

again intercepted their passage, and would have taken Augusta's hand. But a will strong as his own—an arm strengthened by lifting and carrying heavy burdens—was opposed to him. Jabez struck no blow: he thrust out an arm with muscles like leather, swept the offensive lieutenant aside, and down he went on the stone pavement of the lobby.

"Bravo, Clegg!" exclaimed a voice from the rear; and the burly form of Ben Travis parted the curious crowd, as leviathan parts the waves, before the in-

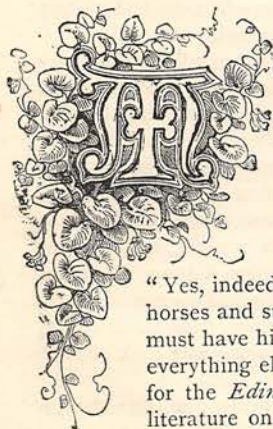
riated Aspinall could rise, or Walmsley interpose; "that's right; take the young lady away, and leave these gallant bucks to me. I'll guard the honour of our corps."

The terrified young lady and the inebriated young bully were alike in sure hands. But consequential Madame Broadbent, ignored, forgotten, had received a blow to her importance she was not likely to forget or overlook.

END OF CHAPTER THE TWENTY-THIRD.

FOOD FOR BONE AND BRAIN.

BY A PRACTICAL MAN.



OST readers remember the celebrated definition in Dr. Johnson's Dictionary of the word *oats*: "The food of horses in England, and of men in Scotland;" to which Lord Elibank, a Scot to the backbone, made this happy rejoinder:

"Yes, indeed, and where will you find such horses and such men?" Sydney Smith, too, must have his hit at Scottish dietary, as at everything else, so he proposed as a motto for the *Edinburgh Review*: "We cultivate literature on a little oatmeal," being a trvestie of a line in Virgil—

"Tenui musam meditatur avena."

This prejudice against oatmeal as an article of human food may be said to be shared in by nearly every Englishman even at the present day, a very surprising fact as it appears to us. Just now, when the question of the food-supply of the people of these islands is being discussed as a really national one, when Englishmen especially are everywhere "protesting" against the present ruinous price of provisions, and the equally ruinous price of coals wherewith to cook them; when, in fact, living, as we are told, has become a luxury within the reach only of the rich, a few words about the much-despised Caledonian article of diet may be of some service.

No one requires to be told that on food depends in a very high degree the improvement or the deterioration of races. If men are ill fed, you are sure to have a sickly, valetudinarian state of society; if men are well fed, we must have from such, and such only, strong energy and endurance—great material and moral results. The truth is, "the stomach is the root of a man," and just as good soil is essential to good flower and generous fruit, so is suitable food to the development of the human plant in all its gifts and its graces.

Now let us look at the inexorable logic of facts. What do science and experience prove in regard to Dr. Johnson's oats? From a series of careful experiments with the dynamometer, the late Professor Forbes, of the Edinburgh University, ascertained that the average strength of the full-grown Scot exceeds that of the full-grown Englishman by about one-twentieth—a

difference not very great, indeed, but probably quite sufficient, as has been said, to turn the scale in a hand-to-hand engagement, with an equal amount of skill and pluck on both sides. More, for nearly a quarter of a century Forbes measured the breadth and height, and also tested the strength both of the arms and the loins of his students, a very numerous class, consisting of different nationalities, drawn together to Edinburgh by his fame as a philosopher. Well, these were the results. In respect of height, breadth of chest and shoulders, and strength both of arms and loins, the bottom of the scale was occupied by Belgians; above them, and but a little higher, stood the French; very much above them stood the English; while the top of the scale was occupied by the Scotch, and the Scotch-Irish from Ulster, who, like the natives of Scotland, are fed in their early years with at least one meal a day of good milk and good porridge.

Let us see wherein consists the great nutritive value of oatmeal. In a very interesting paper on Scottish dietary, by Dr. Thompson, the Medical Superintendent of the General Prison, Perth, we find the following table:—

FOOD IN ONE HUNDRED POUNDS.

Supplying—	Flesh	Heat	Mineral	Water
Cheese	31	25	5	39
Peas, dry	23	60	3	14
Cooked Meat	22	14	1	63
Oatmeal	17	69	3	11
Barley Meal	17	59	2	25
Fish	14	7	1	78
Indian Meal	11	75	1	23
Bacon	8	63	1	28
Bread	7	49	2	42
Rice	7	92	1	0
Milk	5	8	1	86
Sago, Tapioca, and Arrowroot }	4	82	1	13
Potatoes	2	23	1	74
Beer	1	9	1	89
Sugar	0	100	0	0
Suet, Fat, and Butter	0	100	0	0

It will be seen that we have in 100 pounds of oatmeal—flesh-forming matter, 17 pounds; heat-giving, 69 pounds; mineral, 3 pounds; water, 11 pounds; oatmeal thus standing highest on the list of all cereals. The flesh-forming qualities stand next to cooked meat, while the mineral parts are three times greater. This latter quality no doubt explains the strong skeleton of the Scottish Celt, the mineral going chiefly to the formation of the bony structure, a distinguishing

characteristic of Scotchmen. According to the analysis of Liebig and Hassall, while wheat and barley contain but 14, oats contain within a very small fraction of 20 per cent. of the nutritious protean elements of life and muscle-giving qualities.

The Scottish agricultural labourer scarcely ever sees beef or flesh-meat. One pint of milk daily, and about seventeen pounds of oatmeal weekly, afford him a very sufficient dietary, superior in nutritive value to that of the same class in the best-conditioned districts of the South.

Such is the testimony of Dr. Thompson, no mean authority, and who does not hesitate to say that Sawney is better fed than John Bull, with his puddings, and his beer, and his beef into the bargain; and at a very much smaller cost, of course. At least two-thirds of the people of Scotland—and the same may be said of Ireland—live on less than sixpence a day.

In his inaugural address at St. Andrews, Mr. Froude remarks, "You Scots are a fine stock. If we except the Athenians and the Jews, no people so few in number have scored so deep a mark in the world's history." The compliment is certainly not undeserved; and Scotchmen themselves trace to their simple, frugal, national dietary of meal and milk, their national characteristics of strength and endurance, physical and moral, which have enabled them to score their mark in the world's history.

If, then, "the healsome parritch, chief o' Scotia's food," has done so much for the—

—"Land o' Cakes and brither Scots,
Frae Maidenkirk to Johnny Groat's,"

are we not justified in characterising English prejudice against it as unreasonable and absurd? Englishmen may continue to boast, if they like, that they feed, not themselves, but their horses, on oats, while they throw away their milk to their pigs (as is done in many rural districts), but the boast is a foolish one, to say the very least.

We have called it the food for bone as well as brain, muscle as well as mind. To the labouring or artisan class it commends itself as an article of diet on account of its cheapness, the readiness and economy with which it can be cooked, and while it is easily digested, it contains, as we have seen, a larger proportion than wheaten bread of the elements that go to form bone and muscle. The best Scotch oatmeal costs twopence a pound, and this contains far more true nourishment, in the opinion of some medical men, than the same weight of Liebig's Extract. It commends itself to literary men, and all workers who earn their bread by the sweat of their brains. There are, as we happen to know, several well-known authors who, though born and bred this side the Tweed, nevertheless swear by oatmeal porridge as a brain-inspiring compound. Take one hard literary worker, Gerald Massey, who writes—

"There is a deal of phosphorus in oatmeal, and phosphorus is brain. There is also a large amount of phosphorus in fish, consequently I never miss having a fish dinner once a week, and take a plate of good,

thick, coarse, well-boiled Scotch oatmeal every morning in my life."

There are many Scotch households in London where porridge and milk form the staple of the morning meal—a capital "basis of operation" to begin the day's work on. These families will tell you that old and young alike thrive famously on it, so that the objection sometimes made to oatmeal, that it is not suited to the English climate, being "too heating to the blood," as the phrase goes, does not hold good. Then, as to its palatableness, we ourselves have long held the belief that not only is porridge pre-eminently rich in nutritive matter, but when nicely cooked, and eaten with new milk, is simply delicious—a dainty dish fit, indeed, to set before any king.

Among our American brethren this question of the value of oatmeal for human food is beginning to receive the attention it merits. In the United States the chief supplies are drawn from the neighbouring Dominion of Canada, which for years has prided herself on the quality of the meal which she produces. Canada vies with the mother country for the palm of excellence, and in at least one international exhibition she carried off the badge of victory from the "Land o' Cakes." But in the States themselves they are now producing the article to some extent, and it is believed that in course of time it will become an important industry. In a recent article on the subject, an American journal thus expresses itself:—

"As a food, the merits of which have stood the test of centuries, and which is calculated to promote the sanitary interests of the nation, by laying the foundation for more hardy and vigorous constitutions for the coming generation, let us regard its general adoption as an article of diet as nothing short of a national good. Its phosphorescent qualities act as a gentle and healthy stimulant to the brain, and on no other food can one endure so great and so prolonged mental labour as on oatmeal porridge. Properly cooked, it is not only a most healthful and nutritious food, but it is decidedly palatable, as is fully attested by its wonderfully rapid adoption as a popular diet by the very fastidious palates of our American people."

In this country there are miles and miles of waste and uncultivated lands on which oats, and fruit-trees too, might be grown; and there are acres upon acres of sidings upon our lines of railway, now utterly disregarded, which might easily be utilised in the same way. The best Scotch oatmeal costs, as already stated, only twopence a pound; and what we say is that, with the necessities of life at famine prices, it is surely high time to get rid of our prejudices in this matter. We want some modern Count Rumford to come forward and take up this question of oatmeal. The Scottish people, let it be repeated, have for ages prospered and improved on it. Our American cousins, having proved its value, are rapidly adopting it. Why do not Englishmen try the experiment?

It is painful, as Dr. T. L. Nichols remarks, to see how badly people live, and how extravagantly at the same time, when the best of food for health and strength is so cheap and so palatable.