

about in any of its stages." Dr. Keyes⁶ says: "A perfect recovery is possible." Bumstead and Taylor⁷ say that they fully concur with the views of Diday and Zeissl as to the self-limitation of syphilis in many cases.

It seems unnecessary to occupy further space with evidence of this kind. Enough has been given to show that syphilis is considered by some of the most competent judges to be as curable as most other diseases, and more so than many. But syphilis, even with a full expectation of recovery, is depressing enough; what would it be if Dr. Gowers' view were generally accepted? One result would certainly be that many patients would go without treatment altogether, and thus the contagious period would be greatly prolonged. As a consequence of this, the spread of syphilis would be immensely increased, and in all probability its severity also. Others, again, from a conscientious dread of causing harm to wife or children, would be afraid to marry even when by treatment they had become fit to do so, and thus the temptations to unchastity, which Dr. Gowers so earnestly deplores, would be proportionately increased.

I am, Sirs, your obedient servant,
Old Burlington-st., W., March 8th, 1889. ARTHUR COOPER.

COW-POX AND SMALL-POX.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the recent correspondence in THE LANCET on the above subject, and, believing that several of the writers are very imperfectly acquainted with John Badcock's experiments, I shall feel obliged if you will kindly allow me to relate a few facts about them, which may be of interest to some of your readers.

Mr. H. H. Taylor states that my father has given no account of how he conducted his experiments. Now, my father was a patient worker and observer rather than a scientific writer, still there is a printed record of his early work, published in Brighton in 1845, entitled "A Detail of Experiments confirming the Power of Cow-pox to protect the Constitution from a subsequent Attack of Small-pox, by proving the Identity of the two Diseases. By John Badcock, Chemist, Brighton." This pamphlet is now very scarce. I have only one copy in my possession. I believe there is one in the library of the College of Surgeons of England. My father's operations were most carefully carried on for a period of twenty successive years, notwithstanding many failures, and entirely at his own expense, which was very considerable, as he kept cows for the purpose of conducting his experiments. In all, he practised on about 200 cows, several of which he inoculated repeatedly. In only twenty-three instances were satisfactory pocks considered to result. These successful cases were watched by medical men, some of whom were public and practical vaccinators, and the lymph so obtained has been circulated throughout the civilised world. My father has himself vaccinated more than 14,000 persons with this lymph, and it has been extensively used by the leading medical men in Brighton, probably more generally than any other stock, and with very satisfactory results. The late Mr. Ceely and the late Mr. Marson, old friends of my father, used it for years, and were quite satisfied of its genuineness and reliability. To show how these experiments were verified, and how very carefully and cautiously they were conducted, I cannot do better than quote from the pamphlet to which I have referred an account of my father's first inoculation of the cow in his own words: "In the month of December, 1840, I commenced operations on a fine young cow, with small-pox matter taken from a strong healthy girl, and was singularly successful. My own little boy was the first vaccinated from the cow, and from this and subsequent operations I have carefully kept up the supply of vaccine. In these proceedings the utmost caution was observed for the public safety, as well as to make the experiment interesting to the profession. Three days after inoculation with small-pox the cow was inspected by medical men, the vesicle was watched in its progress, and the lymph taken in their presence. I also placed all my early cases of vaccination under the inspection of medical practitioners; a great number of them visited my little boy during the progress of the disease. After my success in this experiment,

the next was to inoculate a pony with small-pox, but without any result. I was equally unsuccessful with three cows which I inoculated with grease, for in all I failed to produce anything like a vaccine vesicle. It was not until some time after the commencement of my investigations, nor, in fact, before I had succeeded in my object, that I became acquainted with the experiments of Mr. Ceely of Aylesbury, made a few months previously, and so beautifully illustrated in the eighth volume of the Transactions of the Provincial Medical and Surgical Association."

I will now quote a short extract from a published letter of Dr. Thomas Willis, one of the eye-witnesses:—

"Old Steine, Brighton, Jan. 17th, 1841.

"SIR,—I have much pleasure in complying with your request that I should certify to the facts which have resulted from the interesting experiment you have recently made by the inoculation of a cow with variolous matter, and I have to thank you for affording me the opportunity of observing the same. On the 21st of December last I saw, in company with Mr. Burrows and yourself, the cow in question, and noticed *one* well-developed vesicle situated near the external labium, presenting the ordinary characteristics of a vaccine vesicle as it appears on the arm of a child on the eighth or ninth day of maturation, failing only in the circumjacent areola of inflammation. I understood from you that this was the eighth day from inoculation with matter taken from a small-pox patient attended by Mr. Burrows; that you had inserted the virus in two places—on the teats, and also on the spot which presented the only external result. The cow did not appear to suffer from any constitutional disturbance."

Mr. H. H. Taylor states that my father's lymph has never been put to the variolous test. I must therefore again quote from my father's pamphlet an extract from a letter received from Mr. Ceely:—

"Aylesbury, June 29th, 1845.

"DEAR SIR,—I have lately had an opportunity of testing with variolous infection two children vaccinated with your last lymph, and have found them perfectly safe. In almost every case in which I have used the last supplies the patients have exhibited the primary constitutional symptoms on the sixth or seventh day, abundance of areola on the tenth day, and a full and satisfactory amount of the secondary fever, and have shown as fine vesicles as I ever wish to see. I intend to continue it."

My father, who is barely convalescent from a severe illness, still holds the opinion he has always maintained, that small-pox and cow-pox are identical—an opinion favoured by most of our leading authorities on the subject since the days of Jenner.

I remain, Sirs, yours truly,

LEWIS C. BADCOCK,

One of the Public Vaccinators for Brighton.

Brighton, March 4th, 1889.

LONDON, ANCIENT AND MODERN, FROM A MEDICAL POINT OF VIEW.

To the Editors of THE LANCET.

SIRS,—I have read with much interest and instruction the address given by Dr. Poore on the medical history of London. He begins his narrative at the time of Chaucer, who gives a description of the "Doctour of Phisik" in the "Canterbury Tales." The poet mentions the number of authors, Greek, Latin, and Arabian, from whom the "doctour" obtained his learning, and on most of these Dr. Poore offers his comments. Amongst them is the name of "Constantyn," who for special reasons has an interest for Englishmen. Constantine was a man of great celebrity, being the head of the school of Salerno, and his influence was felt throughout all Europe. Salerno had been taken by the Normans, under Robert Guiscard, at the end of the eleventh century, and this hero soon after founded what was the earliest and long the greatest medical school in Christian Europe, known as the *Schola Salernitana*. Those who have been through the town on a visit to the temples at Paestum must have observed the Gothic church and other buildings bearing witness to Norman rule. The standard medical works had been those of Aristotle, Hippocrates, and Galen, with the Arabian writings; but now original teachers arose, the most famous amongst them being Constantine, the African, who made the school of Salerno famous throughout the civilised world. Its pupils, in order to

⁶ Venereal Diseases, 1880, p. 53.

⁷ Pathology and Treatment of Venereal Diseases, 5th ed., 1883, p. 550.

become physicians and surgeons, had to undergo strict examinations; the medical statutes of the place are the oldest in Europe, and form the foundation for all modern laws. At this time Robert, the eldest son of William the Conqueror, having surrendered the crown of England to his brother, went to join the Crusaders. Being wounded by an arrow at the conquest of Jerusalem, he repaired to Salerno to have the "fistula" healed. Whilst there a poem entitled "Regimen Sanitatis Salernitanum" was written especially for his benefit, and dedicated to him as King of England. Whether this was written by combined hands or by Constantine solely is not very certain. It was in Latin, and was soon translated into every European language; therefore it must have been well known to the English physicians. The translation best known at the present day appeared about the beginning of the seventeenth century, and is entitled "The Englishman's Docter or the Schoole of Salerne, or Physicall Observations for the Perfect Preserving of the Body of Man in Continuall Health." The poem gives rules for the preservation of the health and the properties of different kinds of food. It begins thus:—

"The Salerne school doth by these lines impart
All health to England's king, and doth advise
From care his head to keepe, from wrath his harte;
Drinke not much wine, sup light, and soon arise.
When meat is gone long sitting breedeth smart;
And after noone still waking keep your eies,
When mov'd you find your selfe to Nature's need
Forbeare them not, for that much danger breeds.
Use three physitians still: first doctor *Quiet*,
Next doctor *Mery-man*, and doctor *Dyet*."

The poem ends thus:—

"And ye our physicke rules that friendly read,
God grant that physicke you may never neede."

I am, Sirs, yours truly,
Grosvenor-street, W., March, 1889. SAMUEL WILKS.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Carlisle.

THE medical officer of health, in his report as to the health of the city of Carlisle for 1888, shows that 722 deaths had been registered in the Carlisle sanitary district. Of these, 378 were males and 344 females, representing a rate of 18.5 per 1000 per annum of the estimated population at the middle of the year. Twenty-five deaths had been registered of persons not belonging to the Carlisle urban district, and when these were deducted there remained a death-rate of 17.8 per 1000. The zymotic death-rate was 1.5 per 1000, against 1.9 last year. A remarkable fact was noticed as to the prevalence of scarlet fever. Not a single death had been registered from that disease during the year, and the known cases had been few. Mr. C. S. Hall, the medical officer to the Fusehill Hospital, writes a very strong letter to the Carlisle board of guardians, taking exception on behalf of the patients to a project of the corporation to set out a playground immediately adjoining the hospital, which he says contains eighty patients, of whom some are generally suffering from the most distressing and painful maladies, and who have the greatest difficulty in obtaining rest and sleep under even the most favourable circumstances. Mr. Hall pleads very powerfully for the peace and comfort of the sick and dying in this hospital, and indeed his letter shows that the proposed playground will add materially to the sufferings of the sick under his care in a way that should not be overlooked by all concerned.

Penrith.

Some matters of general interest as regards the treatment of pauper lunatics came up for consideration at the late meeting of the Penrith board of guardians. A letter from the Commissioner in Lunacy was read, stating that on his visit he found eight men and seven women entered in his visiting-book, but, so far as he could ascertain from the master, neither the certificates requisite to justify the patients' reception there, nor the power for the master to detain a patient against his will, had been given. He explained to the master the risk he ran of an action for false imprisonment, and he advised him not to be guided by what he considered best for the patient, but to act in accordance with the statutes. The Commissioner also recommended the use of tobacco for the patients, as an

inexpensive luxury, which renders many patients contented. It was explained that the auditor and the Local Government Board had refused to grant tobacco, which was considered by the Visiting Committee very capricious, and it was decided to send the views of the committee on the tobacco question to London.

Sunderland.

Much satisfaction is felt in Sunderland by all interested in ambulance work at the decision of the Duncan Memorial Committee to award a sum as a grant towards the support of a school of ambulance in Sunderland. Mr. H. Shapter Robinson has received a testimonial and address from his ambulance class at the Monkwearmouth Dispensary.

Newcastle and Gateshead.

Mr. H. G. Templeton of Newcastle has fitted up a very portable and efficient adaptation of the oxyhydrogen lime-light at the Throat and Ear Hospital.—The concert given last week by the University of Durham Medical College Musical Society was appreciated by a large and fashionable audience.—It is freely stated in the papers that Mr. R. S. Newall of Gateshead has offered his magnificent telescope as a present to the University of Cambridge. Mr. Newall's instrument is well known as one of the finest in existence; it has a 25-inch aperture and a 30-foot focal length, together with motor machinery.

Newcastle-on-Tyne, March 20th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

The Edinburgh University Court.

THE Court have decided not to sanction the carrying out of the suggestion that steps shall be immediately taken "to allow candidates for graduation in medicine to appear for examination in anatomy and physiology at the end of the second year of medical study (year of medical study meaning one winter and one summer session), subject to a provision with regard to the extent of the study of practical anatomy in such case," on the grounds that a similar experiment in regard to the subjects of the first professional examination has not been carried on long enough to admit of definite conclusions being arrived at, and that the near prospect of the whole subject of university education and graduation in Scotland being under the consideration of the Executive Commission renders it undesirable to make any alteration in the existing arrangements for the examinations for graduation in medicine. It was also resolved to recognise the examinations of the Scottish Education Department for the lower-grade "leaving certificates" as exempting, *pro tanto*, from the examinations preliminary to entrance on medical study; and the examinations for the higher grade in mathematics and natural philosophy as exempting from the said preliminary examinations in these subjects. On consideration of a minute of the Senatus, it was resolved to recognise the junior certificate of the Edinburgh University Local Examination Board as exempting from the examinations preliminary to entrance on medical study, on the understanding that the examinations for the said certificate should include (1) questions in Book III. of Euclid in addition to Book II., (2) an unprepared passage in Latin, and (3) simple sentences of English to be turned into Greek; and that the examination for the junior certificate should be brought up to the level of the lower-grade "leaving certificates" of the Scottish Education Department.

The Royal Society of Edinburgh.

The proceedings at the ordinary meeting of the Royal Society were of considerable interest to both physiologists and officers of health. The first paper was by Drs. Berry Haycraft and Harold Scofield on the Chromatology of the Bile. Starting from hæmatin obtained from hæmoglobin, it was demonstrated that by oxidation or reduction the various coloured pigments could be obtained; the action of the walls of the gall-bladder and bile-ducts, of light and electricity, in bringing about these results, was fully discussed; and it was shown by actual specimens how, by oxidation, a whole series of bile pigments could be formed, commencing at bilirubin, passing through biliverdin, blue