

because of the possibility of infection of human beings through cow's milk. But we are told, and, in my judgement, correctly told, that beasts of the earth and all cattle—with few exceptions—are, like human beings, liable to tuberculosis. We are told also that the bacilli of tuberculosis are numerous in the soil of low-lying land, and that at any time, whether in the crowded assembly or in the open air, we may inhale tuberculous germs. If, therefore, the tubercle bacillus is to be met with on all hands, Professor Virchow must extend his edict of extermination if he is to succeed by slaughter. We know with sufficient clearness how efficacious the process of stamping out pleuropneumonia has been. But with pleuropneumonia we were dealing with a disease supposed to be confined to cattle, and supposed, also to be directly communicated through the respiratory organs from cattle to cattle in close contact. On the strength of these suppositions we have stamped out pleuropneumonia, and we can, happily claim success as the proof of the merit of our means.

It is true that Professor Virchow has confined within narrower limits than are generally recognised the area of animal life in which tuberculosis exists. To my great surprise he states that what farmers generally consider to be the disease of tuberculosis in fowls is not identical with tuberculosis in cattle. Not so long ago we had in Great Britain an account in detail how fowls is roosting in a shed in which tuberculous from inhaling the the germs expired by the disease d cows.

For myself, I am prepared freely to grant that we are surrounded by living bacilli; some beneficent, some maleficent. Are there at present any practicable rules by adhering to which we can avoid contact with the maleficent, and maintain contact with the beneficent? Would life be worth living if we spent our time in considering what to eat, drink, and avoid? The old Latins, with great wisdom, strove to possess *Mens sana in corpore sano*. If we lose the *mens sana* in a vain effort to attain the *corpus sanum* our labours will be lost, and for the sake of mere life we shall destroy the worth of life itself.

But let us return to the parallel which Professor Virchow sets up between trichinosis and tuberculosis. If my memory serves me correctly Germany made much more of the trichinosis scare than Great Britain. And Germany did succeed in obtaining legislation. But was there any legislation other than the prohibition of importation of

hog products from the United States and other countries in which the existence of trichinæ in hogs was suspected? We in Great Britain have not succeeded in carrying to a successful issue the war against swine fever, and we are not a bit likely to enter upon a new war against tuberculosis on the same lines. Possibly even in the case of swine fever we may adopt a new line of battle, and take for our standing orders *Sanitas, sanitas, omnia sanitas*. (1) In any case in the struggle against tuberculosis my faith is centred in the provision of pure air, good food, and an outdoor life. With these three prophylactis bacillophobia disappears.—S

A NEW FOOD FOR STOCK.

In both Denmark and Sweden, for the past few years, experiments have been made with blood as an ingredient for animal feed. Similar experiments have been made in Germany, with apparent success. A patent has been issued for the manufacture of an animal food mixture called "Kraftfutter" (strength feed) or "Blutmelassefutter" (blood molasses feed), of which the principal ingredients are fresh blood (collected at the city slaughter houses), sugar refuse, and "grain cheat," by which I mean screenings or blowings from wheat, rye, oats, etc. Turf mull, or turf flour, has been tested as a substitute for "cheat," but not with success.

This feed is prepared in three different mixtures—for horses, for cattle and swine, and for poultry. The retail price is 6 marks (\$1.41) per 100 pounds. The preparation is not intended to be fed raw, but as a mixture with other regular feed—for instance, when the amount of oats given per day is 15 pounds, with the use of "Kraftfutter" the quantity of oats is reduced to half, or seven and one-half pounds, to which is added five pounds of "Kraftfutter."

I have been informed that at present the government is experimenting with this feed on artillery horses, it being claimed that the albumen in blood, coupled with sugar and the other ingredients, makes an exceptionally strengthening food, in addition to being inexpensive.

Factories for the production of this mixture are now in operation at Berlin, Stettin, Kiel, and Königsberg.

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(1) Disraeli's parody on "Vanitas, etc." Ed.