their colour and distinctness, the position of some being marked only by a purple discoloration of the skin.

A shows the general appearance of the affected limbs. B represents the fully developed spot on the inside of the left thigh; and is of life-size. C and D, also of life-size, exhibit the earliest and the half-formed stage of the eruption respectively.

Having observed the development of the four nodules on the upper and back part of the left thigh, I find that the spots commence as a purple papule, which gradually grows into a nodule about the size of a No. 4 shot. This nodule then appears to shrivel up, with an absolute loss of tissue, thus forming the central depressed pit. As the nodule disappears, it enlarges at its circumference, forming the above-described rings, with the enclosed cicatrix. The ring on the knuckle was so hard, that it almost gave to the touch the impression of cartilage.

Dr. Payne was good enough to give me the benefit of his experience, and examined the case. He submitted to microscopical examination some scrapings of the affected skin, but found only some fatty change in the epidermis. I have done so also several times, scraping especially the parts of the eruption that seemed to be spreading, but with no other result. Dr. Payne suggested that the case was somewhat like one described in the *Transactions of the Clinical Society*, Vol. viii, by Mr. Morrant Baker, as "a rare form of skin-disease", and one reported by Dr. Tilbury Fox, in the same volume, and for which Dr. Fox proposed the name of *Xanthelasmaidea*.

The description of these cases, and the plate which is intended to represent Mr. Morrant Baker's, do not altogether tally with the symptoms of the present case. In those cases, the rash is stated to be buff coloured as well as purple in parts, or becoming buff after a time, as consisting of smooth and flattened tubercles and patches, differing in consistence but little from the healthy skin, as varying in size from a pea to a kidney-bean, accompanied by slight irritation, and occupying the head and body as well as the limbs, and as commencing during the first six weeks of life, in all which circumstances they differ from the conditions of this little girl's disease. Possibly hers is an early stage of the affection described by these observers, though there is no buff pigmentation to be seen in the spots that are fading, and leaving no stain behind, and the well-defined annular form of rash has not been noticed in the cases there described by them.

No local treatment has been employed.

A CASE OF CONGENITAL MULTILOCULAR CYST OF THE ABDOMINAL WALL.

By A. M. ANDERSON, M.D., Dundee.

A CASE of this kind (described in the local newspapers as "the child with two stomachs") came recently under my observation, presenting several peculiarities, which, I think, call for a brief report of it being placed on record. I had the opportunity of examining the child during life, and also of performing a necropsy.

The child, T. H., was born at Dundee in January 1877, and at its birth it was noticed that there was a large tumour occupying the whole of the right side of the abdomen; there was a second smaller tumour in the groin, exactly in the space where an inguinal hernia presents itself. The child was otherwise well formed and healthy. The mother states that the labour was natural, and during pregnancy her health was good. How the tumour originated I do not know; but, a few weeks after the child's birth, a report appeared in one of the local newspapers, and was extensively circulated in the newspapers of other towns, describing the child as a monstrosity having two stomachs. On this, the case was carefully examined by many members of the medical profes-

sion; but I have found no one confident of having accurately diagnosed the nature of the tumours. The mother, while willing to allow every surgeon to examine the child, would not permit an exploratory puncture to be made. She subsequently took the child to Edinburgh, where he came under the notice of Professor Annandale, to whom I sent a note of the necropsy. In his reply, Mr. Annandale says: "I remember the case quite well, and at the time I diagnosed a tumour of the abdominal wall, and wished to make an exploratory incision, in order to ascertain whether or not it could be removed with safety; but the mother would not stay in the Infirmary."

I was called to see the child about the middle of October 1878. The mother stated that, until a fortnight previous to my visit, the child had thriven wonderfully well; that he had no pain in the tumours, and was stout and healthy, running about freely, and having a good appetite. When I saw him, he was much emaciated; the pulse 120 and very weak. There was no eruption on the skin, the bowels were regular, and there was no vomiting. The tumour was about the size of a large cocoa-nut, and filled the right side of the abdomen from the middle line in front to within an inch and a half of the spine, and from the crest of the ilium to the edge of the ribs and lower end of the sternum. It was intensely inflamed and tender to touch, soft and even on its surface, and presenting no sharp edge at any part. The second tumour was much smaller, about the size of a hen's egg, and situated in the space where an inguinal hernia presents. It had a half-solid doughy feel, exactly such as one finds in a piece of projected omentum. It also was inflamed. What was the nature of these two tumours, what might be their contents, and did they communicate with the abdominal cavity? They were formed in the child at some stage in its embryonic existence; but, from an external examination alone, and without an exploratory incision, it was, I think, almost impossible to feel confident as to the diagnosis.

The treatment in such a case was, of course, limited by the circumstances, and consisted chiefly in the local application of poultices, and endeavours to sustain the child's strength. The local inflammation of the tumours, with the high febrile symptoms, continued till the child died on December 8th, 1878. The stomach and bowels performed their functions without interruption until the end.

On December 11th, I performed a *post mortem* examination. On opening the abdomen, I found the stomach and intestines, with all the other organs, in a normal condition. There was no communication between the abdominal cavity and the tumours, which could be felt distinctly in the abdominal wall. The large tumour was first opened. It proved to be a cyst divided into four separate compartments, each containing thick flocculent pus, with dark brown serum. The whole was surrounded by a thick firm fibroid wall, which was divided from the abdominal cavity by a thin muscular layer and by the peritoneum. The latter was not inflamed, and the muscular fibres of the former were firmly attached to the fibroid wall of the tumour.

I am satisfied that this tumour could not safely be removed by a surgical operation. The second tumour was a single cyst, containing pus and serum. It could be easily removed by a surgical operation.

I wish to add to this report a brief note, in the hope that it will aid any surgeon who may meet with a case similar to that I have reported above.

Diagnosis.—It will be observed that one valuable aid—viz., the exploratory puncture—could not be applied in this case. While the child continued in good health, an accurate diagnosis was not imperative; but, when his life was threatened by inflammation of the tumours, an accurate diagnosis became urgent. I wish to point out that this inflammation of the tumours, without any external exciting cause, may be considered by the surgeon as a valuable aid in their diagnosis. Professor Annandale, in the letter to which I have already referred, says: "Such cysts sometimes inflame and suppurate, and, if the patient live, a natural cure results. The process was probably going on in your patient." I have no doubt it was, and that such process was Nature's effort to eliminate the abnormal element from the body. From the time the inflammation of the tumours began until the child's death, the stomach and bowels continued to perform their functions without interruption, clearly proving they were not involved in the structure of the tumours: a fact which, previous to the inflammatory stage, had been exceedingly doubtful.

If, at any future period, I should meet with a similar case, I would regard a natural process of inflammation in the tumour, which did not interfere with the functions of the abdominal organs, as tolerably conclusive evidence of its cystic nature.

Treatment.—So long as the tumour causes no inconvenience or danger, the question of its removal by a surgical operation may be safely left in abeyance. But when, as in this case, a natural process of inflammation in the tumour threatens to become dangerous to the

patient's life, and at the same time helps the surgeon to a more conclusive diagnosis as to the tumour's nature and contents, the question of its removal by operation becomes imperative. In the case I have reported, such an operation had no chance of success; but I am satisfied that a free incision along the whole surface of the tumour, so as to allow each separate compartment to discharge its contents, would have greatly relieved the patient, and materially assisted Nature's process of cure.

THE METRIC SYSTEM IN A NUTSHELL.

By EDWARD WIGGLESWORTH, M.D., Boston, United States.

"WASHINGTON, May 3rd.—Surgeon-General Woodworth, of the United States Marine Hospital Service, has issued a circular, with the approval of Secretary Sherman, requiring medical officers of the Marine Hospital Service to make use hereafter, for all official, medical, and pharmaceutical purposes, of the Metric System of Weights and Measures, which had already, under the Act of July 28th, 1866, been adopted by this service for the purveying of medical supplies."—*Boston Daily Advertiser*, May 24th, 1878.

The metric system is already legalised in both America and England. The only question now is, which of the two, the most progressive or the most conservative nation on earth, shall be the first to definitely and finally adopt it as an *exclusive* system? Russia has already taken the preliminary steps towards its final adoption. The rest of the civilised world long since made the system obligatory, in whole or in part, except that, in Sweden alone, its obligatory use is to date from a period in the future (1889).

Now, what is this metric system? Metric is from the Greek word *mētron*, a measure. The meter (measure) is, practically, a fixed quantity; namely, the ten-millionth part of the earth's quadrant from the equator to the pole. With the meter, everything can be *measured*; for it is itself the unit of length. A cube, the edge of which is the tenth of a meter, is the unit of capacity (liter); and the weight of a cube of rain-water, at its extreme contraction, the edge of which cube is a hundredth of a meter, is the unit of weight (gramme).

It is the gramme alone which concerns physicians; for, in the metric system, *everything is best prescribed and dispensed by weight alone*; numbers upon a prescription-paper being regarded by the pharmacist as representing grammes, unless the contrary is expressly stated. The fractions are always decimal.

The table is easily learned. It consists of six words, as prefixes, whether we deal with grammes, liters, or meters. These are: deci for tenth, centi for hundredth, milli for thousandth; deka for ten, hekto for hundred, kilo for thousand. Having these few words, the terms of Troy, Avoirdupois, and Apothecaries' weight, and of liquid measure, may be relegated to the limbo of pounds sterling, shillings, pence, halfpence, and farthings. As we say dime, cent, mill, so we say decigram, centigram, milligram. These prefixes are Latin, and *diminish* the value. Dekka, hekto, and kili are Greek, and *increase* the value. The mnemonic is G I L D; i.e., Greek Increases, Latin Decreases. Dekka occurs in the English work decade; hekto in hectomb; kilo in chiliad.

"Being accustomed to the words mill, cent, and mill, we shall find the words 'milligramme', 'centigramme', and 'decigramme' quite as simple and easy to pronounce as our words 'pennyweight-troy', 'hundredweight-avoirdupois', 'scruple-apothecaries', etc., notwithstanding the assertion to the contrary of those who grieve to give up the 'short and sharp Anglo-Saxon words used in our present familiar old tables of weights and measures.'

Practically, moreover, for physicians, the whole system is reduced to grammes and centigrammes, just as, in money, to dollars and cents. On the right side of the prescription-paper, draw a perpendicular line from top to bottom. This decimal line takes the place of all the decimal points, and obviates the possibility of mistakes. This is the way dollars and cents are separated on business papers. Additional security is gained by writing the decimal fraction (centigrammes) of half-size and raised above the line (of grammes), since it represents a numerator of which the denominator (100) is omitted. To make assurance doubly sure, "grammes" may be written over the integer-column of figures, and, if wished, the word "decimals" over the decimal column.

Now, what is a gramme; or rather, the values, metrically expressed, of our present awkward weights?

	Prussian.		Practical.		Precise.
Grain	1 = 0.06	0.06	1 = 0.06	0.065	
℥ 1	= 1.25	1.25	℥ 1 = 1.25	1.29	
℥ 1	= 3.75	4.0	℥ 1 = 3.75	3.89	
℥ 1	= 30.0	32.0	℥ 1 = 30.0	31.1	

The "practical" table alone concerns us. The "Prussian" (by order of the Prussian Ministry, August 29th, 1867) is given merely to

show that our table is even nearer the actual truth than one which has been proved by actual experience to answer every purpose. The values of the grain and scruple are a little too small. As they are used for powerful drugs, this is an error in the right direction. The values of the drachm and ounce are a trifle too large; but the proportions, and therefore the ratio of drug to vehicle, are preserved.

A prescription written metrically is always proportionate; and, whether the pharmacist uses pennyweights, pounds, or tons; gills, pecks, or chaldrons; pints, gallons, or hogsheds, the ratios are preserved, and a teaspoon-dose contains the same amount of medicine.

In the metric system, *everything is weighed*, thus obviating the difficulties of evaporation, refraction and adhesion, and obtaining more conveniently more exact results. In our old "systemless system", some fluids were measured. How shall we obtain with weights the desired bulks of fluids with varying weights? Must we learn the specific gravities of all fluids? *Not at all!*

1. Fixed oils, honey, liquid acids, and chloroform, must at present be prescribed in our old weights, not measures, according to the *Pharmacopœia*. Here change old weights to metric ones.

2. Not enough chloroform or ether is included in any one prescription to admit of harm arising from the amount contained in a single dose, even were their weights regarded as the same with that of water. Moreover, it is not difficult to remember that ether weighs seven-tenths as much as water; chloroform twice as much as ether.

3. There remain infusions and tinctures, glycerines and syrups. These four are used in bulk as doses, or as solvents or vehicles. The former two may be regarded as identical in weight with water; the latter two as one-third heavier; and, when prescribing these, we need merely write, by weight, for four-thirds as much as we should write for were we prescribing water, and we obtain an equal bulk. The teaspoon or tablespoon dose will then contain the desired amount of the drugs employed.

Or, simplest of all, we can make any mixture up to any desired bulk by merely directing the druggist to use enough of the vehicle to bring the whole mixture up to the requisite weight for that bulk.

CLINICAL MEMORANDA.

THE DIAGNOSIS OF ANEURISM OF THE ABDOMINAL AORTA.

In the *Berliner Klinische Wochenschrift* for last July and August, Dr. Scheele of Dantzig drew attention to a new diagnostic sign of aneurism of the abdominal aorta, which he regards as pathognomonic. It is the suddenly heightened painfulness in the region of the aneurism caused by the compression of both femoral arteries. In order to test the value of this sign, I compressed both femorals in a case of abdominal aneurism a few days ago. The pressure was only kept up for ten or fifteen seconds, and was made twice, in order to permit the alteration in the auscultatory phenomena to be observed by myself and a colleague. We noticed a momentary retardation, and then an increase, in the impulse, with increased loudness in a soft systolic murmur audible at the lower end of the tumour. Directly afterwards, the patient complained of a sharp attack of pain, and continued to complain a good deal for the rest of the day. At night, he became worse, and died with symptoms pointing to rupture of the sac. At the *post mortem* examination, we found the peritoneal cavity full of blood; and there was an aneurism of the abdominal aorta as large as a turkey's egg, on the anterior aspect of which was a small slit about one-fourth of an inch long.

It is impossible not to feel with great regret that the increased tension in the sac of the aneurism produced by the compression of the femoral arteries may have been the means of producing, or at least of hastening, the fatal termination of this case. One of Scheele's cases died of rupture a week after he had examined him; another died from the same cause after digital compression of the femorals had been kept up for some time in the hope of inducing consolidation in the sac. As I have been the means of bringing Scheele's diagnostic before the profession in this country (*vide London Medical Record*, January 1879), I think it right to publish this practical commentary upon it.

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THE PROPAGATION OF DIPHTHERIA BY MILD CASES.

The following passage in Dr. Eigenbrodt's Report on the Attack of Diphtheria in the Grand Ducal Family of Hesse-Darmstadt, in the *JOURNAL* of January 25th, is the reason for my sending the notes of the subjoined cases for publication.