half open, eyeballs turned upward, pupils contracted; complete relaxation of muscular system; pale-bluish color of skin over whole body; respiration infrequent and irregular; the heart's action very faint. Did he, as his doctors said, die of apoplexy or because of a fibrinous heart clot induced by the morphine? (E. Beckwith, H. M., Oct., 1873, p. 119.)

GENERAL REMARKS.

On the Mental Symptoms of Drugs. (J. Heber Smith, N. E. M. G., Sept., 1873, p. 373.)

A complete Materia Medica. *Shall it be Reproved before Publication?* (C. Wesselhœft, N. E. M. G., May, 1873, p. 213.)

Elaboration of the Materia Medica according to the present state of Science. According to Hahnemann, drugs only become remedies by exciting certain conditions and symptoms; that is, by exciting a certain artificial morbid state, and thus removing and annihilating the already existing symptoms; that is, the natural morbid state which is to be healed. In unison with this idea, drug provings were undertaken and symptoms of drug diseases collated, principally by Hahnemann and his disciples, and, in a lesser degree, by their followers. Of late years, work in the province of materia medica is getting more sparse. Perhaps the reason of this may partially be sought in the fact that, homœopathic physicians of the present day are occupied in making clinical use of the pharmacodynamic material, and thus rendering it practically useful. But the ebb cannot be quite explained in this way, more especially as we cannot maintain that the existing portraitures of drug disease are perfect as to completeness or lucidness. It appears an opinion has been gaining ground that both cannot be quite obtained by pursuing the same course as heretofore. If it be asked how are we to hold fast to the tried principles of Hahnemann, and at the same time make one method of investigation, take a course that shall be in accordance with the time, a course by which the object can be best attained, then we find ourselves brought back to our first starting point, and the conviction is confirmed by us that we must start from a conception of drug disease contemporaneous with the times, if we wish to get a fresh *élan* and renewed progress in the investigation of the action of drugs in the normal organism.

In the past and contemporaneous observations of homœopathic physicians, and in the facts collated by them, we have a pretty considerable mass of material presented to us, which, however, in one direction or another, stands in need of completion and correction. The most complete are the pharmacodynamic observations of homœopaths regarding the functional processes, and of these again the most complete are those concerning the sensations, general and special, *i. e.*, of the subjective symptoms as they are usually termed. Physicians of the old school have set such little value upon these that they remained unnoticed or were regarded with a sneer and underrated. We must, therefore, not be surprised that this is partly transferred to the productions of the homœopaths as they offered in regard to the subjective phenomena something essentially new, setting a value on them as characterizing drug action, and making them useful for practice. Although many of the disturbances of the sensations general and special, by the action of drugs on the healthy, are so very valuable for the recognition of the drug action in its specific peculiarity and for the right choice of remedies in disease, yet we cannot deny that they may very easily lead to error, especially as a control of the subjective symptoms produced by drugs is in so many ways extremely difficult, and in part quite impossible. In order here to keep from error, we must before all things consider the individuality of the experimenter, so that his idiosyncratic symptoms may not be regarded as the specific pathogenetic effects of the drug.

Then we must only regard such symptoms which are produced by the same drug over and over again as really belonging to it and as such to be registered. It is also of import for the settlement of a subjective drug symptom that it be repeatedly corroborated *ex usu in morbis*, when it had been chosen under the guidance of the law of similars. At any rate there are many disturbances of sensation and feeling which must be made use of with very great prudence. They are, however, of such importance for the more minute distinctions in drug action that, were they neglected, we should only get a very faulty picture of the drug-diseases, and we should be deprived of many most valuable *points d'appui* in choosing our remedies at the bedside. Hence we must maintain them in their integrity as essential parts of the picture of the drug-disease, but yet make use of them with the greatest prudence and circumspection.

Functional disturbances which allow of objective observation

offer a greater certainty against error. These must therefore constitute the physician's principal object in his proving of the drug-action on the healthy. To affirm these said facts, he may not confine himself simply to his own sensory perceptions, but he must have at his elbow all the auxiliary measures which physics and chemistry offer, in order to obtain a result which shall satisfy the demands of science in its present state. For the attainment of subjective symptoms, small and moderate doses suffice, not so here, however, for to attain an exhaustive observation, we must know the action of larger and very large doses. Direct observations with moderate doses must indeed be the principal ones and constitute the foundation; but those of cases of poisoning are of the greatest importance, inasmuch as they bring out the functional disturbances into a clearer light, and allow us to recognize the difference between the primary action and the after-influence. The most of such observations are, however, too little pure to offer pharmacodynamics blameless material, inasmuch as the operation of the antidote has very often changed the picture.

Here experiments on animals must help us out of the difficulties, as in these many functional disturbances can be observed all the more certainly as we can choose the object as we like, and bring it into a position favorable to observation.

We cannot always make a direct inference from this to the human subject, yet the results thus gained when brought together with the observations made in man conduce to a correct view.

If with this comprehensive knowledge of the subject and objective functional disturbances we now combine the discovery of the chemical changes resulting from the action of, and I could not even admit that such an arrangement is exemplary of objectivity. If we desire to attain to a correct view we must give a genetic portraiture of the drug disease; a portraiture which must be arranged so as to consist of the individual cases of drug disease, an objective physiological insight into these latter having been the guide in such arrangement. In this way we get a portrait of drug disease as nearly as possible *secundum vitam*, and in which the symptoms are brought together in series and connection, and thus may be recognized according to their physiological and therapeutic value.

This objective and truly physiological portrait of drug disease contrasted with the known portrait of natural disease acquired in the same way can lead to the correct choice of a remedy, and that with greater certainty than the mechanical symptom covering.

Yet we do not consider it sufficient, we rather demand of scientific and truly physiological pharmacodynamics that the totality of existing facts be subjected to a physiological test and so result in but one portrait. We seek a scientific basis for our views of drug disease not in theory of drug action, but in an analytical dismemberment of the phenomena, and in their being brought back to their causal connection, without, however, leaving the firm ground of empiricism and wondering off into the domain of hypothesis. If we do the same with the natural disease, if we also subject this to a physiological analysis, then we acquire a pathological pathology and physiological pharmacodynamics standing homologously side by side. Both sciences must advance with equal steps and grow up to be two sisters of great resemblance to one another. A comparison of both in general and a discovery of similarity and difference in particular will bring scientific enlightenment into our pathological therapeutical knowledge and conduce to a right guidance in the path of healing. (W. Arnold, B. J. H., 1873, p. 276.)
