suffering from the disease for four years; and attributed the origin of it to having slept in an out-house during one cold night, whilst in a state of intoxication. Soon after this occurrence, he was attacked with rheumatic fever, which confined him to his bed for six weeks; but during his convalescence, fresh inflammation and swelling took place above the condyles, which, in the course of some time, ended in suppuration. Matter formed, discharging itself through an external opening, the latter sometimes healing, and then breaking out a-fresh. Thus matters went on for the last four years, incapacitating the man from following his ordinary employment.

When he first came into the hospital, there were two sinuses about two inches above the condyles, each leading to a dead piece of bone at the posterior and lower part of the femur just above the popliteal space, and which could be easily felt with a probe. The man appeared of a good constitution, his general state of health was satisfactory, and everything appeared favourable for the removal of the necrosed portion.

On November 26th, under the influence of chloroform, an incision, four inches long, was made on the outside of the lower part of the thigh down to the bone; after a little careful dissection, a piece of dead bone was felt, which was extracted by means of a forceps. Another piece was also felt, but it was much more on the inner side of the femur than the first; and considerable difficulty was experienced in extracting it, owing to its situation, and being so near to the artery: however, after some little manipulation, it was successfully removed. The finger was introduced into the wound; a sort of depression or hollow was felt at the lower part of the femur, from whence the dead piece came, but no more dead portions could be perceived. There was not much hæmorrhage during the operation, and no vessel required a ligature. The parts were dressed with wet lint and a bandage; an opiate was directed to be given at bed-time.

November 29th. The wound has a healthy appearance, and is beginning to discharge healthy looking pus. To have an opiate every night, and a linseed poultice to the wound.

December 3rd. Everything was going on most satisfactorily; not a single bad symptom; the wound was granulating and contracting, and the man had considerable power in moving the limb.

From this time he gradually improved; and left the hospital quite well on the 15th January.

CITY DISPENSARY.

ON REDUPLICATION OF THE SOUNDS OF THE HEART, PRINCIPALLY OBSERVED IN CASES OF MALFORMATION OF THE CHEST, ETC.

By JOHN COCKLE, A.M., M.D., F.R.A.S., Member of the Royal College of Physicians; Physician to the Dispensary; etc.

CASE I. *Extreme Deformity of Spine and Thorax: Enlargement and Displacement of the Heart: Marked Reduplication of the Second Sound: Chronic Bronchitis.* Ellen Goldsmith, aged 19 years, admitted March 13th, 1856. *Previous History.* Had a fit at four years of age, which appeared to affect principally the right side, leg and foot. At eight years of age, was injured by a severe fall; and, two years subsequently, the existing deformity commenced. *Present Symptoms.* Almost constant tickling cough, dyspnoea, and pain corresponding to the mid-sternum; headache, debility, irregular menstruation, coldness of the feet, great susceptibility to cold.

Inspection. Short stature; light hair and complexion; circumscribed deep redness of cheeks, with pale border; enlargement of thyroid gland. Anteriorly, curve of the entire thorax to the left; concavity to the right. Centre of sternum half an inch from the mesial line; left nipple higher than the right by three-quarters of an inch; right

clavicle lower than the left; the supra-clavicular space deeply hollowed; muscles of this side of the neck wasted. Upon the left side, the clavicle raised, and supra-clavicular space full. Considerable development of the muscles of the neck and shoulder. Here the upper arm approaches the side within a quarter of an inch, and the spine of the ilium and side are nearly on a level. Upon the right side, at the axilla, there is an interval of an inch and three-quarters; and lower down, of an inch and a half. The ilium projects considerably from the side. Posteriorly, immense distortion of the ribs and spine; the curve (dorsal) faces the right. There is great contraction of the entire right side: no movement is indicated by the spirometer. Upon the left side, the ribs are unnaturally crowded together, projecting four inches from the plane of the spine. This ridge extends from the shoulder to the hip. Antero-posterior measurement—left side, twelve and a half inches; right side, nine and three-quarter inches. Muscles of supra-spinous fossa very developed. Right foot smaller and shorter than the left. No abnormal pulsation of arteries, or cervical venous congestion. Visible impulse of the heart extends from lower border of second left cartilage to sixth rib, and two and a half inches external to the left nipple. No epigastric impulse.

Palpation. Forcible systolic and diastolic impulse, which ceases along the left border of the sternum. No *frémissement*. Pulse 100, rather weak, and slightly irregular after coughing.

Percussion. Dulness over the site of visible impulse; dulness over right contracted side; clear sound over left posteriorly.

Auscultation. Respiratory murmur puerile in some situations; in others, superficial, blowing, cooing, and sibilus, over the upper portion of left lung. Heart's impulse heaving; first and second sounds extensively audible. Marked reduplication of the second sound at lower border of the second left synchondro-sternal articulation, and in diminishing ratio down the left border of sternum nearly to the apex; reduplication ceases further to the left, on a transverse line, than the spot named, viz., the second cartilage; but both first and second sounds become very sharp and ringing. Upon the right side, reduplication becomes gradually indistinct, passing across the sternum, but is again audible in a weaker degree at the aortic cartilage. At the left apex, both sounds are distinct, equal in timbre, and slightly ringing.

CASE II. *Deformity of Spine and Thorax: Displacement of the Heart and Lungs: Persistent Reduplication of the Systolic Sound of the Heart: Chronic Bronchitis.* Louisa Webb, aged 28 years, admitted September 20th, 1855. *Previous History.* A small hard lump at the back of the neck was observed at birth. At seven years of age, the distortion of spine and chest first began to show itself. This case, in its more salient features, greatly resembles the one last described. *Present Symptoms.* Palpitation, dyspnoea, constant sick headache.

Inspection. Dwarfish stature; face anxious; pallor mingling with leaden tint. Posteriorly, the spine is excessively curved, more especially in the dorsal region; the concavity faces the right side, which is greatly contracted and twisted. The ribs are enormously distorted upon the left side, bulging beyond the spine, and crowded together. Anteriorly, the entire thorax inclines to the left side. The heart apparently occupies a position nearly transverse, corresponding to the area of the second and third left ribs. In this site is the maximum seat of impulse and of percussion dulness. At the upper border of the third costal cartilage, perfect reduplication of the systolic sound (*bruit de galop*) is audible. This doubling extends transversely across the sternum to about one inch to its right side; here it becomes indistinct and obscure; it extends vertically down the sternum to the ensiform cartilage, lessening to the left below the mamma. Between the fifth and sixth left ribs, nearly normal sounds are faintly audible. The second sound at the aortic and pulmonic cartilage, as also in the carotids, is clear and distinct.

In this case, whenever the circulation is accelerated, either by emotion or physical exertion, as ascending a flight of stairs, the reduplication has entirely ceased, becoming again very marked as the heart's action gradually becomes slower. This case has been constantly under examination since her admission, and the persistency of the duplication substantiated.

CASE III. Malformation of the Sternum: Slight Temporary Pulmonary Irritation: Temporary Reduplication of the First Sound of the Heart. C. C., aged 24 years, naturally slight and delicate, but, until six months ago, had always enjoyed good health. Some months prior and subsequent to this period, he has had considerable mental excitement and anxiety. His indisposition began with frequent spermatorrhoea and excessive deposit of phosphates and oxalates, with much pain in the groins. He now lost flesh and strength considerably. After thus suffering for three months, pain was pretty constantly felt at the left acromian region of the clavicle, darting through to the back, about one inch to the right of the sixth dorsal spine. This pain has been unceasing for the last ten days, passing as well under the axilla. At times a sense of oppression is felt over the cardiac region. The hands and feet are constantly cold and clammy.

Inspection. Face pallid; nose tumid; lips large. Looks older than his age. Physiological heteromorphism of sternum. The thorax is tolerably symmetric for about two and a half inches below the clavicles. The episternal notch appears deep, and, upon inserting the point of the index finger in it, the inter-clavicular ligament is preternaturally developed, closely walling in the trachea. Opposite the upper border of the third cartilage, the sternum for the remainder of its portion sinks suddenly in, so as to present a deep excavation (the second and third cartilages consequently form a well marked prominence). The fourth, fifth, sixth, and seventh cartilages are very much crowded together where they approximate, and are attached to the sternum. Marked peculiarity exists about the formation of the seventh and its connexion with the sixth costal cartilage, and the junction with the sternum. Instead of the sixth and seventh cartilages being united as they generally are in one, presenting a smooth surface, there exists a deep hollow between the end of the sixth and corresponding portion of the seventh cartilage. The sixth cartilage can be traced continuously from that point upwards to the lower end of sternum; but the seventh cartilage, which is there massive and strong, becomes indistinct two inches below lower end of sternum, becoming again prominent and distinct within one inch of lower end of the bone. This peculiarity is more marked upon the right than the left side. The whole of these cartilages move together on inspiration. On a deep inspiration, those of opposite sides separate farther from each other, and then it can be felt that the seventh cartilage is continuous throughout. Two inches below the normal superior portion of sternum, and opposite the upper border of fourth cartilage, a vertical fissure begins, and continues for the remaining portion of the bone. This fissure opens during deep inspiration sufficiently wide to admit the point of the little finger, closing upon it again with considerable force during a deep expiration. The nipples are upon the same level, lower border of fourth ribs, and equidistant four and a-half inches from the median line of sternum.

Impulse of heart slight; *in situ*, fifth and sixth ribs; respiration tranquil; expansion of chest uniform. The impulse of the right ventricle is seen in the sulcus during a deep inspiration. Posteriorly, spine slightly curved to the left, about the sixth dorsal vertebra.

Palpation. Apex beat at upper border of sixth rib. Upon deep inspiration, the impulse of the right ventricle is felt on the opening sulcus for a space of two inches. Vocal fremitus greater generally over right anterior and posterior surfaces. Pulse 90; soft, regular, and compressible.

Percussion. Pulmonary sound comparatively somewhat duller under right acromial end of clavicle, elsewhere normal, with the exception of lower sternal region, and

along the cartilages of fifth ribs; here the percussion sound is dull. The lower boundary of the right lung comes down to the lower edge of the sixth cartilage, and one inch and a-half below the lower end of sternum. The heart is covered to the fourth space.

Auscultation. Lungs. At the right acromial region of clavicle the inspiratory and expiratory murmurs are hoarse, and the vocal resonance is extremely strong over a spot the size of a half-crown piece. Here, also, the heart's sounds are very audible. At the corresponding surface of the left side, the respiratory murmur is pure, and no abnormal vocal resonance is audible. Posteriorly, the respiratory murmur is tolerably pure. No unusual vocal resonance exists, either in right or left supra-spinous fossa. **Heart.** At the left apex marked reduplication of the systolic sound exists, somewhat resembling a cog-wheel; the second sound is heard single, distinct, though not sharp. Over the lower sternal region—the principal seat of the deformity—the reduplication is still more marked. This phenomenon persists over the two lower thirds of the sternum, and within a line drawn vertically from the clavicles to the nipples; without these limits the doubling is gradually lost. Neither at the aortic or pulmonic cartilage is the second sound doubled. With generous diet, chalybeates, and cod-liver oil, and croton oil friction over the lung, the general health improved, and the local phenomena disappeared; the heart's rhythm is now nearly perfectly normal.

The reduplication in this case seemed dependent upon congestion of the lung, inducing temporary distension of the heart's cavities.

[To be continued.]

Hospital Gleanings.

USE OF CHLOROFORM IN HERNIA: FREQUENCY OF IRREDUCIBLE HERNIA FROM ADHESIONS FORMED TO THE WALLS OF THE SAC.

Two cases, which have occurred in the hospitals during the last fortnight, tend to show that, in the operation for hernia, the surgeon can have no rule absolute as to not opening the sac; and that, after all, when we come to the statistics of the question, there is no statistical result that may not be vitiated by such cases as the following, where the intestine is adherent to the sac, and where it is necessary, even after opening the latter, to leave the intestine very much as it was before the operation.

One was a case of strangulated irreducible hernia, on which Mr. ERICHSEN operated, at University College Hospital, on the 14th inst; the second, a case under the care of Mr. STANLEY, at St. Bartholomew's Hospital, about the same time. As Mr. Stanley well observed in this case, there is no disease in which the surgeon, in much operating practice, sees so many modifications and varieties as hernia; it is well, therefore, he should always keep the subject before his eyes. Mr. Erichsen also observed to his class, that complications of hernia are constantly occurring, and that there is no operation in surgery which the student should more sedulously study.

Mr. Erichsen operated on Wednesday, the 14th; and, without encumbering the case with the previous history, we may say it was a case of inguinal hernia, in which the symptoms of strangulation had existed for several days; but on the previous Monday, it was said, the bowels had been slightly opened, but still without abatement of the symptoms of strangulation. The tongue was dry; the pulse feeble; the tumour was excessively tense. All attempts at the taxis proving quite unavailing, an enema was administered, which came away again, merely tinged with feculent matter. There was not much vomiting. This symptom, Mr. Erichsen stated, was one of the most uncertain of all the symptoms of strangulated hernia: it is, in fact, almost absent altogether in some cases of a very bad kind coming to University College Hospital.