temperature of the body. In general dropsies, which are attended with a remarkable diminution of this secretion, an icy coldness usually pervades both the body and the limbs. A great fall in the animal temperature was likewise found by Fourcault, Becquerel, and Breschet, to be the effect of covering the body with a varnish impervious to perspiration; and so serious was the general disturbance of the functions in these circumstances that death usually ensued in the course of three or four hours.

The question will next arise, How does it happen that health, and even life, can be so immediately dependent, as we find them to be, on the elimination of a quantity of water to the extent of some thirty-three ounces from the general surface of the body in the course of the twenty-four hours? To his the author answers, that such elimination is important as securing the conditions which are necessary for the endosmotic transference between arteries and veins of the fluids that minister to nutrition and vital endowment. It is admitted by physiologists that the blood, while still contained within its conducting channels, is inert with reference to the body, no particle of which it can either nourish or vivify until that portion of it which has been denominated the *plasma*, has transuded from the vessels and arrived in immediate contact with the particle that is to be nourished and vivified; but no physiologist has yet pointed out the efficient cause of these tendencies of the plasma, first, to transude through the wall of its efferent vessels, and secondly, to find its way back again into the efferent conduits. The explanation given by the author is, that in consequence of the out-going current of blood which circulates over the entire superficies of the body perpetually losing a quantity of water by the action of the sudoriparous glands, the blood in the returning channels has thereby become more dense or inspissated, and is brought into the condition requisite for absorbing, by endosmosis, the fluid that is perpetually exuding from the arteries constantly kept on the stretch by the injecting force of the heart. Venous blood has, in fact, been found, by repeated experiment, to be somewhat more dense than arterial blood.

In an appendix to the paper, the author points out a few of the practical applications of which the above-mentioned theory is susceptible. Interference with the function of the skin, and principally through the agency of cold, he observes, is the admitted cause of the greater number of acute diseases to which mankind, in the temperate regions of the globe, are subject. He who is said to have suffered a chill has, in fact, suffered a derangement or suppression of the secreting action of his skin; a process altogether indispensable to the continuance of life has been implicated, and disturbance of the general

health follows as a necessary consequence. Animals exposed to the continued action of a hot dry atmosphere die from exhaustion; but when subjected to the effects of a moist atmosphere, of a temperature not higher than their own, they perish by the same cause, and that very speedily, as those which have had their body covered with an impervious glaze; in both cases the conditions required for the access of oxidised, and the removal of deoxidised plasma, are wanting, and life necessarily ceases. The atmosphere of unhealthy tropical climates differs but little from a vapour-bath at a temperature of between 80° and 90° Fahr.; and the dew-point in those countries, the western coast of Africa, for example, never ranges lower than three or four degrees, nay, is sometimes only a single degree, below the temperature of the air. Placed in an atmosphere so nearly saturated with water, and of such a temperature, man is on the verge of conditions that are even incompatible with his existence; exposure to fatigue, or to the burning sun, by which the activity of the skin is excited whilst the product of its action cannot be taken up by the air, is then necessarily followed by disease, which experience has shown to be of the most dangerous nature. The terms *miasma* and *malaria* may, according to the author, be regarded as synonymous with air at the temperature of from 75° to 85° Fahr., and nearly saturated with moisture.

[What, again, is the cause of the rapidly fatal event which occurs in some acute cases of scarlatina? The dead body of the victim of this disease gives no information on the subject. But if we regard the patient as placed by his disease in the same circumstances as he would be were his body completely covered by an impervious glaze, we obtain a key to the right understanding of the mischief, and happily, also a hint as to the proper means of relief: the function of the skin is abolished, and unless it be speedily restored the patient will be lost. The remedy is to be sought for, not in wine and brandy, but in tartar-emetic.]—From *Proceedings of Royal Society*, for March 2nd and 9th.

EFFUSION INTO THE BRAIN.

To the Editor.—Sir: My attention has been particularly directed to the letter of Mr. Adams, of Glasgow (*LANCET*, p. 934), containing the relation of a case of "water-stroke," so called. The treatment of the affection which that gentleman describes, is, in virtue of its common occurrence, deserving our best attention, and therefore it is that I am induced to submit to you the following remarks:—

In the spring of 1840, being then in private practice in the suburbs of London, I was hastily summoned to Johnson-street,

Somers-town, to the assistance of a child, about eighteen or twenty months old, who, I was told, had been suddenly seized with a "fit." It was lying in its mother's lap, apparently dying. The surface of the body was cold, and covered with a clammy perspiration, and the countenance injected and livid; the pupils were dilated, the eyes fixed, and the eyelids partially closed; the mouth contained a quantity of frothy saliva; the respiration was hurried and oppressed; and the pulse rapid and feeble. The parents of the child, and two or three other persons who were present on my arrival, felt so assured of its immediate death, that I was requested not to interfere in any way. I had much difficulty to induce the parents to forego their resolution. Having only two or three days previously lost a child under very similar circumstances, at Camden-town, I became immediately resolved on a different kind of treatment to that I had then adopted; that is, I chose to open a branch of the temporal artery rather than wait the issue of a modified procedure. I abstracted very little short of a wineglassful of blood, and then, having desired the father to press the bleeding orifice with the point of his finger, I quickly administered, by means of a tea spoon inserted into the pharynx, a little brandy and water. The excellent effects of the treatment became immediately apparent. I was no less surprised than those about me. The surface of the body became warm, the respiration natural, and the pulse normal. My little patient was presently conscious, though much disposed to sleep. I called after four or five hours and found the child very comfortable and perfectly rational. I directed a purgative to be given. The next morning it was brought to my residence in Clarendon-square, perfectly well.

The above case, Mr. Editor, I consider highly interesting. I make no doubt that the more general practice of using leeches in cases of the kind may be, in many cases, very properly substituted by general bleeding. If children are but men in miniature, wherefore should we not treat them as such? Moralists do so, and why not doctors?

In the adult, an assemblage of symptoms like to those described by Mr. Adams, would, in the minds of most medical men, constitute an attack of *congestive* or *serous apoplexy*, and particularly so when regarded in connection with the appearances observed after death. I have the notes of three such cases by me, the particulars of which, both before and after death, strongly confirm me in my opinion. The general sinking of the vital powers, which so commonly characterises sudden attacks of this nature, being, as a matter of course, dependant on a very different cause to that which obtains in the last stages of chronic hydrocephalus, and from which it may be said to differ only in degree, we are not disposed to agree with

Mr. Adams when he says that "the affection is invariably fatal," or that "the treatment indicated can only be palliative, and adopted to prevent impressions that nothing has been done or attempted for the patient."

I think it at any rate *possible* that had Mr. Adams's little patient lost from half an ounce to one ounce of blood immediately on that gentleman's arrival, its life *might* have been saved. I am, Sir, your obedient servant,

JAMES GEORGE DAVEY, M.D., Lon.
Hanwell Asylum, Middlesex,
April 6, 1843.

CANCERUM ORIS, NOT A RESULT OF MERCURY. ANALOGOUS AFFECTION.

To the Editor of THE LANCET.

SIR,—The discussion on gangrene of the face, or cancerum oris, which took place at the last meeting of the Royal Medico-Chirurgical Society (p. 61) merits the best attention of your readers. The remarks of Dr. Marshall Hall upon the non-production of the disease by mercury are especially important; and if those of your correspondents who have met with cases of it would furnish you with a brief record of their experience, a valuable mass of evidence would be obtained respecting the question of that medicine originating it or otherwise. Does it not sometimes happen where no mercury has been given? Does it not, moreover, now and then occur at such a length of time after the exhibition of this remedy that its causation cannot satisfactorily be traced to its operation? Again; does it not differ, greatly and palpably, from any affection *known* to depend on mercury? Some acute observations by Dr. Marshall Hall will be found upon the latter query in the debate alluded to. It is plain enough that where it does ensue *after* mercurial treatment, it does not follow that it takes place *because* of it; there may be a coincidence and nothing more. Both in a scientific and a jurisprudential point of view this inquiry is of deep interest. There is one fact which tends to render it very improbable that mercury produces this disease. How commonly is this remedy prescribed! what an every-day occurrence is salivation! and yet this affection is a rare one! There are numerous practitioners of great experience who are not cognisant of it. And why should it attack children rather than adults, when the former, comparatively speaking, bear the action of mercury better than the latter, if this medicine be the cause of it? If it does ever so influence the system, there surely must be some strange predisposition or idiosyncrasy present to account for its effects.

The first case which I ever witnessed of this affection was that of a little child ad-