dications were favourable, the beat of the heart was natural, and the air passed freely throughout both lungs; but the chest movements on the right side were not quite so free as on the left. There was nothing that appeared in the patient's general condition to forbid the use of chloroform. In accordance with the usual practice for some years past at the Bristol Infirmary, the chloroform was administered to this patient in the ward, previous to her removal into the operating theatre. The patient is transferred from the ward in a narrow wicker basket, containing a small mattress, and is easily carried by two persons. The galvanic battery is always kept at hand, in case of accidents. The chloroform of Messrs. Duncan, Flockart, and Co., of Edinburgh, is that which is employed in the infirmary, and is administered on a cupped porous sponge, care being taken to ensure a due passage of atmospheric air.

The patient, Jane Morgan, having taken no food since her breakfast, commenced the inhalation of one drachm of chloroform, on the 21st of January, at 2 P.M., in bed in her ward, under the superintendence of Mr. Hore, the house surgeon. Nothing unusual occurring in the patient's general condition during inhalation, a second drachm, in about five minutes from the commencement of the first, was poured upon the sponge, and the inhalation was continued. Almost immediately after the addition of the second drachm, the chloroform was withdrawn, as the patient's breathing became stertorous; and immediately afterwards her pulse, which had hitherto continued pretty firm, was suddenly imperceptible, the respiration ceasing at the same time. The pupils were not dilated.

The tongue was at once drawn forward with a tenaculum, the face splashed with water, a window close to the patient was opened for the free admission of air, galvanism was applied, and artificial respiration commenced through the nostrils; while the trachea was being opened, and a tube introduced, through which the artificial respiration was subsequently kept up. The whole of these proceedings were executed with the greatest promptitude, and for a few minutes were followed by convulsive efforts of the respiratory muscles, which led to the hope of the patient's eventual restoration; but these again ceased. The application of galvanism and artificial respiring were, however, diligently persevered in for the space of one hour, when further efforts were considered to be unavailing.

EXAMINATION OF THE BODY, twenty-three hours after death. Rather extensive adhesions, apparently of long standing, existed between the pleura costalis and pulmonalis of the right lung. The general structure of the lungs was quite healthy, but both organs were gorged with dark fluid blood. The pericardium was natural; about an ounce of pale straw coloured fluid was found in its cavity. The external surface of the heart was natural; though, previously to opening the right ventricle, it was noticed that the anterior wall of the ventricle had collapsed, forming a cup-like concavity externally. The ventricles were examined *in situ*, before the great vessels were divided. The wall of the left ventricle was of a natural colour and thickness; but the wall of the right ventricle appeared at one point somewhat paler than usual. A very small quantity of quite fluid blood (not more than a drachm altogether) was found on either side of the heart. The valves were healthy; but, near the attached surface of the mitral valve, two or three very small points of atheromatous deposit were apparent. For the length of one inch from their commencement, both the coronary arteries were much dilated, and were closely studded with atheromatous and bony deposits. Beyond this space, they assumed their usual calibre; but, at intervals, small points of atheromatous deposit were still visible. Upon separating the heart by a transverse section through the large vessels, a quantity of perfectly fluid blood poured from them. A portion of the wall of the right ventricle was submitted to microscopic examination, as its structure seemed rather paler, and not so well nourished as the other parts of the heart.

The following account of the appearance, under the mi-

croscope, of this portion of the heart's structure, was furnished me by Dr. Budd:—

"A considerable proportion of the fibres were found in a state of incipient fatty degeneration. In the fasciculi thus affected, the transverse striae were vague and indistinct, or altogether effaced by minute black dots, which in parts appeared to fill the whole substance of the fibre. There were no large oil-globules. Numbers of these degenerate fasciculi had broken up into short fragments in being prepared for microscopic examination, and lay strewed in a disorderly manner about the field. Side by side with these diseased fibres lay healthy and well nourished fibres; and these last, in fact, constituted the larger proportion."

The chylopoietic viscera were quite healthy. The stomach was empty. The kidneys showed marks of old cicatrices on their convex surfaces, but were otherwise healthy. Upon being submitted to microscopic examination, they exhibited no evidences of fatty degeneration. The urine, which after death was removed from the bladder, was found to contain traces of albumen. The brain was healthy, and very pale; the vessels generally appeared emptied. There was very little fluid in the ventricles. The basilar artery showed small points of atheromatous deposit. The spinal cord was quite natural.

The parts implicated in the injury of the right shoulder were lastly subjected to examination. The head of the humerus lay in contact with the coracoid process, and to its inner side. There was a fracture, extending about an inch from above downwards, through the greater tuberosity of the humerus. Bony union had taken place, though not very firmly. The head and shaft of the bone were otherwise quite sound. The glenoid cavity, coracoid, and acromion processes were uninjured.

Perhaps there are no cases in which the advantages of chloroform are more evident than in old standing luxations of the larger joints, where reduction is to be attempted; and in this particular instance of dislocation forwards, the great pain and entire uselessness of the limb, resulting from the situation of the head of the bone, rendered it very important that the position should, if possible, be rectified. There was, as before stated, nothing in the patient's own account of herself, in her general appearance, or in her stethoscopic phenomena, to counter-indicate the use of chloroform; but I have, since the woman's death, been informed by the medical man who was called to attend her at first, when the accident to her shoulder occurred, that she was subject to occasional attacks of syncope. When the fatal symptoms supervened during the inhalation of chloroform, the appearance of the patient was that of a person suddenly attacked with syncope.

I may take this opportunity of urging the propriety of having the galvanic apparatus in readiness in all cases where chloroform is to be administered. Experience, on more than one occasion, in chloroform exigencies, has satisfied me of the high value of galvanism as a remedial agent; and in this case, though the patient died, the respiratory movements were renewed the moment galvanism was applied. The importance of artificial respiration, in conjunction with galvanism, is of course obvious to every one.

13, Berkeley Square, Bristol, Jan. 28, 1854.

CASE OF PURPURA HÆMORRHAGICA TREATED BY TURPENTINE.

By GEORGE WILLIS, M.D.

I was requested, on Nov. 10th, 1853, to visit Mr. H., a gentleman aged 22, who had enjoyed his usual good health up to a fortnight preceding the date of my visit, when he caught a cold, which was succeeded by a troublesome hacking cough. On November 9th, whilst coughing, he brought up a large quantity of dark coloured blood, and continued to expectorate the same whenever the cough returned, until the time of my visit.

I turned my attention first to the chest, but found no peculiarity in the respiratory sounds.

The pulse was 96 per minute, with a jerking excitable feel. On looking at the tongue, which was loaded, I was struck with the appearance of a dark spot on its surface; the spot was of the size of a shilling; and on the gums there were several similar, but smaller spots.

I now asked to see the limbs, and found on them numerous dark patches of an ecchymosed appearance, intermingled with several small reddish brown patches.

The diagnosis was sufficiently clear; but, as my patient was well placed in life, had at all times a generous diet, and lived in a healthy locality, I could not at first sight account for the occurrence of such marked symptoms of purpura hæmorrhagica, nor call to my mind any other case in which I had seen similar symptoms under similar circumstances.* These thoughts led me to make a more minute inquiry as to the habits of the patient, when the fact came out that he was an excessive smoker, that the quantity of saliva which he expectorated was enormous; that he was, in fact, in a continued state of salivation.

The treatment consisted in an acid mixture, and a dose of aperient pills; the bowels being sluggish. For the following three days, this treatment was continued without change, except that a grain of ipecacuan was added to the pills. The hæmoptysis subsided.

On November 13th, I was informed by the patient that, during the night, he had suffered severe pain in the testicle; that this passed off, but that, on voiding his urine, he had found it dark in colour. On examining it myself, I detected that a large quantity of blood had been thrown off with it.

On November 14th, I ordered ten grains of gallic acid to be given with each dose of the mixture, and an aperient draught, as the bowels had not been acted on for two days.

Nov. 15th. The bowels have been relieved, but the urine continues of the same character as yesterday. The blotches on the tongue and gums have disappeared, but two small ones have presented themselves on the upper lips, and on the side of the nose. The treatment to continue.

Nov. 16th. No improvement. Treatment changed. The acids to be discontinued, and replaced by turpentine in the following form:—

Rx Spiritus terebinthinæ 3ij.
Sacchari albi,
Pulveris acaciæ, aa 3ij.
Tinctur. lavandulæ comp. 3j.
Aque menthæ piper. ad 3viij. M.

Fiat mistura.†

Of this he took an ounce three times a day.

Nov. 17th. The urine is clearer. Oysters to be taken as diet, and milk to be drunk *ad libitum*.

Nov. 20th. The turpentine has been continued to this date with the best effects. The urine has acquired its healthy character, and the patient expresses himself as feeling quite well; he is allowed to get up, and, having no dislike to the mixture, continues to take it.

Nov. 23rd. The ecchymosed spots have disappeared generally, leaving merely a pale yellow hue, marking their outline, like that which succeeds on a common bruise. The turpentine was now stopped, and a few drops of the tincture of the muriate of iron, twice daily, prescribed in its place, with a compound rhubarb pill as an occasional aperient. Up to this date, there has been no return of the symptoms.

OBSERVATIONS. I have not much to say in comment on this case, although I do not doubt that it might form a text for a long and valuable disquisition. I shall only direct attention to three points:—

1. To the extended character of the local manifestations

* There can, I think, be no doubt, that innutritious food is the most common cause of purpura hæmorrhagica; and in this respect, purpura presents many points of analogy with some forms of low fever caused by privation. Many instances have been related in which purpura has been self-induced by fasting, or by following too rigidly the follies of the hydropathic system of treating diseases.

† Turpentine goes very well in this shape, if mixed with care. The gum and sugar should first be rubbed together, then the turpentine must be added, and afterwards the tincture and water.

of the blood disorder, as indicated by the copious eruption, and by the free exudation of blood from the mucous membranes of the air passages, kidneys, and bladder.

2. To the cause of the diseased condition of the blood. Was it not the excessive smoking? For my part, I see no other cause. I believe that the fumes of tobacco, if long inhaled, possessing as they do narcotico-irritant properties, are quite as capable of reducing the consistency of the blood as some other agents of the same character; and that the essence of purpuric symptoms is a fluid or defibrinated condition of the blood.

3. The treatment of the case is a good illustration of the value of turpentine in purpura, and bears out Dr. Neligan's recommendations on this subject.

Monmouth, January 30th, 1853.

PERISCOPIC REVIEW.

SURGERY.

SPONTANEOUS FRACTURES.

The following cases occurred in the practice of Professor W. PARKER of New York, and are reported by Dr. S. SMITH in the *New York Journal of Medicine* for July 1852:—

"CASE I. *Fracture of the Os Brachii at the Insertion of the Deltoid Muscle in a Coloured Preacher while in the act of Gesticulating.* I was called, in consultation with Dr. Sargent, in July 1844, in the case of Mr. R. Jackson, a coloured minister of the Methodist denomination, who was suffering from a fracture of his right arm. He was of a stout build, very muscular and well developed, thirty-eight years of age, having no hereditary predispositions, and had never previously suffered a fracture of any of his limbs. There was no circumstance connected with his history giving evidence of unnatural fragility of his bones. The accident occurred while warmly engaged in an exhortation in a religious meeting, and upon making a violent gesticulation. On examination, the right humerus was found broken at the attachment of the deltoid. Union took place in the usual time.

"CASE II. *Fracture of the Clavicle of the right side upon striking a Dog a severe blow with a whip.* This accident happened July 14th, 1845. The patient, Mr. George Potts, was a mulatto, aged 35, native of the West Indies, of a scrofulous habit; vivacious, active temperament, and very intelligent. He was fond of sports, and spent much of his time in hunting. In one of these excursions, in attempting to strike his dog with a heavy whip, the clavicle was fractured about its inner third. On examination, the bone was found enlarged at the point of fracture, and was evidently in a diseased condition. He had been under treatment previously for scrofulous affections. The bone united favourably, but he died three years afterwards, of phthisis.

"CASE III. *Fracture of the Os Brachii in attempting to throw a Peach.* September 17th, 1849, I was called to see J. C., with a fracture of the right arm. Five years previously, this patient contracted syphilis, for which he was treated; he has since taken iodide of potassium pretty freely for the same disease. In other respects, he is of a healthy constitution. This accident occurred upon flinging a peach, in the market. Union of the bone was prompt and satisfactory, and this arm is as useful as ever. His health is now robust.

"CASE IV. *Fracture of the Tibia, Fibula, and Clavicle.* Miss K. P., of good constitution and healthy parentage, when between three and four years old, suffered a severe and protracted course of hooping-cough. Before she had recovered, she was attacked with measles about the middle of December 1844, during which the lung became complicated, and her life was despaired of. She, however, slowly convalesced. During the spring following, 1845, she took iodide of potassium and iron. Her health became in some degree established in the course of the following season. In February 1846, upon stepping down a stair of six or eight inches, the right tibia suddenly fractured, the fibula remaining unbroken. The fracture was treated in the usual manner, and united favourably; her health still continued delicate, and her constitution feeble. In July following, while in the country for her health, she accidentally slipped upon a rind of pear, and the result of the sudden movement was a fracture of the thigh of the same side, about the junction of the middle with the lower third. This fracture also readily