

personally experienced the want of that familiarity with mental disease against which I now warn you in time, to provide yourselves as to a considerable extent, you may in a moderate period in those wards.

CRAMP IN THE STOMACH.

To the Editor of THE LANCET.

SIR,—I send you an account of a mode of arresting cramp in the stomach, which I am not aware has been used by any other medical practitioner.

About eight or nine years since I had a patient in Glasgow, a married lady, about thirty years of age. She had had a large family previous to my acquaintance with her, but had for many years been subject to violent attacks of cramp in the stomach; on account of one of which I was first called to see her, and at which time I thought she would have died. I need not enumerate the antispasmodics which were used at that time; having then and subsequently tried all those recommended for the complaint, without being able to say that I had succeeded in even checking the spasm for the time. It seemed eventually to wear off of itself. I had bled her, which gave relief for once; but it was followed by such weakness, that when called to witness another attack two or three days after, I dared not repeat it.

The thought, by and by, crossed my mind, that I could produce a counter-spasm; so I took a strong tumbler, and with a bit of lighted paper applied it as a cupping glass over the stomach, when almost immediately I had the satisfaction of hearing my patient, who could not speak a moment before, exclaim, "The pain is gone." Since that time it has invariably been a source of relief with her when attacked; and I do not recollect of its ever failing, if a large cupping glass was applied firmly once or twice over the part. Your obedient servant,

ROBERT GRAHAM, Surgeon.

Helensburgh, March 1, 1842.

THE

PHYSIOLOGY AND PATHOLOGY

OF

THE SALIVA.

By SAMUEL WRIGHT, M.D. Edin., F.S.A.,
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Of the fatty acid I have nothing further to say, than that it appears to increase the odour of ptyalin, and is, perhaps, in some combination with it; for in healthy saliva, which is constantly alkaline, this fatty acid is always obtained unsaturated, in the process which I have employed for its removal.

Though in the saliva it may have been neutralised by the soda present, in which case the fluid would not be rendered neutral, as the proportion of soda is always greater than that of the fatty acid. Supposing it to be neutralised in the saliva, the decomposition may perhaps be effected in its removal by the ether, in the same manner as water decomposes subacetate of copper and chloride of antimony. I offer this merely as a conjecture, for it is difficult to imagine a free acid and alkali existing in the same solution, without each entering into chemical combination with the other.

Another principle peculiar to saliva,* upon which much stress has been laid, is sulphocyanogen. Treviranus (*Biologie*, iv., 565,) first observed the blood-red colour which saliva acquires on the addition of a neutral per-salt of iron,† and believed it to be produced by a constituent, denominated by Winterl "acide du sang," and which Porret afterwards proved to be hydrosulphocyanic acid. The observations of Porret were subsequently confirmed by Gmelin, and afterwards by Ure, though the conclusions were doubted by Kuehn, who was unable to obtain sulphuric acid from the supposed sulphocyanogen, by the process either of Gmelin or Ure; and he further believed, that the red colour produced by the addition of a per-salt of iron to the saliva, is referrible to the presence of acetates. (Kuehn, in *Schweigger's Journal*, lix., 378; Schultz, de *Aliment. Concoct. Berol.*, 1834.) Kastner very judiciously meets Kuehn's objection with the fact, that the colour produced by acetic acid on a per-salt of iron, is not distinctly blood-red; and he might have added, as a stronger argument, that acetates are very rarely met with in the saliva. This subject has lately been investigated by Dr. Golding Bird, who advises the production of sulphuric acid, as conclusive of the presence of sulphocyanogen. He says, "If any specimen of saliva capable of reddening the per-salts of iron be acidulated with nitric acid, mixed with chloride

* Peculiar to saliva in comparison with other *animal* fluids; it exists in the seeds and blossoms of the cruciferae.

† The quantity of mucus and albumen existing in saliva often obscures the action of a salt of iron upon it. And to the impediments which they furnish, or to an examination of morbid specimens of saliva, may perhaps be attributed Müller's failure with the iron test, which he says produced only a "yellowish-red," or "rust red" (*loc. cit.*, 125, 515). To ensure the full effects of the reagent, it is advisable to use either filtered saliva, or an alcoholic solution of its dried residue. Even with the ordinary mode of testing, Pereira says, "in a large majority of cases, I find saliva is distinctly and unequivocally reddened by the per-salts of iron." (*Elements of Materia Medica*, vol. ii., p. 1287, 8.)