case is tuberculous, a fluctuation of the index follows, and, according to the amount of the autoinoculation, the negative phase comes late or early (or is not found at all), and is, finally, followed by a positive phase. The number of examinations and their spacing are timed to hit off, if possible, both negative and positive phase, so that the double evidence of disease may be obtained. The evidence from opsonic examination must be viewed in just proportion with evidence derived from other sources. Not too much reliance should be placed on fluctuations of slight extent, for experimental error is large, probably 20 per cent., even in the most competent hands.

And now I will end my lecture with a few words of advice on general lines. To begin with, I would remind you that phthisis is a disease of intermittent course, that the real beginning is often passed over as an influenza or a "chill," and that it has generally advanced to quite diagnosable stages by the time the patient has discovered his symptoms. This is true, as a rule, even in cases of haemoptoic onset; even here signs are generally discoverable to skilled examination.

Secondly, I would advise you to devote all the attention you can to ordinary physical signs, especially to light percussion, and after this to auscultation. The modern methods cannot in any way take the place of physical examination, though they are most valuable aids to it. Do not, also, neglect the temperature chart, nor yet the evidence of symptoms.

Thirdly, study carefully the value of the evidence to be derived from modern methods; do not be put off by their apparent difficulty, nor misled by the glamour of their newness. Blind reliance should not be placed on any of them, any more than it should be on any single physical sign. I think we have reached a stage in the diagnosis of phthisis where a warning on this point is greatly needed: we should all like to diagnose 100 per cent. of the cases, but I fear some people are diagnosing more than this at the present time. It gets too like the old age pension in Ireland, which was said to go to fully 120 per cent. of the people over 70 years of age! Most of these modern methods give us valuable information, but this must be weighed against other information from other sources before judgement is given. If this is done, and the other methods, under modern improvements, are not put aside, it may be said that we have made considerable strides in the diagnosis of phthisis in recent years. It is, indeed, only here and there that a case is met where skilled examination is not able to decide the matter, and that fairly rapidly, one way or the other.

THE NOMENCLATURE OF TUBERCULIN DOSES.

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WHATEVER value we may individually attach to tuberculin in the treatment of its specific disease, there can be little doubt that it has come to stay, and however restricted its use may become in future, it is scarcely thinkable that it should again vanish from our armamentarium. Hitherto in its recent renaissance its use has been in the hands of two classes of practitioners. Firstly, a small class of specialists who have studied it exhaustively, and know everything about it that is known. Secondly, a larger class who know very little about its technique, and who use it in a rule-of-thumb manner.

Now, most of the latter are highly intelligent practitioners, but in this matter have been overwhelmed by the minuteness of the doses, and the absurd manner in which these doses have been expressed. It has been customary to take the milligram or the cubic centimetre as the unit, and the early doses have been represented as fractions having a long series of noughts, like a belated railway viaduct!

Now, it is an elementary psychological fact that the mind cannot grasp fractions so readily as multiples. We talk glibly of a million pounds, but we should all be rather staggered at the thought of a millionth of a pound. We can all conceive of a million cubic centimetres, and the

conception becomes more realistic when we think of it as one thousand litres, and when we look at one pond containing a kilolitre the realism becomes complete. But "0.000001 c.cm.," or " $\frac{1}{1000000}$ c.cm.," or even the much simpler form " 10^{-6} c.cm.," are too unwieldy to be constantly intelligible. I wonder how many practitioners who have not been working at tuberculin or at recent mathematical problems could sit down and write off without thinking it out the decimal expression or the minus index for one-millionth. I think in many cases there would be a zero too little or too many. And it is very difficult to carry these highly fractional figures in mind. The obvious remedy is to use smaller units. All scales of weights and measures are founded on this principle, and when the conventional scale does not go far enough in any branch of work, the worker invents new measures. The millimetre used to be the limit of length, but when the microscopist found this too large for his unit, he invented a smaller one, the "micron" or μ . Now the first unit that occurs to us is the cubic millimetre, $\frac{1}{1000}$ of a cubic centimetre, and this has already been suggested by Dr. Clive Riviere, but this is not small enough, as the millionth of a cubic centimetre has been given, and it is well to select as final unit the smallest dose likely to be given. For this unit a name must be found, and it should be an "unappropriated" Greek letter, with an associated word with meaning suitable to its minute dimensions, and so I suggest the letter ψ and the word *psilon*, which may be conveniently translated "shred," "residue," or "atom," though it occupies a big space in Liddell and Scott. Thus:

1,000 psilons (ψ) = 1 cubic millimetre (c.mm.).
1,000 cubic millimetres = 1 cubic centimetre.

Thus fractions may be obviated, the dose being given in psilons until it reaches the cubic millimetre, and then be given in cubic millimetres until it reaches the cubic centimetre.

Another suggestion is the abolition of the absurd English practice of speaking of the dose of TR in terms of milligrams of the original bacillary substance, when three-fifths of that substance is no longer present. It is just like speaking of a dose of liq. strychninae, not as 5 minims, or as $\frac{1}{20}$ grain, but as the original weight of nux vomica bean from which this quantity of liquor had been made. If, however, clinicians still wish to prescribe TR in terms of the weight of the original bacillary substance, it would be still practicable to use the symbol ψ for 100,000 milligrams of original bacillary substance of TR, and its quantity would be the same as if the dose had been expressed in the Continental fashion—that is, in cubic centimetres of tuberculin fluid.

In the method of prescribing tuberculin which we have adopted at the General Hospital, Wolverhampton, we use the psilon unit, and the cubic millimetre unit. And the cubic centimetre unit is only used when the dose has attained unity or beyond. If this method were generally adopted it would render the use of tuberculin more popular and more intelligible to busy practitioners, who do not give their whole time to unravelling these ponderously expressed fractions.

THE Third International Conference on Cancer recently held at Brussels decided that its next meeting should be held at Copenhagen in 1916.

A Yellow Fever Bureau *Bulletin* states that a report by Seidelin on the subject of vomiting sickness in Jamaica will soon be published. Scott has recently shown conclusively that at least a certain number of cases of so-called vomiting sickness are really cases of cerebro-spinal meningitis, as had been previously suspected but never satisfactorily demonstrated; secondly, it is stated that Seidelin's investigations have not resulted in establishing the identity of vomiting sickness with yellow fever. For practical purposes it is suggested that the islands, meaning essentially the seaports and the commercial highways, are free from yellow fever, though it is admitted that endemic foci may continue to exist in remote parts of the interior, the prevailing forms of the disease probably being mild. The possibility of spontaneous cases occurring occasionally cannot be excluded. It can, however, be definitely stated that yellow fever is not prevalent in Jamaica to any considerable extent.