those of larger size, and which by many microscopists have been supposed to be immature corpuscles, the author observes, "It must be a necessary part of the process by which these small corpuscles arrive at maturity, that iron enters within the envelope, to supply one of the constituents of the red coloring matter; and to ensure this effect two conditions are required. Firstly, a liquor containing iron in solution must be applied to the membrane of the corpuscle; and, secondly, that this liquor must be of a specific gravity less than that contained in the corpuscle, or it will not enter it in quantity. Both these required conditions are to be found as physico-chemical characteristics of the mixture of chyle and lymph which enters the blood by the thoracic duct, to which fluid all experimenters have given a lower specific gravity than the liquor sanguinis. Thus the specific gravity of the contents of the thoracic duct in the human subject, which I lately analysed, was 1024, while that of the liquor sanguinis may be given at 1052 at the least. From other experiments on the cat, dog, and the ass, I am satisfied of the general truth of this statement. The iron which exists in the chyle is not contained in the crassamentum which forms by coagulation; but we find it, on the contrary, as a constituent of the serum in a perfect state of solution, so that it may enter with facility through the membranes of the corpuscles; so perfect, indeed, is this solution, that, even after evaporating the chyle to dryness, we are enabled to extract the iron from the albuminous matters by digestion in water. It exists, in fact, dissolved in that constituent of the chyle which is called the aqueous extractive, and most probably in the form of lactate. Nature has then in this admirable manner provided for the introduction of iron into the corpuscle, by presenting it in a perfectly soluble form to the enveloping membrane, and dissolved in a liquor of a specific gravity suited to effect the necessary endosmotic actions."

The author next proceeds to point out certain pathological phenomena which may be expected to result when the due balance and arrangement of the physical properties of the fluids become destroyed. He regards the healthy condition of the membrane of the blood corpuscles, by which transmission of liquors and gases may take place, as being of the same importance to the maintenance of life as is the previous condition of the respiratory tubes, and that life would be equally destroyed by the loss of those special properties in the former as by the closure of the latter. "Let the blood become destroyed so that its specific gravity is lessened, and we may feel assured that if the physical qualities, more especially the specific gravity of the chyle, be not simultaneously affected, and that, too, in a due proportion, the result must be that the red coloring matter, the great oxygenator of the blood, is no longer produced in its ordinary quantity—the ferruginous serum of the chyle not being able to enter the blood corpuscle as in health. If the degeneration above alluded to take place, we must recollect that all the solids of the body through which the blood courses are formed with pores and of materials admitting of endosmotic action; and that it is impossible for the solid constituents to preserve their health if constantly acted upon by the blood at a specific gravity of 1030 to 1036 instead of 1052 to

1057—the equilibrium of health being no longer preserved, and the watery blood inducing a like condition in the other solids."

The author expresses his desire to direct the attention of the profession to the study of endosmosis as applied to pathology, and his belief that many of the phenomena of Bright's disease are attributable to the condition of blood noticed in his essay.

SARSAPARILLA IN SYPHILIS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL JOURNAL.

GENTLEMEN,—I beg to offer a few remarks on the subject of the last of Mr. Parker's admirable and instructive lectures, now in course of publication in the Provincial Medical Journal.

It was with some surprise I noticed the very casual mention there made of sarsaparilla, as a remedy in the tertiary forms of syphilis—merely as a vehicle for another medicine, in the same category with cinnamon or peppermint water, or compound infusion of gentian.

Accustomed as I have been to witness its good effects, and believing it to be a (I had almost said universally admitted) remedy of great power, in the class of diseases alluded to; I am at a loss to know in what form of syphilitic affection it should, if at all, be employed.

It may be that I am manifesting ignorance or impatience in making this inquiry, and that were I to refer to Mr. Parker's published work on the subject, or wait for a few more lectures, I might possibly find myself in possession of more precise information. But in the lecture on warts, condylomata, &c., the plan of treatment for syphilis, in all its forms, is so comprehensively indicated—in a word, mercury for primary and secondary, and hydriodate of potass for the tertiary forms, that I do not see how and when sarsaparilla can, with Mr. Parker's permission, come in for its due share of employment.

It is unnecessary to refer to authorities on, or to cases illustrative of, the utility of this medicine. I apprehend that the employment of it in practice, at the present day, is very general in, I mean, constitutional syphilitic diseases. The impression on my own mind is certainly such, that anything I may read must be strong indeed if it induce me to refrain from prescribing it in cases similar to those in which it has been found so beneficial.

That the hydriodate of potass is a remedy of the greatest value in the tertiary forms of syphilis there is no question; but that the sarsaparilla is useful only as an adjunct to it, is hardly I think a fair estimate of it. I am, with every deference, inclined to the opinion that had it been tried it would have been found of some service to Jane Mathews, whose case Mr. Parker details, when the general health is "not what it ought to be" "broken by a first and second course of mercury." It is a remedy, I have reason to believe, often given with more advantage than any other.

I am, Gentlemen,

Your obedient servant,

H. WILSON.

Runcorn, April 19, 1843.