turning over the patient on his back, and following up the examination to the left hip, it was soon obvious that he was suffering from dislocation of the left hip into the foramen ovale. The head of the femur was plainly felt in the perineum, and the trochanter had fallen in. Chloroform was administered, and the dislocation was soon reduced in the manner laid down by the same great authority, Sir Astley Cooper. The only singular part of this case is, that the pain suffered was attributed to the opposite limb, which was to some extent contused, and the leg fractured. This is, too, an accident of not very frequent occurrence. I have met with one only of the same description before.

Both these cases are doing well.

Tir Caradoc, Taibach, April 11th, 1854.

CASE OF POISONING BY CHLOROFORM.

By F. H. HARTSHORNE, Esq.

ON March 26th, 1854, about three o'clock P.M., a child, four years of age, the son of a druggist, drank from one to two drachms of chloroform, from a bottle containing about half an ounce, which had been left on a dressing-table. Another bottle stood by, in which was a mixture of rhubarb and magnesia, some of which the father thinks the child mixed with the chloroform in a tea-cup, and drank, "the child being a great mimic", and having frequently seen his father take the latter mixture. He then carried the cup down stairs, and said, "Papa, I have taken some medicine"; and walked into the kitchen and back; then he complained of pain in the epigastric region, and desired to defecate. He sat on a vessel a few moments, and again rose, without having had an evacuation. Being subject to pain in his bowels, his mother laid him across her knees, and began friction with her hand on his abdomen, when he exclaimed, "Oh mamma, my head", and immediately his head dropped, and eyes "set". The father directly gave him some cold water, a little of which, he thinks, was swallowed. The apprentice now discovered he had taken chloroform, and the father ran with him in his arms a short distance, to the surgery of Mr. Richard Thursfield, and the child vomited on the road. A period of about ten minutes elapsed from taking the chloroform until insensibility commenced; in another twenty minutes, I arrived at Mr. Thursfield's surgery, and then the child's pupils were contracted, his *breath smelt very strongly of chloroform*, and his breathing was laborious; the pulse was quick and full, the face pale, and the extremities rather cold. He vomited twice afterwards, but the food was not readily expelled from the pharynx and mouth, and once he appeared to be dying of asphyxia; but he at length made some gasping inspirations, and the former laborious respiration was again established. This we discovered was caused by a large piece of undigested food closing the aperture of the glottis, and which was removed from the pharynx with the finger. No attempt at deglutition could be excited; the pupils became alternately contracted and dilated; the face livid and pale; the extremities warm and cold; the pulse at one time quick and full, at another scarcely perceptible; at length strabismus came on, the eyes being turned upwards; the breathing became more and more stertorous; and he died in a state of profound coma, three hours after taking the fatal dose.

No *post mortem* examination was made. An inquest was held on the body, at which no medical evidence was given; the verdict being, that the deceased died from taking chloroform.

The parents state that they kept the body eight days. During the whole of that time, the *rigor mortis* continued, and the face, though pale when the child expired, had its usual florid colour.

I have hitherto said nothing about the treatment. It consisted in attempts to administer an emetic of sulphate of zinc, and to use the stomach-pump, and in the application of sinapisms to the calves of the legs, ammonia to the nostrils, and leeches to the temples. Artificial respiration was tried, and lastly a warm bath.

Brosely, April 12th, 1854.

CASE OF POISONING BY ONE-TWENTIETH OF A GRAIN OF OPIUM.

By EDWARD SMITH, M.D., LL.B.

[Read before the Medical Society of London, April 8th, 1854.]

THE following case is offered, not as being unique, but in compliance with the good rule of placing on record rare and important cases. Very few authentic cases are met with in our works on medical jurisprudence, in which death has resulted from so small a quantity of opium as that which is contained in one drop of laudanum; but I find from conversation with my medical friends, that such instances have occurred; and, moreover, the deputy-coroner, in his address to the jury in this case, affirmed that he had recently held an inquest under such circumstances. Instances are very numerous in which serious results have followed the administration to infants of doses varying from one-twentieth to one-eighth of a grain; and these alone might serve to suffice as a caution against the exhibition of this drug in any quantity in cases where the patient is only a few days, or it may be weeks, old.

CASE. The little patient was the son of Italian parents, and was five days old (the sixth day after its birth) when the opium was administered. It had cried much during the preceding nights; and, as the bowels had not acted freely, I directed the nurse to administer small doses of castor oil. This, I believe, was very inefficiently performed, owing perhaps to the inability of the parents or the nurse to understand or speak English; and therefore I objected to give soothing medicine as they suggested, and again recommended the castor oil. At length the French nurse sought the shop of a French drug and coffee-house keeper, and obtained a syrup, of which half a tea-spoonful was to be administered every two or three hours, until the child became quiet. As an evidence of carelessness on the part of the Frenchman, I may state that no label of any kind was placed upon the bottle, and that the bottle itself was ten times too large for the quantity of medicine supplied. The nurse mentioned the age of the infant, and left it to the discretion of the druggist to supply the required remedy. The first and only dose was given at about half-past 10 P.M., on the sixth day after its birth, and within half an hour induced the usual symptoms of poisoning by opium. The cries ceased; the features became pale; the jaw fell; the respirations became laborious and irregular; and at length coma supervened. The nurse had by this time left the house, so that the parents had the sole care of the child. They, after a time, became seriously alarmed at the above-mentioned symptoms, and at the fact that the child ceased to take the breast; and during the night they called an English lady resident in the house, who was also familiar with the French language. They remained at the side of the child during the night, and deferred sending for me until the morning, since I lived at a distance from their habitation. When I reached the house, at half-past 9 A.M., on the seventh day from the birth of the infant, I found it perfectly insensible. Pinching the skin, or tickling the soles of the feet, caused no muscular movement; the pupil was fixed and contracted; the lung-motion was insensible to the touch; the face was pale, and the features natural; the limbs were relaxed, and without any movement, except a very rare and occasional spasmodic motion of the upper extremities; once or twice it also moved its lower lip, and the eyes opened spasmodically. The child had passed both fæces and urine, in small quantity, into the napkin, which had not been removed. The respiration on my first seeing it was almost suspended: so much so, that I had no doubt as to the rapid dissolution of the patient; but after a time it recovered, and became more rapid than natural. This latter condition remained for a few minutes; but at length gave way to the former condition of suspended respiration. These opposed states were renewed in succession until near to the period of its death. The pulsations of the heart bore an exact relation to the state of the respiration. When the latter was rapid, the pulsations were regular and tolerably firm,

and nearly as rapid as in a state of health; but when it declined, the pulsations also declined, until at length none could be felt or seen. A gasp or two, however, caused a renewal of the heart's action, and all went right again for a very short time. The temperature of the body was of the natural standard; that of the head was scarcely, if at all, above it, and that of the feet was readily maintained. The function of deglutition was doubtful; at first it appeared to exist to some extent, but soon afterwards it appeared to be lost, and, on the whole, I am inclined to think that it did not exist. I remained with the child until half-past 12, and then left it until half-past 2 P.M., when I found it in much the above-mentioned condition, except that the intervals of rapid respiration were less frequent, and the temperature had declined. At 5 P.M., eighteen hours after the administration of the poison, and when six days old, it expired.

The treatment consisted on my first attendance in the administration of foetid spirits of ammonia; in artificial respiration by the hand, when the natural effort flagged or ceased; and, with the help of Dr. Snow Beck, who kindly saw the case, in the application of cold water to the head and face, and gentle flagellation with the wetted corner of a napkin. The artificial respiration seemed of great service, by promoting the action of the heart. I could not obtain a galvanic apparatus. Subsequently, as the child was unable to swallow, we could only continue the artificial respiration, and the application of cold; at the same time bearing in mind that the suspension of respiration tended seriously to diminish the natural heat of the body.

A *post mortem* examination was made seventy hours after death. The vessels of the brain were considerably, but not extremely, congested. No vascular points appeared on cutting into the medullary substance. There was no effusion of fluid or blood in any part of the cavities of the brain or skull. The heart was greatly distended with blood; and the pericardium contained much coloured fluid. The blood was very thick and black, but not coagulated. The liver was large and filled with blood, and the gall-bladder contained bile. The stomach contained about one drachm of fluid; it was reserved for the inquest, and not examined.

The syrup evidently, to the taste and smell, contained opium; but the exact quantity of that drug could only be determined by the druggist who had supplied it. He stated at the inquest that it was the ordinary syrup of opium of the French Pharmacopœia, prepared with five *centigrammes* (about three-quarters of a grain) of crude opium to the ounce: so that, assuming that half a tea-spoonful, or half a drachm had been administered, the fatal dose was one-twentieth of a grain of that drug. There may be, as there must always be, some fallacy as to the precise quantity of the medicine in which the drug is administered, and therefore of the drug itself, and also as to the precise quality of the opium employed; but the above results appear to be very near to the truth.

16, Norfolk Terrace, Westbourne Grove, April 1854.

BIBLIOGRAPHICAL NOTICES.

COMPARATIVE ANATOMY: by C. TH. VON SIEBOLD and H. STANNIUS. Translated from the German and edited with notes and additions, recording the recent progress of the Science. By WALDO T. BURNETT, M.D. Vol. I. THE ANATOMY OF THE INVERTEBRATA. By C. TH. VON SIEBOLD. London (Trübner & Co.), and Boston: 1854.

THE want of a correct and scientific handbook has been so long and so seriously felt by the English student of Comparative Anatomy, that the appearance of a Translation of the work of VON SIEBOLD and STANNIUS will be hailed with real satisfaction by all who are engaged in the earnest prosecution of that science.

The original work is well known as the most accurate and philosophic treatise now extant—at least in a form accessible to the general student. The extensive knowledge

of the subject which the authors possess is clearly and concisely expressed, and condensed within a moderately small compass, without being rendered at all obscure. Much of the information contained in this volume would be looked for in vain in any other single work, and would necessitate a laborious search through numerous monographs in order to obtain it, while much is the result of original investigation, and would be obtainable from no other source. The notes and references which are appended, form, moreover, a complete bibliography of the subject; so that the student who desires to go deeply into it may here find every source of information which it may be desirable to refer to, up to the date of the appearance of the work. On one point particularly, the plan of this work renders it by far the most valuable of its kind, viz.; the abundant details of microscopic structure which it furnishes. The determination of the true nature of the organs found in the lower and sometimes in the higher invertebrata is, as is well known, extremely difficult. The uniformity of position which to a great extent characterises the organs of the vertebrated animals is lost in the lower animals; hence the recognition of these organs in the latter is often conjectural rather than established on any sufficient basis. The histological characters of the organs frequently afford a means of recognising their true relations, when these are determinable by no other method. The histological details are, for a work of this size, remarkably full, and will prove of great value even to the scientific zoologist.

The general arrangement adopted by the author is, on the whole, favourable to the systematic study of the subject. Each class, with the organs proper to it, is described separately, instead of the organs themselves serving as the basis of the arrangement. This would render a comparative investigation of each system difficult, were it not that for every class each is arranged in a separate paragraph, under its proper heading. Thus, should the student desire to follow out the comparative anatomy of the circulatory organs, he will only have to turn to this heading under each class. Practically, then, there is no real difficulty, and the advantage of being able to study the whole economy of any one class without interruption, will more than counterbalance any such minor inconvenience.

It will be found that the classification of the invertebrata is in some respects different from that in ordinary use. Where he departs from the ordinary system, the author gives good and perhaps sufficient reasons for his opinions. The classification of the lower animals cannot, however, be considered as yet established on any permanent basis.

The translation of the first part of this work *On the Anatomy of the Invertebrata*, by Von Siebold, which was published in the early part of 1848, by Dr. Burnett of Boston, United States, has just appeared, and is now before us. The translation is effected in a very satisfactory manner; the language is clear, and conveys the full meaning of the author without retaining the German idiom. The editor has enriched it with numerous references and original notes, and has thus, by bringing it up to the knowledge of the present day, greatly increased the value of the work. Its value would have been still more enhanced by the addition of correct illustrations: this would, however, have raised the price of the volume to so great an extent as to diminish its general usefulness. As it is, we have not the least doubt that the work before us will speedily supersede every text book of Comparative Anatomy which has as yet appeared.

THE ELEMENTS OF NATURAL PHILOSOPHY, or an Introduction to the Study of the Physical Sciences. By GOLDING BIRD, M.D., F.R.S., and C. BROOKE, M.A., M.B., Surgeon to the Westminster Hospital. Fourth Edition. 8vo., pp. 626. London: 1854.

THE well-known work of Dr. GOLDING BIRD on Natural Philosophy is so generally esteemed, that it requires from us but little notice, and still less praise. In this the fourth edition, Dr. Bird informs us that he has sought the assist-