it can now do for those of the urinary system, it will have advanced far on its way towards being a perfect art.

These lectures are illustrated by a few woodcuts, which serve better than any verbal description to set before the reader the exact shape and situation of some of the diseases of which Sir Henry Thompson treats, and the form and size of the instruments which he is in the habit of using.

ART. XXI.—Recherches sur l'état de la Médecine durant la période primitive de l'histoire des Indous. Par le Docteur Ch. Daremberg. Paris. 1867. Pp. 24.

Researches on the State of Medical Science in the Early Period of the History of the Hindoos. By Dr. Ch. Daremberg.

In this paper Dr. Daremberg uses the Rig.-Veda as he had used the Homeric poems; he attempts to determine by means of it the medical ideas and knowledge of the Aryan race in the first stage in which we can trace it. His essay is not an inquiry into Indian medicine in its more developed shape, like Dr. Webb's book, or into the relation between it and Greek medicine; but it is a complement to the essay previously noticed on the medical knowledge of Homer; and he follows up, as far back as he can, the thoughts of man on disease and on healing, in that primitive dawn of civilisation which preceded and prepared the way for the forms of social existence of which Greece, as painted by Homer, presented one type, and India another. The most ancient period of the history of Greek medicine he looks for in the oldest literature of India, the Yedic hymns. There is, of course, much less definite information in lyric poems than in highly picturesque and detailed narrative. "When a people only sings the gods, it is that men have none but the gods to look to for aid in all the things of this life;" and in the earlier hymns disease is only spoken of in the most general terms, and the only healers and preservers thought of are the divine powers invoked. There are special deities of health; the winds and the sacred Soma are addressed as its sources and guardian; but Dr. Daremberg observes that it is impossible to distinguish whether the health and healing prayed for mean general welfare or special immunity from bodily disease. The curing of wounds makes scarcely any appearance in the Rig-Veda; Dr. Daremberg has detected only one surgical allusion, and that a purely mythological one. The "physician" is named in the Vedas, but only in the later ones. Dr. Daremberg traces a change of feeling from the earlier hymns, where simple prayer is the only remedy thought of, to the more definite formulas and charms, ap-
proximating to magical spells, which appear in the more recent ones. Of definite diseases, he finds traces of leprosy and consumption; the external parts of the body are named; the physiological notions on life and reproduction are expressed very generally, and appear to be those common to all the early races with which we are acquainted. The 'Rig-Veda represents the earliest ideas, but its different portions represent the progress of the human mind.

"Aux premières lueurs de la civilisation la nature étonne, charme ou épouvante, mais on n'a pas même l'idée de la maîtriser, et on en divinise toutes les manifestations; un peu plus tard on commence à s'apercevoir que l'homme dispose des forces qui souvent peuvent contre—balancer avec avantage les forces du monde extérieur; mais presque aussitôt et presque en même temps l'homme se laisse à son tour maîtriser par les chefs—surtout par les ministres des dieux; il n'a pas assez de science pour observer avec sûreté et pour diriger ses instinct vers l'emploi naturel de sa puissance; il rencontre alors plus de sujets de terreur que d'admiration et de confiance; la théologie spontanée, naïve, devient une théologie calculée, reglementée, où la superstition pénètre de tout côté par l'influence des castes sacerdotaux. L'action de ces castes, d'abord salutaire, nait directement et spontanément des sentiments religieux primitifs; mais, peu à peu, elles prennent une suprématie tyrannique en entretenant la pusillanimité de l'esprit, et en étouffant les efforts naturels de la pensée. Cette marche de l'esprit humain.........on peut la suivre pas à pas dans les Védas; et même d'une partie à l'autre dans le 'Rig. Veda,' on observe des nuances très sensibles et fort curieuses à étudier. Dans les hymnes qu'on tient pour les plus anciens, les Aryas ne paraissent avoir eu, en ce qui touche leurs maladies, aucun intermédiaire entre eux-mêmes et les dieux secourables;—tandis que dans les hymnes qui passent pour les plus récents on rencontre, en même temps que la mention expresse des médecins, un culte plus fortement organisé, mille détails de la vie publique ou privée, des essais de cosmogonie et de doctrines philosophiques qui trahissent un second degré de civilisation, des formes littéraires plus travaillées et parfois moins pures, enfin des passions plus ardentes et souvent plus mauvaises."

Dr. Daremberg finds in a still later collection, the 'Atharva Veda,' the representative, in chronology and civilisation, of the times of the Odyssey, the epoch of magic and theurgic rites; but he observes that, while among the Greeks magical ideas vainly tried to supplant natural medicine, they conquered in India and perpetuated themselves there for ages. At length, in the third period of the history of Indian medicine, represented in the 'Agur-Veda' of Susruta, while medicine is viewed as a matter of divine revelation, science regains some portion of its rights over the purely theurgic idea. Dr. Daremberg attributes this to foreign influences, for nothing short of such influences could have forced Brahmans to admit the scientific spirit into even a supplementary Veda, after having so
Williamson's Chemistry for Students. 199 long maintained a monopoly of exorcisms and miraculous remedies. The work of Susruta, the most interesting document on Indian medicine, is reserved by Dr. Daremberg for future examination.

Art. XXII.—Chemistry for Students. By A. W. Williamson, F.R.S. 2nd Edition. Oxford, Clarendon Press, 1868. Pp. xxii, 479.

In reviewing Prof. Williamson's work on its first appearance, we pointed out its merits, which are by no means inconsiderable. In this new issue the book is undoubtedly greatly improved, while the characteristic feature of the author's method, his exposition of principles after due description of facts, is seen in every chapter.

Prof. Williamson's nomenclature differs from that of most other teachers of the new school. For example, he calls nitric pentoxide, \( \text{N}_2\text{O}_5 \), by the name of nitric acid; thus returning to the custom of some of the older chemists; while the true nitric acid becomes hydric nitrate. We cannot think it desirable to use the term "acid" to designate substances which are really chemical rarities like sulphur trioxide and nitric pentoxide, and not possessed of the characters from which acids derived their name, and by which they are recognised. Our author, however, is supported by a majority of chemists in the use of such expressions as hydric sulphate, hydric nitrate, hydric oxalate, for the acids which they respectively designate; but then we are hardly prepared to accept the abbreviations of these terms into "sulphate," "nitrate," "oxalate," &c. The hydric or hydrogen salts may indeed be regarded as the typical salts, but it is somewhat puzzling to read in Dr. Williamson's book that formic and oxalic acids are not known, and at the same time to meet with the liquids which have usually been thus called under the remarkable designations of "formiate" and "oxalate."

It is not necessary to do more than allude to the admirable problems appended to each chapter of this 'Chemistry for Students.' These are arranged with care, and will be found of great use in the teaching of chemistry in schools. In fact, many examples drawn from this source might with great advantage be introduced into our school books of arithmetic.

The illustrations of this new edition are usually good. We object, however, to the dangerous amount of potassic chlorate which the draughtsman has put into the flask on page 5, and to the alarming height to which the "Bunsen" is turned up in the cut on page 68. A very good notion of a Sprengel's air-pump, in which the vacuum is produced by the fall of mercury, may be gathered from the cut on page 7.

We cannot understand why this book should still be disfigured,