From this time, convalescence proceeded uninterruptedly. The treatment was confined to the application of cold-water pads to the head, and keeping the child quiet. About three months after, she passed through a moderately severe attack of bronchitis, without exhibiting any head symptoms. The depressed bone has by this time risen considerably, and the deformity is much less marked than at first. I anticipate that it will ultimately be quite removed.

REMARKS. This case well illustrates the remarkable flexibility of the cranial bones in infancy, permitting such great depression without apparently any complete separation of the sunken portion of bone. It seems probable that the diminished space for the brain is compensated for in these cases by some degree of lateral bulging of the cranial bones. The condition of the sutures also, no doubt, operates to prevent injurious compression taking place. The blood vomited proceeded probably from a wound of the mouth.

XIPHISTERNAL OR PERICARDIAL CHISEL-SOUND, WITH ITS PRACTICAL APPLICATION.

By FREDERICK JAMES BROWN, M.D., Chatham, Kent.

[*Read before the Medical Society of London, April 5th*, 1856.]

[*Concluded from page* 385.]

CASE IV. Mr. Henry B., aged 19 years, railway clerk, visited by me at Chatham, 14th March, 1854. He had just come from Red Hill station, in Surrey, where he had been ill one month. He had been treated for nervous disorder with palpitation. *Symptoms and Signs.*—Mobile nervous system; lateral curvature of the spine; mind and body overworked in his duties on the railway; insomnia; pallor; great nervous susceptibility; palpitation; tongue whitish; pulse 86, firm; no headache; cardiac dulness normal; chisel-sound heard all along the sternum; deficiency of respiration under the right clavicle. He had not experienced benefit from the treatment addressed to the nervous system whilst he was in Surrey. He was now placed on cardiac treatment. In two days the whiteness of the tongue and the insomnia disappeared. On the 28th March, he was seized with catching respiration, and other symptoms of spinal irritation. He was better on the 6th April, and was then ordered cod-liver oil. On the 15th, he was much better, and was soon after discharged cured; but the chisel-sound, although greatly diminished, was discernible at the lower end of the sternum.

CASE V. Miss B., aged 17 years, sister to the young man whose case precedes this, had been ill six weeks with palpitation when seen by me on the 8th October, 1854. *Symptoms and Signs.*—Pain in the cardiac region, with palpitation; chisel-sound at the lower end of the sternum; slight lateral curvature of the spine.

On the 16th October, she had symptoms of spinal irritation. On the 24th she was much better, and soon after recovered. The chisel-sound did not wholly disappear. No leeches or blisters were employed, but the pills and mixture only.

February 7th, 1855, she was readmitted on my list, suffering from pain and palpitation. The chisel-sound was audible. Blisters were used, with medicines internally, but very little improvement occurred until counter-irritation to the spine was employed. The cardiac pain and the palpitation ceased. The chisel-sound continues.

This patient is under treatment at the present time.

CASE VI. *Complication with Hypertrophy.* Richard A., of middle age, a mariner, was visited by me in Rochester, in June 1854. He suffered from cardiac pain in 1852. There was chisel-sound detected in his case at that time. He was treated for it and relieved. He has complained occasionally of cardiac pain since the attack in 1852.

When I saw him in June 1854, he was suffering from mild subacute pericarditis. He soon recovered under appropriate treatment, but subsequent examination showed extended cardiac dulness, heaving, strong impulse, and chisel-sound.

CASE VII. *Complication with Hypertrophy.* Edwin McG., a lad, about 17 years of age, was visited by me in Rochester, 13th May, 1853. He had scarlatina, succeeded by dropsy, five years previously. The friends state that the heart was then affected. He applied to me for enlargement of the tonsils, and made no complaint of cardiac pain, or of palpitation. The strumous habit was strongly marked. *Physical signs.*—Cardiac dulness considerably extended; heaving, forcible impulse; chisel sound at lower end of sternum. The asperity of the sound diminished under repeated small leechings and blisterings, with the use of medicine. He has had several attacks of pain, with temporary increase of the roughness of the chisel-sound, since May 1853.

CASE VIII. *Complication with Hypertrophy.* William G., a lad, about 18 years of age, was visited by me in Rochester, 6th July, 1854. *Physical signs.*—Cardiac dulness extended; impulse heaving; chisel-sound. This lad had two inflammatory attacks within eighteen months—both of them previously to my visit in July.

CASE IX. *Complication with Subacute Rheumatism.* Henry H., aged 36 years, pipe maker, was visited by me at Chatham, 15th March, 1854. He was subject to rheumatism, and was labouring under the disease in a subacute form when seen by me. He complained of uneasiness in the left side, but felt no pain. Had no cough, dyspnœa, or palpitation. No valvular murmurs. Chisel-sound was audible at the lower part of the sternum. This patient was soon relieved by treatment.

CASE X. *Complication with Phthisis.* Mrs. B., aged 33 years, was visited by me at Chatham, 10th January, 1852. She was in the third stage of phthisis. *Cardiac Symptoms and Signs.*—Pain under the left breast. Cardiac impulse augmented; chisel-sound audible. She was relieved by treatment in a few days.

CASE XI. *Complication with Ecthyma, Chorea, and Rheumatism.* Alice M., aged 11 years, was visited by me at Chatham, 28th February, 1853. The chisel-sound was audible. Iron only was given, and the child soon recovered. The chisel-sound continues.

CASE XII. *Complication with Hypochondriasis.* Mrs. S., nearly 70 years of age, was visited by me at Chatham, 10th July, 1854. The chisel-sound was audible. The patient was greatly relieved, and the asperity of the sound was diminished, by treatment.

CASE XIII. *Complication with Tuberculosis and Ovarian Disorder.* Susannah S., aged 24 years, a domestic servant, residing in Rochester, was visited by me on the 9th April, 1854. She had cardiac pain and chisel-sound. She recovered in a few months under treatment addressed to the cardiac and ovarian regions, together with the use of cod-liver oil and sulphuric acid. This young woman is, at the present time, in confirmed phthisis. I have not had an opportunity of examining her heart, as she has removed from her former residence.

CASE XIV. *Complication with Cerebral Affection and Ovarian Disorder.* Miss C., of middle age, of Maidstone, was visited by me in a village near Chatham, 19th July, 1854. *History.*—Had a paralytic fit ten or twelve years since. Has been affected ever since with vertigo, tinnitus, stupified feeling, burning of eye-balls, spasm of œsophagus, smarting and fluttering in the region of the heart, and nervous dread. The catamenia occur every five weeks. *Physical signs.*—Cardiac impulse augmented; chisel-sound audible. This patient was only a few weeks under treatment, but in that time considerable improvement took place.

CASE XV. *Complication with Cerebral Affection and Hypochondriasis.* Stephen H., aged 43 years, seaman, was seen by me at Chatham, 4th June, 1854. He had a paralytic fit a few years since. He was suffering from headache and vertigo, also from hypochondriasis. Cardiac dulness normal; no pain in cardiac region; chisel-sound audible. This man went to sea after the single visit.

CASE XVI. *Complication with Degeneration of the Heart.* Mr. A., aged 75 years, a gentleman residing at Chatham, was visited by me on the 12th June, 1854. He had been subject to dyspepsia for ten years, and had shortness of breath, on exertion, for one year. *Present state.*—Glandular inflammation of the pharynx; cardiac dulness normal; impulse and sounds exceedingly weak; occasional intermissions in the rhythmical movements; chisel-sound at the lower end of the sternum. Cardiac treatment was not adopted in this case.

CASE XVII. *Complication with Epistaxis and Splenalgia.* Thomas B., a young man, residing near Rochester, was seen by me on the 14th June, 1853. The chisel-sound was audible. He speedily recovered his health under purgatives and alteratives. I have no note of the subsequent condition of the heart.

CASE XVIII. Mrs. H., aged 73 years, residing at Strood, was seen by me on the 6th December, 1854. She had formerly suffered from liver disorder, vertigo, and palpitation. *Symptoms and signs.*—Pain in the right side, with flatulence; pain over the lower and middle portions of sternum; palpitation and sense of weight at the heart; headache and vertigo. Cardiac dulness extended in the direction of the præcordia; impulse moderate; chisel-sound audible at the lower and middle portions of the sternum. No benefit was experienced by the patient from stomachic treatment. She was placed upon special cardiac treatment on the 6th December, and on the 11th she reported herself as feeling almost well.

I had an opportunity of examining the heart on the 23rd June, 1855. She was suffering from hypercatharsis, succeeding to obstruction of the bowels. The action of the heart was irregular and weak, but no chisel-sound was audible. This patient died of apoplexy on the 25th of July, 1855. The death register was thus written:—"Nephritis—five weeks; apoplexy—nine hours."

CASE XIX. John B., aged 30 years, residing at Strood, was seen by me in 1849 or 1850; I do not recollect exactly. He was much exposed to the weather in his business. He complained to me of soreness of the pectoralis muscle on the left side, with stabbing pains at the left nipple. Cardiac dulness normal; chisel-sound audible at the lower end of the sternum. This patient was habitually dyspeptic, but the pains from which he was suffering were attributable to rheumatism. A few leeches were applied over the heart. The asperity of the chisel-sound diminished in a few days, and the sound was completely absent after a few weeks.

CASE XX. *Complication with Hypertrophy and Aortic Disease. Post Mortem Examination.* Mr. C., aged 45 years, a blacksmith in the dockyard at Chatham, died at Rochester on the 14th April, 1854. He laboured under hypertrophy of the heart for several years. During the progress of the disease, he had several inflammatory attacks, characterised by pain in the cardiac region, augmented impulse, and pyrexia. He had one such attack within a few weeks of his death. He died with anasarca and gangrene of the lower extremities.

From the first of his illness, a chisel-sound was audible at the lower end of the sternum. A rough systolic murmur was heard over the aortic orifice, passing upwards, in the course of the aorta and carotid arteries. This murmur was quite distinct from the exo-cardial chisel-sound at the end of the sternum. The cardiac dulness was greatly extended, and the impulse was forcible.

EXAMINATION OF THE BODY AFTER DEATH. Several ounces of serum in the pericardial sac, with recent lymph, both loose and adherent. Surface of the heart entirely of a milky hue, but only presenting distinctly laminated lymph in two places, each equal to a shilling in size, and opposed to similar deposits on the parietal pericardium. The laminated lymph was on the anterior surface of the heart, near the junction of the two ventricles. The heart was greatly enlarged and thickened. Its probable weight was from twenty to twenty-four ounces; coagula, both black and white, were found in the right cavities. Black jelly-like blood occupied the left ventricle and the aorta. Aortic valves competent. Ossiform changes in the aorta, from its orifice upwards for an inch. Slight dilatation of the aorta.

REMARKS. This man was not seen by me during the last few weeks of his life. It is evident that he had acute partial pericarditis a short time before his death. The milky hue of the heart appeared to be of old date. I feel no hesitation in referring it to repeated attacks of subacute pericarditis. I presume that the shaggy deposit of lymph had become smoothed and attenuated by the process of absorption subsequently to the attacks of pain and augmented cardiac action which the man experienced from time to time.

I much regret that I have been unable to procure a *post mortem* examination in an uncomplicated case.

Before bringing this paper to a conclusion, I am desirous of producing a brief description of mild subacute pericarditis, because it is an affection which may readily be overlooked, and because it is possible that it may precede the chisel-sound.

Symptoms and Signs of Mild Subacute Pericarditis. Redness of countenance; dyspnœa on exertion, not increasing so much as to prevent the recumbent posture; pain at left nipple, sternum, præcordia, or left hypochondrium; the pain increased by distension of the stomach; slight palpitation; occasionally slight cough; pulse natural, or nearly so; tongue frequently natural.

Physical Signs. Cardiac dulness extended into the præcordia, and augmented in intensity; impulse jerking, and augmented in force for a day or two, succeeded by diminution of impulse and increase of dulness. Soon afterwards, friction sound (a to and fro rubbing) is heard over the lower and middle portions of the sternum. The dulness then diminishes, and the impulse increases.

Causes. Damp clothes; slight blows over the heart; over-running; pressure against the præcordia. Possibly some alteration in the nutrition of the part, together with a slight exciting cause. I have noticed the disease to arise during the progress of other affections, namely, intermittent fever, subacute ovaritis, and the slight subacute rheumatism that is marked by pains in both shoulders and in the muscles of the chest.

Treatment. Mild antiphlogistic remedies. A few leeches and a blister, with the following mixture:—

℞ Antimonii potassio-tartratis gr. ij; potassii iodidi ℈j; spirit. ætheris nitrici ʒiss; aquæ ʒvj. M. Cochleare amplum quartis horis sumat.

It is advisable to give blue pill, with the pulvis ipecacuanhæ compositus, at bed time.

I will now relate two cases that illustrate the preceding description:—

CASE I. Master Tom D., aged 8½ years, a healthy boy, residing in Rochester, was seen by me on the 17th May, 1853. Had been ill for three weeks, although walking about. His clothes were wetted by rain during an excursion into the country. He continued to walk to school, distant half a-mile, and partly up a hill, until the day that I visited him. *Symptoms.*—Countenance red; dyspnœa on exertion; palpitation; occasional cough; pain at left nipple. No pyrexia. Of these symptoms, only one was noticed by the parents, namely, dyspnœa on exertion. *Signs.*—Cardiac dulness extended; double friction sound in the cardiac region; sounds of heart altered in quality, as heard in the left lateral region. He recovered speedily, being much better on the 23rd May. The treatment pursued was that indicated by me.

I examined the heart on the 21st December, 1854, for the purpose of ascertaining whether a chisel-sound had arisen: but there was no morbid sound whatever.

CASE II. Albert C., aged 17 years, the son of a draper residing at Strood, tall, and full-limbed, received a push against the chest, in play, from his sister, on the evening of the 2nd May, 1854. He felt pains at the left nipple the same evening, which increased up to the date of the first visit on the 4th May. *Symptoms.*—Countenance red; slight dyspnœa; pain at left nipple. *Signs.*—Cardiac im-

pulse jerking and forcible. Next day there was augmented dulness, whilst the impulse was almost absent, and the heart's sounds were obscured. Pulse 78; tongue quite clean; no cough; slight pain at the middle of the sternum; decubitus on the back.

May 6th. The impulse and the sounds were more clearly audible, and there was double friction sound over the cardiac region. The patient recovered speedily. The treatment was that previously stated to be suitable for these cases. I examined the heart on the 18th December, 1854, and found no abnormal sound.

In the absence of a stethoscopic examination, one would be disposed to dispute the nature of the preceding cases, particularly as they were unattended by pyrexia. The two symptoms that lead to a correct diagnosis are the redness of countenance and the dyspnœa on exertion. But the physical examination settles the matter.

As I set forth certain propositions at the commencement of this paper, I have only to state, in conclusion, that I desire the assistance of the profession to investigate the subject, so that it may be determined whether or not I have described a disease that can be found by due observation.

It is desirable that *post mortem* examinations of the heart should be made in cases that are free from complication; but as opportunities seldom occur to one individual, it is necessary that there should be many observers engaged in the investigation. This must be my apology for laying before the Society a crude paper.

Reviews and Notices.

SECOND REPORT OF THE POSTMASTER-GENERAL ON THE POST OFFICE. Presented to both Houses of Parliament, by Order of Her Majesty. pp. 84, with map. London: 1856.

THIS Report is very interesting as regards the general statistics of the Post Office; but in this place we have only to do with that portion which relates to the medical arrangements.

Early in 1855, it was determined to appoint a medical officer to take charge of the health of the letter carriers employed by the General Post Office. It was originally intended to confer this appointment on Dr. Hector Gavin; but his untimely death frustrated this arrangement, and the post was conferred on Dr. Waller Lewis, whose first periodical report is to be found at p. 74.

Dr. Lewis reports that, on the 14th of last November, there were 1071 inspectors, letter carriers, sorters, etc., of whom he had full charge; 387 clerks with salaries not exceeding £150, whom he does not visit at their own abodes except during the prevalence of an epidemic, when he also extends his supervision to 295 officers with higher salaries, and prescribes medicine and gives advice to the officers of the department generally.

The general health of the persons employed in the Post Office has been good; but diarrhœa and rheumatism have prevailed somewhat extensively. Several patients under Dr. Lewis's care had consumption: six died of this disease in the latter half year of 1855.

Dr. Lewis reports that a number of sorters and stampers suffer from catarrh, bronchitis, influenza, and cold, arising from exposure to draughts of cold air. He says that measures are being taken with a view to remedy this evil. A large amount of bowel complaint, he had reason to believe, was caused by contaminated air from the water closets. To remedy this, he recommended that these places should be removed to a situation where a free current of air should intervene between them and the office. This has been done, with good effect.

Dr. Lewis also recommends the erection of good lodging-houses in the neighbourhood of the Post Office for a large body of the letter carriers, many of whom live in houses of most insanitary condition, and often suffer from zymotic diseases. On this point, the Postmaster-General (the Duke of Argyll) also lays stress in his Report. His Grace says:

"The general freedom from disease which seems to be enjoyed by the occupants of the model houses that have been erected in the last few years affords grounds for hoping that immunity from sickness to a similar extent might be enjoyed by the letter carriers if their dwellings were equally good; an object which might in some degree be attained by the erection in the neighbourhood of the Post Office of suitable buildings, available, on the payment of a moderate rent, to such of the letter carriers as might desire to live there. Such an arrangement would be beneficial to the men, not only by affording them better dwellings, but by saving their time and labour in walking to and from the office; while to the department much convenience would be given by the opportunity of speedily summoning an increased force on the arrival of any large mail from abroad." (p. 31.)

It is highly satisfactory to see that so much care is being taken of the health of a large and valuable class of public servants.

CONSUMPTION: ITS CAUSES, PREVENTION, AND CURE. By THOMAS BARTLETT, M D. pp. 172. London: Hippolyte Baillière. 1855.

THERE is much common sense in Dr. BARTLETT'S book, which appears to be intended for the public as well as the profession. On the minutiæ of tubercular deposits, he says but little; and he might have well omitted the rather meagre account of the stethoscopic signs of consumption at page 6. The hygienic precepts which he lays down to be followed in the prevention and cure of consumption are sound and valuable. In regard to climate, he deprecates the expatriation of phthisical patients, when our own island, especially the south parts of Devon—Dartmouth, Salcombe, Blackpool, etc.—possesses so many advantages.

This is a book which the public may consult with safety, and the profession often with advantage.

DENTAL ANÆSTHESIA. PAINLESS TOOTH EXTRACTION BY CONGELATION. By J. RICHARD QUINTON. Fourth Edition, enlarged. pp. 154. London: R. Theobald. 1856.

MR. QUINTON is somewhat like the old historians, who, when they essayed to write a History of England, used to begin with Adam. For he has pressed into the service of dental anæsthesia, astronomy, geology, and physical geography! a good recognition, indeed, of the unity of science, but carried out in a rather awkward manner. *Exempli gratiâ;* in the special chapter on the Painless Method of Applying Cold, there is an allusion to the law of planetary distances, and a criticism (in a foot note) of the theory of the formation of the asteroids from an exploded planet!

Mr. Quinton possesses evidently an amount of general knowledge which is most creditable to him; but we would advise him not to parade it quite so extensively, or his readers will become mystified. Nevertheless, we are bound to say that he makes out a good case in favour of the employment of cold to produce anæsthesia in dental operations.

THE RUGELEY CASE. Very great interest has been excited this week at Guy's Hospital by a series of toxicological experiments on the lower animals, relative to the poisonous action of strychnine, antimony, etc. Dr. Christison and Dr. Tweedie, of Edinburgh, Dr. Alfred Taylor, and Dr. Owen Rees, of Guy's, are all busily engaged in these researches. As the experiments and tests will be produced on the trial, it would be premature to state the general result. The admirable and hitherto unequalled set of experiments by Mr. Nunneley, of Leeds, are the general theme of admiration, and have been more or less repeated as regards strychnia; while, as regards antimony, the reagents and pathological effects of this mineral, as shown by Dr. Richardson, seem less open to doubt. It has been stated that Dr. Letheby is also engaged in a similar set of experiments.