The essays contained in this volume differ as widely in their relation to the history of medical science as they do in their subject matter. As illustrations of the present, past, and future of investigation and discovery, they deserve the prominence which has been assigned to them; and equally as groundwork, history, or suggestion, they are instructive and important. Upon all the subjects to which these monographs refer, the Glasgow Medical School has spoken with authoritative voice. The recent discussion on albuminuria was a specially valuable contribution towards the literature on that subject. Our Glasgow Hospitals cradled the earlier suggestions concerning the differentiation of typhus and typhoid fever, and nurtured our present knowledge of these diseases; while still more recently a distinguished member of a local Association largely supplemented our still incomplete knowledge of floating kidney.

We have referred to Dr. Senator's work on Albuminuria in Health and Disease as representative of the present of medical investigation. We claim such a position for it because it is an endeavour to narrow the indefinite boundaries which delimit the adjoining provinces of physiology and pathology. An attempt so far successful, that useful deductions are either logically attained or clearly indicated. A short chapter which deals with forms of morbid albuminuria closes the first monograph, and applies to that subject the deductions made from the study of not unphysiological conditions. A further comparison with, and criticism of the various theories of urinary secretion, elucidates both subjects in no small degree, and prepares us for the consideration of the hygienic or physiological treatment of albuminuria which follows.

It is persistently asserted by Dr. George Johnson that the slightest albuminuria is pathological, or will eventually become so. Others, and Dr. Senator is one of them, assert that albumen can be found even in normal urine, and between these extremes, there are all gradations of opinions. Of course
we exclude from the question the albuminuria which occurs in the course of some febrile diseases, but beyond this, there are many moot questions. In connection with this subject, it is interesting to note that even in that most purely physiological albuminuria from the ingestion of egg albumen—more albumen is secreted by the kidney than is derived from the egg—in other words, that an artificially produced albuminuria excites an albuminuria over and above itself. It is also indicated that in peptonuria a similar albuminuria is often produced, and that probably these substances are direct irritants of the kidney. Now, if irritation of the kidney by alcohol and other poisons will produce first, a transient, and finally, a permanent albuminuria, too little importance must not be attached to a similar irritation by albumen. Whether it be considered that Senator has proved the existence of physiological albuminuria or not, it cannot for one moment be denied that he has furnished us with a vast amount of valuable information. Starting with an enquiry into the possible sources of albumen in the urine, and the various forms in which it is excreted, he proceeds to the demonstration of albumen as a constituent of normal urine. The causes of albuminuria follow in four excellent chapters, dealing severally with the effect of alterations of blood pressure, the degeneration of renal epithelium, the conditions of the blood, and pathological states of the kidney.

In the course of the monograph, the theory of urinary secretion is frequently brought under comment, and none of the current explanations is accepted as a whole. The author believes that most of the urinary water with salts and a trace of albumen is obtained by a process of filtration from the glomeruli, and that true secretion of the potential factors of the urine and the remainder of the water takes place in the tubes. By assigning to the glomeruli a mechanical, and to the tubuli a vital function, he renders more easy the explanation of albuminuria consistent with health. It is hardly possible to believe that a direct filtrate from the blood can be perfectly free from albumen; but it is not incredible that a feebly albuminous fluid may be so far diluted as not to react to ordinary tests. There are some very useful and clear remarks concerning these same tests for albumen in one of the earlier chapters, and this is doubtless a subject on which we have more to learn. We find also a pregnant suggestion concerning the origin of albumen in the renal epithelium cells; not at all of necessity by solution of their fixed albumen, but by the disintegration of their protoplasm during destructive
processes. A nephrogenous, rather than a hematogenous albuminuria. Again, we find Dr. Newman mentioned in honourable company, in association with the effect which certain salts, and even an excess of urea, have in favouring the filtration of albumen. A most important fact in estimating the gravity of an albuminuria, when we remember that such excess always exists after a hearty meal.

Still undefined are the molecular changes which take place in the albumens under varying conditions such as temperature.

We know at least that the injection of blood serum from an animal of different species will produce albuminuria, though we cannot distinguish the serums by chemical means. By such investigations we are enabled to follow the gradations of peptonuria, propeptonuria, and albuminuria into one another, and obtain clearer ideas at least of a preliminary stage in which symptoms, formerly regarded as very grave, may still lie within the control of careful dietetic and hygienic measures. The day has gone past in which we regarded diseases beyond our control when they were not amenable to medicinal agents. It is not impossible, indeed, that our greatest triumphs will be gained with such diseases as we treat upon purely physiological principles. Perverted physiological action persisting and setting up structural change is neither a rare nor a trivial matter, but it is one which is possibly comprehensible and, if comprehensible, frequently capable of amendment. In the instance under discussion, the perversion of function is frequently due to the existence of poisons introduced from without or formed within the body by more or less well known means. Further, the action of these agents is aided or hindered by surroundings, and by the balance or counterbalance of other bodily functions. It remains to indicate how this counterbalance may be made; how, as Sir Andrew Clark puts it, the fire may be made to burn usefully if not brightly with a smoky chimney. To follow out the metaphor we must first seek to know how great a fire need be kept up to maintain life. In other words, what amount of albumen is lost by the diseased kidney, and how much, under ordinary circumstances, is required to sustain the vital functions. Senator shows us that we may dismiss the former factor, for even in grave albuminuria not more than 8 to 10 grammes of albumen is lost per day, and this loss would be replaced by half a pound of meat per week. As regards diet, Dr. Johnson and others rely upon milk solely, but there are difficulties with regard to it. It is not easy to persuade the patient to adhere to it; and, if he does, there is
a deficit both of albumen and hydrocarbons, which is not compensated for by the excess of fat. For the maintenance of health, under the easiest conditions, a mere sustentation diet, we require daily 85 grammes of albumen, 30 of fat, and 300 of hydrocarbons, while a full milk diet, two litres, gives us only 38 grammes albumen, 74 fat, and 100 hydrocarbons. There is no real objection to the addition of farinaceous stuff such as bread, gruel, &c., which supplies what is wanting. Neither is it hurtful to vary the dietary with white meats and green vegetables, or permit the moderate use of mineral waters, and even a little claret; but eggs, meat, cheese, leguminous vegetables, and hot spices must be strictly forbidden, and alcohol in the shape of spirits or beer should never be allowed. Fat may at times be sparingly used when its digestion is easily accomplished, but the influence of digestive disturbance upon the kidney must never be lost sight of, and for this reason also food should be given frequently and in small quantity.

Other hygienic measures include rest, and the avoidance of muscular fatigue. This indication may be carried so far as confinement to bed, and in the case of women should always be insisted upon at menstrual periods. Warmth of skin, both to avoid chill and promote perspiration. Baths to favour congestion of the skin, and they are more useful when the skin is saturated with a saline water, the particles of the salt maintaining a stimulating effect upon the cutaneous circulation. Psychical influences, such as fear, anger, anxiety, and business, always increase an albuminuria.

A warm dry climate should be chosen by preference. Egypt is the example given.

Although this notice has run to some length, the subject is merely indicated. So great is the importance of the matter, and so extensive the information contained in the monograph, that it was impossible to say less. We consider it the duty of every conscientious practitioner of medicine to make himself familiar with the contents of Senator's monograph. Doubtless the material will be supplemented, and on some points modification will take place, but as a whole the essay is the most complete within easy reach of English students.

Dr. Stewart's paper is published as a matter of history, and as an act of justice to him. There is nothing in the tenor of his writing to show that Stewart himself was desirous to claim any priority in discovery. It only evidences a careful and earnest search after truth, and in this most noble capacity the monograph is deservedly preserved as an encouragement and example to those who would inherit his mantle.
The subject of floating kidney is one upon which difference of opinion is still possible. Not long since an eminent surgeon declared that he had never seen its existence demonstrated on the post-mortem table; and still adverse statements are made with regard to the symptoms to be attributed to it and the necessity for operative interference. Under such circumstances the call for the republication of Landau's monograph is very obvious.

It could scarcely be expected that the four years which have elapsed since the first publication of this paper should be infertile of further investigation, and, therefore, Dr. Champneys in editing this translation had abundant scope for comment and criticism. A most judicious advantage has been taken of these opportunities, for the reader is not troubled by any vexatious interference, though many important statements are qualified by trenchant remarks. So far as it goes the paper is full and explicit. It gives a very comprehensive idea of the normal situation of the kidneys and the parts concerned in their dislocation, as well as of the symptoms of displacement and their diagnosis from similar symptoms produced by different causes.

A considerable space is devoted to the subject of the so-called incarceration of the kidney and its complications. The author's estimate of the dangers arising from floating kidney is small, and his advocacy is against operative interference. But, upon this subject least of all is the monograph up to date; indeed, it would be difficult, notwithstanding much recent literature, to indicate with any precision the prevailing opinion. Meanwhile, as a sound and scientific digest, Landau's paper and Dr. Champneys' comments will be read with profit by all interested in the subject.

On Renal and Urinary Affections. By W. Howship Dickinson, M.D., F.R.C.P. In Three Parts. Part III. Miscellaneous Affections of the Kidneys and Urine. London: Longmans, Green, & Co. 1885.

Dr. Dickinson writes as one who through a long period of years has been an eager observer, and an original interpreter of facts. He publishes this work as the mature result of more than a quarter of a century of patient and industrious labour. The facts and observations recorded here are with few exceptions his own, the things he has seen; and the views deduced from his facts, although, perhaps, not in full accord with the most modern results of physiology and pathology,