## THE CONSCIENTIOUS GUINEA-PIGS



THIS "subject" lost 35lb. during a fivemonths' starvation diet test.

AST week's cable that Major Kenneth Mellanby had reported back to the British Government on the results of the. Nazi's medical experiments upon concentration camp inmates, omitted to tell us his qualifications for this investigation. Briefly these are that he, too, spent most of the war experimenting upon human "subjects." But whereas most, though not all, of the Nazi experiments seem (according to his Report) to have been almost worthless, his own experiments produced considerable practical results, and set other doctors experimenting in America. A far bigger difference, however, is that whereas the German experiments were enforced upon those whom the Nazis labelled as "anti-socials," Mellanby (and the Americans) worked upon (or, more correctly, with) volunters — though volunteers from a section of the community which has been widely regarded as anti-social.

Mellanby was a biologist who found himself at a loose end when the war began. It seemed impossible to keep on with his long-term researches; yet, on the other hand, he was in a "reserved occupation" out of which no efforts of his own could get him into the Forces. He escaped from his frustration, however, by finding a very useful job to do in between the two stools. The country was full of indignant talk about the "dirty evacuees from town" who brought lice with them into their bileters' clean homes and about the scabies or contagious itch which was sweeping through Britain "who reversoldiers went." He determined to find, if possible, the true whence, why and how-cure, of these debilitating epidemics.

Very soon how ver, he realised that to rely on the usual experiments with guinea-pigs, rats, horses and other animals would get few results, since animals are rarely infected by the same

itch-mite as humans and since infection is spread by social relations and personal habits. But where could he get a body of men or women prepared to suffer—under scientific observation—for the common good? The only group he could see that was both available for such work and likely to accept it were the conscientious objectors who, excused from military activities and working at their ordinary job... often felt uncomfortably comfortable in a time of general danger and dislocation.

He rather timidly put his proposal—that they should allow themselves to

be infected and thereafter scientifically observed — to some groups of C.O.'s, and found

them very willing to co-operate. The government supplied them with private's pay, rations, and quarters. And the experiment began.

## Scabies Investigated

It lasted right through the war, developing into research into various other problems also, and involving larger and larger numbers of volunteer "guinea-pigs." And it brought results. First, putting "subjects" into sweaty clothes or stinking beds that infected persons had occupied forced abandonment of the universal theory that scabins was carried by dirt and infected clothing: for so few caught the itch that the company came to look upon themselves as "frauds." Then the theory was advanced that the means of infection was venereal. But their suffrings (and scabies endured over a period of months, as in their case, apparently becomes excruciating) made it clear that any close contact of skin with skin could pass on the infection-particularly when general physical resistance was low. Moreover, so far from

soldiers carrying it to civilians, the exact opposite was the case. And, with the means of infection known, fairly simple means to lessen the likelihood of it were found.

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"Dermatological research" was felt by many of Mcllanby's assistants (as he looked upon them) to be something short of a full-time job, although they were also growing a good part of their own food, doing all their own cooking and housework, and running a public clinic and a small scabies hospital for soldiers. So dietetic experiments upon them were added—at first as a side-

line. The first problem was to discover the exact extraction percentage of flour that made the most

nourishing bread: for too white a bread is deficient in vitamins and roughage, whereas too completely wholemeal a bread decreases the amount of calcium in the body. The men undergoing these tests at times had practically to live on bread, and always had to weigh exactly everything that went into their bodies and everything that came from them. The experiment was neither dangerous nor spectacular—only very long-drawnout, restricting and unpleasant. But it, too, yielded important and immediately practical results.

## Laboratory Shipwreck

Before the war had ended, volunteers had spent periods totally without water on dry "shipwreck" hard tack, had lived for twenty to thirty months on end on diets deficient in Vitamin A, had been dosed with experimental antimalarian preparations, and had had "surgical shock" induced in them in various ways. All experiments led to practical findings, and Mellanby's only complaint was that his men were "too tough"—in other words that they over-



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THE last traces of food must be licked from plates in dietetic experiments.