

on scientific lines but nobody has dared to excuse it. And good reason why; for, on the one hand, we have the inexorable facts of secondary infection, post-scarlatinal diphtheria, return cases, and endemic scarlet fever, with numerous formidable aggregation et ceteras; on the other—what? a guess, a surmise—a guess with a memory so short that it forgot the teachings of experience, from the old Edinburgh fever house downwards—a surmise so crude that it was able to ignore the findings of bacteriology. So the spectacle presented to the world is that of the defeat of the objects and aims of sanitary betterment by a system designed as a preventive measure.

Turning to the part played in the spread of disease by the unrecognised case I submit, Sirs, with deep respect, that a very different lesson may be read into your article from the one you seek to inculcate. Were the world not already weary of registrations, notifications, "isolations," State regulation, and compulsion, would the harassing and costly espionage suggested in your article minimise the evil? I aver that it would not. Diphtheritic bacilli flourish in the throats of healthy people. Numbers of cases of scarlet fever remain unrecognised until the peeling stage and after, and my experience as public vaccinator has shown me that small-pox may run its course without rash and without any marked malaise. And where would the bacteriologist come in in any of the three diseases? In diphtheria where the presence of the organism does not necessarily predicate the existence of the disease nor its absence negative it? Scarlet fever and small-pox? in one of which the *materies morbi* is undiscovered and in the other only guessed at. We claim, Sirs, that the unrecognised case is but one of the many rifts in the lute which there is no mending. More frightening would mean more concealment and notwithstanding the tact and gentleness with which the sanitary officials have discharged their onerous duties it is concealment that has kept the epidemic of small-pox going in this city since January last. The present somewhat alarming recrudescence is entirely due to a concealed case.

The concluding paragraph of your leading article makes one wonder why much of the rest was written. "A careful study of the conditions which have led almost to the extinction of typhus fever and to the decline of tuberculosis in this country may perhaps help us to make greater resistance to other infectious diseases." They are wise words and I commend them to the consideration of those public health enthusiasts who see no brighter and better fate in store for their fellows than incarceration in a limbo which would make life not worth living. For these great happenings we are in debt neither to spying, collective "isolation," nor restrictive laws, but to works of sanitation and general sanitary betterment which left law-abiding individuals free from State interference and worrying espionage.

I am, Sirs, yours faithfully,

Nottingham, June 24th, 1904. EDWARD DEAN MARRIOTT.

APPLIANCES FOR PREVENTION OF MINERS' PHTHISIS.

To the Editors of THE LANCET.

SIRS,—With reference to annotations in THE LANCET re prevention of miners' phthisis I should like to call your attention to the following facts. Any remedy proposed must not interfere with the efficiency of the boring machine; there must be no substituting of an inferior machine for a better one. Now the water drill is much inferior to the air drill in efficiency and it is not reasonable to expect the managers of mines or even the miners on contract work to use a drill which will give them less returns of ore and consequently less pay. Through the courtesy of the Climax rock drill manufacturers I have had the opportunity of seeing Britten's appliance and also the Climax atomiser and will describe the superiority of the latter. From my observations when seeing Britten's device at work during the drilling of a dry hole I came to the conclusion that although the dust arising therefrom was partially wetted it was not wholly so, with the consequence that the partially wetted dust appeared to be blown about in the immediate neighbourhood of the hole to such an extent that the partly damped particles settled very readily on surrounding objects, including, of course, the men themselves.

It seems to me that an apparatus of this sort employs too much compressed air and not sufficient water, with the result

that the water used does not sufficiently damp the dust to drop it in the form of mud or sludge and that the apparatus employing, as before stated, a rather large quantity of air is inclined to blow the partly wetted particles of dust all over the immediate vicinity of the rock drill, and as it does not drop immediately to the ground will be liable to be inhaled by the men employed on the rock-drilling machines.

Now, the device of the Climax rock drill (admitted by the Royal Commission of inquiry as to trade in South Africa to be the only serious English competitor) has many advantages over Britten's. The volume of air used is much smaller, the quantity of water sprayed against the orifice of the dry hole is much larger, so that the particles of dust are thoroughly wetted and drop in practically a vertical line from the mouth of the hole being drilled. This apparatus of the Climax Rock Drill Co. of Carn Brea can be regulated to employ water in variable quantities. It can spray water at the rate of one gallon in five minutes or one gallon in 80 minutes. It also has the unique advantage of being able to employ the same water many times over and is entirely controlled by the air tap of the rock drill, so that both the rock drill and the spray are operated by the one rock drill man, obviating the employment of a second man to hold the water jet, as in the old methods. The machine itself cannot be operated without the spray being also operated, as it is attached to the air tap of the drill and the miner cannot possibly work one without the other.—I am, Sirs, yours faithfully,

JOHN HERBERT TONKING,
Surgeon, Miners' Hospital.

Camborne, Cornwall, June 25th, 1904.

HYDROGEN PEROXIDE AS A GERMICIDE IN TYPHOID FEVER.

To the Editors of THE LANCET.

SIRS,—In making a number of experiments lately on the influence of antiseptics on digestants and infective microbes in conjunction with Dr. J. L. Dimond, pathologist to the Liverpool Royal Southern Hospital, we were particularly struck with the effect of hydrogen peroxide solution. In comparatively small quantities—20 minims in one ounce of water—this caused complete sterility of the bacillus typhosus. Many years ago Briege demonstrated the small degree of virulence of the toxin of this bacillus when cultivated on pure peptones and ever since reading his results I have supported my hospital patients—I think with great advantage—on these nutrients. If we possess in hydrogen peroxide, as I am persuaded we do, a harmless but efficacious germicide in typhoid fever we can attack the *causa morbi* in a double direction. As I do not remember to have seen in the general advocacy made by the late Sir B. W. Richardson and others of the germicidal effects of the drug a notice of its influence on the particular bacillus in question I venture to commend its trial to medical practitioners.

I am, Sirs, yours faithfully,

Liverpool, June 22nd, 1904.

WILLIAM CARTER.

A CHRONIC NEUROSIS CHARACTERISED BY FREQUENT PAROXYSMS OF PAIN, SWELLING, AND HÆMORRHAGE IN VARIOUS PARTS OF THE BODY.

To the Editors of THE LANCET.

SIRS,—An original article by Dr. T. K. Monro and Dr. A. N. McGregor dealing with this subject appeared in THE LANCET of April 16th, p. 1039, just to hand. A condition similar in many respects and which at the time was a cause for much speculation occurred in a patient, a single man, aged 26 years. He was under my treatment for pulmonary tuberculosis, both apices showing evidence of disease. A week after he was first seen swelling and severe pain occurred in the left knee. The pain was very intense down the front of the leg to the foot. Four distinct swellings appeared, reddish blue in colour, non-pitting and elastic on pressure, but extremely painful, two on the outer side of the leg, one over the tibia, and one on the calf. On the thigh of the same side two larger swellings approaching the size of an orange appeared a day later. These were not so painful. The knee was red and warm and fluid was present in the joint. Fomentations were applied and the limb was elevated on a splint and the swellings subsided in a week, leaving a brownish staining which entirely disappeared in