

The Tincture of the Chloride of Iron.*

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Were the subject of my paper to-night "Iron," I would perhaps be inclined to write an essay dealing with the therapeutics of the iron preparations, internally as a tonic and externally as a styptic and astringent. I might recall to your mind that iron constitutes a necessary integral part of the red blood corpuscle, and may thus be said to be a food rather than a medicine. I might speak of its use in the treatment of such conditions as anæmia, and neuralgia resulting from anæmia, or of its great value as an aid to the appetite and digestion. But finding myself confined to one of the many preparations of iron—one for which the dentist has little or no use in his office practice—I am convinced that your committee had not in view a dissertation, however learned, on iron and its value as a styptic or tonic.

In what way are we as dentists so interested in the tincture of the chloride of iron as to spend an evening in a discussion of it? Not as a styptic, I am sure, as for this purpose we have in the solution of the subsulphate (known as Monsel's) a much more efficient remedy. As a tonic I find on enquiry among physicians and druggists of my acquaintance, that the tincture of the chloride is the most used of all the iron remedies, it being one of the most efficient and active preparations, and having the additional cardinal virtue of being the cheapest. The works on therapeutics tell us that the objections to its use are its constipating effects and its corrosive action on the teeth. It is to this corrosive action that I wish specially to direct your attention to-night.

In order to a thorough understanding of the question let us ask, What is tincture of the chloride of iron? First, in brief, its source: Iron wire is heated with H.Cl. and the ferrous chloride thus formed (Fe.Cl_2) is converted by further heating with H.Cl. and H.NO_3 into ferric chloride (Fe_2Cl_6). This ferric chloride diluted with three volumes of rectified spirits gives the *tinctura ferri perchloridi* of the B. P. In physical properties it is a bright yellow or reddish liquid with a strong odor of ether, very strongly astringent and corrosive in its effects and having an acid reaction.

This is the preparation whose effects as witnessed at the dental chair we wish to discuss to-night. I doubt if there is any one who will deny that this preparation has this corrosive effect, but if there are any such a simple experiment will, I think, serve to convince them. A sound tooth placed for a few hours in a solution of one drachm of tincture to one ounce of water will be found on examination so affected that the enamel may be readily scraped away.

* Read before the Toronto Dental Society.