thankfully received by the secretary, Mr. E. Johnson, at Botolph House, Eastcheap, London, E.C.

I am, Sirs, yours faithfully,

WALTER LATTEY, M.D. Durh.,

Member of the General Committee of the Decimal Association.
Oct. 8th, 1902.

To the Editors of THE LANCET.

SIRS,—There is a very simple way of using the rough rule mentioned by Sir W. R. Gowers¹ for converting British pharmaceutical weights and measures into their equivalents in the metric system. The plan is to order 16 or 15 doses or multiples or submultiples of these numbers. The gramme may be taken as either 16 or 15 grains and the cubic centimetre as either 16 or 15 minims. If, then, we order a mixture containing 16 or 15 doses, every gramme or cubic centimetre of medicine in the mixture represents one grain or one minim in each dose. Thus a 240 cubic centimetre or eight ounce mixture (30 cubic centimetres being taken as equal to one ounce) contains 16 tablespoonfuls of 15 grammes each. If we wish to give eight grain doses of a drug we order eight grammes in the 240 cubic centimetres with tablespoonful doses. In a 60 cubic centimetre or two ounce mixture there will be 15 teaspoonfuls of four cubic centimetres each, each of which will contain one grain or fraction of a grain for each gramme or fraction of a gramme of medicine in the mixture. If one orders only four doses or three doses, each quarter or fifth of a gramme (written 0.25 and 0.2) represents still one grain in each dose. With fractions of a grain the matter is equally simple: one-sixth of a gramme (0.16) in 16 pills gives one-sixth of a grain in each pill; half a gramme (0.5) in 16 pills is one-half a grain in each pill; one-twentieth of a gramme (0.05, or five centigrammes) in the 16 pills is one-twentieth of a grain in the single pill.

"The use of the cubic centimetre with the fluid ounce," as suggested by Sir William Gowers, would indeed "save dispensers the serious inconvenience occasioned by the new sizes of metric medicine bottles," but would, I am afraid, lead in practice to still more serious confusion. The inconvenience spoken of might in England for a time no doubt be real. But 240 cubic centimetres exceed eight ounces by only 12.6 cubic centimetres or three and a half drachms. If, therefore, we wrote 230 cubic centimetres instead of 240 cubic centimetres for eight ounces and 115 cubic centimetres instead of 120 cubic centimetres for four ounces the difficulty would vanish. Should the ordinary two-ounce bottle not take 60 cubic centimetres one might write 58 cubic centimetres, but this would probably be unnecessary.

The continental system of ordering medicines by weight and directing them to be taken by measure can hardly be regarded as very rational. Even if one knew the specific gravity of the various contents of a mixture one could hardly say what the measure would be when made up to, say, 250 grammes. The mixture thus made up to an unknown bulk is directed to be taken by measure—teaspoonfuls or tablespoonfuls as the case may be. Personally I always prescribe liquids by measure.

It may be worth while to mention that in metric pharmacy the gramme, being the standard, is indicated only by the decimal point or comma following: thus, 5.0 means five grammes, 0.5 means half a gramme or five decigrammes, and so on. In ordering liquids by measure, therefore, one should add c.cm.—thus, 5 c.cm. or 0.5 c.cm.

In tabular form the points to be remembered are that with weak aqueous solutions the terms grammes and cubic centimetres are approximately convertible and that practically

30 c.cm.	=	3i	but 230 c.cm. = 5 viii.
4 "	=	3i.	
1.0 "	=	15 or 16 grains.	as may be most convenient for calculation.
0.1 "	=	1½ grains.	
0.01 "	=	⅙ grain.	

I am, Sirs, yours faithfully,

WILLIAM R. HUGGARD.

Davos-Platz, Switzerland, Oct. 6th, 1902.

THE ENUMERATION OF LEUCOCYTES.

To the Editors of THE LANCET.

SIRS,—Recently attention has been drawn to the method of counting leucocytes in blood which has been diluted with 99 parts of Toisson's fluid. A slight modification of the

commonly described method has been adopted at the clinical laboratory of King's College Hospital, which I believe saves time if a considerable number of observations have to be made. The recognised method, provided one does not possess an Ehrlich eye-piece, consists in arranging the length of the tube of the microscope so that the diameter of the field shall be some simple fraction of a millimetre; it is then easy to calculate the volume of blood seen at one time and hence the number of white corpuscles per cubic millimetre. For instance, if the diameter of the field be eight divisions of the Thoma counting chamber the radius will be 0.2 millimetre and therefore from the formula $\pi r^2 h$ the volume of mixture seen at a time is $\pi \times (0.2)^2 \times \frac{1}{10} = \frac{\pi}{125}$ cubic millimetre. Therefore the average number per field must be multiplied by 7951 in order to ascertain how many leucocytes are in a cubic millimetre of blood.

It is obvious that the number 7951 does not lend itself to rapid multiplication; by diminishing the size of the field this constant may be increased to 10,000. The diameter of the field must be such that $\pi r^2 h = \frac{1}{100}$, that is $r = 0.1785$ millimetre, or the diameter 0.357 millimetre. There is not the slightest difficulty in arranging this. The one-sixth inch objective of my microscope with a No. 4 compensating ocular and 175 millimetre tube has a field the diameter of which is eight divisions of the Thoma counting chamber or 0.4 millimetre; on extending the tube to 200 millimetres the diameter of the field becomes seven divisions or 0.35 millimetre. Since the diameter of the field varies inversely as the length of the tube and an increase of 25 millimetres in the latter causes a diminution of 0.05 millimetre in the former, it follows that an increase of 21.5 millimetres will reduce the diameter of the field from 0.4 millimetre to 0.357 millimetre. Therefore with a tube length of 196.5 millimetres the average number of white cells per field must be multiplied by 10,000.

I trust that this further diminution in the labour of estimating leucocytes may lead to that valuable sign being more frequently investigated.

I am, Sirs, yours faithfully,

Wimpole-street, Oct. 13th, 1902.

OTTO GRÜNBAUM.

"THE UNCONSCIOUS MIND."

To the Editors of THE LANCET.

SIRS,—In a short account of Sir F. Treves's address at Liverpool I observe that the two principal points mentioned both refer to a subject that is coming more to the front every day. I allude to the power of the mind over the body. He speaks with the greatest appreciation of the value of symptoms, pointing out that in diseases generally (specially naming appendicitis) they are nature's effort to cure the disease. In short, he fully recognises the value of the *vis medicatrix nature*, or as "nature" in this connexion is a pure fiction, we may say the unconscious purposive action of the organism or more briefly, and more accurately, "the unconscious mind." The second point alluded to is that in a hospital patients should not know where the operating-theatre is or when they are to be operated on. This is because of the depressing effect the conscious mind, dwelling on these points, has on the body, influencing, indeed, to some extent the operation itself. This address therefore gives two capital illustrations of the effect of the unconscious and conscious mind on the body in disease—a subject I am most anxious to see developed scientifically by the profession and no longer left to be exploited by quacks.

I am, Sirs, yours faithfully,

A. T. SCHOFIELD, M.D. Brux.

Harley-street, W., Oct. 13th, 1902.

"SORE-THROAT ILLNESS AT DITCHAM" AND ISOLATION HOSPITALS.

To the Editors of THE LANCET.

SIRS,—In your comments on my letter dealing with the report of Dr. L. W. Darra Mair in THE LANCET of Oct. 11th (p. 1003) I am represented as speaking of "mild though temporary" attacks of scarlet fever. A reference to my letter (p. 1015) will show that my words were "mild though temporarily protective attacks." That the inmates of houses from which cases of scarlet fever have been removed to hospital are frequently so protected is beyond question and the fact affords an explanation of the smallness of the number of "return cases," as such are usually defined. In the face of the Ditcham

¹ THE LANCET, Oct. 4th, 1902, p. 956.