may exist, and occasional tonics and stimulants, are the appropriate remedies in these cases, and generally in time effect a cure. We know very little of the pathology of this disease, and we therefore suppose it to have something to do with the great sympathetic nerve, and the ganglionic system connected therewith; but about all these matters I must confess to you that we know very little, and therefore it is that I have very little to say to you about it.

HYPERTROPHY OF THE PAROTID GLAND.

TO THE EDITORS OF THE PROVINCIAL MEDICAL
AND SURGICAL JOURNAL.

GENTLEMEN,—Should you deem the accompanying case sufficiently interesting, will you do me the favour to insert it in your Journal of next week?

Your obedient servant,

ABRAHAM DUKE,

Surgeon to the Chichester Infirmary.

Chichester, Feb. 10, 1842.

Sarah Mantle, aged 9 months, has, from the age of three weeks, been affected with a tumour on the left side of the face and neck. When first perceived, the parents state it was about the size of a pea, and was situated in front and below the ear; the skin covering it was not at all discoloured, but the temperature of the part was higher than natural. The swelling continued to increase rapidly, and at the end of two months it had attained such a size that the friends of the child began to be much alarmed. I saw it for the first time when it was about three months old, and the tumour then occupied the side of the face and upper part of the neck. The child appeared to enjoy good health (although somewhat emaciated) up to the age of six months, when it was seized with convulsions, which returned at irregular intervals; between these attacks the child seemed quite well, its appetite being very good, and the bowels in a regular state. On Sunday, the 23rd of January, 1842, the convulsions returning, I was sent for, and before I could reach the house the poor little sufferer had breathed its last.

An examination of the body took place the following day. The tumour had increased to an enormous size, and extended from a line drawn from the external angle of the orbit to two-thirds down the neck (the lowest part of it hanging detached, and resting on the upper part of the chest), as far back as a little behind the mastoid process, and occupying two-thirds of the cheek in front. Underneath the chin the tumour advances somewhat beyond its centre, and is studded there, as well as at its posterior part, with several small and one or two larger nevi. The tumour feels as if it contained cysts, and the superficial veins are large and tortuous. On removing the coverings of the swelling, the external jugular vein was seen to be very much enlarged, and exceedingly irregular in its course, and could be traced deeply into the substance of the tumour. A large vein, running in the course of the common carotid, but rather more superficially, was at first sight supposed to be the internal jugular; but, on opening the sheath, that vessel was found in its natural situation, but, like the external, was much increased in size. The common carotid, as well as the external, presented no marks of disease whatever; the latter was traced through the substance of the tumour, and was found occupying its natural position. On making a section of the tumour, it presented a perfectly *glandular structure*, and appeared to be nothing more than simple hypertrophy of the parotid gland. The head was not examined.

REMARKS.

I have been induced to publish this case, in order to put others on their guard in forming a prognosis on

tumours in this situation. The subject of this case had been seen by most of the medical men in this city, and some of them, with myself, were of opinion that it was a case of aneurism by anastomosis, and recommended the tying of the carotid on the affected side for its removal. This, however, the parents refused to have done, and, had they consented to the operation, I am decidedly of opinion that no permanent benefit could have resulted; besides which, owing to the size of the swelling, much difficulty would have been experienced from the depth of the vessel, as well as from the number of enlarged veins in the neighbourhood. The child had not cut any of its teeth, and it was only about a month previous to its death that it began to lose flesh, and this probably was owing to so much blood having been required for the support of so large a swelling.

CASES OF SOLAR ASPHYXIA, WITH DISSECTIONS.

By B. DOWLER, M.D., of New Orleans.

June 19, 1841. James Stevenson, a stout, muscular man, aged about 35 years, a cooper, for six months a resident of this city, ate his dinner in good health, and after walking about three hours on the Levee, complained that he could not sweat as usual; he requested one of his friends to put his hand upon his (Stevenson's) breast, which he found very hot and dry. Stevenson started home, but fell, before he reached his house, in Joseph-street. Some passers-by said that he was drunk; others, finding no scent of spirituous liquors in his breath, ran instantly for aid.

The skin was much hotter than in the most burning fever; on holding the hand near the body, a strong sensation of heat radiating from it was perceptible. The pulse was quick, gaseous, variable, and hobbling; sometimes throbbing and full, especially in the arteries of the neck; from a vein, opened in the arm, the blood trickled down at first, but started soon into a full stream, and, falling upon the hands of an attendant, he declared that it was almost "scalding hot." The breathing was irregular and laborious; the larynx, moving up and down two or three inches during each respiration, which was attended with fits of strangling, and loud phlegmy rattles, and occasionally a kind of imperfect involuntary cough, bringing a tenacious froth into the nose and mouth.

During inspiration, the expansion of the chest was very imperfect, as if the respiratory muscles had been palsied or disabled, reminding the observer, also, of a patient having broken ribs, in which full expansion or elevation of the ribs gives pain, and is, therefore, avoided.

While Stevenson's chest was comparatively quiescent, the windpipe and abdomen moved and heaved with great violence.

He was wholly insensible, and was unable to swallow; the eyelids were nearly closed, and the pupils somewhat contracted; no distortion of features; the under jaw slightly fallen; no muscular contractions or convulsions; died in an hour.

Shields, one of his companions, died at the same time, from the same disease; he lived at the same house; had been in the city the same length of time; was about the same age; followed the cooper's trade. He ate his dinner as usual, and worked several hours, and died not far from his boarding-house.

On Sunday morning, about sixteen hours after death, I examined their bodies, in the presence of a

number of gentlemen. They were as warm as in health; the faces and necks were of a dark purplish, spotted appearance; a vast quantity of bloody, mucous froth issuing from the mouth and nostrils, as is usual after strangulation, drowning, or asphyxia of any kind. At least half a pint of dark fluid blood was effused or extravasated into the cavity of each side of the chest. This blood had no appearance of clots; resembling, in this respect, the blood of persons killed by prussic acid, or by lightning. Nearly the whole of the lungs were dark, and injected with blood; the central and posterior parts, comprehending, at least, two thirds of the pulmonary substance, presenting the very astonishing appearance of an enormous black clot of blood, somewhat solid, and united by a texture, bearing no resemblance to the light, elastic texture natural to healthy lungs. On cutting several slices from the lungs, they resembled a dense black jelly, the cut surfaces appearing smooth and glossy; the substance did not recede much before the knife, as is the case in cutting in a healthy lung. More than half of the lungs must have been impermeable to the air, and these portions appeared to contain none of that fluid in the cells. By grasping them with the fingers they broke readily, in several places, into fragments, like clots; they swam in water, but sank in alcohol, and imparted to both much blood. After soaking six hours in several portions of these fluids, the pieces, when cut, presented a glossy, black, jelly-like appearance. In both these men the morbid phenomena were exactly alike.

The abdominal contents presented no diseased appearance. The heads were not examined, for want of time. The cause of death being evidently in the lungs, further examination, though desirable, was not deemed essential.

CASE III.—July 28, 1841. About seven o'clock, p.m., was called to New Levee-street, to see Robert Davis, Esq., a native of Scotland, late of Plaquemine, an engineer, aged 35, a resident in the United States for the last five years, chiefly in the south; uncommonly robust, large bones, massive muscles, and very fat. He took dinner as usual, complained of no indisposition, returned again to his hotel at five o'clock, p.m., and, though his mind was much excited at the result of a law-suit, he appeared in no respect sick. He went directly to his room, where he was found in an insensible state, just before I was called in; and, though his death was not as quick, by a few minutes, as is usual in the earlier part of the day, yet his case was so precisely marked that I thought it my duty to inform his friends that he could live but a few minutes, certainly not an hour. Skin intensely hot; pulse gaseous, quick, and variable; expansion of the chest imperfect; respiration quick, rattling, laborious, and irregular; gurgling and boiling sounds in the air passages; eyelids closed; pupils contracted, as in health, when exposed to the light; unable to swallow a teaspoonful of water; total insensibility; ice, placed on the stomach, produced no shock; no convulsive action or rigidity of any muscle; the imperfect breathing and irregular circulation alone indicated that he was alive. Having declined to do anything in the case, another physician (Dr. Young) was called; and, as a number of persons present regarded the case, as usual, to be apoplexy of the brain, and not of the lungs, as I said it was, the Doctor bled the patient. In five minutes after he ceased, all of a sudden, to breathe; the blood rushed to the face, which became livid; the fingers became slightly flexed. He was dead.

26, six o'clock, p.m. Dr. Young, of this city, made a scientific and very minute dissection. The brain was perfectly healthy. I never saw the brain of any large, fat man, dying suddenly, that was more free from blood. There was, perhaps, two teaspoonfuls of limpid water in the ventricles; Dr. Young thinks from two to three drachms, but, in either case, the

quantity does not exceed that proper to the most healthy brain. M. Magendie thinks that the quantity "cannot much exceed two ounces without producing some bad effects."—[Vide "Andral's Path. Anat.," Vol. II., p. 475.]—The abdominal organs were healthy; the heart contained fluid blood; the bronchial tubes were full of mucous foam; the left lung was a black, congested mass, two-thirds or three-fourths of which must have been impermeable to the air; the right lung was in a state of hyperæmia; about one-third of its substance was congested; the residue was less infiltrated with blood, and less solid.

On the subject of solar asphyxia, Dr. Dowler makes the following remarks:—

Solar diseases require a particular arrangement or classification, which is highly important in a practical point of view. I submit the following:—

- I. Solar exhaustion or syncope;
- II. Solar or sun pain;
- III. Solar excitement or inflammation;
- IV. Solar asphyxia;

which we propose to make the principal subject of our investigation.

I. Solar exhaustion differs from solar asphyxia, both in symptoms and treatment. In solar asphyxia the skin is extremely hot, and generally dry; there is a choking sensation and a total loss of sense.

In solar exhaustion, the skin is moist, pale and cool; the breathing is easy, though hurried; the pulse is small and soft; the vital forces fall into a temporary collapse, the senses remaining entire. Horizontal position, free air in the shade, external stimulants and frictions, are usually sufficient to restore the patient. Vomiting is very useful, and is easily excited, as there is usually nausea; warm water, and if necessary, a few grains of ipecac. may be given. Vomiting appears to throw the blood from the centre to the circumference. The pulse rises.

That fatal disease of northern summers, ascribed to drinking cold water, is probably nothing but solar exhaustion, in which cold water has but a secondary agency. It happens only in very hot weather.

II. Solar, or as it is commonly called by the people sun-pain, is a chronic disease in which the abdominal organs are more or less deranged, though the most remarkable symptom is a pain in the head, while the sun is above the horizon.

III. Solar excitement, or inflammatory reaction, sometimes follows solar asphyxia of the second degree, being attended with febrile heats, arterial throbbings, and headaches.

CASE.—A cooper, while working in the sun, fell so suddenly as to bruise and lame himself considerably. He soon got up; but feeling feverish, and having pulsations in the head for several days, he tried the Thompsonian treatment without benefit. He called on me for advice. He was bled freely, which caused a long continued syncope, from which he arose cured. He took no medicine, and went to work the next day.

J. E. had been to the town of Bath, six miles distant, on the 4th day of August, 1837, in company with Dr. R. and another person; while attempting to walk back to New Orleans, upon the rails of the Nashville rail-road, not then finished, the Doctor fell sun-struck, and expired in a few minutes. The body was abandoned. The other companion of E. had not walked far, when he too fell, and died in like manner. The next morning as E. was passing opposite my door, on the sunny side of the street, he fell. I instantly bled him upon the pavement. The blood trickled slowly at first, but soon after flowed in a good stream, and the pulse, though feeble, became fuller during the operation. In a few minutes the man walked to his boarding-house, without feeling any unpleasant symptoms; but a moderate reaction coming on during

the day, cathartics were given, and by the following day his health was restored. In this case, blood-letting was probably useful, but in nine cases out of ten it is useless, if not worse, accelerating the death from five to fifteen minutes. During the last five years, I have been called to see a very considerable number of sun-struck persons, within five or ten minutes after they fell in the streets; formerly I used to bleed them, and though the great heat of the body is thereby suddenly diminished, the pulse becoming soft as air, yet by the time the arm is tied up (which is done more for form than necessity), the patient is choked suddenly, and to appearance by a dense tenacious mucus, the breathing not ceasing gradually, as in other disease, but instantly the face turning livid, and even its veins, especially upon the forehead, becoming at the moment distended. Bleeding hastens the strangulation, though it is always desired by the friends.

Without anticipating the description of sun-stroke, to be found in the sequel, I may add another variety, a sub-acute affection, beginning with solar excitement and ending in asphyxia.

CASE.—A gentleman, who was not acclimated, exposed himself to the sun until noon, when he sent for a physician, who bled him most profusely (two pounds) gave him cathartics, applied mustard on the stomach and legs, cold to the head, &c. Afterwards he walked about for some time, but in the afternoon became insensible. About sun down I was called in, and found him asphyxiated, unable to swallow, totally insensible, breathing as in sun-stroke; pulse air-like and quick; the skin hot. He did not die until late in the night. This affection lasted about fifteen hours; more than fifteen times longer than the average duration of acute solar asphyxia, which has but one stage, as truly as hanging, drowning, or suffocation from carbonic acid gas, with this difference, that in the former there is not a movement in any of the muscles, except those concerned in breathing and in circulating the blood, except, immediately before or after the last breath, when there is sometimes a very slight contraction of the fingers, and a kind of bending or turning of the body towards one side, though this is scarcely observable.

Solar exhaustion in its mildest and chronic form, that of debility, is a uniform effect of our hot season, until after acclimation. During this period, though the health may be good, the ability to perform the usual amount of labour is diminished. Even horses are debilitated, often get the *thumps*, and frequently die from solar asphyxia, during the acclimating period. This is so well known that an acclimated horse or mule is worth much more than one not so protected.

Slaves from Missouri, Virginia, and Maryland suffer as much, if not more, from debility than the whites, during the first and second summers; I have seen some whose tongues were pale and flabby, whose pulses were feeble and irregular. In these cases the muscular power is lessened; the skin is covered with an abundant, cool perspiration; and sometimes there are palpitations of the heart, not unlike those which attend organic rather than functional disorders of that organ, requiring the horizontal position, than which nothing is more important for the removal of these affections during solar acclimation.

Solar and terrestrial heat differ essentially in their action; on health the latter seems never to produce any morbid effects resembling sun-stroke, though many firemen in boats, foundries, and furnaces, are exposed to a high temperature. The solar rays may undergo some unknown modifications from local causes, independent of mere calorific influence.

In Louisiana, solar asphyxia is rather an *urban* than a *country* disease, affecting those not thoroughly acclimated to the city. The persons alluded to in the following extract were, doubtless, unacclimated:—

“In 1821, H. M. frigate *Liverpool* was proceeding

from Muscat to Beshire, the weather gradually increased in warmth, double awnings were spread, the decks kept constantly wetted, and every precaution used to prevent the exposure of her men; yet in one day, from a *species of coup de soleil*, she lost three lieutenants and thirty men. If, for however brief a period, they exposed themselves to the sun, they were struck down senseless. The frigate's main deck, at one time, is described to have resembled a slaughter-house, so numerous were the bleeding patients.” (Travels by J. R. Wellstead, Esq., F.R.S., F.R.A.S., Vol. I., p. 75, 1841.)

Upon the 24th of May, 1839, after visiting a man who fell asphyxiated, in the St. Mary's Market, and who lived only twenty minutes, I called at another place to visit a patient, and, while in the house, a man of very robust appearance fell with great force upon the floor, causing the blood to flow from his nostrils freely. He soon recovered, and informed me that he had been exposed to the sun, and had fallen once before during the day, but feeling very well, as he said, he declined the offer of my medical services. I met him daily for some time after this occurrence, in good health. He declared that no pain or inconvenience attended his falls, except some bruises.

Solar asphyxia sometimes has taken place in the shade, immediately after exposure to the sun, and even as late as five or six o'clock in the evening. In several instances the patients came in at five o'clock, p.m., and fell unknown to any one, and were not discovered in their rooms for an hour or two. Attacks late in the day are not so quickly fatal as those occurring between noon and the middle of the afternoon.

If the attack happen in the hottest part of the day, it terminates in death in about half an hour. July 26, 1838, at three o'clock, p.m., when the thermometer placed against a brick wall, upon which the rays of the sun struck obliquely, stood at 130 deg., I was called to visit a paver, a stout, middle aged man, who fell in Fourcher-street, near my office. I saw him within five minutes after his fall; his skin intensely hot; breathing noisy, irregular, and with subdued sobbings; unable to swallow; pupils rather contracted; eyelids nearly closed; pulse extremely variable, irregular, and quick. A vein being opened, the blood jetted and stopped alternately, the pulse becoming gaseous as the blood flowed. Ice water was poured upon the head and neck; a mustard paste was spread over the body. He lived thirty minutes, expiring upon the pavement.

If the attack should happen late in the afternoon, it may last from one to two hours, or even longer; I have had at least five to six cases, in as many years, where persons have not long before sunset quit work on account of the heat, rather than from any sickness; they have returned to their rooms, when, an hour or more after, they have been found accidentally, in a dying state from solar asphyxia, not having made any noise to arrest the attention of the family.

The most usual place of attack is among paved streets and brick walls, or upon the levee, where there is no shade. The structure of our wharves and levees would admit of many shade trees, without interfering with the utilitarian cravings of commerce. Such an improvement would be alike ornamental and useful.

Almost the only persons subject to this malady are white males, who labour in the sun, and who have not passed through the acclimating period of three or four years. I never saw but one negro die from this cause. He fell in Julia-street, August 2, 1837, and lived about an hour. He was very stout, but I do not know whether he had been acclimated. A negress, while at the wash tub, was struck down. I found her senseless, speechless, and breathing with some difficulty, but she retained the power of swallowing, and, by the use of cathartics, sinapisms, and blisters, recovered in two days.

It is often impossible to get exact histories of the

premonitory symptoms. In some instances the patient has not probably had any. The history of the case is something like the following:—He had eaten his dinner as usual at noon; urged by his wants or love of gain, he went forth to brave the heat of the sun. The walls, roofs, and pavements, now heated to the utmost radiate an intense heat; the temperature exceeds that of the human body, from 30 deg. to 40 deg. The labourer, perhaps, wears a thin straw hat, and has his hair cut close, in order to keep the head cool; this, in fact, exposes the head to the solar influence much more than a thick coat of hair and a wool hat would do. From the same false theory he wears a thin cotton shirt, which is the only garment with which his chest is covered, and which, when saturated with sweat, affords but a feeble resistance to the conduction of heat into his body. Now placed in an atmosphere 30 deg. or 40 deg. hotter than his body, it is plain that a blanket coat, or, still better, two shirts, one of good thick flannel or wool, next the skin, and one of cotton over the other, would be a great defence against the sun, affording the coolest kind of dress, except to such persons as are in the shade.

Thus thinly clad, the labourer engages at the hard exercise of rolling cotton bales, loading or unloading ships, cooping, digging, or paving. The exercise increases the influence of the atmospheric heat; he finds his skin becoming hot and dry; the next instant he falls, or perhaps he may conclude "to knock off" from work. He proceeds homeward, a square or two, before he drops to rise no more; the passers by collect around him; some run for a doctor, some apply ice to his head, and the first bleeder that can be had performs blood-letting. From the total loss of sensibility in the patient, the first impressions of the physician lead him into the belief that the malady is apoplexy. Of this, more hereafter.

The patient's mouth is found rather open; the under jaw has fallen; a tenacious mucus appears between the lips and in the nostrils; the breathing is irregular, unequal, laborious; the chest, not expanding and contracting well, reminds the beholder of the voluntary efforts which patients sometimes make in fractures of the ribs, and pleuretic or rheumatic inflammations, to prevent the movements of the chest, necessary to full breathing. The windpipe moves violently up and down, the abdomen and diaphragm rising and falling simultaneously. The breathing is noisy, but not stertorous. The sound may be heard several yards from the patient. Just below the clavicles, the sounds, as heard through the stethoscope, are very remarkable. Some are acute, some are dull, with a puffing or roaring sound. By applying the hand to the chest, a bubbling or boiling could be felt beneath. As death approaches, these noises recede from the extreme branches of the windpipe, and occupy the upper proportions of that tube. At length the accumulating mucus obstructs the passage; an involuntary effort is made to breathe, but in vain; yet sometimes, as in the fatal moment of croup, one or two additional respiratory movements take place. Almost always the breathing stops *suddenly*, by a strangling fit. Often at the instant of death, or at the instant after the cessation of respiration, the face turns almost black, and the veins of the forehead swell, as if a violent effort was being made to get another breath. Before breathing ceases, retchings sometimes take place, or a kind of strangling cough, or an inarticulate moaning, like that from some of the dumb animals when in pain; or perhaps there is a kind of suppressed sobbing or sighing, like that caused by sudden immersion in cold water. Yet, in everything except respiration, death takes place with the utmost tranquillity, not being accompanied with spasmodic or convulsive distortions, so common in fevers and affections of the brain. Be it what it may, the cause of death begins, continues, and ends in the breathing apparatus.

The pulse is hurried, hobbling, and unequal, very often gaseous or air-like, but never slow, hard, and large, as in apoplexy and some other diseases. The external veins are not full, and the arteries at the arm are easily compressed by a ligature. When a vein is opened, the blood sometimes trickles, then starts in jets, stopping and starting several times. As the blood flows, the pulse becomes more and more gaseous, the heart diminishes, perspiration begins, and strangulation almost immediately follows.

From the commencement of the disease, the power of swallowing is totally gone in almost every case. Whatever is poured into the mouth runs out or rattles in the throat, according to the position of the body. I have given a mixture of mustard and salt, or ipecac.; but I am now satisfied that to put anything into the mouth is not only useless, but positively hurtful, as it often drops into the windpipe. The eyes are not projecting, discoloured, or rolling, but generally maintain their parallelism, though they are sometimes turned upward; they are less closed than in sleep; the pupils are perfectly natural; the power of winking is totally lost; the eye is lustreless, and expressive of a dying state. The patient is usually found lying on his back; he has no power to change his position; his neck, body, and limbs are free from rigidity or motion throughout the attack. In the act of dying, I have noticed a slight curving of the body laterally, with a feeble contraction of the fingers. In solar asphyxia, the symptoms, and the manner of death, are more uniform than in any other malady. The heat of the body, both before and after death, is a most remarkable circumstance. In the hurry, incidental to a death so sudden, I have not had an opportunity of applying the thermometer, to ascertain the exact temperature; but, judging from the sense of touch alone, it would seem much greater than in the hottest fevers. The heat may be felt, radiating from the patient's body, at the distance of two or three feet. In cases where the patient has not been bled copiously, the heat is very pungent. The heat of the body continues, generally, many hours after death, including the whole night. This is the more remarkable, as our nights are not hot and sultry, but accompanied with breezes, which, by morning, cool even the walls and pavements.

After the death of the lungs, or the cessation of respiration, the heart and arteries will, in some instances, continue to act.

CASE.—Mr. C. died of solar asphyxia, on the evening of July 24, 1836. About an hour after he had been laid out, two messengers called on me to visit the corpse, which was supposed to be alive. I found the body as warm as at death, though it had since been washed. I found a slight pulsation at the wrist, and a feeble motion of the heart. Dr. Young, of this city, was lately called, under similar circumstances, about two hours after breathing had ceased, from sun stroke. He found the body very hot, and, as he thought, slight motion of the heart and arteries. I dissected two bodies at the same time, that had died the day before, and found the heat of the trunks about equal to that of a person in health.

After death, the face and neck become of a blackish, or purplish, spotted hue; a mucous foam, often mixed with blood, begins, soon after death, to issue from the mouth and nostrils, and is very copious, in many cases, the day following.

IV. *Solar Asphyxia, or coup de Soleil*, has long been regarded as apoplexy; the entire loss of the senses—the universal paralysis—all seem at first view to sustain that common, but erroneous, opinion. In the worst cases of apoplexy the patient is not always instantaneously deprived of volition, feeling, and motion. The apoplectic, in the early stages of the malady, may be awakened, and can answer, though not able to speak more than a word or two. He will generally open his eyes on being spoken to; can swallow, and

will start from the lancet, or the application of ice; and he possesses some power to move the muscles. Nothing of all this happens in solar asphyxia. Effusion of blood upon the brain, extravasation into its ventricles or substance, as well as congestion, are much more gradual in their effects. The depression of large portions of the skull, and the presence of enormous clots of blood upon the brain, do not destroy all sensibility. In trephining the skull, while the patient seemed in a deep, snoring sleep, I have sometimes found it necessary to cause his hands to be held down, as he evidently felt pain from the operation.

The worst cases of apoplexy last from twelve to twenty-four hours generally; solar asphyxia, as many minutes. Apoplexy affects one side, or half of the body, with palsy, and sometimes is attended with convulsion. After the apoplectic fit goes off, the palsy often remains; sometimes permanently. Nothing of the kind occurs in solar asphyxia. In the former, the breathing is infrequent and snoring; the pulse is slow and hard: in the latter, the breathing is quick and rattling; the pulse rapid and gaseous. The former happens to the rich, the luxurious, the sedentary, the corpulent, the plethoric, those who have thick, short necks; the latter happens to the poor, the labourer, the exposed, who undergo hardships. The former happens in cold weather and in hot, in the day time and at night; the latter only in hot weather, and during the day. Solar asphyxia has no premonitory symptoms, except a sudden heat, and dryness of the skin; neither headache, scintillations, or any cerebral affection. Apoplexy has well known premonitory symptoms. The following passage is taken from the April No. (1841) of that treasury of medical science—Johnson's Med. Chir. Rev.—and is illustrative of this position. "Napoleon, who dreaded apoplexy, asked Corvisart, his first physician, for some information respecting this disease. Sire, replied Corvisart, apoplexy is always dangerous; but it is *always* preceded by certain symptoms; nature seldom strikes the blow without giving warning. A first attack, which is always slight, is a *summons without costs*—*sommatton sans frais*;—a second, *summons with costs*—*sommatton avec frais*;—but a third, is an *execution on the person*—*prise de corps*. Corvisart himself afforded a melancholy proof of the truth of his assertion."

Solar asphyxia is probably an universal lesion of the nervous system, but more particularly of that part which is necessary to the pulmonary circulation. The blood which suddenly accumulates in the lungs, ceases to be arterialised; it gorges not only the blood-vessels, but infiltrates the pulmonary substance, forming the most perfect example of hyperæmia, and even penetrates the coverings of the lungs—*pleura pulmonalis*—and is copiously effused into the cavity of the chest, as I have seen several times. In this contest, the lungs are, probably, throughout the attack, in a collapsed or passive state, permitting the blood not only to distend its proper vessels, but to permeate readily throughout the pulmonary texture, until the lung is, perhaps, one-fourth heavier than is usual. Whether the pulmonary congestion be the primary or secondary condition of insolation, I will not say; but I must remark, that of all morbid appearances of a congestive character, this is the least equivocal, so far I have examined. Here nothing is ambiguous; the congestion and hyperæmia are truly wonderful.

Although physiology teaches us that man is endowed with the powers of maintaining the same heat of his body in all climates and situations, with few exceptions, still it is possible, under peculiar circumstances, that the body may become actually heated. A chemico-vital refrigeration, by means of perspiration or evaporation, is constantly going on—in health, especially—in hot climates. The "fire-kings" themselves, when in a heat of 500 deg. or 600 deg., would roast and turn into cinders, were it not for this refrigerating

process, in conjunction with a vital energy, which for a time neutralises the accumulating power of caloric. The solar heat probably accumulates upon the surface of the body faster than nature can refrigerate through the lungs and the skin, by evaporation; inequilibrium presses upon the vital energy, which, being exhausted in the contest, as well as by excessive labour, is unable longer to neutralise the excess of temperature—often 40 deg. more than that of the body. Vital chemistry is unequal to the task of preventing the conduction of heat into the body, and death is the consequence.—*New York Medical Gazette*.

CASE

OF

ABSCESS OF THE LIVER MISTAKEN FOR PHTHISIS.

By SAINT JOHN HUDSON, M.R.C.S.

It is now more than a quarter of a century since Laennec immortalized his name by his most valuable discovery of the stethoscope, and yet, notwithstanding the various improvements in the diagnosis, and, consequently, the treatment of diseases of the chest, it has afforded medical men, how many practitioners will even at this period be found, who either wilfully or ignorantly are total sceptics to its use! Not long since I was in conversation with a surgeon (in extensive practice) relative to the use and abuse of the stethoscope, during which I found he did not place much reliance on it as an instrument of diagnosis. He told me that he had a case of *phthisis*, then under his care, which he expected would terminate fatally ere long, and, if I wished, he would let me see it, to which I consented. As I considered the case one of very great importance, I took notes of it on my return home, which, however, are not very minute, as several days elapsed before my return; they are as follows:—

F. G., aged 38, a farmer, has been a hard drinker lately, his beverage being chiefly cider; has been ill for several months, but did not keep his bed until a month ago; he is much emaciated; his countenance exhibits more the appearance of disease of the liver than the lungs; the conjunctiva is of a yellowish tint and the eyes sunken; the cheeks have a peculiar hectic hue; the tongue moist, but streaked with yellow in the centre, and slimy; pulse 110, easily compressible; urine scanty and of a porter colour, depositing a thick sediment over the sides and bottom of the vessel; complains of very little pain over the region of the liver on pressure; no apparent fulness, nor has he had much pain from the first of the attack; fæces of a dark olive and hard; has very profuse night sweats; the breathing short and quick; he has also a short troublesome cough with an expectoration of a very thick and viscid mucus. In exploring the chest, by percussion, I found the sound at the left side perfectly natural, and at the upper two thirds of the right also healthy, but the lower third yielded a very dull sound during his usual mode of respiration; on making him take a deep inspiration, which he did with much pain, the sound was perfectly clear; I then examined him with the stethoscope, and gained the same results; this appeared to me very strange; I repeated several times both auscultation and percussion, the effect was the same. After some reflection, I considered the case could not be one of phthisis, if we are to give credence to Louis, Andral, and others who have written on that disease.

I set it down as a case of chronic inflammation of that portion of the liver adjoining the diaphragm, which was about very shortly to terminate in an abscess, and probably would be fatal. My diagnosis