

In Table 6 the results of the analyses of the whole side and the several cuts, which in Table 5 are represented in percentages, are calculated into pounds, so as to give the actual weights of the several ingredients in the different cuts and in the whole.

COMPOSITION OF SIDE OF MUTTON AND SIDE OF LAMB.

The side of mutton was from a Connecticut-grown sheep, 2 years old, of about medium fatness. One whole side was taken for analysis, the different cuts being made in the usual manner as specified in the tables.

The side of lamb was from a Connecticut-grown lamb 6 months old. The dressed weight was about 39 pounds. It was above rather than below medium fatness. The plan of the tables is the same as those for the side of beef.

TABLE 1.—Composition of food materials as found in the markets, including both edible portion and refuse.

Food materials	Number of analyses.	Salt.	Refuse (bones, skin, shell, etc.).	Edible portion.						Fuel value of 1 pound.
				Water.	Nutrients.					
					Total.	Protein.	Fat.	Carbohydrates.	Mineral matters.	
MEATS, ETC.										
Beef:			<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Calo-ries.</i>
Neck.....	{	3	18.4	47	28.9	14.9	11.8	0.8	800	
	{	3	22.9	52.4	32.1	16.2	16.4	.9	970	
	{	3	20	49.6	30.4	15.6	14	.8	880	
Chuck ribs.....	{	8	5.4	42.7	30.4	13.5	13.3	.6	865	
	{	8	19.7	59.7	44.6	16.4	28.6	.9	1,490	
	{	8	14.6	49.5	35.9	15	20.1	.8	1,125	
	{	4	19.4	56.3	39.7	11.3	26.5	.7	1,360	
Ribs.....	{	4	22.7	40.2	42.3	13	19.2	.9	1,460	
	{	4	21	38.2	40.8	12.2	27.9	.7	1,405	
Brisket.....	{	1	14.3	40.6	45.1	12.5	31.9	.7	1,580	
Cross ribs.....	{	1	12.2	38.6	49.2	12	36.5	.7	1,765	
	{	6	10.7	49.9	27	14.8	8.8	.7	695	
Shoulder.....	{	6	15.6	60.6	38.8	18.6	19.2	1	1,155	
	{	6	12.6	55.8	31.6	17	15.7	.9	895	
	{	6	40.1	44.2	15.7	13.6	1.4	.7	310	
Shin.....	{	1	17.9	36.4	45.7	12.6	32.4	.7	1,600	
Plate.....	{	1	11.4	42.2	46.4	13.4	32.3	.7	1,610	
Navel.....	{	4	13	42.8	29.7	12.5	14	.7	920	
Sirloin.....	{	4	27.3	52.6	35	19.1	18.7	1.2	1,075	
	{	4	19.5	48.3	32.2	15	16.4	.8	970	
Socket.....	{	1	35.8	36.7	27.5	10.7	16.1	.7	880	
	{	2	6.5	33.7	40.9	12.3	25.1	.6	1,340	
Rump.....	{	2	16.2	52.6	50.1	15	37.2	.8	1,800	
	{	2	11.3	43.2	45.5	13.7	31.1	.7	1,570	
Round, first cut.....	{	1	7.8	60.9	31.3	18	12.3	1	855	
Round, second cut.....	{	1	32.1	47.2	20.7	14	5.8	.9	505	
Leg.....	{	1	62.2	27.3	10.5	7.9	2.1	.5	235	
Top of sirloin.....	{	1	3.2	40.9	55.9	12.9	42.3	.7	2,025	
Flank.....	{	1	11.5	24.3	64.2	10.6	53	.6	2,435	
Fore quarter.....	{	1	18.5	44.1	37.4	14.1	22.5	.8	1,210	
Hind quarter.....	{	1	20.2	44.4	35.4	13.6	21	.8	1,140	
Side without kidney fat.....	{	1	19.2	44.3	36.5	13.9	21.8	.8	1,180	
Veal:										
Shoulder.....	{	1	11.5	63.7	24.8	18.3	5.5	1	570	
Shoulder and flank.....	{	1	24.3	49.7	26	14.9	19.2	.9	715	
Mutton:										
Shoulder.....	{	1	16.3	49	34.7	15.1	18.8	.8	1,075	
Breast.....	{	1	14.9	32	53.1	12.1	49.1	.9	1,915	
Neck.....	{	1	27.6	40.3	32.1	11.7	19.8	.6	1,055	
Rack.....	{	1	19.3	44.3	36.4	14.9	29.9	.6	1,160	
Leg.....	{	1	18.1	50.6	31.3	15	15.6	.7	935	
Loin.....	{	1	15.8	41.5	42.7	12.6	29.5	.6	1,481	
Flank.....	{	1	2.1	37.9	60	15.1	44.1	.5	2,145	
Fore quarter.....	{	1	19	42.3	38.7	13.7	24.2	.8	1,275	
Hind quarter.....	{	1	15.7	46.1	38.2	14.3	23.2	.7	1,245	
Side without kidney fat.....	{	1	17.3	44.2	38.5	14	23.7	.8	1,260	

TABLE 1.—Composition of food materials as found in the markets, etc.—Continued.

Food materials.	Number of analyses.	Salt.	Refuse (bones, skin, shell, etc.).	Edible portion.							Fuel value of 1 pound.
				Water.	Nutrients.					Mineral matters.	
					Total.	Protein.	Fat.	Carbohydrates.	P. ct.		
MEATS, ETC.—continued.											
Lamb:			<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Calories.</i>
Shoulder.....	1		20.3	41.3	38.4	14	23.5		.8	1,255	
Breast.....	1		19.1	45.5	35.4	15.5	19.1		.8	1,095	
Neck.....	1		17.7	46.7	35.6	14.4	20.4		.8	1,130	
Leg.....	1		17.7	53.5	29	15.5	12.5		.9	820	
Loin.....	1		12.2	48.1	39.7	10.7	22.1		.9	1,245	
Fore quarter.....			18.8	44.7	36.5	14.7	21		.8	1,160	
Hind quarter.....			15.7	51.3	33	16	16.1		.9	975	
Side without kidney fat.....			17.3	47.9	34.8	15.3	18.6		.9	1,070	
Pork:											
Shoulder roast.....	{		7.1	38.8	39.6	13.2	25.4		.7	1,325	
	{		20.3	49.4	45.9	14.1	28.9		.8	1,590	
	{		14.6	43	42.4	13.6	28		.8	1,435	
Poultry, etc.:											
Chicken.....	1		38.2	44.6	17.2	15.1	1.2		.9	330	
Turkey.....	1		32.4	44.7	22.9	16.1	5.0		.9	550	
Hens' eggs in shell.....	{		13.4	62.3	22.7	12.1	9.7		.8	635	
	{		13.9	63.9	23.8	12.2	10.8		.9	680	
	{		13.7	63.1	23.2	12.1	10.2		.9	655	
Preserved meats:											
Corned beef, rump.....	1		5	70.8	24.2	16.7	5.1		2.4	525	
Corned beef, flank.....	{		9.6	39	37.1	11.7	21.2		2.5	1,140	
	{		14.6	48.3	51.4	13.2	37.2		2.7	1,785	
	{		12.1	43.7	44.2	12.4	29.2		2.6	1,460	
Ham, salted and smoked.....	1		11.4	36.8	51.8	14.8	34.5		2.4	1,735	
FISH, SHELL FISH, ETC.											
Fresh fish:											
Sturgeon, section.....	1		14.4	67.4	18.2	15.4	1.6		1.2	355	
Red horse, entrails removed.....	1		52.5	37.3	10.2	8.5	1.1		.6	205	
Herring, whole.....	1		46	37.3	16.7	10	5.9		.8	435	
Alewife, whole.....	{		49.4	36.9	12.2	9.5	1.9		.8	255	
	{		49.5	38.3	13.7	9.9	3		.8	310	
	{		49.5	37.5	13	9.7	2.5		.8	285	
	{		44.4	30.3	10.9	7.4	2.0		.6	260	
Shad, whole.....	{		58.8	39.5	18.6	10.5	7.3		.8	505	
	{		50.1	35.2	14.7	9.2	4.8		.7	375	
	{		34.8	39.9	11.1	9.6	.8		.7	215	
Smelt, whole.....	{		49	52.3	12.9	10.4	1.2		1.3	245	
	{		41.9	46.1	12	10	1		1	230	
	{		53.5	32.5	14	10.3	3		.7	320	
Whitfish, whole.....	1		42.7	43.6	13.7	11	2		.7	290	
Ciscoe, whole.....	1		57.9	31.8	16.1	14.8			.9	925	
California salmon, section.....	{		10.3	62.7	37.3	17	19.2		1.1	1,125	
	{		5.2	60.3	34.5	16.5	17		1	1,025	
	{		30.8	36.9	23.6	13.3	7.9		.9	610	
Salmon, whole.....	{		39.5	45	24.3	15.2	10		1	670	
	{		35.3	40.6	21.1	14.3	8.8		1	635	
Salmon, entrails removed.....	4		23.8	51.2	25	14.6	9.5		.9	675	
Lake trout, whole.....	1		56.3	30	13.7	7.7	5.4		.6	370	
Lake trout, entrails removed.....	1		35.2	45	19.8	12.4	6.6		.8	510	
	{		45.2	38.6	11	9.2	.4		.5	225	
	{		59.1	43.8	12.3	10.2	1.5		.7	255	
Brook trout, whole.....	{		48.1	40.4	11.5	9.8	1.1		.6	230	
	{		45.4	40.8	10.5	9.7	.2		.6	190	
	{		48.7	43.6	11	10	.3		.7	200	
	{		47.1	42.2	10.7	9.8	.2		.7	195	
Pike, whole.....	1		42.7	45.7	11.6	10.7	.3		.6	210	
Muscalonge, whole.....	1		49.2	38.7	12.1	10	1.3		.8	240	
Eel, salt water, dressed.....	{		19	54.9	21.6	14.3	6.4		.7	535	
	{		21.4	59.4	23.7	14.9	8.1		.9	620	
	{		20.2	57.2	22.6	14.6	7.2		.8	575	
Mullet, whole.....	1		57.9	31.5	10.6	8.1	2		.5	235	
	{		33.8	35.8	12.2	8.4	1.4		.6	300	
	{		57.9	48.5	23.8	12.1	10.7		1	675	
	{		44.6	40.4	15	10	4.3		.7	370	
Mackerel, whole.....	5		40.7	43.7	15.6	11.4	3.5		.7	360	
Mackerel, entrails removed.....	1		34.6	44.5	20.9	13.7	6.2		1	515	
Spanish mackerel, whole.....	1		42.4	38.8	11.2	9.9	.8		.5	220	
Pompano, whole.....	{		48.6	40.2	18.8	10.5	7.8		.5	525	
	{		45.5	39.5	15	10.2	4.3		.5	370	

TABLE 1.—Composition of food materials as found in the markets, etc.—Continued.

Food materials.	Number of analyses.	Salt.	Refuse (bones, skin, shell, etc.).	Edible portion.						Fuel value of 1 pound.
				Water.	Nutrients.					
					Total.	Protein.	Fat.	Carbohydrates.	Mineral matters.	
FISH, SHELLFISH, ETC.—cont'd.										
Fresh fish—Continued.										
Bluefish, entrails removed.	1		P. ct. 48.6	P. ct. 40.3	P. ct. 11.1	P. ct. 9.8	P. ct. .6	P. ct. .7	Calo-ries. 205	
Butter-fish, whole.	1		42.8	40.1	17.1	10.2	6.3	.6	455	
	{		Min 53.6	34.6	9.4	8.5	.4	.6	175	
Black bass, whole.	2		56	34.7	11.7	10	1.1	.6	230	
	{		Max 54.8	34.6	10.6	9.3	.8	.5	205	
Yellow perch, whole.	1		62.7	30	7.3	6.7	.2	.4	135	
Yellow perch, dressed.	1		35.1	50.7	14.2	12.6	.7	.9	265	
Wall-eyed pike, whole.	1		57.2	34.1	8.7	7.0	.2	.6	155	
Gray pike, whole.	1		63.2	29.7	7.1	6.4	.3	.4	130	
	{		Min 48.6	32.5	8.7	7.2	.7	.5	170	
Striped bass, whole.	5		57.1	39.7	11.7	9.7	1.6	.6	240	
	{		Max 54.9	35.1	10	8.3	1.1	.6	200	
Striped bass, entrails removed.	1		51.2	37.4	11.4	8.7	2.2	.5	255	
	{		Min 61.8	27.8	9	6.5	1	.4	185	
White perch, whole.	2		63.2	28.9	9.3	7.8	2.1	.5	210	
	{		Max 62.5	28.4	9.1	7.2	1.5	.4	195	
Sea bass, whole.	2		56.1	34.8	9.1	8.3	.2	.6	160	
	{		Min 55.8	34.8	8.9	8.2	.2	.5	160	
Red grouper, entrails removed.	2		55.9	35.3	9.3	8.5	.3	.5	170	
	{		Max 55.9	35	9.1	8.4	.2	.5	165	
Red snapper, whole.	1		40	46.9	13.1	12	.4	.7	240	
	{		Min 45.3	36.8	10.7	9.2	.3	.6	200	
Red snapper, entrails removed.	2		52.5	43.7	11	10	.9	.7	210	
	{		Max 48.9	40.3	10.8	9.6	.6	.6	205	
	{		Min 57.3	27.8	7.1	6.1	.5	.5	135	
Porgy, whole.	3		65.1	31.1	12	8.2	3.4	.6	295	
	{		Max 60	29.9	10.1	7.4	2.1	.6	225	
	{		Avg 66	26.9	7.1	6.4	.2	.5	125	
Sheepshead, whole.	1		56.5	31.3	12.2	8.8	2.9	.5	285	
Sheepshead, entrails removed.	1		63.5	29.8	6.7	6.1	.2	.4	120	
Red bass, whole.	1		56.6	34.4	9	8.1	.4	.5	170	
Kingfish, whole.	1		51.9	28	19.1	8.4	1.1	.6	200	
Weakfish, whole.	2		56.2	29.2	6.7	6.3	.2	.2	125	
	{		Min 64.1	33.7	10.1	8.3	1.2	.6	205	
Blackfish, whole.	2		60.1	31.5	8.4	7.3	.7	.4	165	
	{		Max 53.6	33.5	8.7	7.9	.4	.4	165	
Blackfish, entrails removed.	2		57.8	36.4	10	8.7	.7	.6	190	
	{		Max 55.7	35	9.3	8.3	.5	.5	175	
Hake, entrails removed.	1		52.5	39.5	8	7.2	.3	.5	145	
Cusk, entrails removed.	1		40.3	49	10.7	10.1	.1	.5	190	
	{		Min 48	38.5	8.6	7.8	.1	.5	150	
Haddock, entrails removed.	4		52.9	42.9	9.6	8.9	.2	.8	170	
	{		Max 51	40	9	8.2	.2	.6	160	
	{		Min 48.5	35.1	8.4	7.7	.1	.6	145	
Cod, whole.	2		56.5	42.3	9.2	8.3	.3	.6	165	
	{		Max 52.1	38.7	8.8	8	.2	.6	155	
	{		Min 25.5	55.3	11	9.9	.2	.8	190	
Cod, dressed.	3		33.7	62.1	12.4	11.4	.3	.9	220	
	{		Max 29.9	58.5	11.6	10.6	.2	.8	205	
	{		Avg 59.9	32.7	7.4	6.8	.2	.4	135	
Tomcod, whole.	1		28.5	54.3	17.2	15.5	.6	1.1	315	
Pollock, dressed.	1		11.2	60.9	16	13.4	1.7	.7	320	
	{		Min 22.1	62.6	26.5	16.1	3.4	1	695	
Halibut, sections.	3		17.7	61.9	20.4	15.1	4.4	.9	465	
	{		Max 47.7	37.3	15	6.8	7.5	.7	440	
Turbot, whole.	1		56.2	35.8	6.8	6.1	.2	.5	120	
	{		Min 57	37	7.2	6.3	.3	.6	130	
Flounder, whole.	2		56.6	36.4	7	6.2	.3	.5	125	
	{		Max 57	35.8	7.2	6.3	.3	.6	130	
Flounder, entrails removed.	1		45.8	38.5	15.7	8.1	7.2	.4	455	
Lamprey eel, whole.	1		51	40.2	8.8	7.5	.7	.6	170	
Skate, lobe of body.	1									
Preserved fish:										
Salted mackerel.	1	7.1	33.3	28.1	31.5	14.7	15.1	1.7	910	
	{		Min 17.2	24.3	40	17.2	15.7	.3	1.2	305
Salted cod.	2		17.3	25.5	40.5	18	16.4	.4	1.2	320
	{		Max 17.2	24.9	40.3	17.6	16	.4	1.2	315
Smoked herring.	1	6.5	44.4	19.2	29.9	20.2	8.8	.9	745	
Smoked haddock.	1	1.4	32.2	49.2	27.2	16.1	.1	1	305	
	{		Min 12	5.9	44.9	33	16.7	13.6	1.9	920
Smoked halibut.	2		12.1	8	47	37.1	21.6	14.4	1.9	975
	{		Max 12.1	6.9	46	35	19.1	14	1.9	945

TABLE 2.—Composition of food materials, edible portion—Continued.

Food materials.	Number of analyses.	Salt.	Water.	Nutrients.					Fuel value of 1 pound.
				Total.	Protein.	Fat.	Carbohy- drates	Mineral mat- ters.	
MEATS, ETC.—continued.									
Mutton:			<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Calories</i>
Shoulder	1	.....	58.6	41.4	18.1	22.4	.....	.9	1,280
Breast	1	.....	37.6	62.4	14.2	47.2	.....	1	2,255
Rack	1	.....	54.9	45.1	18.4	25.9	.....	.8	1,435
Neck	1	.....	55.7	44.3	16.2	27.3	.....	.8	1,455
Leg	1	.....	61.8	38.2	18.3	19	.....	.9	1,140
Loin	1	.....	49.3	50.7	15	35	.....	.7	1,755
Flank	1	.....	38.7	61.3	15.8	45	.....	.5	2,195
Fore quarter	1	.....	55.2	47.8	17	29.9	.....	.9	1,580
Hind quarter	1	.....	54.7	45.3	16.9	27.5	.....	.9	1,475
Side without kidney fat	1	.....	53.5	46.5	16.9	28.7	.....	.9	1,525
Lamb:									
Shoulder	1	.....	51.8	48.2	17.5	29.7	.....	1	1,580
Breast	1	.....	56.2	43.8	19.2	23.6	.....	1	1,355
Neck	1	.....	56.7	43.3	17.5	24.8	.....	1	1,375
Leg	1	.....	64.7	35.3	18.9	15.3	.....	1.1	1,000
Loin	1	.....	54.8	45.2	19	25.1	.....	1.1	1,410
Fore quarter	1	.....	55.1	44.9	18.1	25.8	.....	1	1,425
Hind quarter	1	.....	60.9	39.1	18.9	19.1	.....	1.1	1,155
Side without kidney fat	1	.....	57.9	42.1	18.6	22.5	.....	1	1,295
Liver	1	.....	52.7	47.3	24.2	13.2	7.9	2	1,155
Heart	1	.....	67.4	32.6	18.3	13.4	.....	.9	905
Lungs	1	.....	74.6	25.4	21.5	2.6	.....	1.5	510
Pork:									
Shoulder roast	4	.....	45.8	46.9	14.9	30.4	.....	.9	1,590
..... { Max	4	.....	53.1	54.2	16.9	37.7	.....	.9	1,880
..... { Avg	4	.....	50.3	49.7	16	32.8	.....	.9	1,680
Poultry, etc.:									
Chicken	1	.....	72.2	27.8	24.4	2	.....	1.4	540
Chicken liver	1	.....	69.3	30.7	22.3	4.2	2.4	1.8	635
Chicken heart	1	.....	72	28	21.2	5.4	.....	1.4	620
Chicken gizzard	1	.....	72.5	27.5	24.7	1.4	.....	1.4	520
Turkey	1	.....	66.2	33.8	23.9	8.7	.....	1.2	810
Turkey liver	1	.....	69.6	30.4	22.9	5.2	.6	1.7	655
Turkey heart	1	.....	68.6	31.4	17.2	13.2	.....	1	875
Turkey gizzard	1	.....	62.7	37.3	21.7	14.5	.....	1.1	1,015
Hens' eggs in shell	27	.....	72	24.8	13.8	9.1	.....	.7	650
..... { Max	27	.....	75.3	28	16.1	12.5	.....	1.6	795
..... { Avg	27	.....	73.8	26.2	14.9	10.5	.....	.8	720
Preserved meats:									
Corned beef, rump	1	.....	58.1	41.9	13.3	26.6	.....	2	1,370
Corned beef, flank	2	.....	43.2	43.5	12.9	24.9	.....	2.8	1,340
..... { Max	2	.....	56.5	56.8	15.5	41.1	.....	3.1	1,975
..... { Avg	2	.....	49.8	50.2	14.2	33	.....	3	1,655
..... { Min	2	.....	51.9	46.4	24.5	14.1	.....	3.4	1,130
Corned beef, canned	2	.....	53.6	48.1	28.9	20.2	.....	3.4	1,510
..... { Avg	2	.....	52.8	47.2	26.7	17.1	.....	3.4	1,220
..... { Min	2	.....	58	40.8	27.0	4.2	.2	6.3	740
..... { Max	2	.....	59.2	42	29.9	4.6	2.7	7.3	755
..... { Avg	2	.....	58.6	41.4	28.8	4.4	1.4	6.8	745
Tripe, soured	1	.....	84	16	13.9	1.8	.....	.3	335
Salt pork, fat	1	.....	12.1	87.9	.9	82.8	.....	4.2	3,510
Smoked ham	1	.....	41.5	58.5	16.7	39.1	.....	2.7	1,960
Pork sausage	2	.....	37.8	55.5	13.5	40.1	.....	1.9	1,945
..... { Max	2	.....	44.5	62.2	14.1	45.5	.....	2.6	2,180
..... { Avg	2	.....	41.2	58.8	13.8	42.8	.....	2.2	2,065
Bologna sausage	1	.....	62.4	37.6	18.8	15.8	.....	3	1,015
FISH, SHELLFISH, ETC.									
Fresh fish:									
Sturgeon	1	.....	78.7	21.3	18	1.9	.....	1.4	415
Red horse	1	.....	78.6	21.4	17.9	2.3	.....	1.2	430
Herring	1	.....	69	31	18.5	11	.....	1.5	810
Alewife	2	.....	72.7	24.1	18.8	3.8	.....	1.5	510
..... { Max	2	.....	15.9	27	19.5	6	.....	1.5	615
..... { Avg	2	.....	74.4	25.6	19.2	4.9	.....	1.5	565
..... { Min	2	.....	65.3	26.4	17.8	6.5	.....	.9	630
Shad	7	.....	73.6	34.8	20	13.6	.....	1.5	940
..... { Avg	7	.....	70.6	29.4	18.6	9.5	.....	1.3	745
..... { Min	7	.....	78.2	19.8	15.9	1.7	.....	1.4	375
Smelt	2	.....	80.2	21.8	18.8	1.9	.....	2	420
..... { Max	2	.....	79.2	20.8	17.3	1.8	.....	1.7	400
..... { Avg	2	.....	69.8	30.2	22.1	6.5	.....	1.6	685
Whitefish	1	.....	69.8	30.2	22.1	6.5	.....	1.6	685
Ciscoe	1	.....	76.1	23.9	19.1	3.6	.....	1.2	505

TABLE 2.—Composition of food materials, edible portion—Continued.

Food materials.	Num- ber of anal- yses.	Salt.	Water.	Nutrients.					Fuel value of 1 pound.
				Total.	Pro- tein.	Fat.	Carbo- hy- drates	Min- eral mat- ters.	
FISH, SHELLFISH, ETC.—cont'd.									
Fresh fish—Continued.									
			<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Calories</i>
California salmon	{ Min .. 2	.....	62.7	35.5	17	16.5	.....	1	1,030
	{ Max .. 2	.....	64.5	37.3	18	19.3	.....	1.1	1,130
	{ Avg .. 2	.....	63.6	36.4	17.4	17.9	.....	1.1	1,080
Salmon	{ Min .. 5	.....	61	32.9	19.2	12.5	.....	1.2	885
	{ Max .. 5	.....	67.2	39	24.5	15	.....	1.6	1,010
	{ Avg .. 5	.....	63.6	36.4	21.6	13.4	.....	1.4	965
Lake trout	{ Min .. 2	.....	68.8	30.5	17.3	10.2	.....	1.2	785
	{ Max .. 2	.....	69.5	31.2	19.1	12.6	.....	1.4	855
	{ Avg .. 2	.....	69.1	30.9	18.2	11.4	.....	1.3	820
Brook trout	{ Min .. 3	.....	75.8	20.2	18.5	.8	.....	1	380
	{ Max .. 3	.....	79.8	24.2	20	2.9	.....	1.4	495
	{ Avg .. 3	.....	77.7	22.3	19	2.1	.....	1.2	440
Pickarel	{ Min .. 2	.....	79.5	20.2	18.4	.5	.....	1.1	365
	{ Max .. 2	.....	79.8	20.5	18.9	.5	.....	1.2	375
	{ Avg .. 2	.....	79.7	20.3	18.6	.5	.....	1.2	365
Pickarel, pike	..... 1	.....	79.8	20.2	18.6	.6	.....	1	370
Muscalouge	..... 1	.....	76.3	23.7	19.6	2.5	.....	1.6	470
Eel, salt water	{ Min .. 2	.....	69.8	26.6	17.6	7.9	.....	.9	960
	{ Max .. 2	.....	73.4	30.2	19	10.3	.....	1.1	790
	{ Avg .. 2	.....	71.6	28.4	19.3	9.1	.....	1	725
Mullet	..... 1	.....	74.9	25.1	19.3	4.6	.....	1.2	555
Mackerel	{ Min .. 6	.....	64	21.3	17.5	2.2	.....	1	430
	{ Max .. 6	.....	78.7	36	19.3	16.3	.....	1.5	1,025
	{ Avg .. 6	.....	73.4	26.6	18.2	7.1	.....	1.3	640
Spanish mackerel	..... 1	.....	68.1	31.9	20.6	9.8	.....	1.5	790
Pompano	{ Min .. 2	.....	67.4	21.8	18.2	1.6	.....	1	425
	{ Max .. 2	.....	78.2	32.6	19.2	13.5	.....	1	910
	{ Avg .. 2	.....	72.8	27.2	18.6	7.6	.....	1	665
Bluefish	..... 1	.....	78.5	21.5	19	1.2	.....	1.3	405
Butter-fish	..... 1	.....	70	30	17.8	11	.....	1.2	795
Black bass	{ Min .. 2	.....	74.8	21.4	19.2	1	.....	1.2	400
	{ Max .. 2	.....	78.6	25.2	21.5	2.5	.....	1.2	505
	{ Avg .. 2	.....	76.7	23.3	20.4	1.7	.....	1.2	450
Yellow perch	{ Min .. 2	.....	78.1	19.6	17.0	.6	.....	1.1	360
	{ Max .. 2	.....	80.4	21.9	19.5	1.1	.....	1.3	410
	{ Avg .. 2	.....	79.3	20.7	18.7	.8	.....	1.2	380
Wall eyed pike	..... 1	.....	79.7	20.3	18.4	.5	.....	1.4	365
Gray pike	..... 1	.....	80.8	19.2	17.3	.8	.....	1.1	365
Striped bass	{ Min .. 6	.....	75.8	20.3	16.7	1.6	.....	.9	405
	{ Max .. 6	.....	79.7	24.2	18.8	4.0	.....	1.4	525
	{ Avg .. 6	.....	77.7	22.3	18.3	2.8	.....	1.2	460
White perch	{ Min .. 2	.....	75.6	21.2	17.6	2.5	.....	1.1	485
	{ Max .. 2	.....	75.8	24.4	20.4	5.6	.....	1.3	565
	{ Avg .. 2	.....	75.7	24.3	19	4.1	.....	1.2	525
Sea bass	..... 1	.....	79.3	20.7	18.8	.5	.....	1.4	370
Grouper	{ Min .. 2	.....	79	20	18.5	.5	.....	1.1	365
	{ Max .. 2	.....	80	21	19.2	.7	.....	1.1	385
	{ Avg .. 2	.....	79.4	20.6	18.9	.6	.....	1.1	375
Red snapper	{ Min .. 3	.....	77.3	20.2	18.3	.5	.....	1.3	360
	{ Max .. 3	.....	79.8	22.7	19.9	1.9	.....	1.3	440
	{ Avg .. 3	.....	78.5	21.5	19.2	1	.....	1.3	400
Porgy	{ Min .. 3	.....	72	20.3	17.5	1.5	.....	1.4	390
	{ Max .. 3	.....	73.7	28	19.3	7.9	.....	1.4	685
	{ Avg .. 3	.....	75	25	18.5	5.1	.....	1.4	560
Sheepshead	{ Min .. 2	.....	72	20.9	18.9	.7	.....	1.1	380
	{ Max .. 2	.....	79.1	28	20.2	6.7	.....	1.3	660
	{ Avg .. 2	.....	75.6	24.4	19.5	3.7	.....	1.2	520
Red bass	..... 1	.....	81.6	18.4	16.7	.5	.....	1.2	230
Kingfish	..... 1	.....	79.2	20.8	18.7	.9	.....	1.2	385
Weakfish	..... 1	.....	79	21	17.4	2.4	.....	1.2	425
Blackfish	{ Min .. 4	.....	77	18.6	17.4	.6	.....	.7	350
	{ Max .. 4	.....	81	23	19	2.8	.....	1.4	470
	{ Avg .. 4	.....	79.1	20.9	18.5	1.3	.....	1.1	400
Hake	..... 1	.....	81.1	16.9	15.2	.7	.....	1	310
Cusk	..... 1	.....	82	18	16.9	.2	.....	.9	325
Haddock	{ Min .. 4	.....	80.3	17.4	15.9	.1	.....	1	305
	{ Max .. 4	.....	82.6	19.7	18.4	.4	.....	1.6	350
	{ Avg .. 4	.....	81.7	18.3	16.8	.5	.....	1.2	325
Cod	{ Min .. 5	.....	80.7	16.5	15	.3	.....	1	285
	{ Max .. 5	.....	83.5	19.3	17.6	.5	.....	1.3	340
	{ Avg .. 5	.....	82.6	17.4	15.8	.4	.....	1.2	310
Tomcod	..... 1	.....	81.5	18.5	17.1	.4	.....	1	335
Pollock	..... 1	.....	76	24	21.7	.8	.....	1.5	410
Halibut	{ Min .. 3	.....	70.1	20.8	17.5	2.2	.....	.9	420
	{ Max .. 3	.....	79.2	29.9	19.4	10.6	.....	1.2	785
	{ Avg .. 3	.....	75.4	24.6	18.3	5.2	.....	1.1	560

TABLE 2.—Composition of food materials, edible portion—Continued.

Food materials.	Number of analyses.	Salt.	Water.	Nutrients.					Fuel value of 1 pound.
				Total.	Protein.	Fat.	Carbohydrates.	Mineral matters.	
FISH, SHELLFISH, ETC.—cont'd.									
Fresh fish—Continued.									
Turbot	1		<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Calories</i>
	3		71.4	28.6	12.9	14.4		1.3	850
	3		83.4	15	12.9	.4		1.2	275
Flounder	3		85	16.6	14.7	.7		1.3	300
	3		84.2	15.8	13.9	.6		1.3	285
Lamprey eel	1		71.1	28.9	14.9	13.3		.7	840
Skate	1		82.2	17.8	15.3	1.4		1.1	345
Preserved fish:									
Desiccated cod	1	2.9	15.2	81.9	74.6	1.9		5.4	1,470
	2		22.7	53.5	23	21.2	.3		405
Salt cod	2	23.4	53.6	23.8	21.7	.4		1.6	420
	2		23	53.6	23.4	21.4	.4		410
Boned cod	1	21.5	54.3	24.2	22.2	.3		1.7	425
Salt mackerel	1	10.6	42.2	47.2	22.1	22.6		2.5	1,365
Smoked haddock	11	.2	72.5	25.4	23.7	.2		1.5	450
	2		12.9	47.7	35.9	18.2	14.4		995
Smoked halibut	2	13.1	51.1	39.4	23	15.6		2.1	1,035
	2		12.9	49.4	37.7	20.6	15.1		1,020
Canned mackerel	1	1.9	68.2	29.9	19.9	8.7		1.3	735
	3	.4	57.6	33.6	19.2	11.1		1.3	865
Canned salmon	3	2.2	65.9	42	21.3	21.5		1.4	1,265
	3		61.9	37.1	20.1	15.7		1.3	1,035
Canned sardines	1	1	56.4	43.6	25.3	12.7		5.6	1,005
Canned tunny	1		72.7	27.3	21.5	4.1		1.7	575
Canned salt mackerel	2	9.4	43.2	45.2	16.9	21.8		2.5	1,375
	2		11.2	43.6	47.3	17.7	27.9		1,490
	2		10.3	43.4	46.3	17.3	26.3		1,430
Canned smoked haddock	1	5.6	68.7	25.7	21.8	2.3		1.6	505
Shellfish, etc.:									
Oysters in shell	34		81.7	8.6	4.2	.6	1.8	1.2	135
	34		91.4	18.3	8.5	1.7	6.7	2.8	345
	34		87.1	12.9	6.1	1.2	3.6	2	230
Oysters, "solids"	4		85.2	11.6	5.9	1.5	3.2	.8	230
	4		88.4	14.8	6.6	1.8	5.6	1.1	300
	4		87.2	12.8	6.3	1.6	4	.9	260
Canned oysters	3		84.6	14	7	2	4.1	1.3	285
	3		89	15.4	8	2.2	5.2	1.4	310
	3		85.3	14.7	7.4	2.1	3.9	1.3	300
Long clams from shell	4		85	13.9	8.1	1	1.5	2.1	225
	4		86.1	15	9	1.2	2.5	3	255
	4		85.8	14.2	8.6	1	2	2.6	240
Long clams, canned	1		84.5	15.5	9	1.3	2.9	2.3	275
Round clams from shell	1		69.2	13.8	6.5	.4	4.2	2.7	215
Round clams, canned	1		83	17	10.4	.8	3	2.8	285
Scallops	2		77.8	17.2	14.4		1.1	1.3	310
	2		82.8	22.2	15.1	.3	5.7	1.5	365
	2		80.3	19.7	14.7	.2	3.4	1.4	345
Mussels from shell	1		84.2	15.8	8.7	1.1	4.1	1.9	285
	4		79.2	15.7	12.3	1.5		1.6	310
Lobster from shell	4		84.3	20.8	17.8	2.5		1.9	395
	4		81.8	18.2	14.6	1.9		1.7	350
	2		70.2	20.6	17.4	.5		2.2	340
Lobster, canned	2		79.4	23.8	20	1.7		2.8	445
	2		77.7	22.3	18.7	1.1		2.5	395
Crayfish	1		81.2	18.8	17	.5		1.3	335
Crab	1		77.1	22.9	17.8	2		3.1	415
	2		79	19	16.5	.8		1.8	340
Crabs, canned	2		81	21	16.7	2.3		2.1	410
	2		80	20	16.5	1.5		2	370
Shrimp	1		70.8	29.2	25.6	1		2.6	520
Terrapin	1		74.5	25.5	21	3.5		1	540
Green turtle	1		79.8	20.2	18.5	.5		1.2	365
DAIRY PRODUCTS, ETC.									
Milk			87	13	3.6		4.7	.7	325
Butter			10.5	89.5	1	85	.5	3	3,615
Cheese, full cream	5		27	63.2	26	30	.8	3.7	1,815
	5		36.8	73	30.6	38.3	3.5	4.8	2,185
	5		30.2	69.8	28.3	35.5	1.8	4.2	2,070
Cheese, skim-milk	1		41.3	58.7	38.4	6.8	8.9	4.6	1,165
Oleomargarine	11		11	89	.6	85	.4	3	3,695

TABLE 2.—Composition of food materials, edible portion—Continued.

Food materials.	Number of analyses.	Salt.	Water.	Nutrients.					Fuel value of 1 pound.
				Total.	Protein.	Fat.	Carbohydrates.	Mineral matters.	
VEGETABLE FOODS.									
			<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Calories</i>
Potatoes ¹	{ Min .. 12		75.4	17.8	1.1		14.3	.8	315
	{ Max .. 12		82.2	24.6	3		21.2	1.2	445
	{ Avg .. 12		78.9	21.1	2.1	.1	17.9	1	375
Sweet potatoes ¹	{ Min .. 6		66	25.6	.5	.3	18.6	.7	465
	{ Max .. 6		74.4	34	3.6	.6	32.2	1.3	620
	{ Avg .. 6		71.1	28.9	1.5	.4	26	1	530
Red beets ¹	{ Min .. 9		85.5	7.8	1.1	.1	4.5	.7	130
	{ Max .. 9		92.2	14.5	1.8	.3	13	1.6	250
	{ Avg .. 9		88.5	11.5	1.5	.1	8.8	1.1	195
Turnips ¹	{ Min .. 7		87.1	7.6	.8		5	.7	135
	{ Max .. 7		92.4	12.9	1.4	.3	10.5	1.4	225
	{ Avg .. 7		89.4	10.6	1.2	.2	8.2	1	185
Carrots ¹	{ Min .. 8		86.5	8.9	.8		6	.6	155
	{ Max .. 8		91.1	13.5	2	.7	12.7	1.3	235
	{ Avg .. 8		88.6	11.4	1.1	.4	8.9	1	205
Onions ¹	{ Min .. 6		81.5	6.5	.8		4.2	.4	120
	{ Max .. 6		93.5	18.5	2.3	.4	15.5	.7	335
	{ Avg .. 6		87.6	12.4	1.4	.3	10.1	.6	225
Squash, flesh ¹	{ Min .. 3		85.3	10.3	.7		8.1	.5	190
	{ Max .. 3		89.7	14.7	1.1	.3	13.2	.9	265
	{ Avg .. 3		88.1	11.9	.9	.2	10.1	.7	215
Pumpkin, flesh ¹	{ Min .. 2		92.4	5.6	.9		3.9	.6	95
	{ Max .. 2		94.4	7.6	1	.1	5.9	.7	130
	{ Avg .. 2		93.4	6.6	.9	.1	4.9	.7	110
Cucumber ¹	{ Min .. 2		95.7	3.7	.8		2.3	.5	65
	{ Max .. 2		96.3	4.3	.8		2.8	.5	75
	{ Avg .. 2		96	4	.8		2.5	.5	70
Cabbage, entire.....	{ Min .. 2		87.5	6.4	2.1		3.4	.7	110
	{ Max .. 2		93.6	12.5	2.7	.5	7.2	2.1	205
	{ Avg .. 2		90.5	9.5	2.4	.4	5.3	1.4	155
Cabbage, inner leaves ¹	{ Min .. 2		91.9	5.7	1.5		3.4	.6	100
	{ Max .. 2		94.3	8.1	1.5	.2	5.7	.6	140
	{ Avg .. 2		93.1	6.9	1.5	.2	4.6	.6	120
Cauliflower.....	{ Min .. 1		93.8	9.2	1.6	.8	5	.8	155
	{ Max .. 3		91.5	5.4	1.4	.4	2.4	.9	90
	{ Avg .. 3		91.6	8.5	1.8	.6	4.9	1.2	150
Spinach.....	{ Min .. 3		93.1	6.9	1.6	.5	3.7	1.1	120
Rhubarb, stems.....	{ Min .. 1		92.4	7.6	2.1	.5	3.1	1.9	120
	{ Max .. 1		92.7	7.3	.8	1.2	4.4	.9	145
	{ Avg .. 3		93.6	5.8	1.6	.2	3.1	.5	105
Asparagus.....	{ Min .. 3		94.2	6.4	2.1	.3	3.5	1	110
	{ Max .. 3		94	6	1.8	.2	3.3	.7	105
	{ Avg .. 3		95.5	3.7	.7	.3	2.2	.3	75
Tomatoes.....	{ Min .. 6		96.3	4.5	.9	.5	2.8	.4	80
	{ Max .. 6		96	4	.8	.4	2.5	.3	80
	{ Avg .. 6		96	4	.8	.4	2.5	.3	80
Green peas.....	{ Min .. 1		78.1	21.9	4.4	.5	16.1	.9	400
	{ Max .. 2		83.5	9	1.7	.3	6.3	.7	160
	{ Avg .. 2		91	16.5	2.8	.4	12.6	.8	305
String beans.....	{ Min .. 2		87.2	12.8	2.2	.4	9.5	.7	235
	{ Max .. 2		68.5	31.5	7.1	.7	22	1.7	570
	{ Avg .. 2		87.4	12.6	2	.4	9.5	.7	230
Okra.....	{ Min .. 1		81.2	18.8	2.8	1.1	14.2	.7	360
Green sweet corn.....	{ Min .. 1		92.9	7.1	1.2	.3	5.1	.5	130
E. gplant.....	{ Min .. 1		83.9	16.1	.6	.8	14.2	.5	290
Peas.....	{ Min .. 82		77.5	7.3	1.6	.1	6.1	.3	130
	{ Max .. 82		92.7	22.5	6.1	.4	15.1	2	405
	{ Avg .. 82		85.4	14.6	3.6	.2	9.7	1.1	255
Haricots verts, canned.....	{ Min .. 6		94.3	3.9	.9		2	.9	55
	{ Max .. 6		96.1	5.7	1.4	.3	3.1	1.3	95
	{ Avg .. 6		95.1	4.9	1.1	.1	2.6	1.1	70
String beans, canned.....	{ Min .. 18		93.7	3.7	.6		2	.5	60
	{ Max .. 18		96.3	9.3	1.5	.1	5.9	2.3	140
	{ Avg .. 18		94.3	5.7	.9	.1	3.5	1.2	85
Stringless beans, canned.....	{ Min .. 7		92.4	5.6	.1	.1	2.8	.9	65
	{ Max .. 7		94.4	7.6	1.3	.1	4.8	1.8	115
	{ Avg .. 7		93.9	6.1	1.1	.1	3.5	1.4	90
Haricots flageolets, canned.....	{ Min .. 3		80.4	16.1	4		10.8	.9	275
	{ Max .. 3		83.9	19.6	5.2	.1	13.5	1.7	335
	{ Avg .. 3		81.6	18.4	4.6	.1	12.5	1.2	320

¹ These, as ordinarily found in the market, have more or less refuse. The figures for composition for all of them except "cabbage, entire," as for the other vegetable food materials apply to the edible portion. Observations made in connection with studies of dietaries here have led to the use of the following figures as representing the percentages of refuse: Onions, 10 per cent; sweet potatoes, 12.5 per cent; potatoes, 15 per cent; cabbage, 15.5 per cent; turnips, 30 per cent; squash, 50 per cent; apples and grapes, each 25 per cent.

TABLE 2.—Composition of food materials, edible portion—Continued.

Food materials.	Number of analyses.	Salt.	Water.	Nutrients.					Fuel value of 1 pound.
				Total.	Protein.	Fat.	Carbohy-drates.	Mineral mat-ters.	
VEGETABLE FOODS—continued.									
			<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Calories</i>
Oatmeal.....	{ Min.. 6	.....	6.2	91.2	12.9	6.1	67.3	1.8	1,820
	{ Max.. 6	.....	8.8	93.8	16.3	8.8	70.1	2.2	1,875
	{ Avg.. 6	.....	7.8	92.2	14.7	7.1	68.4	2	1,845
Pearl barley.....	{ Min.. 1	.....	11.8	88.2	8.4	.7	78.1	1	1,635
	{ Max.. 4	.....	12.4	86.4	.6	.8	77.9	.6	1,615
	{ Avg.. 4	.....	13.6	87.6	7.1	.9	79.5	.8	1,625
Rye flour.....	{ Min.. 4	.....	13.1	86.9	6.7	.8	78.7	.7	1,625
	{ Max.. 22	.....	8.2	85.7	8.6	.6	71.6	.3	1,625
	{ Avg.. 4	.....	14.3	91.8	13.6	1.8	79.5	.7	1,680
Wheat flour.....	{ Min.. 22	.....	12.5	87.5	11	1.1	74.9	.5	1,645
	{ Max.. 3	.....	12.1	86.3	11.3	1.5	71.6	1.7	1,610
	{ Avg.. 3	.....	13.7	87.9	12.4	1.9	72	2	1,645
Graham flour.....	{ Min.. 3	.....	13.1	86.9	11.7	1.7	71.7	1.8	1,625
	{ Max.. 2	.....	12.9	86.9	13.1	1.9	69.5	1.4	1,615
	{ Avg.. 2	.....	13.1	87.1	14.1	2	70.5	1.4	1,660
Entire wheat flour....	{ Min.. 2	.....	13	87	13.6	2	70	1.4	1,640
	{ Max.. 2	.....	9.8	88.9	11.9	1.5	73.9	1.4	1,660
	{ Avg.. 2	.....	11.1	90.2	12	1.8	75.2	1.4	1,700
Cracked wheat.....	{ Min.. 2	.....	10.4	89.6	11.9	1.7	74.6	1.4	1,680
	{ Max.. 4	.....	12.8	82.4	4.2	.7	71.6	.7	1,560
	{ Avg.. 2	.....	17.6	87.2	8.1	1.8	79.6	1.3	1,640
Buckwheat flour.....	{ Min.. 4	.....	14.6	85.4	6.9	1.4	76.1	1	1,605
	{ Max.. 1	.....	11.2	88.8	3.3	.3	84.8	.4	1,650
Buckwheat farina.....	{ Min.. 1	.....	10.6	89.4	4.8	.6	83.4	.6	1,665
	{ Max.. 5	.....	31.2	66.5	8.6	.6	55.2	.6	1,245
	{ Avg.. 5	.....	33.5	68.8	9.2	2.5	58.5	1.2	1,300
Wheat bread.....	{ Min.. 1	.....	32.3	67.7	8.8	1.7	56.3	.9	1,280
	{ Max.. 1	.....	34.2	65.8	9.5	1.4	53.3	1.6	1,225
	{ Avg.. 1	.....	30	70	8.4	.5	59.7	1.4	1,285
Rye bread.....	{ Min.. 1	.....	8.3	91.7	10.7	9.9	68.7	2.4	1,895
Boston crackers.....	{ Max.. 1	.....	8	92	10.3	9.4	70.5	1.8	1,900
Soda crackers.....	{ Min.. 1	.....	7.9	92.1	12.4	4.4	74.2	1.1	1,795
Pilot (bread) crackers.....	{ Max.. 1	.....	3.9	96.1	11.3	4.8	77.5	2.5	1,855
Oyster crackers.....	{ Min.. 1	.....	4.9	95.1	10.4	13.7	69.6	1.4	2,065
Oatmeal crackers.....	{ Max.. 1	.....	5	95	9.8	13.6	69.7	1.9	2,050
Graham crackers.....	{ Avg.. 2	.....	2	93	.....	.....	97.8	.2	1,820
Starch.....	{ Min.. 2	.....	2	98	.....	.....	97.8	.2	1,820
Sugar, granulated.....	{ Max.. 2	.....	24.6	75.4	.....	.....	73.1	2.3	1,360
Molasses.....	{ Avg.. 1	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 3.—Composition of water-free substance of edible portion of side of beef of medium fatness.

Portion taken for analysis.	Nitrogen.	Protein (N. × 6.25).	Fat.	Ash.	Protein, fat, and ash.	Protein by difference.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
First cut neck.....	7.64	47.75	51.19	2.42	101.36	46.39
Second cut neck.....	9.09	56.83	40.80	3.02	100.65	56.18
Third cut neck.....	8.19	51.19	45.49	2.69	99.37	51.82
First cut chuck ribs.....	5.99	37.44	61.94	2.09	100.87	36.57
Second cut chuck ribs.....	7.46	46.63	48.48	2.29	97.90	48.73
Third cut chuck ribs.....	8.37	52.31	45.90	3.02	101.23	51.08
First cut ribs.....	4.58	28.63	69	1.64	99.27	29.36
Second cut ribs.....	4.63	28.94	69.85	1.67	100.46	28.48
Third cut ribs.....	4.82	30.13	68.86	1.70	100.69	29.44
Brisket.....	4.16	26	70.69	1.54	98.23	27.77
Shoulder clod.....	9.94	62.13	34.55	3.56	100.24	61.89
Cross ribs.....	3.94	24.63	74.13	1.36	100.12	24.51
Shin.....	13.99	87.46	8.78	4.76	101	86.46
Plate.....	4.35	27.19	76.85	1.44	99.48	27.71
Navel.....	4.75	29.69	69.52	1.58	100.79	28.90
Small end sirloin.....	6.72	42	54.80	2.22	99.81	41.95
Hip sirloin.....	6.68	41.76	55.76	2.29	99.81	41.95
Socket.....	6.29	39.32	58.76	2.37	100.45	38.87
Rump.....	4.02	25.13	74.18	1.31	100.62	24.51
First cut round.....	9.20	57.50	35.48	3.17	101.15	57.35
Second cut round.....	10.87	67.94	28.16	4.36	100.46	67.48
Leg.....	11.99	74.94	20.23	4.31	99.58	75.36
Top of sirloin.....	3.80	23.75	75.57	1.31	100.63	23.12
Flank.....	2.75	17.19	82.55	.90	100.64	16.55
Kidney fat.....	.17	1.03	98.88	.20	100.14	.92

TABLE 4.—Composition of flesh (edible portion) of side of beef of medium fatness.

Portion taken for analysis.	Water.	Water-free substance.	Protein by difference.	Fat.	Ash.	Protein (N. × 6.25).	Water, protein, fat, and ash.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
First cut neck	60.64	39.36	18.26	20.15	0.95	18.79	100.53
Second cut neck.....	64.48	35.52	19.96	14.49	1.07	20.18	100.22
Third cut neck.....	61	39	20.21	17.74	1.05	19.96	99.75
Total neck	61.99	38.01	19.25	17.74	1.02		
First cut chuck ribs.....	53.11	46.89	17.15	28.76	.98	17.56	100.41
Second cut chuck ribs.....	58.21	41.79	20.38	20.25	1.16	19.50	99.12
Third cut chuck ribs.....	63.67	36.33	18.57	16.67	1.09	18.95	100.38
Total chuck ribs	58.06	41.94	19.06	21.78	1.10		
First cut ribs	46.21	53.79	15.82	37.09	.88	15.38	99.56
Second cut ribs	48.64	51.36	14.63	35.87	.86	14.86	100.23
Third cut ribs.....	48.48	51.52	15.13	35.48	.88	15.52	100.36
Total ribs	47.82	52.18	15.22	36.08	.88		
Brisket	47.41	52.59	14.58	37.20	.81	13.68	99.10
Shoulder clod	66.61	33.39	20.66	11.54	1.19	20.74	100.08
Cross ribs.....	43.95	56.05	13.73	41.56	.76	13.80	100.07
Shin.....	73.80	26.20	22.66	2.30	1.24	22.90	100.24
Plate	44.35	55.64	15.41	39.43	.80	15.13	99.72
Navel.....	47.59	52.41	15.14	36.44	.83	15.56	100.42
Total fore quarter.....	54.12	45.88	17.27	27.65	.96		
Small end sirloin.....	60.68	39.32	16.92	21.53	.87	16.50	99.58
Hip sirloin.....	58.86	41.14	17.26	22.94	.94	17.18	99.92
Small end and hip sirloin.....	59.88	40.14	17.07	22.17	.90		
Socket	57.12	42.88	16.67	25.19	1.02	16.86	100.19
Rump	40.23	59.77	14.65	44.34	.78	15.02	100.37
First cut round	66.04	33.96	19.48	13.40	1.08	19.53	100.05
Second cut round	69.53	30.47	20.57	8.57	1.33	20.71	100.14
First cut and second cut round.....	66.76	33.24	19.71	12.40	1.13		
Leg	72.15	27.85	20.99	5.66	1.20	20.87	99.88
Top of sirloin.....	42.20	57.80	13.36	43.68	.76	13.75	100.39
Flank.....	27.45	72.55	12.01	59.89	.65	12.47	100.46
Total hind quarter, except kidney fat.....	55.66	44.34	17.11	26.27	.96		
Kidney fat.....	4.30	95.70	.89	94.62	.19	1.02	100.13
Whole side.....	52.43	47.57	16.44	30.20	.93		
Whole side, except kidney fat.....	54.77	45.23	17.20	27.07	.96		

TABLE 5.—Composition of side of beef of medium fatness as received, including both edible portion and refuse.

Portion taken for analysis.	Refuse.	Edible portion.	Edible portion.				
			Water.	Water-free substance.	Nutrients.		
					Protein by difference.	Fat.	Ash.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
First cut neck	18.37	81.63	49.50	32.13	14.90	16.45	0.78
Second cut neck	18.74	81.26	52.40	28.86	16.22	11.77	.87
Third cut neck	22.86	77.14	47.06	30.08	15.59	13.68	.81
Total neck	19.54	80.46	49.88	30.58	15.49	14.27	.82
First cut chuck ribs	19.45	80.55	42.78	37.77	13.82	23.16	.79
Second cut chuck ribs	19.59	80.41	46.81	33.60	16.39	16.28	.93
Third cut chuck ribs	16.31	83.69	53.29	30.40	15.54	13.95	.91
Total chuck ribs	18.80	81.20	47.14	34.06	15.48	17.69	.89
First cut ribs	21.36	78.64	36.34	42.30	12.44	29.17	.69
Second cut ribs	22.70	77.30	37.60	39.70	11.31	27.73	.66
Third cut ribs	20.35	79.65	38.61	41.04	12.07	28.26	.71
Total ribs	21.34	78.66	37.62	41.04	11.97	28.38	.69
Brisket	14.33	85.67	40.62	45.05	12.49	31.87	.69
Shoulder clod	15.62	84.38	56.21	28.17	17.43	9.74	1
Cross ribs	12.17	87.83	38.60	49.23	12.06	36.50	.67
Shin	40.16	59.84	44.16	15.68	13.56	1.38	.74
Plate	17.90	82.10	36.42	45.68	12.65	32.13	.66
Navel	11.41	88.59	42.16	46.43	13.41	32.28	.74
Total fore quarter	18.45	81.55	44.13	37.42	14.09	22.55	.78
Small end sirloin	24.46	75.54	45.84	29.70	12.78	16.26	.66
Hip sirloin	27.32	72.68	42.78	29.90	12.54	16.68	.68
Small end and hip sirloin	25.79	74.21	44.42	29.79	12.67	16.45	.67
Socket	35.79	64.21	36.68	27.53	10.70	16.17	.66
Rump	16.18	83.82	33.72	50.10	12.28	37.17	.65
First cut round	7.74	92.26	60.93	31.33	17.97	12.36	1
Second cut round	32.12	67.88	47.20	20.68	13.96	5.82	.90
First cut and second cut round	14.13	85.87	57.33	28.54	16.92	10.65	.97
Leg	62.22	37.78	27.26	10.52	7.93	2.14	.45
Top of sirloin	3.23	96.77	40.84	55.93	12.93	42.27	.73
Flank	11.47	88.53	24.30	64.23	10.63	53.02	.58
Total hind quarter, except kidney fat	20.23	79.77	44.40	35.37	13.65	20.96	.76
Kidney fat		100	4.39	95.70	.89	94.62	.19
Whole side	18.48	81.52	42.74	38.78	13.40	24.62	.76
Wholeside, except kidney fat	19.21	80.79	44.25	36.54	13.90	21.87	.77

TABLE 6.—Composition of side of beef of medium fatness (weights of ingredients in meat as received).

Portion taken for analysis.	In whole specimen, as taken for analysis.						
	Total weight of cut.	Refuse.	Edible portion.	Edible portion.			
				Water.	Protein by difference.	Fat.	Ash.
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
First cut neck.....	8.09	1.48	6.61	4.01	1.21	1.33	0.06
Second cut neck.....	6.05	1.13	4.92	3.18	.98	.71	.05
Third cut neck.....	4.33	.99	3.34	2.04	.67	.59	.04
Total neck.....	18.47	3.60	14.87	9.23	2.86	2.63	.15
First cut chuck ribs.....	11.75	2.28	9.47	5.03	1.63	2.72	.09
Second cut chuck ribs.....	20.60	4.04	16.56	9.64	3.38	3.35	.19
Third cut chuck ribs.....	8.44	1.54	7.90	5.03	1.47	1.32	.08
Total chuck ribs.....	41.79	7.86	33.93	19.70	6.48	7.39	.36
First cut ribs.....	7.23	1.54	5.69	2.63	.96	2.11	.05
Second cut ribs.....	6.82	1.55	5.27	2.56	.77	1.89	.05
Third cut ribs.....	8.41	1.91	7.50	3.63	1.14	2.66	.07
Total ribs.....	23.46	5	18.46	8.82	2.81	6.66	.17
Brisket.....	13.64	1.96	11.68	5.54	1.76	4.35	.09
Shoulder clod.....	17.15	2.68	14.47	9.64	2.96	1.67	.17
Cross ribs.....	14.76	1.80	12.96	5.69	1.78	5.39	.10
Shin.....	11.11	4.46	6.65	4.91	1.51	.15	.08
Plate.....	15.37	2.75	12.62	5.60	1.94	4.98	.10
Navel.....	10.51	2.23	17.28	8.22	2.62	6.30	.14
Total fore quarter.....	175.26	32.34	142.92	77.35	24.69	39.52	1.36
Small end sirloin.....	13.44	3.29	10.15	6.16	1.72	2.18	.09
Hip sirloin.....	11.74	3.21	8.53	5.02	1.47	1.96	.08
Small end and hip sirloin.....	25.18	6.50	18.68	11.18	3.19	4.14	.17
Socket.....	9.66	3.46	6.20	3.55	1.03	1.56	.06
Rump.....	12.61	2.04	10.57	4.25	1.55	4.69	.08
First cut round.....	37.52	2.90	34.62	22.87	6.74	4.64	.37
Second cut round.....	13.33	4.28	9.05	6.29	1.86	.78	.12
First cut and second cut round.....	50.85	7.18	43.67	29.16	8.60	5.42	.49
Leg.....	8.58	5.24	3.24	2.34	.68	.18	.04
Top of sirloin.....	10.24	.33	9.91	4.18	1.35	4.33	.07
Flank.....	13.18	1.51	11.67	3.21	1.40	6.99	.07
Total hind quarter, except kidney fat.....	130.30	26.36	103.94	57.87	17.75	27.31	.98
Kidney fat.....	12		12	.52	.11	11.35	.02
Whole side.....	317.56	58.70	258.86	135.74	42.58	78.18	2.36
Whole side, except kidney fat.....	305.56	58.70	246.86	135.22	42.47	66.83	2.34

TABLE 7.—Composition of water-free substance of edible portion of side of mutton and side of lamb.

Portion taken for analysis.	Nitrogen.	Protein (N. × 6.25).	Fat.	Ash.	Protein, fat, and ash.	Protein by difference.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Side of mutton:						
Shoulder.....	6.97	43.56	54.09	2.28	99.93	43.63
Breast.....	3.51	21.94	75.60	1.62	99.16	22.78
Neck.....	5.75	35.94	61.76	1.79	99.49	36.45
Rack.....	6.47	40.44	57.50	1.72	99.66	40.78
Leg.....	7.59	47.43	49.69	2.36	99.48	47.95
Loin.....	4.69	29.31	69.01	1.43	99.75	29.56
Flank.....	4.07	25.44	73.48	.75	99.67	25.77
Kidney and kidney fat.....	1.21	7.56	94.20	.50	102.26	5.30
Side of lamb:						
Shoulder.....	6	37.50	61.54	2.12	101.16	36.34
Breast.....	6.96	43.50	53.91	2.31	99.72	43.78
Neck.....	6.53	40.81	57.28	2.27	100.36	40.45
Leg.....	8.95	55.94	43.38	3.04	102.36	53.58
Loin.....	6.89	43.06	55.60	2.34	101	42.06

TABLE 8.—Composition of flesh (edible portion) of side of mutton and of side of lamb.

Portion taken for analysis.	Water.	Water-free substance.	Protein by difference.	Fat.	Ash.	Protein (N. × 6.25).	Water, protein, fat, and ash.
<i>Side of mutton:</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Shoulder	58.56	41.44	18.08	22.41	0.95	18.05	99.97
Breast	37.60	62.40	14.22	47.17	1.01	13.69	99.47
Neck	55.69	44.31	16.16	27.36	.79	15.93	99.77
Rack	54.94	45.06	18.38	25.91	.77	18.22	99.84
Fore quarter	52.22	47.78	16.96	29.88	.94	.....	.....
Leg	61.80	38.20	18.32	18.98	.90	18.12	99.80
Loin	49.27	50.73	14.99	35.01	.73	14.87	99.88
Flank	38.73	61.27	15.78	45.03	.46	15.59	99.81
Hind quarter	54.67	45.33	16.92	27.53	.88	.....	.....
Kidney and kidney fat	18.81	81.19	4.30	76.48	.41	6.14	101.84
<i>Side of lamb:</i>							
Shoulder	51.83	48.17	17.51	29.64	1.02	18.06	100.55
Breast	56.24	43.76	19.16	23.59	1.01	19.04	99.88
Neck	56.60	43.31	17.54	24.81	.96	17.67	100.13
Fore quarter	55.06	44.94	18.12	25.82	1	.....	.....
Leg	64.72	35.28	18.91	15.30	1.07	19.74	100.83
Loin	51.82	48.18	19	25.12	1.06	19.45	100.45
Hind quarter	60.88	39.12	18.96	19.09	1.07	.....	.....
Whole side, except kidney and kidney fat	57.94	42.06	18.53	22.50	1.03	.....	.....

TABLE 9.—Composition of side of mutton and side of lamb as received, including both edible portion and refuse.

Portion taken for analysis.	Refuse.	Edible portion.	Edible portion.				
			Water.	Water-free substance.	Nutrients.		
					Protein by difference.	Fat.	Ash.
<i>Side of mutton:</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Shoulder	16.29	83.71	49.02	34.69	15.14	18.76	0.79
Breast	14.95	85.05	31.98	53.07	12.09	40.12	.86
Neck	27.58	72.42	40.33	32.09	11.70	19.82	.57
Rack	19.28	80.72	44.35	36.37	14.84	20.91	.62
Fore quarter	18.97	81.03	42.31	38.72	13.74	24.22	.76
Leg	18.12	81.88	50.60	31.28	15	15.54	.74
Loin	15.75	84.25	41.51	42.74	12.63	29.50	.61
Flank	2.15	97.85	37.90	59.95	15.44	44.06	.45
Hind quarter	15.65	84.35	46.11	38.24	14.27	23.23	.74
Kidney and kidney fat .....	.....	100	18.81	81.19	4.30	76.48	.41
Whole side, except kidney fat	17.30	82.70	44.23	38.47	14.01	23.71	.75
<i>Side of lamb:</i>							
Shoulder	20.33	79.67	41.29	38.38	13.96	23.61	.81
Breast	19.09	80.91	45.50	35.41	15.50	19.09	.82
Neck	17.67	82.33	46.67	35.66	14.44	20.43	.79
Fore quarter	18.84	81.16	44.69	36.47	14.71	20.95	.81
Leg	17.70	82.30	53.26	29.04	15.56	12.60	.88
Loin	12.18	87.82	48.14	39.68	16.69	22.06	.93
Hind quarter	15.65	84.35	51.35	33	15.99	16.11	.90
Whole side, except kidney fat	17.30	82.70	47.92	34.78	15.32	18.61	.85

TABLE 10.—Composition of side of mutton and side of lamb (weights of ingredients in materials as received).

Portion taken for analysis.	Total weight of cut.	Refuse.	Edible portion.	Edible portion.			
				Water.	Nutrients.		
					Protein by difference.	Fat.	Ash.
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
Side of mutton:							
Shoulder	4.17	0.52	2.65	1.55	0.48	0.59	.03
Breast	1.98	.29	1.69	.63	.24	.80	.02
Neck	1.73	.48	1.25	.69	.29	.35	.01
Rack	2.29	.45	1.84	1.01	.34	.48	.01
Fore quarter	3.17	1.74	7.43	3.88	1.25	2.22	.07
Leg	5.20	.94	4.26	2.62	.79	.81	.04
Loin	3.26	.51	2.75	1.36	.41	.96	.02
Flank .....	.93	.02	.91	.35	.14	.41	.01
Hind quarter	9.39	1.47	7.92	4.33	1.34	2.18	.07
Kidney and kidney fat .....	.39		.39	.07	.02	.30	
Whole side	18.95	3.21	15.74	8.28	2.62	4.70	.14
Whole side, except kidney fat	18.56	3.21	15.35	8.21	2.60	4.40	.14
Side of lamb:							
Shoulder	2.85	.57	2.28	1.18	.40	.68	.02
Breast	3.57	.68	2.89	1.63	.55	.68	.03
Neck	3.03	.53	2.50	1.42	.44	.62	.02
Fore quarter	9.45	1.78	7.67	4.23	1.39	1.98	.07
Leg	5.50	.97	4.53	2.93	.85	.69	.05
Loin	3.32	.41	2.91	1.60	.55	.73	.03
Hind quarter	8.82	1.38	7.44	4.53	1.41	1.42	.08
Whole side, except kidney fat	18.27	3.16	15.11	8.76	2.80	3.40	.15

WORK NOW NEEDED IN ANALYSIS OF FOODS.

In the present condition of our knowledge of the composition of materials used for the food of man and with the results which have accumulated up to the present, investigation is especially needed in two directions: (1) The study of the methods of analysis with a view to their improvement, and (2) analyses of a sufficient number of specimens to give a clear idea of the range in composition and the average proportions of ingredients in the materials in common use in the United States. The study of methods is one of the pressing necessities of physiological chemistry at the present time. So many analyses of food materials have been made by the current methods that it is hardly desirable to devote a very large amount of labor to further analyses except for specific purposes, such as the study of dietaries, i. e., the actual food consumption of people in different places and under different conditions of life, and the study of the food supply of particular places and of the composition of certain classes of food materials of which but few analyses have thus far been made. If the studies of dietaries should be carried out in different parts of the country in the manner and to the extent which now seem to be desirable the analyses involved will bring the larger part of the information that is most needed regarding the composition of our ordinary food materials.

IMPROVEMENT OF METHODS OF ANALYSIS.

Among the things of fundamental importance for furthering the knowledge of the value and proper uses of foods is the improvement of methods of analysis. This necessity will be clearer if we consider