The cholera is to Europe what the plague used to be during the middle ages. Continually recurring every few years, spreading with great rapidity, defying all medical treatment, and cutting off thousands of human beings, the question of its method of diffusion must remain a subject of the most pressing interest, especially as, although medical science can do little against confirmed cholera, sanitary measures can do much to diminish the number of seizures. In reviewing the Annual Report of the Sanitary Commissioner with the Government of India for 1867–8, by Dr Cunningham, we promised to discuss some questions which he had raised on the propriety of attempting to check cholera in India by means of an inland quarantine. In Dr Cunningham’s account of the epidemic following the great pilgrimage to Hurdwar in 1867, we have the best case that was ever made out, at least in India, in favour of the contagious nature of cholera; and in the work at present under review, by Dr D. B. Smith, we have one of the most powerful of the many replies which the contagionists have ever had to meet. As might be supposed from the title, a large part of Dr Smith’s book is devoted to matters which, however interesting to the philosopher and the Indian politician, are not within the scope of a medical review. Nevertheless, as we have read the book through with great pleasure, it is not throwing a few lines away to recommend Dr Smith’s narrative of a visit to the celebrated Hindu temples in Orissa, and his remarks on the bad treatment and hardships to which pilgrims expose themselves, to all who wish information upon these subjects. Dr Smith writes in a truly liberal and thoughtful spirit, and often in an extremely graphic manner, though he may be accused now and then of a redundancy of detail for this impatient age, when people have much to read, and like compressed information.

Going now to the purely medical portion of the Report, the public may perhaps demand that, ere doctors should be allowed to give advice to legislators how to prevent cholera, they should be agreed amongst themselves as to how it is spread.

There are two views respecting the diffusion of cholera which we
shall try to state, with the arguments on which they are supposed to be founded.

One party regards cholera as a contagious disease propagated by human intercourse; the other regards cholera as an epidemic disease, like influenza, propagated in most cases independently of contagion.

The contagionists allege that cholera generally spreads along the great lines of human intercourse, and not faster than human beings can travel; that it propagates itself in proportion to the facility of intercourse; that it is peculiarly liable to be diffused from pilgrimages, fairs, and other assemblies whence a large number of people depart after living for some time in dirty undrained localities, and under unfavourable hygienic conditions, as in the case of the pilgrimage at Mecca in 1865, and that of Hurdwar in 1867. They acknowledge that the epidemic is sometimes more virulent at one time than another, and that its rise, spread, and decline are sometimes influenced by conditions which they cannot foresee or explain; but they point out that this is true to a certain extent of other diseases universally admitted to be contagious, such as smallpox and scarlet fever, which sometimes prevail at one place and sometimes at another, are virulent at one season, and at another totally disappear.

The contagionists consider that the poison is spread both by the air and by choleraic evacuations becoming diffused in drinking water; and in their eagerness to trace the filiation of one case to another, they sometimes talk as if they believed cholera to be the most contagious of all known diseases. A filthy lotah string dipped a moment into the water is declared to be sufficient to impregnate all the water in a well with contagious power. A civil surgeon thinks he has proved that cholera is communicable by carts and waggons which have travelled along an infected road or halted at infected halting-grounds.

The other party, too, insist that, as cholera often spreads with great rapidity, if every one case is simply reproduced by contagion from another, it must be much more contagious than scarlet fever or smallpox. Nevertheless, if we keep under observation a large number of cases of cholera, we do not observe those most exposed to the contagion to be those most liable, to take it. On the contrary, medical men have spent their lives in India, and seen hundreds of cases of cholera without being able to satisfy themselves of a single case of contagion. Here is an argument which we copy from Dr Smith's work. Dr John Macpherson, whose experience of cholera in India could not but be very extended, in his work published two years ago, "Cholera in its Home," writes: "It is scarcely ever the case that the attendants who are employed to rub the extremities of cholera patients fall sick." "The sweepers who remove the excreta, and the washermen who wash the clothes, never suffered, although there was little or no employment of disinfectants. I have known of an orderly sleeping the whole night
in the bedding on which a cholera patient had just died. I have never seen a medical officer or subordinate on duty in hospital attacked, although a native assistant of mine once succumbed during an epidemic which he was engaged in treating from house to house. For a series of twenty-five years at least, only one resident medical practitioner has died of the disease in Calcutta."

Sir Ranald Martin ("Influence of Tropical Climates," 2d edition, 1861, p. 513) writes thus on the same subject:—

"In the European General Hospital of Calcutta, in which I served as assistant-surgeon and surgeon, it was well known that, of the five native keepers and washers of clothes who had during twenty-five years kept and washed the hospital clothing, not one had cholera, nor had those who assisted them. The same immunity attended the native dressers, averaging from twenty to thirty men, who, during the same number of years, were in constant and close attendance on the cholera sick all day and night; nor were the sweepers, who washed and dressed the patients, and who removed the matters vomited and ejected by stool, ever affected by cholera."

"I served in the General Hospital in March 1827, the time referred to by Mr Twining, when the house was filled with cholera patients, and when all of us, Europeans as well as natives, including native medical students employed for the occasion, were exhausted with the labours of attendance on the sick, but none of us suffered from the disease."

"Out of some 250 to 300 medical officers, most of whom saw the disease largely, Mr Jameson states that only three were attacked throughout the Presidency of Bengal, and one only of these cases proved fatal. The same circumstance held good in the Bengal Fusiliers in 1848, where, according to Dr Bruce, not one medical attendant, European or native, ever showed the least symptom of cholera; nor was there even a case of bowel complaint among them, though numbering a hundred persons, in constant attendance upon the cholera sick from May till September."

Compare this with Dr Richardson's remarks in a paper in the Social Science Review, July 2, 1866:—"My friend Mr Watkins, of Worcester, has shown, in a paper marked by singular acuteness of observation, that in the last epidemic which occurred in his district the persons most constantly and fatally attacked were the women who washed the clothes of the sick. This circumstance, which has been largely confirmed by other observers, is almost a necessary occurrence. Unless every portion of the garments washed were actually exposed to 212° Fahr. instantaneously, the organic poison would (at low temperatures) begin to pass off with the vapour, and those exposed to the vapour could only escape, I had almost said, by accident." In truth, some practitioners in this country, in their short acquaintance with cholera, have shown more the spirit of the detective than the calm range of the philosopher—more of the desire to write papers than to accumulate experience.
Exhausting marches and bad food are believed to be potent auxiliaries to an invading epidemic, hence pilgrims are peculiarly liable to be seized. Dr Smith's book gives some striking revelations of the sufferings the Hindu pilgrims undergo, and the rapacity and selfishness of the guides, who prey upon their devotion and credulity.

The non-contagionists remark that, so far from cholera spreading in proportion to the facility of communication, it often does the reverse. Sometimes it attacks two towns or villages, while a town or village between them is passed over. Sometimes one quarter of a town is attacked or spared in a manner absolutely unaccountable; often it stops short while communication goes on uninterrupted. Occasionally ships at sea are visited when several miles from an infected shore, and that before they have established any communication; sometimes it alights on ships long at sea; sometimes a large district is visited at so many points at one time, that the idea of simultaneous contagion involves difficulties apparently insuperable. On other occasions, whilst people ill with cholera fail to communicate the disease to those most exposed, cases arise which cannot by any stretch of ingenuity be traced to sources of contagion. The fact, too, that cholera is likely to recur in the same individual, seems to separate it from contagious epidemics.

Dr Bryden, who, in charge of the medical statistics of the Bengal Presidency, is in possession of materials with which no one else has been favoured, has advanced, that cholera—so far from being a wandering and capricious disease, going up and down as opportunities of contagion combined with changes of meteorological condition or deficient sanitary habits allow of it spreading from man to man—traverses India at certain seasons with a regularity which admits in many cases of accurate prediction. Cholera is never recurrent on its path; travels against the course of the Ganges and Jumna, and their tributaries; beyond the Bay of Bengal it travels eastward. A careful study of the lines which cholera follows, or what have been called the cholera waves, may give us some additional knowledge as to its manner of diffusion. This has been attempted in some places by Dr Smith, see Part II. pp. 44–50. Even admitting that contagion plays an accessory part—and there are grounds for believing that it does so—there must be some causes quite distinct which enable the epidemic at one time to invade Europe and America, while during other years it is confined to a part of India. It is insisted, that the pilgrims from Hurdwar carried it through the passes to Cabul, Cashmere, and Ladak; but it is admitted that they failed to extend it through the more adjacent and populous plains round about Agra, Burtpore, and Allahabad. The disease was propagated in 1865 from Mecca to Suez, and from Suez to Alexandria. How is it, then, that the pilgrims who brought it to Turkey and Syria did not carry it to Algeria or Morocco? and if some passengers from Alexandria brought the contagion to Marseilles with-
out having it themselves, why do the Bombay mail-steamers never import it to Aden or Suez? A man may help on a dust-storm, but only in the direction which it is taking. But whatever the part pilgrims may play in introducing or helping on cholera, there are grave grounds for dreading them as very dangerous arrivals. Hence we need not marvel that the question of an inland quarantine, especially upon pilgrimages and fairs, has been seriously discussed in India. Dr Cunningham, who has studied the question so carefully, has already, in face of the difficulties in the way, somewhat modified his views. "Regarding the matter merely in a sanitary light," his opinion remains unaltered, "but a careful consideration of the many important points involved, leads to the conclusion that any general attempt to enforce this measure is undesirable." 1

The first question the advocate of quarantine has to answer is, What is the period of incubation of cholera? Sometimes we are told, the germ of infection remains dormant for many days; in others, it acted in a few hours; and choleraic diarrhoea is stated by some authorities to be as dangerous for contagion as cholera itself. Ten days was assigned by one military surgeon as a sufficient period for the disease to exhaust itself; but it appeared after thirteen days' removal from the seat of contagion, and this in the hills near Sabathoo, where a cholera epidemic has never shown much power. The Constantinople conference declares the period of incubation to be generally short; but it may be prolonged more than twenty days; and articles kept several months were believed still to retain contagious power. The Virginie, which left Marseilles on the 3d September 1865, is supposed to have infected Guadaloupe, where she arrived one month and three weeks after, although she had no cases of cholera on board. Dr Smith shows that quarantine has been on many occasions tried by the absolute governments of the Continent without success; and when we remember that nearly three millions of human beings were supposed to have assembled at Hurdwar in 1867, and that some of the other places of religious resort attract pilgrims by hundreds of thousands, we are afraid that any attempt to segregate or confine such a vast number of human vagrants, and to prevent them entering the great cities on their way, would be rendered futile by the want of proper means of carrying such an extensive surveillance into play. An imperfect quarantine, in our opinion, is worse than no quarantine at all. Of course the pilgrims, finding police and medical control disagreeable, would be disposed to deny that they were pilgrims, to give bribes to the native police, to avoid the public serais, to take cross roads, and seek accommodation in places where they would never have otherwise resorted. It would be foolish to say that the sanitary measures, put into execution by Dr Cutcliffe at Hurdwar,

1 Dr Smith, op. cit., Part V. p. 45.
were not deserving of every commendation, because the dreaded foe appeared after all, although it had been absent for ten successive years. At the same time, we do not think the success of the quarantine measures used to stop the spread of the epidemic attempted upon the returning pilgrims, to have been sufficiently encouraging to justify their being repeated. The civil surgeon of Amritsir remarked, "that the Hurdwar pilgrims complained bitterly of the treatment they had received—being driven off the regular road, and forced to walk during the heat of the day for miles through heavy sand without food or water. In fact, they attributed a great many of the deaths to this cause."

Let us not go beyond our light. If the authorities are successful in guarding from contagion the jails and the military cantonments, practical men would be disposed to attach increased value to restrictive measures, and no doubt the people of India would become more disposed to put in practice those sanitary measures to which an unaided and overworked central government cannot properly attend, and individuals would soon learn to adopt those private measures of precaution which neither government nor municipality can enforce. Some success appears to have attended the efforts to keep the cholera out of the jails by strict quarantine, which, however, had been preceded by increased attendance to sanitary measures. Out of eighty-two jails in the North-Western Provinces, Punjab, and Oude, no more than twenty-five were attacked, and some of the jails which escaped were large prisons in the centre of an infected population. The mortality to which the native sepoys is subject from cholera is much less than that of the European soldiers and Ghooorkas, perhaps because they are not in their own climate.

It is scarcely necessary to make any remark about the other sanitary measures, whose efficacy against cholera are universally admitted, such as avoidance of impure water and of bad air, and the enforcement of strict temperance and personal cleanliness. Moving the troops out of cantonments into tents has, as a general rule, been found satisfactory, but not always, the deaths from sunstroke in two regiments being very large. A detachment of the 36th at Shahjehanpore, which went into tents, suffered much more from cholera than the portion which stayed in cantonments.

The practice now so common in cholera epidemics of putting astringent and sedative drugs into the hands of ignorant dispensers, to be given to any and all comers, for any and all varieties of diarrhoea, is, in our opinion, as objectionable as that of burning poor people's clothes when boiling water is known to be quite sufficient to disinfect them.

Dr Smith records some interesting facts about the prevalence of cholera in Calcutta, showing that it produces four times as many deaths during the three hot and dry months, and twice as many deaths during the three cold and dry months, as during the three hot and wet months. It would thus appear that during heavy
rains, cholera becomes less frequent. His conclusion is, "Dry air, with high temperature, and wide range of the thermometer, is most favourable to the development of cholera; while moist air, with high temperature, and small range, is most unfavourable to it." We question whether this will be found of universal application. The climate of Lower Bengal, the permanent breeding-ground of cholera, is more humid and more equable, as well as cooler, during the hot months, than that of many parts of India where cholera is not nearly so frequent; and places with a very equable and moist climate, Madeira for example, have been decimated by cholera. Besides, in a place near the sea like Calcutta, the humidity of the air is not always determined by the rainfall.

In taking leave of Dr Smith's book, we are sorry not to be able to reproduce some of the many curious details on the sanitary condition of Orissa. Take the following as a specimen:

The Coles and Gonds "indulge to excess in potations of intoxicating liquor, particularly of a spirit made from the flower of Bassia latifolia; with this they are able to go without food for days, and remain quite satisfied, and work remarkably well whilst its influence lasts." Although they use no medicine when they are ill, this is not from parsimonious motives. They trust entirely to the sacrifice of birds and quadrupeds. "The poorest of them," writes Dr Meyer, "keep fowls, pigeons, and goats for this purpose. Many a family is ruined, should there be a sick person in the house labouring under a chronic disease, and requiring these offerings daily for invoking their gods to alleviate their sufferings."

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The Baths and Wells of Europe; their Actions and Uses. With Hints on Change of Air and Diet Cures. By JOHN MACPHERSON, M.D. London: Macmillan & Co. Pp. 327.

CLIMATOLOGY is year by year attracting more attention, and medical men are becoming more and more persuaded of the great importance of an accurate knowledge of the topographical and meteorological conditions which influence the health of communities. Quite apart from the interest which belongs to medical geography, looked at from a general or non-professional point of view, its claims to the attention of the medical practitioner are such that he ought to consider an accurate knowledge of it not only expedient but absolutely essential. Whilst the general reader may be interested by the important facts which have already been ascertained with regard to the areas of distribution of certain diseases, and the influence of temperature and other conditions on the death-rate of a country, the medical man has to remember the therapeutic aspects of the study, ever mindful of the fact that in change of climate we have one of the most powerful agencies for the cure of disease.
Since the date of the publication of Sir James Clarke's celebrated work "On the Sanative Influence of Climate," many and good books have appeared on the subject, of which some have been general, almost encyclopedic, in their plan, whilst others have treated of the claims of special localities as health resorts. All have been intended as guides for the medical practitioner, in directing patients in the search of climates suited to their diseases. The work now before us does not pretend to be a systematic treatise on climatology; for, as its title announces, it treats of the "Baths and Wells of Europe." Its publication appears to us to fill up most appropriately an important hiatus in our English medical literature; for skilfully, pleasantly, and learnedly, Dr Macpherson has brought together just the kind of information which the busy doctor would like to possess on a subject concerning which he is very likely to be consulted by his patients.

Although, as we have remarked, Dr Macpherson's book does not profess to be a treatise on climatology, the reader will find that he will pleasantly learn from it as much on the subject of climate as from many of the more pretentious systematic works; whilst on the special subject of which it treats, it is as explicit, as lucid, and as correct as could be desired. It is obviously not the production of one who is bath-mad, or specially biased in favour of any particular spa, but it bears the impress of having been written by one who has travelled much, observed carefully and impartially, and who can write in an easy and agreeable style.

Dr Macpherson's work is divided into four books. The first includes five chapters on the elements of treatment: on bath life, on change of air, on external use of water, on internal use of water, and on mineral waters generally.

Book II. comprises four chapters on baths—1st, on indifferent and earthy baths; 2d, on sulphur baths; 3d, on salt and saline baths; and 4th, on artificial baths and inhalations. Under each head the author gives the kind of critical information which indicates his perfect familiarity with the different watering-places, and in addition he generally makes sensible remarks on the probable mode of action of the various waters. Thus, in his concluding remarks on salt and saline baths, the author remarks, "As none of the mineral constituents are absorbed in the case of alkaline and alkaline saline waters, the effect is that of very soft water, which mollifies the epidermis, and makes it particularly easy to clean the surface of the skin. No such waters are rich enough in salts to act as stimulants, and the stimulating action of such baths depends on their temperature and on the carbonic acid they contain, unless the bath be made strong artificially, which is expensive. Much the same is the case with steel baths, in which ladies have so much faith, not entertaining a doubt that the iron is absolutely absorbed through the pores of the skin. This is entirely imaginary; not so, however, the benefit which they actually derive."
"Flechsig, after a careful analysis of the comparative effects of lukewarm water, of plain water, and of water containing iron and carbonic acid, has arrived at the following general conclusions:—That iron baths act on the system mainly by producing stimulation of the peripheral nervous system, and thus altering the functions of the skin and lungs. The altered activity of the skin seems to be the prime mover of the further changes which take place in the interstitial change of tissue" (pp. 166, 167).

Book III. includes seven chapters, on indifferent and earthy wells, on sulphur wells, on salt springs, on alkaline waters, on purgative waters, and on iron waters. The author is necessarily often obliged to speak of localities which have been mentioned under the heading of Baths. In many of the tables exhibiting the amount of the solid and gaseous constituents in different waters, the author has omitted to state the quantity of water in which they were held in solution. As in other tables the quantity of solid matters is stated in grains in 16 ounces of water, we presume that the numbers are always intended to exhibit this relation. In a future edition the author might, however, be more explicit on this point.

Book IV. possesses less interest than the three preceding, for it treats of "Diet Cures." The reader will, however, be amused to read the details of the grape, milk, and whey cures as they are practised in Switzerland.

In concluding this short notice of Dr Macpherson's work, we have again to express our high opinion of the manner in which he has discharged the task which he has undertaken.

History of the Medical Department of the University of Pennsylvania.
By J. Carson, M.D. Philadelphia: Lindsay & Blakiston: 1869.
Pennsylvania Hospital Reports. Vol. II.: 1869. Philadelphia: Lindsay & Blakiston.

We have perused these two handsome volumes with much pleasure. The History of the Medical Department of the University of Pennsylvania is particularly interesting to us, for we find that that Institution is connected with our own University by very close ties indeed. The men who founded the Medical Faculty in the College of Philadelphia, and were the first occupants of her chairs, received their education in Edinburgh, and were graduates of our own Alma Mater. She was the model upon which this transatlantic institution was constructed, and there ought, therefore, to be the warmest sympathy between the two schools. Dr Carson has executed his task in a most creditable manner, and gives much interesting information regarding the lives and labours of the various distinguished men who have filled the professorial chairs in his University. We are glad to learn that, by their efforts, the medical
school of Philadelphia has gone on prospering, and now occupies a position of great usefulness and importance. Nearly eight thousand graduates have left its halls, and it has, likewise, been the means of establishing numerous schools of medicine throughout the United States.

From a very early period clinical instruction has formed a leading feature in the teaching arrangements of this University, and ample facilities are provided for the practical study of disease in the wards of the Pennsylvania Hospital, which was founded in the year 1751.

The Pennsylvania Hospital Reports, of which this is the second volume, are got up very much in the style of those which are annually published by the medical officers of the London hospitals, and consist, for the most part, of papers of a practical character, based chiefly on clinical observations. This volume contains twenty-three articles, which are carefully and ably written, and much valuable knowledge is communicated both of a medical and surgical kind. In a paper on "The Therapeutics of Acute Rheumatism," Dr J. M. Da Costa gives the results of a series of cases treated by the bromide of ammonium, which was usually given in fifteen to twenty grain doses, well diluted, every third hour. In thirty cases, the mean duration of the attack was 22.5 days; and the mean time under treatment in the hospital, 14.16 days. Under the use of the bromide the patients rested better, the pains were eased, the pulse usually became slower, and often lost its force. In the vast majority of instances the remedy gives rise to no gastric symptoms; and as regards the cardiac complications, the author states that not a single case had endocarditis, originating under treatment; in not a single one was it met with in which it had not existed when the patient was admitted; and in none did signs of cardiac trouble exist at the end, unless they had been present in a marked manner at the outset. Dr Da Costa believes that the bromide of ammonium acts most favourably as regards the prevention of cardiac affection. Our space will not permit us to make quotations from any of the other papers, but we have pleasure in commending their perusal to the profession. The book is beautifully got up, and the illustrations are executed with much skill.

A Manual of Materia Medica and Therapeutics, including the Preparations of the British Pharmacopoeia (1867), and many other Approved Medicines. By J. Forbes Royle, M.D., F.R.S.; and Frederick W. Headland, M.D., B.A., F.L.S. Fifth Edition. London: John Churchill & Sons: 1868. Pp. 824.

The fifth edition of Royle and Headland's Manual retains the many excellent qualities which have gained so large a share of
popularity and so high a reputation for the former editions. Re-modelled in accordance with the British Pharmacopœia of 1867, it has, of necessity, received many important additions, and these appear to have been effected with all the care, accuracy, and elaboration by which certain departments of this work are distinguished. It is scarcely necessary to explain that the departments referred to are those comprised under the subject of the Materia Medica proper. In all that refers to the natural character, to the sensible properties, and to the chemical characters of drugs, it would be difficult to point out any text-book that contains so great a mass of detailed information, or that exhibits such extensive learning.

In conspicuously unfavourable contrast with these excellences, that portion of the Manual which is comprised under the second clause of the title, and which treats of the actions and therapeutic uses of remedies, must be regarded as unworthy of the relative importance of the subjects with which it is concerned, and of the present state of knowledge. As a text-book of Therapeutics as well as of Materia Medica, its objects are not only to supply information regarding the physical and chemical characters of drugs, but likewise to afford instruction to the student and the practitioner in the employment of remedies. Yet, singularly, in a work to which Dr Headland's name is attached, we are permitted, by implication, to suppose that the former object is infinitely more important than the latter. The most cursory inspection will be found sufficient to justify our statement; nevertheless, to establish it in the most satisfactory manner, we shall select four substances, which are conspicuous on account of their great therapeutic value, and which also possess considerable chemical and pharmaceutical interest; and we shall contrast the authors' treatment of their physical and chemical and pharmaceutical properties with that of their physiological and medicinal actions.

The first of these substances is bromide of potassium: three-quarters of a page are devoted to its synonyms, the history of its discovery, its properties, preparations, and tests, and the substances with which it is incompatible; while four lines and five words are deemed sufficient for the description of its actions and uses. Arsenic, altogether, occupies thirteen pages and a half; but of this space, the actions and uses of the arsenical compounds and preparations monopolize rather less than one page. Nineteen pages are occupied with a description of the characters and therapeutics of opium and its preparations; yet, strangely, only fifty-one lines in all, or one page and one line, of this space deal with the therapeutics of what the authors, with good reason, pronounce to be "the most important of all therapeutical agents." Lastly, cinchona is treated of in thirty-five pages and a half; its botany, chemistry, pharmacy, and preparations are described in about thirty-four pages, with the admirable elaboration which characterizes the treatment of these departments throughout the work; but, unfortunately, the deeply
important subjects of the actions and uses of the cinchona barks and alkaloids are merely alluded to in several detached passages; which, if collated together, would occupy but little more than one single page.

The insufficient treatment of the therapeutical department of this Manual has led, as might have been anticipated, to the omission of many important matters, whose consideration is properly looked for in such a work. We will refer to only a few of the more prominent of these omissions. The subject of therapeutical antagonism has occupied a large share of attention, and has already yielded many truths of great practical value and of the highest scientific importance; yet we have failed in finding that it is even alluded to by Royle and Headland. Some account might surely be expected of the administration of remedies by subcutaneous injection, as well as by the no means uncommon nor worthless method of inhalation; yet both are ignored by the authors. Our space prevents our citing many of the omissions in the statements regarding the uses of drugs, but we cannot refrain from pointing out that so well-known and frequently-practised a treatment for nocturnal incontinence of urine as that by belladonna or atropia, is nowhere mentioned.

Not only are we dissatisfied with the insufficiency of the space devoted to the consideration of therapeutics, and with the many important omissions that are necessarily consequent on this, but we are also dissatisfied with the general character of this section, and with the loose and unsatisfactory nature of many of the statements that it contains. We find it asserted, for instance, that "bromide of potassium has a special power of subduing irritation of the nervous system" (p. 85). Such an assertion seems to us to be perfectly worthless; for the nervous system comprehends sympathetic as well as cerebro-spinal nerves, and the subduing of irritation in the one may produce a diametrically opposite general result to the subduing of irritation in the other. Everywhere technical terms and expressions of vaguely defined meaning are employed; remedies being characterized as alteratives, deobstruents, narcotics, acrids, or nervine tonics. The free use of these and similar terms in the chapter on the "Physiological and Therapeutical Arrangement of the Materia Medica" renders it unnecessary that we should specially examine its merits; for, happily, the recent progress of rational views on therapeutics—on a healing art based on scientific physiology—seems to promise that such terms will soon be consigned to that oblivion which they assuredly deserve.

In concluding this notice, we are anxious to explain that, while we disapprove of much that is contained in the therapeutical department of this Manual, we warmly commend the many valuable excellences by which the other departments are so conspicuously characterized.
The appearance of a third edition of Dr Garrod's Essentials, gives us another welcome opportunity for congratulating the author on the merits and success of his labours. We have, on previous occasions, expressed the opinion that there are few, if any, textbooks we would so freely recommend to the student, and even to the practitioner; and we now repeat this opinion in reference to the present edition, having satisfied ourselves by a careful examination that it is at least as worthy of praise as either of the former. The changes that have been effected in the descriptions of the chemical properties of drugs, whereby a more general use of the new notation has been introduced, are decided improvements; and the large mass of new matter which has been added, principally relating to therapeutics, in our opinion immensely enhances the value of the work.

There are few writers on therapeutics who possess such extensive and exact knowledge of the subject as Dr Garrod, and there are few text-books, having consideration for the limited space of a comparatively small book, that so well represent the present position of this important subject. Yet, in the description of the actions of several drugs, we would suggest that an improvement might be effected by including the results of recent researches. Thus, we were somewhat surprised to meet with the following statement in relation to the active principles of opium, succeeding a good description of the effects of morphia, and a somewhat imperfect, if not erroneous, one of codeia and narcotine:—"The actions of the other crystalline principles of opium are as yet almost unknown" (p. 182). We have no hesitation in submitting that the statement is an unjustifiable one. The researches of Claude Bernard and others, published some time prior to the appearance of this edition, have yielded many important and valuable results, and have conclusively demonstrated the method of action of a large number of the active principles of opium. Again, it is asserted that increase of the colouring matters of the bile in the faeces is one of the manifestations of the cholagogue action of mercury (p. 93). We are at a loss to account for this assertion by an authority so well informed as Dr Garrod usually proves himself to be. It is now well established by the investigations of many observers, both at home and abroad, that the colour of the so-called "calomel stools" is in reality caused by subsulphide of mercury; while there is a considerable amount of evidence to show that mercury rather diminishes than increases the quantity of bile in the faeces. We observe that Dr Garrod is a believer in the cholagogue action of this drug. Although his statements on the subject
are characterized by caution, we doubt if a sufficient recognition is
given to the many well-known physiological observations tend-
ing to throw some doubt on the matter, by Scott, Mosler, Inman,
Jones, and others—observations that have been confirmed by the
more recent investigations of the Edinburgh Committee.

The therapeutical chapter, extending over nearly fifty pages,
contains a great deal of valuable matter. The remarks on in-
discriminate prescribing and over-drugging are so admirable, that
we consider ourselves justified in making the following extract:—
"Many appear to prescribe with an idea that if numerous drugs are
given at the same time, one of them, at least, may prove effectual;
but it should not be forgotten that some may do harm instead of
good; such indefinite mixtures, often excused under the plea that
the power of combination in altering the action of medicines is of
much importance, should be carefully avoided by those who wish
to gain a clear insight into the real action of medicines, and to
advance the knowledge of therapeutics. It must not, however, be
supposed that all combinations of drugs are injurious; on the con-
trary, it is a well-established fact that they are occasionally very
valuable, and many illustrations can be adduced. It is found, for
example, that some purgative medicines act more especially upon
one part of the intestinal canal, and some on another; that one
drug increases the vermicular or peristaltic action of the bowels,
and another causes a large flow of fluid from the mucous membrane;
and, in practice, it is readily demonstrated that, not unfrequently,
when each of two purgatives given alone causes unpleasant
effects, a combination of the same is productive of satisfactory re-
sults" (pp. 375, 376). We would also draw special attention to
the pages devoted to the "Form in which medicines should be
exhibited, and time of administration" (pp. 376–378); and to those
occupied with "Incompatibility in prescribing" (pp. 378, 379).
The latter contain so much useful and interesting matter, and are
so suggestive of further information being reserved by the author,
that we should gladly welcome an extension of these remarks in
future editions; or—possibly a preferable plan—a brief discussion
under each article of its special incompatibilities.

The arrangement of medicines adopted in this chapter is based on
their action on the organs and structures of the body. Much could
be urged against this system, or, indeed, against any system, in the
present state of therapeutics; but we refrain from criticising it, as
we have nothing better to substitute, and as we are, on the whole,
satisfied that it creditably serves the main purpose of practical
utility, which the author aims at. The subsequent consideration of
the subject of special therapeutics, in accordance with this arrange-
ment, is characterized by great ability and conciseness. We fear,
however, that this extreme conciseness is productive of some dis-
advantage. Details that would prove of great value are necessarily
omitted, and a great mass of information is presented in an un-
interesting and uninviting form. We are convinced that the mastering of information thus presented will prove difficult and an unwelcome task to the student. These objections are, however, of a kind that may readily be removed in future editions.

The work concludes with an appendix containing much useful information, included in which is a valuable table showing the proportions in which some of the more important drugs of the Pharmacopoeia are contained in the officinal preparations.

We may add, that the value of this work is increased by excellences of type, paper, and binding.

Part Third.

MEETINGS OF SOCIETIES.

PROCEEDINGS OF THE EDINBURGH OBSTETRICAL SOCIETY.

SESSION XXVIII.—MEETING XIII.

26th May 1869.—Dr Bryce, Vice-President, in the Chair.

I. CASES ATTENDED AT THE MATERNITY HOSPITAL DURING LAST WINTER.

BY DR CHARLES BELL.

One of the great advantages of being connected with an hospital is the opportunity it affords of seeing cases which are, fortunately, of rare occurrence in private practice; and, in consequence, when we do meet with them in the higher classes of society, we should be much at a loss how to treat them were it not for the experience we acquire in our attendance on the poor, among whom they are more common, from their mode of life, and the hardships to which they are frequently exposed. It is desirable, therefore, that every hospital physician should pay the utmost attention to those rare cases, not only for his own advantage, but in order that he may be enabled to report them correctly for the benefit of others, without concealment or attempt to gloss over any circumstance which may occur in the course of the treatment. Every one who has had extensive experience must be aware that accidents do occasionally occur under the best management, and that the most skilful may commit an error in judgment, or an oversight in practice, which it is his duty carefully to explain, so that others may avoid similar mistakes, and be informed how to correct them.

The following cases appear to me to be of sufficient interest and importance to entitle them to be brought under the notice of this Society; and I hope that the other officers of the Maternity may be induced to publish their cases also, by which means that valuable institution may become more favourably known, and attract a greater number of students than it has done hitherto. Were this the case, we should have fewer instances of malpractice such as the history of the first of the following cases painfully illustrates. It is remarkable that the regulations of our licensing boards, in regard to the practical information required to entitle students to obtain a medical degree, are most defective, especially in reference to midwifery. In short, they are a burlesque; and the knowledge, so far as practice is concerned, is a mere name without any reality.