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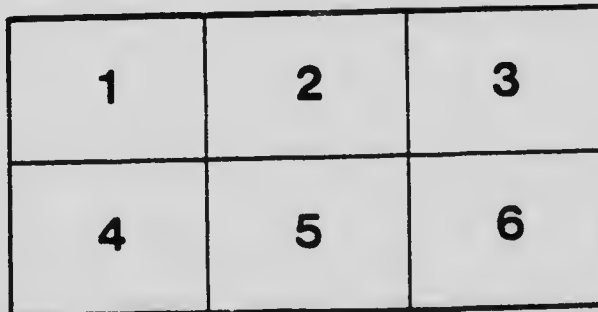
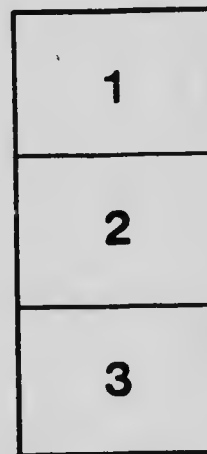
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FOOD AND DRUG
LABORATORY
OF THE
DEPARTMENT OF TRADE AND COMMERCE
OTTAWA, CANADA.

BULLETIN No. 423

MEAT AND FISH PRODUCTS

NOTES AND COMMENTS.

Under this heading, as occasion arises, the Bulletins issued by this Department will contain, as an appendix, such comment as may seem necessary or advisable upon matters relating to the work of the Department in connection with the administration of the Adulteration Act, the Fertilizers Act, the Feeding Stuffs Act or the Proprietary Medicines Act.

It frequently happens that correspondents ask information regarding the above Acts, of such a nature that the matter in question possesses general interest, and comment upon it would prove acceptable and useful to others than the immediate questioner. In such cases the reply may find a place in these columns. For convenience of reference these notes will be numbered :

A. MCGILL,

Chief Analyst.

FOOD AND DRUG
LABORATORY
OF THE
DEPARTMENT OF TRADE AND COMMERCE
OTTAWA, CANADA

BULLETIN No. 423

MEAT AND FISH PRODUCTS

April 3, 1919.

F. C. T. O'HARA, Esq.,
Deputy Minister of Trade and Commerce,
Ottawa, Ont.

SIR,—I beg to hand you a study of meat and fish products, covering the examination of 262 commercial samples.

The whole investigation now reported has been carried out under the supervision of Mr. O. G. Lye of this staff; and his letter of conveyance to me is sufficiently comprehensive to make clear the purport of this work. Although much of the matter included, has been already made mention of in various of our Bulletins, and particularly in No. 377, I feel entirely justified in recommending publication of Mr. Lye's letter. It is only by insistence and repetition that the public can be led to recognize the necessity and importance of comprehending more or less, the essential facts of nutrition. I am already made aware that a constantly increasing interest in this subject is developing; and I believe that the time is not far distant when the public will realize that some clear apprehension of the conditions of individual and public health, is only a reasonable demand for citizenship. And effective nutrition is certainly one of such conditions.

I beg to suggest publication of this report as Bulletin No. 423.

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

A. MCGILL,
Chief Analyst.

OTTAWA, ONT., March 26, 1919.

Dr. A. MCGILL,

Chief Analyst,

Ottawa, Ont.

Sir,—I have the honour to submit herewith a report dealing with the analysis of 262 samples of canned meat and canned fish, purchased by our inspectors in July and August, 1918. Of this number 23 samples were analyzed at Halifax, 74 at Winnipeg, and 165 at Ottawa. Previous collections of canned meats and fish have been reported by this laboratory as follows:—

Bulletin.	Material Examined.	Scope of the Examination.
85	Canned Meats.	Preservatives.
123	" "	"
164	" "	Preservatives and Starch.
76	" Salmon.	Soundness.
150	" "	"
391	" Fish.	Net Weight and Soundness.

But this is the first report of a systematic consideration of the nutritive value of canned meats or fish in Canada. These analyses give information which if used would be of very great value to the careful housewife or any one whose duties involve the planning of a menu or the preparation of food. For the purpose of comparison of nutritive values and other data there is included in Appendix A, of this report, a table showing the average composition and food value of a number of foodstuffs in everyday use.

In order that the best use may be made of this report, it is desirable first to consider some of the principles of the science of nutrition. Food is necessary to build up and repair tissues and also to furnish energy, either in the form of heat or muscular work, including the work of digestion. The edible portion of any foodstuff consists of water (usually incorporated in the tissues and not evident, or at least visible as water), a small percentage of salts or mineral matter, and the nutritive ingredients. Chemical distinctions divide the nutritive ingredients into three broad classes,—proteins, fats, and carbohydrates, their definitions will probably make clear the differences on which the division is based.

Proteins.—The proteins are organic substances found in nature in living matter or associated with it, and always produced by it. They consist of carbon, hydrogen, oxygen, nitrogen, and generally, but not always, some sulphur, and sometimes they contain phosphorus. The proportions of these constituents are approximately: C, 50%; H, 7%; O, 25%; N, 16%; S, 0.3%; P, 0.3%. They are digestible by various enzymes and are broken up by acids when in solution and yield, when thus digested or decomposed, a mixture of crystalline, substances known as amino-acids.

Carbohydrates.—The carbohydrates are compounds of carbon, hydrogen, and oxygen, occurring in animals and plants. They get their name from the fact that in the majority, though not in all, the proportion of oxygen to hydrogen is the same as in water. When pure they are white, some like cane sugar crystallize, others like starch do not crystallize. By the action of heat or of strong dehydrating agents they can be decomposed to carbon and water.

Fats.—The fats are compounds of carbon, hydrogen and oxygen, but they contain far less oxygen in proportion to the carbon than do the carbohydrates. They are the esters of glycerol and certain of the aliphatic acids. They are all lighter than water, insoluble in water, and have a greasy feel.

The proteins supply the materials which are used in building new tissues and in repairing body waste. The fats and carbohydrates supply energy only. Protein foods, as lean meat, fish, white of egg, milk and cheese, are indispensable if health is to be maintained. They are essentially tissue builders, but when there is shortage in the ration of fats and carbohydrates, protein is utilized as a source of energy. The fats and carbohydrates are to a certain extent interchangeable, but neither can safely be eliminated from the diet. When furnished in sufficient quantity they provide all of the energy required by the body. And while neither can be used for transformation into tissue, they can act as protein spacers and so indirectly be made to serve this purpose.

Because food provides energy we measure its nutritive value in terms of energy, taking as our unit the Calorie, which is a measure of energy (heat) as the foot is a measure of length, the pound a measure of weight, and the hour a measure of time. It is not vitally important to know and remember that a Calorie is that amount of energy which in the form of heat is just enough to raise the temperature of one kilogram of distilled water, one degree Centigrade. But it is important to know how many Calories are necessary to maintain the average adult in health and strength for one day. And this knowledge has been made available by the study and research of Rubner, Voit, Atwater, Rosa, Benedict, and other careful students of nutrition. Their conclusions show, as we would expect, that the amount of food required varies with the activities and the size of the individual. The following table, compiled from various authoritative sources, shows the daily energy requirement of average well nourished adults according to the degree of their activity:

Occupation.	Calories.
In bed 24 hours	1,680
In bed 8 hours, work involving sitting in chair 16 hours.	2,170
Bed 8 hours, sitting 14 hours, moderate exercise, as walking 2 hours.....	2,500
Man with moderate muscular work.....	3,000
Man with fairly hard muscular work (farmer).....	3,500
Man with very hard muscular work.....	5,500

The average worker requires about 3,000 calories daily of which at least 100 calories should be furnished by protein. It is also important to know how much energy will be furnished by a given amount of any food. Rubner, has determined the nutritive values of each of the three classes of ingredients to be as follows:

1 gram of protein will produce.....	4.1 calories.
1 " carbohydrate will produce.....	4.1 "
1 " fat will produce	9.3 "

or in terms more familiar one ounce of protein or carbohydrate will produce 130 calories, and one ounce of fat 264 calories.

The methods of analysis adopted by the Association of Official Agricultural Chemists were used for all determinations.

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

O. G. LYE,
Public Analyst.

APPENDIX-A.

Foodstuff.	Moisture.	Protein.	Fat.	Carbo- hydrates.	Ash.	Nutritive value in calories per pound.	
						From protein only.	Total.
Hen's eggs (raw)	73.7	14.8	10.5	.. . . .	1.0	276	720
" whites (boiled)	86.2	13.0	0.2	.. . . .	0.6	242	250
" yolks (boiled)	49.5	16.1	33.3	.. . . .	1.1	300	1705
Cheese	34.2	25.9	33.7	2.4	3.8	481	1960
Cottage cheese	72.0	20.9	1.0	4.3	1.8	300	710
Milk	87.0	3.3	4.0	5.0	0.7	61	325
Cream	74.0	2.5	18.5	4.5	0.5	46	910
Oatmeal	7.3	16.1	7.2	67.5	1.9	300	1860
Macaroni	10.3	13.4	0.9	74.1	1.3	250	1605
Potatoes (boiled)	75.5	2.5	0.1	20.9	1.0	46	440
Granulated sugar . . . . .	.. . . .	.. . . .	.. . . .	100.0	.. . . .	.. . . .	1800
Butter	11.0	1.0	85.0	.. . . .	3.0	19	3605

CANNED SALMON.

Sample.	Brand.	Weight in ounces.	% Moisture.	% Fat.	% Protein, N X 6.25.	% Carbohydrate.	% Ash.	Nutritive value in calories per pound as sold.	
								From Protein only.	Total.
79488	Fasefo. Red Booth Fisheries	8.63	65.6	11.1	20.1	.. . . .	3.2	374	842
80766	Cascad. B. C. Packers Assn	8.73	67.7	6.3	22.0	.. . . .	2.0	409	675
81335	Eagle B. C. Packers Assn	8.77	69.9	6.5	21.4	.. . . .	2.4	399	672
81318	Cascade B. C. Packers Assn	8.62	69.6	8.0	19.9	.. . . .	2.5	370	707
84342	Tiger J. H. Todd & Sons	9.07	68.9	7.2	22.2	.. . . .	1.8	413	716
84359	Red Star	8.47	68.6	8.6	19.9	.. . . .	1.9	370	733
84855	Auto Anderson & Miskin	14.40	69.7	6.4	22.0	.. . . .	1.9	409	698
6558	Iceicle W. A. Ward	16.85	68.5	6.5	23.1	.. . . .	1.8	429	704
80155	North Shore Labrador	16.40	64.0	11.6	22.8	.. . . .	1.6	423	913
80773	Choice Cut Red	16.62	65.3	10.8	21.9	.. . . .	3.0	448	863
84378	Seward Red	16.60	67.0	10.4	19.5	.. . . .	3.1	363	802
84369	Victor Red	16.40	67.5	10.2	19.7	.. . . .	2.9	367	796
6553	Clover Leaf Red	16.40	66.0	11.1	19.7	.. . . .	3.2	367	834
84376	Gold Medal Sockeye	13.90	67.5	10.6	18.5	.. . . .	3.4	345	791
80745	Golden Link Sockeye	17.00	66.1	10.2	20.5	.. . . .	3.2	382	811
80750	Tiger J. H. Todd & Sons	16.95	69.3	7.2	21.3	.. . . .	2.3	397	700
6552	White Wings	16.68	70.0	6.5	22.4	.. . . .	1.9	416	685
6561	Iceicle	16.55	69.3	6.8	20.3	.. . . .	1.8	378	664
81339	Cute	16.35	73.6	6.2	19.5	.. . . .	1.6	363	625
80749	Sterling	16.00	71.4	5.8	20.5	.. . . .	2.1	382	626
84362	Flattery	17.02	74.2	6.0	17.8	.. . . .	1.9	333	584
80755	Capilano	16.62	68.8	7.0	22.2	.. . . .	2.2	413	708
80784	Smuggler	16.97	69.9	5.7	22.6	.. . . .	1.8	420	660
84307	Red Rose	15.20	69.6	8.4	19.9	.. . . .	2.2	370	724
80742	Mounted Police	16.00	68.6	8.6	19.9	.. . . .	1.9	370	733
6544	Eagle	16.50	68.4	7.3	22.0	.. . . .	2.2	409	717
84881	Scout	18.05	71.0	7.1	20.0	.. . . .	2.9	372	671
6551	Auto	16.32	68.2	7.0	22.8	.. . . .	2.0	423	719
6555	Auto	16.12	70.6	6.3	21.0	.. . . .	2.1	391	656
6557	National	15.30	72.4	5.9	20.0	.. . . .	1.8	372	621
6562	National	15.30	67.2	7.0	23.6	.. . . .	2.2	439	734
79477	Glacier	15.20	69.6	9.1	19.2	.. . . .	2.1	357	741
6550	Glacier	14.83	70.4	8.9	18.4	.. . . .	2.0	343	717
81326	Clover Leaf Red	8.72	62.2	11.2	17.5	.. . . .	3.2	327	797
84350	" "	8.58	67.5	10.9	18.7	.. . . .	3.0	340	808

¹ Labrador Salmon.

CANNED SALMON—Concluded.

Sample.	Brand.	Weight in ounces.	% Moisture.	% Fat.	% Protein N X 6.25.	% Carbohydrate.	% Ash.	Nutritive value in calories per pound as sold.	
								From protein only.	Total.
720	80746	Clover Leaf Red	8.62	69.0	10.5	17.4	3.8	323	767
250	80156	British American "Outlet"	8.80	71.3	7.6	20.0	2.2	372	693
1705	79487	Anchor "Red" "Sockeye"	8.79	69.7	9.4	18.0	2.7	335	731
1960	84352	Northern Coast "Red"	8.60	68.8	8.2	20.2	2.6	376	722
810	79489	Red Star "Red"	8.18	68.6	8.6	19.9	1.9	370	733
325	79493	Tip Top	8.14	71.4	7.4	20.0	1.6	373	684
910	84308	Lifebuoy "Red"	8.18	68.3	10.2	21.1	3.1	363	822
1860	84858	Walrus "Coho"	8.18	68.3	10.2	21.1	3.1	363	822
1665	83926	Acme	8.18	68.3	10.2	21.1	3.1	363	822
440	83927	Carnation	8.18	68.3	10.2	21.1	3.1	363	822
1860	79875	Red Rose	8.18	68.3	10.2	21.1	3.1	363	822
3405	79876	J. H. Todd & Son	8.18	68.3	10.2	21.1	3.1	363	822
	79877	Red Rose	8.18	68.3	10.2	21.1	3.1	363	822
	79878	Fasefo	17.2	67.3	9.5	20.6	2.6	384	805
	79882	Van Camp	8.4	58.8	12.8	25.6	2.8	477	1021
	83050	Red Clover	9.1	64.4	12.2	21.5	1.9	401	915
	83051	Horseshoe	8.1	65.1	12.1	20.8	2.0	398	900
	81885	Swift's	16.0	68.3	8.9	19.3	2.9	370	742
	86101	J. H. Todd & Son	16.6	70.6	6.3	21.6	1.5	403	672
	83042	Balfour Guthrie & Co	15.4	68.8	8.3	20.5	2.4	382	723
	81888	Anglo-British	16.6	68.8	9.6	19.4	2.2	361	765
	83047	Rainbow	16.2	70.3	7.2	19.8	2.7	369	675

FINNAN HADDIES.

842	84310	Golden	6.25	68.7	0.35	24.3	2.3	452	467
675	80162	Golden	14.30	74.0	0.7	22.1	3.2	411	446
672	84879	Golden	14.20	69.4	0.4	26.1	3.3	485	502
707	80149	Brunswick	13.00	77.1	0.4	20.0	2.5	372	403
713	84337	Thistle	8.70	70.3	0.4	25.6	3.6	477	493
733	83921	Osprey	14.4	74.3	0.2	21.9	3.2	408	422
698	83062	Beaver	14.6	77.9	0.3	19.1	2.7	355	369
704	86103	Connors Br	15.4	73.5	0.7	23.6	3.2	420	451

CHICKEN HADDIES.

80164	80164	Lily Brand	14.0	76.9	0.7	19.4	3.0	361	399
685	84309	"	14.2	74.5	0.8	21.6	3.0	403	436
664	83928	"	14.2	76.8	0.2	19.4	3.7	361	368
625	79873	Martin	13.8	76.9	0.7	19.3	3.1	359	389

TONGUE.

671	84865	Aylmer	16.4	60.0	17.2	19.4	3.3	361	1088
719	80772	Clarks	7.5	56.5	20.0	19.9	3.6	370	1214
656	80134	"	7.2	61.8	16.1	18.6	3.0	347	1039
621	81874	"	3.8	58.0	23.2	14.3	4.5	266	1246
734	83061	Davies	12.7	57.1	19.8	20.6	1.5	384	1222
741	86134	Clarks	7.0	70.1	9.1	18.9	1.9	352	742
717	83046	"	7.5	63.0	13.9	18.7	4.4	349	934
797	86120	Libby	7.1	59.3	14.4	21.5	4.8	401	1007
808	79881	Davies	13.0	60.4	17.4	19.9	2.3	370	1096

CHICKEN.

Sample.	Brand.	Weight in ounces.	% Moisture.	% Fat.	% Protein, N X 6.25.	% Carbohydrate.	% Ash.	Nutritive value in calories per pound as sold.	
								From Protein only.	Total.
711	Peter Macnutt Boneless	7.55	70.1	3.0	25.5	.....	1.8	475	600
1012	Fred Magee Mephisto Brand	9.05	75.2	2.5	21.1	.....	1.5	393	498
986	W. A. Heard	6.73	76.4	2.8	19.5	.....	1.5	363	481
1024	Aylmer	6.90	72.6	3.4	22.1	.....	1.8	411	554
948	Peter Macnutt	15.85	*74.2	4.5	19.7	.....	1.7	367	556
771		waste								3.25
907	meat	12.60							
771		15.70							
769	Beaver Brand	3.00	*76.0	3.1	19.9	.....	1.5	370	501
775		waste								3.00
1081	meat	12.70							
1061		15.70							
890	Boneless Clarks	7.6	74.1	4.5	19.7	.....	1.7	367	554

FISH FLAKES.

1314	Burnham & Morrill	5.75	83.1	0.7	15.2	.....	1.0	283	311
1640	"	6.20	83.1	0.7	15.2	.....	1.0	283	311
1393	Maple Leaf Flaked Codfish	15.50	82.0	0.3	16.9	.....	0.8	314	327
1188	Brunswick Flaked Hake	15.70	83.3	0.7	15.0	.....	1.0	279	308
1294	Brunswick Plaice	16.49	79.6	0.35	15.9	.....	1.1	297	311

SANDWICH PASTES, POTTED MEATS, DEVILLED MEATS, ETC.

706	Paris Pate	3.05	72.8	8.7	10.9	4.9	2.7	203	661
846	"	3.10	72.8	8.7	10.9	4.9	2.7	203	661
639	Clark's Potted Beef	6.00	57.9	23.9	15.1	.....	3.1	281	1289
473	" " " Ham	6.00	59.1	22.3	15.7	.....	3.1	293	1233
1400	"	3.20	44.0	26.2	24.7	1.3	3.9	460	1589
1688	" Potted Veal	5.95	61.4	19.4	15.2	.....	2.0	283	1102
1008	" Devilled Beef Ham	3.4	54.5	23.2	17.4	.....	4.9	323	1301
1385	" Potted Tongue	3.5	60.2	21.0	14.5	.....	4.2	270	1151
1663	" Devilled Beef Ham	3.4	42.1	37.2	16.4	.....	3.7	305	1878
1720	Paris Pate	3.0	72.8	8.6	10.9	4.7	2.9	203	655
1295	Clark's Potted Beef Ham	3.5	49.4	28.8	18.0	.....	3.8	335	1552
1447	Clark's Veal	3.5	60.3	21.2	16.3	.....	2.2	303	1201
1174	" Tongue Ham Veal	9.6	60.7	12.0	17.8	6.8	2.7	333	970
864	" Tongue	3.8	53.9	19.6	18.9	2.1	5.5	353	1217
715	" Devilled Beef Ham	3.3	52.4	24.2	19.6	1.6	5.2	365	1407
1795	" Tongue Ham Veal	7.1	59.5	18.3	15.1	4.8	2.3	281	1143
1276	" Potted Veal	3.30	59.2	21.2	17.4	.....	2.2	323	1208
1459	Libby-Potted Meat By Products	5.00	54.5	23.2	17.4	.....	4.7	323	1303
723	" Devilled Meat By Products	3.25	56.2	23.0	16.9	.....	4.9	314	1284
823	Mephisto Devilled Tongue	5.00	71.4	9.5	10.3	6.6	2.2	192	714
885	"	5.00	69.0	10.1	11.5	7.1	2.3	213	772
7947	Clark's Tongue, Ham and Veal Pate	7.57	61.20	13.41	17.4	5.20	2.62	323	986
81317	"	7.30	60.95	16.36	15.0	4.82	2.42	279	1059
84314	"	7.35	65.20	11.87	15.6	4.76	2.47	291	880
654	"	7.50	66.70	8.23	17.45	3.97	3.68	325	745
80777	"	7.40							
80779	"	7.52							
		7.45							

* Analysis of edible portion.

* Analysis of edible portion.

COOKED CORNED BEEF.

Sample.	Brand.	Weight in ounces.	% Moisture.	% Fat.	% Protein, N X 6.25.	% Carbohydrate.	% Ash.	Nutritive value in calories per pound as sold.	
								From Protein only.	Total.
6549	Clark's	12.12	65.8	8.7	22.9	.....	2.2	425	793
6547	"	12.05	60.0	13.8	22.3	.....	3.9	415	996
80741	"	12.15	58.2	10.2	27.2	.....	4.2	505	936
84864	"	12.10	63.4	9.0	23.5	.....	3.9	437	816
6548	Fray Bentos	12.15	61.3	12.3	24.1	.....	2.2	448	968
80743	"	12.10	62.5	11.6	23.7	.....	2.1	440	929
0764	Gunn's	12.15	63.7	9.7	22.9	.....	2.9	425	833
81340	"	11.65	62.4	8.3	26.8	.....	2.7	498	846
83925	Davies	11.8	62.4	8.3	26.8	.....	2.7	498	849
80127	Connors	12.7	60.6	7.3	26.9	.....	5.2	500	810
80129	Clark's	11.8	57.8	14.6	23.0	.....	4.9	427	1047
80131	Fray Bentos	12.5	56.6	18.7	22.1	.....	2.8	411	1204
80133	Libby	11.0	58.6	13.0	25.9	.....	3.1	491	1030
79880	Oxo	12.6	52.3	23.9	21.0	.....	2.6	391	1310
81878	Clark's	7.4	68.0	6.3	22.8	.....	2.9	423	688
83048	Davies	12.2	62.7	5.6	28.8	.....	3.3	535	769
81898	Libby	11.0	54.2	15.3	26.1	.....	4.4	485	1130
79874	Clark's	12.2	60.5	12.3	23.7	.....	4.0	440	965
79884	Davies	11.8	58.8	14.7	23.4	.....	3.1	435	1054

TUNAS.

84385	(1) Cevo With added Cottonseed Oil...	4.00	73.4	7.3	18.9	.....	1.2	352	659
81314	Wave Kist. With added Cottonseed Oil.	7.65	59.3	13.0	25.4	.....	1.8	473	1021
84370	" " " " " "	7.65	62.0	12.8	23.0	.....	2.3	427	967
84356	Van Camp	7.35	60.7	13.2	24.1	.....	2.0	448	1004
80160	Southern Albacore	7.70	67.4	8.3	21.4	.....	1.7	399	748
79468	Blue Sea Amberfish in Cottonseed Oil...	7.75	59.3	12.5	26.2	.....	1.6	487	1014
86118	Not given	4.3	61.7	7.8	27.7	.....	2.8	515	840

MACKEREL.

80157	Normana	10.20	67.4	8.3	21.4	.....	1.7	399	748
84878	Normana in Sauce Bordelaise	5.75	73.7	1.7	15.3	5.9	3.4	285	466

SHRIMPS.

		oz.							
79469	Barataria Packing Co., 4 oz. Wet pack. Drained	4.60	75.6	1.2	20.3	.....	2.3	378	428
80158	Peerless, 4 1/2 oz.	5.10	77.2	1.0	19.0	.....	2.1	353	395
80753	Barataria Packing Co., 4 oz. Wet pack	4.60	76.2	0.9	19.2	.....	2.2	357	395
79490	Point Clear, 4 1/2 oz.	5.20	75.8	1.2	20.2	.....	2.0	376	430
84313	Magnolia	4.30	77.4	0.8	18.7	.....	2.3	349	382
84386	Bob o, 4 1/2 oz.	4.30	78.0	1.1	18.5	.....	1.6	345	388
81891	Augh-n-bach	4.9	86.8	0.3	9.9	.....	3.0	185	192
79877	T. B. Molloy	4.7	86.7	0.4	10.8	.....	2.1	202	216
86109	Not given	.....	86.8	0.4	10.6	.....	2.2	198	214
86127	Not given	.....	83.5	0.6	12.8	.....	3.1	239	261

ROAST BEEF.

79492	Clark's	7.50	61.1	11.2	27.1	.....	1.1	503	976
80748	"	7.38	65.0	14.3	20.0	.....	0.8	372	975
84351	"	7.50	63.2	12.2	23.3	.....	1.2	433	948
80137	"	12.7	58.6	19.4	19.3	.....	2.3	359	1183
79887	Davies	10.5	58.3	9.4	29.7	.....	2.6	552	948
81879	Clark's	7.9	67.2	3.9	25.2	.....	3.7	469	634
81900	"	13.0	56.1	20.4	22.2	.....	1.3	413	1274

(1) Very dark colour, not like other samples.

SLICED SMOKED BEEF (Chipped Beef).

Sample	Brand.	Weight in ounces.	% Moisture.	% Fat.	% Protein, N X 6.25.	% Carbohydrate.	% Ash.	Nutritive value per pound as sold.	
								From Protein only.	Total.
793									
996									
936									
816									
968									
929									
833									
846									
849									
810									
1047									
1204									
1030									
1310									
688									
769									
1130									
965									
1054									
659									
1021									
967									
1004									
748									
1014									
840									
428									
895									
395									
430									
382									
388									
192									
216									
214									
261									

LOBSTERS.

84353	Sphinx, 3½ oz.	3.70	77.2	1.2	18.2	0.5	2.9	339	388
84867	Beaver, 3½ oz.	3.30	Decomposed and unfit for food. Technically adult'd.						
80775	Eagle, 6½ oz.	6.68	78.0	1.1	18.0	0.5	2.4	335	390
84872	Gulf.	7.00	76.4	1.2	19.3	0.6	2.3	359	420
84364	Gold Medal.	6.90	79.2	1.8	16.4	0.4	2.2	305	388
80737	"	6.73	78.0	2.1	17.2	0.4	2.3	319	416
80159	J. G. Rood & Co.	6.95	76.0	2.3	18.9	0.4	2.4	352	448
79472	Mephisto, 7½ oz.	7.40	77.4	2.0	17.8	0.4	2.2	333	422
80756	Sea Crest Lobster Paste.	3.80	69.2	12.2	17.0	.....	1.8	315	831
80166	Black Diamond.	4.0	75.1	0.4	21.4	.....	3.1	399	416
81867	Loggville.	4.7	78.9	0.5	15.5	0.5	4.6	289	338
79886	O'Leary & Lee	8.0	77.0	0.7	18.3	0.7	3.3	341	388

OYSTERS.

80780	Peerless	Solids	11.7	80.0	2.2	11.2	4.7	1.9	163	281
		Liquid	8.8	92.0	0.2	5.8	1.2	0.8		
		Total.	20.0							
80161	Niggerhead	Solids	5.37	80.7	2.7	12.7	2.5	1.4	237	398
		Liquid	6.00	92.3							Solids only.
		Total.	11.37							
84871	Maryland Chief	Solids	5.8	79.8	2.1	11.4	5.2	1.5	211	432
		Liquid	5.1								Solids only.
		Total.	10.9							
80167	Sea King		8.3	79.7	1.4	12.7	4.4	1.7	237	380
86122	Not given		8.1	89.4	1.0	5.3	2.6	1.7	99	193
81875	Schall		7.3	87.4	1.4	6.0	3.1	2.1	112	249
86110	Not given		7.9	88.5	0.6	6.1	2.9	1.9	114	192

CLAMS.

84372	Pioneer Minced		7.4	85.2	1.9	8.2	3.3	1.4	153	350
80154	Connors	Solids only	4.8	79.7	2.2	9.2	6.3	2.6	171	381
84870	"	"	4.4	82.2	2.1	8.1	5.1	2.5	151	333
80163	Indian Chief	Solids	5.4	78.7	1.8	11.7	5.5	2.3	217	220
		Liquid	10.5	89.0	0.9	6.7	2.8	1.0	126	
		Total	15.9							

value
ies
s sold.

Total.

793

996

936

816

968

929

833

846

849

810

1047

1204

1030

1310

688

769

1130

965

1054

659

1021

967

1004

748

1014

840

748

466

428

895

395

430

382

388

192

216

214

261

976

975

948

1183

948

634

1274

CLAMS—Concluded.

Sample.	Brand.	Weight in ounces.	% Moisture.	% Fat.	% Protein, N X 6.25.	% Carbohydrate.	% Ash.	Nutritive value in calories per pound as sold.	
								From Protein only.	Total.
81892	Connors, Solids.....	6.6	87.1	0.9	7.6	1.6	2.6	146	213
86130	Malkin, Not determined.....		87.4	0.8	2.2	1.9	1.7	153	223
84382	Coronado Abalone, Solids.....	2.0	74.4	0.2	18.7	5.0	1.5	349	355

NOTE ON OYSTERS AND CLAMS.

"Solids" means "cut weight solids" or the weight of the solid part separated from the liquid but still wet. To obtain this weight, cut around the top of the can, invert and turn the can so that the liquor will run out. Continue to turn for one minute after the last drop has fallen. Now weigh can and contents, empty, wash dry and weigh can; this weight subtracted from above gives "cut weight solids."

MISCELLANEOUS.

81886	Boiled Beef Ham.....	3.8	63.5	18.4	15.8	.....	2.3	295	1071
86128	Roast Mutton.....	16.4	52.8	26.5	19.0	.....	1.7	353	1473
79883	Clark's Jellied Veal.....	7.0	69.6	4.4	24.6	.....	1.4	438	644
84381	Crosse & Blackwell Shrimp Paste.....	3.70	42.4	4.2	32.2	1.2	20.0	599	776
84366	Purity Cross-Creamed Chicken a la King.....	5.25	68.6	10.2	16.0	3.2	2.3	298	787
80758	" " " ".....	5.50	70.4	8.9	15.7	3.0	2.3	293	723
86121	Beef Steak and Onions.....	16.6	74.2	6.2	17.3	0.8	1.5	321	599
80765	Clark's Beef Steak and Onions.....	7.50	74.8	6.5	16.2	0.3	2.2	301	581
84866	" Boneless Pigs' Feet.....	12.25	64.4	14.9	17.6	.....	3.2	323	956
80782	" Veal Loaf.....	7.90	67.7	11.4	16.2	2.3	2.4	301	825
81896	" " " ".....	8.0	63.7	13.6	17.7	1.9	3.1	331	930
79879	Libby's " " " ".....	7.0	66.8	8.4	16.7	5.7	2.4	311	772
86116	Veal Loaf.....	8.8	71.7	9.1	14.5	1.6	3.1	270	703
80752	Clark's Corned Beef Hash.....	6.70	69.2	5.8	9.9	13.1	2.0	185	673
84345	Libby's " " " ".....	6.75	70.2	4.1	15.8	8.0	1.9	295	615
80135	" " " " " ".....	7.3	73.2	3.3	7.9	13.6	2.0	148	539

