

traces. Then, again, the line between giving "a faint opalescence," "giving a very slight precipitate," and "giving no precipitate," is very difficult to draw, especially when no strength is given for the solutions nor limit of time for the formation of a precipitate. It would be a very lengthy task indeed to point out these defects in detail, but a comparison of the British with other more modern *Pharmacopœias* will soon show how much more minute are the instructions given for testing in these latter.

To these and similar criticisms from a manufacturer's standpoint there are two objections that are likely to be taken: first, that they are mere details which it is the business of the manufacturer to attend to; and, secondly, that an absolute standard of purity should be set up and adhered to at any cost. To the first objection it may fairly be answered that the experience of all compilers of *Pharmacopœias* is against it, that in all cases the *Pharmacopœias* are looked to to give standards, that an official standard of any sort must be accurate to be tolerated at all, and that as long as a name meaning, according to Liddell and Scott, "the preparation of medicines" is used, those who are *φαρμακοποιοί* have a clear right to be told exactly what to make, the only alternative being to give up all tests, and merely say that the substance is to approximate as nearly as possible to the chemical formula given. The answer to the second objection is, first, that purity is after all a relative term; anyone who has tried to get rid of the sodium line in a spectrum knows what is the difficulty of obtaining a substance free from soda to that extent, and yet no one supposes that even that test is absolute. Anyone who has looked for arsenic carefully knows how easy it is to allow a minute trace to escape notice, and therefore, as official words ought to have a meaning, it is needful that some limit should be given to such a term as "free from," and further that in a book intended for practical use practical possibilities must be attended to. Even in scientific matters the question of cost must receive some attention; we do not prescribe diamonds as a source of pure carbonic acid, and if standards of purity are given which enormously increase the cost of production they are certain not to be observed, while manufacturers who do endeavour to observe them are put to a great disadvantage.

It is earnestly to be hoped, therefore, that the compilers of the new and revised *Pharmacopœia*, about the need for which there can scarcely be two opinions, will clearly determine what the book is to contain and what it is to omit; and that they will spare no pains to secure that what it does contain may be perfectly clear and definite, so that it may be used without hesitation as an authority.

## THE SANITARY FUNCTIONS OF COUNTY COUNCILS.

### THE DEGREE AND MODE IN WHICH THEY ARE EXERCISED.

THE Local Government Act of 1888, which brought county councils into existence, allotted to them certain sanitary functions, which have since been largely extended by the Housing of the Working Classes Act of 1890, the Isolation Hospitals Act of 1893, the Local Government Act of 1894, and to some extent also by the revision of the official duties of medical officers of health as prescribed by the Local Government Board. The recent additions are of such moment that it becomes a point of some interest and importance to ascertain how far the several councils have availed themselves of the discretionary powers vested in them from the first, and how far they may be regarded as being reasonably prepared for the wider responsibilities which now devolve upon them.

Some information upon these points may be gathered from the replies received in response to a circular letter of inquiry which we have addressed to the clerk of each of the English and Welsh county councils. The questions were as follows:

1. Whether any Sanitary or Public Health Committee had been formed.
2. To what Committee matters of the following kinds would be referred:
  - Pollution of rivers.
  - Reports of medical officers of health.

Reports under the Housing of the Working Classes Act.

Applications and questions under the Isolation Hospitals Act.

Appeals by parish councils in case of default in sanitary matters on the part of the rural district council.

3. Whether any county medical officer of health had been appointed.

In the first place fourteen administrative counties, according to the returns furnished by the respective clerks, have appointed county medical officers of health. These pioneer counties are:

Bedfordshire	Lancashire	Surrey
Cheshire	London	Worcestershire
Derbyshire	Northumberland	Yorkshire, N. Riding
Durham	Shropshire	Yorkshire, W. Riding
Glamorgan	Staffordshire	

To this list ought perhaps to be added the County Council for the Isles of Scilly, which in its capacity as rural district council for the same area has of course appointed a medical officer of health.

The conditions of appointment are stated only in a few instances, but it is mentioned that the county medical officer for Bedfordshire is paid by fees, not by salary, and that his duties are "to report upon the reports of the medical officers of the various sanitary authorities, to advise the Council on matters arising out of such reports, and to advise the Council when called upon on all other sanitary matters." We believe we are right in saying that the position is very similar in the North Riding of Yorkshire, and that Dr. Thursfield's relations to the Shropshire County Council are exceptional, since he is also medical officer of health for most of the districts within the county area.

In nearly all of these counties a special committee has been formed to take charge of questions of sanitary importance, including those arising under the Rivers Pollution Prevention Acts, the Housing of the Working Classes Act, and the Isolation Hospitals Act, together with allegations of default on the part of local authorities in sanitary matters, and, of course, the consideration of the reports of medical officers of health. It need hardly be pointed out that the London County Council has exceptional powers and duties, and its position is scarcely comparable with that of the provincial councils. The committee, which would thus take cognisance of most of the subjects with which the medical officer has to deal, bears the title of Sanitary Committee in Glamorgan, Shropshire, Staffordshire, Surrey, Worcestershire, and the North and West Ridings of Yorkshire. London, Derbyshire, and Lancashire have Public Health Committees, Durham a Health Committee, and Northumberland a Property and Sanitation Committee. In Cheshire the Public Health Committee (consisting of the whole council) has no concern with rivers, which are under the charge of a separate committee; and as independent Rivers Boards have been established for parts of Cheshire and Lancashire, and for the whole of the West Riding of Yorkshire, those county councils are *pro tanto* relieved of direct responsibility for administering the Rivers Pollution Prevention Acts. The Bedfordshire County Council, however, relegate all sanitary questions to the General Purposes Committee.

Several other councils represent themselves as having no county medical officer, but add that expert assistance is called in for the purpose of abstracting and tabulating the local reports. Such is the case in Essex, Leicestershire, Merioneth, and Somerset, according to the returns before us; and also in many others, including Buckinghamshire and Warwickshire, although no mention is made of the fact. In Gloucestershire a singular practice is adopted. The local reports are referred to a "Medical Officers of Health Reports Committee," who prepare an abstract apparently without expert aid. In Cornwall the task is undertaken with much ability by the Chairman of the Sanitary Committee.

Apart from the fourteen councils who are advised by medical officers of their own, thirteen more have constituted sanitary committees, under that or some similar name. These are:

Buckinghamshire	Lincolnshire, Lindsey	Nottinghamshire
Cornwall	Merioneth	Warwickshire
Essex	Monmouthshire	Wiltshire
Leicestershire	Norfolk	Yorkshire, East Riding
Lincolnshire, Kesteven	Northamptonshire	

The questions referred to these committees seem to be identical with those already named in connection with the first list, but the Merioneth Council is fortunate enough to have no rivers pollution to consider.

Next, we have a group of eleven counties in which, there being no sanitary committee, matters affecting the public health are, for the most part, dealt with by the General Purposes Committee :

Cumberland	Hertfordshire	Montgomeryshire
Devonshire	Huntingdonshire	Oxfordshire
Flint	Isle of Wight	Somerset
Herefordshire	Middlesex	

As regards rivers, however, Herefordshire, like Merioneth, is happily untroubled, but the Somerset and Devonshire councils have thought it expedient to appoint special committees to deal with that subject alone. Kent and Dorset may be added to this group, as all sanitary questions are referred to the Parliamentary Committee.

There remain for consideration twelve more replies, namely those for :

Anglesey	Cambridgeshire	Lincolnshire (Holland)
Berkshire	East Sussex	Rutland
Cardigan	Gloucestershire	Soke of Peterborough
Carnarvon	Isle of Ely	Westmorland

It is stated frankly that nothing at all is being done in the way of public health administration, in Anglesey, Cambridgeshire, Carnarvon, Holland, Rutland, or Westmorland; and the Clerk to the Cambridgeshire Council adds that it has not been found necessary to appoint a medical officer. In Berkshire no sanitary questions have arisen, except one instance of river pollution, which was dealt with by the General Purposes Committee. The county council for the Isle of Ely refer all points concerning rivers to the Highways Committee, and other sanitary questions to the General Purposes Committee, or would do so in case any such questions should arise. Two distant county authorities, those for Cardigan and the Soke of Peterborough, deal with all matters of this kind in full council, local reports not excepted. The East Sussex Council refer hospital questions to the General Purposes Committee, and rivers cases to the Rivers Committee, but we are not told what is done with the reports of medical officers of health. As already stated the Gloucestershire reports are edited by a special committee; rivers questions in that county are submitted to a Rivers Committee, and other sanitary matters are disposed of by the Council. It should be added that in Anglesey, as in Oxfordshire and Shropshire, most of the constituent districts are advised by the same medical officer of health.

We are unable to include in this review the other English and Welsh administrative counties, six in number, as no replies have been received. The silent counties are :

Brecon	Denbigh	Pembroke
Cardmarthen	Hampshire	Radnor

In none of these has a county medical officer been appointed.

It may safely be taken for granted that there is sanitary work for every county council; or, in more precise terms, that in every county there are questions affecting the public health with which the County Council has power to deal, and which, in the absence of action on their part, remain in abeyance. If there is a river which receives crude or imperfectly purified sewage, a sanitary district which is without adequate accommodation for the isolation of cases of infectious diseases, or a sanitary authority which has failed to carry out any of the requirements of the Public Health Act with regard to any part of its area, the County Council has power to interfere, and must, therefore, share the responsibility for action. Information upon these points is given to them, whether they elect to take any notice of it or not, in the reports of the several medical officers of health. If in doubt they can obtain skilled advice and assistance, as many have already done, and wherever this work has been taken up in earnest there has been no lack of important and useful duties found lying ready to hand, although not always specifically defined in any Act of Parliament. The need for the formation of a sanitary committee is common to all counties, for matters of this kind can only properly be dealt with in committee in the first stage, and referred to the Council in a matured report in a form in which they can profitably be discussed.

The degree of urgency for appointment of a county medical officer of health, who would not only advise in all matters affecting the public health, but would bring before the committee questions not automatically coming before it, but nevertheless needing attention, may vary in different parts of the country, and in some counties the area and population and the rateable value may be considered too small to justify the council in retaining the whole of the services of such an officer. In these cases a combination of counties may be thought of, and precedents for this are to be found in Scotland; or, as a temporary expedient, the council may be satisfied with the occasional assistance of some competent medical officer of health not wholly in its service; but under the latter arrangement many things are liable to be passed over which an officer armed with power of initiative would bring into prominence. It may fairly be claimed, too, that the appointment of a county officer of recognised standing will not only tend to ensure the efficiency and prestige of the sanitary work which the county council undertake, but will also be helpful to local authorities in cases of difficulty or doubt, where their own officers need expert assistance, and that it will thus in more ways than one promote the harmonious working of the different public bodies concerned. After all, few of the sanitary questions which a county authority is called upon to take in hand are of a kind which can safely be carried far without need arising for technical knowledge; but it may be conceded that if no expert advice is available, the necessity for careful consideration in committee is all the greater.

If the result of our analysis is not altogether encouraging to those who hope to see immediate advance in sanitary efficiency as the outcome of recent permissive legislation, it is at all events satisfactory to find that there are at least a dozen counties which have already laid a solid foundation of county sanitary government, and have thereby established the lines upon which the rest must sooner or later follow.

## DEATHS UNDER ANÆSTHETICS.

### CHLOROFORM.

In the *Indian Medical Gazette* for December, 1894, Surgeon-Captain Malcolm Moore (C. I. Horse, Agra, W. Malwa) reports the case of a Brahman, aged about 60, who died while under the influence of chloroform administered for excision of a cancerous tongue. The patient is described as a feeble subject of nervous temperament. The heart's sounds were wanting in distinctness, and the superficial arteries were tortuous and inelastic in places. The anæsthetic was administered by a skilled assistant—who had given chloroform in at least 500 cases—from a drop bottle on lint stretched upon a wire frame.

The operation was done in the open air. A large quantity of the drug was found necessary to produce anæsthesia, the patient struggling a good deal. Nearly a quarter of an hour elapsed before reflex action was abolished. One lingual artery was tied as a preliminary measure, and on proceeding to remove the tongue the operator gave directions that only just enough chloroform to prevent struggling should be given. As it could only be given by the nose, there was much trouble from restlessness, making temporary stoppages necessary while a little was given by the mouth. On dividing the other lingual in the floor of the mouth there was smart hæmorrhage, but the vessel was soon secured. Up to this stage the patient had assisted in getting rid of blood and mucus. After the artery was tied no more chloroform was given. Just as the tongue was removed some blood was vomited; after this the respiratory movements went on fairly. About four minutes were occupied in sponging and cleaning up the back of the throat and fauces, and, just as the gag was being removed, the heart and respiration ceased apparently simultaneously. The first efforts at artificial respiration resulted in air being expelled from the chest. There was evidently no obstruction. "The usual measures for resuscitation proved unavailing."

Death appeared to Surgeon-Captain Moore to be due to syncope from the direct influence of chloroform on an already enfeebled system producing cardiac depression. The quantity of chloroform used was 19 drachms, but it is pointed out that it was the last of an old stock probably deteriorated; that it was given in the open air; and that for much of the time only such as could be given by the nose was administered. Administration extended over a period of about ninety-five minutes.

At a meeting of the elective members of Council of the Medical Defence Union (Limited), held on February 13th, the following appointments of officers for the year were made: *President*: Professor Victor Horsley, F.R.S., F.R.C.S. *Treasurer*: Dr. Masters, M.R.C.P. *Secretaries*: Dr. Campbell Pope, F.R.C.S., Dr. A. George Bateman. All inquiries for application forms for membership should be made to the Secretaries at the registered offices, 20, King William Street, W.C.