practising American engineers if in a more familiar language.

As stated in the preface, "der ingenieur muss geologische kenntnisse besitzen, aber braucht kein specialist zu sein." His eye should be trained to observe those phenomena which are of importance in determining the structure of rocks; but in special problems he must expect to consult the expert geologist, who will be able to deduce conclusions from data given him by the engineer.

MARTIN'S ELEMENTARY HUMAN PHYSIOLOGY.

AMONG the numerous recently published works of its class, the volume before us easily takes a very high rank. From the pen of a thoroughly trained instructor in biology, it is characterized by great clearness and precision of statement, and, being prepared with the co-operation of an experienced teacher of young pupils, the subject is presented in a simple and attractive way that cannot fail to interest the youthful reader. As an example of the way in which difficult points in anatomy and physiology are elucidated by reference to familiar facts, the following illustration of the protection which the skull affords the brain may be quoted: —

"If you turned upside down a thin china teacup, wrapped round it a covering of raw cotton, and over this put a thin casing of tough wood, any thing placed under the cup would be protected from blows, jars, and piercing, much as your brain is protected inside the skull."

The enactment in several states, of laws providing that the teaching of hygiene in the public schools shall include instruction in regard to the action of stimulants and narcotics, makes it incumbent upon all authors of text-books of hygiene to devote several chapters to this subject. Professor Martin has, upon the whole, accomplished this portion of his task in a very satisfactory manner, though some of his remarks will probably be read with surprise by practitioners of medicine. Thus we are told that 'the bromide is just as dangerous as the opiate,'—a statement which, however well adapted to accomplish the object of the author in discouraging the use of the drug without a physician's prescription, can hardly be regarded as a strictly accurate therapeutic guide.

The human body: a beginner's text-book of anatomy, physiology, and hygiene. By H. NEWELL MARTIN, D.Sc., M.A., M.D., professor of biology in the Johns Hopkins university, and HETTY CARY MARTIN. New York, *Holt*, 1884. 4+261 p., illustr. 8°.

The long list of diseases which may affect every organ and tissue of the body as the result of alcoholic indulgence is well calculated to strike terror to the heart of the toper, and rather tends to give this portion of the book the character of a temperance tract.

The illustrations are taken from Professor Martin's larger text-book of physiology, also entitled 'The human body,' and are therefore not always perfectly in harmony with the elementary character of the smaller work.

This defect is not, however, of any great importance, and does not prevent the work from being, upon the whole, the best English text-book for beginners in the sciences of which it treats.

NOTES AND NEWS.

THE annual stated session of the National academy of sciences will be held at the national museum in Washington, commencing Tuesday, April 21, 1885, at eleven A.M.

— The island of Formosa, which has recently been the scene of Franco-Chinese conflict, is stated, in Dr. S. Wells Williams's valuable work on China, to have been unknown to the Chinese before the year 1403, about the beginning of the Ming dynasty. As the mountains of Formosa are visible from the Chinese mainland in favorable weather, this appears due to some misconception, which is explained by Réné Allain. It appears, according to this author, who has recently published a work on Formosa, that, before the conquest of China by the Mongols (202 B.C.–226 A.D.), Formosa was already known, but under another name, to the Chinese historians, who counted its people among the 'Manti,' or southern barbarians. It was visited by the Chinese in the year 602, and was known as Liéu-Kiéu, or the Great Loo-Choo. Chinese colonies were established there in the fourteenth century. For two hundred years it took the name of Taï-wan, which it still bears in Chinese literature. In 1624 it was ceded by China to the Dutch, who were driven out in 1662 by a celebrated Chinese pirate known to Europeans as Koxinga, who maintained himself there for some twenty years. His successors made submission to the Chinese government, which subsequently made permanent colonies on the island. Formosa is about two hundred and forty-five miles long, with a greatest width of seventy-six miles. It has an area of some fifteen thousand square miles, and is separated from the mainland by a strait nowhere less than sixty miles wide. It is characterized by possessing a range of mountains of remarkable uniformity in height, and attaining a very exceptional altitude, the peaks ranging between eleven thousand and thirteen thousand feet. There are no good harbors, except for vessels of light draught, as far as known; and the land appears to be rising at a remarkable rate. The Dutch fort of 1624, originally built on an islet at some distance