

in general, any deoxidizer with easily-reducible compounds, such as the permanganates, chromic acid, the chlorates, and some organic acids.—*Boston Journal of Chemistry*.

ON VARIOUS FORMS OF FUNCTIONAL CARDIAC DISTURBANCES.

BY BEVERLEY ROBINSON, M.D., Lecturer upon Clinical Medicine at the Bellevue Hospital Medical College, New York.

(Continued from our last number.)

Physical investigation discovers clearly two facts: 1st, that there is no evidence of structural lesion. 2d, the presence of signs which enable us to affirm that the heart's walls and orifices are sound. If we bring percussion to our help, we find the heart has its usual size. Whenever functional trouble is conjoined with organic trouble, ordinarily the heart is, without question, more or less enlarged. Palpation of a heart functionally disturbed finds the apex at its normal seat; does not recognize such increased power as one would expect to find if the organ were hypertrophied, and seldom has a sensation approximating that of a "thrill." If auscultation be employed, there are usually no murmurs, and the heart-sounds, barring what is due to excitability, are healthy. If murmurs exist they indicate the accompanying blood condition, and this is indicated more by their seat and time of greatest intensity than by anything in the actual tone of the murmurs themselves. We have had great reason to believe, during the last few years, that many cardiac murmurs, once assumed to be evidence of organic trouble at the orifices, are only due after all to what should be considered functional trouble. And in the same line of reasoning I would now hold that, even with very pronounced disorder of cardiac action, it is not correct to infer the existence of either dilatation or fatty degeneration of cardiac fibre. The causer mentioned above are usually the origin of all the symptoms, and once they are effectually removed, the heart will come right of itself. The first sound of the heart affected with functional disturbance is sometimes accompanied with a clearly distinct metallic tinnitus, which is due, oftentimes, not as Hope affirms, to the noise of the cardiac impulse against the sixth rib, but simply to a stomach inflated with the gases of imperfect and prolonged digestion. I have seen this symptom persist for many weeks, and then quietly subside under the influence of a well-systematized treatment directed against the dyspepsia. In the diagnosis of functional trouble of the heart, the first and most important matter is to determine that no organic heart affection exists. Afterward we must endeavor to determine to what extent the signs present are occasioned by complicating symptoms of functional nature. This we are unable accurately to affirm in a certain number of cases, after a single examination, no matter how carefully and accurately made. Upon weighing fairly all symptoms

present, the age and circumstances of the patient, his preceding history, his hereditary tendencies, the nature of his employment, etc., we are still obliged to apply the touchstone of treatment in order to reach the exact truth. Even physical examination, so sure at times in the results afforded, will occasionally leave the mind uncertain as to the correct interpretation of the signs it makes known. The normal sounds of the heart are so much obscured by rapidity and irregularity of action, and so many general phenomena are present which may, at first, be attributable to organic disease, that we are forced to suspend judgment for a time. True it is that the varying degree of painful symptoms, their lack of permanency particularly, and the absence of grave disturbance, such as dropsy, hemorrhage, paralysis, etc., all point more directly to functional disorder than to structural disease.

But how many examples of the latter kind remain for a long period ignored, owing to the simple, though not always recognized fact, that they are covered up, or concealed from view, as it were, by the presence of a complicating neurosal affection, only those who practice frequent auscultation can be aware. Now it is just this very troublesome element of disease, the nervous one, which it is important to eliminate by judicious treatment, and to do this quickly and effectually we must rely, to a certain extent, upon the proper use of well-selected therapeutical means, but we should also rely greatly upon more power. If the physician consulted be thoroughly conversant with the complex nature of the affection he is called upon to treat, and yet feels confidence in his own resources, he will take positive ground by affirming in the beginning that many, if not all of the distressing symptoms experienced by the patient are the sequelæ of a deranged nervous system. He is abundantly justified in so doing, first, because in the majority of instances the future will prove the truth of his statements, and in the few instances in which he may, perhaps, be partly in error, the immense moral weight obtained from the start is of incalculable advantage to the patient. And even supposing, what is only rarely true, that there is in reality present an advanced stage of organic cardiac disease, we know well, by daily contact with hospital patients, that freedom from emotional excitement, perfect rest and tranquility, good food, hæmatinics, and the moderate use of digitalis, strychnine, and carbonate of ammonia, will work wonderful results. Make such a patient despair by telling him he has incurable or real cardiac disease, and soon the onward and downward tendency of his disease will be so marked, in spite of all our efforts, that we shall have to deplore rapidly fatal cases in which, by a justifiable deceit, there was the possibility of several years of life. Of course such a line of conduct as I have traced would not be permissible where sudden death might be anticipated or major interests of great moment are at stake. And look for a moment at