ART. VIII. *On the Seat and Treatment of Erysipelas.* By ALEXANDER SOMERVAIL, M. D. of Essex County, Virginia.

IN the Biographical Notices of this Journal for November, 1828, there is one, entitled Observations on the Nature and Treatment of Erysipelas, by WILLIAM LAWRENCE, Esq. F. R. S. &c. In one part of his treatment, he says, "the most powerful means of arresting the complaint, is by making incisions through the inflamed skin, and the subjacent adipose and cellular textures." This brought to remembrance a similar proposition I made, in the close of the life of the late WILLIAM BAYNHAM, Surgeon, as recorded in the Philadelphia Journal of the Medical and Physical Sciences, for August, 1822. I there state the probability, that scarifications through the superficial vascular membrane, discovered by Mr. Baynham in 1779, would arrest the progress of erysipelas.

Though I have never tried scarifications, yet the belief of the disease being seated in this membrane, has influenced my management of those cases I have met with since, and I think with some advantage. Soon after the inflammation appears it spreads in one direction: in the face it often begins in a perpendicular line from the forehead, along the ridge of the nose to the chin: sometimes it moves towards the ear, and sometimes in the opposite direction. My intention has been to apply before the moving edge of the inflammation, something to alter the state of the yet uninflamed membrane, and prevent the accumulation of blood in its vessels, and excite the absorption of that already accumulated.

In the first case that occurred, opodeldoc was applied before I saw the patient, with relief. I directed it in the next case that I saw all round the edges with success. In the summer of 1828, I met with a case in a poor emaciated woman, occasioned first from an extensive caries of part of both parietal bones, and the upper part of the occipital and frontal bones; then severe dysentery, and this followed by general anasarca and ascites, producing great emaciation and debility. Soon after these were removed, with every appearance of returning health, she was attacked with pain in one shoulder and neck, which she thought was swelled, and believed to be rheumatism, which she was often affected with; at the time she was unable to show the part affected, and I left a solution of pearl ashes and laudanum, to be applied when she got help. On returning the second day, the affection had spread all over the back, and was evidently erysipelas. I directed the mixture to be applied along the edges of the inflammation, but

for want of assistance it was very partially done, yet with relief when applied. Some weeks after this it began again in the middle of the face, and was moving towards the ear; I directed the mixture before the moving edge, and the disease was arrested at once. Another case occurred in a man in good health; it spread all over the body, thighs, and arms; the mixture here gave great relief, and by the help of powerful purgatives the disease was removed; it returned, however, about two weeks afterwards, and was relieved as before.

The preceding and attending fever is much increased and kept up by the pain of the inflammation; when the pain is mitigated, the fever diminishes, and when the pain is removed, the fever soon gives way. Mercurial ointment, and even oil, are said to mitigate the sufferings in this disease also. The fever always requires suitable remedies besides local applications, and no doubt in some, deep scarifications may be required, but no case of suppuration has fallen in my way for a long time. I have seen one well marked case in a negro.

Since reading the notice of the method of cure by scarifications in the American Journal, I have found a copy of a letter from Mr. Baynham to his friend, Dr. COLLIGNON, of Cambridge, containing a description of some preparations of the skin, to show this membrane, sent to him from London. This is dated May, 1779, the date together with some interlineations, written with his left hand, which he learned to use, in consequence of a hurt of his right arm, received in 1806. Of a part of this letter the following is a copy.

“Nos. 10 and 11. Two portions of the common integuments of the leg, prepared to demonstrate the rete mucosum to be a vascular membrane, and not, as has been generally supposed, a mere deposition of mucus.

No. 10, is a piece preserved wet, with different sections through the cuticle and rete mucosum, two portions of which are peeled off from the cutis, and hang down towards the lower part of the preparation. The first section to the right hand as you look towards the glass, is the cuticle and rete mucosum adhering to each other: a part of the cutis above, answering to the size of this, being exposed, and appearing of a whitish colour, with small granulated spots interspersed at regular distances throughout its substance. These specks I apprehend, are what are commonly meant by the miliary glands; or at least if they are not, it is my belief that each is a proper apparatus, designed for some secretion or other, though I will not take upon me to say what. In each of these the root of a hair lies buried, so that probably it is from thence the hair derives its nourishment; but besides this there are to every one of them, one, two, and sometimes three

processes of the cuticle. I call them processes of the cuticle, because I have no better name to give them, but they may be the excretory ducts of these above-mentioned glandular spots, for aught I know to the contrary, as they plunge immediately into them through the rete mucosum, in which you will please to observe there are distinct and regular foraminæ, answering to these processes, and which are no doubt occasioned by their passing through it from their origin, (if they are excretory tubes,) to get to the surface of the body, or vice versa, if considered merely as internal productions of the cuticle. The structure of these granulated appearances I have been speaking of seems to be simply vascular, appearing to be convoluted vessels, when prepared for and viewed with a proper glass.

The second piece of No. 10 is cuticle only, separated from the rete mucosum, the external surface of which is seen above, with a fine red blush upon it, and having a piece of blue paper insinuated between it and the true skin, in order to show it to greater advantage. In it are observable the foraminæ I have just mentioned, and upon the cuticle below may be seen those processes answering to them, standing forth from the surface about a straw's breadth in length, smaller at the points than at their attachment to the cuticle, which may be called their base. When viewed with a common magnifier, the vessels upon this wet portion of the rete mucosum may be distinctly seen; but to make them still more apparent, the piece No. 11 was prepared in the manner following:—

The cuticle and rete mucosum, while the parts were yet wet, were separated from the cutis, but left attached to each other; then the parts were pinned out to dry, and the preparation afterwards put into spirit of turpentine. Here I might observe that the separation of the rete mucosum from the true skin, was always much easier done than between it and the cuticle, which was not effected without a good deal of care and attention. The lowermost thick part of this preparation is composed of cutis, cellular membrane, &c. from which was stripped the thin portion above, by which it is suspended, and which consists of rete mucosum and cuticle together, the drying having destroyed all distinction between them, and makes them appear to be only one membrane, and from their thinness and transparency one would be led to believe that to be really the case: both membranes have however been adhering to one another, and dried in that state; the cuticle being next to the paper, and the red vascular appearance which is immediately exposed to view, is the internal surface of the rete mucosum, which in its natural situation, lies in contact with, and is connected to the true skin by its proper vessels, the order of whose

ramification is *parallel* to the surface of the skin, and forms a most regular and *beautiful reticular* appearance, when viewed with a common magnifying glass. From this mode of distribution it is evident, I think, that they are not perspiratory vessels, unless we admit the doctrine of transudation, and say the insensible perspiration is thrown off through their coats, which seems very improbable. It is extremely difficult to say from whence the vessels of the rete mucosum spring: they are most likely twigs sent off from some of the numerous cutaneous arteries and veins, which must be necessarily broken in destroying the connexion between the two coverings. The circumstance of my having injected that part of the animal machine which had heretofore been considered as inorganic, has made some little noise among the medical people here, some of whom have done me the honour of calling to satisfy their curiosity, by getting a sight of the preparations. Amongst the learned of these gentlemen, were Messrs. J. HUNTER and CRUIKSHANKS, Drs. JEBB and MECKEL, and some others; all of whom *appeared* to be convinced, and made me compliments &c. on the occasion."

In answer to this, Dr. Collignon writes from Cambridge, 16th of May, 1779.

"And now my good friend, give me leave to thank you for a most invaluable addition to my preparations, and which I assure you I prize highly, for your, as well as for their own sake. They have but one fault; they are too elegant and cast a shade over those I possessed before. I have no difficulty in agreeing to your determination about the rete mucosum, and I am satisfied you make me see it with my eyes; but I assure you the testimony of John Hunter and other veteran injectors is far preferable to mine."

In Mr. Baynham's remarks on the margin of his copy of Cruikshanks on the Absorbents, he calls this his membrane, in contradistinction to Cruikshanks', representing it, as I have done, in the account of his life, in the Philadelphia Journal.

Essex County, Virginia, Jan. 1829.