

giving to feed the oxygen we breathe. To begin with the earliest making of dishes, we find that cows' milk has less of oxygen-feeding ingredients in a given measure than human milk; a child, would, therefore, grow thin upon it unless a little sugar were added; wheat flour has, on the other hand, so much an excess of oxygen-feeding power as would fatten a child unhealthy, and it should therefore have cows' milk added to reduce the fattening power.

The same sort of procedure applies in greater or less degree to all dishes. Veal and hare stand lowest in the list for their oxygen-feeding qualities, and, on this account, should be eaten with potatoe or rice, which stand highest, and with bacon and jelly, which furnish in their fat and sugar the carbon wanting in the flesh. With the above table before us, and keeping in mind the facts already detailed, it is clear that cookery should supply us with a mixed diet of animal and vegetable food, and should aim so to mix as to give us for every ounce of the flesh-making ingredients in our food, four ounces of oxygen-feeding ingredients. It is clear, also, that the most nourishing or strength-giving of all foods are red fresh meats. They are flesh ready made, and contain, besides, the iron which gives its red color to the blood, being short of which the blood lacks vitality, and wanting which it dies.

To preserve in dressing the full nourishment of meats, and their properties of digestiveness, forms a most important part of the art of cooking; for these ends the object to be kept in mind is to retain as much as possible the juices of the meat, whether roast or boiled. This, in the case of boiling meat is best done by placing it at once in briskly boiling water; the albumen on the surface and to some depth, is immediately coagulated, and thus forms a kind of covering which neither allows the water to get into the meat, nor the meat juice into the water. The water should then be kept just under boiling until the meat be thoroughly done, which it will be when every part has been heated to about 165 degrees, the temperature at which the coloring matter of the blood coagulates or fixes; at 133 degrees the albumen sets, but the blood does not, and therefore the meat is red and raw.

The same rules apply to roasting; the meats should first be brought near enough a bright fire to brown the outside, and then should be allowed roast slowly.

Belonging to this question of waste and nourishment it is to be noted, that the almost everywhere-agreed-upon notion that soup, which sets into strong jelly, must be the most nutritious, is altogether a mistake. The soup sets because it contains the gelatine of glue of the sinews, flesh, and bones; but on this imagined richness alone it has, by recent experiments, been proved that no animal can live. The jelly of bones boiled into soup, can furnish only jelly for our bones; the jelly of sinew or calf's feet can form only sinew; neither flesh nor its juices set into a jelly. It is only by long boiling we obtain a soup that sets, but in much less time we get all the nourishing properties that meat yields in soups which are no doubt useful in cases of recovery from illness, when the portions of the system in which

if digested, jelly is unwholesome, for it loads the blood with not only useless, but disturbing products. Nor does jelly stand alone. Neither can we live on meat which has been cleared of fat, long boiled, and has had all the juice pressed out of it; a dog so fed, lost in forty-three days a fourth of his weight; in fifty days he bore all the appearance of starvation, and yet such meat has all the muscular fibre in it. In the same way, animals fed on pure casein, albumen, fibrin of vegetables, starch, sugar, or fat, died, with every appearance of death by hunger.

Further experiments showed that these worse than useless foods were entirely without certain matters which are always to be found in the blood, namely, phosphoric acid, potash, soda, lime, magnesia, oxide of iron, and common salt (in certain of these we may mention, by difficulty of digestion and poor nutriment qualities.) These salts of the blood, as they are termed in chemistry, are to be found in the several wheys and juices of meat, milk, pulse, and grain. Here then was the proof complete, that such food, to support life, must contain the several ingredients of the blood, and that the stomach cannot make, nor the body do without the least of them.

It is an established truth in physiology, that man is omnivorous—that is, constituted to eat almost every kind of food, which, separately, nourishes other animals. His teeth are formed to masticate and his stomach to digest flesh, fish, and all farinaceous and vegetable substances—he can eat and digest these even in a raw state; but it is necessary to perfect them for his nourishment in the most healthy manner, that they be prepared by cooking—that is, softened by the action and fire of water.

In strict accordance with this philosophy, which makes a portion of animal food necessary to develop and sustain the human constitution in its most perfect state of physical, intellectual and moral strength and beauty, we know that now in every country where a mixed diet is habitually used, as in the temperate climates, there the greatest improvement of the race is to be found, and the greatest energy of character. It is that portion of the human family who have the means of obtaining this food at least once a day who now hold dominion over the earth. Forty thousand of the beef-fed British govern and control ninety millions of the rice-eating natives of India.

In every nation on earth the *rulers*, the men of power, whether princes or priests, almost invariably use a portion of the animal food. The people are often compelled, either from poverty or policy, to abstain. Whenever the time shall arrive that every *peasant* in Europe is able to "put his pullet in the pot of a Sunday," a great improvement will have taken place in his character and condition; when he can have a portion of animal food, properly cooked, once each day, he will soon become a *man*.

In our own country, the beneficial effects of a generous diet, in developing and sustaining the energies of a whole nation, are clearly evident. The severe and unremitting labors of every kind which were requisite to subdue and obtain dominion of a wilderness world could not have been