

to be efficient, must exert not only a local but distant, that is, general effect. In chlorosis and in many severe cases of anemia chalybeates are said to remove the hydrogen sulphide, formed frequently in large amount in the alimentary tract, by the combination of the iron with the sulphur. This removal is necessary, because hydrogen sulphide, if present in too large quantity, renders impossible the absorption of the iron in the food by precipitating it in the form of sulphide of iron. It is known, however, that not only iron, but also manganese is adapted in a high degree for taking up hydrogen sulphide. Manganese therefore acts as an auxiliary to iron in this respect.

Another circumstance was decisive for me. A large number, almost all, of the officinal ferruginous preparations are absorbed only to a slight extent when administered internally. This can be maintained on the ground of the fact, that in animals and human beings positive evidence of the entrance of these preparations into the blood cannot be obtained if the persons experimented with have not intestinal catarrh or have not received excessive doses of iron. The more the preparation approximates to the form in which iron is contained in the food, the more likely it is to be absorbed. The peptonizing of the iron preparation is therefore of decided advantage, as its absorbability and assimilability is thereby enhanced to a considerable degree. Aside from this, the peptone combination is adapted for exerting the systemic effect. This general action of iron preparations only takes place if after absorption they undergo conversion into hemoglobin. *Hence this conversion is only possible in the case of preparations which contain iron in form of an organic combination.* They will then act even when containing a much smaller percentage of absolute iron.

It was therefore the chemical constitution of the preparation which appealed to me, and which induced me to undertake extensive experiments.

The cases in which I employed Gude's Pepto-Mangan comprised chiefly the poorer class of people. I mention this particularly, because with these patients it is difficult or well-nigh impossible to pay attention to the hygienic conditions, or to consider the dietetic side of the treatment. Notwithstanding this, the results were favorable. Of course, they were most satisfactory in the case of those patients who were also able to carry out the hygienic and dietetic regulations.

Numerous cases of chlorosis, anemia, neurasthenia, and hysteria, as well as two cases of malarial cachexia, were submitted to careful and thorough observation.