empty cart appears to have gone over him, at Kingston, three miles from Bedford. He was immediately taken to the Bedford Infirmary. On his admission, he was slightly sensible. There was a superficial cut on the back of the head, and a copious flow of blood from the right ear. On the following day, clear fluid began to escape from the ear, and continued to do so. The same day he was better, and still better on the third. On the fourth day he became sleepy; comatose symptoms set in, and he died early on the fifth day. On *post mortem* examination, the posterior surface of the petrous bone was found fractured across; there was also a considerable clot of blood (an ounce and a half to two ounces) between the dura mater and the skull on the left side; also considerable recent inflammation on the under surface of the cerebellum.

CASE IX.—Extensive Fracture of Base of Skull from Violent Pressure on Both Sides: Death after Two Hours.—W. F., an agricultural labourer, aged 34, fell from the shaft of a waggon on which he was sitting driving at Bromham, Bedfordshire, when the waggon-wheel ran over him near the head. When taken up, he was insensible, bleeding from both nostrils, and from the right ear. He died immediately after admission to the Bedford Infirmary, about two hours subsequently to the accident. On *post mortem* examination, there was found a large quantity of extravasated blood on the surface of the brain, the side of the skull fractured through the squamous portion of the right temporal bone, and the base extensively fractured through the petrous portion.

CASE X.—Extensive Fracture of Base of Skull from Violent Pressure on both Sides: Recovery.—About twenty-five years since, a bricklayer had his head jammed between two buffers of a train (cracked like a cocoa-nut, in fact). Upon his arrival at the Bedford Infirmary, he was quite insensible, with blood flowing from both ears, the nose, and mouth. For several days after the accident, there was a watery discharge from both ears. Consciousness returned in two or three weeks, and he progressed favourably but slowly, and left the Hospital in about five months. During the time he was in the Infirmary, he suffered from severe pains in the head, which continued for a long time after he was discharged, and the muscles on the right side of the face became paralysed. He is at the present time following his usual employment as a bricklayer, and is in good health; but there is still want of power in the muscles of the right side of the face.

CASE XI.—Extensive Fracture of Base of Skull from a Violent Blow, and Lateral Pressure: Death.—T. S., a child aged 5, in the summer of 1867 was watching the men at work at the Midland Ouse Bridge at Bedford. One of the men engaged was carving a balk of timber, when the iron rod broke, and the end of the balk fell on the child's head, crushing it into the ground. Death was almost instantaneous. Blood flowed abundantly from the mouth and ears. On examination, no fracture could be found at the upper part of the skull; but it was detected at the junction of the occipital with the parietal bone, and probably extended across the base of the skull.

The last three cases are examples of the greatest degree of violence which this part can sustain with the faintest possibility of recovery. In each the violence was excessive; in each pressure operated from both sides; in one, death was almost or quite instantaneous; in another, the patient survived for two hours; in the third astonishing, and, I should think, almost unique case, the subject is living to this day.

CASE OF CARBOLIC ACID POISONING.

By ALEXANDER OGSTON, M.D.,

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ON October 26th, 1870, Patrick McGrath, aged 47, sergeant-instructor of volunteers, Tarves, found in a rifle-shed a bottle of crude carbolic acid, part of which he swallowed, in mistake for bitters or other fluid. It is calculated that he swallowed, at most, an ounce or two of the fluid. This, when examined, seemed to be of considerable strength, crude, black, and oily. He then proceeded to a druggist's shop, but left this at once, without taking any drug. Shortly afterwards, he was found lying insensible, and was taken to Dr. Irvine's house. Dr. Irvine kindly handed me his notes of the case, which are as follows.

"Last night, October 26th, P. McG. was brought to my house at 5.30 P.M. He was reported to have been accidentally poisoned. He had a strong smell of carbolic acid, was unable to speak or walk, and was quite unconscious and in a state of apparent apoplexy, with stertorous breathing and puffing of the lips at each expiration. The pulse was not much disturbed. The heat of surface was natural. I laid him on a couch, covered him warmly, and administered castor-oil to dilute

and carry off the poison." The bottle containing the poison was distinctly labelled "Carbolic Acid, Poison." The notes continue: "On coming back, I tried with my patient olive-oil and a powerful emetic, which had no effect. I then sent for my son, who brought a stomach-pump; it would not work, and was consequently not applied. Subsequently, carbonate of ammonia and brandy were tried to no purpose. The patient's lips, gums, and tongue were white, as if sodden. After he had been laid on the couch, there was for three or four hours no muscular movement at all. The eyelids were closed, and the pupils contracted to the size of a pin-point. The first indications of returning sensibility were in the eyelids. About 12 o'clock, he began to open his eyes to some extent. Subsequently, he moved his arms, then his feet and legs; and afterwards made an attempt to raise his shoulders. After this, the pupils gradually expanded, but never became large. He began to speak, and asked for cold water to drink; but he never acquired complete consciousness. The next phase was affection of the lungs. There was very hard and laborious breathing, and difficult muco-purulent expectoration. After some time, the breathing became easier, just as suddenly as the coma had improved. He then complained of severe pain in the back. The pulse, which at first was not much disturbed, ran up to 84, 90, 96, and 106—not always alike, but fluctuating. Respiration from 46 to 48. At 2 o'clock in the morning, he passed naturally a quantity of very dark coloured urine, having the smell of carbolic acid. He afterwards attempted again to pass urine, but without success. No real reaction ever took place, notwithstanding the frequent use of warm applications. The brow, face, and hands were covered with cold clammy perspiration. Collapse came on, and at 7 A.M. death closed the scene, after thirteen hours and thirty-five minutes of suffering."

On proceeding to examine the body thirty-two hours after death, it was found in the following state. Rigor mortis was present. There was lividity of the back parts, and of the front of the neck and chest. The face was sallow. The pupils were natural. Watery froth and yellowish fluid, smelling of carbolic acid, were present at the mouth and nose. There was a clot in the superior longitudinal sinus. The dura mater and arachnoid were congested, the blood smelling of carbolic acid. Serum, with a distinct odour of carbolic acid, was found in the subarachnoid tissue and in the ventricles. The cineritious brain-matter was pinkish in hue. There was intense congestion of the vessels on the under surface of the pons Varolii and medulla oblongata. The mucous membrane of the mouth, throat, and gullet was unnaturally white and sodden in appearance, and at parts was soft and easily detached. There were two fluid-ounces of thick brownish pulp, smelling of carbolic acid, in the stomach. At its greater curvature, the mucous membrane of the stomach was studded with hard, reddish, and elevated points, of the size of small shot, without any marked congestion around them. Similar but smaller points existed on other parts of the stomach—showing, however, a more linear form, and tending to follow the course of the vessels. The stomach was otherwise natural, or perhaps a little more vascular than usual. Portions of the small intestine were slate-coloured, especially in the duodenum and upper part of the jejunum, but otherwise natural in every way, and containing a brownish pulpy matter. The salivary glands, pancreas, and mesenteric glands, were all pale. The heart was healthy, and full of dark firmly clotted blood on both sides; the right side containing four, and the left side two ounces. A minute fibrinous clot was found in the pulmonary artery, imbedded in a large black clot. The trachea was congested, and contained fluid similar to that found at the mouth and nostrils. The lungs were bulky and very cedematous. Fatty patches were present on the upper surface of the liver. The gall-bladder was enormously distended with bile. The spleen was soft; the kidneys fatty. Four ounces of turbid urine were found in the bladder. The blood, urine, and solid textures of the body, all smelt of carbolic acid. The blood was every where very firmly clotted.

ON SYPHILITIC RENAL DROPSY.

By S. MESSENGER BRADLEY, F.R.C.S.,

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MEDICAL reasoning is too often hastily deductive in character; in other words, we too often reason from the particular to the universal, and rush from an unproven hypothesis to an erroneous and dogmatic conclusion. This constitutes the very sin of the Aristotelian method, and, if followed constantly, would bring medical science into equally well-deserved disrepute, as it did the old Grecian philosophy.

Still, reasoning thinking men will draw deductions; nay, more, we

may venture to say that most of the brilliant discoveries of medicine have been made by following this mode of reasoning, rather than attained by the slower but surer method of induction. The chief thing to guard against in deductive reasoning is the mistaking of a mere inference for a logically proved conclusion. So long as we accurately see the direction in which our inquiries and experiments should lie that are needed to verify our conclusions, there is nothing to be deprecated in making deductions, or in publicly stating them. I make these remarks because the following paper is in great measure of this deductive character in its reasoning, and I might be blamed for drawing the public attention to it before collecting much experimental illustration of its truth or falsity. This, indeed, I should have done had my own opportunities of research been sufficiently large for the purpose; but as they are not, and as at the same time I believe the matter to be of vital importance, I am anxious that it should be worked out without unnecessary delay, and by many rather than by one, knowing that if untrue it will speedily come to nought, believing that if true it will prove of value to the health of nations. My communication consists of the statement of a case, and a deduction from it. The case is as follows.

On October 2nd, 1870, I saw the child of Mrs. B., 212, Stockport Road, Manchester. The child (a girl) was four months old. It was covered with syphilitic psoriasis, which had first appeared a week before. The face, arms, and legs were oedematous, readily pitting on pressure. The mother had only noticed the dropsy the day before. The urine was highly albuminous (four-fifths albumen in test-tube). The microscope revealed the presence of numerous epithelial and granular casts. *There was no history of any possible contact with the poison of scarlatina.* Hydrargyrum cum creta was given in two-grain doses twice daily, and a little unguentum hydrargyri ordered to be rubbed into the abdomen each night.

Progress of the Case.—The syphilis began to pale and fade away in the course of three or four days before the action of the mercury; and, *pari passu* with the subsidence of the cutaneous syphilid, the number of urinary casts became fewer and fewer, and the quantity of albumen steadily diminished, so that in the course of a week it was reduced from four-fifths to one-third in the test-tube. So the case went steadily on from good to better, and, in fine, after the treatment had been persevered in for three weeks, the albumen in the urine and eruption on the skin had entirely disappeared, the cellular tissue was free from dropsy, and the microscope failed to reveal the presence of any abnormal element in the urine.

Comments.—There is little difficulty, I conceive, in connecting the syphilis and albuminuria in this case in the relation of cause and effect. By way of further evidence on this head, I may state that, out of twenty cases of hereditary syphilis in which I have since examined the urine, no anasarca being present, albumen was detected in two. This fact is interesting, and to a certain degree important. The discovery that such a condition as renal dropsy is an occasional attendant upon congenital syphilis, is in itself of perhaps sufficient moment to render this case noteworthy, but I think that what the case suggests is far more important than what the case proves. In a word, the deduction which I draw from this case is that the syphilitic poison, floating about in the circulatory system, is capable of bringing about those renal changes which result in the granular or waxy kidney; that chronic albuminuria very often means the presence of syphilis in the blood; and that therefore, as a matter of course, the therapeutical indication follows, that the disease depending on such a cause is to be combated with mercury, rather than with the diaphoretics and diuretics, which form little more than the playthings of the physician in his present treatment of this generally fatal complaint.* Nor need the pallid face and low vitality of his patient cause the most timid practitioner to shrink from giving mercury in such cases as these, supposing them to exist. The good effects of the drug are, to say the least of it, very frequently procurable by the administration of doses so small as in no way to interfere with the health of the individual; e.g., grain doses of blue pill may be taken nightly for a lengthened period, without any other effect upon the animal economy than of melting away any manifestations of syphilis which may chance to be present.

I earnestly hope that the truth of this deduction may be carefully tested by impartial men, so that once and for all it may take its place among the facts of medical science, or be for ever buried in the mighty limbo which holds all exploded medical errors.

ON THE TREATMENT OF SUPPURATING GLANDS IN THE NECK BY FREQUENTLY REPEATED TAPPING.

By LAWSON TAIT, F.R.C.S., Birmingham.

In the practice of operative surgery we often have a condition to consider which, from its greater frequency of occurrence and the great stress laid upon it by the patients, may be considered as being of importance secondary only to the saving of life and the diminution of pain; and when I say that I speak of the question of "good looks", I believe that few will differ from me. Most serious operations are frequently risked for no greater reason than the "look"; and much of a surgeon's reputation may be lost, or much may be added to it, by his success in avoiding disfigurement in his treatment of any deformity or malady. One of the most distinguished of living surgeons gave me his opinion, in a recent conversation which I had with him, that in our profession we make money very much more in proportion as we have to deal with utility or ornament, than with life. The income of the dentist or the oculist may reach a fabulous sum, because the teeth and eyes involve utility and ornament essentially; while the general surgeon is called in late and seldom, and gets much less remuneration when simply life is at stake. This may seem paradoxical, but it is none the less true. When patients are in good health, they will give much to look well and feel comfortable; but, when dangerously ill, they will count the cost with much greater narrowness.

It is, however, not with a mere pecuniary object that I now draw attention to a means of obviating deformity to a great extent, but with a view to do that which is legitimately within the ambition of every surgeon—to advance his profession and its extent of usefulness. Suppurating glands are common enough in the experience of every one, and the routine treatment of cod-liver oil, iron and quinine, iodine and poultices, is seldom departed from. Differences of opinion exist as to whether they should be opened early or late, or not interfered with at all; but, whichever way this part of the treatment is conducted, the same unsatisfactory ending in a disfiguring cicatrix is the inevitable result. The "look" of the thing is bad; and from the popular notion that every scar on the neck indicates "scrofula", many a poor mother's life has been embittered, many a poor child's prospects seriously interfered with, owing to the ineradicable neck-mark. It is considered a great triumph if the patient be a boy, and the mark within possible reach of his beard; but if a girl, even with the ingenious appendages provided by the *coiffeur*, the ever present slur cannot be hid, and the unfortunate bearer, at the dinner-table and in the ball-room, is ever painfully conscious of the direction of neighbouring eyes. This objectionable condition may be avoided in very many cases by the careful perseverance in a plan of treatment which I have now adopted for some years, with most satisfactory results. It consists simply in tapping a gland as soon as I have determined that it contains pus, and in continuing this treatment until the cavity no longer secretes. The means by which I effect this, is the little instrument known as Dr. Alexander Wood's morphia-syringe, and which I used for this and other similar purposes long before I had ever heard of the recently devised aspirators. Only two precautions are necessary; and these are, never to introduce the needle twice at the same spot, and to introduce it very obliquely into the abscess, entering it at least half an inch from the margin of the tumour. As a rule, the direction must be from behind forwards, but occasionally it may be done from before backwards; and it almost always may be effected from above downwards, or from below upwards. The number of punctures sometimes required may stagger some who read this; but I have had to persevere till I have made as many as fifty punctures, at intervals of from one to ten days, before the treatment was successful, the success being constituted by the complete disappearance of the tumour, without the skin ever breaking. The amount of satisfaction which the patients have expressed at being saved the disfigurement of a gland-mark, I have often found to be ample repayment for the great amount of trouble. Cases of the successful issue of this treatment I could cite in great numbers, and my failures have not been many. One of the former will, however, answer every purpose, and I select it principally because the patient is the son of a well-known provincial physician, who placed him under my care in order that the treatment might be carried out. He was a tall, rapidly growing lad of fourteen, and to his own courage and patience the good result is in no small degree to be attributed. In March last, whilst bathing in the Thames, he was chilled, and soon afterwards a large cervical swelling appeared on the left side. He was placed under my care in the beginning of May, when I ascertained the presence of pus,

* Dr. Dickinson (*Pathology and Treatment of Albuminuria*) considers that protracted suppuration is almost the sole cause of the waxy kidney, which he accordingly terms "Depurative Infiltration." He assigns as the causes of granular degeneration, alcoholism, gout, heart-disease, and lead poisoning. Dr. Grainger Stewart (*Bright's Disease*) mentions syphilis as a cause of the amyloid form of disease; but does not advise mercury as a remedy. He does not allude to syphilis as a cause of any other form of kidney-disease.