DISEASE OF THE LUNGS.

Sunday, March 1.—I examined the body of a nephew of Dr. —. It died at the age of seven months. At three months it was attacked with cough, which continued, notwithstanding all the remedies used, until its death. The cough was unattended with expectoration, but was sometimes accompanied by an appearance of strangulation, and a sonorous noise like that occasioned by the croup. Nine days before death, it was seized with symptoms of fever, which resisted all methods of cure pursued, and it gradually grew weaker until its death.

Post-mortem examination.—On opening the thorax, the lungs were not found adherent at any place. The forepart of each lung appeared healthy, except that here and there a small bladder of air appeared, owing to its having escaped from the air-cells. The back part of each lung was solid, and more compact to the feel than natural. It was of a purple colour both on its outer and inner side. About half an ounce of this and also of the other part of the lung being thrown into water, that from the posterior part fell immediately to the bottom, and the other portion floated on the surface. The trachea and larynx were full of mucus, and the bronchial tubes contained pus in the unsound part. The abdomen was healthy. A purge had been administered an hour or two previous to death, and all fæces had been removed, but the bowels were full of air. In the brain nothing extraordinary appeared.

Remarks.—I conceive the bladders of air on the sounder part of the lung were owing to that part having the whole of the office of respiration to perform, and hence, more air than common being received into these cells in the act of coughing, it was forced from them into the cellular membrane of the lungs.

The disease, I suppose, had been going on from the third month, and when it had become considerable, produced the symptoms of general fever and irritation which destroyed the infant.

FRACTURE WITH DEPRESSION.

I trepanned a man at Guy's Hospital, who had been thrown from a cart by a dray striking against it, and fractured his skull. The os occipitis was broken across and loose. He was insensible, and was gradually becoming more so. I took out two pieces of bone from the os occipitis, but found but little extravasation.

The pericranium was detached, and the dura mater separated to some extent. This man's pulse was slow and small, he breathed three or four times lightly, then once deeply with stertor. He was sick so as to vomit. When trepanned, he called out to his horse as if still in his cart. He vomited immediately after the operation. His pulse rose after it.

A lad four years old was placed upon a blind horse by his father, on which he was to take a ride with him into the country. In passing the Borough High Street, a cart was driven against the horse, which fell, and the wheel of the cart passed over the boy's head. He was taken up insensible, and a small wound was found in the scalp where the wheel had crossed.

Wednesday.—Sensible; could call for what he wanted. His pulse was small, and he was sick on

bringing up blood from his stomach; he was relieved of the sickness, and his pulse rose.

Thursday.—Sensible; his pulse good.

Friday.—Quiet and sensible.

Saturday.—Pulse slow and very irregular. Intermits every seventh stroke. A purge ordered, and it became natural when it had operated. The fæces discharged into the bed.

Sunday.—Sensible; quiet, but hungry. He was indulged with bread and butter. At three o'clock convulsions came on. His arms and fingers were in constant motion. These symptoms continued until his death, which happened at three o'clock on Monday morning.

Dissection.—On the opposite side of the head to that which the wheel passed over, was found a fracture and depression of the os frontis.

The back part of the orbit was also broken, and the bones so far separated as to admit of the passage of my fingers into the orbit.

The brain was lacerated, and a part of it had escaped through the aperture of the broken bones under the scalp, where there was rather more than a tea-spoonful. No operation could have relieved him.

ACCOUNT OF AN APPARATUS

FOR

APPLYING WATER IN THE MANNER OF IRRIGATION.

Dr. JAMES MACARTNEY, M. D., F.R.S., &c.

The term *irrigation* has been adopted by some French surgeons to express the continual watering or wetting of inflamed parts. The manner in which this remedy is used in the Hôtel Dieu, and some other French hospitals, is very imperfect. A bucket holding water is suspended to the top of the bed exactly over the afflicted limb of the patient, on which the water continually drops, from a cock half turned, that is inserted into the lower part of the bucket. The bed is covered with a sheet of painted linen, over which the water flows, and is collected in another bucket placed on the floor at the foot of the bed.

This mode of applying water makes it necessary that the patient should be in a great measure uncovered, and that the whole of the limb should be soaked with the water. The dropping of the fluid from a height also produces a startling and disagreeable sensation. The remedy, consequently, is only fit to be used in warm summer weather.

In order to obviate this objection, I have contrived an apparatus expressly designed for irrigation, by means of which water of any requisite temperature can be employed, and conveyed to the affected part underneath the bedclothes. The apparatus consists of a box made of zinc, something like a fracture-box, in which either the upper or the lower extremity of the patient may be placed. The water, or a medicated fluid, is carried in a flat tube, which at one end is connected with the reservoir, and the other end projects through a slit in the upper edge of the box. The tube contains a strip of coarse woollen cloth, which is broad at one end and pointed at the

other. The broad end is received by the vessel that contains the fluid, and the pointed end either rests upon the dressings of the affected part, or is suspended immediately over them. The water is taken up by the strip of cloth, and carried along it on the principle of capillary attraction, or in the manner of a syphon; and thus a continued supply of water is conducted to the part, affected, without inconvenience or exposure to the patient. In order to get rid of the fluid, there is a concave bottom, perforated with large holes, through which the fluid passes into the inferior part of the box, and from which it is conveyed by a tube into any vessel that may be placed outside the bed for the purpose of receiving it. The perforated bottom, for the sake of cleanness, is made to take out; and there is a soft cushion, covered with painted linen, on which the limb rests, and consequently the whole is not kept wet.

The quantity of fluid which may pass can be regulated by placing the vessel or reservoir containing the water either higher, or on the same plane as the patient's bed. If placed high, so much as three gallons of fluid may be supplied in the course of twenty-four hours. If warm water be required, as in cases of strains and lacerated wounds, the temperature of the reservoir may be kept up by means of a spirit lamp.

The irrigating machine is made and sold by Messrs. Weiss and Son, instrument makers, 63, Strand, London.

The advantages of such an apparatus as I have described are sufficiently obvious to all persons acquainted with the effects of moisture at different temperatures, according to the nature of the injury, in appeasing the sensations, and in preventing or abating inflammation.

CASE OF COLICA PICTONUM, WITH BLUE DISCOLORATION OF THE GUMS,

By HENRY JOHNSON, M.D., Shrewsbury.

(Read at the Anniversary Meeting of the Shropshire and North Wales Branch of the Provincial Medical and Surgical Association.)

Thursday, July 8, 1841.

IN the 23d volume of the Medico-Chirurgical Transactions, there is a paper by Dr. Henry Burton, "On a remarkable effect upon the gums, produced by the absorption of lead." A few days after I had read this paper, a case occurred in which I noticed this phenomenon, and, with the permission of the Association, I will read a brief account of it.

Jan. 7, 1841.—I was desired to see William Benson, æt. 49, a plumber. He complained of constant aching pain at the epigastrium, which was very much aggravated at intervals. He had also pain in the knees, ankles, arms, and in the tendon of the pectoralis muscle. These pains were not increased by pressure or motion. The tongue was white and moist. Pulse soft, not quick. The bowels were confined, and the appetite was generally craving.

He stated, that about a fortnight ago he was in his usual state of health, and was at work in Wales laying down some lead pipes, in which occupation he was much exposed to cold, and thinks

his present illness, which has only lasted about a week, was brought on by that exposure. His bowels are habitually inactive, three or four days passing without a motion. Has been a plumber several years. On looking into his mouth, I discovered the peculiar blue line on the gums, as described by Dr. H. Burton in the Medico-Chirurgical Transactions. The edge of the gum, where it is attached to the neck of the teeth, was fringed with a very distinct blue line, about one-twentieth of an inch in width, so that three or four of the molar teeth on each side in the upper jaw were thus half surrounded towards the roof of the mouth with a blue crescent.

Active purgatives were administered.

8.—All the pains better; almost none in the lower extremities. Has had no sleep. Epigastrium slightly tender. Pulse 96, soft. Thirst and retching. Bowels freely moved. Stools dark and scybalous. Repeat the purgatives.

9.—Has had some sleep. Four stools. No scybala in the last, but dark and bilious. Pains much abated. Pulse 84. Urine high coloured and turbid. Tongue very white and moist. Some appetite.

R Calomel, two grains,
Opium, one grain,
Antimonial powder, three grains.

A powder to be taken every sixth hour.

11.—Hardly any pain in the stomach. Bowels regular. Appetite improved, and sleep returning.

17.—Quite well. The blue line still visible, but more faint.

REMARKS.—This is the only instance in which I have observed the phenomenon pointed out by Dr. Burton. He, however, has seen it in many cases, and suggests its presence as a valuable diagnostic sign in derangements of health, caused by the accidental introduction of lead into the system. But, it is unnecessary for me to quote farther the particulars of this paper, which may be in the hands of every member here present. Dr. Burton makes no attempt to explain how the coloured line here spoken of is produced. The following explanation has occurred to myself:—

It appears that lead, when taken into the system, has a peculiar tendency to affect the salivary organs, producing an increased flow of saliva. From this and other facts, it is probable that it enters the mass of blood, and circulates therewith over the whole body. The salivary glands are stimulated to increased action by its presence, whilst another operation goes on in the gums. From the decomposition of particles of food, the decay of teeth, or the putrefaction of the tartar, it is probable that the mouth of almost every one contains at times a small portion of sulphuretted hydrogen. Even among those who clean their teeth, and therefore do what they can to remove the above sources of this gas, I have repeatedly found that a slip of paper, impregnated with a solution of lead, in a few minutes gave a trace of this gas, by becoming slightly discoloured.

Now, it is easy to understand how the sulphuretted hydrogen, acting upon the lead within the vessels of the gums, precipitates the sulphuret of lead, which, remaining in the substance of the mucous membrane, imparts to them the peculiar blue tinge above described; and this occurs only at the dental margin of the gums, partly, perhaps,