

the blood contains no manganese, yet this is a most efficient anti-spanæmic. The augmentation of red corpuscles probably entails by necessity the reduction of the fibrin, since decrease of the latter may be explained by assuming that the increasing cell-growth leaves the serum less saturated with organic blastematous material than previously existed when fewer blood-cells were evolved from it. The other changes appear to be results of distant actions of the medicines, viz. on chylosis, secretion, &c. A question now arises.—Are not the former alterations similarly produced? Does the medicine act topically upon the blood by a local hæmatisis, modifying the affinities that subsist between its different particles, or is the change in the blood but the effect of the actions upon the digestive system and nutrition generally? The latter appears to be the true interpretation, for reasons, before assigned, which served to show that these agents are not simply restoratives, as well as from the fact that upon these parts anti-spanæmics exert very decided influences, that are of such a character as would lead to the elaboration of healthy blood. These will now be examined.

2. By improving chylosis. All the members of this class are tonic, and that this is one of their most important powers is shown by those preparations of the same substance being most energetic which can induce the most powerful invigoration of the digestive system; thus the muriated tinct. and oxysulphate of iron are far more active than the sesquioxid or black oxid,—the finely powdered metal than the coarse filings, &c. Again, the benefit is not in accordance with the amount, for most good may usually be derived from the preparations that are taken in least quantity; small doses capable of causing an alteration in the morbid tendencies, being better than larger ones which are competent to produce a more impressive or supplementary influence. Those compounds of anti-spanæmic bases which are not tonic nor alterative, are not anti-spanæmic. Thus, neither the ferrocyanid nor the ferridecyanid of potassium are anti-spanæmic. The carbonate of manganese is not anti-spanæmic, though nearly all the other salts of this basis are most powerfully so. And, lastly, ordinary tonics occasionally induce precisely the same changes as those commonly, though erroneously, considered to be peculiar to anti-spanæmics proper. Ha. don found that when chlorotic patients were not benefitted by either iron or manganese, they got well after taking lead, or copper, or bismuth. Several recovered entirely under the use of the latter. He says, "in these the globulin was reproduced without an atom of iron or manganese." He explains the use of the metals generally, by supposing they form insoluble sulphurets with the hydro-sulphuric acid, eliminated in the intestines. By thus fix-