbon Dioxide.			Starch.				
Available	Residual	Total	Percent	Kind.			
10·38	1·11	11·49	41·80	Maize . . .	Alum phosphate . . .	Can	
9·43	1·34	10·77	32·28	" . . .	" . . .	"	
10·12	2·24	12·36	39·73	" . . .	" . . .	"	
12·00	1·35	13·35	42·51	" . . .	" . . .	Tumbler	
3·65	0·94	4·80	51·20	" . . .	" . . .	Can	
10·80	1·63	12·43	39·54	" . . .	" . . .	"	
10·14	0·67	10·81	35·33	" . . .	Cream of tartar . . .	"	
11·29	1·71	13·00	41·14	" . . .	Alum phosphate . . .	"	
13·61	0·79	14·30	39·96	Wheat . . .	" . . .	"	
12·11	1·21	13·32	33·17	Maize . . .	" . . .	"	

H. J. DAGER, INSPECTOR.

p. c.	p. c.	p. c.	p. c.	Maize . . .	Alum phosphate . . .	Can	
10·38	1·11	11·49	41·80	Maize . . .	Alum phosphate . . .	Can	
9·43	1·34	10·77	32·28	" . . .	" . . .	"	
10·12	2·24	12·36	39·73	" . . .	" . . .	"	
12·00	1·35	13·35	42·51	" . . .	" . . .	Tumbler	
3·65	0·94	4·80	51·20	" . . .	" . . .	Can	
10·80	1·63	12·43	39·54	" . . .	" . . .	"	
10·14	0·67	10·81	35·33	" . . .	Cream of tartar . . .	"	
11·29	1·71	13·00	41·14	" . . .	Alum phosphate . . .	"	
13·61	0·79	14·30	39·96	Wheat . . .	" . . .	"	
12·11	1·21	13·32	33·17	Maize . . .	" . . .	"	

T. KIDD, INSPECTOR.

10·15	0·62	10·77	23·94	Maize . . .	Cream of tartar . . .	Can	
9·55	0·75	10·30	48·70	" . . .	Alum	Tumbler, tin cover . . .	
7·08	1·42	8·50	38·82	" . . .	Alum phosphate . . .	Can	
9·04	2·14	11·18	40·94	" . . .	" . . .	"	
17·04	neutral reaction	17·04	37·41	" . . .	Alum	"	
12·31	1·63	13·94	37·95	" . . .	Alum phosphate . . .	"	
13·16	1·24	14·40	39·01	" . . .	" . . .	"	
11·62	0·68	12·30	52·00	" . . .	Alum	Paper bag, (broken) . . .	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Quantity.	Gens.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
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DISTRICT OF LONDON—

Oct. 16	1908. Bak'g Powder.	30538	W. Stoneman, Mitchell	3 tins.	30	Canada Spice & Grocery Co., Ltd., London.	Crest Brand.
" 0	"	30542	Michael Clinghammer, Grocer Merchant.	3 cups	30	" " ..	Crest....
" 0	"	30543	John McKenna, Dub- lin, Ont.	3 "	30	Gorman & Eckert, Forest City....	London.
" 1	"	30547	J. A. Steward, Exter.	3 "	30	Not known.....	(Strong).....
" 5	"	30980	O. C. Whitley, Goder- ich.	3 cans.	60	A. M. Smith & Co., (Royal). London.	.....
" 5	"	30987	Thomas Pringle, Goderich.	3 tins.	45	Elliot Marr & Co., (St. Georges). London.	.....
" 6	"	30992	G. M. Chamber & Co., Blyth.	3 "	30	Gorman Eckert & Co., (Forest City). London.	.....
" 6	"	30994	William Bone, Wing- ham.	3 "	25	F. F. Dally Co., (Kitchen Queen). Hamilton.	.....
" 6	"	30996	J. T. Lamenby, Wing- ham.	3 "	30	Not known	(Magic (233))

DISTRICT OF WINDSOR—

Oct. 7	Bak'g Powder.	34611	H. P. Rosser, London	1 lb ..	25	Norman Eckert Co., London.	.....
" 8	"	34614	Rowntree & Fenger, London.	1 "	15	Canada Spice Co., London.	.....
" 8	"	34627	T. W. Vincent, Lon- don.	3 tins.	30	W. T. Strong, Lou- isville.	(Strong).....
" 8	"	34628	E. Noel, London.....	3 "	30	E. W. Gillett, To- ronto.	(Magic (299))
" 8	"	34631	R. J. Wood, London.	3 "	30	Canada Spice & Gro- cery Co., London.	(Star).....
" 9	"	34633	Cullis & Fleming, Lon- don.	1 lb ..	20	International Food Co., Toronto.	.....
" 14	"	34638	Orendorf Bros., Ridge- town.	3 tins.	30	E. W. Gillett & Co., Toronto.	Original Package. (Magic (292)).
" 14	"	34639	John Grass, Ridge- town.	3 "	30	Lumsden Bros., To- ronto.	Original Package. (Jersey Cream).
Nov. 10	"	34666	W. W. Taylor, St. Thomas.	1 lb ..	25	W. W. Taylor, St. Thomas.	Taken from bottle in Vendors store.
" 11	"	34677	C. V. Thomson, Till- sonburg.	1 "	25	C. V. Thomson, Till- sonburg.	Vendor guaranteed in pure.

DISTRICT OF MANITOBA—

Oct. 29	Bak'g Powder.	35740	Sutherland & Co., Winnipeg.	1 lb ..	75	.....	Put up expressly for Sutherland & Co., "Suther- land's Baking Powder".
" 29	"	35741	Wm. Stewart, Winni- peg.	½ "	45	.....	Put up expressly for Stewart. "Stewart's Bak- ing Powder".

BAKING POWDER.

RESULTS OF ANALYSIS.				Character of Powder.	Style of Package.	Remarks, and Opinion of the Chief Analyst.
Starch.			per cent.			
Carbon Dioxide.	Resid. us.	Total.	Kind.			

T. KIDD, INSPECTOR—Concluded.

p. c.	p. c.	p. c.	p. c.	Maize....	Alum phosphate	Can.....
10·84	2·19	13·03	42·53	Maize....	Alum phosphate	Can.....
10·56	2·14	12·70	41·24	"	"	Tumbler.....
10·90	1·70	12·60	43·34	"	"	"
12·10	1·51	13·61	10·57	"	Cream of tartar....	Can
12·45	0·77	13·22	27·66	"	"	"
9·61	0·49	10·10	26·90	"	"	"
10·44	1·63	12·07	43·65	"	Alum phosphate....	"
11·02	0·83	11·85	52·58	"	Alum.....	"
11·53	2·01	13·54	39·77	"	Alum phosphate....	"

JOHN TALBOT, INSPECTOR.

11·03	1·34	12·37	30·94	Maize....	Alum phosphate....	Paper bag.....
11·78	2·42	14·20	37·87	"	"	"
12·29	1·81	14·10	10·07	"	Cream of tartar....	Can
13·34	1·70	15·04	37·50	"	Alum phosphate....	"
16·34	0·35	16·69	34·25	"	Alum.....	"
7·44	0·58	8·02	31·65	"	Alum phosphate....	Paper bag.....
13·13	1·13	14·26	37·79	"	"	Can.....
7·06	0·71	7·77	53·61	"	"	"
12·45	Acid reaction	12·45	5·40	Wheat ...	Cream of Tartar	Paper bag.....
13·23	0·45	13·68	41·25	Maize....	"	"

A. C. LARIVIERE, INSPECTOR.

11·90	1·74	13·64	41·29	Maize....	Alum phosphate....	Can
11·85	1·52	13·37	44·73	"	"	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	COST.		Name and Address or Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
				Quantity.	Cents.		

DISTRICT OF MANITOBA—

Oct. 29	Bak'g Powder.	35742	Conley & Yost, Winnipeg.	½ lb ..	40	.....	Put up expressly for "Conley & Yost", grocers.
" 29	" ..	35743	Clements Arnason & Aalmaison, Winnipeg.	½ "	40	Gold Standard Mfg. Co., Winnipeg.	(Gold Standard)...
" 29	" ..	35744	C. Corneil, Winnipeg.	½ "	30	E. W. Gillett Co., Ltd., Toronto.	"Magic Baking Powder" (216).
" 30	Bak'g Powder	35745	A. Larocque, Winnipeg.	1 lb ..	60	The White Star Mfg. Co., Winnipeg.	"White Star" Baking Powder.
" 30	" ..	35746	N. Tissman & Co., Winnipeg.	½ "	30	The Dyson Co., Montreal & Winnipeg.	Dyson's "Red Cross" Baking Powder.
" 30	" ..	35747	A. Goldman, Pritchard Ave.	½ "	30	E. W. Gillett & Co., Ltd., Toronto.	"Magic" Baking Powder.
" 30	" ..	35748	Moffat & Douglas, Selkirk Ave.	1 "	75	The Blue Ribbon Mfg. Co., Winnipeg, Man.	"The Blue Ribbon" Baking Powder.
" 30	" ..	35749	W. B. Francis, Winnipeg.	½ "	45	Western Mfg. Co., Winnipeg, Man.	"Quaker maid" Baking Powder.

DISTRICT OF CALGARY—

Nov. 13	Bak'g Powder	35446	R. Peters, Calgary...	3 tins.	45	Blue Ribbon Ltd., Winnipeg.	(Blue Ribbon).
" 13	" ..	35447	A. Brewer, Calgary..	3 "	45	E. W. Gillett Co., Ltd., Toronto.	(Magic (232).
" 14	" ..	35448	R. Bloon, Calgary....	3 "	45	Blue Ribbon Ltd., Winnipeg.	(Blue Ribbon).
" 26	" ..	35449	A. Macdonald, Co., Lethbridge.	3 "	35	Price's Baking Pow- der Co., Winnipeg	(Dr. Price's Cream)
" 26	" ..	35450	G. Bradbur & Co., Lethbridge.	3 "	60	International Food (Reliance)..... Co., Toronto.	.....
Dec. 10	" ..	35451	Shera & Co., Ltd., Ft Saskatchewan.	3 "	60	E. W. Gillett Co., Ltd., Toronto.	(Magic (244).
" 10	" ..	35452	J. Simons, Ft. Saskat chewan.	3 "	60	Dr. Price's, Chicago	(Dr. Price's Cream)
" 10	" ..	35453	Green & Whitaker, Ft. Saskatchewan.	3 "	45	Dyson Co., Winnipeg	(Green & Whi- takers Pure).
" 10	" ..	35454	Wilkins & Jones, Ft. Saskatchewan.	3 "	75	Blue Ribbon Ltd., Winnipeg.	(Blue Ribbon).....
" 10	" ..	35455	Kimball & Son, Ft. Saskatchewan.	3 "	45	E. W. Gillett Co., Toronto.	(Magic old label (136).

DISTRICT OF VANCOUVER—

Oct. 8	Bak'g Powder	34360	Dominion Grocery, Vancouver.	3 tins.	75	E. W. Gillett & Co., Ltd., Toronto.	Magic Brand Pure, (261).
" 8	" ..	34361	Powell St. Grocery, Vancouver.	3 "	135	Nat. Drug & Chem. Co. of Canada.	St. George's Brand. A Pure Canadian food Production.
" 8	" ..	34362	E. C. Dixon, Vancouver.	3 "	75	Price Baking Powder Co., Chicago.	Composed of Pure grape, Cream of Tartar, Tartaric Acid, Bicarbon ate of Soda and Corn Starch.

BAKING POWDER.

RESULTS OF ANALYSIS.					Character of Powder.	Style of Package.	Remarks and Opinion of the Chief Analyst.			
Carbon Dioxide.		Starch.								
Avail- able	Resid- ual	Total	per cent.	Kind.						
p. c. 10·36	p. c. 1·10	p. c. 11·45	p. c. 45·40	Maize....	Alum phosphate.....	Can.....				

A. C. LARIVIERE, INSPECTOR—Concluded.

p. c. 10·36	p. c. 1·10	p. c. 11·45	p. c. 45·40	Maize....	Alum phosphate.....	Can.....	
11·34	1·51	12·85	42·22	"	"	"	
12·05	1·76	13·81	42·10	"	"	"	
10·72	1·25	11·97	48·55	Wheat and Maize	"	"	
10·19	1·71	11·90	46·35	Maize...	"	"	
11·78	1·87	13·65	40·04	"	"	"	
11·17	0·91	12·08	46·04	"	"	"	
10·68	2·52	13·20	48·76	"	"	"	

R. W. FLETCHER, INSPECTOR.

10·05	2·52	11·35	46·15	Maize....	Alum Phosphate.....	Can.....	
12·77	1·37	14·14	39·95	"	"	"	
10·40	1·29	11·69	46·90	"	"	"	
12·02	0·74	12·76	30·70	"	Cream of Tartar.....	"	Tartaric acid.
9·34	1·35	10·69	41·09	"	Alum Phosphate.....	"	
13·55	1·30	14·85	37·84	"	"	"	
12·23	0·63	12·86	31·04	"	Cream of Tartar.....	"	Tartaric acid.
9·00	1·83	10·83	44·24	"	Alum Phosphate.....	"	
10·30	1·49	11·79	46·06	"	"	"	
11·26	1·20	12·46	37·06	"	"	"	

J. F. POWER, INSPECTOR.

13·07	1·61	14·68	36·29	Maize...	Alum Phosphate	Can.....	
10·19	1·37	11·56	24·92	" ...	Cream of Tartar	"	
11·59	0·86	12·45	30·00	"	"	"	Tartaric acid.

BULLETIN No. 174—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	COST.		Name and Address or Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.
				Quantity.	Cents.		
DISTRICT OF VANCOUVER—							
1908.							
Oct. 8	Bak'g Powder.	34363	H. T. Doo, Vancouver	3 tins.	75	Golden West Baking Powder Co., Vancouver.	"Golden West Brand".
" 8	" "	34364	A. Pomfret, Vancouver.	3 " ..	60	White Star Mfg. Co., Winnipeg.	White Star Brand Best in the world. (Royal) Absolutely Pure grocers are authorized to guarantee.
" 8	" "	34365	J. Donald, Vancouver	3 " ..	120	Royal Baking Powder Co., New Jersey	This class of powder is recommended by the gov. analyst to without doubt reach the highest perfection attainable. (Perfect Cream of Tartar).
" 9	" "	34366	J. S. Smith, Vancouver.	3 " ..	100	J. W. Charlsworth, Vancouver.	Golden Crown Brand" Pure and Sure.
" 9	" "	34367	J. Halkins, Vancouver	3 " ..	60	Puritain Baking Powder and Extract Co., Vancouver.	Guaranteed absolutely pure. Contains no alum or phosphates, ammonia, (McLaren's Invincible).
" 9	" "	34368	Pioneer Grocery, Vancouver	3 " ..	120	Hamilton Coffee & Spice Co.	"White Lily Brand" specially put up for Webster Bros.
" 9	" "	34369	Webster Bros., Vancouver.	3 " ..	75	Not known.....	
DISTRICT OF VICTORIA—							
Nov. 18	Bak'g Powder	39242	Windsor Grocery Co., Victoria, B.C.	tins.	75	J. H. Todd & Sons, Victoria, B.C.	"Dr. Price's Cream" Baking Powder.
" 18	" "	39243	The Saunders Grocery Co., Victoria, B.C.	3 " ..	30	Victoria Coffee & Spice Mills, Victoria, B.C.	"Feather Light" Baking Powder.
" 19	" "	39244	Harrison & MacDonald, Victoria, B.C.	3 " ..	75	A. Shilling & Co., San Francisco, Cal.	"Shilling's Best" Baking Powder.
" 19	" "	39245	The West End Grocery Co., Victoria, B.C.	3 " ..	75	R. P. Rithet & Co., Victoria, B.C.	"Magic" (261)
" 19	" "	39246	Fred Carne, Victoria, B.C.	3 " ..	75	S. Leiser & Co., Victoria, B.C.	"St. George".....
" 20	" "	39247	Jalland Bros., Victoria, B.C.	3 " ..	75	E. W. Gillett Co., Toronto, Ont.	"Imperial".....
" 20	" "	39248	Acton Bros., Victoria, B.C.	3 " ..	75	International Food Co., Toronto, Ont.	"Reliance".....
" 20	" "	39249	The Victoria Rochdale Co-op. Assoc., Ltd., Victoria, B.C.	3 " ..	105	Crescent Mfg. Co., Seattle, West.	"Crescent".....
" 20	" "	39250	Wm. B. Hall, Victoria, B.C.	3 " ..	120	Hamilton Coffee & Spice Mills, Hamilton, Ont.	"McLaren's Invincible".
" 23	" "	39251	Dixie H. Ross, Victoria, B.C.	3 " ..	75	Wilson Bros., Victoria, B.C.	"Royal".

BAKING POWDER.

RESULTS OF ANALYSIS.					Character of Powder.	Style of Package.	Remarks and Opinion of the Chief Analyst.
Carbon Dioxide.		Starch.					
Avail- able.	Resid- ual.	Total.	per cent.	Kind.			

J. F. POWER, INSPECTOR—Concluded.

p. c.	p. c.	p. c.	p. c.				
12·07	1·31	13·41	43·80	Maize....	Alum Phosphate.....	Can.	
7·12	1·49	8·61	50·64	"	"	"	
12·44	1·00	13·44	28·83	"	Cream of Tartar.....	"	
9·15	neutral reaction	9·15	22·03	"	"	"	
3·30	0·86	4·16	47·20	"	Alum Phosphate.....	"	
10·28	0·55	10·83	19·56	"	Cream of Tartar	"	
10·66	1·80	11·74	41·04	"	Alum Phosphate.....	"	

D. O'SULLIVAN, INSPECTOR.

11·80	1·04	12·84	28·28	Maize....	Cream of Tartar	Can.	Tartaric acid.
12·16	1·80	13·96	46·10	"	Alum Phosphate.....	"	
13·79	1·21	15·00	No. Starch		Cream of Tartar	"	
12·41	2·10	14·51	37·05	Maize....	Alum Phosphate.....	"	
9·73	1·49	11·22	24·25	"	Cream of Tartar	"	
7·68	0·80	7·88	18·44	"	"	"	
8·44	0·90	9·34	40·63	"	Alum Phosphate.....	"	
5·75	Slightly acid re- action.	5·75	36·50	"	"	"	
11·58	0·96	12·54	18·43	"	Cream of Tartar	"	
11·17	0·78	11·95	30·29	"	"	"	

