calomel every hour from the 25th to the 26th of May, so that altogether 25 grains of calomel were given,—no trace of mercury could be found in the collected bile. To another powerful dog with biliary fistula he gave, on the 19th of August, at nine o'clock, three pills, each containing 3 grains of calomel. Next morning at six o'clock A.M., three similar pills were given, and at nine o'clock two more—so that the dog had 30 grains of calomel in eighteen hours. The bile discharged from the fistula was carefully collected by a sponge, from three o'clock on August 11th till the same hour on August 12th. Compared with the quantity collected during twenty-four hours on the day previous to that of the experiment, there was no striking increase of bile, nor did it contain any trace of mercury. He repeated this experiment with 24 grains of calomel with the same negative result. Dr. Mosler concludes from these experiments that, when mercury is administered in the form of calomel, either in small or large doses, it does not pass so rapidly into the bile, nor produce the marked increase of the biliary secretion that medical men imagine. It is much to be regretted that Dr. Mosler did not measure the bile passed during these experiments, which would have given far more value and precision to his observations.

Scott.—The only other experiment made to determine the influence of mercurial preparations, or rather of calomel on the biliary secretion, with which we are acquainted are those of Dr. Scott, who deserves great credit for the careful and scientific manner in which he has carried them out. We shall have occasion, however, to point out some circumstances which seem clearly to shew that they must be regarded rather as valuable contributions to aid us in determining the influence of calomel on the biliary secretion, than as data which, of themselves, warrant any definite conclusion; indeed, Dr. Scott himself has fully admitted the truth of this remark. Dr. Scott made four trials with calomel, in which he estimated the amount of increase or decrease of the biliary secretion by taking the average of two days previous, and of two days subsequent to its administration.

In the first trial 3 grains of calomel were given to the dog at three o'clock P.M. on the 13th of June.* The daily average amount of bile secreted on the 11th and 13th of June was 1960 grains, and that of bile secreted on the 14th and 15th, 1358 grains, showing an average diminution of 602 grains for each of the two days subsequent to the administration of the calomel.

In the second trial, 6 grains of calomel were administered at eleven o'clock A.M. on the 16th of June.† The amount of bile secreted during twenty-four hours, and collected on the morning of the 16th, was 1639 grains, and of that secreted during the subsequent twenty-four hours, and collected on the 17th June, was 518 grains, indicating a diminution of 1121 grains in the biliary secretion during twenty-four hours after the administration of the calomel.

In the third trial, 12 grains of calomel were given at 4.30 P.M. on the 3rd of July, the average daily secretion of bile for two previous days (2nd and 3rd of July) amounting to 3044 grains, and that for the two subsequent days (4th and 5th of July) to 2720 grains, showing a diminution of 323 grains on the average daily quantity of bile secreted after the administration of the calomel.

In the last trial, 12 grains of calomel were given at 5.45 P.M. on July 7th; the daily average amount of biliary secretion on the two preceding days (the 6th and 7th) being 2658 grains, and on the 8th and 9th July being 1724 grains, shewing a diminution of 933 grains in the daily average quantity of bile secreted after the administration of the calomel.

We subjoin a table of the daily amount of fresh bile, collected for several days, in order that our subsequent remarks may be intelligible to the reader. The cross before the dates indicates the days on which calomel was administered.

Amount of Bile secreted in Twenty-four Hours, in Grains.

June 11	1628.00		July 1	2168.051
„ 12	1767.700		„ 2	2941.239
† „ 13	2293.527	† „	„ 3	3148.400
„ 14	1819.636		„ 4	2560.300
„ 15	896.680		„ 5	2881.500
† „ 16	1639.968		„ 6	2644.300
„ 17	518.701	† „	„ 7	2672.900
„ 18	1810.450		„ 8	1963.500
„ 19	817.717			

Dr. Scott concluded that all the trials gave but one result; viz., “a diminution in the amount of bile and bile-solids secreted after the administration of large doses of calomel”. We are of opinion, however,

* The bile secreted during twenty-four hours was always collected on the morning of the day indicated. The amount obtained on June 12th was not used in calculating an average, as a considerable quantity was lost in collecting it.

† The amount of bile collected on the 15th was not used in making an average, probably because Dr. Scott supposed the secretion of the previous twenty-four hours was still under the influence of the calomel.

that the diminution is not nearly so great as he has made it appear; thus, for example, if, in the first trial, we set aside the results of June 12th (as Dr. Scott has done), and only take the amount of bile secreted during the twenty-four hours previous, and subsequent, to the administration of calomel (as Dr. Scott has done in the second trial), the amount of decrease will be considerably less than he has calculated it to be.

Again, if we take the average amount of bile collected during two days previous, and two days subsequent, to the administration of the second dose of calomel, the result will be very different from what Dr. Scott's calculations make it. Instead of a diminution of 1121 grains, it will amount only to 104 grains; and we must not overlook the fact that, on the day when the calomel was administered, the dog did not get any food.

Dr. Scott does not mention at what hour of the morning the bile was collected. If we suppose it was collected at 10 o'clock A.M., twenty-three-hours would thus be left for the action of the calomel, which was administered at 11 o'clock A.M. on the preceding day. It might be said, that the action of the calomel would not be exhausted in that time; and that we ought not, therefore, to admit the collection of bile of the 15th into the calculation for obtaining a daily average amount on the two days previous to the administration of the calomel. On June 18th, however, the second day after the second administration of calomel, the amount of biliary secretion increased from 518 grains on the 17th to 1810 grains on the 18th, 171 grains more than the quantity secreted on the 16th, a day on which calomel could not have had any influence on the amount. Consequently we must conclude, that the influence of the calomel did not extend, in this case, to the second day after its administration; or, if it did, it was not to diminish, but to increase very largely the secretion. Up to the present time, we know little or nothing of the duration of the action of a dose of calomel on the biliary secretion; so that we have no reason to assign a period of two days, rather than of one or of three, as the duration of its action. It would be to ascribe, in the one case an increase and in the other a diminution, to the same cause; that is, the action of the mercury on the second day after its administration. In short, the number of Dr. Scott's observations are far too few, and not sufficiently long continued, to allow us to draw any definite conclusions from them.

It must, I think, be evident, from this notice of all that has been previously accomplished, that no exact information has yet been obtained as to the influence of mercury on the secretion of bile, or as to any other action it may exercise on the liver.

It has been thought better to publish the historical part of the subject at present for two reasons: 1, because it may enable the members of the Association to take a greater interest in the results of the Committee, which are to be brought before the Oxford meeting; and 2, because, if any other researches are known that have not been embraced in the above Report, they may be communicated to the Reporter, and the whole inquiry rendered as complete as possible.

THE POSITION AND PROSPECTS OF THE MEDICAL PROFESSION:

BEING PART OF THE PRESIDENT'S ADDRESS.*

By C. E. PRIOR, M.D., Bedford.

[AFTER some preliminary remarks, in which he congratulated the Branch on its progress, Dr. Prior made the following remarks on the Position and Prospects of the Medical Profession.]

The days of the village apothecary, whose natural science came at second hand from the curate or village schoolmaster, whose experience comprised little beyond the virtues of some specific form of aperient, the value of some favourite specific for measles, or the treatment of the ordinary emergencies of midwifery, it would appear to me, are passing away. The medical profession of the future, if it be to retain its proper rank, must consist of men distributed over the country, of liberal education, conversant with natural science, and socially, as well as intellectually, on a level with the clergy of the establishment. . . . In order to place us in such a position, several things appear to me to be required: a more liberal preliminary education; a longer curriculum of study; an increased rate of remuneration; a more certain tenure of appointments; a certain amount of that leisure which is considered indispensable in all other learned and laborious professions. I can see no reason that the amount of classical, mathematical, and historical knowledge required for entrance upon professional studies should be less than the moderate demands of our universities at matriculation. Theirs, be

* Delivered at the annual meeting of the South Midland Branch, June 18, 1868.

it borne in mind, is but the commencement of a classical or mathematical course; ours a final adieu to it, unless it be kept up as a recreation. To call for less than this, then, appears to me something like inviting a second-class article. The period of our curriculum is too short; the element of age is not sufficiently regarded. For twenty years or so I have lived in a town devoted to a great extent to large educational establishments, and I have been familiar with their working. During all that period I have never known a youth of first-class ability (and by first-class ability I mean such as would obtain an exhibition in our schools, or a scholarship at the university) to enter the medical profession from the schools; and very few of the second class. I know it may be urged, that the character of talent which would achieve university success is not always the best calculated for the study of medicine, but the fact remains. Our youths who go to the medical profession leave school generally at seventeen years of age; and, if they are moderately assiduous, they graduate at twenty-one. Those who enter the university continue at school, on an average, two years longer. In four years the aspiring *medicus* emerges bedizened with the distinctions of M.R.C.S., L.R.C.P., and so forth. His more gifted schoolfellow, who is by this time only halfway towards the B.A. degree—has, perhaps, just got through his moderations—looks with surprise and with suspicion, perhaps not without disdain, on the sounding titles thus early, if not easily, acquired. The age of twenty-two is quite soon enough for the possession of a diploma.

Moreover, conceiving as I do that the charge of a medical district is a thing in its way requiring just as much discretion as a cure of souls, I would not allow such a charge to any one who had not been for two years in possession of his diploma. Our rubrics provide that every candidate for priest's orders shall be at least twenty-four years of age; and every district medical officer should be of at least the same standing.

I have mentioned the Poor-law medical service. It is there, to my mind, that our whole difficulty hinges; and that is the platform, if any, on which the standard of the medical profession must be raised throughout the country. In pleading for a better social rank and an increase of age and experience in those entering the Poor-law medical service, I have not forgotten that such advantages as these necessitate an increased remuneration. On the details of this I have no space to enter: suffice it to say that the present beggarly system requires a most thorough revision; and that appointments of great responsibility, to invite the attention of educated gentlemen, require to be paid on the same scale as those held by the legal profession, who count by their tens and their fifties, and do not advance by wretched aliquot parts of a five-pound note. The Poor-law medical service should be made a *service*. The element of permanency has at last, with some reluctance, been infused into it. I would strengthen this element; I would let the Poor-law medical officer have the comfort of knowing that the appointment was his *quamdiu se bene gesserit*; that he was independent of the ill-will or prejudices of guardians; that his actions would be judged by a medical tribunal; while, in every union, I would constitute the senior medical officer an inspector, to act as medical adviser to the board of guardians, with a seat at their board, though not a vote. This office might only be held for a prescribed time. It would hold out a fair stimulus to the ambition of the entire service; and the inspector should be the officer to be appealed to by his brethren in all cases of difficulty.

Within the last few years, the rural hospital or cottage hospital has made its appearance. The advocate of the more ancient and extensive institution may point with pride to his magnificent wards, his elaborate ventilation, his ample corridors and regal staircases; he may argue, with unquestionable truth, the advantages to be derived to the profession from a large number of similar cases grouped under a single roof. But the advocate of the village hospital, or of the hospital village (and who can say how long it may be ere the latter becomes a recognised institution?), is ready with his response. The tempests of epidemics which ravage large institutions break with comparative harmlessness over cottage infirmaries, with their half-dozen occupants, at miles from each other over the face of the country. What is it to them that a case of pyæmia has occurred in a similar institution in perhaps the next county? that erysipelas forbids any operation throughout the populous wards of an Hôtel Dieu or La Pitié? that hospital gangrene has found its way into Haslar? or that epidemic diarrhoea has seized the county infirmary? Visitations of this sort, which course with unerring certainty through large establishments, are sure to miss one or other of small institutions scattered in nooks and corners. Again, by what possible mechanical or chemical arrangement can the sweet air of the Chiltern Hills be reproduced within the city and liberties of Westminster or London? The principle is one that appears to be gaining ground in many directions. The new hospital of St. Thomas will consist of a series of detached pavilions. The recent and remarkable address of Sir J. Y. Simpson at Belfast has thoroughly shaken

our faith in large midwifery hospitals. It does not require much foresight to regard these as doomed; while the increase of facilities of communication and the improvement of medical skill, as well as their own unpretending records, have given these little establishments a most favourable hold on the public mind. Their diffusion throughout the country would be an immense advantage both to the sick poor and to the medical profession; with, however, this especial proviso, that the gratuitous system, by which we have as a profession suffered so much, and brought the value of our services, as well as the opinion of our motives, to so low an estimation, should once for all be abandoned.

To every district medical officer—at least, in every outlying medical district—I would assign a cottage hospital, with its paid nurse, its regulated number of medical instruments and appliances. Consider the advantage which would accrue to the medical profession, and also to the poor, if, as a part of the system, a village hospital were assigned to each of the outlying districts of the Bedford Union—one at Turvey, one at Harrold, one at Sharnbrook, one at Risely. It should be the duty of the union medical inspector to visit each cottage hospital (say once in six months), to report on its condition; and it should be the duty of the district medical officer to summon his assistance in all cases of peculiar urgency and all operations of importance.

Thus, then, backed by his district and by the experience of his rural hospital; retaining all his best and most interesting cases for close observation and treatment, instead of allowing them to be drafted away; with a respectable, nay a valuable, appointment in possession, and one of still higher standing in no very remote prospect; how much might the status of the country medical officer be improved!

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

THE THERMOMETER IN PRACTICE.

By EDWYN ANDREW, M.D., Shrewsbury.

As the value of the thermometer in a diagnostic point of view is becoming more estimated daily, and as the objection to its use in general practice is the time required in taking the observations, I venture to give a description of the following little contrivance which I have found very useful in my own practice.

Instead of taking the temperature at the time of my visit, I leave two index-thermometers with my patient to be used at nine A.M. and at nine P.M. The diurnal variation is thus seen, and if I have any doubt I can soon verify the truthfulness of the observation of the patient's nurse or friends, by taking the temperature myself at the time of visit. Formerly, when my patient used the single thermometer without an index, the correct temperature was rarely obtained; and when with the index, the thermometer was always spoilt in setting it. To prevent, as far as possible, any of these difficulties, the words *night* and *morning* have been written in large letters on the glass on each pair of instruments, which are enclosed in a very convenient portable case, containing two compartments marked N and M to receive the corresponding night and morning thermometers. The figures can be read so quickly, and the instrument prepared for the next day with so little trouble, that I am using them in a number of cases merely for scientific interest, and am also pleased to find that, while no patient objects to their use, many absurdly attach to the instruments a kind of talismanic benefit.

Twin case for Thermometers. Length, 7 inches; width, 1 inch.

I enclose a diagram of the portable little case, manufactured according to my orders, by Messrs. Harvey and Reynolds, 13, Briggate, Leeds, the well known makers of Dr. Allbutt's clinical thermometers, which instruments I have generally used.

I hope that these simple hints may save time to my hard worked medical brethren in the country.