bon afforded by them at the cost of 1d. is, sugar, 622 grains, and treacle, 746 grains. Treacle is thus the cheaper but its use is more limited than sugar, and could not supplant the latter. The relation of the nutritive value to the standard in bread is almost the same as that of fats, and both are dear foods as compared with the standard. It is also seriously doubted whether the elements of which sugar is composed can be rendered equal in nutritive value to the same elements in fat; and, although this cannot be determined at present, it seems probable that the absence of sugar in a dietary would be less important than the loss of an equivalent value in fat.

MEATS.–The determination of the exact economic value of meats is a work of great complexity owing to the different kinds and joints of meat which are used, containing very different relative quantities of fat and lean, and the valuable flavoured juices of the meat. All contain both carbon and nitrogen, and these will vary as the fat and lean vary. As a general expression, it may be stated that in point of cost, beef and English bacon are the dearest, whilst American bacon, mutton, and pork are the cheapest. In reference to the nutritive elements, bacon, pork, mutton and beef have the greatest quantity of fat, beginning from the first, and will therefore be richer in carbon than beef, whilst the latter will exceed the others in nitrogen. If we consider that the average price of beef is 7½d., of mutton and pork 7d., of English bacon 8½d. and of American bacon 4½d., we shall find the following quantities of each to be procured for 1d.:—

	Carbon.	Nitrogen.
Beef	320 grains	23 grains.
Mutton	415 "	20 "
Pork	483 "	18 "
Dried English bacon	510 "	12 "
Wet American bacon	918 "	17 "

Hence the quantities of carbon vary from 320 grains to 918 grains, and of nitrogen from 12 to 23 grains, so that when compared with the standard they are deficient by two-thirds.

A communication addressed to me by the Consul of Uruguay led me to expect the receipt of specimens of dried meat from South America, which after examination and consideration, I might have included in my list of foods, but the parcel has not yet arrived.

Time does not permit me to consider the propriety of admitting or rejecting the flesh of animals which have died from accident or disease (thence often misnamed diseased meat), and which is sold cheaply. There is a natural repugnance to the use of this food, and yet it has been eaten in various parts of the country in all ages, as for example the braxy mutton of Scotland, and veal from calves dying natural deaths in Wales, and no evil has been traced to it. So also with animals dying from accident, such as suffocation on board ships in a storm, or by acute inflamations, it has not been shewn that any change has taken place in the flesh which, when eaten would produce unhealthy nutrition. The case is far different when the animals have been long ill, or when the disease has been a specific one, which could in other ways have been transmitted. As there is not time to discuss this important question properly, I should regret saying anything which might lessen our repugnance to the use of the flesh of animals dying from any disease, but I am of opinion that some of the denunciations which have recently been hurled against them are not supported by known facts, and that in the interests of science as well as of justice nothing should be asserted which cannot be supported by proof. As there could not be any means of distinguishing the meat of animals dying of different diseases (except in a few cases), it is only at present practicable to wholly admit or wholly exclude it, and the latter is doubtless the safer plan.

There are two substances in reference to meat to which I must further refer, viz., liver and bones. There is a scientific prejudice against the use of liver on account of the frequency with which it is diseased, but when it is cut into thin slices and no disease is evident to the eye, it is only necessary that it be well cooked. It is an economical food, for if it cost 3d. per lb. it will yield 410 grains of carbon and 70 grains of nitrogen for 1d.

Bones are used by every housewife, if she have them, when she makes soup or broth, and yet there is a scientific prejudice against them because an inquiry made by "The Gelatin Commission" in France many years ago, proved that animals could not live on bones alone. Here again we have a hasty generalization, for whilst the conclusion just mentioned was proved, it was not shown that bones may not be advantageously used as a part of the dietary—yet from that conclusion and the further fact that the residue of digested (or boiled) bones consists largely of gelatin, arose assumption that gelatin was not nutriment, yet medical men order jelly for sick diets, and everybody who can obtain a jelly, if it is nicely flavoured, enjoys it, and all have the impression that it nourishes. Moreover, in my experiments I proved that when jelly had been eaten the emission of nitrogen was increased—thus showing that the jelly had been absorbed and converted into other substances; yet, with the habit of writers to hand down that which has been written, the writers on diet of to-day deny the nutritive value of Gelatin. As bones cost about 1d. per lb., and when cooked may be sold again for a ½d. per lb., the analysis which I made for the Government proved that 1d. worth of bones well digested gave 1566 grains of carbon and 48 grains of nitrogen, so that I trust science will not prevent your using them.

FISH.—Of fish I shall refer only to herrings, since it is impossible to fix a uniform price to that article of diet. If we take a dried herring of the size sold at three-farthings each, and a fresh one sold at one half-penny each, the following will be the amount of carbon and nitrogen per 1d.

	Carbon.	Nitrogen.
Dry	352 grains	54 grains.
Fresh	480 "	72 "

The size will vary with the state of the market, but fresh herrings are more economical than dried herrings at the price named, and, whilst greatly below our standard in carbon, approach it very nearly in hydrogen.

MILK.—Milk is used as new milk, skimmed milk and butter-milk. These differ extremely in the price paid for them, but they approximate closely in the nutritive elements which they contain, for