

A

0  
0  
0  
5  
0  
3  
8  
2  
8  
6



SCIENTIFIC AMERICAN BOOKS

# DIETARY COMPUTER



THE LIBRARY  
OF  
THE UNIVERSITY  
OF CALIFORNIA  
LOS ANGELES

DUE on the last date stamped below.

Digitized by the Internet Archive  
in 2007 with funding from  
Microsoft Corporation

**STATE NORMAL SCHOOL,  
LOS ANGELES, CAL.**

00011

STATE NORMAL SCHOOL,  
LEWISBURG, OHIO.

# THE DIETARY COMPUTER.

EXPLANATORY PAMPHLET

THE PAMPHLET CONTAINING  
TABLES OF FOOD COMPOSITION,  
LISTS OF PRICES, WEIGHTS, AND MEASURES,  
SELECTED RECIPES FOR THE SLIPS,  
DIRECTIONS FOR USING THE SAME.

BY

ELLEN H. RICHARDS,

*Instructor in Sanitary Chemistry, Massachusetts Institute of Technology.*

ASSISTED BY

LOUISE HARDING WILLIAMS.

11983

FIRST EDITION.

FIRST THOUSAND.

NEW YORK :  
JOHN WILEY & SONS.  
LONDON : CHAPMAN & HALL, LIMITED.

1902.  
11983  
722x. 1903



Copyright, 1902,  
BY  
ELLEN H. RICHARDS.



TX  
551  
R39d

## THE DIETARY COMPUTER.

11983

THE aim of this little pamphlet is to familiarize settlement workers and progressive housewives with a few fundamental principles used in making out bills of fare according to food values. Not that the cook's art is not also essential, but that it is another matter. It can make savory these valuable food materials, but it cannot make one pound of potato worth as much for nutrition as one pound of rice, or one pound of sugar or of fat to yield the nitrogen which is found in meats and legumes.

To do this estimating there is needed, 1st, a list of the common food substances used, giving the grams and calories in each pound as bought; 2d, the composition by weight of the dishes made from these food materials, which makes possible, 3d, the food value of each dish. For the cost of the bill of fare is needed, 4th, the prices per pound as purchased, and, 5th, the amounts to be served a definite number of persons (*a*) when it is the chief dish, (*b*) when it is one of several.

To boil down two or three hundred cook-books into twenty pages is doubtless to destroy the peculiar lightness and delicacy of aroma and to replace it by a dark thick mass which at first sight may have little attractiveness.

And yet many gallons of light-colored foamy cider are boiled down to make one of the dark thick syrup which the old New England housewife used to such good advantage during the long cold winter in flavoring the otherwise monotonous diet.

It was material at hand, and it served her purpose in the days when one small case held her spices and flavorings.

This little pamphlet is just a makeshift like boiled cider, concentrated essence of something more delicate, to be used with judgment and discretion as a wire fence to guide the learner to better sources.

The final object of food is nutrition, and it will do no harm to call attention to the food value of some of the common dishes as found on our tables without obscuring this value by the fancy garnishings or many handlings so common in the modern recipes.

This is no new cook-book, it is only a bald statement of a few facts to help those who really wish to learn. The dishes are therefore arranged in order of food values, and the combinations are made so as to approximate the standard ration. That the same food value is obtained at varying cost is evident, and it should be a simple matter to choose that set of combinations which will suit the purse.

That these combinations might be almost infinitely extended goes without saying. With the aid of any cook-book which gives quantities the dishes in each section may be increased tenfold or one hundred fold. The great difficulty is to find a recipe to quote. A cupful as used in one book means three and one-half ounces, in another four ounces. A tablespoonful of butter in the majority of cook-books consulted means one ounce, in the cooking-school recipes of modern date it means one-half an ounce. In some books three teaspoonfuls equal one tablespoonful, in others four. In many books we do not know what the measures stand for, hence these recipes have that delightful indefiniteness which is supposed to be characteristic of good cookery.

The list of food values in a pound of the different substances on pages 44 to 49 is taken from Bulletin No. 28, revised edition, Office of Experiment Stations, Department of Agriculture, 1899. These figures are in most cases the result of several analyses of products found in American markets, and while no

one claims that they represent the exact food value of the housewife's purchase, they are approximate and may serve as guide-posts to point out her road to a better understanding of the various foods which she furnishes to her family.

The recipes are not warranted to succeed the first time trying, but at least, if variations are necessary, the cook will know whether she is increasing or decreasing the food value, which is the chief thing. Having once had her measuring dishes and spoons standardized, she can keep them for such uses without weighing each time. Any apothecary can give the weight measured by a given cup or spoon, and the dealers in kitchen utensils will provide standard measures just as soon as they are called for. Those at present in the market, even the tin measuring-cups, are not often made with sufficient care.

It was at first intended to give credit to each cook-book for the recipes quoted, but the necessity of assuming weights, where none were given, in some part of nearly every recipe, deterred the author from incurring the just wrath of the cooks.

The success of a dish depends upon three things: 1st. The tastes and habits of the persons before whom it is set; in other words, flavor, consistency, and seasoning must be adapted to the whims of the eaters. 2d. The care and cleanliness with which the ingredients are prepared and the judgment with which they are put together and cooked. 3d. The attractiveness with which the cooked food is served; this includes temperature, quantity, color, form, and arrangement.

"Home cooking" means the peculiar combinations which suit the particular group catered for.

"Proteid" means that which furnishes new material to take the place of that used up in the wear and tear of the active parts of the organism, as well as that which is essential to the building of new tissue. Hence the growing child needs more in proportion to its body weight than an adult. "Fat" and "carbohydrate" (starch, sugar, etc.) contain no nitrogen and therefore cannot take the place of proteid, but

they may to a certain extent replace each other, especially in adult life.

DIETARY ESTIMATES, BASED ON FOOD AS PURCHASED.

| Per Day.                  | Proteid. | Fat.   | Carbo-<br>hydrates. | Calories. |
|---------------------------|----------|--------|---------------------|-----------|
|                           | Grams.   | Grams. | Grams.              |           |
| Man at hard labor.....    | 150      | 150    | 500                 | 4060      |
| Man at light labor.....   | 125      | 125    | 400                 | 3310      |
| Woman at light labor..... | 100      | 100    | 320                 | 2650      |
| Child of nine years.....  | 78       | 45     | 280                 | 1890      |

Americans take far more fat in proportion to carbohydrate than any other nation. They are more active. Whether their activity follows from the use of fat is not known, only suspected. Grease-traps must be made to yield their secrets before this can be determined.

Calorie is a unit measure of heat used to denote the energy-giving power of food.

Table II is a list of the total food values and estimated cost of the recipes given in Table V, arranged in order of food value.

Table III gives the same list arranged in order of cost per 1,000 calories.

Table IV gives the same list arranged in order of cost per 100 grams of nitrogenous substance.

In order to plan a dietary of a given composition at a given cost it is necessary to know :

1st. The approximate composition of the food-materials to be used (Table VII). These data vary as our knowledge increases, and can never be more than approximations within somewhat wide limits.

2d. The amount of food materials entering into the composition of each dish. Table V (Recipes). *Only in case this is known* can the food values be computed for Table II. In order to know this it is necessary to have :

3d. Definitions and equivalents of weights and measures.

Those used in this compilation are given in Table VI. At present pounds and ounces are kept ; it is hoped that in a few years all recipes may be given in grams.

4th. The cost per pound is to be filled in, in the blank columns of Table VII, by the user.

It is not always necessary or wise to so plan the food that on each day of the week an exact proportion of the various constituents be maintained, but each week's total should be nearly the theoretical amount. It must be understood, however, that as yet we know too little of the effect on digestibility, of cooking, and of the combination of two or more foods in one dish, or at one meal, to permit of very close calculation.

Individual bodily condition also affects food utilization to an unknown extent, so that no one can rely on mathematical calculations of food quantities without at the same time taking careful record of bodily weight and efficiency.

Various other facts are needed before reliable estimates can be made ; such as wastes in preparation, losses in cooking, in serving, and in the portions taken away with the plates.

In an appendix will be found a table of interchangeable weights and measures.

TABLE I.  
CONSTANTS.

| Name of Dish.  | No. of Recipe. | Cost, Cents. | Proteid. | Fat.   | Carbo- hydrate | Calories |
|--|----------------|--------------|----------|--------|----------------|----------|
|  |                |              | Grams.   | Grams. | Grams.         |          |
| Coffee, milk, and sugar.....                         | <i>a</i>       | 3.9          | 6        | 7      | 65             | 353      |
| “ cream, and sugar....                               | <i>b</i>       | 7.7          | 2        | 11     | 60             | 360      |
| Tea, cream, and sugar.....                           | <i>c</i>       | 6.7          | 2        | 6      | 59             | 317      |
| Cereal, milk, and sugar.....                         | <i>d</i>       | 7.4          | 26       | 16     | 196            | 1060     |
| Cereal and cream.....                                | <i>e</i>       | 16           | 24       | 53     | 131            | 1130     |
| Bread and butter, No. 1....                          | <i>f</i>       | 2.5          | 10       | 25     | 60             | 522      |
| “ “ “ No. 2....                                      | <i>g</i>       | 7.5          | 32       | 75     | 179            | 1566     |
| Day's supply of bread and butter, milk and sugar.... | <i>h</i>       | 21           | 79       | 144    | 721            | 4620     |
| Oranges, 6 large, 3 lbs.....                         | <i>i</i>       | 10           | 8        | 1      | 115            | 510      |
| Bananas, 2 lbs.....                                  | <i>j</i>       | 5            | 7        | 3      | 129            | 600      |
| Strawberries, 1½ lbs.; sugar, 4 oz.....              | <i>k</i>       | 30.7         | 6        | 4      | 161            | 726      |
| Prunes (dry, 6 oz.); sugar, 2 oz.....                | <i>l</i>       | 4.8          | 3        | .....  | 158            | 662      |
| Dried apple, ¼ lb.; sugar, 4 oz.                     | <i>m</i>       | 4.2          | 2        | 4      | 161            | 702      |
| Fresh apples, 2 lbs.; sugar, 7 oz.....               | <i>n</i>       | 8.4          | 4        | 3      | 315            | 1339     |
| Peanuts, 1 lb., shelled.....                         | <i>o</i>       | 6            | 113      | 172    | 108            | 2560     |

85  
6510  
48  
2011  
2012  
2013

TABLE I: CONSTANTS.

CONSTANTS.

| Name of Dish.  |       | Ounces.  | Cost. | Proteid. | Fat.   | Carbo-<br>hydrate | Calories |
|--|-------|----------|-------|----------|--------|-------------------|----------|
|  |       |          |       | Grams.   | Grams. | Grams.            |          |
| Coffee .....   | } a { | 1        | 2     |          |        |                   |          |
| Milk .....   |       | 6        | 1.2   | 5.6      | 6.8    | 8.5               | 121      |
| Sugar .....  |       | 2        | .7    | .....    | .....  | 56.7              | 232      |
|  |       |          | 3.9   | 5.6      | 6.8    | 65.2              | 353      |
| Coffee .....   | } b { | 1        | 2     |          |        |                   |          |
| Cream .....  |       | 3        | 5     | 2.6      | 11     | 3                 | 128      |
| Sugar .....  |       | 2        | .7    | .....    | .....  | 56.7              | 232      |
|  |       |          | 7.7   | 2.6      | 11     | 59.7              | 360      |
| Tea .....  | } c { | 0.5      | 2     |          |        |                   |          |
| Cream .....  |       | 2        | 4     | 1.6      | 6.6    | 2                 | 85       |
| Sugar .....  |       | 2        | .7    | .....    | .....  | 56.7              | 232      |
|  |       |          | 6.7   | 1.6      | 6.6    | 58.7              | 317      |
| Cereal .....   | } d { | 6        | 5     | 19       | 7.5    | 127.5             | 668      |
| Milk .....   |       | 8        | 1.7   | 7.5      | 9      | 11.3              | 161      |
| Sugar .....  |       | 2        | .7    | .....    | .....  | 56.7              | 232      |
|  |       |          | 7.4   | 26.5     | 16.5   | 195.5             | 1061     |
| Cereal .....   | } e { | 6        | 5     | 19       | 7.5    | 127.5             | 668      |
| Cream (thick).....                                     |       | 6        | 11    | 4.5      | 45.7   | 4.5               | 462      |
|  |       |          |       | 16       | 23.5   | 53.2              | 132      |
| Bread } No. 1.....                                     | } f { | 4.       | 1     | 10.8     | 1.3    | 59.7              | 301      |
| Butter }   |       | 1        | 1.5   | .....    | 23.7   | .....             | 221      |
|  |       |          |       | 2.5      | 34.3   | 25                | 59.7     |
| Bread } No. 2.....                                     | } g { | 12       | 3     | 32.4     | 4      | 179               | 903      |
| Butter }   |       | 3        | 4.5   | .....    | 71.1   | .....             | 663      |
|  |       |          |       | 7.5      | 32.4   | 75.1              | 179      |
| Day's supply of bread,<br>butter, milk, and<br>sugar : | } h { |          |       |          |        |                   |          |
| Bread .....  |       | 11b.8oz. | 6     | 64       | 8      | 358               | 1806     |
| Butter.....  |       | 5 oz.    | 7.5   | .....    | 118.5  | .....             | 1185     |
| Milk.....  |       | 1 lb.    | 3.5   | 15       | 18     | 22.7              | 323      |
| Sugar.....   |       | 12 oz.   | 4     | .....    | .....  | 340.2             | 1392     |
|  |       |          | 21    | 79       | 144.5  | 720.9             | 4626     |

5  
11-2-23

TABLE II.

DISHES CONTAINING MEAT—IN ORDER OF FOOD VALUE  
EXPRESSED IN CALORIES.

| Name of Dish.  | No. of<br>Recipe. | Cost,<br>Cents. | Proteid. | Fat.   | Carbo-<br>hydrate | Calories |
|--|-------------------|-----------------|----------|--------|-------------------|----------|
|  |                   |                 | Grams.   | Grams. | Grams.            |          |
| Scrapple (Philadelphia).....                         | 1                 | 15              | 100      | 554    | 340               | 6925     |
| Irish stew and dumplings ...                         | 2                 | 34.5            | 190      | 427    | 510               | 6805     |
| Veal croquettes.....                                 | 3                 | 47.5            | 360      | 353.6  | 346               | 6164     |
| Salt pork in butter.....                             | 4                 | 16              | 171      | 620    | 35                | 5975     |
| Baked beans and brown bread                          | 5                 | 19.8            | 152      | 191    | 803               | 5675     |
| Beefsteak pot-pie, suet crust.                       | 6                 | 40              | 237      | 260    | 561               | 5354     |
| Lamb chops, baked potatoes,<br>bread and butter..... | 7                 | 69              | 190      | 372    | 258               | 5284     |
| "Boiled dinner".....                                 | 8                 | 48              | 272      | 280    | 366               | 5187     |
| Bonnar stew, baking-powder<br>biscuit.....           | 9                 | 47.8            | 275      | 141    | 664               | 5160     |
| Roast heart, stuffed with veg-<br>etables.....       | 11                | 28.5            | 279      | 272    | 310               | 4900     |
| Beefsteak, top of sirloin, 2 lbs.                    | 12                | 56              | 121      | 384    | .....             | 4060     |
| Meat and bean stew.....                              | 13                | 55              | 314      | 180    | 234               | 3955     |
| Mutton roast, 3 lbs.....                             | 14                | 42              | 162      | 350    | .....             | 3920     |
| Rump steak, stuffed and rolled                       | 15                | 52              | 273      | 126    | 311               | 3915     |
| Brown curry stew, with rice..                        | 16                | 49              | 281      | 175    | 222               | 3715     |
| Beef, rib roast, 3 lbs.....                          | 17                | 75              | 189      | 288    | .....             | 3465     |
| Beefsteak, baked potatoes,<br>bread and butter.....  | 18                | 61.5            | 210      | 166    | 223               | 3407     |
| Veal, stuffed and roasted....                        | 19                | 41              | 276      | 196    | 127               | 3262     |
| Shepherd's pie, potato crust..                       | 20                | 38.4            | 283      | 162    | 114               | 3146     |
| Braised beef, No. 1.....                             | 21                | 56.1            | 263      | 202    | 26                | 3097     |
| Beef-shank stew.....                                 | 25                | 28.4            | 323      | 102    | 244               | 2770     |
| Marrow dumplings for soups.                          | 26                | 12.5            | 41       | 232    | 90                | 2727     |
| Liver, 2 lbs.; bacon, 8 oz....                       | 27                | 15.0            | 218      | 186    | .....             | 2690     |
| Mock duck.....                                       | 28                | 43.0            | 175      | 154    | 63                | 2425     |
| Corned-beef hash.....                                | 29                | 14.5            | 81       | 161    | 133               | 2375     |
| Corned beef and cream on<br>toast.....               | 30                | 19.5            | 89       | 158    | 121               | 2343     |
| "Tenderloin cutlet".....                             | 31                | 26.0            | 171      | 168    | .....             | 2264     |
|  | 32                |                 |          |        |                   |          |
| Pork chops.....                                      | 33                | 20.0            | 95       | 188    | 19                | 2217     |
| Turkish pilau.....                                   | 34                | 27.0            | 208      | 57     | 196               | 2187     |
| Fricassee of veal.....                               | 35                | 27.0            | 182      | 122    | 44                | 2071     |
| Tripe fried in butter.....                           | 36                | 18.0            | 119      | 134    | 66                | 2013     |
| Beef roll.....                                       | 37                | 22.0            | 123      | 135    | 48                | 1966     |
| Stewed kidneys on toast....                          | 38                | 17.0            | 169      | 93     | 140               | 1923     |
| Stewed sheep's hearts.....                           | 39                | 15.0            | 151      | 114    | 20                | 1877     |
| Broiled chicken, 4 lbs.....                          | 40                | 104.0           | 268      | 67     | .....             | 1742     |
| Creamed dried beef.....                              | 41                | 13              | 94       | 97     | 27                | 1404     |
| Ham omelet.....                                      | 42                | 21              | 87       | 75     | 4                 | 1182     |



TABLE II: FOOD VALUES EXPRESSED IN CALORIES.

## FISH DISHES AND SOUPS.

| Name of Dish.                            | No. of Recipe. | Cost, Cents. | Proteid. | Fat.   | Carbo-hydrate | Calories |
|--|----------------|--------------|----------|--------|---------------|----------|
|  |                |              | Grams.   | Grams. | Grams.        |          |
| Clam chowder.....                        | 50             | 23.6         | 67       | 177    | 187           | 2707     |
| Fish chowder.....                        | 51             | 29.8         | 166      | 87     | 215           | 2359     |
| Split-pea soup.....                      | 52             | 6.6          | 62       | 91     | 165           | 1786     |
| Potato soup.....                         | 53             | 14.5         | 26       | 32     | 171           | 1729     |
| Boiled salmon, with peas, egg sauce..... | 54             | 46.6         | 94       | 119    | 52            | 1724     |
| Smoked herring on toast....              | 55             | 14           | 114      | 54     | 119           | 1480     |
| Cream of green-pea soup....              | 56             | 23.7         | 47       | 71     | 109           | 1323     |
| Tomato soup.....                         | 57             | 11           | 25       | 88     | 79            | 1103     |
| Consommé.....                            | 58             | 15.5         | 28       | 1      | 3             | 136      |

## CHEESE DISHES AND EGG DISHES.

|                             |    |      |    |     |     |      |
|-----------------------------|----|------|----|-----|-----|------|
| Baked rice and cheese.....  | 60 | 13   | 79 | 87  | 242 | 2129 |
| English monkey on toast.... | 61 | 13.1 | 79 | 67  | 269 | 2059 |
| Baked macaroni and cheese.. | 62 | 16   | 66 | 101 | 176 | 1850 |
| Cheese pudding.....         | 63 | 13   | 80 | 93  | 127 | 1636 |
| Dropped egg on toast.....   | 64 | 17.5 | 67 | 83  | 127 | 1567 |
| Baked custard.....          | 65 | 15.5 | 59 | 57  | 126 | 1304 |
| Swiss sandwiches.....       | 66 | 9.2  | 33 | 52  | 127 | 1011 |
| Baked crackers and cheese.. | 67 | 6.5  | 31 | 56  | 87  | 1009 |
| Cheese omelette.....        | 68 | 12   | 69 | 71  | 11  | 999  |

## BREADS AND MISCELLANEOUS DISHES.

|  |    |      |    |     |     |      |
|--|----|------|----|-----|-----|------|
| Rice griddle-cakes, with molasses.....               | 70 | 10.6 | 87 | 52  | 528 | 2994 |
| Corn bread.....                                      | 71 | 10.7 | 80 | 64  | 468 | 2850 |
| Brown bread.....                                     | 72 | 11.2 | 83 | 24  | 515 | 2685 |
| Baking-powder biscuit.....                           | 73 | 9.8  | 75 | 55  | 442 | 2638 |
| Old New England corn bread                           | 74 | 4.4  | 37 | 119 | 314 | 2535 |
| White bread, 2 lbs., home-made.....                  | 75 | 5    | 86 | 11  | 478 | 2400 |
| Molasses cookies, $\frac{1}{2}$ recipe..             | 76 | 7.3  | 41 | 55  | 347 | 2092 |
| Corn mush, with maple syrup                          | 77 | 6.2  | 25 | 63  | 294 | 1893 |
| Doughnuts, $\frac{1}{3}$ recipe.....                 | 78 | 4.3  | 35 | 32  | 321 | 1760 |
| Maryland biscuit.....                                | 79 | 4    | 36 | 74  | 222 | 1710 |
| Cracker toast.....                                   | 80 | 7    | 37 | 53  | 209 | 1485 |
| Graham muffins.....                                  | 81 | 4.3  | 45 | 17  | 264 | 1471 |
| Pie-crust for one pie.....                           | 82 | 3.6  | 13 | 114 | 84  | 1666 |
| Rice croquettes.....                                 | 83 | 11.7 | 42 | 52  | 192 | 1352 |
| Potato chips, $\frac{1}{2}$ lb.....                  | 84 | 2.5  | 17 | 80  | 115 | 1290 |
| Mayonnaise for salads.....                           | 85 | 13   | 9  | 129 | 3   | 1250 |
| Potato cakes.....                                    | 86 | 7    | 36 | 16  | 125 | 1217 |
| Lima beans, fresh, 2 lbs....                         | 87 | 10   | 64 | 6   | 200 | 1140 |
| Candied sweet potatoes.....                          | 88 | 6    | 8  | 50  | 160 | 1132 |
| Bread dice, $\frac{1}{2}$ lb., fried; 2 oz. fat..... | 89 | 3.5  | 22 | 59  | 120 | 1130 |

## BREADS AND MISCELLANEOUS DISHES.

| Name of Dish.                                  | No. of Recipe. | Cost, Cents. | Proteid. | Fat.   | Carbo-hydrate | Calories |
|--|----------------|--------------|----------|--------|---------------|----------|
|  |                |              | Grams.   | Grams. | Grams.        |          |
| French dressing for salads;<br>4. oz. oil..... | 90             | 8            | .....    | 113    | .....         | 1050     |
| Escalloped tomatoes.....                       | 91             | 8.2          | 22       | 30     | 108           | 776      |
| Fresh green peas, 3 lbs.....                   | 92             | 12           | 30       | 4      | 109           | 765      |
| Mashed potato.....                             | 93             | 5            | 16       | 29     | 107           | 749      |
| Lyonnaise potatoes.....                        | 94             | 2.2          | 8        | 29     | 70            | 595      |
| Potato salad.....                              | 95             | 5            | 13       | 19     | 82            | 563      |
| Beets, 2 lbs.....                              | 96             | 4            | 12       | 9      | 70            | 340      |
| Cabbage, 2 lbs.....                            | 97             | 3            | 16       | 2      | 44            | 250      |

## PUDDINGS AND DESSERTS.

|  |     |      |    |     |     |      |
|--|-----|------|----|-----|-----|------|
| Date pudding.....                          | 100 | 12   | 62 | 165 | 810 | 5109 |
| Blueberry pudding, with hard<br>sauce..... | 101 | 20   | 38 | 152 | 780 | 4759 |
| Suet pudding, with clear sauce             | 102 | 9.6  | 63 | 187 | 651 | 4750 |
| Fig pudding, with vinegar<br>sauce.....    | 103 | 20.7 | 49 | 107 | 433 | 3935 |
| Mince pie, 9-inch, home-made               | 104 | 17   | 55 | 182 | 479 | 3882 |
| Short-cake, filled.....                    | 105 | 22   | 82 | 95  | 574 | 3595 |
| Plum pudding, No. 1.....                   | 106 | 11   | 82 | 18  | 728 | 3488 |
| Jam rolls.....                             | 107 | 13.7 | 87 | 17  | 697 | 3357 |
| Brown-betty, hard sauce....                | 108 | 21.4 | 49 | 150 | 662 | 3285 |
| Bread-and-butter.....                      | 109 | 14   | 77 | 56  | 499 | 3198 |
| Apple pie, 9-inch.....                     | 110 | 13   | 17 | 165 | 344 | 3031 |
| Chester-pudding.....                       | 111 | 13   | 50 | 103 | 439 | 2723 |
| Apple tarts.....                           | 112 | 8    | 54 | 7   | 558 | 2580 |
| Plum pudding, No. 2.....                   | 113 | 21   | 58 | 104 | 306 | 2470 |
| Indian-pudding, $\frac{1}{2}$ recipe....   | 114 | 17   | 65 | 55  | 410 | 2446 |
| Tapioca pudding, No. 1....                 | 115 | 13   | 34 | 60  | 434 | 2439 |
| Rice pudding, No. 1.....                   | 116 | 15.2 | 54 | 60  | 401 | 2427 |
| Ice-cream, home-made.....                  | 117 | 29.4 | 35 | 153 | 203 | 2400 |
| Sponge-cake, 1 lb.....                     | 118 | 20   | 29 | 43  | 318 | 1830 |
| Indian-pudding without eggs                | 119 | 10.2 | 42 | 48  | 281 | 1822 |
| Tapioca pudding, No. 2....                 | 120 | 11.6 | 11 | 41  | 102 | 1268 |
| Creamy rice pudding.....                   | 121 | 7.8  | 28 | 2   | 231 | 1082 |
| Corn-starch pudding.....                   | 122 | 5.5  | 15 | 18  | 191 | 1020 |

## SAUCES.

|                             |     |     |       |       |     |     |
|-----------------------------|-----|-----|-------|-------|-----|-----|
| Hard sauce.....             | 125 | 5.7 | ..... | 35    | 113 | 795 |
| Vinegar or lemon sauce..... | 126 | 2.8 | 2     | 23    | 123 | 736 |
| Maple syrup, 8 oz.....      | 127 | 6   | ..... | ..... | 158 | 653 |
| Clear sauce.....            | 128 | 1.2 | ..... | ..... | 108 | 441 |
| Fruit sauce.....            | 129 | 5   | 13    | ..... | 80  | 381 |
| Molasses, dark, 4 oz.....   | 130 | .8  | ..... | ..... | 80  | 328 |

TABLE III.

## DISHES CONTAINING MEAT ARRANGED IN ORDER OF COST OF 1,000 CALORIES, BEGINNING WITH THE LOWEST.

FOR ONE PERSON 3,000 CALORIES PER DAY IS THE USUAL ALLOWANCE.

| No. of Recipe. | Name of Dish.                               | Cost of 100 Grms. Nitrogenous Substance. | Cost of 1,000 Cal-ories. |
|----------------|---|--|--------------------------|
|                |   | Cents.                                   | Cents.                   |
| 1              | Scrapple.....                               | 15                                       | 2.16                     |
| 4              | Salt pork in batter.....                    | 9.3                                      | 2.68                     |
| 5              | Baked beans and brown bread.....            | 13                                       | 3.5                      |
| 26             | Marrow dumplings for soup.....              | 1.13                                     | 4.5                      |
| 2              | Irish stew and dumplings.....               | 18                                       | 5.07                     |
| 27             | Liver and bacon.....                        | 6.8                                      | 5.5                      |
| 11             | Roast heart, stuffed.....                   | 7.5                                      | 5.8                      |
| 29             | Corned beef hash.....                       | 17.9                                     | 6.1                      |
| 6              | Beefsteak pot-pie.....                      | 17                                       | 7.46                     |
| 3              | Veal croquettes.....                        | 13.2                                     | 7.7                      |
| 30             | Corned beef and cream on toast.....         | 21.9                                     | 8.3                      |
| 39             | Stewed sheep's hearts.....                  | 10                                       | 8                        |
| 35             | Stewed kidney on toast.....                 | 10                                       | 8.8                      |
| 41             | Creamed dried beef.....                     | 13.8                                     | 9                        |
| 36             | Tripe fried in batter.....                  | 15.1                                     | 9                        |
| 33             | Pork chops.....                             | 21                                       | 9                        |
| 8              | Boiled dinner.....                          | 17.6                                     | 9.2                      |
| 7              | Lamb chops, etc.....                        | 30.6                                     | 9.26                     |
| 25             | Beef-shank stew.....                        | 8.8                                      | 10.3                     |
| 14             | Roast mutton.....                           | 25.9                                     | 10.8                     |
| 37             | Beef roll.....                              | 18                                       | 11.2                     |
| 31             | Tenderloin cutlet.....                      | 15.2                                     | 11.5                     |
| 20             | Shepherd's pie.....                         | 13.6                                     | 12.2                     |
| 34             | Turkish pilau.....                          | 13                                       | 12.4                     |
| 19             | Veal, roast, stuffed.....                   | 14.9                                     | 12.6                     |
| 16             | Brown curry stew, with rice.....            | 16.8                                     | 12.6                     |
| 35             | Fricassee of veal.....                      | 14.8                                     | 13                       |
| 9              | Bonnar stew.....                            | 17.3                                     | 13.1                     |
| 15             | Rump steak, stuffed.....                    | 19                                       | 13.3                     |
| 12             | Beef, roast, top of sirloin.....            | 46.5                                     | 13.8                     |
| 13             | Meat and bean stew.....                     | 17.5                                     | 14.1                     |
| 28             | Mock duck.....                              | 24.5                                     | 17.7                     |
| 42             | Ham omelette.....                           | 24.1                                     | 18                       |
| 18             | Beafsteak, bread, butter, and potatoes..... | 29.3                                     | 18                       |
| 21             | Braised beef, No. 1.....                    | 21.3                                     | 18.1                     |
| 17             | Beef rib, roast.....                        | 40                                       | 21.7                     |
| 22             | Braised beef, No. 2.....                    | 28                                       | 23.5                     |
| 41             | Broiled chicken.....                        | 38.8                                     | 60                       |

## FISH DISHES AND SOUPS.

| No. of Recipe. | Name of Dish.                      | Cost of 100 Grms. Nitrogenous Substance. | Cost of 1,000 Calories. |
|----------------|------------------------------------|--|-------------------------|
|                |                                    | Cents.                                   | Cents.                  |
| 52             | Split-pea soup.....                | 10.6                                     | 3.7                     |
| 53             | Potato soup.....                   | 55.8                                     | 8.3                     |
| 50             | Clam chowder.....                  | 35                                       | 8.7                     |
| 55             | Smoked herring on toast.....       | 12.2                                     | 9.4                     |
| 57             | Tomato soup.....                   | 44                                       | 9.7                     |
| 51             | Fish chowder.....                  | 18                                       | 12.6                    |
| 56             | Cream of green-pea soup.....       | 50.4                                     | 17.9                    |
| 54             | Boiled salmon, with egg sauce..... | 43.2                                     | 23.5                    |
| 58             | Consommé.....                      | 55.4                                     | 114                     |

## CHEESE DISHES AND EGG DISHES.

|    |                                |      |      |
|----|--------------------------------|------|------|
| 60 | Baked rice and cheese.....     | 16.4 | 6.1  |
| 61 | English-monkey on toast.....   | 16.6 | 6.3  |
| 67 | Baked crackers and cheese..... | 21   | 6.4  |
| 63 | Cheese pudding.....            | 16.2 | 7.9  |
| 66 | Swiss sandwiches.....          | 28   | 8.1  |
| 62 | Baked macaroni and cheese..... | 24.2 | 8.2  |
| 64 | Dropped eggs on toast.....     | 26.1 | 11.1 |
| 65 | Baked custard.....             | 26.2 | 11.8 |
| 68 | Cheese omelet.....             | 17.4 | 12   |

## BREADS AND MISCELLANEOUS DISHES.

|    |                                      |       |     |
|----|--------------------------------------|-------|-----|
| 74 | Old New England corn bread.....      | 12    | 1.7 |
| 84 | Potato chips, $\frac{1}{2}$ lb.....  | 14.7  | 1.9 |
| 75 | White bread, 2 lbs., home made.....  | 5.8   | 2.1 |
| 82 | Pie-crust for one pie.....           | 27.7  | 2.2 |
| 79 | Maryland biscuit.....                | 11.1  | 2.3 |
| 78 | Doughnuts, $\frac{1}{2}$ recipe..... | 12.3  | 2.4 |
| 81 | Graham muffins.....                  | 9.5   | 2.9 |
| 89 | Bread dice, fried.....               | 16.0  | 3.1 |
| 77 | Corn mush, maple syrup.....          | 24.8  | 3.3 |
| 70 | Rice griddle cakes.....              | 12.2  | 3.5 |
| 76 | Molasses cookies.....                | 17.8  | 3.5 |
| 73 | Baking-powder biscuit.....           | 13.0  | 3.7 |
| 94 | Lyonnais potatoes.....               | 27.5  | 3.7 |
| 72 | Corn bread.....                      | 14.7  | 3.9 |
| 71 | Brown bread.....                     | 13.4  | 4.0 |
| 80 | Cracker toast.....                   | 19.0  | 4.7 |
| 88 | Candied sweet potatoes.....          | 75.0  | 5.3 |
| 86 | Potato cakes.....                    | 20.0  | 5.7 |
| 93 | Mashed potato.....                   | 31.2  | 6.6 |
| 90 | French dressing.....                 | ..... | 7.6 |

## BREAD AND MISCELLANEOUS DISHES.

| No. of Recipe. | Name of Dish.              | Cost of 100 Grms. Nitrogenous Substance. | Cost of 1,000 Calories. |
|----------------|----------------------------|--|-------------------------|
|                |                            | Cents.                                   | Cents                   |
| 83             | Rice croquettes.....       | 28.0                                     | 8.6                     |
| 87             | Lima beans, fresh.....     | 15.5                                     | 8.8                     |
| 95             | Potato salad.....          | 38.5                                     | 9.0                     |
| 85             | Mayonnaise for salads..... | 144.4                                    | 10.4                    |
| 91             | Escalloped tomatoes.....   | 37.3                                     | 10.6                    |
| 96             | Beets, 2 lbs.....          | 33.3                                     | 11.8                    |
| 97             | Cabbage, 2 lbs.....        | 18.7                                     | 12.0                    |
| 92             | French green peas.....     | 40.0                                     | 15.8                    |

## PUDDINGS AND DESSERTS.

|     |                                     |      |      |
|-----|-------------------------------------|------|------|
| 102 | Suet pudding, with clear sauce..... | 15.2 | 2    |
| 100 | Date pudding.....                   | 19.3 | 2.3  |
| 106 | Plum pudding, No. 1.....            | 13.4 | 3.1  |
| 112 | Apple tarts.....                    | 14.8 | 3.1  |
| 101 | Blueberry pudding and sauce.....    | 52.7 | 4.2  |
| 110 | Apple pie.....                      | 76.5 | 4.2  |
| 109 | Bread-and-butter pudding.....       | 18.2 | 4.3  |
| 104 | Mince pie.....                      | 30.9 | 4.3  |
| 107 | Jam rolls.....                      | 15.8 | 4.8  |
| 111 | Chester pudding.....                | 26   | 4.8  |
| 115 | Tapioca pudding.....                | 38.2 | 5.3  |
| 103 | Fig pudding and sauce.....          | 42.2 | 5.3  |
| 122 | Cornstarch pudding.....             | 36.6 | 5.4  |
| 119 | Indian-pudding, without eggs.....   | 24.3 | 5.6  |
| 105 | Short-cake, filled.....             | 26.8 | 6.1  |
| 116 | Rice pudding.....                   | 28.1 | 6.2  |
| 108 | Brown-betty.....                    | 43.8 | 6.5  |
| 114 | Indian-pudding.....                 | 26.1 | 6.9  |
| 121 | Creamy rice pudding.....            | 27.7 | 7.2  |
| 113 | Plum pudding, No. 2.....            | 36.2 | 8.5  |
| 120 | Tapioca pudding, No. 2.....         | 105  | 9.1  |
| 118 | Sponge-cake, 1 lb.....              | 68.9 | 10.9 |
| 117 | Ice-cream, home-made.....           | 84   | 12.2 |

TABLE IV.

DISHES CONTAINING MEAT ARRANGED IN ORDER OF COST OF 100 GRAMS OF NITROGENOUS SUBSTANCE, BEGINNING WITH THE LOWEST.

FOR ONE ADULT PERSON PER DAY 100 GRAMS IS THE LOWEST AMOUNT TO BE ALLOWED.

| No. of Recipe. | Name of Dish.                               | Cost of 1,000 Calories. | Cost of 100 Grms. Nitrogenous Substance. |
|----------------|---|-------------------------|--|
|                |   | Cents.                  | Cents.                                   |
| 27             | Liver and bacon .....                       | 5.5                     | 6.8                                      |
| 11             | Roast heart, stuffed.....                   | 5.8                     | 7.5                                      |
| 25             | Beef-shank stew.....                        | 10.3                    | 8.6                                      |
| 4              | Salt pork in butter.....                    | 2.68                    | 9.3                                      |
| 39             | Stewed sheep's hearts.....                  | 8.3                     | 10                                       |
| 38             | Stewed kidney on toast.....                 | 8.8                     | 10                                       |
| 5              | Baked beans and brown bread.....            | 3.5                     | 13                                       |
| 34             | Turkish pilau.....                          | 12.4                    | 13                                       |
| 3              | Veal croquettes.....                        | 7.7                     | 13.2                                     |
| 20             | Shepherd's pie.....                         | 12.2                    | 13.6                                     |
| 41             | Creamed dried beef.....                     | 9                       | 13.8                                     |
| 35             | Fricassee of veal.....                      | 13                      | 14.8                                     |
| 19             | Veal roast, stuffed.....                    | 12.6                    | 14.9                                     |
| 1              | Scrapple.....                               | 2.16                    | 15                                       |
| 36             | Tripe fried in batter.....                  | 9                       | 15.1                                     |
| 31             | Tenderloin cutlet.....                      | 11.5                    | 15.2                                     |
| 16             | Brown curry stew.....                       | 12.6                    | 16.8                                     |
| 6              | Beefsteak pot-pie.....                      | 7.46                    | 17                                       |
| 9              | Bonnar stew.....                            | 13.1                    | 17.3                                     |
| 13             | Meat and bean stew.....                     | 14.1                    | 17.5                                     |
| 8              | Boiled dinner.....                          | 9.2                     | 17.6                                     |
| 29             | Corned-beef hash.....                       |                         | 17.9                                     |
| 37             | Beef roll.....                              | 11.2                    | 18                                       |
| 2              | Irish stew.....                             | 5.07                    | 18                                       |
| 15             | Rump steak, stuffed.....                    | 13.3                    | 19                                       |
| 33             | Pork chops.....                             | 9                       | 21                                       |
| 21             | Braised beef, No. 1.....                    | 18.1                    | 21.3                                     |
| 30             | Corned beef on toast.....                   | 8.3                     | 21.9                                     |
| 42             | Ham omelet.....                             | 18                      | 24.1                                     |
| 28             | Mock duck.....                              | 17.7                    | 24.5                                     |
| 14             | Mutton roast.....                           | 10.8                    | 25.9                                     |
| 22             | Braised beef, No. 2.....                    | 23.5                    | 28                                       |
| 18             | Beefsteak, bread, butter, and potatoes..... | 18                      | 29.3                                     |
| 7              | Lamb chops, etc.....                        | 9.26                    | 30.6                                     |
| 41             | Broiled chicken .....                       | 60                      | 38.8                                     |
| 17             | Beef rib roast.....                         | 21.7                    | 40                                       |
| 12             | Beef, top of sirloin, roast.....            | 13.8                    | 45.5                                     |
| 26             | Marrow dumplings.....                       | 4.5                     | 113                                      |

TABLE IV: COST OF 100 GRAMS OF NITROGENOUS SUBSTANCE. 15

FISH DISHES AND SOUPS.

| No. of Recipe. | Name of Dish.                      | Cost of 1,000 | Cost of 100 Grms.      |
|----------------|------------------------------------|---------------|------------------------|
|                |                                    | Calories.     | Nitrogenous Substance. |
|                |                                    | Cents         | Cents.                 |
| 52             | Split-pea soup.....                | 3.7           | 10.6                   |
| 55             | Smoked herring on toast.....       | 9.4           | 12.2                   |
| 51             | Fish chowder.....                  | 12.6          | 18                     |
| 50             | Clam chowder.....                  | 8.7           | 35                     |
| 54             | Boiled salmon, with egg sauce..... | 23.5          | 43.2                   |
| 57             | Tomato soup.....                   | 9.7           | 44                     |
| 56             | Cream of green-pea soup.....       | 17.6          | 50.4                   |
| 58             | Consommé.....                      | 11.4          | 55.4                   |
| 53             | Potato soup.....                   | 8.3           | 55.8                   |

CHEESE DISHES AND EGG DISHES.

|    |                                |      |      |
|----|--------------------------------|------|------|
| 63 | Cheese pudding.....            | 7.9  | 16.2 |
| 60 | Baked rice and cheese.....     | 6.1  | 16.4 |
| 61 | English-monkey on toast.....   | 6.3  | 16.6 |
| 68 | Cheese omelet.....             | 12.0 | 17.4 |
| 67 | Baked crackers and cheese..... | 6.4  | 21   |
| 62 | Baked macaroni and cheese..... | 8.2  | 24.2 |
| 64 | Dropped eggs on toast.....     | 11.1 | 26.1 |
| 65 | Baked custard.....             | 11.8 | 26.2 |
| 66 | Swiss sandwiches.....          | 8.1  | 28   |

BREADS AND MISCELLANEOUS DISHES.

|    |                                      |      |      |
|----|--------------------------------------|------|------|
| 75 | White bread, 2 lbs., home-made.....  | 2.1  | 5.8  |
| 81 | Graham muffins.....                  | 2.9  | 9.5  |
| 79 | Maryland biscuit.....                | 2.3  | 11.1 |
| 74 | Old New England corn bread.....      | 1.7  | 12.0 |
| 70 | Rice griddle-cakes.....              | 3.5  | 12.2 |
| 78 | Doughnuts, $\frac{1}{2}$ recipe..... | 2.4  | 12.3 |
| 73 | Baking powder biscuit.....           | 3.7  | 13.0 |
| 71 | Brown bread.....                     | 4.0  | 13.4 |
| 84 | Potato chips, $\frac{1}{2}$ lb.....  | 1.9  | 14.7 |
| 72 | Corn bread.....                      | 3.9  | 14.7 |
| 87 | Lima beans, fresh.....               | 8.8  | 15.5 |
| 89 | Bread dice, fried.....               | 3.1  | 16.0 |
| 76 | Molasses cookies.....                | 3.5  | 17.8 |
| 97 | Cabbage, 2 lbs.....                  | 12.0 | 18.7 |
| 80 | Cracker toast.....                   | 4.7  | 19.0 |
| 86 | Potato cakes.....                    | 5.7  | 20.0 |
| 77 | Corn mush, maple syrup.....          | 3.3  | 24.8 |
| 94 | Lyonnaise potatoes.....              | 3.7  | 27.5 |
| 82 | Pie-crust for one pie.....           | 2.2  | 27.7 |

## BREADS AND MISCELLANEOUS DISHES.

| No. of Recipe. | Name of Dish.              | Cost of 1,000 Calories. | Cost of 100 Grms. Nitrogenous Substance. |
|----------------|----------------------------|-------------------------|--|
|                |                            | Cents.                  | Cents.                                   |
| 83             | Rice croquettes.....       | 8.6                     | 28.0                                     |
| 93             | Mashed potatoes.....       | 6.6                     | 31.2                                     |
| 96             | Beets, 2 lbs.....          | 11.8                    | 33.3                                     |
| 91             | Escaloped tomatoes.....    | 10.6                    | 37.3                                     |
| 95             | Potato salad.....          | 9.0                     | 38.5                                     |
| 92             | Green peas, fresh.....     | 15.8                    | 40.0                                     |
| 88             | Candied sweet potato.....  | 5.3                     | 75.0                                     |
| 85             | Mayonnaise for salads..... | 10.4                    | 144.4                                    |

## PUDDINGS AND DESSERTS.

|     |                                     |      |      |
|-----|-------------------------------------|------|------|
| 106 | Plum pudding.....                   | 3.1  | 13.4 |
| 112 | Apple tarts.....                    | 3.1  | 14.8 |
| 102 | Suet pudding, with clear sauce..... | 2    | 15.2 |
| 107 | Jam rolls.....                      | 4.8  | 15.8 |
| 109 | Bread-and-butter pudding.....       | 4.3  | 18.2 |
| 100 | Date pudding.....                   | 2.3  | 19.3 |
| 119 | Indian-pudding, without eggs.....   | 5.6  | 24.3 |
| 111 | Chester-pudding.....                | 4.8  | 26   |
| 114 | Indian-pudding.....                 | 6.9  | 26.1 |
| 105 | Short-cake, filled.....             | 6.1  | 26.8 |
| 121 | Creamy rice pudding.....            | 7.2  | 27.8 |
| 116 | Rice pudding.....                   | 6.2  | 28.1 |
| 104 | Mince pie.....                      | 4.3  | 30.9 |
| 113 | Plum pudding, No. 2.....            | 8.5  | 36.2 |
| 122 | Cornstarch pudding.....             | 5.4  | 36.6 |
| 115 | Tapioca pudding.....                | 5.3  | 38.2 |
| 103 | Fig pudding, with sauce.....        | 5.3  | 42.2 |
| 108 | Brown-betty.....                    | 6.5  | 43.8 |
| 101 | Blueberry pudding.....              | 4.2  | 52.7 |
| 118 | Sponge cake, 1 lb.....              | 10.9 | 68.9 |
| 110 | Apple pie.....                      | 4.2  | 76.5 |
| 117 | Ice-cream.....                      | 12.2 | 84   |
| 120 | Tapioca pudding, No. 2.....         | 9.1  | 105  |



TABLE V.  
RECIPES.

(Quantities are estimated for six persons.)

NO. 1. SCRAPPLE. PHILADELPHIA STYLE.

|                      | Lbs. | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|----------------------|------|-------|-------|----------|------|-------|------|
| One-half pig's head. | 3    | ..... | 12    | 60       | 544  | ..... | 5270 |
| Corn meal.....       | 1    | ..... | 3     | 40.4     | 10   | 340.6 | 1655 |
|                      |      |       | 15    | 100.4    | 554  | 340.6 | 6925 |

Clean the pig's head. Put in a stew-pan with 2 qts. hot water. Let it simmer for 3 hours. Take out of the liquor and cool. When cold remove the bones and chop the meat fine. Add 2 teaspoonfuls of salt,  $\frac{1}{2}$  teaspoonful of pepper, 2 leaves of sage. Put into the liquor and return to the fire. When the liquor begins to boil sprinkle in the meal with quick stirring. Cook for 2 hours without burning. Cool in a deep pan. For use, cut slices, roll in flour or bread-crumbs, fry until brown.

NO. 2. IRISH STEW WITH DUMPLINGS.

Simmer the meat 2 hours, add the vegetables and seasoning; then heat to boiling; add the dumplings.

|                   | Lbs.          | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------|---------------|-------|-------|----------|-------|-------|------|
| Mutton.....       | 2             | ..... | 24    | 107.8    | 232.0 | ..... | 2610 |
| Potatoes.....     | 2             | ..... | 3     | 16.2     | 8.0   | 138.8 | 650  |
| Carrot and turnip | 1             | ..... | 2     | 4.1      | 1.3   | 33.6  | 170  |
| Dumplings.....    |               |       |       |          |       |       |      |
| Suet.....         | $\frac{1}{2}$ | ..... | 3     | 10.9     | 181.2 | ..... | 1730 |
| Flour.....        | 1             | ..... | 2.5   | 51.2     | 5.0   | 338.3 | 1645 |
|                   |               |       | 34.5  | 190.2    | 427.5 | 510.7 | 6805 |

NO. 3. VEAL CROQUETTES.

|                              | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|------------------------------|------|-----|-------|----------|-------|-------|------|
| Veal.....                    | 3    | 8   | 30    | 294      | 79    | ..... | 1940 |
| Salt pork.....               |      | 4   | 2     | 4        | 102   | ..... | 965  |
| Butter.....                  |      | 1   | 1.5   | .....    | 23.7  | ..... | 221  |
| Rice (dry).....              |      | 8   | 4.0   | 23       | .5    | 190   | 875  |
| Eggs.....                    |      | 4   | 4     | 15       | 11    | ..... | 161  |
| Cracker crumbs...            |      | 8   | 4     | 24       | 24    | 156   | 947  |
| Fat taken up in cooking..... |      | 4   | 2     | .....    | 113.4 | ..... | 1055 |
|                              |      |     | 47.5  | 360      | 353.6 | 346   | 6164 |

## NO. 4. SALT PORK IN BATTER.

Cut the pork in thin slices, drop into boiling water for 2 minutes, drain, cook a delicate brown in a frying-pan 5 minutes. Take out the slices, dip in the batter made of the flour, salt, milk, and egg. Cook brown in the hot fat. Serve at once.

|                    | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|--------------------|-------|-------|-------|----------|-------|-------|-------|
| Pork.....          | 1½    | ..... | 12    | 156.4    | 611.5 | ..... | 5725  |
| Flour.....         | ..... | 1½    | .17   | 4.6      | .4    | 30.4  | 148   |
| Milk.....          | ..... | 3     | 2     | 3        | 3.3   | 4.3   | 20    |
| Egg (1).....       | ..... | 2     | 2     | 7.4      | 5.2   | ..... | 81    |
| Salt, ¼ teaspoon.. | ..... | ..... | ..... | .....    | ..... | ..... | ..... |
|                    |       |       | 16.2  | 171.4    | 620.4 | 34.7  | 5974  |

## NO. 5. BAKED BEANS. NEW ENGLAND STYLE.

Soak the washed beans overnight in 3 qts. water. Drain and wash. Put them in a stew-pan with plenty of cold water. Bring to a boiling heat and cook until the skin will break, not a moment longer. Put half the beans into the bean-pot, then the pork; the scored rind comes just to the top of the pot. Fill in with the beans. Add the seasonings. Fill the pot with boiling water. Many cooks prefer to use the water the beans were boiled in. Bake for 10 hours, filling up as necessary.

## NO. 5a. BROWN BREAD.

|                | Lbs.  | Oz.  | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|----------------|-------|------|-------|----------|-------|-------|-------|
| Corn meal..... | ..... | 5.3  | .8    | 13.2     | 3.3   | 112   | 510   |
| Rye meal.....  | ..... | 5.3  | .7    | 10       | 2.0   | 109   | 480   |
| Flour.....     | ..... | 8    | 1.2   | 25.6     | 2.5   | 169.6 | 822   |
| Sour milk..... | 1     | 8    | 5.0   | 22       | 24.0  | 35.0  | 487   |
| Soda.....      | ..... | 0.5  | .6    | .....    | ..... | ..... | ..... |
| Salt.....      | ..... | 0.5  | ..... | .....    | ..... | ..... | ..... |
| Molasses.....  | ..... | 8    | 2.0   | .....    | ..... | 157.2 | 645   |
|                |       | 35.6 | 10.3  | 70.8     | 31.8  | 582.8 | 2944  |

## NO. 5b. BAKED BEANS.

|                      | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|----------------------|-------|-------|-------|----------|-------|-------|-------|
| Beans.....           | ..... | 12    | 6     | 75.6     | 6     | 201   | 1203  |
| Molasses.....        | ..... | 1     | .2    | .....    | ..... | 19    | 81    |
| Pork, salt, fat..... | ..... | 6     | 3.0   | 6        | 153   | ..... | 1447  |
| Salt.....            | ..... | .25   | .3    | .....    | ..... | ..... | ..... |
| Soda (pinch).....    | ..... | ..... | ..... | .....    | ..... | ..... | ..... |
| Mustard ".....       | ..... | ..... | ..... | .....    | ..... | ..... | ..... |
|                      |       |       | 9.5   | 81.6     | 159   | 220   | 2731  |

## NO. 6. BEEFSTEAK POTPIE, SUET CRUST.

Season the meat with the salt and pepper, put this into a pot with the butter, onion, and water. Cover, steam slowly one hour. Boil the potatoes, cut in quarters, add the salt and enough water to make a dough. Line a deep baking-dish, fill with meat and gravy, cover with rest of dough and bake one hour. Put paper funnel in centre as a vent.

|                    | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------|------|-------|-------|----------|-------|-------|------|
| Beef, 2d cut round | 2    | ..... | 30    | 149      | 62    | ..... | 1187 |
| Butter.....        |      | 1     | 1.5   | ...      | 23.7  | ..... | 221  |
| Potatoes.....      | 2    | ..... | 4.0   | 16       | 1     | 139   | 620  |
| Flour.....         | 1    | 4     | .6    | 64       | 6     | 422   | 2010 |
| Suet.....          |      | 6     | 2.0   | 8.4      | 168   | ..... | 1326 |
|                    |      |       | 38.1  | 237.4    | 260.7 | 561   | 5364 |

## NO. 7. LAMB CHOPS, BAKED POTATOES, BREAD AND BUTTER.

|               | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------|------|-------|-------|----------|-------|-------|------|
| 12 chops..... | 2.5  | ..... | 60    | 153      | 321   | ..... | 3612 |
| Potatoes..... | 2.0  | ..... | 4     | 16.2     | .8    | 139.8 | 620  |
| Bread.....    | .5   | ..... | 2.5   | 21.5     | 2.7   | 118.5 | 602  |
| Butter.....   |      | 2     | 3     | .....    | 48.4  | ..... | 450  |
|               |      |       | 69.5  | 190.7    | 372.9 | 258.3 | 5284 |

## NO. 8. BOILED DINNER, NEW ENGLAND STYLE.

If the beef is not freshly corned (3 or 4 days), soak it over night; if very hard, change the water several times while boiling. Put the meat into cold water, let it slowly come to the boiling-point, and boil 3 hours. At the end of 2 hours add the vegetables to be used, whether carrots, turnips, parsnips, or cabbage; in another half hour, the potatoes. Take up when they are done. Half the cabbage may be kept raw for cold slaw. The beets, cleaned without breaking the skin, are always cooked separately 2 or 3 hours.

|                                       | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------------------------------|------|-------|-------|----------|-------|-------|------|
| Corned-beef brisket                   | 3    | ..... | 30    | 195.9    | 264   | ..... | 3255 |
| Potatoes.....                         | 2    | ..... | 3     | 16.2     | .8    | 139   | 647  |
| Beets.....                            | 1    | ..... | 3     | 5.9      | 4.5   | 35    | 170  |
| Cabbage, turnips,<br>and carrots..... | 6    | ..... | 10    | 48.6     | 8.4   | 133   | 750  |
| Parsnips.....                         | 1    | ..... | 2     | 5.9      | 2.3   | 58    | 285  |
|                                       |      |       | 48    | 272.5    | 280.0 | 365   | 5107 |

## NO. 9. BONNAR STEW (WINTER STEW).

3 lbs. small pieces from leg or neck of beef. Roll in flour until very white, cover with cold water in stew-pan, add salt and pepper. Simmer 5 hours.

|   | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---|-------|-------|-------|----------|-------|-------|------|
| Beef from neck or shank.....                | 3     | ..... | 36    | 174      | 99.2  | ..... | 1636 |
| Flour.....                                  | ..... | 5     | .07   | 17       | 2     | 113   | 552  |
| Potatoes, baked..                           | 1     | 8     | 3     | 12       | .6    | 104   | 481  |
| Baking - powder biscuit of 1 qt. flour..... | ..... | ..... | 8     | 72       | 39    | 447   | 2491 |
|   |       |       | 47.1  | 275      | 140.8 | 664   | 5160 |

## NO. 11. ROAST STUFFED HEART WITH VEGETABLES.

Soak the heart in vinegar and water 3 hours, cut off lobes and gristle, stuff with salt, fat pork chopped fine and the same amount of bread crumbs, a little chopped parsley, a little thyme, pepper and salt. Tie in a cloth and let slowly simmer for 2 hours, the larger end up; then take off cloth, flour, and roast until brown with some pieces of pork over it. Make a gravy by thickening with flour.

|                    | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------|-------|-------|-------|----------|-------|-------|------|
| Heart.....         | 3     | ..... | 18    | 231      | 103   | ..... | 1896 |
| Salt fat pork..... | ..... | 6     | 3     | 6        | 153   | ..... | 1447 |
| Crackers.....      | ..... | 4     | 2     | 12       | 12    | 78    | 472  |
| Potatoes.....      | 2     | ..... | 2     | 16       | .8    | 138   | 620  |
| Onions.....        | 1     | ..... | 1     | 6.8      | 1.8   | 40    | 205  |
| Carrots.....       | 1     | ..... | 2     | 4.1      | 1.3   | 33    | 160  |
| Flour.....         | ..... | 1     | .15   | 3.1      | .3    | 21    | 100  |
|                    |       |       | 28.1  | 279.0    | 272.2 | 310   | 4900 |

## NO. 13. MEAT AND BEAN STEW.

|                    | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------|-------|-------|-------|----------|-------|-------|------|
| Beef, medium fat   | 3     | ..... | 45    | 258.6    | 174.3 | ..... | 2685 |
| Beans, lima, dried | ..... | 12    | 6     | 54.0     | 5.1   | 224   | 1219 |
| Onions.....        | ..... | 4     | 4     | 1.6      | .4    | 10    | 51   |
|                    |       |       | 55    | 314.2    | 179.8 | 234   | 3955 |

## NO. 15. RUMP STEAK STUFFED AND ROLLED, WITH VEGETABLES.

2 lbs. rump steak (or any lean meat), 2 oz. suet, 4 oz. bread crumbs, 1 dessert-spoon of chopped parsley (6 olives may be added), pepper, salt, 2 eggs. Spread the mixture on the steak, roll and tie, place in greased paper and roast three-fourths of an hour. Cook vegetables separately.

|                   | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------|------|-------|-------|----------|-------|-------|------|
| Steak, lean.....  | 2    | ..... | 32    | 173.2    | 99.8  | ..... | 1640 |
| Suet .....        |      | 2     | 1     | 2.6      | 5.6   | ..... | 442  |
| Bread crumbs..... |      | 4     | 1     | 11.5     | 1.4   | 64    | 321  |
| Sggs (2).....     |      | 4     | 4     | 14.5     | 10.8  | ..... | 161  |
| Salt, pepper..... |      |       |       |          |       |       |      |
| Lima beans, fresh | 2    | ..... | 10    | 64.4     | 6.4   | 199.6 | 1140 |
| Squash.....       | 2    | ..... | 4     | 7.2      | 2.8   | 47.2  | 210  |
|                   |      |       | 52    | 273.4    | 126.8 | 310.8 | 3914 |

## NO. 16. BROWN CURRY STEW, WITH RICE.

Rice cooked separately 20 to 25 minutes in plenty of water to keep it whole. Add curry powder and rice to the cooked meat.

|                   | Lbs. | Oz.           | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|-------------------|------|---------------|-------|----------|-------|-------|-------|
| Beef, medium fat. | 3    | .....         | 42    | 258.6    | 174.3 | ..... | 2685  |
| Rice.....         |      | 10            | 5     | 22.5     | .9    | 222   | 1030  |
| Curry.....        |      | $\frac{1}{2}$ | 2     | .....    | ..... | ..... | ..... |
|                   |      |               | 49    | 281.1    | 175.2 | 222   | 3715  |

## NO. 18. BEEFSTEAK, BAKED POTATOES, BREAD AND BUTTER.

|                     | Lbs.           | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------------|----------------|-------|-------|----------|-------|-------|------|
| Steak, solid, round | 2              | ..... | 50    | 176.8    | 66.2  | ..... | 1340 |
| Potatoes.....       | $1\frac{1}{2}$ | ..... | 2     | 12       | .6    | 104   | 465  |
| Bread.....          | $\frac{1}{2}$  | ..... | 2.5   | 21.5     | 2.7   | 118.5 | 602  |
| Butter.....         |                | 4     | 7     | .....    | 96.8  | ..... | 900  |
|                     |                |       | 61.5  | 210.3    | 166.3 | 222.5 | 3307 |

## NO. 19. ROAST VEAL, STUFFED.

Dredge with salt, pepper, and flour. Stuff with moistened bread crumbs. Put in strips of salt pork over the top. Cover with buttered paper to keep from burning, and allow  $\frac{1}{2}$  hour to the pound. Baste. Thicken gravy with 1 tablespoonful flour.

|                   | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------|------|-------|-------|----------|-------|-------|------|
| Veal, leg.....    | 3    | ..... | 37    | 248.7    | 90.9  | ..... | 1755 |
| Salt pork.....    |      | 4     | 2     | 4.1      | 101.9 | ..... | 965  |
| Bread crumbs..... |      | 8     | 2     | 23       | 3     | 127   | 642  |
|                   |      |       | 41    | 275.8    | 195.8 | 127   | 3362 |

## NO. 20. SHEPHERD'S PIE WITH POTATO CRUST.

|   | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---|-------|-------|-------|----------|-------|-------|------|
| Cold meat.....  | 2     | ..... | 30    | 254      | 100   | ..... | 1970 |
| 1 teaspoonful salt,<br>¼ teaspoonful pep-<br>per, pudding-dish<br>well buttered.... | ..... | 2     | 4     | .....    | 47.4  | ..... | 441  |
| Stock.....  | 1     | ..... | 1     | 15       | 2     | ..... | 80   |
| Flour.....  | ..... | .55   | .07   | 2        | ..... | 10    | 50   |
| Butter, onion....   | ..... | .55   | .7    | .....    | 12    | ..... | 110  |
| Potatoes, boiled<br>and mashed....  | 1     | 8     | 2     | 12       | .6    | 104   | 465  |
|   |       |       | 37.7  | 283      | 162   | 114   | 3116 |

## NO. 21. BRAISED BEEF.

Cut the pork into thin slices, fry brown and crisp. Put the vegetables cut fine into the fat and cook 15 minutes. Rub into the meat 2 teaspoonfuls of salt, ¼ teaspoonful of pepper. Put it into a deep pan or earthen pot. Add the drained vegetables. Brown the flour in the hot fat. Add gradually 1½ pints water, 1 teaspoonful of salt, ¼ teaspoonful of pepper. Cook 5 minutes. Pour over the meat. Cover pan or pot. Cook in slow oven 5 hours. The toughest meat will become tender. If pork is not used, 2 ozs. butter must be added to 2 ozs. dripping to give the flavor required. This increases the cost by 3 cents.

|                     | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|---------------------|-------|-------|-------|----------|-------|-------|-------|
| Beef, lean .. . . . | 3     | ..... | 54    | 255.2    | 99.3  | ..... | 2010  |
| Pork .....          | ..... | 1     | 2     | 4        | 102   | ..... | 965   |
| Flour.....          | ..... | 1     | .15   | 3        | .3    | 21    | 100   |
| Onion.....          | ..... | 1     | .5    | .....    | ..... | ..... | ..... |
| Carrot.....         | ..... | 1     | .5    | .6       | .2    | 5     | 22    |
|                     |       |       | 57.1  | 262.8    | 201.8 | 26    | 3097  |

## NO. 25. BEEF-SHANK STEW.

|                 | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------|-------|-------|-------|----------|-------|-------|------|
| Beef shank..... | 3     | ..... | 24    | 290      | 99.3  | ..... | 1635 |
| Potatoes.....   | 2     | ..... | 2     | 16.4     | .9    | 133.4 | 620  |
| Turnips.....    | 1     | ..... | 2     | 4.1      | .45   | 25.8  | 105  |
| Flour.....      | ..... | 4     | .6    | 12.2     | 1.2   | 84.8  | 410  |
|                 |       |       | 28.6  | 322.7    | 101.9 | 244.0 | 2770 |

## NO. 26. MARROW DUMPLINGS FOR SOUPS.

|                      | Lbs.  | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|----------------------|-------|-----|-------|----------|-------|-------|------|
| Marrow.....          | ..... | 8   | 6     | 5.9      | 211   | ..... | 1982 |
| Bread crumbs.....    | ..... | 4   | 1.5   | 11.1     | 2     | 63    | 321  |
| Milk.....            | ..... | 4   | 2     | 3.2      | 4     | 5.7   | 81   |
| Yolks of 4 eggs..... | ..... | 4   | 4     | 18       | 13.8  | ..... | 243  |
| Flour.....           | ..... | 1   | .1    | 3.2      | 3     | 21.1  | 100  |
|                      |       |     | 13.6  | 41.4     | 231.1 | 89.8  | 2727 |

## NO. 27. FRIED LIVER AND BACON.

|            | Lbs.  | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|------------|-------|-------|-------|----------|------|-------|------|
| Liver..... | 2     | ..... | 8     | 196      | 50   | ..... | 1330 |
| Bacon..... | ..... | 8     | 7     | 21.7     | 136  | ..... | 1360 |
|            |       |       | 15    | 217.7    | 186  | ..... | 2690 |

## NO. 28. MOCK DUCK.

Mix well together 1 cup bread crumbs seasoned with salt and pepper, 1 tablespoonful melted butter, a little cayenne,  $\frac{1}{2}$  teaspoonful of chopped onion; spread on one side of the steak, roll it and fasten with a little skewer. Roast for an hour. Thicken the gravy with one tablespoonful of flour.

|   | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|---|-------|-------|-------|----------|-------|-------|-------|
| Beef round, medium fat.....               | 2     | ..... | 30    | 172.4    | 116.2 | ..... | 1790  |
| Bread crumbs.....                         | ..... | 4     | 1     | 11.1     | 2     | 63    | 321   |
| Fat.....                                  | ..... | 1     | 11    | 1.5      | 28.5  | ..... | 264   |
| Chopped onion $\frac{1}{2}$ teaspoon..... | ..... | ..... | ..... | .....    | ..... | ..... | ..... |
| Flour.....                                | ..... | 5     | ..... | 1.6      | ..... | 10    | 50    |
|   |       |       | 42    | 186.6    | 146.7 | 73    | 2425  |

## NO. 29. CORNED-BEEF HASH.

|                          | Lbs.  | Oz.   | Cost. Cents. | Proteid. Grams. | Fat. Grams. | Carb. Grams. | Cal. |
|--------------------------|-------|-------|--------------|-----------------|-------------|--------------|------|
| Corned beef, cooked..... | 1     | ..... | 12           | 64.3            | 103.4       | .....        | 1225 |
| Potatoes.....            | 2     | ..... | 2            | 16.4            | .9          | 133.4        | 620  |
| Fat.....                 | ..... | 2     | .5           | .....           | 56.7        | .....        | 527  |
|                          |       |       | 14.5         | 80.7            | 161.0       | 133.4        | 2372 |

## NO. 30. CORNED BEEF AND CREAM ON TOAST.

|  | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|--|-------|-------|-------|----------|-------|-------|-------|
| Corned beef<br>cooked grated,<br>or chopped..... | 1     | ..... | 12    | 64.3     | 103.4 | ..... | 1225  |
| Cream, thin.....                                 | ..... | 2     | 4     | 2        | 8     | 2     | 85    |
| Butter (fat).....                                | ..... | 2     | 1     | 1        | 47    | ..... | 450   |
| Salt, pepper.....                                | ..... | ..... | ..... | .....    | ..... | ..... | ..... |
| Bread toasted.....                               | ..... | 8     | 2.5   | 22       | 2.7   | 119.5 | 603   |
|  |       |       | 19.5  | 89.3     | 161.1 | 121.5 | 2363  |

## NO. 31. TENDERLOIN CUTLET.

|                                  | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|----------------------------------|-------|-------|-------|----------|-------|-------|-------|
| Hamburg steak...                 | 2     | ..... | 24    | 171      | 112   | ..... | 1743  |
| Suet or fat.....                 | ..... | 2     | 1     | .....    | 56    | ..... | 521   |
| Worcester or other<br>sauce..... | ..... | ..... | 1     | .....    | ..... | ..... | ..... |
|                                  |       |       | 26    | 171      | 168   | ..... | 2264  |

## NO. 33. PORK CHOPS.

Season the chops with one teaspoonful salt and a little pepper. Cook in a hot frying-pan rather slowly for 20 minutes; after taking out the chops stir the flour into the fat, add the strained tomatoes and simmer for 5 minutes. Add a little salt and pepper, and pour the sauce around the chops on a hot dish.

|                 | Lbs.            | Oz.           | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------|-----------------|---------------|-------|----------|-------|-------|------|
| Pork steak..... | 1 $\frac{1}{3}$ | .....         | 18    | 92       | 187   | ..... | 2115 |
| Flour.....      | .....           | $\frac{1}{2}$ | ..... | 1.5      | .1    | 10    | 50   |
| Tomatoes.....   | $\frac{1}{3}$   | .....         | 2     | 1.8      | .9    | 8.8   | 52   |
|                 |                 |               | 20    | 95.3     | 188.0 | 18.8  | 2217 |

## NO. 34. TURKISH PILAU.

Cook the rice in the soup stock, add the meat, tomatoes, and seasonings.

|                    | Lbs.  | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|--------------------|-------|-------|-------|----------|------|-------|------|
| Rice.....          | ..... | 8     | 4     | 17.6     | .8   | 179   | 814  |
| Soup stock.....    | 3     | ..... | 6     | 60       | 4    | ..... | 283  |
| Meat cut fine..... | 1     | ..... | 15    | 127      | 50   | ..... | 985  |
| Tomatoes (fresh).. | 1     | ..... | 2     | 3.6      | 1.8  | 17.7  | 105  |
|                    |       |       | 27    | 208.2    | 56.6 | 196.7 | 2187 |



## NO. 35. FRICASSEE OF VEAL.

|                     | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal  |
|---------------------|------|-------|-------|----------|-------|-------|------|
| Veal .....          | 2    | ..... | 24    | 158      | 45    | ..... | 1110 |
| Fat salt pork. .... |      | 4     | 2     | 7.4      | 76    | ..... | 735  |
| Flour.....          |      | 2     | .3    | 6        | .4    | 40    | 200  |
| Tomatoes.....       |      | 4     | 1     | .9       | .4    | 4.4   | 26   |
|                     |      |       | 27.3  | 172.3    | 121.8 | 44.4  | 2071 |

Cut the pork in thin slices and fry brown. Season the thin slices of veal with salt and pepper, roll in the flour, and cook brown. When done put the rest of the flour into the fat. When brown add 1 pint of water, put the veal back, and simmer for half an hour. Add the tomatoes and serve.

## NO. 36. TRIPE FRIED IN BATTER.

|                 | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------|------|-------|-------|----------|-------|-------|------|
| Tripe.....      | 2    | ..... | 12    | 98.8     | 10.8  | ..... | 520  |
| Drippings. .... |      | 4     | 2     | .....    | 113   | ..... | 1055 |
| Flour. ....     |      | 3     | .2    | 9.2      | .8    | 60.8  | 296  |
| Milk .....      |      | 4     | 1.8   | 4        | 4.4   | 5.6   | 61   |
| Egg.....        |      | 2     | 2     | 7.4      | 5.2   | ....  | 81   |
|                 |      |       | 18.0  | 119.4    | 134.2 | 66.4  | 2013 |

Cut the washed tripe in small squares and season with salt and pepper. Beat the flour to a smooth paste with the milk, add the eggs well beaten, season with salt and pepper. Dip the tripe in this batter and cook brown in the hot fat.

## NO. 37. ROLL OF BEEF.

|                              | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|------------------------------|------|-----|-------|----------|-------|-------|------|
| Cooked beef.....             |      | 12  | 15    | 95       | 37.5  | ..... | 739  |
| Bacon or fat ham.....        |      | 5   | 4     | 15       | 92    | ..... | 930  |
| Cooked rice or macaroni..... |      | 4   | 1     | 5.6      | ..... | 48    | 216  |
| Egg.....                     |      | 2   | 2     | 7.4      | 5.2   | ..... | 81   |
|                              |      |     | 22    | 123.0    | 134.7 | 48    | 1966 |

## NO. 38. STEWED KIDNEY ON TOAST.

Cut 3 kidneys into 3, lengthwise; warm 3 tablespoons butter in the frying-pan, before it is hot put in the kidneys, with a teaspoonful minced onion,  $\frac{1}{2}$  tea-cup water; 1 cup good gravy. Cover. Simmer gently 15 minutes. Season with pinch mace, nutmeg and pepper,  $\frac{1}{2}$  teaspoon salt, and juice of  $\frac{1}{2}$  lemon. Take out kidneys. Thicken gravy with 1 tablespoon browned flour. Serve on hot platter with 5 slices of toast.

|              | Lbs. | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|--------------|------|-------|-------|----------|------|-------|------|
| Kidney ..... | 2    | ..... | 12    | 144      | 44   | ..... | 1000 |
| Butter ..... |      | 2     | 3     |          | 47   | ..... | 221  |
| Flour.....   |      | 1     | ..... | 3.2      | .3   | 21    | 100  |
|              |      |       | 15    | 147      | 91   | 21    | 1321 |
| Bread.....   |      | 8     | 2     | 22       | 2.7  | 119   | 602  |
|              |      |       | 17    | 169.2    | 93.7 | 140   | 1923 |

## NO. 39. STEWED SHEEP'S HEARTS.

Split and wash the hearts, season with pepper and salt, roll in the flour. Fry the pork and onions; take out and put in the hearts. Cook brown on both sides. Take out and put with the pork into a stew-pan. Heat  $1\frac{1}{2}$  pints of water in the frying-pan to take up the fat and juice; pour over the hearts; season and cook slowly 3 hours.

|                | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|----------------|------|-------|-------|----------|-------|-------|------|
| Hearts .....   | 2    | ..... | 14    | 144      | 76    | ..... | 1410 |
| Fat pork ..... |      | 2     | 1     | 3.7      | 38    | ..... | 367  |
| Flour.....     |      | 1     | .15   | 3        | .2    | 20    | 100  |
|                |      |       | 15.1  | 150.7    | 114.2 | 20    | 1877 |

## NO. 40. BROILED CHICKEN.

|              | Lbs. | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|--------------|------|-------|-------|----------|------|-------|------|
| Chicken..... | 4    | ..... | 100   | 268      | 20   | ..... | 1300 |
| Butter ..... |      | 2     | 4     | .....    | 47   | ..... | 442  |
|              |      |       | 104   | 268      | 67   | ..... | 1742 |

## NO. 41. CREAMED DRIED BEEF.

Cut the beef in thin shavings; put in a bowl and pour on it 1 pint of boiling water; let stand 2 minutes; then drain dry and cook 3 minutes in the frying-pan with the butter, stirring all the time. Pour in half the milk, mix the flour with the other half and stir in while cooking. Serve in 2 minutes.

|                   | Lbs.  | Oz.              | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-------------------|-------|------------------|-------|----------|------|-------|------|
| Smoked dried-beef | ..... | 6                | 5     | 80       | 36.7 | ..... | 669  |
| Butter            | ..... | 2                | 3     | 1.2      | 47.2 | ..... | 442  |
| Flour             | ..... | $\frac{1}{2}$    | .07   | 1.5      | .1   | 10    | 50   |
| Milk              | ..... | 12 $\frac{1}{2}$ | 2.3   | 11.3     | 13.5 | 16.9  | 243  |
|                   |       |                  | 10.4  | 94.0     | 97.5 | 26.9  | 1404 |

## NO. 42. HAM OMELETTE.

Separate the whites and yolks of the eggs; to the yolks add the milk, ham chopped fine, a sprig of parsley; beat hard. Stir in gently the whites of the eggs beaten to a stiff froth. Have the butter hot in a spider and pour in the mixture, stirring with a fork until it thickens. Incline the pan and begin to roll. It should be long, thick in the middle, and soft inside. Any cold meat may be used or jellies or fruits.

|             | Lbs.  | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------|-------|-----|-------|----------|-------|-------|------|
| Ham, cooked | ..... | 4   | 4     | 16       | 38    | ..... | 418  |
| Eggs (6)    | ..... | 12. | 14    | 44.4     | 33.7  | ..... | 483  |
| Milk        | ..... | 3   | .5    | 3        | 3.4   | 4.2   | 60   |
| Butter      | ..... | 1   | 1.5   | 23.7     | ..... | ..... | 221  |
|             |       |     | 20.0  | 87.1     | 75.1  | 4.2   | 1182 |

## NO. 50. CLAM CHOWDER.

Cut the soft parts of the clams from the hard, chop the latter fine, and cook in a stew-pan with the water for 20 minutes. Fry the sliced pork for 10 minutes. Add the sliced onion. Cook 10 minutes. Take both from the pan and add to the clams in the stew-pan. Stir the flour into the fat in the stew-pan, and when smooth add to the clams. Put the cubed potatoes into another stew-pan, strain the hot clam broth over them, season with  $\frac{1}{2}$  oz. salt,  $\frac{1}{2}$  oz. pepper, and cook for 20 minutes. Split the crackers, soak them in the milk for 4 minutes, add with the soft parts of the clams. Serve as soon as the broth boils up.

|           | Lbs.  | Oz.   | Cost | Proteid. | Fat.  | Carb. | Cal. |
|-----------|-------|-------|------|----------|-------|-------|------|
| Clams     | 2     | ..... | 12   | 27       | 6     | 15    | 230  |
| Milk      | 1     | ..... | 3    | 15       | 18    | 22.7  | 325  |
| Water     | 3     | ..... |      |          |       |       |      |
| Potatoes  | 1     | ..... | 1.5  | 8        | .4    | 69.4  | 310  |
| Onions    | ..... | 8     | 1    | 3.6      | .8    | 20    | 104  |
| Salt pork | ..... | 4     | 2    | 4.1      | 102   | ..... | 965  |
| Butter    | ..... | 2     | 3    | .....    | 47.4  | ..... | 442  |
| Flour     | ..... | 1     | .1   | 3.2      | .3    | 21.1  | 100  |
| Crackers  | ..... | 2     | 1    | 6        | 5     | 39    | 231  |
|           |       |       | 23.6 | 66.9     | 179.9 | 187.2 | 2807 |

## NO. 51. FISH CHOWDER.

The fish chowders may be enriched by salt pork and crackers, and prepared as in clam chowder, or may be made more delicate by cooking the fish—any kind—in water, using whole, milk and butter, adding tomatoes in place of part of the milk, and bread crumbs instead of crackers.

|               | Lbs.  | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|---------------|-------|-------|-------|----------|------|-------|------|
| Mad dock..... | 3     | ..... | 18    | 114.3    | 2.7  | ..... | 495  |
| Potatoes..... | 1     | 8     | 2.2   | 16       | .8   | 138.8 | 620  |
| Onion.....    | ..... | 4     | .5    | 1.8      | .2   | 10    | 52   |
| Butter.....   | ..... | 2     | 3     | .4       | 47.4 | ..... | 442  |
| Milk.....     | 2     | ..... | 6     | 30       | 36   | 45.4  | 650  |
| Flour.....    | ..... | 1     | .1    | 3.2      | .3   | 21.1  | 100  |
|               |       |       | 29.8  | 165.7    | 87.4 | 215.3 | 2359 |

## NO. 52. SPLIT-PEA SOUP.

Soak the peas over night, and cook eight hours. A great variety is possible in these soups by varying the vegetables, the flavors, and by substituting fried bread dice for the pork. Many persons like tomatoes in the soup.

|                 | Lbs.  | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-----------------|-------|-----|-------|----------|------|-------|------|
| Split peas..... | ..... | 8   | 4     | 54.6     | 2.5  | 139.4 | 827  |
| Salt pork.....  | ..... | 3   | 1.5   | 3        | 76.5 | ..... | 723  |
| Butter.....     | ..... | .5  | .7    | .....    | 11.8 | ..... | 110  |
| Flour.....      | ..... | .5  | .1    | 3.2      | .3   | 21.1  | 100  |
| Onion.....      | ..... | 2.1 | .3    | .9       | .2   | 5     | 26   |
|                 |       |     | 6.6   | 61.7     | 91.3 | 165.5 | 1786 |

## NO. 53. POTATO SOUP.

Slice the potatoes and onions into stew-pan and fry them slightly in the butter. Add pepper, salt, a little summer savory, celery, or other flavor. Add the milk or stock, and boil until the vegetables can be pressed through a sieve. The soup may be enriched by adding milk or cream just before serving.

|                                     | Lbs.  | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-------------------------------------|-------|-------|-------|----------|------|-------|------|
| Potatoes.....                       | 2     | ..... | 3     | 16.8     | .8   | 138.8 | 620  |
| Onions.....                         | 1     | ..... | 2     | 7.2      | 1.6  | 40    | 208  |
| Skimmed milk, or<br>white stock.... | 4     | ..... | 8     | 61.6     | 5.6  | 92.4  | 680  |
| Butter.....                         | ..... | 1     | 1.5   | .2       | 23.7 | ..... | 221  |
|                                     |       |       | 14.5  | 25.8     | 31.7 | 171.2 | 1729 |

## NO. 54. BOILED SALMON AND PEAS, EGG SAUCE.

|                 | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------|------|-------|-------|----------|-------|-------|------|
| Salmon.....     | 1    | ..... | 25    | 75.7     | 67.1  | ..... | 935  |
| Green peas..... | 1    | ..... | 10    | 7.7      | .9    | 31    | 167  |
| Butter.....     |      | 2     | 3     | .4       | 47.4  | ..... | 442  |
| Flour.....      |      | 1     | .1    | 3.2      | .3    | 21.1  | 100  |
| Egg.....        |      | 2     | 2.5   | 7.4      | 5.4   | ..... | 80   |
|                 |      |       | 40.6  | 94.4     | 121.1 | 52.1  | 1724 |

## NO. 55. SMOKED HERRING ON TOAST.

Codfish on toast, creamed salt fish, fish hash, and fish balls may all be considered of about the same food value and cost.

|                  | Lbs. | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|------------------|------|-------|-------|----------|------|-------|------|
| Smoked herring.. | 1    | ..... | 10    | 93       | 3.8  | ..... | 416  |
| Bread.....       |      | 8     | 2.5   | 21       | 2.7  | 119.5 | 602  |
| Butter.....      |      | 2     | 3     | .....    | 47.4 | ..... | 442  |
|                  |      |       | 15.5  | 114      | 53.9 | 119.5 | 1460 |

## NO. 56. CREAM OF GREEN PEA SOUP.

1 pint of shelled peas. Just enough water to cover in granite sauce-pan. Cook until tender,  $\frac{1}{2}$  hour. Take out half, rub the rest through colander with the water in which they were cooked. Scald 3 cupfuls of sweet milk, rub together 2 tablespoonfuls flour, 1 tablespoon of butter; add to the milk and the strained peas. Stir until thickened; add the remaining peas and 1 cup of cream heated to scalding, a scant teaspoon of salt, and  $\frac{1}{4}$  teaspoon of pepper.

|                  | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|------------------|------|-------|-------|----------|-------|-------|------|
| Shelled Peas.... | 1    | ..... | 10    | 15.5     | 1.8   | 62    | 335  |
| Sweet milk.....  | 1    | 8     | 5     | 22.5     | 27    | 34    | 487  |
| Flour.....       |      | .5    | .05   | 1.6      | ..... | 5.5   | 51   |
| Butter.....      |      | .5    | .7    | .....    | 11.8  | ..... | 110  |
| Cream, thin..... |      | 8     | 8     | 7        | 30    | 8     | 340  |
|                  |      |       | 23.7  | 46.6     | 70.6  | 109.5 | 1323 |

## NO. 57. TOMATO SOUP.

1 pint tomatoes cooked 20 minutes in 1 quart boiling water. Strain through a colander; add 1 teaspoonful soda, 1 pint rich milk, salt, pepper, and the butter. Soup stock may be used instead of the milk and fried bread dice instead of the crackers, which should be rolled fine. This may be taken as a type of the medium soups—vegetable, rice, macaroni, etc.

|               | Lbs.  | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|---------------|-------|-------|-------|----------|------|-------|------|
| Tomatoes..... | 1     | ..... | 3     | 3.6      | 18   | 17.7  | 105  |
| Milk.....     | 1     | ..... | 4     | 15       | 18   | 22.7  | 325  |
| Butter.....   | ..... | 2     | 3     | .....    | 47.4 | ..... | 442  |
| Crackers..... | ..... | 2     | 1     | 6        | 5    | 39    | 231  |
|               |       |       | 11    | 24.6     | 88.4 | 79.4  | 1103 |

## NO. 58. CONSOMMÉ.

Nearly all clear soups are of the same small food value. They may be enriched by the addition of vegetables; but they are not intended for food—only as appetizers.

|                       | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------------|-------|-------|-------|----------|-------|-------|------|
| Clear soup.....       | 3     | ..... | 15    | 27       | 1.2   | ..... | 122  |
| Macaroni or peas..... | ..... | 1     | .5    | .5       | ..... | 3     | 14   |
|                       |       |       | 15.5  | 27.5     | 1.2   | 3     | 136  |

## NO. 60. BAKED RICE AND CHEESE.

|                 | Lbs.          | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-----------------|---------------|-------|-------|----------|------|-------|------|
| Rice.....       | $\frac{1}{2}$ | ..... | 4     | 17.7     | .9   | 179.2 | 815  |
| Cheese.....     | .....         | 6     | 6     | 49       | 61.6 | ..... | 772  |
| Bread crumbs... | .....         | 4     | 1.5   | 11.5     | 1.4  | 63.5  | 321  |
| Butter.....     | .....         | 1     | 1.5   | .6       | 23.6 | ..... | 221  |
|                 |               |       | 13.0  | 78.8     | 87.4 | 242.7 | 2129 |

## NO. 61. ENGLISH-MONKEY ON TOAST.

Soak the bread crumbs in the milk for fifteen minutes. Melt the butter and cheese together. Add the crumbs and the egg well beaten, salt, cayenne, and soda. Cook for five minutes and serve on  $\frac{1}{2}$  dozen crackers toasted, or on bread slices.

|                  | Lbs.  | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|------------------|-------|-----|-------|----------|------|-------|------|
| Bread crumbs.... | ..... | 8   | 2.8   | 23       | 2.9  | 127   | 642  |
| Milk.....        | ..... | 10  | 2.8   | 10       | 12   | 15    | 217  |
| Butter.....      | ..... | 1   | 1.5   | .....    | 23.7 | ..... | 221  |
| Cheese.....      | ..... | 2   | 2     | 16.3     | 20.5 | ..... | 257  |
| Egg.....         | ..... | 2   | 1.5   | 7.4      | 5.4  | ..... | 80   |
| Bread.....       | ..... | 8   | 2.5   | 23       | 2.9  | 127   | 642  |
|                  |       |     | 13.1  | 79.7     | 67.4 | 269   | 2059 |

## NO. 62. BAKED MACARONI AND CHEESE.

For a main dish double this.

|               | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|---------------|------|-----|-------|----------|------|-------|------|
| Macaroni..... |      | 4   | 2.5   | 13       | 1.8  | 82.6  | 416  |
| Cheese.....   |      | 2   | 2     | 16.3     | 20.5 | ..... | 257  |
| Milk.....     |      | 4   | .75   | 3.8      | 4.5  | 5.7   | 81   |
| Butter.....   |      | 1   | 1.5   | .....    | 23.7 | ..... | 221  |
|               |      |     | 6.75  | 33.1     | 50.5 | 88.3  | 975  |

## NO. 63. CHEESE PUDDING.

|                   | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-------------------|------|-----|-------|----------|------|-------|------|
| Cheese.....       |      | 6   | 6     | 49       | 61.6 | ..... | 772  |
| Bread crumbs..... |      | 8   | 2.5   | 23       | 2.9  | 127   | 642  |
| Egg.....          |      | 2   | 3     | 7.4      | 5.2  | ..... | 81   |
| Butter.....       |      | 1   | 1.5   | .6       | 23.7 | ..... | 221  |
|                   |      |     | 13.0  | 80.0     | 93.4 | 127   | 1716 |

## NO. 64. DROPPED EGGS ON TOAST.

|             | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-------------|------|-----|-------|----------|------|-------|------|
| Bread.....  |      | 8   | 2.5   | 23       | 2.9  | 127   | 642  |
| Butter..... |      | 2   | 3     | .....    | 47.4 | ..... | 442  |
| Eggs.....   |      | 12  | 12    | 44.4     | 32.2 | ..... | 483  |
|             |      |     | 17.5  | 67.4     | 82.5 | 127   | 1567 |

## NO. 65. BAKED CUSTARD.

|               | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------|------|-------|-------|----------|-------|-------|------|
| Milk.....     | 2    | ..... | 6     | 30       | 36    | 45.4  | 650  |
| Sugar.....    |      | 3     | 1.5   | .....    | ..... | 81    | 330  |
| Eggs (4)..... |      | 8     | 8     | 29.6     | 20.8  | ..... | 324  |
|               |      |       | 15.5  | 59.6     | 56.8  | 126.4 | 1304 |

## NO. 66. SWISS SANDWICHES.

Mix equal parts of grated Swiss cheese and chopped English-walnut meats. Season slightly with salt and cayenne, and spread between thin slices of bread and butter.

|                           | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|---------------------------|------|-----|-------|----------|------|-------|------|
| Cheese.....               |      | 2   | 3     | 7.4      | 5.2  | ..... | 81   |
| English-walnut meats..... |      | 2   | 3     | 3        | 32   | ..... | 178  |
| Butter.....               |      | .5  | .7    | .3       | 11.8 | ..... | 110  |
| Bread.....                |      | 8   | 2.5   | 23       | 2.9  | 127   | 642  |
|                           |      |     | 9.2   | 33.7     | 51.9 | 127   | 1011 |

## NO. 67. BAKED CRACKERS WITH CHEESE.

|                         | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-------------------------|------|-----|-------|----------|------|-------|------|
| 6 Boston crackers ..... |      | 4.5 | 1     | 13.6     | 12.6 | 87.4  | 531  |
| Butter .....            |      | 1   | 1.5   | .6       | 23.6 | ..... | 221  |
| Cheese.....             |      | 2   | 2     | 16.3     | 20.5 | ..... | 257  |
|                         |      |     | 4.5   | 30.5     | 56.7 | 87.4  | 1009 |

## NO. 68. CHEESE OMELET.

|             | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-------------|------|-----|-------|----------|------|-------|------|
| Cheese..... |      | 4   | 4     | 32.6     | 41   | ..... | 515  |
| Milk .....  |      | 8   | 2     | 7.5      | 9    | 11.3  | 162  |
| Eggs .....  |      | 8   | 6     | 29.6     | 21.5 | ..... | 322  |
|             |      |     | 12    | 69.7     | 71.5 | 11.3  | 999  |

## NO. 70. RICE GRIDDLE-CAKES WITH MOLASSES.

Griddle-cakes or pancakes may be made plain with milk and baking powder, or with eggs. They may contain corn, rice, blueberries, or other fruit. They may be eaten with butter and sugar, or with syrup or molasses. The food value here given is a good average. They furnish an inexpensive and "tasty" dish.

|                 | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------|------|-----|-------|----------|-------|-------|------|
| Flour.....      | 1    | 4   | 2.8   | 63.5     | 5.6   | 424.6 | 2056 |
| Rice, dry ..... |      | 2   | 1     | 4.4      | .4    | 44.8  | 204  |
| Eggs.....       |      | 4   | 4     | 14.8     | 10.8  | ..... | 161  |
| Butter.....     |      | 1.5 | 2     | .....    | 35.5  | ..... | 331  |
| Molasses.....   |      | 4   | .8    | 4        | ..... | 58.9  | 242  |
|                 |      |     | 10.6  | 86.7     | 52.3  | 528.3 | 2994 |

## NO. 71. CORN BREAD, NO. 1.

|                  | Lbs.  | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|------------------|-------|-------|-------|----------|------|-------|------|
| Indian meal..... | 1     | 4     | 3.7   | 50.5     | 12.5 | 426   | 2070 |
| Milk, sour.....  | 1     | ..... | 3     | 15       | 10   | 20    | 236  |
| Milk, sweet..... | 1     | ..... | 3     | 15       | 18.1 | 22.7  | 323  |
| Butter .....     | ..... | 1     | 1     | .....    | 23.7 | ..... | 221  |
|                  |       |       | 10.7  | 80.5     | 64.3 | 468.7 | 2850 |



NO. 72. BROWN BREAD.

One-half the recipe for a mixed meal. The sour milk is not usually whole milk, although the fat may be made up by sour cream or recovered butter.

|                | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|----------------|------|-----|-------|----------|-------|-------|------|
| Corn meal..... |      | 6   | 1.2   | 15       | 3.7   | 127   | 621  |
| Rye meal.....  |      | 6   | 1     | 12       | 2.8   | 128   | 600  |
| Flour.....     |      | 8   | 1.7   | 25.6     | 2.5   | 164.1 | 820  |
| Sour milk..... | 1    | 8   | 4     | 27       | 15    | 37    | 402  |
| Molasses.....  |      | 12  | 3.2   | 4        | ..... | 58.9  | 242  |
| Soda.....      |      | .5  |       |          |       |       |      |
| Salt.....      |      | .5  | .1    |          |       |       |      |
|                |      |     | 11.2  | 83.6     | 24.0  | 515.0 | 2685 |

NO. 73. BAKING-POWDER BISCUIT.

|  | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|--|------|-----|-------|----------|------|-------|------|
| Flour, 1 qt.....                       | 1    | 4   | 2.8   | 63.5     | 5.6  | 424.6 | 2056 |
| Butter, 3 level tea-<br>spoonfuls..... |      | 1.5 | 2     | .4       | 36   | ..... | 338  |
| Milk, 1½ cups....                      |      | 12  | 2.5   | 11.2     | 13.6 | 17    | 244  |
| Baking powder, 3<br>teaspoonfuls....   |      |     | .8    |          |      |       |      |
|  |      |     | 8.1   | 75.1     | 55.2 | 441.6 | 2638 |

NO. 74. OLD NEW ENGLAND CORN BREAD.

|                  | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|------------------|------|-----|-------|----------|-------|-------|------|
| Indian meal..... |      | 8   | 1     | 20.2     | 5     | 170.3 | 828  |
| Suet.....        |      | 4   | 2     | .....    | 113   | ..... | 1055 |
| Flour.....       |      | 4   | .6    | 12.8     | 1.1   | 84.5  | 410  |
| Molasses.....    |      | 4   | .8    | 4        | ..... | 58.9  | 242  |
|                  |      |     | 4.4   | 37.0     | 119.1 | 313.7 | 2535 |

NO. 76. MOLASSES COOKIES.

1 cup New Orleans molasses, ½ cup butter, 1 egg, 2 tablespoonfuls sugar, ½ cup of sour milk in which 1 level teaspoonful baking soda has been dissolved, a little cinnamon or ginger, about 1 quart flour. These excellent cookies are favored by children.

|                 | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------|------|-----|-------|----------|-------|-------|------|
| Flour.....      | 1    | 4   | 3.1   | 63.5     | 5.6   | 424.6 | 2056 |
| Molasses.....   |      | 12  | 2.4   | 8.1      | ..... | 235.6 | 967  |
| Butter.....     |      | 4   | 5     | .....    | 94.8  | ..... | 884  |
| Milk, sour..... |      | 4   | 1.5   | 4        | 4.5   | 5.7   | 81   |
| Sugar.....      |      | 1   | .2    | .....    | ..... | 28.5  | 116  |
| Egg.....        |      | 2   | 2.5   | 7.4      | 5.2   | ..... | 81   |
|                 |      |     | 14.7  | 83.0     | 110.1 | 694.4 | 4185 |

165  
263  
24  
23  
2

## NO. 77. CORN MUSH WITH MAPLE SYRUP.

|  | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--|------|-----|-------|----------|-------|-------|------|
| Corn meal .....                        |      | 10  | 1.2   | 25       | 6.2   | 213   | 1034 |
| Fat, 4 level table-<br>spoonfuls ..... |      | 2   | 1     | .....    | 56.5  | ..... | 527  |
| Maple syrup .....                      |      | 4   | 4     | .....    | ..... | 80.9  | 332  |
|  |      |     | 6.2   | 25       | 62.7  | 293.9 | 1893 |

## NO. 78. DOUGHNUTS.

|                                      | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------------------------|------|-------|-------|----------|-------|-------|------|
| Flour.....                           | 1    | 4     | 2.8   | 62       | 6     | 428   | 2065 |
| Sugar.....                           |      | 7     | 2     | .....    | ..... | 202   | 828  |
| Milk.....                            |      | 9     | 1.5   | 8.3      | 10    | 13    | 179  |
| Fat.....                             |      | 2     | .5    | .....    | 48    | ..... | 446  |
| Baking powder, 4<br>teaspoonfuls.... |      | ..... | .8    |          |       |       |      |
|                                      |      |       | 7.6   | 70.3     | 64    | 643   | 3518 |

## NO. 79. MARYLAND BISCUIT.

|                     | Lbs. | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|---------------------|------|-------|-------|----------|------|-------|------|
| Flour, 1 pint.....  |      | ..... | 1.4   | 31       | 3.1  | 215.6 | 1040 |
| Lard, cup.....      |      | ..... | 1.5   | 1.5      | 66.2 | ..... | 622  |
| Milk, cup.....      |      | ..... | .75   | 4.2      | 5    | 6.2   | 48   |
| Salt, 1 teaspoonful |      |       |       |          |      |       |      |
| Water as necessary  |      |       |       |          |      |       |      |
|                     |      |       | 3.65  | 36.7     | 74.3 | 221.8 | 1710 |

## NO. 80. CRACKER TOAST, NO. 2.

|               | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|---------------|------|-----|-------|----------|------|-------|------|
| Crackers..... |      | 10  | 2     | 26       | 16   | 192   | 1022 |
| Milk.....     |      | 12  | 2.5   | 11.2     | 13.6 | 17    | 242  |
| Butter.....   |      | 1   | 1     | .....    | 23.7 | ..... | 221  |
|               |      |     | 5.5   | 37       | 53.3 | 209   | 1485 |

## NO. 81. GRAHAM MUFFINS.

The food value of other muffins is very nearly the same.

|                                    | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal.   |
|------------------------------------|------|-----|-------|----------|-------|-------|--------|
| Flour, Graham, 1 cup.....          |      |     | .96   | 18.5     | 3.1   | 99.4  | 511.9  |
| Flour, white, 1 cup.....           |      |     | .72   | 15.5     | 1.6   | 107.8 | 520.3  |
| Sugar, $\frac{1}{2}$ cup.....      |      |     | .6    | .....    | ..... | 50.5  | 207.2  |
| Milk, $\frac{1}{2}$ cup.....       |      |     | 1     | 4.2      | 5     | 6.2   | 47.8   |
| Suet, 1 lb.....                    |      |     | .02   | .3       | 2.5   | ..... | 110.6  |
| Water, $\frac{1}{2}$ cup.....      |      |     |       |          |       |       |        |
| Salt, 1 teaspoonful                |      |     |       |          |       |       |        |
| Baking powder, 4 teaspoonfuls... } |      |     | 1     |          |       |       |        |
|                                    |      |     | 4.30  | 45.2     | 17.5  | 263.9 | 1471.6 |

## NO. 82. PIE-CRUST.

|                      | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|----------------------|------|-----|-------|----------|-------|-------|------|
| Flour.....           |      | 8   | 1.3   | 25.6     | 2.5   | 169.1 | 822  |
| Lard and butter..... |      | 8   | 6     | .....    | 226.8 | ..... | 2110 |
| For two pies.....    |      |     | 7.3   | 25.6     | 229.3 | 169.1 | 2932 |
| For one pie.....     |      |     | 3.6   | 12.8     | 114.6 | 84.5  | 1466 |

## NO. 83. RICE CROQUETTES.

|                             | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------------------|------|-----|-------|----------|-------|-------|------|
| Rice, cold-boiled, dry..... |      | 4   | 2     | 8.8      | .4    | 89.6  | 407  |
| Milk.....                   |      | 8   | 1.5   | 7.5      | 9     | 11.3  | 161  |
| Eggs (2).....               |      | 4   | 3     | 14.8     | 10.8  | ..... | 161  |
| Butter.....                 |      | 1   | 1.5   | .....    | 23.7  | ..... | 221  |
| Sugar.....                  |      | 1   | .2    | .....    | ..... | 28    | 116  |
| Bread crumbs.....           |      | 4   | 1.5   | 11.5     | 1.4   | 63    | 321  |
|                             |      |     | 9.7   | 42.6     | 45.3  | 191.9 | 1387 |

## NO. 85. MAYONNAISE FOR SALADS.

|                                   | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-----------------------------------|------|-----|-------|----------|-------|-------|------|
| Yolks of 2 eggs.....              |      | 2   | 4     | 9        | 9     | ..... | 121  |
| Juice of $\frac{1}{2}$ lemon..... |      | 1   | 1     | .....    | ..... | 3.2   | 13   |
| Vinegar.....                      |      | 1.5 |       |          |       |       |      |
| Olive oil, $\frac{1}{2}$ cup..... |      | 4   | 8     | .....    | 120   | ..... | 1116 |
|                                   |      |     | 13    | 9        | 129   | 3.2   | 1250 |

## NO. 86. POTATO CAKES.

|                       | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-----------------------|------|-----|-------|----------|------|-------|------|
| Flour.....            |      | 8   | .6    | 13       | 1.1  | 84.6  | 410  |
| Potatoes, mashed..... |      | 8   | 1     | 4        | .2   | 34.9  | 155  |
| Eggs (2).....         |      | 4   | 3     | 14.8     | 10.8 | ..... | 161  |
| Milk.....             |      | 4   | .75   | 4        | 4.5  | 5.7   | 81   |
|                       |      |     | 5.35  | 35.8     | 16.6 | 125.2 | 807  |

## NO. 88. CANDIED SWEET POTATOES.

|                                  | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|----------------------------------|------|-------|-------|----------|-------|-------|------|
| Cooked sweet potatoes, cold..... | 1    | ..... | 2.5   | 6.8      | 2.7   | 104.7 | 460  |
| Melted butter.....               |      | 2     | 3.0   | 1        | 47    | ..... | 440  |
| Sugar.....                       |      | 2     | .7    | .....    | ..... | 56.7  | 232  |
|                                  |      |       | 6.2   | 7.8      | 49.7  | 161.4 | 1132 |

## NO. 89. BREAD DICE, FRIED.

|            | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|------------|------|-----|-------|----------|------|-------|------|
| Bread..... |      | 8   | 1.5   | 21       | 2.7  | 119   | 600  |
| Fat.....   |      | 2   | 1.0   | .....    | 56.5 | ..... | 528  |
|            |      |     | 2.5   | 21       | 59.2 | 119   | 1128 |

## NO. 91. ESCALLOPED TOMATOES.

|                   | Lbs. | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|-------------------|------|-------|-------|----------|------|-------|------|
| Tomatoes.....     | 1    | ..... | 4     | 5.4      | 5    | 18.1  | 105  |
| Bread crumbs..... |      | 6     | 2     | 16.2     | 1.8  | 90    | 450  |
| Butter.....       |      | 1.5   | 2.2   | .....    | 23.7 | ..... | 221  |
|                   |      |       | 8.2   | 21.6     | 30.5 | 108.1 | 776  |

## NO. 93. MASHED POTATO.

|                     | Lbs. | Oz.   | Cost. | Proteid. | Fat. | Carb. | Cal. |
|---------------------|------|-------|-------|----------|------|-------|------|
| Potatoes, boiled... | 1    | ..... | 2     | 12.2     | .9   | 101   | 440  |
| Milk.....           |      | 4     | 1     | 4.1      | 5    | 6.2   | 88   |
| Butter.....         |      | 1     | 1.5   | .....    | 23.7 | ..... | 221  |
|                     |      |       | 4.5   | 16.3     | 29.6 | 107.2 | 749  |

## NO. 94. LYONNAISE POTATOES.

|                                | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------------------|-------|-------|-------|----------|-------|-------|------|
| Potatoes, cold,<br>boiled..... | 1     | ..... | 2     | 8.1      | .4    | 69    | 325  |
| Fat.....                       | ..... | 1     | .1    | .....    | 28.4  | ..... | 264  |
| Onion.....                     | ..... | .5    | .1    | .2       | ..... | 1.2   | 6    |
|                                |       |       | 2.2   | 8.3      | 28.8  | 70.2  | 595  |

## NO. 100. DATE PUDDING.

|               | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|---------------|-------|-------|-------|----------|-------|-------|-------|
| Dates.....    | 1.2   | ..... | 7     | 10.3     | 24    | 336   | 1640  |
| Flour.....    | 1     | ..... | 2.5   | 51.2     | 5     | 338.3 | 1645  |
| Sugar.....    | .3    | ..... | 1.5   | .....    | ..... | 136   | 558   |
| Dripping..... | .3    | ..... | .1    | .....    | 136   | ..... | 1266  |
| Salt.....     | ..... | .2    | .1    | .....    | ..... | ..... | ..... |
| Nutmegs.....  | ..... | .6    | ..... | .....    | ..... | ..... | ..... |
|               |       |       | 12.1  | 61.5     | 165   | 810.3 | 5109  |

## NO. 101. BLUEBERRY PUDDING.

|                   | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------|-------|-------|-------|----------|-------|-------|------|
| Bread crumbs..... | ..... | 12    | 4     | 34.5     | 4.2   | 190.5 | 963  |
| Blueberries.....  | 1     | 8     | 10    | 4        | 4     | 113   | 517  |
| Sugar.....        | ..... | 8     | 2.5   | .....    | ..... | 228   | 928  |
| Dripping.....     | ..... | 2     | 1     | .....    | 56    | ..... | 527  |
| Hard sauce.....   | ..... | ..... | 2.5   | .....    | 47.4  | 114   | 906  |
|                   |       |       | 20.0  | 38.5     | 111.6 | 645.5 | 3841 |

## NO. 102. SUET PUDDING.

|                                  | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|----------------------------------|-------|-------|-------|----------|-------|-------|-------|
| Beef suet.....                   | ..... | 8     | 4     | 10       | 186.2 | ..... | 1770  |
| Flour.....                       | 1     | 4     | 3.1   | 63.5     | 5.6   | 424.6 | 2056  |
| Molasses.....                    | ..... | 6     | 1.2   | .....    | ..... | 118.2 | 483   |
| Soda.....                        | ..... | ..... | .1    | .....    | ..... | ..... | ..... |
|                                  |       |       | 8.4   | 73.5     | 191.8 | 542.8 | 4309  |
| Clear sauce, brown<br>sugar..... | ..... | 4     | 1.2   | .....    | ..... | 108   | 441   |
|                                  |       |       | 9.6   | 73.5     | 191.8 | 650.8 | 4750  |

## NO. 103. FIG PUDDING.

|                   | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------|------|-----|-------|----------|-------|-------|------|
| Flour.....        |      | 4   | .6    | 12       | 1.2   | 60    | 301  |
| Bread crumbs..... |      | 4   | 1.5   | 11.5     | 1.4   | 63.5  | 321  |
| Suet.....         |      | 4   | 2     | 5        | 93    | ..... | 885  |
| Figs.....         |      | 6   | 3.6   | 7        | .4    | 123   | 537  |
| Eggs (2).....     |      | 4   | 4.6   | 14       | 10.8  | ..... | 161  |
|                   |      |     | 12.3  | 49.5     | 106.8 | 246.5 | 2205 |
| SAUCE.            |      |     |       |          |       |       |      |
| Sugar.....        |      | 7   | 2.4   | .....    | ..... | 202   | 828  |
| Butter.....       |      | 4   | 6     | .....    | 94.8  | ..... | 884  |
| Vinegar.....      | 3    |     |       |          |       |       |      |
|                   |      |     | 20.7  | 49.5     | 201.6 | 448.5 | 3917 |

## NO. 105. SHORT-CAKE.

|                            | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|----------------------------|------|-----|-------|----------|------|-------|------|
| Flour, 1 qt.....           | 1    | 4   | 2.8   | 63.5     | 5.6  | 424.6 | 2056 |
| Butter.....                |      | 3   | 4     | .8       | 72   | ..... | 676  |
| Egg (1).....               |      | 2   | 2.3   | 6.7      | 5.3  | ..... | 87   |
| Milk, sweet or sour.....   |      | 8   | 1.5   | 8.3      | 10   | 12.6  | 179  |
| Soda or baking powder..... |      |     |       |          |      |       |      |
| Sweetened fruit.....       |      |     | 10    | 3        | 2    | 137   | 597  |
|                            |      |     | 20.6  | 82.3     | 94.9 | 574.2 | 3595 |

## NO. 106. PLUM PUDDING, NO. 1.

|               | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------|------|-----|-------|----------|-------|-------|------|
| Flour.....    | 1    | 8   | 3.7   | 77       | 7.5   | 507   | 2467 |
| Raisins.....  |      | 5   | 3     | 3.4      | 6.4   | 100.4 | 490  |
| Currants..... |      | 5   | 4     | 1.6      | 4     | 89.4  | 401  |
| Sugar.....    |      | 1   | ..... | .....    | ..... | 31.7  | 130  |
| or            |      |     |       |          |       |       |      |
| Molasses..... | .1   | 1.5 | .3    |          |       |       |      |
|               |      |     | 11.0  | 82.0     | 17.9  | 728.5 | 3488 |

## NO. 107. JAM ROLLS.

|            | Lbs. | Oz. | Cost. | Proteid. | Fat. | Carb. | Cal. |
|------------|------|-----|-------|----------|------|-------|------|
| Flour..... | 1    | 8   | 3.7   | 82       | 7.5  | 507   | 2467 |
| Jam.....   |      | 10  | 10    | 5        | 10   | 190   | 890  |
|            |      |     | 13.7  | 87       | 17.5 | 697   | 3357 |

## NO. 108. BROWN-BETTY.

|                   | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------|------|-------|-------|----------|-------|-------|------|
| Bread crumbs..... | 1    | ..... | 4     | 46       | 5.8   | 254   | 1284 |
| Butter.....       |      | 3     | 5     | .....    | 71.1  | ..... | 663  |
| Apples.....       | 2    | ..... | 4     | 2.7      | 2.7   | 98    | 440  |
| Brown sugar.....  |      | 7     | 2.2   | .....    | ..... | 188   | 771  |
|                   |      |       | 15.2  | 48.7     | 79.6  | 540   | 3158 |
| HARD SAUCE.       |      |       |       |          |       |       |      |
| Butter.....       |      | 3     | 5     | .....    | 71.1  | ..... | 663  |
| Sugar.....        |      | 4     | 1.2   | .....    | ..... | 114   | 464  |
|                   |      |       | 21.4  | 48.7     | 150.7 | 654   | 4285 |

## NO. 109. BREAD AND BUTTER.

|               | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------|------|-----|-------|----------|-------|-------|------|
| Bread.....    | 1    | 3   | 3     | 51.6     | 6.5   | 296.8 | 1807 |
| Sugar.....    |      | 5   | 1.7   | .....    | ..... | 136   | 558  |
| Currants..... |      | 1.6 | 1.8   | .5       | 1.4   | 30    | 137  |
| Butter.....   | .05  | .8  | 1.5   | .4       | 19    | ..... | 176  |
| Milk.....     | 1    | 10  | 6     | 24       | 29    | 36.3  | 520  |
|               |      |     | 14    | 76.5     | 55.9  | 499.1 | 3198 |

## NO. 111. CHESTER PUDDING.

|                | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|----------------|------|-----|-------|----------|-------|-------|------|
| Molasses.....  |      | 4   | 1     | 4        | ..... | 77    | 329  |
| Milk.....      |      | 4   | 1.5   | 3        | 4.4   | 5.6   | 61   |
| Beef suet..... |      | 4   | 3     | 4.5      | 90.6  | ..... | 845  |
| Flour.....     |      | 12  | 2     | 36       | 2.4   | 240   | 1200 |
| Raisins.....   |      | 4   | 4     | 3        | 5.3   | 66.4  | 288  |
|                |      |     | 13    | 50.5     | 102.7 | 389.0 | 2723 |

## NO. 112. APPLE TARTS.

|             | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------|------|-------|-------|----------|-------|-------|------|
| Flour.....  | 1    | ..... | 2.5   | 51.2     | 5     | 338.3 | 1640 |
| Apples..... | 1    | 8     | 4     | 2.7      | 2.7   | 84.3  | 382  |
| Sugar.....  |      | 5     | 1.5   | .....    | ..... | 136   | 558  |
|             |      |       | 8.0   | 53.9     | 7.7   | 558.6 | 2580 |

## NO. 113. PLUM PUDDING, NO. 2.

|                          | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------------|------|-----|-------|----------|-------|-------|------|
| Milk .....               |      | 12  | 3     | 11.3     | 13.5  | 16.9  | 243  |
| Cracker crumbs ..        |      | 8   | 2     | 24.2     | 22.5  | 156   | 947  |
| Butter .....             |      | 2   | 3     | 1.2      | 47.2  | ..... | 442  |
| Raisins & currants ..... |      | 8   | 6     | 6        | 10.6  | 132.8 | 576  |
| Citron .....             |      |     |       |          |       |       |      |
| Eggs (2) .....           |      | 4   | 7     | 15.8     | 10.4  | ..... | 162  |
|                          |      |     | 21    | 58.5     | 104.2 | 305.7 | 2370 |

## NO. 114. BAKED INDIAN PUDDING.

|                  | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|------------------|------|-------|-------|----------|-------|-------|------|
| Milk .....       | 4    | ..... | 12    | 60       | 72.4  | 90.8  | 1300 |
| Corn meal .....  | 1    | ..... | 2.5   | 40.4     | 10    | 340.6 | 1545 |
| Sugar .....      |      | 10    | 3     | .....    | ..... | 283.5 | 1162 |
| Eggs (4) .....   |      | 8     | 10    | 29.7     | 21.5  | ..... | 322  |
| Sour cream ..... |      | 1     | 4     | .5       | 2     | .5    | 21   |
| Raisins .....    |      | 6     | 2.5   | 4        | 5     | 105   | 542  |
|                  |      |       | 34.0  | 134.6    | 110.9 | 820.4 | 4892 |

## NO. 115. TAPIOCA PUDDING.

|               | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------|------|-----|-------|----------|-------|-------|------|
| Tapioca ..... |      | 10  | 3     | 1.1      | .8    | 237.6 | 990  |
| Milk .....    | 2    | 8   | 7     | 33       | 40    | 50    | 715  |
| Sugar .....   |      | 5   | 1.5   | .....    | ..... | 136   | 558  |
| Nutmeg .....  |      |     |       |          |       |       |      |
| Butter .....  |      | 1   | 1.5   | .4       | 19    | ..... | 176  |
|               |      |     | 13.0  | 34.5     | 59.8  | 433.6 | 2439 |

## NO. 116. ENGLISH MILITARY COOKING.—RICE PUDDING.

For six men.

|                        | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|------------------------|------|-----|-------|----------|-------|-------|------|
| Rice .....             |      | 10  | 4     | 21       | 1     | 215   | 978  |
| Milk (1.2 qts.) .....  | 2    | 8   | 7     | 33       | 39.8  | 49.9  | 715  |
| Nutmeg (.3 of 1) ..... |      |     | 1     |          |       |       |      |
| Sugar .....            |      | 5   | 1.7   | .....    | ..... | 136   | 558  |
| Butter .....           |      | 1   | 1.5   | .4       | 19    | ..... | 176  |
|                        |      |     | 15.2  | 54.4     | 59.8  | 400.9 | 2427 |



## NO. 117. ICE-CREAM FOR SIX.

|                           | Lbs.  | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------------------------|-------|-----|-------|----------|-------|-------|------|
| Thin cream, 3 cups        | 1     | 8   | 19    | 20.4     | 133.8 | 32.4  | 1352 |
| Milk, $1\frac{1}{2}$ cups | ..... | 12  | 2.5   | 12       | 15    | 18.6  | 264  |
| Egg (1)                   | ..... | 2   | 2     | 4.8      | 39.6  | ..... | 48   |
| Sugar, 12 table-spoonfuls | ..... | 6   | 2     | .....    | ..... | 151.8 | 624  |
| Vanilla                   | ..... |     |       |          |       |       |      |
|                           |       |     | 25.5  | 37.2     | 188.4 | 202.8 | 2288 |

## NO. 119. INDIAN PUDDING WITHOUT EGGS.

|                           | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|---------------------------|-------|-------|-------|----------|-------|-------|-------|
| Milk, 5 cups              | 2     | 8     | 8.7   | 27       | 45    | 57    | 807   |
| Corn-meal, 1 cup          | ..... | 6     | 1.3   | 15.1     | 3.7   | 126.3 | 612   |
| Molasses                  | ..... | 6     | 1     | .....    | ..... | 98    | 403   |
| Ginger, $\frac{1}{2}$ oz. | ..... | ..... | .2    | .....    | ..... | ..... | ..... |
|                           |       |       | 11.2  | 42.1     | 48.7  | 281.3 | 1822  |

## NO. 120. TAPIOCA PUDDING, NO. 2.

|         | Lbs.  | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|---------|-------|-------|-------|----------|-------|-------|------|
| Milk    | 2     | ..... | 6     | 30       | 36.2  | 45.4  | 646  |
| Eggs    | ..... | 4     | 4     | 7.4      | 5.2   | ..... | 81   |
| Tapioca | ..... | 3     | 1     | .4       | .3    | ..... | 309  |
| Sugar   | ..... | 2     | .6    | .....    | ..... | 57    | 232  |
|         |       |       | 11.6  | 10.8     | 41.7  | 102.4 | 1268 |

## NO. 121. CREAMY RICE PUDDING FOR SIX.

Cook three hours.

|              | Lbs.  | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal.  |
|--------------|-------|-----|-------|----------|-------|-------|-------|
| Skimmed milk | 1     | 4   | 3     | 19       | 1.8   | 28    | 210   |
| Rice         | ..... | 4   | 1.5   | 8.8      | .4    | 89.6  | 407   |
| Sugar        | ..... | 4   | 1.2   | .....    | ..... | 113.4 | 465   |
| Salt         | ..... | .12 | ..... | .....    | ..... | ..... | ..... |
| Cinnamon     | ..... | .06 | .1    | .....    | ..... | ..... | ..... |
|              |       |     | 5.8   | 27.8     | 2.2   | 231   | 1082  |

## NO. 122. CORN-STARCH PUDDING.

|                   | Lbs. | Oz.   | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------|------|-------|-------|----------|-------|-------|------|
| Corn-starch ..... |      | 3     | 1     | .....    | ..... | 56    | 230  |
| Milk .....        | 1    | ..... | 3     | 15       | 18    | 22.7  | 325  |
| Sugar .....       |      | 4     | 1.2   | .....    | ..... | 113   | 465  |
|                   |      |       | 5.2   | 15       | 18    | 191.7 | 1020 |

## NO. 125. HARD SAUCE.

|                         | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|-------------------------|------|-----|-------|----------|-------|-------|------|
| Butter .....            |      | 1.5 | 3     | 1.5      | 35.2  | ..... | 330  |
| Sugar, granulated ..... |      | 4   | 1.2   | .....    | ..... | 113.4 | 465  |
|                         |      |     | 4.2   | 1.5      | 35.2  | 113.4 | 795  |

## NO. 126. VINEGAR SAUCE.

|              | Lbs. | Oz.           | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------|------|---------------|-------|----------|-------|-------|------|
| Sugar .....  |      | 4             | 1.2   | .....    | ..... | 113   | 465  |
| Butter ..... |      | 1             | 1.5   | .6       | 23.6  | ..... | 221  |
| Flour .....  |      | $\frac{1}{2}$ | .07   | 1.5      | .1    | 10    | 50   |
|              |      |               | 2.77  | 2.1      | 23.7  | 123   | 736  |

## NO. 128. CLEAR SAUCE.

|                    | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------|------|-----|-------|----------|-------|-------|------|
| Water .....        |      | 4   |       |          |       |       |      |
| Sugar, brown ..... |      | 4   | 1.2   | .....    | ..... | 108   | 441  |
| Flavor .....       |      |     | 1.2   | .....    | ..... | 108   | 441  |

## NO. 129. FRUIT SAUCE.

|                          | Lbs. | Oz. | Cost. | Proteid. | Fat.  | Carb. | Cal. |
|--------------------------|------|-----|-------|----------|-------|-------|------|
| Jelly or preserves ..... |      | 4   | 4     | .....    | ..... | 80    | 328  |
| White of 1 egg .....     |      | 1   | 1     | 13       | ..... | ..... | 53   |
|                          |      |     | 5     | 13       | ..... | 80    | 381  |

TABLE VI.

DEFINITIONS AND EQUIVALENTS OF WEIGHTS AND MEASURES.

|  |                 |
|--|-----------------|
| 1 qt. flour.....                               | 1 pound 4 oz.   |
| 1 pint granulated sugar.....                   | 1 pound.        |
| 1 " butter.....                                | 1 "             |
| 1 " chopped meat packed solid.....             | 1 "             |
| 1 " liquids.....                               | 1 "             |
| $\frac{1}{8}$ " rice.....                      | 8 oz.           |
| $\frac{1}{2}$ " raisins or currants . . . . .  | 6 "             |
| 1 tablespoonful, heaped, granulated sugar..... | 1 "             |
| 1 " , rounded, butter.....                     | 1 "             |
| 2 tablespoonfuls level, liquids... . . . .     | 1 "             |
| 1 tablespoonful " of sugar or butter.....      | $\frac{1}{2}$ " |
| 1 " , rounded, flour.....                      | $\frac{1}{2}$ " |

In Appendix I will be found a table of interchangeable weights and measures, a use of which will greatly facilitate calculations.

TABLE VII.

## APPROXIMATE COMPOSITION OF 1 POUND OF SOME COMMON FOOD MATERIALS.

FROM DATA CHIEFLY DERIVED FROM BULLETIN NO. 28, UNITED STATES  
DEPARTMENT OF AGRICULTURE, BY PERMISSION OF THE SECRETARY.

| Kind of Food.                                  | Refuse. | Water. | Protein. | Fats. | C. H. | Calories | Cost per pound. |
|--|---------|--------|----------|-------|-------|----------|-----------------|
| BEEF.  |         |        |          |       |       |          |                 |
| Chuck and shoulder, av'age                     | 17.3    | 54     | 71.7     | 56.6  | ..... | 820      |                 |
| Fore-shank, very lean.....                     | 44.1    | 41.6   | 55.8     | 7.3   | ..... | 295      |                 |
| Fore-shank, medium.....                        | 36.9    | 42.9   | 58       | 33.1  | ..... | 545      |                 |
| Heart.....                                     | 5.9     | 53.2   | 67.1     | 112   | ..... | 1320     |                 |
| Hind shank, average.....                       | 55.4    | 31     | 44.1     | 17.7  | ..... | 345      |                 |
| Loin, medium.....                              | 13.3    | 52.5   | 73       | 79.4  | ..... | 1040     |                 |
| Neck.....                                      | 31.2    | 45.3   | 72.6     | 41.7  | ..... | 650      |                 |
| Ribs, lean.....                                | 22.6    | 52.6   | 68.9     | 42.2  | ..... | 675      |                 |
| Ribs, fat.....                                 | 16.8    | 39.6   | 57.6     | 138.8 | ..... | 1525     |                 |
| Ribs, medium.....                              | 20.8    | 43.8   | 63       | 96.1  | ..... | 1155     |                 |
| Rib-roll, medium.....                          | .....   | 63.9   | 87.5     | 75.7  | ..... | 1065     |                 |
| Round, lean.....                               | 8.1     | 64.4   | 88.4     | 33.1  | ..... | 670      |                 |
| Round, medium fat.....                         | 7.2     | 60.7   | 86.2     | 58.1  | ..... | 895      |                 |
| Round, medium.....                             | 19.5    | 56.2   | 74.4     | 31.3  | ..... | 595      |                 |
| Rump, lean.....                                | 14      | 56.6   | 86.6     | 49.9  | ..... | 820      |                 |
| Rump, medium.....                              | 20.7    | 45     | 62.7     | 91.6  | ..... | 1110     |                 |
| Rump, average.....                             | 19      | 46.9   | 68.9     | 84.4  | ..... | 1065     |                 |
| Steak, sirloin, medium.....                    | 12.8    | 54     | 74.8     | 73    | ..... | 985      |                 |
| Steak, sirloin, top.....                       | 3.2     | 40.9   | 60.3     | 191.9 | ..... | 2030     |                 |
| Steak, porterhouse.....                        | 12.7    | 52.4   | 86.6     | 81.1  | ..... | 1110     |                 |
| Sweetbreads.....                               | .....   | 70.9   | 76.2     | 54.9  | ..... | 825      |                 |
| Tongue.....                                    | 26.5    | 51.8   | 63.9     | 30.4  | ..... | 545      |                 |
| Liver.....                                     | 7.3     | 65.6   | 93.9     | 20.4  | 6.8   | 555      |                 |
| VEAL AND LAMB.                                 |         |        |          |       |       |          |                 |
| Veal, breast, medium.....                      | 21.3    | 52     | 69.9     | 50.1  | ..... | 750      |                 |
| Veal, fore-quarter.....                        | 24.5    | 54.2   | 68.4     | 27.2  | ..... | 585      |                 |
| Veal, heart.....                               | .....   | 73.2   | 76.2     | 43.5  | ..... | 720      |                 |
| Veal, kidneys.....                             | .....   | 75.8   | 76.7     | 29    | ..... | 585      |                 |
| Veal, leg, average.....                        | 11.7    | 63.4   | 82.9     | 30.3  | ..... | 622      |                 |
| Veal, loin.....                                | 18.6    | 56.2   | 70.7     | 38.1  | ..... | 644      |                 |
| Veal, liver.....                               | .....   | 73.0   | 77.6     | 22.7  | ..... | 575      |                 |
| Lamb, fore-quarter.....                        | 18.8    | 44.7   | 67.6     | 95.2  | ..... | 1165     |                 |
| Lamb, leg, medium fat....                      | 17.4    | 52.9   | 72.1     | 61.7  | ..... | 870      |                 |
| Lamb, leg, aver analysis..                     | 13.8    | 50.3   | 72.6     | 62.1  | ..... | 1130     |                 |
| Lamb, shoulder.....                            | 20.3    | 41.3   | 65.3     | 107   | ..... | 1265     |                 |
| MUTTON.  |         |        |          |       |       |          |                 |
| Fore-quarter, average....                      | 21.2    | 41.6   | 55.8     | 111.1 | ..... | 1265     |                 |
| Leg, hind, average.....                        | 17.7    | 51.9   | 69.9     | 65.8  | ..... | 900      |                 |
| Loin, medium, without<br>kidney or tallow..... | 16      | 42     | 61.2     | 128.4 | ..... | 1445     |                 |
| Loin, very fat.....                            | 9       | 28.1   | 43.5     | 242.2 | ..... | 2435     |                 |
| Neck, medium.....                              | 27.4    | 42.1   | 55.8     | 81.1  | ..... | 985      |                 |
| Shoulder, medium.....                          | 22.5    | 47.9   | 62.1     | 70.3  | ..... | 910      |                 |

TABLE VII.—Continued.

| Kind of Food.                        | Refuse. | Water. | Protein. | Fats.  | C. H. | Calories | Cost per pound. |
|--------------------------------------|---------|--------|----------|--------|-------|----------|-----------------|
| PORK.                                |         |        |          |        |       |          |                 |
|                                      | %       | %      | Grams:   | Grams. | Grams |          |                 |
| Back fat.....                        | .....   | 7.7    | 16.3     | 407.8  | ..... | 3860     |                 |
| Headcheese.....                      | 12.1    | 42.3   | 85.7     | 108.9  | ..... | 1365     |                 |
| Loin, medium.....                    | 19.7    | 41.8   | 60.8     | 109.8  | ..... | 1270     |                 |
| Loin, average.....                   | 19.3    | 40.8   | 59.9     | 117.9  | ..... | 1340     |                 |
| Shoulder.....                        | 12.4    | 44.9   | 54.4     | 135.2  | ..... | 1480     |                 |
| Sausage:                             |         |        |          |        |       |          |                 |
| Bologna.....                         | 3.3     | 55.2   | 82.6     | 89.4   | ..... | 1170     |                 |
| Farmer.....                          | 3.9     | 22.2   | 126.6    | 183.2  | ..... | 2225     |                 |
| Frankfurt.....                       | .....   | 57.2   | 88.9     | 84.4   | 5.0   | 1170     |                 |
| Wienerwurst.....                     | .....   | 43.9   | 127      | 100.2  | 7.3   | 1485     |                 |
| COOKED MEATS.                        |         |        |          |        |       |          |                 |
| Corned beef.....                     | 8.4     | 49.6   | 64.3     | 103.4  | ..... | 1271     |                 |
| Ground tongue, canned.....           | .....   | 49.9   | 97.1     | 113.8  | ..... | 1455     |                 |
| Ham, boiled, aver. as purchased..... | .....   | 51.3   | 91.6     | 101.6  | ..... | 1320     |                 |
| Sandwich meats.....                  | .....   | 58.3   | 127      | 50     | ..... | 985      |                 |
| SALTED AND SMOKED.                   |         |        |          |        |       |          |                 |
| Beef, corned, brisket.....           | 21.4    | 40     | 65.3     | 88     | ..... | 1085     |                 |
| Beef, corned, rump, medium.....      | 6       | 54.5   | 64.9     | 99.8   | ..... | 1195     |                 |
| Beef, corned, plate.....             | 14.5    | 34.3   | 53.2     | 162.4  | ..... | 1730     |                 |
| Beef dried, salted and smoked.....   | 4.7     | 53.7   | 119.8    | 31.3   | ..... | 780      |                 |
| Beef tongue pickled.....             | 6       | 58.9   | 54       | 87.1   | ..... | 1030     |                 |
| Beef tripe pickled.....              | .....   | 86.5   | 53.1     | 5.44   | ..... | 270      |                 |
| Ham, smoked, medium fat..            | 13.6    | 34.8   | 64.4     | 151.5  | ..... | 1675     |                 |
| Ham, smoked, lean.....               | 11.5    | 47.2   | 79.4     | 83.9   | ..... | 1105     |                 |
| Bacon, av'age of analysis.           | 8.7     | 18.4   | 40.1     | 269.4  | ..... | 2685     |                 |
| Pork backs, salted.....              | 8.1     | 15.9   | 32.2     | 303    | ..... | 2950     |                 |
| Pork, lean ends, salted....          | 11.2    | 17.6   | 33.5     | 270.4  | ..... | 2655     |                 |
| Pigs' feet, pickled.....             | 35.5    | 44.6   | 46.3     | 42.2   | ..... | 585      |                 |
| Salt cod, boneless.....              | 1.6     | 54.8   | 125.7    | 1.4    | ..... | 545      |                 |
| Halibut, smoked.....                 | 7       | 46     | 87.5     | 63.5   | ..... | 950      |                 |
| Herring, smoked.....                 | 44.4    | 19.2   | 93       | 39.9   | ..... | 750      |                 |
| Mackerel, salted.....                | 22.9    | 32.5   | 73.9     | 78.9   | ..... | 1035     |                 |
| Sardines.....                        | 5       | 53.6   | 107.5    | 54.9   | ..... | 950      |                 |
| FATS.                                |         |        |          |        |       |          |                 |
| Cottolene.....                       | .....   | .....  | .....    | 453.6  | ..... | 4220     |                 |
| Lard, refined.....                   | .....   | .....  | .....    | 453.6  | ..... | 4220     |                 |
| Marrow, beef.....                    | .....   | 3.3    | 10       | 420.9  | ..... | 3955     |                 |
| Oleomargarine.....                   | .....   | 9.5    | 5.4      | 376.5  | ..... | 3525     |                 |
| Suet.....                            | .....   | 13.7   | 21.3     | 372    | ..... | 3540     |                 |
| Tallow, refined.....                 | .....   | .....  | .....    | 453.6  | ..... | 4220     |                 |

TABLE VII.—Continued.

| Kind of Food.                                    | Refuse. | Water. | Protein. | Fats. | C. H. | Calories | Cost per pound. |
|--|---------|--------|----------|-------|-------|----------|-----------------|
| CHICKEN AND FOWL.                                |         |        |          |       |       |          |                 |
| Chicken.....                                     | 41.6    | 43.7   | 58.1     | 6.4   | 3.2   | 295      |                 |
| Fowl.....  | 25.9    | 47.1   | 62.1     | 55.8  | 7.7   | 775      |                 |
| Turkey... :                                      | 22.7    | 42.4   | 73       | 86.6  | 3.6   | 1075     |                 |
| FISH.  |         |        |          |       |       |          |                 |
| Bass, striped, whole.....                        | 55      | 35.1   | 38.1     | 5     | ..... | 200      |                 |
| Bluefish.....                                    | 48.6    | 40.3   | 45.4     | 2.7   | ..... | 210      |                 |
| Catfish.....                                     | 19.4    | 51.7   | 52.6     | 75.3  | ..... | 915      |                 |
| Cod, dressed.....                                | 29.9    | 58.5   | 50.3     | .9    | ..... | 215      |                 |
| Cod, steaks.....                                 | 9.2     | 72.4   | 77.1     | 2.3   | ..... | 335      |                 |
| Hadlock.....                                     | 51      | 40     | 38.1     | .9    | ..... | 165      |                 |
| Halibut steaks.....                              | 17.7    | 61.9   | 69.4     | 20    | ..... | 470      |                 |
| Mackerel, entrails removed,<br>as purchased..... | 40.7    | 43.7   | 52.6     | 15.9  | ..... | 365      |                 |
| Oysters, solids.....                             | .....   | 88.3   | 27.2     | 5.9   | 15    | 230      |                 |
| Red snappers.....                                | 46.1    | 42     | 49       | 2.7   | ..... | 225      |                 |
| Salmon, sections.....                            | 10.3    | 57.9   | 75.7     | 67.1  | ..... | 935      |                 |
| Shad.....  | 50.1    | 35.2   | 42.6     | 21.8  | ..... | 380      |                 |
| Shad roe.....                                    | .....   | 71.1   | 94.8     | 17.2  | 11.8  | 600      |                 |
| Whitefish.....                                   | 53.5    | 32.5   | 48.1     | 13.6  | ..... | 325      |                 |
| FLOURS.  |         |        |          |       |       |          |                 |
| Roller process, high grade,<br>average.....      | .....   | 12.4   | 50.8     | 4.5   | 339.7 | 1645     |                 |
| Roller process, straight<br>grade, average.....  | .....   | 12.8   | 49       | 5     | 339.3 | 1640     |                 |
| Whole wheat.....                                 | .....   | 11.4   | 62.6     | 8.6   | 326.1 | 1675     |                 |
| Buckwheat.....                                   | .....   | 13.6   | 29       | 5.4   | 353.4 | 1620     |                 |
| Pea flour.....                                   | .....   | 11.4   | 114.3    | 9.1   | 259.0 | 1615     |                 |
| CEREALS & FLOUR PASTES.                          |         |        |          |       |       |          |                 |
| Barley, pearly.....                              | .....   | 11.5   | 38.6     | 4.9   | 352.9 | 1650     |                 |
| Corn meal, unbolted.....                         | 10.1    | 10.3   | 34.0     | 19.1  | 298.9 | 1545     |                 |
| Corn meal, bolted.....                           | .....   | 12.9   | 40.4     | 10    | 340.6 | 1655     |                 |
| Hominy.....                                      | .....   | 79.3   | 37.6     | 2.7   | 335.8 | 1650     |                 |
| Oatmeal and roller oats.....                     | .....   | 7.3    | 73       | 32.6  | 306.2 | 1820     |                 |
| Macaroni.....                                    | .....   | 10.3   | 60.8     | 4.1   | 336.1 | 1665     |                 |
| Popcorn.....                                     | .....   | 4.3    | 48.5     | 22.7  | 357   | 1875     |                 |
| Rice.....  | .....   | 12.8   | 36.3     | 1.4   | 358.3 | 1630     |                 |
| Rice, boiled.....                                | .....   | 72.5   | 12.7     | .4    | 110.7 | 525      |                 |
| Tapioca.....                                     | .....   | 11.4   | 4.1      | .4    | 399.2 | 1650     |                 |
| Wheatlet.....                                    | .....   | 10.4   | 55.7     | 6.3   | 340.1 | 1685     |                 |
| Shredded wheat.....                              | .....   | 9.6    | 54.9     | 8.2   | 341.1 | 1700     |                 |
| BREAD.   |         |        |          |       |       |          |                 |
| Brown.....                                       | .....   | 43.6   | 24.5     | 8.2   | 213.6 | 1050     |                 |
| Rye.....   | .....   | 35.7   | 40.8     | 2.7   | 241.3 | 1180     |                 |
| White, miscellaneous, as<br>purchased.....       | .....   | 35.6   | 42.2     | 5.4   | 239   | 1205     |                 |
| Bread-crumbs.....                                | .....   | 25.0   | 46.0     | 5.8   | 254   | 1284     |                 |

TABLE VII.—Continued.

| Kind of Food.                       | Refuse. | Water. | Protein. | Fat.   | C. H.  | Calories | Cost per pound. |
|-------------------------------------|---------|--------|----------|--------|--------|----------|-----------------|
| CRACKERS.                           |         |        |          |        |        |          |                 |
|                                     | %       | %      | Grams    | Grams. | Grams. |          |                 |
| Boston.....                         |         | 7.5    | 49.9     | 38.6   | 322.5  | 1885     |                 |
| Butter.....                         |         | 7.2    | 41.9     | 45.8   | 324.8  | 1935     |                 |
| Oyster.....                         |         | 4.8    | 51.3     | 47.6   | 319.8  | 1965     |                 |
| Pilot-bread.....                    |         | 8.7    | 50.3     | 22.7   | 336.6  | 1800     |                 |
| Saltines.....                       |         | 5.6    | 48.1     | 57.6   | 310.7  | 2005     |                 |
| Soda.....                           |         | 5.9    | 44.5     | 41.3   | 331.6  | 1925     |                 |
| FRESH FRUIT.                        |         |        |          |        |        |          |                 |
| Apples.....                         | 25      | 63.3   | 1.4      | 1.4    | 50     | 220      |                 |
| Apricots.....                       | 6       | 79.9   | 4.5      | .....  | 57.2   | 253      |                 |
| Bananas, yellow.....                | 35      | 48.9   | 3.6      | 1.8    | 64.9   | 300      |                 |
| Blackberries.....                   |         | 86.3   | 5.9      | 4.5    | 49.4   | 270      |                 |
| Cherries, stoned.....               |         | 80.9   | 4.5      | 3.6    | 75.7   | 365      |                 |
| Cranberries.....                    |         | 88.9   | 1.8      | 2.7    | 44.9   | 215      |                 |
| Grapes.....                         | 25      | 58     | 4.5      | 5.4    | 65.3   | 335      |                 |
| Huckleberries.....                  |         | 81.9   | 2.7      | 2.7    | 75.3   | 345      |                 |
| Lemons.....                         | 30      | 62.5   | 3.2      | 2.3    | 26.8   | 145      |                 |
| Oranges.....                        | 27      | 63.4   | 2.7      | .4     | 38.6   | 170      |                 |
| Peaches.....                        |         |        |          |        |        |          |                 |
| Pears.....                          | 10      | 76     | 2.3      | 1.8    | 57.6   | 260      |                 |
| Plums.....                          | 5       | 74.5   | 4.1      | .....  | 86.6   | 370      |                 |
| Raspberries, red, as purchased..... |         | 85.8   | 4.5      | .....  | 57.2   | 255      |                 |
| Strawberries.....                   | 5       | 85.9   | 4.1      | 2.7    | 31.6   | 175      |                 |
| Watermelons.....                    | 59.4    | 37.5   | .9       | .45    | 12.3   | 60       |                 |
| Whortleberries (blueberries).....   |         | 82.4   | 3.2      | 13.    | 61.2   | 390      |                 |
| DRIED FRUIT.                        |         |        |          |        |        |          |                 |
| Apples.....                         |         | 28.1   | 7.3      | 10     | 299.8  | 1350     |                 |
| Apricots.....                       |         | 29.4   | 21.3     | 4.5    | 283.5  | 1290     |                 |
| Peaches.....                        |         |        |          |        |        |          |                 |
| Currants.....                       |         | 17.2   | 10.9     | 7.7    | 336.6  | 1495     |                 |
| Dates.....                          | 10      | 13.8   | 8.6      | 11.3   | 320.2  | 1450     |                 |
| Figs.....                           |         | 18.8   | 19.5     | 1.4    | 336.6  | 1475     |                 |
| Prunes.....                         | 15      | 19     | 8.2      | .....  | 283    | 1190     |                 |
| Raisins.....                        | 10      | 13.1   | 10.4     | 13.6   | 310.7  | 1445     |                 |
| NUTS.                               |         |        |          |        |        |          |                 |
| Almonds, as purchased....           | 45      | 2.7    | 52.2     | 13.7   | 43.1   | 1660     |                 |
| Chestnuts, fresh.....               | 16      | 37.8   | 23.6     | 20.4   | 160.6  | 945      |                 |
| Chestnuts, dry.....                 | 24      | 4.5    | 37.7     | 24     | 255.8  | 1425     |                 |
| Cocoanut, prepared.....             |         | 3.5    | 28.6     | 260.4  | 142.8  | 3125     |                 |
| Peanuts.....                        | 24.5    | 6.9    | 88.5     | 132    | 83.9   | 1935     |                 |
| Peanut butter.....                  |         | 2.1    | 132.9    | 210.5  | 77.6   | 2825     |                 |
| Walnuts (California).....           | 73.1    | .7     | 22.2     | 78.5   | 15.9   | 885      |                 |
| SUGARS.                             |         |        |          |        |        |          |                 |
| Honey.....                          |         | 18.2   | 1.8      | .....  | 368.3  | 1520     |                 |
| Molasses, cane.....                 |         | 25.1   | 10.9     | .....  | 314.3  | 1290     |                 |

TABLE VII.—Continued.

| Kind of Food.                                   | Refuse. | Water. | Protein. | Fat.   | C. H.  | Calories | Cost per pound. |
|---|---------|--------|----------|--------|--------|----------|-----------------|
| SUGARS.   |         |        |          |        |        |          |                 |
| Sugar, coffee or brown . . . . .                | %       | %      | Grams.   | Grams. | Grams. |          |                 |
| Sugar, granulated . . . . .                     |         | 5.0    |          |        | 431    | 1766     |                 |
| Sugar, maple . . . . .                          |         |        |          |        | 453.6  | 1860     |                 |
| Syrup, maple . . . . .                          |         | 29.0   |          |        | 375.6  | 1540     |                 |
|   |         |        |          |        | 323.9  | 1330     |                 |
| MISCELLANEOUS.                                  |         |        |          |        |        |          |                 |
| Chocolate . . . . .                             |         | 5.9    | 58.5     | 220.9  | 137.4  | 2860     |                 |
| Cocoa . . . . .                                 |         | 4.6    | 98       | 131    | 171    | 2320     |                 |
| Cereal coffee . . . . .                         |         |        |          |        |        |          |                 |
| DAIRY PRODUCTS.                                 |         |        |          |        |        |          |                 |
| Butter, as purchased . . . . .                  |         | 11     | 4.5      | 385.5  |        | 3605     |                 |
| Cream, thin . . . . .                           |         |        | 14       | 60     | 16     | 681      |                 |
| Cream, thick . . . . .                          |         |        | 12       | 22     | 12     | 1223     |                 |
| Cream, common . . . . .                         |         | 74     | 11.3     | 38.6   | 20.4   | 910      |                 |
| Cheese, American pale . . . . .                 |         | 31.6   | 130.6    | 162.8  | 1.4    | 2060     |                 |
| Cheese, Cottage . . . . .                       |         | 72.0   | 94.8     | 4.5    | 19.5   | 510      |                 |
| Cheese, Dutch . . . . .                         |         | 35.2   |          | 50.3   | 45.4   | 1435     |                 |
| Cheese, Neuchatel . . . . .                     |         | 50     | 84.8     | 124.3  | 6.8    | 1530     |                 |
| Cheese, Swiss . . . . .                         |         | 31.4   | 125.2    | 158.3  | 5.9    | 2010     |                 |
| Cheese, imitation full cream,<br>Ohio . . . . . |         | 37.9   | 117.5    | 143.8  |        | 1820     |                 |
| Milk, whole . . . . .                           |         | 87     | 15       | 18.1   | 22.7   | 325      |                 |
| Milk, skimmed . . . . .                         |         | 90.5   | 15.4     | 1.4    | 23.1   | 170      |                 |
| Milk, butter . . . . .                          |         | 91     | 13.6     | 2.3    | 21.8   | 165      |                 |
| Milk, condensed, sweetened . . . . .            |         | 26.9   | 39.9     | 37.6   | 245.4  | 1520     |                 |
| Milk, " unsweetened . . . . .                   |         | 68.2   | 43.5     | 42.2   | 50.8   | 780      |                 |
| EGGS.   |         |        |          |        |        |          |                 |
| Whole . . . . .                                 | 11.2    | 65.5   | 59.5     | 43.1   |        | 645      |                 |
| Whites . . . . .                                |         | 86.2   | 59       | 9      |        | 425      |                 |
| Yolks . . . . .                                 |         | 49.5   | 71       | 73     |        | 971      |                 |
| VEGETABLES, FRESH.                              |         |        |          |        |        |          |                 |
| Asparagus . . . . .                             |         | 94     | 8.2      | .9     | 15     | 105      |                 |
| Beans, dry . . . . .                            |         | 12.6   | 102.1    | 8.2    | 270.3  | 1605     |                 |
| Beans, butter green . . . . .                   | 50      | 29.4   | 21.3     | 1.4    | 66.2   | 370      |                 |
| Beans, lima, dried . . . . .                    |         | 10.4   | 72.1     | 6.8    | 298.9  | 1625     |                 |
| Beans, lima, green shelled . . . . .            |         | 68.5   | 32.2     | 3.2    | 99.8   | 570      |                 |
| Beans, string . . . . .                         |         | 89.2   | 10       | 1.8    | 33.5   | 195      |                 |
| Beets . . . . .                                 | 20      | 70     | 5.9      | .5     | 34.9   | 170      |                 |
| Cabbage . . . . .                               | 15      | 77.7   | 6.4      | .9     | 21.8   | 125      |                 |
| Carrots . . . . .                               | 20      | 70.6   | 4.1      | .9     | 33.6   | 160      |                 |
| Cauliflower . . . . .                           |         | 92.3   | 8.2      | 2.3    | 21.3   | 140      |                 |
| Celery, as purchased . . . . .                  | 20      | 75.6   | 4.1      | .45    | 11.8   | 70       |                 |
| Corn, green, edible portion . . . . .           |         | 74.4   | 14.1     | 5      | 89.4   | 470      |                 |
| Cucumbers . . . . .                             | 15      | 81.1   | 3.2      | .9     | 11.8   | 70       |                 |
| Lentils, dry . . . . .                          |         | 8.4    | 116.6    | 4.5    | 268.6  | 1620     |                 |



TABLE VII.—Continued.

| Kind of Food.                | Refuse. | Water. | Protein. | Fat.   | C. H.  | Calories | Cost per pound. |
|------------------------------|---------|--------|----------|--------|--------|----------|-----------------|
| VEGETABLES, FRESH.           |         |        |          |        |        |          |                 |
|                              | %       | %      | Grams.   | Grams. | Grams. |          |                 |
| Lettuce.....                 | 15      | 80.5   | 4.5      | .9     | 23.6   | 75       |                 |
| Onions.....                  | 10      | 78.9   | 6.4      | 1.4    | 40.4   | 205      |                 |
| Parsnips.....                | 20      | 66.4   | 5.9      | 1.8    | 49     | 240      |                 |
| Pease, dry.....              |         | 9.5    | 111.7    | 4.5    | 281.2  | 1655     |                 |
| Pease, green.....            | 45      | 40.8   | 16.3     | .9     | 44.5   | 255      |                 |
| Pease, sugar, shelled.....   |         | 81.8   | 15.4     | 1.8    | 62.1   | 335      |                 |
| Potatoes, boiled.....        |         | 75.5   | 11.3     | .45    | 94.8   | 440      |                 |
| Potatoes, fried (chips)..... |         | 2.2    | 30.8     | 180.5  | 211.8  | 2675     |                 |
| Potatoes, raw.....           | 20      | 62.6   | 8.2      | .45    | 66.7   | 310      |                 |
| Potatoes, sweet.....         | 20      | 55.2   | 6.4      | 2.7    | 99.3   | 460      |                 |
| Pumpkins.....                | 50      | 46     | 2.3      | .45    | 11.8   | 60       |                 |
| Radishes.....                | 30      | 64.3   | 4.1      | .45    | 18.1   | 95       |                 |
| Rhubarb.....                 | 40      | 56.6   | 1.8      | 1.8    | 10     | 65       |                 |
| Spinach.....                 |         | 92.3   | 9.5      | 1.8    | 12.8   | 110      |                 |
| Squash.....                  | 50      | 44.2   | 3.2      | .9     | 20.4   | 105      |                 |
| Tomatoes.....                |         | 94.3   | 4.1      | 1.1    | 17.7   | 105      |                 |
| Turnips.....                 | 30      | 62.7   | 4.1      | .45    | 25.9   | 125      |                 |
| CANNED VEGETABLES.           |         |        |          |        |        |          |                 |
| Corn, green.....             |         | 76.1   | 12.7     | 5.4    | 86.2   | 455      |                 |
| Pease, green.....            |         | 85.3   | 16.3     | .9     | 44.5   | 255      |                 |
| Pumpkins.....                |         | 91.6   | 3.6      | .9     | 30.4   | 150      |                 |
| Succotash.....               |         | 75.9   | 16.3     | 4.5    | 84.4   | 455      |                 |
| Tomatoes.....                |         | 94     | 5.4      | .9     | 18.1   | 105      |                 |
| Yeast.....                   |         | 65.1   | 53.1     | 1.8    | 95.3   | 625      |                 |
| Cucumber pickles.....        |         | 92.9   | 2.3      | 1.4    | 12.2   | 70       |                 |

## QUANTITIES ALLOWED IN MAKING UP THE VALUES FOR SIX PERSONS, ALL EATING HEARTILY.

Coffee, 1 oz. Tea, .5 oz. Milk for coffee, 6 oz ; for tea, 4 oz. Cream for coffee, 3 oz. Cream for tea, 2 oz. Dry cereal, 6 oz. Milk for cereal, 8 oz. Cream for cereal, 6 oz. Sugar for cereal, 2 oz. Bread as an accessory to a meal, 4 oz.; butter for the same, 1 oz. Bread as a substantial portion of a meal, 12 oz.; butter for the same, 3 oz. Fruits for a meal, either fresh or cooked, 2 lbs. Sugar for the same, 2 to 4 oz. Chops for breakfast, 2 to 2.5. Steak for breakfast, 2 to 3. One egg, 2 oz. Hash for breakfast or luncheon: 1 lb. of meat, 2 lbs. of potatoes. Toast for breakfast or luncheon: 12 oz. bread.

Meat for the day should be kept as low as 4 lbs. for the six persons on an average. Total bread or equivalents, 1 to 1.5 lbs. for the six; vegetables, 2 to 4 lbs.; sugar, 2 to 4 oz.; fruits, fresh or dried, 2 to 4 oz.

The hearty dinner puddings are to be used with the less nutritious meat dishes, and the soups and light puddings with the rich meat dishes.

Prices vary with the season, with the locality, and with scarcity or plenty, and therefore only for small quantities fairly average prices have been used in these sample tables. Each person will insert the prices prevalent at the time and place. Other dishes will be added very readily. The quantities are based on those allowed in military rations in workingmen's families for the inexpensive dishes, because only two or three are placed upon the table at a time, and together they must furnish the required fuel value.

For the more expensive and delicate dishes somewhat less amounts are allowed, since four or more kinds of food may be used, and since a smaller amount may serve as relish to the heartier dishes.

Dishes consisting chiefly of flour, sugar, and recovered fat are inexpensive. The addition of fat in any form brings up the heat units twice as much as the same quantity of sugar.

The meat dishes are expensive in proportion to the quantity of meat in them, and that meat which has much fat is of higher cost than that which is lean; but this fat is often largely wasted on the plates and in the garbage-pail. The housewife who values the fat as it should be valued saves the dripping, and uses it in cooking instead of "cooking butter."

A judicious use of cereals and vegetables with recovered "dripping" or salt pork, with just enough meat to flavor the resulting dish, will enable the provider to furnish the main dish for each meal for about 15 cents per 1,000 calories, or 90 cents for 12,000 calories. The remaining 3,000 to 6,000 calories may be made up of relishes or luxuries, as the purse and inclination permits. A reliance on meats of the tender sort, eaten with fresh vegetables, means an average expenditure of 15 to 20 cents per 1,000 calories, \$2.40 per 12,000; \$16.80 ÷ \$2.80 per week for the essential elements of food.

Vegetables have more waste substance, and therefore a more generous allowance must be made. The proteid especially must be increased by one third.

Milk for cooking is reckoned at 4 to 6 cents per quart, since it is usually topped, i.e., has had the cream removed.

Some of the dishes would only be made when the ingredients could be had at a low cost. This is why the prices given are not always uniform. This whole pamphlet is only an example of *method*, and makes no pretensions to exactness in a field where accurate results are impossible with the meagre facts available. If it shall hasten the day when better figures are at the service of the purveyor, it will have served its mission.

## APPENDIX I.

TABLE OF INTERCHANGEABLE WEIGHTS AND MEASURES  
WITH APPROXIMATE FOOD VALUE OF THE SAME.

| Measures.<br>Approximate only. | Weights.                             | Refuse.<br>% | Water.<br>% | Protein.<br>Grams. | Fats.<br>Grams. | C. H.<br>Grams. | Calories |
|--------------------------------|--------------------------------------|--------------|-------------|--------------------|-----------------|-----------------|----------|
| <b>BREAD FLOUR.</b>            |                                      |              |             |                    |                 |                 |          |
| 45 tbsps.                      | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | .....        | 12.4        | 50.8               | 4.5             | 339.7           | 1645     |
| 2½ tbsps.                      | 1 oz. = 28.3 gms.                    | .....        | .....       | 3.1                | .28             | 21.2            | 102.8    |
| 1 cup = 14 tbsps.              | 140 gms. = 5 oz.                     | .....        | .....       | 15.6               | 1.26            | 103.6           | 506.8    |
| 1 tbsp.                        | 10 gms. = ⅝ oz.                      | .....        | .....       | 1.12               | .09             | 7.4             | 36.2     |
| <b>WHOLE WHEAT.</b>            |                                      |              |             |                    |                 |                 |          |
| 41 tbsps.                      | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | .....        | 11.4        | 62.6               | 8.6             | 326.1           | 1675     |
| 2½ tbsps.                      | 1 oz. = 28.3 gms.                    | .....        | .....       | 3.9                | .53             | 20.3            | 104.6    |
| 1 cup = 14 tbsps.              | 154 gms. = 5½ oz.                    | .....        | .....       | 21.1               | 2.5             | 110.6           | 569.2    |
| 1 tbsp.                        | 11 gms. = ⅞ oz.                      | .....        | .....       | 1.5                | .18             | 7.9             | 40.6     |
| <b>PASTRY FLOUR.</b>           |                                      |              |             |                    |                 |                 |          |
| 56½ tbsps.                     | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | .....        | 12.8        | 49                 | 5               | 339.3           | 1640     |
| 3½ tbsps.                      | 1 oz. = 28.3 gms.                    | .....        | .....       | 3                  | .31             | 21.2            | 102.5    |
| 1 cup = 14 tbsps.              | 112 gms. = 4 oz.                     | .....        | .....       | 12.04              | 1.12            | 82.6            | 404.6    |
| 1 tbsp.                        | 8 gms. = ⅝ oz.                       | .....        | .....       | .86                | .08             | 5.9             | 28.9     |
| <b>BUCKWHEAT.</b>              |                                      |              |             |                    |                 |                 |          |
| 41 tbsps.                      | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | .....        | 13.6        | 29                 | 5.4             | 353.4           | 1620     |
| 2½ tbsps.                      | 1 oz. = 28.3 gms.                    | .....        | .....       | 1.8                | .33             | 22.08           | 101      |
| 1 cup                          | 154 gms. = 5½ oz.                    | .....        | .....       | 9.8                | 1.12            | 120.4           | 546      |
| <b>BARLEY.</b>                 |                                      |              |             |                    |                 |                 |          |
| 28 tbsps.                      | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | .....        | 11.5        | 38.6               | 4.9             | 352.9           | 1650     |
| 1.7 tbsps.                     | 1 oz. = 28.3 gms.                    | .....        | .....       | 2.4                | .3              | 22              | 104      |
| 1 cup = 14 tbsps.              | 224 gms. = 8 oz.                     | .....        | .....       | 19.04              | 2.52            | 174.3           | 814      |
| 1 tbsp.                        | 16 gms. = ½ oz.                      | .....        | .....       | 1.3                | .18             | 12.45           | 582      |
| <b>CORN MEAL (UNBOLTED).</b>   |                                      |              |             |                    |                 |                 |          |
| 38 tbsps.                      | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | 10           | 10.3        | 34                 | 19.1            | 298.9           | 1545     |
| 2½ tbsps.                      | 1 oz. = 28.3 gms.                    | .....        | .....       | 2                  | 1.2             | 18.6            | 97       |
| 1 cup = 14 tbsps.              | 168 gms. = 6 oz.                     | .....        | .....       | 12.6               | 7               | 110.6           | 571.6    |
| 1 tbsp.                        | 12 gms.                              | .....        | .....       | .9                 | .5              | 7.9             | 40.8     |

## INTERCHANGEABLE WEIGHTS AND MEASURES.

| Measures.<br>Approximate only. | Weights.           | Refuse.<br>% | Water.<br>% | Protein.<br>Grams. | Fats.<br>Grams. | C. H.<br>Grams | Calories |
|--------------------------------|--------------------|--------------|-------------|--------------------|-----------------|----------------|----------|
| CORN MEAL (BOLTED).            |                    |              |             |                    |                 |                |          |
| 45 tbsps.                      | { 1 lb. = 16 oz. } | .....        | 12.9        | 40.4               | 10              | 340            | 16.      |
|                                | { 453.6 gms. }     | .....        |             |                    |                 |                |          |
| 2.8 tbsps.                     | 1 oz. = 28.3 gms.  | .....        | .....       | 2.5                | .62             | 21             | 103      |
| 1 cup = 13 tbsps.              | 130 gms. = 4 oz.   | .....        | .....       | 11.1               | 3               | 97.6           | 474      |
| 1 tbsp.                        | 10 gms.            | .....        | .....       | 1.11               | .3              | 9.7            | 47.4     |
| ROLLED OATS.*                  |                    |              |             |                    |                 |                |          |
| 90 tbsps.                      | { 1 lb. = 16 oz. } | .....        | 7.3         | 73                 | 32.6            | 306.2          | 1820     |
|                                | { 453.6 gms. }     | .....        |             |                    |                 |                |          |
| 5½ tbsps. +                    | 1 oz. = 28.3 gms.  | .....        | .....       | 4.5                | 2               | 12.8           | 113.7    |
| 1 cup = 14 tbsps.              | 70 gms. = 2½ oz.   | .....        | .....       | 11.2               | 5.02            | 44.18          | 280      |
| 1 tbsp.                        | 5 gms.             | .....        | .....       | .8                 | .35             | 3.37           | 20       |
| WHEATLET.                      |                    |              |             |                    |                 |                |          |
| 37 tbsps. +                    | { 1 lb. = 16 oz. } | .....        | 10.4        | 55.7               | 6.3             | 340.1          | 1685     |
|                                | { 453.6 gms. }     | .....        |             |                    |                 |                |          |
| 2½ tbsps. -                    | 1 oz. = 28.3 gms.  | .....        | .....       | 3.4                | .39             | 21.2           | 105.3    |
| 1 cup = 15 tbsps.              | { 180 gms. = }     | .....        | .....       | 22.5               | 1.8             | 134            | 667      |
|                                | { 6½ oz. + }       | .....        | .....       |                    |                 |                |          |
| 1 tbsp.                        | 12 gms. = ½ oz. -  | .....        | .....       | 1.4                | .12             | 8.9            | 44.5     |
| RICE.                          |                    |              |             |                    |                 |                |          |
| 26½ tbsps. +                   | { 1 lb. = 16 oz. } | .....        | 12.8        | 36.3               | 1.4             | 358.3          | 1630     |
|                                | { 453.6 gms. }     | .....        |             |                    |                 |                |          |
| 1½ tbsps.                      | 1 oz. = 28.3 gms.  | .....        | .....       | 2.4                | .08             | 22.3           | 101.8    |
| 1 cup = 14 tbsps.              | { 238 gms. = }     | .....        | .....       | 18.9               | .7              | 187.8          | 854      |
|                                | { 8½ oz. - }       | .....        | .....       |                    |                 |                |          |
| 1 tbsp.                        | 17 gms.            | .....        | .....       | 1.35               | .05             | 13.4           | 61       |
| HOMINY.                        |                    |              |             |                    |                 |                |          |
| 33 tbsps.                      | { 1 lb. = 16 oz. } | .....        | 7.9         | 37.6               | 2.7             | 335.8          | 1650     |
|                                | { 453.6 gms. }     | .....        |             |                    |                 |                |          |
| 2 tbsps.                       | 1 oz. = 28.3 gms.  | .....        | .....       | 2.4                | .16             | 20.9           | 103      |
| 1 cup = 14 tbsps.              | 196 gms. = 7 oz.   | .....        | .....       | 16.1               | 1.12            | 144            | 712.6    |
| 1 tbsp.                        | 14 gms. = ½ oz.    | .....        | .....       | 1.15               | .08             | 10.3           | 50.9     |
| TAPIOCA.                       |                    |              |             |                    |                 |                |          |
| 35 tbsps.                      | { 1 lb. = 16 oz. } | .....        | 11.4        | 4.01               | .45             | 399.2          | 1650     |
|                                | { 453.6 gms. }     | .....        |             |                    |                 |                |          |
| 2 tbsps. +                     | 1 oz. = 28.3 gms.  | .....        | .....       | .25                | .02             | 24.9           | 103      |
| 1 cup = 13 tbsps.              | 195 gms. = 7 oz.   | .....        | .....       | 1.8                | .13             | 171.6          | 709.2    |
| 1 tbsp.                        | 15 gms. = ½ oz. +  | .....        | .....       | .14                | .01             | 13.2           | 54.5     |

\* Measured lightly and level. The weight will vary according to the compactness in the measurement.

## INTERCHANGEABLE WEIGHTS AND MEASURES.

| Measures.<br>Approximate only. | -Weights.                            | Refuse.<br>% | Water.<br>% | Protein.<br>Grams. | Fats.<br>Grams. | C. H.<br>Grams. | Calories |
|--------------------------------|--------------------------------------|--------------|-------------|--------------------|-----------------|-----------------|----------|
| <b>MACARONI.</b>               |                                      |              |             |                    |                 |                 |          |
| 1 cup<br>(1-inch pieces)       | 1 lb. = 16 oz. }<br>453.6 gms. }     | .....        | 10.3        | 60.8               | 4.1             | 336.1           | 1665     |
|                                | 120 gms. }<br>4½ oz. + }             | .....        | .....       | 6.12               | 1.08            | 88.8            | 440.4    |
| <b>BUTTER.</b>                 |                                      |              |             |                    |                 |                 |          |
| 32 tbsps.                      | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | .....        | 11          | 4.5                | 385.5           | .....           | 3605     |
| 2 tbsps.                       | 1 oz. = 28.3 gms.                    | .....        | .....       | .2                 | 24.1            | .....           | 225.3    |
| 1 cup = 16 tbsps.              | 226.8 gms. = 8 oz.                   | .....        | .....       | 2.2                | 192.7           | .....           | 1802     |
| 1 tbsp.                        | 14.1 gms. = ½ oz.                    | .....        | .....       | .1                 | 12              | .....           | 112.6    |
| <b>GRANULATED SUGAR.</b>       |                                      |              |             |                    |                 |                 |          |
| 31 tbsps. —                    | { 1 lb. = 16 oz. }<br>{ 453.6 gms. } | .....        | .....       | .....              | .....           | 453.6           | 1860     |
| 2 tbsps. —                     | 1 oz. = 28.3 gms.                    | .....        | .....       | .....              | .....           | 28.3            | 116      |
| 1 cup = 14 tbsps.              | { 210 gms. }<br>{ 7½ oz. — }         | .....        | .....       | .....              | .....           | 168             | 861      |
| 1 tbsp.                        | { 15 gms. }<br>{ ½ oz. + }           | .....        | .....       | .....              | .....           | 12              | 61.5     |
| <b>BROWN SUGAR.*</b>           |                                      |              |             |                    |                 |                 |          |
| 1 cup = 10 tbsps.              | 1 lb. = 16 oz. }<br>453.6 gms. }     | .....        | 5           | .....              | .....           | 431             | 1766     |
|                                | 1 oz. = 28.3 gms.                    | .....        | .....       | .....              | .....           | 27              | 110.3    |
| 1 tbsp.                        | 160 gms. }<br>6 oz. — }              | .....        | .....       | .....              | .....           | 150             | 623      |
|                                | 16 gms. = ½ oz. + }                  | .....        | .....       | .....              | .....           | 15              | 62.3     |
| <b>POWDERED SUGAR.</b>         |                                      |              |             |                    |                 |                 |          |
| 1 cup = 14 tbsps.              | 1 lb. = 16 oz. }<br>453.6 gms. }     | .....        | .....       | .....              | .....           | 453.6           | 1860     |
|                                | 1 oz. = 28.3 gms.                    | .....        | .....       | .....              | .....           | 28.3            | 116      |
| 1 tbsp.                        | 168 gms. }<br>6 oz. — }              | .....        | .....       | .....              | .....           | 163.8           | 688.8    |
|                                | 12 gms. = ½ oz. — }                  | .....        | .....       | .....              | .....           | 11.7            | 49.2     |

\* Brown sugar with much moisture and lumps may weigh more than indicated, but freed from lumps is of constant weight.

In the accompanying list of equivalent measurements and weights an ordinary "half-pint" measuring cup was used. This style of cup was found in all stores where kitchen utensils were sold, and half, quarter, and third divisions were indicated. The cost was five cents. Variation will be found in measuring-cups, but if the same cup is always used the results will be proportionally correct. A tablespoon which contained four level teaspoons was also used.

While no standard cup nor spoon is obtainable, the work of accurate measurement will be facilitated if a certain half-pint cup and a tablespoon of known capacity are set aside as the standard measurements in each household.

A few recipes are given to indicate measure, weight, and food value. With experience the food value per cup may be easily estimated, as in so many recipes there is a repetition of materials like flour, milk, sugar, butter, eggs, etc.

From the tables various combinations may be arranged.

| Measure.                          | Weight.                        | Protein.<br>Grams. | Fats.<br>Grams. | C. H.<br>Grams. | Calories | Cost.<br>Cents. |
|-----------------------------------|--------------------------------|--------------------|-----------------|-----------------|----------|-----------------|
| CORN CAKE.                        |                                |                    |                 |                 |          |                 |
| 1 cup corn meal.....              | 168 gms. = 6 oz. -             | 12.6               | 7               | 110.6           | 571.2    | .8              |
| ½ cup flour.....                  | 70 gms. = 2½ oz.               | 7.8                | .63             | 51              | 253.4    | .5              |
| 2 tablespoonfuls sugar.           | 24 gms. = 1 oz. -              | .....              | .....           | 24              | 123      | .3              |
| 2 tablespoonfuls butter.          | 28 gms. = 1 oz.                | .2                 | 24              | .....           | 225      | 2               |
| 1 cup milk.....                   | 232 gms. = 8 oz. +             | 7.5                | 9               | 11.3            | 162.5    | .2              |
| 1 egg.....                        | 56 gms. = 2 oz.                | 7.4                | 5.2             | .....           | 81       | 3               |
| 1 tablespoonful salt....          |                                |                    |                 |                 |          |                 |
| 3 tbsps. baking powder            | 7 gms. = ¼ oz.                 |                    |                 |                 |          |                 |
|                                   | 585 gms. = 20¾ oz.             | 35.5               | 45.83           | 196.9           | 1416.1   | 8.6             |
| BAKED MACARONI.                   |                                |                    |                 |                 |          |                 |
| 1 cup macaroni.....               | 120 gms. = 4¼ oz.              | 6.12               | 1.08            | 88.8            | 440.4    | 3               |
| 1 cup milk.....                   | 232 gms. = 8 oz. +             | 7.5                | .9              | 11.3            | 162.5    | 2               |
| 2 tablespoonfuls flour..          | 28 gms. = 1 oz.                | 3.1                | .28             | 21.2            | 102.8    | .0004           |
| 2¾ tablespoonfuls butter          | 28 gms. = 1 oz.                | .2                 | 24              | .....           | 225      | 2               |
| 4 tbsps. grated cheese.           | 56 gms. = 2 oz.                | 16.3               | 20.3            | .1              | 257.5    | 2               |
| 3 rolled crackers for<br>top..... | 42 gms. = 1½ oz.               | 4.6                | 3.6             | 30.1            | 176.7    | .001            |
| 1 tbsp. salt-pepper....           |                                |                    |                 |                 |          |                 |
|                                   | 506 gms. = 17¾ oz.             | 37.82              | 58.26           | 151.5           | 1364.9   | 9.0014          |
| RICE PUDDING.                     |                                |                    |                 |                 |          |                 |
| 2 cups milk (1 pint). }           | 464 gms. = 1 lb. +<br>16 oz. } | 15                 | 18.1            | 22.7            | 325      | 4               |
| 4 tablespoonfuls rice..           |                                |                    |                 |                 |          |                 |
| 2 eggs.....                       | 112 gms. = 4 oz.               | 15                 | 10.4            | .....           | 162      | 6               |
| 2 tablespoonfuls sugar.           | 24 gms. = 1 oz. -              | .....              | .....           | 24              | 123      | .3              |
| Salt and nutmeg.....              |                                | .....              | .....           | .....           | .....    | .01             |
|                                   | 660 gms. = 23½ oz.             | 35.40              | 28.7            | 100.3           | 854      | 11.31           |

# SHORT-TITLE CATALOGUE

OF THE

## PUBLICATIONS

OF

# JOHN WILEY & SONS,

NEW YORK.

LONDON: CHAPMAN & HALL, LIMITED.

ARRANGED UNDER SUBJECTS.

Descriptive circulars sent on application.  
Books marked with an asterisk are sold at *net prices only*.  
All books are bound in cloth unless otherwise stated.

### AGRICULTURE.

|  |       |        |
|--|-------|--------|
| Armsby's Manual of Cattle-feeding.....                           | 12mo, | \$1 75 |
| Budd and Hansen's American Horticultural Manual:                 |       |        |
| Part I.—Propagation, Culture, and Improvement....                | 12mo, | 1 50   |
| Part II.—Systematic Pomology. ( <i>In preparation.</i> )         |       |        |
| Downing's Fruits and Fruit-trees of America.....                 | 8vo,  | 5 00   |
| Grotenfelt's Principles of Modern Dairy Practice. (Woll.)..      | 12mo, | 2 00   |
| Kemp's Landscape Gardening.....                                  | 12mo, | 2 50   |
| Maynard's Landscape Gardening as Applied to Home Decoration.     |       |        |
|  | 12mo, | 1 50   |
| Sanderson's Insects Injurious to Staple Crops.....               | 12mo, | 1 50   |
| "  Insects Injurious to Garden Crops. ( <i>In preparation.</i> ) |       |        |
| "  Insects Injuring Fruits. ( <i>In preparation.</i> )           |       |        |
| Stockbridge's Rocks and Soils.....                               | 8vo,  | 2 50   |
| Woll's Handbook for Farmers and Dairymen.....                    | 16mo, | 1 50   |

### ARCHITECTURE.

|   |                |      |
|---|----------------|------|
| Baldwin's Steam Heating for Buildings.....                  | 12mo,          | 2 50 |
| Berg's Buildings and Structures of American Railroads....   | 4to,           | 5 00 |
| Birkmire's Planning and Construction of American Theatres.  | 8vo,           | 3 00 |
| "  Architectural Iron and Steel.....                        | 8vo,           | 3 50 |
| "  Compound Riveted Girders as Applied in Buildings.        |                |      |
|   | 8vo,           | 2 00 |
| "  Planning and Construction of High Office Buildings.      |                |      |
|   | 8vo,           | 3 50 |
| "  Skeleton Construction in Buildings.....                  | 8vo,           | 3 00 |
| Briggs's Modern American School Buildings.....              | 8vo,           | 4 00 |
| Carpenter's Heating and Ventilating of Buildings.....       | 8vo,           | 3 00 |
| Freitag's Architectural Engineering. 2d Edition, Rewritten. | 8vo,           | 3 50 |
| "  Fireproofing of Steel Buildings.....                     | 8vo,           | 2 50 |
| Gerhard's Guide to Sanitary House-inspection.....           | 16mo,          | 1 00 |
| "  Theatre Fires and Panics.....                            | 12mo,          | 1 50 |
| Hatfield's American House Carpenter.....                    | 8vo,           | 5 00 |
| Holly's Carpenters' and Joiners' Handbook.....              | 18mo,          | 75   |
| Kidder's Architect's and Builder's Pocket-book..            | 16mo, morocco, | 4 00 |

|  |            |      |
|--|------------|------|
| Merrill's Stones for Building and Decoration.....  | 8vo,       | 5 00 |
| Monckton's Stair-building.....   | 4to,       | 4 00 |
| Patton's Practical Treatise on Foundations.....  | 8vo,       | 5 00 |
| Siebert and Biggin's Modern Stone-cutting and Masonry..  | 8vo,       | 1 50 |
| Snow's Properties Characterizing Economically Important<br>Species of Wood. ( <i>In preparation.</i> )   |            |      |
| Wait's Engineering and Architectural Jurisprudence.....  | 8vo,       | 6 00 |
|  | Sheep,     | 6 50 |
| “ Law of Operations Preliminary to Construction in En-<br>gineering and Architecture.....  | 8vo,       | 5 00 |
|  | Sheep,     | 5 50 |
| “ Law of Contracts.....  | 8vo,       | 3 00 |
| Woodbury's Fire Protection of Mills.....   | 8vo,       | 2 50 |
| Worcester and Atkinson's Small Hospitals, Establishment and<br>Maintenance, and Suggestions for Hospital Architecture,<br>with Plans for a Small Hospital..... | 12mo,      | 1 25 |
| The World's Columbian Exposition of 1893.....  | Large 4to, | 1 00 |

### ARMY AND NAVY.

|   |                    |       |
|---|--------------------|-------|
| Bernadou's Smokeless Powder, Nitro-cellulose, and the Theory<br>of the Cellulose Molecule.....  | 12mo,              | 2 50  |
| * Bruff's Text-book Ordnance and Gunnery.....   | 8vo,               | 6 00  |
| Chase's Screw Propellers and Marine Propulsion.....   | 8vo,               | 3 00  |
| Craig's Azimuth.....  | 4to,               | 3 50  |
| Crehore and Squire's Polarizing Photo-chronograph.....  | 8vo,               | 3 00  |
| Cronkhite's Gunnery for Non-commissioned Officers..   | 24mo, mor.,        | 2 00  |
| * Davis's Elements of Law.....  | 8vo,               | 2 50  |
| * “ Treatise on the Military Law of United States..   | 8vo,               | 7 00  |
|   | Sheep,             | 7 50  |
| De Brack's Cavalry Outpost Duties. (Carr.)....  | 24mo, morocco,     | 2 00  |
| Dietz's Soldier's First Aid Handbook.....   | 16mo, morocco,     | 1 25  |
| * Dredge's Modern French Artillery.....   | 4to, half morocco, | 15 00 |
| Durand's Resistance and Populsion of Ships.....   | 8vo,               | 5 00  |
| * Dyer's Handbook of Light Artillery.....   | 12mo,              | 3 00  |
| Eissler's Modern High Explosives.....   | 8vo,               | 4 00  |
| * Fieberger's Text-book on Field Fortification.....   | Small 8vo,         | 2 00  |
| Hamilton's The Gunner's Catechism. ( <i>In preparation.</i> )                                   |                    |       |
| * Hoff's Elementary Naval Tactics.....  | 8vo,               | 1 50  |
| Ingalls's Handbook of Problems in Direct Fire.....  | 8vo,               | 4 00  |
| * “ Ballistic Tables.....   | 8vo,               | 1 50  |
| Lyons's Treatise on Electromagnetic Phenomena.....  | 8vo,               | 6 00  |
| * Mahan's Permanent Fortifications. (Mercur)..  | 8vo, half mor.,    | 7 50  |
| Manual for Courts-martial.....  | 16mo, morocco,     | 1 50  |
| * Mercur's Attack of Fortified Places.....  | 12mo,              | 2 00  |
| * “ Elements of the Art of War.....   | 8vo,               | 4 00  |
| Metcalfe's Cost of Manufactures—And the Administration of<br>Workshops, Public and Private..... | 8vo,               | 5 00  |
| * “ Ordnance and Gunnery.....   | 12mo,              | 5 00  |
| Murray's Infantry Drill Regulations.....  | 18mo, paper,       | 10    |
| * Phelps's Practical Marine Surveying.....  | 8vo,               | 2 50  |
| Powell's Army Officer's Examiner.....   | 12mo,              | 4 00  |
| Sharpe's Art of Substiting Armies in War.....   | 18mo, morocco,     | 1 50  |
| Walke's Lectures on Explosives.....   | 8vo,               | 4 00  |
| * Wheeler's Siege Operations and Military Mining.....   | 8vo,               | 2 00  |
| Winthrop's Abridgment of Military Law.....  | 12mo,              | 2 50  |
| Woodhull's Notes on Military Hygiene.....   | 16mo,              | 1 50  |



|  |                |      |
|--|----------------|------|
| Young's Simple Elements of Navigation..... | 16mo, morocco, | 1 00 |
| Second Edition, Enlarged and Revised.....  | 16mo, mor.,    | 2 00 |

### ASSAYING.

|   |                |      |
|---|----------------|------|
| Fletcher's Practical Instructions in Quantitative Assaying with the Blowpipe..... | 12mo, morocco, | 1 50 |
| Furman's Manual of Practical Assaying.....  | 8vo,           | 3 00 |
| Miller's Manual of Assaying.....  | 12mo,          | 1 00 |
| O'Driscoll's Notes on the Treatment of Gold Ores.....                             | 8vo,           | 2 00 |
| Ricketts and Miller's Notes on Assaying.....                                      | 8vo,           | 3 00 |
| Wilson's Cyanide Processes.....   | 12mo,          | 1 50 |
| " Chlorination Process.....   | 12mo,          | 1 50 |

### ASTRONOMY.

|  |       |      |
|--|-------|------|
| Craig's Azimuth.....   | 4to,  | 3 50 |
| Doolittle's Treatise on Practical Astronomy.....             | 8vo,  | 4 00 |
| Gore's Elements of Geodesy.....                              | 8vo,  | 2 50 |
| Hayford's Text-book of Geodetic Astronomy.....               | 8vo,  | 3 00 |
| Merriman's Elements of Precise Surveying and Geodesy....     | 8vo,  | 2 50 |
| * Michie and Harlow's Practical Astronomy.....               | 8vo,  | 3 00 |
| * White's Elements of Theoretical and Descriptive Astronomy. | 12mo, | 2 00 |

### BOTANY.

|  |                |      |
|--|----------------|------|
| Baldwin's Orchids of New England.....  | Small 8vo,     | 1 50 |
| Davenport's Statistical Methods, with Special Reference to Biological Variation..... | 16mo, morocco, | 1 25 |
| Thomé and Bennett's Structural and Physiological Botany.                             | 16mo,          | 2 25 |
| Westermaier's Compendium of General Botany. (Schneider.)                             | 8vo,           | 2 00 |

### CHEMISTRY.

|   |       |      |
|---|-------|------|
| Adriance's Laboratory Calculations and Specific Gravity Tables.                         | 12mo, | 1 25 |
| Allen's Tables for Iron Analysis.....   | 8vo,  | 3 00 |
| Arnold's Compendium of Chemistry. (Mandel.) ( <i>In preparation.</i> )                  |       |      |
| Austen's Notes for Chemical Students.....   | 12mo, | 1 50 |
| Bernadou's Smokeless Powder.—Nitro-cellulose, and Theory of the Cellulose Molecule..... | 12mo, | 2 50 |
| Bolton's Quantitative Analysis.....   | 8vo,  | 1 50 |
| Brush and Penfield's Manual of Determinative Mineralogy..                               | 8vo,  | 4 00 |
| Classen's Quantitative Chemical Analysis by Electrolysis. (Herrick—Boltwood.)           | 8vo,  | 3 00 |
| Cohn's Indicators and Test-papers.....  | 12mo, | 2 00 |
| Craft's Short Course in Qualitative Chemical Analysis. (Schaeffer.)                     | 12mo, | 2 00 |
| Drechsel's Chemical Reactions. (Merrill.).....  | 12mo, | 1 25 |
| Eissler's Modern High Explosives.....   | 8vo,  | 4 00 |
| Effront's Enzymes and their Applications. (Prescott.)....                               | 8vo,  | 3 00 |
| Erdmann's Introduction to Chemical Preparations. (Dunlap.)                              | 12mo, | 1 25 |

|   |                |       |
|---|----------------|-------|
| Fletcher's Practical Instructions in Quantitative Assaying with the Blowpipe.....                               | 12mo, morocco, | 1 50  |
| Fresenius's Manual of Qualitative Chemical Analysis. (Wells.)   | 8vo,           | 5 00  |
| "    System of Instruction in Quantitative Chemical Analysis. -(Allen.).....                                    | 8vo,           | 6 00  |
| Fuertes's Water and Public Health.....  | 12mo,          | 1 50  |
| Furman's Manual of Practical Assaying.....  | 8vo,           | 3 00  |
| Gill's Gas and Fuel Analysis for Engineers.....   | 12mo,          | 1 25  |
| Grotenfelt's Principles of Modern Dairy Practice. (Woll.)..   | 12mo,          | 2 00  |
| Hammarsten's Text-book of Physiological Chemistry. (Mandel.)  | 8vo,           | 4 00  |
| Helm's Principles of Mathematical Chemistry. (Morgan.)  | 12mo,          | 1 50  |
| Hinds's Inorganic Chemistry. ( <i>In preparation.</i> )   |                |       |
| Holleman's Text-book of Inorganic Chemistry. (Cooper.)... 8vo,  |                | 2 50  |
| "    "    "    "    Organic    "    (Walker and Mott.)  |                |       |
| ( <i>In preparation.</i> )  |                |       |
| Hopkins's Oil-chemists' Handbook.....   | 8vo,           | 3 00  |
| Keep's Cast Iron.....   | 8vo,           | 2 50  |
| Ladd's Manual of Quantitative Chemical Analysis.....  | 12mo,          | 1 00  |
| Landauer's Spectrum Analysis. (Tingle.).....  | 8vo,           | 3 00  |
| Lassar-Cohn's Practical Urinary Analysis. (Lorenz.) ( <i>In preparation.</i> )                                  |                |       |
| Leach's The Inspection and Analysis of Food with Special Reference to State Control. ( <i>In preparation.</i> ) |                |       |
| Löb's Electrolysis and Electrosynthesis of Organic Compounds. (Lorenz.) .....                                   | 12mo,          | 1 00  |
| Mandel's Handbook for Bio-chemical Laboratory.....  | 12mo,          | 1 50  |
| Mason's Water-supply. (Considered Principally from a Sanitary Standpoint.) 3d Edition, Rewritten.....           | 8vo,           | 4 00  |
| "    Examination of water. (Chemical and Bacteriological.) .....  | 12mo,          | 1 25  |
| Meyer's Determination of Radicles in Carbon Compounds. (Tingle.) .....  | 12mo,          | 1 00  |
| Miller's Manual of Assaying.....  | 12mo,          | 1 00  |
| Mixer's Elementary Text-book of Chemistry.....  | 12mo,          | 1 50  |
| Morgan's Outline of Theory of Solution and its Results..  | 12mo,          | 1 00  |
| "    Elements of Physical Chemistry.....  | 12mo,          | 2 00  |
| Nichols's Water-supply. (Considered mainly from a Chemical and Sanitary Standpoint, 1883.).....                 | 8vo,           | 2 50  |
| O'Brine's Laboratory Guide in Chemical Analysis.....  | 8vo,           | 2 00  |
| O'Driscoll's Notes on the Treatment of Gold Ores.....   | 8vo,           | 2 00  |
| Ost and Kolbeck's Text-book of Chemical Technology. (Lorenz—Bozart.) ( <i>In preparation.</i> )                 |                |       |
| * Penfield's Notes on Determinative Mineralogy and Record of Mineral Tests.....                                 | 8vo, paper,    | 0 50  |
| Pinner's Introduction to Organic Chemistry. (Austen.)   | 12mo,          | 1 50  |
| Poole's Calorific Power of Fuels.....   | 8vo,           | 3 00  |
| * Reisig's Guide to Piece-dyeing.....   | 8vo,           | 25 00 |
| Richards and Woodman's Air, Water, and Food from a Sanitary Standpoint .....                                    | 8vo,           | 2 00  |
| Richards's Cost of Living as Modified by Sanitary Science   | 12mo,          | 1 00  |
| "    Cost of Food, a Study in Dietsaries.....   | 12mo,          | 1 00  |
| * Richards and Williams's The Dietary Computer.....   | 8vo,           | 1 50  |
| Ricketts and Russell's Skeleton Notes upon Inorganic Chemistry. (Part I.—Non-metallic Elements.)..              | 8vo, morocco,  | 75    |
| Ricketts and Miller's Notes on Assaying.....  | 8vo,           | 3 00  |
| Rideal's Sewage and the Bacterial Purification of Sewage..  | 8vo,           | 3 50  |
| Ruddiman's Incompatibilities in Prescriptions.....  | 8vo,           | 2 00  |

|  |                |      |
|--|----------------|------|
| Schimpf's Text-book of Volumetric Analysis.....  | 12mo,          | 2 50 |
| Spencer's Handbook for Chemists of Beet-sugar Houses.                                      | 16mo,          |      |
| "    Handbook for Sugar Manufacturers and their Chem-                                      | mor.,          | 3 00 |
| ists .....   | 16mo, morocco, | 2 00 |
| Stockbridge's Rocks and Soils.....   | 8vo,           | 2 50 |
| * Tillman's Elementary Lessons in Heat.....  | 8vo,           | 1 50 |
| *    "    Descriptive General Chemistry.....   | 8vo,           | 3 00 |
| Turneure and Russell's Public Water-supplies.....  | 8vo,           | 5 00 |
| Van Deventer's Physical Chemistry for Beginners. (Boltwood.)                               |                |      |
|  | 12mo,          | 1 50 |
| Walke's Lectures on Explosives.....  | 8vo,           | 4 00 |
| Wells's Laboratory Guide in Qualitative Chemical Analysis..                                | 8vo,           | 1 50 |
| "    Short Course in Inorganic Qualitative Chemical Analysis for Engineering Students..... | 12mo,          | 1 50 |
| Whipple's Microscopy of Drinking-water.....  | 8vo,           | 3 50 |
| Wiechmann's Sugar Analysis.....  | Small 8vo,     | 2 50 |
| "    Lecture-notes on Theoretical Chemistry....  | 12mo,          | 3 00 |
| Wilson's Cyanide Processes.....  | 12mo,          | 1 50 |
| "    Chlorination Process.....   | 12mo,          | 1 50 |
| Wulling's Elementary Course in Inorganic Pharmaceutical and Medical Chemistry.....         | 12mo,          | 2 00 |

### CIVIL ENGINEERING.

#### BRIDGES AND ROOFS. HYDRAULICS. MATERIALS OF ENGINEERING. RAILWAY ENGINEERING.

|   |                    |      |
|---|--------------------|------|
| Baker's Engineers' Surveying Instruments.....   | 12mo,              | 3 00 |
| Bixby's Graphical Computing Table... Paper, 19½ x 24¼ inches.                           |                    | 25   |
| Davis's Elevation and Stadia Tables.....  | 8vo,               | 1 00 |
| Folwell's Sewerage. (Designing and Maintenance.).....                                   | 8vo,               | 3 00 |
| Freitag's Architectural Engineering. 2d Ed., Rewritten....                              | 8vo,               | 3 50 |
| Goodhue's Municipal Improvements.....   | 12mo,              | 1 75 |
| Goodrich's Economic Disposal of Towns' Refuse.....                                      | 8vo,               | 3 50 |
| Gore's Elements of Geodesy.....   | 8vo,               | 2 50 |
| Hayford's Text-book of Geodetic Astronomy.....  | 8vo,               | 3 00 |
| Howe's Retaining-walls for Earth.....   | 12mo,              | 1 25 |
| Johnson's Theory and Practice of Surveying.....   | Small 8vo,         | 4 00 |
| "    Stadia and Earth-work Tables.....  | 8vo,               | 1 25 |
| Kiersted's Sewage Disposal.....   | 12mo,              | 1 25 |
| Mahan's Treatise on Civil Engineering. (1873.) (Wood.)..                                | 8vo,               | 5 00 |
| * Mahan's Descriptive Geometry.....   | 8vo,               | 1 50 |
| Merriman's Elements of Precise Surveying and Geodesy....                                | 8vo,               | 2 50 |
| Merriman and Brooks's Handbook for Surveyors... 16mo, mor,                              |                    | 2 00 |
| Merriman's Elements of Sanitary Engineering.....  | 8vo,               | 2 00 |
| Nugent's Plane Surveying.....   | 8vo,               | 3 50 |
| Ogden's Sewer Design.....   | 12mo,              | 2 00 |
| Patton's Treatise on Civil Engineering.....   | 8vo, half leather, | 7 50 |
| Reed's Topographical Drawing and Sketching.....   | 4to,               | 5 00 |
| Rideal's Sewage and the Bacterial Purification of Sewage..                              | 8vo,               | 3 50 |
| Siebert and Biggin's Modern Stone-cutting and Masonry... 8vo,                           |                    | 1 50 |
| Smith's Manual of Topographical Drawing. (McMillan.)..                                  | 8vo,               | 2 50 |
| * Trautwine's Civil Engineer's Pocket-book... 16mo, morocco,                            |                    | 5 00 |
| Wait's Engineering and Architectural Jurisprudence.....                                 | 8vo,               | 6 00 |
|   | Sheep,             | 6 50 |
| "    Law of Operations Preliminary to Construction in Engineering and Architecture..... | 8vo,               | 5 00 |
|   | Sheep,             | 5 50 |

|  |                |      |
|--|----------------|------|
| Wait's Law of Contracts.....   | 8vo,           | 3 00 |
| Warren's Stereotomy—Problems in Stone-cutting.....                         | 8vo,           | 2 50 |
| Webb's Problems in the Use and Adjustment of Engineering Instruments ..... | 16mo, morocco, | 1 25 |
| * Wheeler's Elementary Course of Civil Engineering.....                    | 8vo,           | 4 00 |
| Wilson's Topographic Surveying.....  | 8vo,           | 3 50 |

### BRIDGES AND ROOFS.

|   |             |       |
|---|-------------|-------|
| Boller's Practical Treatise on the Construction of Iron Highway Bridges .....                       | 8vo,        | 2 00  |
| * Boller's Thames River Bridge.....   | 4to, paper, | 5 00  |
| Burr's Course on the Stresses in Bridges and Roof Trusses, Arched Ribs, and Suspension Bridges..... | 8vo,        | 3 50  |
| Du Bois's Mechanics of Engineering. Vol. II.....  | Small 4to,  | 10 00 |
| Foster's Treatise on Wooden Trestle Bridges.....  | 4to,        | 5 00  |
| Fowler's Cofferdam Process for Piers.....   | 8vo,        | 2 50  |
| Greene's Roof Trusses.....  | 8vo,        | 1 25  |
| “ Bridge Trusses.....   | 8vo,        | 2 50  |
| “ Arches in Wood, Iron, and Stone.....  | 8vo,        | 2 50  |
| Howe's Treatise on Arches.....  | 8vo,        | 4 00  |
| Johnson, Bryan and Turneure's Theory and Practice in the Designing of Modern Framed Structures..... | Small 4to,  | 10 00 |
| Merriman and Jacoby's Text-book on Roofs and Bridges:   |             |       |
| Part I.—Stresses in Simple Trusses.....   | 8vo,        | 2 50  |
| Part II.—Graphic Statics.....   | 8vo,        | 2 00  |
| Part III.—Bridge Design. Fourth Ed., Rewritten.....   | 8vo,        | 2 50  |
| Part IV.—Higher Structures.....   | 8vo,        | 2 50  |
| Morison's Memphis Bridge.....   | 4to,        | 10 00 |
| Waddell's De Pontibus, a Pocket Book for Bridge Engineers.....                                      | 16mo, mor., | 3 00  |
| “ Specifications for Steel Bridges.....   | 12mo,       | 1 25  |
| Wood's Treatise on the Theory of the Construction of Bridges and Roofs .....                        | 8vo,        | 2 00  |
| Wright's Designing of Draw-spans:   |             |       |
| Part I.—Plate-girder Draws.....   | 8vo,        | 2 50  |
| Part II.—Riveted-truss and Pin-connected Long-span Draws.....                                       | 8vo,        | 2 50  |
| Two parts in one volume.....  | 8vo,        | 3 50  |

### HYDRAULICS.

|  |             |      |
|--|-------------|------|
| Bazin's Experiments upon the Contraction of the Liquid Vein Issuing from an Orifice. (Trautwine.).....                           | 8vo,        | 2 00 |
| Bovey's Treatise on Hydraulics.....  | 8vo,        | 5 00 |
| Church's Mechanics of Engineering.....   | 8vo,        | 6 00 |
| Coffin's Graphical Solution of Hydraulic Problems.....   | 16mo, mor., | 2 50 |
| Flather's Dynamometers, and the Measurement of Power.....  | 12mo,       | 3 00 |
| Folwell's Water-supply Engineering.....  | 8vo,        | 4 00 |
| Frizell's Water-power.....   | 8vo,        | 5 00 |
| Fuertes's Water and Public Health.....   | 12mo,       | 1 50 |
| “ Water-filtration Works.....  | 12mo,       | 2 50 |
| Ganguillet and Kutter's General Formula for the Uniform Flow of Water in Rivers and Other Channels. (Hering and Trautwine.)..... | 8vo,        | 4 00 |
| Hazen's Filtration of Public Water-supply.....   | 8vo,        | 3 00 |
| Hazlehurst's Towers and Tanks for Water-works.....   | 8vo,        | 2 50 |

|  |            |       |
|--|------------|-------|
| Herschel's 115 Experiments on the Carrying Capacity of Large, Riveted, Metal Conduits..... | 8vo,       | 2 00  |
| Mason's Water-supply. (Considered Principally from a Sanitary Standpoint.).....            | 8vo,       | 5 00  |
| Merriman's Treatise on Hydraulics.....   | 8vo,       | 4 00  |
| * Michie's Elements of Analytical Mechanics.....   | 8vo,       | 4 00  |
| Schuyler's Reservoirs for Irrigation, Water-power, and Domestic Water-supply.....          | Large 8vo, | 5 00  |
| Turneure and Russell. Public Water-supplies.....   | 8vo,       | 5 00  |
| Wegmann's Design and Construction of Dams.....   | 4to,       | 5 00  |
| “ Water-supply of the City of New York from 1658 to 1895 .....                             | 4to,       | 10 00 |
| Weisbach's Hydraulics and Hydraulic Motors. (Du Bois.)..                                   | 8vo,       | 5 00  |
| Wilson's Manual of Irrigation Engineering.....   | Small 8vo, | 4 00  |
| Wolff's Windmill as a Prime Mover.....   | 8vo,       | 3 00  |
| Wood's Turbines.....   | 8vo,       | 2 50  |
| “ Elements of Analytical Mechanics.....  | 8vo,       | 3 00  |

### MATERIALS OF ENGINEERING.

|   |                |      |
|---|----------------|------|
| Baker's Treatise on Masonry Construction.....   | 8vo,           | 5 00 |
| Black's United States Public Works.....   | Oblong 4to,    | 5 00 |
| Bovey's Strength of Materials and Theory of Structures....  | 8vo,           | 7 50 |
| Burr's Elasticity and Resistance of the Materials of Engineering .....                              | 8vo,           | 5 00 |
| Byrne's Highway Construction.....   | 8vo,           | 5 00 |
| “ Inspection of the Materials and Workmanship Employed in Construction.....                         | 16mo,          | 3 00 |
| Church's Mechanics of Engineering.....  | 8vo,           | 6 00 |
| Du Bois's Mechanics of Engineering. Vol. I.....   | Small 4to,     | 7 50 |
| Johnson's Materials of Construction.....  | Large 8vo,     | 6 00 |
| Keep's Cast Iron.....   | 8vo,           | 2 50 |
| Lanza's Applied Mechanics.....  | 8vo,           | 7 50 |
| Martens's Handbook on Testing Materials. (Henning.)..   | 2 v., 8vo,     | 7 50 |
| Merrill's Stones for Building and Decoration.....   | 8vo,           | 5 00 |
| Merriman's Text-book on the Mechanics of Materials.....   | 8vo,           | 4 00 |
| Merriman's Strength of Materials.....   | 12mo,          | 1 00 |
| Metcalf's Steel. A Manual for Steel-users.....  | 12mo,          | 2 00 |
| Patton's Practical Treatise on Foundations.....   | 8vo,           | 5 00 |
| Rockwell's Roads and Pavements in France.....   | 12mo,          | 1 25 |
| Smith's Wire: Its Use and Manufacture.....  | Small 4to,     | 3 00 |
| Snow's Properties Characterizing Economically Important Species of Wood. ( <i>In preparation.</i> ) |                |      |
| Spalding's Hydraulic Cement.....  | 12mo,          | 2 00 |
| “ Text-book on Roads and Pavements.....   | 12mo,          | 2 00 |
| Thurston's Materials of Engineering.....  | 3 Parts, 8vo,  | 8 00 |
| Part I.—Non-metallic Materials of Engineering and Metallurgy .....                                  | 8vo,           | 2 00 |
| Part II.—Iron and Steel.....  | 8vo,           | 3 50 |
| Part III.—A Treatise on Brasses, Bronzes and Other Alloys and Their Constituents.....               | 8vo,           | 2 50 |
| Thurston's Text-book of the Materials of Construction....   | 8vo,           | 5 00 |
| Tillson's Street Pavements and Paving Materials.....  | 8vo,           | 4 00 |
| Waddell's De Pontibus. (A Pocket-book for Bridge Engineers.)  | 16mo, morocco, | 3 00 |
| “ Specifications for Steel Bridges.....   | 12mo,          | 1 25 |
| Wood's Treatise on the Resistance of Materials, and an Appendix on the Preservation of Timber.....  | 8vo,           | 2 00 |
| “ Elements of Analytical Mechanics.....   | 8vo,           | 3 00 |

## RAILWAY ENGINEERING.

|  |                          |
|--|--------------------------|
| Andrews's Handbook for Street Railway Engineers. ( <i>In preparation.</i> )  |                          |
| Berg's Buildings and Structures of American Railroads...   | 4to, 5 00                |
| Brooks's Handbook of Street Railroad Location...   | 16mo, morocco, 1 50      |
| Butts's Civil Engineer's Field-book.....   | 16mo, morocco, 2 50      |
| Crandall's Transition Curve.....   | 16mo, morocco, 1 50      |
| "    Railway and Other Earthwork Tables.....   | 8vo, 1 50                |
| Dawson's Electric Railways and Tramways.Small  | 4to, half mor., 12 50    |
| "    "Engineering" and Electric Traction Pocket-book.  |                          |
|  | 16mo, morocco, 4 00      |
| Dredge's History of the Pennsylvania Railroad: (1879).Paper,   | 5 00                     |
| * Drinker's Tunneling, Explosive Compounds, and Rock Drills.   |                          |
|  | 4to, half morocco, 25 00 |
| Fisher's Table of Cubic Yards.....   | Cardboard, 25            |
| Godwin's Railroad Engineers' Field-book and Explorers' Guide.  |                          |
|  | 16mo, morocco, 2 50      |
| Howard's Transition Curve Field-book.....  | 16mo, morocco, 1 50      |
| Hudson's Tables for Calculating the Cubic Contents of Excavations and Embankments.....                             | 8vo, 1 00                |
| Howard's Transition Curve Field-book.....  | 16mo, morocco, 3 00      |
| Philbrick's Field Manual for Engineers.....  | 16mo, morocco, 3 00      |
| Pratt and Alden's Street-railway Road-bed.....   | 8vo, 2 00                |
| Searles's Field Engineering.....   | 16mo, morocco, 3 00      |
| "    Railroad Spiral.....  | 16mo, morocco, 1 50      |
| Taylor's Prismoidal Formulæ and Earthwork.....   | 8vo, 1 50                |
| * Trautwine's Method of Calculating the Cubic Contents of Excavations and Embankments by the Aid of Diagrams ..... | 8vo, 2 00                |
| *     "    The Field Practice of Laying Out Circular Curves for Railroads.....                                     | 12mo, morocco, 2 50      |
| *     "    Cross-section Sheet.....  | Paper, 25                |
| Webb's Railroad Construction.....  | 8vo, 4 00                |
| Wellington's Economic Theory of the Location of Railways..   |                          |
|  | Small 8vo, 5 00          |

## DRAWING.

|   |                            |
|---|----------------------------|
| Barr's Kinematics of Machinery.....                                     | 8vo, 2 50                  |
| * Bartlett's Mechanical Drawing.....                                    | 8vo, 3 00                  |
| Durley's Elementary Text-book of the Kinematics of Machines.            |                            |
|   | ( <i>In preparation.</i> ) |
| Hill's Text-book on Shades and Shadows, and Perspective..               | 8vo, 2 00                  |
| Jones's Machine Design:   |                            |
| Part I.—Kinematics of Machinery.....                                    | 8vo, 1 50                  |
| Part II.—Form, Strength and Proportions of Parts.....                   | 8vo, 3 00                  |
| MacCord's Elements of Descriptive Geometry.....                         | 8vo, 3 00                  |
| "    Kinematics; or, Practical Mechanism.....                           | 8vo, 5 00                  |
| "    Mechanical Drawing.....  | 4to, 4 00                  |
| "    Velocity Diagrams.....   | 8vo, 1 50                  |
| * Mahan's Descriptive Geometry and Stone-cutting.....                   | 8vo, 1 50                  |
| Mahan's Industrial Drawing. (Thompson.).....                            | 8vo, 3 50                  |
| Reed's Topographical Drawing and Sketching.....                         | 4to, 5 00                  |
| Reid's Course in Mechanical Drawing.....                                | 8vo, 2 00                  |
| "    Text-book of Mechanical Drawing and Elementary Machine Design..... | 8vo, 3 00                  |
| Robinson's Principles of Mechanism.....                                 | 8vo, 3 00                  |

|   |            |      |
|---|------------|------|
| Smith's Manual of Topographical Drawing. (McMillan.)                              | 8vo,       | 2 50 |
| Warren's Elements of Plane and Solid Free-hand Geometrical Drawing                | .....12mo, | 1 00 |
| “ Drafting Instruments and Operations.....  | 12mo,      | 1 25 |
| “ Manual of Elementary Projection Drawing.....                                    | 12mo,      | 1 50 |
| “ Manual of Elementary Problems in the Linear Perspective of Form and Shadow..... | 12mo,      | 1 00 |
| “ Plane Problems in Elementary Geometry.....                                      | 12mo,      | 1 25 |
| “ Primary Geometry.....   | 12mo,      | 75   |
| “ Elements of Descriptive Geometry, Shadows, and Perspective                      | .....8vo,  | 3 50 |
| “ General Problems of Shades and Shadows.....                                     | 8vo,       | 3 00 |
| “ Elements of Machine Construction and Drawing.....                               | 8vo,       | 7 50 |
| “ Problems, Theorems, and Examples in Descriptive Geometry                        | .....8vo,  | 2 50 |
| Weisbach's Kinematics and the Power of Transmission. (Herrmann and Klein.)        | .....8vo,  | 5 00 |
| Whelpley's Practical Instruction in the Art of Letter Engraving                   | .....12mo, | 2 00 |
| Wilson's Topographic Surveying.....   | 8vo,       | 3 50 |
| Wilson's Free-hand Perspective.....   | 8vo,       | 2 50 |
| Woolf's Elementary Course in Descriptive Geometry..                               | Large 8vo, | 3 00 |

## ELECTRICITY AND PHYSICS.

|   |                       |       |
|---|-----------------------|-------|
| Anthony and Brackett's Text-book of Physics. (Magie.)                             | Small 8vo,            | 3 00  |
| Anthony's Lecture-notes on the Theory of Electrical Measurements                  | .....12mo,            | 1 00  |
| Benjamin's History of Electricity.....  | 8vo,                  | 3 00  |
| Benjamin's Voltaic Cell.....  | 8vo,                  | 3 00  |
| Classen's Quantitative Chemical Analysis by Electrolysis. (Herrick and Boltwood.) | .....8vo,             | 3 00  |
| Crehore and Squier's Polarizing Photo-chronograph.....                            | 8vo,                  | 3 00  |
| Dawson's Electric Railways and Tramways..   | Small 4to, half mor., | 12 50 |
| Dawson's "Engineering" and Electric Traction Pocket-book.                         | 16mo, morocco,        | 4 00  |
| Flather's Dynamometers, and the Measurement of Power..                            | 12mo,                 | 3 00  |
| Gilbert's De Magnete. (Mottelay.)   | .....8vo,             | 2 50  |
| Holman's Precision of Measurements.....   | 8vo,                  | 2 00  |
| “ Telescopic Mirror-scale Method, Adjustments, and Tests                          | .....Large 8vo,       | 75    |
| Landauer's Spectrum Analysis. (Tingle.)   | .....8vo,             | 3 00  |
| Le Chatelier's High-temperature Measurements. (Boudouard—Burgess.)                | .....12mo,            | 3 00  |
| Löb's Electrolysis and Electrosynthesis of Organic Compounds. (Lorenz.)           | .....12mo,            | 1 00  |
| Lyons's Treatise on Electromagnetic Phenomena.....                                | 8vo,                  | 6 00  |
| * Michie. Elements of Wave Motion Relating to Sound and Light                     | .....8vo,             | 4 00  |
| Niaudet's Elementary Treatise on Electric Batteries (Fishback.)                   | .....12mo,            | 2 50  |
| * Parshall and Hobart's Electric Generators..                                     | Small 4to, half mor., | 10 00 |
| Ryan, Norris, and Hoxie's Electrical Machinery. ( <i>In preparation.</i> )        | .....8vo,             | 2 50  |
| Thurston's Stationary Steam-engines.....  | 8vo,                  | 2 50  |
| * Tillman. Elementary Lessons in Heat.....  | 8vo,                  | 1 50  |
| Tory and Pitcher. Manual of Laboratory Physics..                                  | Small 8vo,            | 2 00  |

## LAW.

|  |                |      |
|--|----------------|------|
| * Davis. Elements of Law.....  | 8vo,           | 2 50 |
| * " Treatise on the Military Law of United States.....                               | 8vo,           | 7 00 |
| * " ".....   | Sheep,         | 7 50 |
| Manual for Courts-martial.....   | 16mo, morocco, | 1 50 |
| Wait's Engineering and Architectural Jurisprudence.....                              | 8vo,           | 6 00 |
| " " ".....   | Sheep,         | 6 50 |
| " Law of Operations Preliminary to Construction in Engineering and Architecture..... | 8vo,           | 5 00 |
| " " ".....   | Sheep,         | 5 50 |
| " Law of Contracts.....  | 8vo,           | 3 00 |
| Winthrop's Abridgment of Military Law.....   | 12mo,          | 2 50 |

## MANUFACTURES.

|   |                |       |
|---|----------------|-------|
| Beaumont's Woollen and Worsted Cloth Manufacture....  | 12mo,          | 1 50  |
| Bernadou's Smokeless Powder—Nitro-cellulose and Theory of the Cellulose Molecule.....                           | 12mo,          | 2 50  |
| Bolland's Iron Founder.....   | 12mo, cloth,   | 2 50  |
| " "The Iron Founder" Supplement.....  | 12mo,          | 2 50  |
| " Encyclopedia of Founding and Dictionary of Foundry Terms Used in the Practice of Moulding....                 | 12mo,          | 3 00  |
| Eissler's Modern High Explosives.....   | 8vo,           | 4 00  |
| Effront's Enzymes and their Applications. (Prescott.)...  | 8vo,           | 3 00  |
| Fitzgerald's Boston Machinist.....  | 18mo,          | 1 00  |
| Ford's Boiler Making for Boiler Makers.....   | 18mo,          | 1 00  |
| Hopkins's Oil-chemists' Handbook.....   | 8vo,           | 3 00  |
| Keep's Cast Iron.....   | 8vo            | 2 50  |
| Leach's The Inspection and Analysis of Food with Special Reference to State Control. ( <i>In preparation.</i> ) |                |       |
| Metcalf's Steel. A Manual for Steel-users.....  | 12mo,          | 2 00  |
| Metcalf's Cost of Manufactures—And the Administration of Workshops, Public and Private.....                     | 8vo,           | 5 00  |
| Meyer's Modern Locomotive Construction.....   | 4to,           | 10 00 |
| * Reisig's Guide to Piece-dyeing.....   | 8vo,           | 25 00 |
| Smith's Press-working of Metals.....  | 8vo,           | 3 00  |
| " Wire: Its Use and Manufacture.....  | Small 4to,     | 3 00  |
| Spalding's Hydraulic Cement.....  | 12mo,          | 2 00  |
| Spenter's Handbook for Chemists of Beet-sugar Houses.....   | 16mo, morocco, | 3 00  |
| " Handbook for Sugar Manufacturers and their Chemists.....  | 16mo, morocco, | 2 00  |
| Thurston's Manual of Steam-boilers, their Designs, Construction and Operation.....                              | 8vo,           | 5 00  |
| Walke's Lectures on Explosives.....   | 8vo,           | 4 00  |
| West's American Foundry Practice.....   | 12mo,          | 2 50  |
| " Moulder's Text-book.....  | 12mo,          | 2 50  |
| Wiechmann's Sugar Analysis.....   | Small 8vo,     | 2 50  |
| Wolff's Windmill as a Prime Mover.....  | 8vo,           | 3 00  |
| Woodbury's Fire Protection of Mills.....  | 8vo,           | 2 50  |

## MATHEMATICS.

|   |       |      |
|---|-------|------|
| Baker's Elliptic Functions.....                   | 8vo,  | 1 50 |
| * Bass's Elements of Differential Calculus.....   | 12mo, | 4 00 |
| Briggs's Elements of Plane Analytic Geometry..... | 12mo, | 1 00 |



|   |             |      |
|---|-------------|------|
| Chapman's Elementary Course in Theory of Equations...   | 12mo,       | 1 50 |
| Compton's Manual of Logarithmic Computations.....   | 12mo,       | 1 50 |
| Davis's Introduction to the Logic of Algebra.....   | 8vo,        | 1 50 |
| De Laplace's Philosophical Essay on Probabilities. (Truscott and Emory.) ( <i>In preparation.</i> ) |             |      |
| *Dickson's College Algebra.....   | Large 12mo, | 1 50 |
| Halsted's Elements of Geometry.....   | 8vo,        | 1 75 |
| "    Elementary Synthetic Geometry.....   | 8vo,        | 1 50 |
| * Johnson's Three-place Logarithmic Tables: Vest-pocket size,                                       |             |      |
| pap.,   |             | 15   |
| 100 copies for  |             | 5 00 |
| *    Mounted on heavy cardboard, 8 × 10 inches,   |             | 25   |
| 10 copies for   |             | 2 00 |
| "    Elementary Treatise on the Integral Calculus.  |             |      |
| Small 8vo,  |             | 1 50 |
| "    Curve Tracing in Cartesian Co-ordinates.....   | 12mo,       | 1 00 |
| "    Treatise on Ordinary and Partial Differential Equations.....                                   | Small 8vo,  | 3 50 |
| "    Theory of Errors and the Method of Least Squares.....  | 12mo,       | 1 50 |
| "    Theoretical Mechanics.....   | 12mo,       | 3 00 |
| * Ludlow and Bass. Elements of Trigonometry and Logarithmic and Other Tables.....                   | 8vo,        | 3 00 |
| "    Trigonometry. Tables published separately..  | Each,       | 2 00 |
| Merriman and Woodward. Higher Mathematics.....  | 8vo,        | 5 00 |
| Merriman's Method of Least Squares.....   | 8vo,        | 2 00 |
| Rice and Johnson's Elementary Treatise on the Differential Calculus.....                            | Small 8vo,  | 3 00 |
| "    Differential and Integral Calculus. 2 vols. in one.....  | Small 8vo,  | 2 50 |
| Wood's Elements of Co-ordinate Geometry.....  | 8vo,        | 2 00 |
| "    Trigometry: Analytical, Plane, and Spherical....   | 12mo,       | 1 00 |

## MECHANICAL ENGINEERING.

### MATERIALS OF ENGINEERING, STEAM ENGINES AND BOILERS.

|   |                |      |
|---|----------------|------|
| Baldwin's Steam Heating for Buildings.....  | 12mo,          | 2 50 |
| Barr's Kinematics of Machinery.....   | 8vo,           | 2 50 |
| * Bartlett's Mechanical Drawing.....  | 8vo,           | 3 00 |
| Benjamin's Wrinkles and Recipes.....  | 12mo,          | 2 00 |
| Carpenter's Experimental Engineering.....   | 8vo,           | 6 00 |
| "    Heating and Ventilating Buildings.....   | 8vo,           | 3 00 |
| Clerk's Gas and Oil Engine.....   | Small 8vo,     | 4 00 |
| Cromwell's Treatise on Toothed Gearing.....   | 12mo,          | 1 50 |
| "    Treatise on Belts and Pulleys.....   | 12mo,          | 1 50 |
| Durley's Elementary Text-book of the Kinematics of Machines. ( <i>In preparation.</i> ) |                |      |
| Flather's Dynamometers, and the Measurement of Power ..                                 | 12mo,          | 3 00 |
| "    Rope Driving.....  | 12mo,          | 2 00 |
| Gill's Gas and Fuel Analysis for Engineers.....   | 12mo,          | 1 25 |
| Hall's Car Lubrication.....   | 12mo,          | 1 00 |
| Jones's Machine Design:   |                |      |
| Part I.—Kinematics of Machinery.....  | 8vo,           | 1 50 |
| Part II.—Form, Strength and Proportions of Parts.....                                   | 8vo,           | 3 00 |
| Kent's Mechanical Engineers' Pocket-book....  | 16mo, morocco, | 5 00 |
| Kerr's Power and Power Transmission.....  | 8vo,           | 2 00 |

|  |       |      |
|--|-------|------|
| MacCord's Kinematics; or, Practical Mechanism.....                                 | 8vo,  | 5 00 |
| "    Mechanical Drawing.....   | 4to,  | 4 00 |
| "    Velocity Diagrams.....  | 8vo,  | 1 50 |
| Mahan's Industrial Drawing. (Thompson.).....                                       | 8vo,  | 3 50 |
| Poole's Calorific Power of Fuels.....  | 8vo,  | 3 00 |
| Reid's Course in Mechanical Drawing.....   | 8vo,  | 2 00 |
| "    Text-book of Mechanical Drawing and Elementary<br>Machine Design.....         | 8vo,  | 3 00 |
| Richards's Compressed Air.....   | 12mo, | 1 50 |
| Robinson's Principles of Mechanism.....  | 8vo,  | 3 00 |
| Smith's Press-working of Metals.....   | 8vo,  | 3 00 |
| Thurston's Treatise on Friction and Lost Work in Machin-<br>ery and Mill Work..... | 8vo,  | 3 00 |
| "    Animal as a Machine and Prime Motor and the<br>Laws of Energetics.....        | 12mo, | 1 00 |
| Warren's Elements of Machine Construction and Drawing.....                         | 8vo,  | 7 50 |
| Weisbach's Kinematics and the Power of Transmission. (Herr-<br>mann-Klein.) .....  | 8vo,  | 5 00 |
| "    Machinery of Transmission and Governors. (Herr-<br>mann-Klein.) .....         | 8vo,  | 5 00 |
| "    Hydraulics and Hydraulic Motors. (Du Bois.).....                              | 8vo,  | 5 00 |
| Wolf's Windmill as a Prime Mover.....  | 8vo,  | 3 00 |
| Wood's Turbines.....   | 8vo,  | 2 50 |

### MATERIALS OF ENGINEERING.

|  |               |      |
|--|---------------|------|
| Bovey's Strength of Materials and Theory of Structures.....  | 8vo,          | 7 50 |
| Burr's Elasticity and Resistance of the Materials of Engineer-<br>ing .....                            | 8vo,          | 5 00 |
| Church's Mechanics of Engineering.....   | 8vo,          | 6 00 |
| Johnson's Materials of Construction.....   | Large 8vo,    | 6 00 |
| Keep's Cast Iron.....  | 8vo,          | 2 50 |
| Lanza's Applied Mechanics.....   | 8vo,          | 7 50 |
| Martens's Handbook on Testing Materials. (Henning.).....   | 8vo,          | 7 50 |
| Merriman's Text-book on the Mechanics of Materials.....  | 8vo,          | 4 00 |
| "    Strength of Materials.....  | 12mo,         | 1 00 |
| Metcalf's Steel. A Manual for Steel-users.....   | 12mo,         | 2 00 |
| Smith's Wire: Its Use and Manufacture.....   | Small 4to,    | 3 00 |
| Thurston's Materials of Engineering.....   | 3 vols., 8vo, | 8 00 |
| Part II.—Iron and Steel.....   | 8vo,          | 3 50 |
| Part III.—A Treatise on Brasses, Bronzes and Other Alloys<br>and their Constituents.....               | 8vo,          | 2 50 |
| Thurston's Text-book of the Materials of Construction....  | 8vo,          | 5 00 |
| Wood's Treatise on the Resistance of Materials and an Ap-<br>pendix on the Preservation of Timber..... | 8vo,          | 2 00 |
| "    Elements of Analytical Mechanics.....   | 8vo,          | 3 00 |

### STEAM ENGINES AND BOILERS.

|   |                |      |
|---|----------------|------|
| Carnot's Reflections on the Motive Power of Heat. (Thurston.)<br>12mo,      | 12mo,          | 1 50 |
| Dawson's "Engineering" and Electric Traction Pocket-book.<br>16mo, morocco, | 16mo, morocco, | 4 00 |
| Ford's Boiler Making for Boiler Makers.....                                 | 18mo,          | 1 00 |
| Goss's Locomotive Sparks.....   | 8vo,           | 2 00 |
| Hemenway's Indicator Practice and Steam-engine Economy.<br>12mo,            | 12mo,          | 2 00 |
| Hutton's Mechanical Engineering of Power Plants.....                        | 8vo,           | 5 00 |
| "    Heat and Heat-engines.....   | 8vo,           | 5 00 |

|   |               |       |
|---|---------------|-------|
| Kent's Steam-boiler Economy.....  | 8vo,          | 4 00  |
| Kneass's Practice and Theory of the Injector.....   | 8vo,          | 1 50  |
| MacCord's Slide-valves.....   | 8vo,          | 2 00  |
| Meyer's Modern Locomotive Construction.....   | 4to,          | 10 00 |
| Peabody's Manual of the Steam-engine Indicator.....   | 12mo,         | 1 50  |
| "    Tables of the Properties of Saturated Steam and<br>Other Vapors.....                                 | 8vo,          | 1 00  |
| "    Thermodynamics of the Steam-engine and Other<br>Heat-engines.....                                    | 8vo,          | 5 00  |
| "    Valve-gears for Steam-engines.....   | 8vo,          | 2 50  |
| Peabody and Miller. Steam-boilers.....  | 8vo,          | 4 00  |
| Pray's Twenty Years with the Indicator.....   | Large 8vo,    | 2 50  |
| Pupin's Thermodynamics of Reversible Cycles in Gases and<br>Saturated Vapors. (Osterberg.).....           | 12mo,         | 1 25  |
| Reagan's Locomotive Mechanism and Engineering.....  | 12mo,         | 2 00  |
| Rontgen's Principles of Thermodynamics. (Du Bois.)....  | 8vo,          | 5 00  |
| Sinclair's Locomotive Engine Running and Management..   | 12mo,         | 2 00  |
| Smart's Handbook of Engineering Laboratory Practice..   | 12mo,         | 2 50  |
| Snow's Steam-boiler Practice.....   | 8vo,          | 3 00  |
| Spangler's Valve-gears.....   | 8vo,          | 2 50  |
| "    Notes on Thermodynamics.....   | 12mo,         | 1 00  |
| Thurston's Handy Tables.....  | 8vo,          | 1 50  |
| "    Manual of the Steam-engine.....  | 2 vols., 8vo, | 10 00 |
| Part I.—History, Structure, and Theory.....   | 8vo,          | 6 00  |
| Part II.—Design, Construction, and Operation.....   | 8vo,          | 6 00  |
| Thurston's Handbook of Engine and Boiler Trials, and the Use<br>of the Indicator and the Prony Brake..... | 8vo,          | 5 00  |
| "    Stationary Steam-engines.....  | 8vo,          | 2 50  |
| "    Steam-boiler Explosions in Theory and in Practice<br>.....   | 12mo,         | 1 50  |
| "    Manual of Steam-boilers, Their Designs, Construction,<br>and Operation.....                          | 8vo,          | 5 00  |
| Weisbach's Heat, Steam, and Steam-engines. (Du Bois.)..   | 8vo,          | 5 00  |
| Whitham's Steam-engine Design.....  | 8vo,          | 5 00  |
| Wilson's Treatise on Steam-boilers. (Flather.).....   | 16mo,         | 2 50  |
| Wood's Thermodynamics, Heat Motors, and Refrigerating<br>Machines.....                                    | 8vo,          | 4 00  |

## MECHANICS AND MACHINERY.

|   |                 |      |
|---|-----------------|------|
| Barr's Kinematics of Machinery.....   | 8vo,            | 2 50 |
| Bovey's Strength of Materials and Theory of Structures..  | 8vo,            | 7 50 |
| Chordal.—Extracts from Letters.....   | 12mo,           | 2 00 |
| Church's Mechanics of Engineering.....  | 8vo,            | 6 00 |
| "    Notes and Examples in Mechanics.....   | 8vo,            | 2 00 |
| Compton's First Lessons in Metal-working.....   | 12mo,           | 1 50 |
| Compton and De Grootd. The Speed Lathe.....   | 12mo,           | 1 50 |
| Cromwell's Treatise on Toothed Gearing.....   | 12mo,           | 1 50 |
| "    Treatise on Belts and Pulleys.....   | 12mo,           | 1 50 |
| Dana's Text-book of Elementary Mechanics for the Use of<br>Colleges and Schools.....                        | 12mo,           | 1 50 |
| Dingey's Machinery Pattern Making.....  | 12mo,           | 2 00 |
| Dredge's Record of the Transportation Exhibits Building of the<br>World's Columbian Exposition of 1893..... | 4to, half mor., | 5 00 |
| Du Bois's Elementary Principles of Mechanics:   |                 |      |
| Vol. I.—Kinematics.....   | 8vo,            | 3 50 |
| Vol. II.—Statics.....   | 8vo,            | 4 00 |
| Vol. III.—Kinetics.....   | 8vo,            | 3 50 |

|   |                            |                  |
|---|----------------------------|------------------|
| Du Bois's Mechanics of Engineering. Vol. I.                               | Small 4to,                 | 7 50             |
| " " " " " " " " " " " " " "   | Vol. II.                   | Small 4to, 10 00 |
| Durley's Elementary Text-book of the Kinematics of Machines.              | ( <i>In preparation.</i> ) |                  |
| Fitzgerald's Boston Machinist.  | 16mo,                      | 1 00             |
| Flather's Dynamometers, and the Measurement of Power.                     | 12mo,                      | 3 00             |
| " Rope Driving.   | 12mo,                      | 2 00             |
| Goss's Locomotive Sparks.   | 8vo,                       | 2 00             |
| Hall's Car Lubrication.   | 12mo,                      | 1 00             |
| Holly's Art of Saw Filing.  | 18mo,                      | 75               |
| * Johnson's Theoretical Mechanics.  | 12mo,                      | 3 00             |
| Johnson's Short Course in Statics by Graphic and Algebraic Methods.       | ( <i>In preparation.</i> ) |                  |
| Jones's Machine Design:   |                            |                  |
| Part I.—Kinematics of Machinery.  | 8vo,                       | 1 50             |
| Part II.—Form, Strength and Proportions of Parts.                         | 8vo,                       | 3 00             |
| Kerr's Power and Power Transmission.                                      | 8vo,                       | 2 00             |
| Lanza's Applied Mechanics.  | 8vo,                       | 7 50             |
| MacCord's Kinematics; or, Practical Mechanism.                            | 8vo,                       | 5 00             |
| " Velocity Diagrams.  | 8vo,                       | 1 50             |
| Merriman's Text-book of the Mechanics of Materials.                       | 8vo,                       | 4 00             |
| * Michie's Elements of Analytical Mechanics.                              | 8vo,                       | 4 00             |
| Reagan's Locomotive Mechanism and Engineering.                            | 12mo,                      | 2 00             |
| Reid's Course in Mechanical Drawing.                                      | 8vo,                       | 2 00             |
| " Text-book of Mechanical Drawing and Elementary Machine Design.          | 8vo,                       | 3 00             |
| Richards's Compressed Air.  | 12mo,                      | 1 50             |
| Robinson's Principles of Mechanism.                                       | 8vo,                       | 3 00             |
| Ryan, Norris, and Hoxie's Electrical Machinery.                           | ( <i>In preparation.</i> ) |                  |
| Sinclair's Locomotive-engine Running and Management.                      | 12mo,                      | 2 00             |
| Smith's Press-working of Metals.  | 8vo,                       | 3 00             |
| Thurston's Treatise on Friction and Lost Work in Machinery and Mill Work. | 8vo,                       | 3 00             |
| " Animal as a Machine and Prime Motor, and the Laws of Energetics.        | 12mo,                      | 1 00             |
| Warren's Elements of Machine Construction and Drawing.                    | 8vo,                       | 7 50             |
| Weisbach's Kinematics and the Power of Transmission.                      | (Herrman—Klein.)           | 8vo, 5 00        |
| " Machinery of Transmission and Governors.                                | (Herrman—Klein.)           | 8vo, 5 00        |
| Wood's Elements of Analytical Mechanics.                                  | 8vo,                       | 3 00             |
| " Principles of Elementary Mechanics.                                     | 12mo,                      | 1 25             |
| " Turbines.   | 8vo,                       | 2 50             |
| The World's Columbian Exposition of 1893.                                 | 4to,                       | 1 00             |

## METALLURGY.

|   |       |      |
|---|-------|------|
| Egleston's Metallurgy of Silver, Gold, and Mercury:                               |       |      |
| Vol. I.—Silver.   | 8vo,  | 7 50 |
| Vol. II.—Gold and Mercury.  | 8vo,  | 7 50 |
| Keep's Cast Iron.   | 8vo,  | 2 50 |
| Kunhardt's Practice of Ore Dressing in Europe.                                    | 8vo,  | 1 50 |
| Le Chatelier's High-temperature Measurements. (Boudouard—Burgess.)                | 12mo, | 3 00 |
| Metcalf's Steel. A Manual for Steel-users.  | 12mo, | 2 00 |
| Thurston's Materials of Engineering. In Three Parts.                              | 8vo,  | 8 00 |
| Part II.—Iron and Steel.  | 8vo,  | 3 50 |
| Part III.—A Treatise on Brasses, Bronzes and Other Alloys and Their Constituents. | 8vo,  | 2 50 |

## MINERALOGY.

|  |                                |
|--|--------------------------------|
| Barringer's Description of Minerals of Commercial Value.     | 2 50                           |
| Oblong, morocco,   |                                |
| Boyd's Resources of Southwest Virginia.....                  | 8vo, 3 00                      |
| "    Map of Southwest Virginia.....                          | Pocket-book form, 2 00         |
| Brush's Manual of Determinative Mineralogy. (Penfield.)      | 8vo, 4 00                      |
| Chester's Catalogue of Minerals.....                         | 8vo, paper, 1 00               |
| Cloth,   | 1 25                           |
| "    Dictionary of the Names of Minerals.....                | 8vo, 3 50                      |
| Dana's System of Mineralogy....                              | Large 8vo, half leather, 12 50 |
| "    First Appendix to Dana's New "System of Mineralogy,"    |                                |
| Large 8vo,   | 1 00                           |
| "    Text-book of Mineralogy.....                            | 8vo, 4 00                      |
| "    Minerals and How to Study Them.....                     | 12mo, 1 50                     |
| "    Catalogue of American Localities of Minerals.           | Large 8vo, 1 00                |
| "    Manual of Mineralogy and Petrography.....               | 12mo, 2 00                     |
| Egleston's Catalogue of Minerals and Synonyms.....           | 8vo, 2 50                      |
| Hussak's The Determination of Rock-forming Minerals.         |                                |
| (Smith.) .....   | Small 8vo, 2 00                |
| * Penfield's Notes on Determinative Mineralogy and Record of |                                |
| Mineral Tests.....   | 8vo, paper, 50                 |
| Rosenbusch's Microscopical Physiography of the Rock-making   |                                |
| Minerals. (Idding's.).....                                   | 8vo, 5 00                      |
| * Tillman's Text-book of Important Minerals and Rocks.       | 8vo, 2 00                      |
| Williams's Manual of Lithology.....                          | 8vo, 3 00                      |

## MINING.

|  |                          |
|--|--------------------------|
| Beard's Ventilation of Mines.....                            | 12mo, 2 50               |
| Boyd's Resources of Southwest Virginia.....                  | 8vo, 3 00                |
| "    Map of Southwest Virginia.....                          | Pocket-book form, 2 00   |
| * Drinker's Tunneling, Explosive Compounds, and Rock         |                          |
| Drills.....  | 4to, half morocco, 25 00 |
| Eissler's Modern High Explosives.....                        | 8vo, 4 00                |
| Goodyear's Coal-mines of the Western Coast of the United     |                          |
| States .....   | 12mo, 2 50               |
| Ihlseng's Manual of Mining.....                              | 8vo, 4 00                |
| Kunhardt's Practice of Ore Dressing in Europe.....           | 8vo, 1 50                |
| O'Driscoll's Notes on the Treatment of Gold Ores.....        | 8vo, 2 00                |
| Sawyer's Accidents in Mines.....                             | 8vo, 7 00                |
| Walke's Lectures on Explosives.....                          | 8vo, 4 00                |
| Wilson's Cyanide Processes.....                              | 12mo, 1 50               |
| Wilson's Chlorination Process.....                           | 12mo, 1 50               |
| Wilson's Hydraulic and Placer Mining.....                    | 12mo, 2 00               |
| Wilson's Treatise on Practical and Theoretical Mine Ventila- |                          |
| tion .....   | 12mo, 1 25               |

## SANITARY SCIENCE.

|  |            |
|--|------------|
| Folwell's Sewerage. (Designing, Construction and Maintenance.) | 8vo, 3 00  |
| "    Water-supply Engineering.....                             | 8vo, 4 00  |
| Fuertes's Water and Public Health.....                         | 12mo, 1 50 |
| "    Water-filtration Works.....                               | 12mo, 2 50 |

|  |       |      |
|--|-------|------|
| Gerhard's Guide to Sanitary House-inspection.....  | 16mo, | 1 00 |
| Goodrich's Economical Disposal of Towns' Refuse...Demy   | 8vo,  | 3 50 |
| Hazen's Filtration of Public Water-supplies.....   | 8vo,  | 3 00 |
| Kiersted's Sewage Disposal.....  | 12mo, | 1 25 |
| Leach's The Inspection and Analysis of Food with Special<br>Reference to State Control. ( <i>In preparation.</i> ) |       |      |
| Mason's Water-supply. (Considered Principally from a San-<br>itary Standpoint. 3d Edition, Rewritten....           | 8vo,  | 4 00 |
| " Examination of Water. (Chemical and Bacterio-<br>logical.) .....   | 12mo, | 1 25 |
| Merriman's Elements of Sanitary Engineering.....   | 8vo,  | 2 00 |
| Nichols's Water-supply. (Considered Mainly from a Chemical<br>and Sanitary Standpoint.) (1883.) .....              | 8vo,  | 2 50 |
| Ogden's Sewer Design.....  | 12mo, | 2 00 |
| * Price's Handbook on Sanitation.....  | 12mo, | 1 50 |
| Richards's Cost of Food. A Study in Dieteries.....   | 12mo, | 1 00 |
| Richards and Woodman's Air, Water, and Food from a Sani-<br>itary Standpoint.....                                  | 8vo,  | 2 00 |
| Richards's Cost of Living as Modified by Sanitary Science.   | 12mo, | 1 00 |
| * Richards and Williams's The Dietary Computer.....  | 8vo,  | 1 50 |
| Rideal's Sewage and Bacterial Purification of Sewage.....  | 8vo,  | 3 50 |
| Turneure and Russell's Public Water-supplies.....  | 8vo,  | 5 00 |
| Whipple's Microscopy of Drinking-water.....  | 8vo,  | 3 50 |
| Woodhull's Notes on Military Hygiene.....  | 16mo, | 1 50 |

### MISCELLANEOUS.

|   |            |      |
|---|------------|------|
| Barker's Deep-sea Soundings.....  | 8vo,       | 2 00 |
| Emmons's Geological Guide-book of the Rocky Mountain Ex-<br>cursion of the International Congress of Geologists.<br>Large                                     | 8vo,       | 1 50 |
| Ferrel's Popular Treatise on the Winds.....   | 8vo,       | 4 00 |
| Haines's American Railway Management.....   | 12mo,      | 2 50 |
| Mott's Composition, Digestibility, and Nutritive Value of Food.<br>Mounted chart,   |            | 1 25 |
| " Fallacy of the Present Theory of Sound.....   | 16mo,      | 1 00 |
| Ricketts's History of Rensselaer Polytechnic Institute, 1824-<br>1894.....  | Small 8vo, | 3 00 |
| Rotherham's Emphasised New Testament.....   | Large 8vo, | 2 00 |
| " Critical Emphasised New Testament.....  | 12mo,      | 1 50 |
| Steel's Treatise on the Diseases of the Dog.....  | 8vo,       | 3 50 |
| Totten's Important Question in Metrology.....   | 8vo,       | 2 50 |
| The World's Columbian Exposition of 1893.....   | 4to,       | 1 00 |
| Worcester and Atkinson. Small Hospitals, Establishment and<br>Maintenance, and Suggestions for Hospital Architecture,<br>with Plans for a Small Hospital..... | 12mo,      | 1 25 |

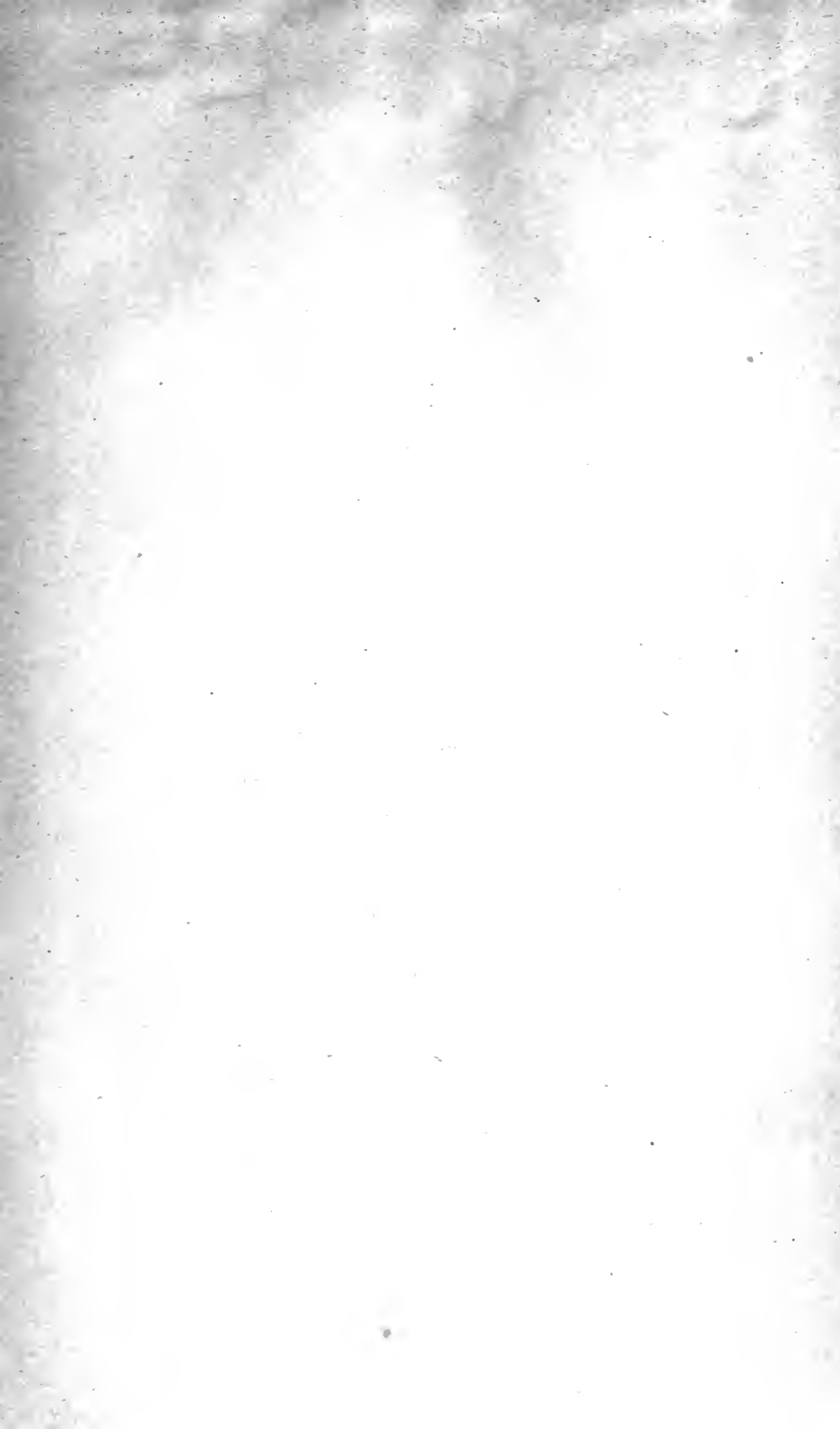
### HEBREW AND CHALDEE TEXT-BOOKS.

|   |                          |      |
|---|--------------------------|------|
| Green's Grammar of the Hebrew Language.....   | 8vo,                     | 3 00 |
| " Elementary Hebrew Grammar.....  | 12mo,                    | 1 25 |
| " Hebrew Chrestomathy.....  | 8vo,                     | 2 00 |
| Gesenius's Hebrew and Chaldee Lexicon to the Old Testament<br>Scriptures. (Tregelles.)..... | Small 4to, half morocco, | 5 00 |
| Letteris's Hebrew Bible.....  | 8vo,                     | 2 25 |

STATE NORMAL SCHOOL,  
LOS ANGELES, CALIF.







This book is DUE on the last date stamped below

OCT 11 1929

MAR 18 1930  
FBI 6 130

JAN 26 1943

MAY 13 1946

JUN 11 1953

JUN 29 RECD

TX  
551 Richards -  
R39d Dietary computer



A 000 503 828 6

TX  
551  
R39d

