standards, are doomed to disappointment. The decimal system, which has been so much lauded, and which recommends itself from its foundation in high mathematical science, and its simplicity, as it has been introduced in France, has not found universal favour, and has not supplanted the old weights in use by the general population, with whom they have been consecrated by habit. The question of weights in England and this country turns upon the employment of but one weight in pharmacy, and the tendency in the first is to substitute the Avoirdupois for Troy, to make it in every respect suitable for use. The convention which met recently at Washington, for the revision of the United States Pharmacopœia, determined that it was inexpedient at present to meddle with this portion of the work. What the New British Pharmacopœia Commission will do in the premises remains to be seen. So far as we are concerned in the present revision, the maxim is a good one, "to let well alone."

The next report is upon the "Revision of the Pharmacopœia." Ever since the association of the pharmaceutical profession with the medical, in the revision of the Pharmacopœia, assistance of an important nature has been rendered by the practical working members of the former. They have borne a large proportion of the burden of experimenting, and devising efficient means of arriving at positive results. These have been freely and liberally communicated, and we could point to many zealous pharmacutists whose labours have been of great value in furthering the accomplishment of the work. The report before us is a continuation of labours commencing and set forth in previous years, not only in the proceedings of this association, but in the journals of pharmacy. It will be of great service to the committee of revision, who can cull from it many important recommendations, as well as hints and information for the successful issue of their undertaking.

"Home Adulterations" is the title of the next report, and here we tread upon a subject that has occupied much attention on the part of both professions. The report is full of useful matter, well worthy of perusal, derived not only from authorities on this subject, but from special examination of articles, which were submitted in proof to the meeting. As the practice of adulteration is a foul blot upon trade, and as the cupidity and wickedness of dealers cannot be brought under subjection, either to law or conscience, the only plan is a full exposition of the means of detection, and to this the committee has, as far as possible, devoted itself.

We find in connection with these reports, which are general and intrusted to committees, some valuable ones on detached subjects. One on "Fluid Extracts," by Mr. Wm. Procter, is so full as almost to exhaust the subject. There are also some essays which are valuable additions, among which may be specified one on the "Therapeutic Value of Foreign and Indigenous Medicinal Plants," by H. A. Tilden; and another "On the Mercurial Compounds prepared with a New Mercurial Machine," by Dr. Edward R. Squibb.

We cannot conclude this notice without expressing our great pleasure in possessing this contribution to "pharmaceutic literature," from the body of intelligent and highly scientific gentlemen who compose the association, and at the same time venture to predict that a continuance in future years of such praiseworthy efforts will maintain that reputation for practical and scientific pharmacy, which the profession in this country now holds, deservedly, in foreign lands.

J. C.

ART. XXX.—*Food for Babies; or Artificial Human Milk, and the Manner of Preparing it and Administering it to Young Children.* By WILLIAM HENRY CUMMING, M. D. 12mo. pp. 100. New York, Anson D. F. Randolph, 1859.

THERE can be no doubt that a large proportion of the disease and mortality which occurs among infants is due to errors committed in respect to their diet—and it is not less certain that many of these errors are not merely the result of ignorance or carelessness on the part of mothers and nurses, but of erroneous

views inculcated by physicians in respect to the nature of the aliment adapted for the sustenance of the system during infancy, and for the supply of materials adapted for its proper development and growth.

That the breast-milk of the mother—when she is healthy, well nourished on wholesome food, and in the practice of regular and sufficient active exercise, out of doors in a dry, wholesome atmosphere—is the only proper food for the infant, during the first months of its existence, is a truth that is taught us by Nature herself; and that to this food, should the infant be confined mainly if not entirely, for the first twelve months, at least, of its existence is not less clearly indicated by the lessons of experience and by the teachings of physiology.

The important question, however, is as to the food which is best adapted to supply the place of the maternal milk when, from any cause, the infant is necessarily deprived of this, and there is no possibility of furnishing it with nourishment from the breast of a healthy nurse. It is evident of course that that food is the best for an infant thus circumstanced which approaches the nearest, in its form and composition, to the breast-milk of the mother. Upon no other kind of food can healthy vigorous children be reared. Much of the howel complaint, marasmus, and slow wasting disease, so common during the first period of existence is due to either an attempt on the part of mothers to substitute some other nourishment for the maternal breast, or to make up for a real or supposed deficiency in the supply of nourishment from the latter, or to compensate for its defective quality by a farinaceous diet, with or without milk, or one of an equally improper character.

In the little work before us, Dr. Cumming discusses with no little ability the subject of the proper diet for infants—more especially the one best adapted for their inadequate nourishment in those cases in which there exists a necessity for their being reared without the breast.

Viewing the embryo from the period of conception, he shows the dependence of the newly developed being, from the moment of its existence to the close of its nine months sojourn in the womb, upon the blood of the mother, and its almost equally intimate dependence on her milk for many months after its birth; and, consequently the vast importance to the existence of man, during his fetal and infantine stages of existence—to his full and symmetrical development—to his freedom from suffering and disease, that the blood and milk of the mother should be ample in quantity and pure in quality.

Nearly all the general principles advanced by Dr. C., and the major portion of his practical deductions from them, are perfectly correct. It is true, that we do not see the good that would result from strictly carrying out in practice the proposition of the author to confine the diet of the infant exclusively to that derived from the breast of the mother during the first eighteen or twenty-four months of its existence. On the contrary, we should in very many cases, anticipate injury to both mother and child were the practice invariably pursued. A robust, well developed infant may with perfect safety be taken from the breast, and placed upon a diet composed of some wholesome food, when one year old, while it is proper, in the case of pany, slowly developed infants, to continue them at the freely secreting breast of a healthy mother or nurse for a few months longer.

The so-called "artificial human milk" which Dr. C. recommends as a substitute for that of the mother, when this entirely fails—or in connection with it, when deficient in quantity—is obtained in two ways. The first, is by taking the upper third of a portion of cow's milk that has stood for four or five hours. This will be found to contain about fifty per cent. more butter than the ordinary run of cow's milk. To obtain one quart of this milk, three quarts of milk are to be set aside, and at the end of four or five hours the upper quart is to be carefully removed for use. The other way, and the one to be preferred in hot weather is to take milk from the latter half of that given by the cow at one milking, which contains double the amount of butter the produce of the first half of the milking does. If the cow gives eight quarts at a milking, the milk for use should be taken from the last four quarts obtained. It is of course understood the milk is to be that of a young, healthy, vigorous, well-fed animal, with a calf between two weeks and five months old.

The milk thus obtained when diluted with $1\frac{1}{2}$ parts of water, and properly sweetened, Dr. C. believes to resemble in its composition most closely the natural secretion of the breasts in vigorous, healthy and properly nourished females.

That this "artificial human milk," as it is termed by the author, affords a very admirable article of nourishment to replace that which nature provides for the infant in the maternal breast, we have not the slightest doubt. Dr. Camming has ascertained from ample experience that it presents to the child in the form best adapted for the action of its digestive organs, all the materials it needs for growth, development, warmth and activity.

We would suggest that the analysis of human milk given by Dr. C. differs very essentially from the analyses of Vernois and Becquerel, of L'Heretiere and of Simon. From the analysis of the latter especially, it would appear that the amount of casein is at its minimum at the commencement of lactation, and gradually increases up to a certain point, when it attains nearly a fixed proportion; that the amount of sugar is at its maximum at the commencement and subsequently diminishes, while the butter in respect to quantity is a very variable constituent of the milk.

D. F. C.

ART. XXXI.—*The Institutes of Medicine.* By MARTYN PAINE, M. D., Professor of the Institutes of Medicine and Mater Medica in the University of the City of New York, etc. etc. etc. Fifth edition, 8vo. pp. 1109. New York: Harper & Brothers, 1859.

THAT a fifth edition of Dr. Paine's work should have been called for shows, we conceive, a healthful state of mind among the reading portion of the medical profession in this country. They who make it a duty to read and digest works of this class will not be satisfied with the meagre aliment to be derived from compounds and manuals. The work of Dr. Paine is no superficial digest of popular doctrines of physiology, pathology, and therapeutics, in reference to the human organism, but a philosophical exposition of the Institutes of Medicine, based upon well authenticated and correctly translated facts and observations. It is not merely an exposition of what others have believed and taught, but a methodical system of the philosophy of medicine, deduced by the author from what is known in respect to the vital and physical laws and functions of the living organism in health, and the rich fund of instruction acquired from the cautious observation of disease in its onset, phenomena, progress, and results, and from the empirical study of the effects of remedial agents at the bedside of the sick.

The institutes of medicine by Dr. Paine present an unquestionable claim to the title of originality. Out of the materials furnished by the medical observers of all times and all places, the author has constructed an edifice of his own; one, upon the whole, well adapted for the purposes to which it is dedicated. Although we are persuaded that, upon a close examination, many defects may be discovered in different portions of it, we still cannot but admit the solidity of its foundation, and admire the symmetry and skill exhibited in its general plan and execution.

The present is simply a revised reprint of the fourth edition, with the addition of a Supplement, embracing certain recent observations, which the author believes to be corroborative of some of the principal views taught by him in the body of the work.

D. F. C.