## The Workman and His Food.

By SIR WILLIAM EARNSHAW COOPER, C.LE.

The men who gave to the world Steam and Electricity conferred incalculable benefits on the human race, and no man would sneer or cavil at those Master



Minds which have done so much to strew the world with all sorts of strange mechanical devices for man's use and enjoyment; but he. or they, who can convince the masses of the people that their food is unwisely chosen, and eaten in profound ignorance of all the laws governing alimentation. would confer on mankind gifts more material, durable and beneficent than have all those brilliant scientists by their

wonderful discoveries.

In arts and science, in medicine and surgery, and in social culture, the human race has progressed by leaps and bounds in comparatively recent years, and yet there is one vital question, indeed, the most vitally important of all, that still remains almost uncared for, unconsidered, and regarded as of no moment in the economy of human existence. In working out his own earthly destiny it seems strange that Man should, consciously or unconsciously, overlook and neglect that very thing upon which the material body itself depends for the accomplishment of the great purposes of life—FOOD.

It has been truly said that the proper alimentation of the human body is not in the least understood by our great scientists, and, if this be so, it may well be asked—what is the use of learning, of scientific discovery, and of intellectual development, if the comparatively simple matter of bodily nourishment remains an unconsidered item in life's economy?

If among scientists, and the cultured ones of the Earth, the profoundest ignorance of Food and the part it plays in human life prevails; if from the professorial chair, the medical profession, and the pulpit, the voice of Wisdom proceedeth not, it may well be askedhow can we hope for enlightenment among the masses? If the teachers themselves are blinded by ignorance, how can the pupils hope to learn? If general ignorance in regard to food and its relation to human life is found among the cultured, it is extremely likely that among the working classes, who have perhaps less time and certainly fewer opportunities of studying the question, even denser ignorance prevails. The man who forges the parts of the engine, and he who helps to construct it, the miner, the factory operative, the dock labourer, the clerk and typist, the shopgirl, the seamstress and the ordinary working-class housewife,

know practically nothing of the composition of the food they buy and eat, nor its relative nutrient value. All kinds of butchers' meat are traditionally regarded as the best and most nourishing food that money can buy, and it is customary for one and all to partake of this class of food as often as the respective finances admit of doing so.

The working man "eats to live," and as his bodily health and strength are his chief capital, it is his business to see that he buys such food as he believes to be the most suitable to maintain his body in full physical vigour. In the selection of flesh-food, Custom dictates his choice, and, according to his lights, he is doing that which he believes to be right. Custom dictates much in this world, but it is not always wise to do this or that because "other people do it." Custom is not a safe guide; on the contrary, it is often an indication of popular perverseness, folly and crass ignorance.

If Custom be an unsafe guide, it becomes necessary to subject certain of our habits to close scrutiny. The habit of buying a particular type of food because one has always been accustomed to do so requires looking into, the moment it appears that such a habit has been born of an ignorant custom rather than of wisdom.

Here is the case in a nutshell. The human body, like a man-made engine and boiler, requires the intake of certain fuel to keep it going daily during the term of its natural life. There is a choice of fuel in the market for both one and the other, we will say; that for the boiler is chosen with care and judgment, based upon long experience and close observation. The desideratum is not so much the first cost of the fuel, but its proved value as a force producer, and, to ensure the best economy all round, every kind of fuel on the market is tried until perfect results are achieved. Unsuitable fuel would foul the boiler and cause a loss of power in the engine, and the need for care is, therefore, obvious.

It cannot, however, be affirmed that Man exercises the same care in the selection of his own food; indeed, in this respect he is not only extremely careless but practically indifferent. He has certainly reduced to a science the question of the alimentation of most other things in the economy of his life; he knows to a nicety what to buy for his mechanical creations and is perfectly acquainted with the most suitable food for his domestic animals, as also for such plant life as enters into the arena of his economical existence, but, with strange inconsistency, he allows his own food to remain an unconsidered and unimportant factor in the system of his being.

The time is certainly ripe, therefore, for the consideration of the question—" Man and his Food"; and of this we may be sure, there is no subject of so much importance to the human race as this sadly neglected Food question.

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The fundamental error underlying the entire subject is that which exists in regard to the relation of food to physical vigour and endurance. It is popularly supposed in this country that of all the foods which omnivorous man consumes, flesh-food, fowls and fish are the best. The "man in the street" has been told of old that beef is, of all others, the food par excellence, and

consequently he eats beef, with mutton, bacon and fish as variants, with the result that the British people, especially the English section and the Lowland Scotch, are among the largest consumers of meat of the Anglo-Saxon peoples. Briefly put, statistics show that during the last 60 years the British people, while nearly doubling their consumption of meat have decreased

their consumption of cereals. If such food ensures a high standard of physical and mental efficiency, it is but reasonable to conclude that ample evidence of its excellence would be readily discernible in the physique of the race. Do we find that our urban or rural population show that remarkably robust physique which, of itself, might justify a large consumption of that class of food which is said to be so efficient in repairing bodily waste, in maintaining full physical vigour, and in ensuring muscular strength and powers of endurance? The answer is forthcoming in the fact that it has been necessary, regrettably so, to appoint a Royal Commission to investigate the cause of the "Physical Deterioration of the British People." Whatever the outcome of that Commission may be, the cause for its necessity offers startling proof that something has intervened, unquestionably resulting in a deterioration of the people's physique.

Some have contended that the population, being chiefly employed in manufactures, enforced confinement in the not too salubrious atmosphere of factories and workshops for the last two generations fully accounts for such noticeable physical deterioration. But Great Britain is not the only manufacturing nation in the world. Germany, France, and Belgium employ vast numbers of people in their manufacturing industries without a corresponding decline in the physical condition of their people, in spite of the fact that, in those countries, the Factory Acts are not so well advanced or so rigorously enforced as in our own.

Others contend that, although there may be some decadence of physical vigour among the factory people, similar results are not discernible among the rural population, but those who advance such a contention have clearly not visited other countries where agriculturists compare but too favourably with our own. The fact is, neither climate nor occupation can account for the change, and the moment we realize this, the means of repairing the evil will be forthcoming. Food, and food alone, will be found to be the chief cause of our troubles, and it is time that the people awoke from that ignorance into which they have fallen, partly through the easy facilities offered for the use of flesh-foods in a convenient form for culinary purposes, and partly through the inexperience and neglect of the medical profession. It is a matter for joyful congratulation that many medical men are now turning their attention to the importance of Food as the greatest factor in human existence; but, until the Faculty become the chief teachers, universal enlightenment will be retarded.

"Meat" food is, as a matter of fact, of the lowest nutritive value among all the great staple foods of which man partakes. In this excessive meat eating habit lies hidden the secret of British physical deterioration. How can it be otherwise? How is it possible for a race, which foolishly decreases its consumption of foods of high nutrient value, and largely increases its intake of foods of low nutrient value, to maintain a standard of high physical and mental efficiency? Or, how is it possible for a people which indulges in the excessive use of a particular kind of food, much of which is known to be diseased before it is killed for the market, to maintain an average standard of health when, in the nature of things such food must necessarily induce toxicæmia, or blood poisoning?

The value of nourishing and toxin-free food for domestic animals is perfectly understood by our graziers and sheep-farmers, and the greatest care is exercised by them in its selection, and yet man goes blundering on in respect to his own food and allows a perverse habit to break down his body, bone, muscle and tissue, and poison his blood.

We are born to a certain form of feeding and are brought up in the belief that what is set before us is the best kind of food for our needs. We feel assured that our natural guardians—parents or others—know what they are about, and all through the earlier part of our lives we are serenely content.

When we leave the home nest and pick up our own food we naturally continue the habits contracted elsewhere. When we marry and have an establishment of our own we are no further forward. Our wives, poor things, know less of the mystery of nutrition and the laws of health than we do ourselves, while our paid cooks, if we can afford them, share in this respect the ignorance of the class from which they are drawn.

Here, then, we have the cause of our own undoing—IGNORANCE; ignorance on the part of ourselves and others; and if universal ignorance of the simple laws of alimentation prevails, how can we hope to nourish our bodies and maintain that virile power which, until recent times, was a characteristic of the British people—and their pride. We have formed bad habits in respect to our food which have played considerable havoc with our physical being, and we simply need to go back on our tracks and pick up better habits by the way.

It is the simple, downright Truth we want here, as elsewhere. The national diet of beef and other slaughtered food has not maintained the stamina of the people, and we want to know the reason why.

Should we change our food?

The following "Thirteen Reasons" show why the use of slaughtered food should be discontinued as a staple article of diet.

- Butchers' meat is the most costly of our staple foods.
- (2) It is of the lowest nutritive value of all the staple foods, and its value as a nutrient, therefore, is out of all proportion to its excessive cost.
- (3) Analytical science proclaims the fact that at least 50 per cent, of the bovine animals slaughtered for the market suffer from tuberculosis, or some other disease, and are therefore unfit for human food.
- (4) These and other animals suffer from a form of Cancer, as also from Anthrax, Pleuro-Pneumonia, Swine-fever, Sheep-Scab, Foot and Mouth Disease, Tapeworm and other parasitical maladies, while the terrible "Trichina Spiralis," the cause of the deadly disease Trichinosis—is known to invest swine. Such food is obviously unfit for human consumption.

(5) The use of diseased meat for human food is now regarded by progressive pathologists as the cause of many diseases which were believed to have a different origin. Among them are Cancer, Tubercular Diseases, Fever, Scrofula, Appendicitis, Bright's Disease, Ptomaine Poisoning, and numerous others.

(6) Pathologists affirm that the flesh of all warmblooded animals contain an excess of uric-acid and other poisons which are the cause of Gout, Rheumatism, Gravel and Calculus, Headache, Insomnia, Anæmia, and other diseases too numerous to mention, and that beef is especially rich in these toxins.

(7) Every form of flesh-food is stimulating rather than sustaining, and being at the same time of low nutritive value, it is necessarily deficient as a good body builder and is obviously not conducive to bodily strength, hardihood and powers of endurance.

(8) Flesh-food is the chief cause of alcoholism. This is demonstrable by the fact that in such countries where the carnivorous habit is unknown the Drink Problem finds no place in the national economy, and it is a significant fact that a 'fruitarian' drunkard is virtually non-existent.

- (9) No form of flesh-food is necessary to the development of muscular strength, hardihood and staying power. Most of the gigantic pre-historic animals were herbivorous; the most powerful of the present day such as the horse, elephant, gorilla, and ox, do not belong to the Carnivora; considerably more than half the human race either never touches meat, or eats of it very sparingly, while in our own country many Recordbreakers among our athletes are abstainers from flesh-foods.
- (10) Flesh-food is an unnatural diet for the human race; its use induces disease and causes physical deterioration for the simple reason that man belongs to the frugivorous and not to the carnivorous order of animals.
- (11) Indulgence in an unnatural habit is the transgression of a Natural Law. Disobedience to the laws of Nature ensures a fitting punishment. The English people have transgressed this LAW to a greater extent than have other races and their punishment is proportionately greater.

(12) The general use of a non-flesh diet would cause so large a demand for the fruits of the earth that agriculture would be enormously stimulated, necessitating an increased demand for agricultural labour which, in itself would almost solve automatically the Problem of the 'Unemployed.'

(13) The use of butchers' meat as a staple food is condemnable for so many reasons that space forbids a full enumeration of them.

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Example A:-

Beefsteak contains 28% of nutriment and costs per lb. 9d. Nuts, haricots, lentils, and macaroni contain about 87% of nutriment and cost about 3d. per lb. Roughly speaking one-third pound of nuts, haricots or macaroni costing 1d. produces as much nutriment as 1lb. of beefsteak costing 9d. In other words beef is about nine times as costly, and, weight for weight, three

times less nourishing than nuts, legumes and cereal products.

Example B:-

Mutton (leg) contains total nutriment 34% omitting Peas (split) ", ", ", 86% fractions.

One leg of mutton, 7 lbs. (including bone 12 ozs.)

—61 lbs. meat costing 5s. 3d., contains 14,800 grains nutriment. To obtain a similar amount of food 2 lbs. 8 ozs. of split peas would be required at a total cost of 32d.

This means that a leg of mutton is 17 times dearer than split peas, which are infinitely richer in Protein than mutton, and contain other valuable food properties besides, while it is 2½ times less nourishing.

Example C:-

Fish (sole) contains 13 per cent. total nutriment.

Cheese (Cheddar) contains 64 per cent. total nutriment, it is rich in proteid, easily obtained, and can be easily varied. It is also free from uric acid. One pound of sole contains 896 grains of nutriment and costs on an average, 1s. 1od. per lb. To obtain the same amount of nutriment from cheese a little over 3 ozs. would be required at a cost of 14d. Sole, therefore, costs about 12 times as much as Cheddar cheese and is five times less nourishing.

Example D:-

Fowl costing 2s. 9d., weighing 2 lbs. 8 ozs.—less bones, 10 ozs.—food weight 1 lb. 14 ozs. Fowl meat yields 32 per cent. of total nutriment, so that a fowl of this weight would produce 4,195 grains of nutriment.

Both haricot beans and rice (once milled) yield 87 per cent. of nutriment, and it will be found that 6 ozs. haricot beans at 2d. per lb., costing \daggedd, and 6 ozs. rice (Rangoon) at 1\daggedd, per lb., costing say, \daggedd, (total cost, 1\daggedd) will provide a similar amount of nourishment.

This means that Fowl meat is 22 times dearer than haricot beans and rice, while weight for weight it is 22 times less nourishing.

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Yet another point against all forms of flesh-food, whether fish, flesh or fowl, is that they yield no starch matter (Carbonaceous food necessary for the production of heat and energy) and are not, therefore, so valuable as foods as are all the other food staples which yield both the Nitrogenous and Carbonaceous properties in nicely blended proportions.

The fact is, flesh-food is of the lowest nutritive value of all the great food groups—Milk and Milk Products, Cereals and Farinaceous foods, Bread foods, the Legumes, peas, beans, etc., dried fruits and the great

But the most sweeping condemnation of the use of flesh-food as a diet is to be found in the Report of the British Dental Association which met at Birmingham

This Society affirmed that 86 per cent. of the poorer classes of this country—who themselves constitute about seven-tenths of the population—are suffering from Dental diseases to a greater or lesser degree! No civilised race suffers so much from Dental disease as the people of Great Britain, nor is there a malady which so much denotes physical decay as this general Dental disorder. The fact that the Irish peasantry, the Highland Scotch, and even the poor alien populations, living in our midst—all practically non-meat eaters—

are comparatively free from teeth decay proves that it is due to other causes than either climate or

Flesh-food decays between the teeth, acids are generated, and the dental enamel is destroyed. evidence in favour of the use of an unsuitable food being at the root of our dental and other bodily ills, is overwhelming, and unless the people grasp and act upon this fact they will never cut off the source of their troubles.

One common-sense view of the question which should appeal with considerable force to every working man in the country is that of getting value for his money. Take beef for example, we pay 9d. a lb. for a steak and yet any analyst will tell you that it contains 74 per cent. of water (see Table of Food Values). Now when a man buys food he expects to get food, but he does not get food when he buys beef, he gets one part food and three parts water. Water is a most useful element but there is no necessity to pay 9d. a Ib. for it. Beef, then, contains three parts water and one part nourishment. Do all other foods contain a similar quantity of water? No.

	per cent.		per cent.	
Beef contains	28	Nutriment,	74	water
Cheese ,,	64	**	36	11.
Cereals )				
Farinaceous }	87	99	13	11
Foods /				
Legumes ]				
(split peas,	88	11	12	441
haricot beans,	37.1	"	1000	77.
lentils, etc.)				

If, then, a man buys other foods he gets out of them the maximum of nourishment and the minimum of water, but if he buys beef and other flesh-food he gets the maximum of water and the minimum of food.

The British working man can do without beef and mutton just as well as his confréres in other European countries. It is now only too well known that in respect to physique and general healthfulness the British working classes do not compare favourably with those of the rest of Europe, especially in those countries where meat forms little or no part of the dictary of the people, and this simple fact alone should be sufficient evidence to any rationally minded man of the evil effect of flesh-food on the human species.

Then in regard to his "missus," she, like everybody else, must learn life's lessons in her own way. Being a fair-minded sensible woman the British housewife will no doubt look at this matter in a common-sense manner when she learns that the food she has partaken of all her life is known to be of the lowest nutritive value among all the great food staples, costly out of all proportion to its food value, besides being disease laden and therefore charged with properties highly dangerous to herself and the members of her family. As mistress of her own household her duty is to see that the family breadwinner, and those dependent on his exertions, are nourished with the best body-building, strengthgiving, and energy-maintaining food that can be had. She recognises that the family capital consists of the health and strength of her husband, and the other family bread-winners, and that her chief duty lies in conserving in every way known to her this family

Experience of her own and her neighbours' families has taught her that, despite every reasonable care and precaution, sickness in some form or other is ever busy and she falls into the habit of accounting for it by environment, the crowded state of the towns, bad housing accommodation, enforced confinement in the unhealthy atmosphere of workshops and factories, and the rest of it, but it never occurs to her to look nearer home and give a thought to the food she buys and prepares for her family. This state of affairs is typical not only of the working classes but of every class in the country, the goodwife is as ignorant as the rest of us, and so she goes on her way breaking down the family physique, destroying the family capital, and dealing out disease and suffering where she would give her life to protect and save.

Obviously then the path of the working class housewife is plainly marked out for her. Her first and manifest duty is to learn all she can of food and the part it plays in the lives of herself and her family. There is an abundance of cheap literature on the subject setting forth in a most elementary manner what non-flesh food is, and how it can be prepared. With everything made easy for her, and her course clearly defined, the British housewife should have no difficulty in making her goal, but if she fails it will be because she prefers to remain blinded by silly prejudices and obstinacy, and not because she cannot purchase and suitably cook the non-flesh foods in substitution for butchers' meat.

There is so much evidence forthcoming that a man can live well without beef, and indeed live far better on non-flesh foods, that the case is proved up to the hilt. That he can not only maintain bodily health and strength, but increase at the same time his physical and mental energy on non-flesh foods is also proved beyond a shadow of a doubt, and any man may therefore enter upon a non-butcher's meat dictary without the slightest fear of unpleasant or unsatisfactory consequences.

(This article is being reprinted in booklet form, for distribution amongst the working classes, with much additional matter, and an appendix of simple semper. Price One Penny net; 7s. 6d, per handred post form. Copies will be ready on Nov. act.

## THE SMILE THAT DOESN'T COME OFF.

Every man owes it to his fellow-men to go about with a bright cheerful, hopeful optimistic face, radiating sunshine, joy, gladness, hope, instead of blackness and despair. The human face ought to be a splendid picture, attractive, radiant with beauty, joy and hope. It is every man's duty to radiate encouragement.

Think what it would mean if everybody were to go about with a bright, cheerful face, and regarded it as almost criminal to be seen with a discouraged, gloomy, sour, melancholy expression! What a mighty current of uplifting, encouraging power would come to all of us if everybody regarded this sunshine radiation as a sacred duty! We have no more right to poison the thought of others by projecting discouraged, gloomy thoughts into their minds, than we have to scatter thistle seeds in their gardens. Success.