lowed; and, although the errors then made have since been corrected, the prejudice arising therefrom has not been entirely eradicated.

As the formula stands at present it is capable of some slight modification, especially if the quantities of the ingredients operated upon are much larger than those indicated. The specific gravity of the finished preparation is incorrectly stated, and though this has been pointed out by some writers, it is not generally known. It is somewhat remarkable that this error should have escaped the revision of 1867; especially as the attention of the revisors was particularly called to this preparation.

It appears desirable, for all the purposes to which the liquor is applied, that it contain no greater excess of acid than is actually necessary to ensure the keeping qualities of the solution, or any of its prepartions. It is seldom or ever employed by itself, except as a local application; as for painting diphtheric growths, or as a styptic. For these uses a solution as near neutral as possible is preferred. In preparing the tincture a slight excess of acid is necessary to ensure stability, but a larger quantity, though perhaps more beneficial than injurious as far as the tonic properties of the medicine are concerned, is decidedly objectionable on account of its destructive action on the teeth of those to whom it is administered.

Practically, it is a matter of some difficulty to produce a liquor in which the quantity of acid is nicely regulated. The theoretical proportions of the ingredients are indicated by the following equation :—

$$6\,Fe + 12\,HCl = 6\,FeCl_2 \times 6H2 = 6H_2$$

$$6\,FeCl_2 + 6\,HCl + 2\,HNO_3 = 3\,Fe_2\,Cl_6 + 2\,NO + 4\,H_2\,0$$

Six atoms, or 336 parts of iron, and 438 parts of hydrochloric acid, produce 762 parts of ferrous chloride, which, by the further addition of 219 parts of hydrochloric acid, and 126 parts of nitric acid produce 975 parts of ferric chloride. Applying these proportions to the pharmacopœial quantity of iron, we find that 2 parts of that metal require, for complete conversion, 3.91 parts of gaseous hydrochloric acid, or 12.295 parts of the officinal strength (sp. gr. 1.16, or more correctly 1.1578; containing 31.8 per cent. of the gas), and 0.75 part of nitric acid, or 1.071 part of acid of the officinal density (1.42).