Although the book is written from the point of view of American practice, and consequently certain sections, such as the chapter on estimates and costs, will not be found so useful to English workers, the general information on constructional work, which is mainly descriptive, should be found helpful by students and those engaged in English practice.

(3) The authors have performed the unenviable task of condensing the whole problem of sewerage and sewage disposal within fifty-six small pages, in such a manner as to give the lay mind a good and, on the whole, fairly accurate elementary idea of the subject. It necessarily follows that the information afforded will not be found so useful to those actually engaged in sewage work.

In view of the adverse opinion expressed in Dunbar's "Principles of Sewage Treatment," it is interesting to note that the authors strongly advocate the preliminary treatment of sewage in aërobic slate filters.

EDWARD ARDERN.

OUR BOOK SHELF.

Explication méchanique des Propriétés de la Matière, Cohésion, Affinité, Gravitation, &c. By A. Despaux. Pp. 352. (Paris: Félix Alcan, 1908.) Price 6 francs.

THIS is an attempt to explain everything in terms of a mechanical hypothesis. The universality of application of his hypothesis is scarcely conveyed by the author in the title he has given to his book. Not only cohesion, affinity, gravitation, but also biological and psychological problems are brought within its range. What differences of opinion, therefore, may we not expect from those who read its pages! Such far-reaching generalisations must be backed up by exceptionally strong evidence before their acceptance can be reasonably entertained.

The author seems to anticipate that it will not be easy to secure adhesion to his views. He has little respect for what we may call the grand reserve of science. Official science, he says, is essentially conservative. When a discovery is made, it is said at first that it is not true; and then that it is not new. To some extent he is able to justify his belief in the "resistance" of science. Said Lavoisier, "I do not expect that my ideas will be adopted all at once." While he explained combustion by a simple combination, the partisans of phlogiston burned his effigy in Berlin. Avogadro received no attention from the French Academy, to which he presented his memoir, and it was only twenty years afterwards that he obtained recognition. Sadi Carnot's memoir remained unknown until, after twenty-four years, Lord Kelvin rescued it from oblivion.

Our author, therefore, does not expect impartiality from his contemporaries; it scarcely seems worth while to state our opinion upon his views. We will be content with indicating that he attempts to show that everything can be explained by supposing the molecule to consist of a sort of corkscrew which, spinning, sets up whirls and streams in the æther which he likens to those produced by a ventilating fan. If the molecule is "free," then by its own rotation it propels itself in space "like a fish in water or a bird in the air." It is then part of a gas. When it is part of a solid it is fixed in position, but by its rotation propels æther in front and sucks it in behind. This flow of æther through the molecule constitutes the electric charge; and so on; but for the remainder of this explanation of the universe we must refer the unbiassed reader to the volume itself.

Leçons de Physique générale. By J. Chappuis and A. Berget. Tome I. Second edition; completely revised. Pp. xii+669; illustrations. (Paris: Gauthier-Villars, 1907.) Price 10 francs.

IN a publishers' note it is claimed that the intention of this work is to fill up the gap between elementary treatises and those in which the exposition of physics is carried to its highest developments. With regard to any such works, of which numerous examples might be cited outside France, we may say there must necessarily be considerable resemblance one with another. It is in the higher developments that originality can come chiefly into evidence; so that it is not in any derogatory spirit that we assert that there is much in this book which can be obtained elsewhere, and which in such other places is as well presented as we find it here. But it would give quite an erroneous notion as to the contents of the volume if we were to be content with such an appraisement as this. For in many parts the treatment is so lucid, considering the difficulty of the matter, that we doubt whether it is possible to find a *better* book than this of the standard which it aims at attaining. It is specially rich in illustrations of classical apparatus employed in determinations for physical data.

The chapters dealing with thermodynamics are also exceedingly clear, and will be greatly appreciated by those who have mastered the mathematics necessary—which, it must be pointed out, is never very severe. The logic is beyond criticism, and the physical conceptions are accurate. We will only add that the present volume deals with measuring instruments, weight, elasticity, statics of liquids and gases, and heat. The second edition of the volume on electricity and magnetism has already appeared.

Biochemie. Ein Lehrbuch für Mediziner, Zoologen und Botaniker. By Dr. F. Röhmann. Pp. xvi+768. (Berlin: Julius Springer, 1908.) Price 20 marks.

PROF. RÖHMANN is a well-known physiological chemist, and has produced a work on that subject which will prove useful to teachers and students of that branch of science. The book is written from the standpoint of chemistry, and really is a text-book of organic chemistry which deals particularly with the substances found in animal and vegetable organisms. The biological and metabolic aspects of the subject are treated incidentally and, as a rule, with brevity. There is, for instance, no chapter that deals with the blood as a whole, but the pigment is dealt with in one place, the proteins in another, and so forth. The same is true for milk, urine, and the other secretions; there is no general survey of ferment action, of coagulation, of oxidation, and of other processes important from the point of view of the physiologist.

There are, however, many handbooks of biochemistry available to-day which deal adequately with its biological side. Prof. Röhmann's book is therefore useful as supplementary to these from the purely chemical side. To those engaged in research his book will be a great help; it contains a mine of bibliographical references, and chemical methods of analysis are described in detail. The pages bristle with chemical formulæ which make the book somewhat formidable to medical readers, to whom the book