

the subclavian November 26, 1883, in the German Hospital at S. F. The subclavian was readily secured. While freeing the carotid the anterior mediastinal space was punctured and some air drawn in when a compress closed the opening. Silk ligatures. Drainage tube and stitches removed at second change of dressing fourteen days later. The right radial pulse did not reappear until January 20, the temporal until March, 1884. The tumour slowly diminished, though it is still detectable. Pulsation at first diminished also, but of late has returned in full force. Patient last seen in April, 1886. She was again able to fill her place as housekeeper, and was free of her former suffering. Atrophy and wasting of the right arm, following the operation, were remedied by electricity and massage.

Despite the views of Holmes and Marsh (1885) and Küster, R. concludes from a study of the cases that co-ligature of both vessels is preferable to two separate operations. Ligation of the subclavian is certainly the more important part. In several of the cases subsequent autopsy showed the carotid to be still partially open. After briefly reviewing other methods of treatment and their results, he decides that ligation is far the most successful.—*Arch. f. klin. Chirg.* 1886. Bd. 34. Hft. 1.

HEAD AND NECK.

I. The Formation of a New Nasal Skeleton from the Frontal Bone. By Prof. KÖNIG (Göttingen). In cases where the bony framework of the nose has been destroyed, all attempts heretofore at reconstructing a proper profile have failed.

In view of four fairly successful cases, K. here presents a method which he has devised. First, the soft parts (tip and alæ) are made mobile by a transverse cut through the most sunken (saddle) portion of the nose. If this lower part is then drawn down into its normal position, a broad gaping defect appears. This is first bridged over by cutting a $\frac{3}{4}$ to $1\frac{1}{2}$ ctm. wide oblong flap from the forehead perpendicularly upwards from the bridge of the nose. This flap includes skin, periosteum and cortical layer of frontal bone—the latter being cut around by a chisel. The whole is then loosened by following down

through the diploë with a chisel the exact width of the flap; at its lower end, just at the beginning of the nose, it is bent straight over downwards in front. This brings the skin side of the flap to face the interior of the nose and leaves the bone exposed. Of course, the size of this flap has been so calculated that it just covers the above mentioned defect. At its free end it is so sewed to the apex that the (external) cutaneous border of the latter remains free. To this free edge of skin as well as around the defect, he now sews a cover-flap taken laterally from the forehead.

Hence, the bone-periosteum-skin flap constitutes the inner lining of the nose. The bony profile of the nose is thus given an ample prominence. Some little corrections may still be necessary about the root of the nose.

His 4 cases included 2 from syphilis, 1 from injury, and 1 in a boy, æt. 15, from necrosis. The good results have proved lasting—3½ years, 2½ years, and in two 1 year, have passed since the operation. All his flaps, even when a little less than 1 ctm. wide, have proven viable.

It is better not to operate so long as there is ozæna from necrosis or ulceration. Wood-cuts and lithographs accompanying the article.

K. states that he is trying this method in cases of total loss of the nose.—*Arch. f. klin. Chir.*, 1886, Bd. 34, Hft. 1.

II. On the Mortality of Operated Hare-lip and Cleft Palate. By Dr. A. HOFFA (Würzburg). This article adds 80 cases from various operators in Würzburg and Freiburg—1870 to 1885—to previous statistics [*v. ANNALS*, 1886, Jan., p. 80-83]. Of the whole 80, 24 (30%) have since died. Of 64 under one year old, 19 (30%) died before the end of that year. The collective statistics for the first year give 373 cases, with 129 (35%) deaths. Hoffa endeavors to determine how far the fatal results were due to the operation, and how far to the malformation itself. The normal death-rate the first year from an average for various countries, he gives as 25%, leaving 10% due to one or both of the causes mentioned. To determine between these

he divides the respective cases of Fritzschi, Gotthelf, Abel and himself into three classes, according as the chief deformity was: I, hare-lip; II, complete fissure; III, bi-lateral fissure:

Group I.	114 cases, with 27 deaths (23.7%)
“ II.	111 cases, with 43 deaths (39%)
“ III.	41 cases, with 24 deaths (59%).

From these figures, showing progressive mortality as the trouble increases, it cannot be doubted that the malformation itself has a great influence on the mortality. This conclusion is opposed to that of Gotthelf, who blamed the severer operation for the increasing mortality. Those of the III class are usually born weak and atrophic, and with great tendency to respiratory and digestive troubles. The respiratory troubles are remedied to a far greater extent by the operation than are the digestive. H. endeavors by other statistics to further establish his view of the prevailing influence of the malformation itself, rather than the operation, on the mortality, but decisive facts are wanting.

By adding up 620 published cases of all ages, he finds the mortality for the first two weeks p. o. to have been 60 (9.6%); from the second week to the end of the third month in 439 cases it was 67 (15%). Of 336 cases 55 (16%) died between the third month and the end of the fourth year. Of 39 cases of bi-lateral cleft palate with os prominens operated under one year of age, 25 (63%) died within a couple of years. By comparing two curves, one representing the normal death, the other that of the operated children during the first year, he finds that the second to the sixth month, inclusive, is the most favorable time for operating. Dentition, which then begins, shows a deleterious influence. As an evidence of the advantage of operating early he cites a case where the lip was treated, and at the end of three years the previously existing alveolar and anterior palatal fissure had completely healed out.—*Arch. f. klin. Chir.*, 1886. Bd. 33, Hft. iii.

III. Contributions to the Theory of Goitre. By Dr. J. SCHRANZ (Hopfgarten in Tyrol). A two years' experience with this trouble in a region where it is endemic, furnished the incentive to an article on certain points in connection with goitre, especially on the

dependence of alterations in the cardiac action on volume-changes in the thyroid gland. With the enlargement of the thyroid the author has frequently observed that abnormalities appear in other organs of the body—heart affections being one of these.

His collective cases represented 739 goitres amongst 3,304 individuals living and dead—750 private patients with 117 goitres, 557 school children with 245, 1,700 autopsies at the Innsbruck Pathological Institute with 308, and 227 insane at Hall with 68 goitres.

All cases, even the lighter forms, are included, though in younger patients it sometimes subsides later. These figures show that the German Tyrol is as much afflicted by goitre as even the worst parts of Switzerland. Still, cretinism and deaf-mutism is rare, the trouble being rather extensive than severe.

In the upper classes in school it was more frequent than in the lower, in harmony with Bircher and others.

Of the 739 cases of goitre, 344 were also the subject of heart trouble; 47 of the latter had valvular lesions, the balance hypertrophy, dilatation, fatty or other degeneration, or clinically, abnormal heart-action. In the same region heart affections in the non-goitrous and phthisis, are not very frequent, *e. g.*, of 174 heart cases amongst 1,307 individuals (school children and private patients), 115 also had goitre. His statistics, like those of other observers, show a slight excess of females amongst the goitrous. When the affection is one-sided, it has a great predilection for the right, collectively 92 r. to 19 l., the separate lists also bearing this out.

Hill residence slightly tends to increase the number of goitrous (10:9) as might, *a priori*, be expected from their greater physical strain.

As to geognostic conditions, argillaceous slate regions showed a maximum of goitrous, sandstone a minimum.

In a table are shown the results of examination of the drinking water in the various districts where the school children lived. From these, however, he is unable to draw any positive conclusions.

To return to the influence on the heart, he says: "There is no doubt that enlargement of the thyroid and abnormalities of the heart very frequently occur together." As to the innate connection between

the two, various possibilities have to be considered. The symptoms point to a disturbed and especially a weakened heart-action. The return of blood to the heart is impeded partly by direct pressure on the veins, partly by compression of the trachea and interference with respiration. The introduction of a more or less voluminous vascular network into the circulation also directly increases the strain on the heart. In the one case dilatation, in the other over-action and hypertrophy result, and in both cases, finally, degeneration of the heart. This result (hypertrophy or dilatation, with or without fatty degeneration) is observed in all autopsies of long-standing cases where the goitre has exerted pressure. In many cases heart trouble is certainly caused by goitre, but there are reasons for thinking that the reverse also occurs, amongst others the fact that in several cases goitre developed immediately after over-action or hypertrophy of the heart, and repeatedly disappeared again as soon as the heart trouble subsided.

That the enlargement of the thyroid may in many cases be the result of a vasomotor neurosis seems to have been first suggested to him by the following case: A girl with a small goitre, but no sign of heart trouble, was attacked by a peculiar, almost continuous, cough for three days and nights, with further symptoms (almost imperceptible radial pulse, increased second pulmonary sound, dry rhonchi, face pale, extremities cool, etc.) pointing to spasm of the vaso-motors, forcing an over-quantity of blood into the lungs. Meanwhile the goitre became smaller. A half year later, after an exhausting foot tour, an enormous goitre developed within forty-eight hours—the customary cough disappearing entirely, the heart acting steadily, face and extremities natural. This was the exact opposite of the earlier condition. S. believes it to have been but the expression of a relaxed condition of the vasomotors, a somewhat similar relaxation being normally observed after like exercise. Again, a boy suffered an extensive burn of the *face*. During exfoliation and suppuration a goitre developed. When the wounds healed the goitre disappeared. This S. explains by the fact that irritation of the skin causes a local anæmia, followed by vasomotor paralysis. For further corroboration, he makes a comparison with Graves' disease. In the early

stages bromide, not iodide, is in place. When, however, hyperplasia has resulted, the iodides are of value. In this, as in Graves' disease, though less often, similar cardiac conditions occur. Sudden death is common to both forms.

Physiology teaches us many agencies which depress the vascular tonus—straining work of any kind, tiresome marches, climbing, forced playing on wind instruments, difficult births, rapid temperature changes, lowered atmospheric pressure, use of alcohol, etc. The resulting condition may in these cases become permanent. These are also the most frequent causes of goitre, as S.'s cases show. Seacoasts are also free from goitre, whilst the Alps, Cordilleras and Himalayas are its home. In his region the atmospheric pressure is from 40 to 60 mm. Hg. lower than at the sea level. A variety of other factors, such as temperature changes and greater physical strain, combined with the lowered atmospheric pressure in elevated regions.

In harmony with this theory is the fact that goitre occurs more frequently in youth and amongst women, their vascular tonus being more mobile.

The goitrous tendency might be gradually developed where generations continue under favoring conditions.

This alteration in the vasomotors would explain the heart troubles as well as the goitre. The five drunkards amongst the lunatics were all goitrous, and four had also cardiac affections.

As to the relation of goitre to cretinism, cachexia strumipriva, etc., he merely makes suggestions.

He remarks that any procedure requiring narcosis or in any way straining the heart is in the goitrous especially dangerous, and that their fate depends on the heart.—*Arch. f. klin. Chir.*, 1886, Bd. 34, Hft. i.

W. BROWNING (Brooklyn.)

IV. **Œdematous Laryngitis.** Tracheotomy. Glossitis Terminating in Abscess. Severe Hæmorrhage from Tongue. Recovery. By D. H. CHARLES, M. D. The patient was a healthy man, æt. 44, who had had a slight laryngeal inflammation

from exposure to cold a month before. This subsided, but recurred soon after, and he had suffered more or less with his throat for three weeks prior to the severe attack now described.

He was suddenly attacked, whilst at work, with urgent dyspnœa, and with difficulty got home. Soothing medicated inhalations, diaphoretics and a purge were at once employed, with blistering and hot compress over the larynx. When Dr. Charles saw him, two days later, he had all the characteristic symptoms of œdematous laryngitis; and the laryngoscope showed great reddening and swelling of the epiglottis and false cords. The affected parts were swabbed with nitrate of silver solution (5j: ʒi), followed by great and almost immediate relief. Ten hours later he was seized with urgent dyspnœa and almost asphyxiated.

Laryngo-tracheotomy was now performed, and was followed by immediate relief of all the alarming symptoms. He was surrounded by an atmosphere of steam vapour.

Next morning the tongue was greatly swollen and purplish, and protruded between the teeth. It was incised in two places. Fed through a tube.

Next day, breathing still easy. The tongue greatly enlarged. Swelling and tenderness of right side of neck from ear to clavicle.

Tongue again incised, and one ounce of blood escaped. This relieved him, and three days later there was considerable discharge of fetid pus from the tongue.

Purulent matter and blood continued to be discharged from the mouth during the next two days.

On the third day there were six attacks of hæmorrhage, the exact source of which could not be ascertained. Solution of perchloride of iron applied on lint to right side of tongue.

Next day there was severe hæmorrhage from a ragged cavity at right side of root of tongue, which was stuffed with lint soaked in permanganate of iron solution. Plug removed two days later. There were slight recurrences of hæmorrhage, one on the day after the plug was removed and two subsequently, but the patient progressed favorably and is now quite well, with the exception of some wasting and loss of

power in the right side of the tongue. This, however, is getting less.

In his remarks on the case, the author refers to the marked but only temporary relief afforded by the application of nitrate of silver. He contrasts this with the complete and permanent relief of dyspnœa, following laryngo-tracheotomy, and justifies the choice of this operation rather than tracheotomy on the ground (first) of its being easier to perform under unfavorable circumstances (*i. e.*, with little assistance and in inconvenient position), and (secondly) for a reason which is less obvious—"to keep the incision as high as possible." He considers the inflammation of the tongue as an extension from the epiglottis.

He regrets (we think rightly) not having made much more extensive incisions in the tongue. Might not the epiglottis and antero-epiglottidean folds have been scarified in the first instance?

With reference to the hæmorrhages which occurred, Dr. Charles speaks of being prepared to tie the external carotid. (Why not the lingual?) He thinks the wasting and loss of power of the right side of the tongue due to inflammatory degeneration of the muscular tissue.

The mortality of the affections which he gives, according to Sestier, as 158 out of 213, and, as reported by Bayle, 16 out of 17 seems excessive. Durham gives 19 out of 30.—*Brit. Med. Journal*, Nov. 6, 1886.

B. WAINSWRIGHT (London).

V. Two Cases of Acute Glossitis. Dr. TOTHERICK. Both cases occurred in the Wolverhampton General Hospital.

CASE I. E. R., æt. 21, tongue covered by thick, brown fur, hard, immensely swollen, tip projecting half an inch beyond teeth; immovably fixed. Great pain and tenderness on pressure. Salivation profuse. Breath very offensive. Deglutition difficult. Headache, pulse increased, and temperature slightly raised. Gradually completely recovered.

CASE II. J. P., æt. 27, sudden swelling of tongue. The condition was exactly similar to preceding case. Slight albuminuria. There was some slight superficial sloughing under tongue and gums. In this case an incision was made on either side of median line of tongue. Made a good recovery.

As a rule, acute glossitis ends in resolution. It may, however, extend backwards to the larynx and render laryngotomy necessary. In a few cases suppuration occurs; and still more rarely, permanent thickening may be left. The most usual cause for it is said to be "catching cold," and it is supposed by some authorities to be catarrhal in its origin.—*Lancet*, Oct. 16, 1886.

VI. Malignant Cysts of Neck. Mr. F. TREVES. The clinical course of the three cases on which this paper was founded were all similar. The growths were considered to be cystic on account of their containing a very small amount of solid material. One cyst contained pure lymph, in the other two the contents were mucinoid. One specimen (still alive) was shown. The first case when seen was fifty-three years of age. The tumour was situated in the left side of the neck, the skin over being red and brawny. It commenced as a small mass, apparently beneath the sterno-mastoid muscle, and was regarded as a chronic abscess, until an exploratory puncture gave exit to a clear, glairy fluid, which was pronounced on chemical analysis to be mucin. The cyst proved to be deeply attached. It discharged continuously, was treated with injection of iodine; the discharge became purulent, and finally hæmorrhage took place and closed the scene. At the post-mortem there was an imperfect cyst, whose walls were nowhere more than half an inch thick. The inner aspect of the walls resembled the *columnæ carneæ* of the ventricles of the heart. The second case was that of a woman, æt. 52, in which the solid carcinoma formed one-sixth part of the whole mass. This cyst was removed during life; the internal jugular vein was cut, and the brachial plexus exposed; patient died ten days after. The cyst closely resembled the preceding one. The third was epitheliomatous. The patient in whom it occurred was 43 years of age, and had been operated on for epithelioma of the right side of the tongue. Fourteen months after the tumour appeared on the left side of the neck. The skin over it was red and brawny, and on being tapped yielded a fluid chemically similar to lymph. Bleeding also occurred in this case. The cyst wall was not more than a quarter of an inch thick in any part. No secondary deposits.—*Lancet*, 1886, Oct. 23.

VII. Acute Myxœdema Following Thyroidectomy. Sir WILLIAM STOKES. A woman, æt. 18, was admitted into the Richmond Hospital with extensive disease of both lobes of the thyroid. Health good, fresh complexion, well nourished; family history good. Her chief trouble was dyspnœic attacks, usually at night. It was decided to remove the gland. Sir William removed it by the method advocated by Kocher. He mentions the great difficulty he experienced, and the profusion of the hemorrhage, which at times seemed uncontrollable and threatened the patient's life. In the end only the left lobe was got away. The patient made a good recovery, was relieved of the dyspnœa and the right lobe somewhat diminished in size. This, however, did not last long, as the lobe again began to enlarge and dyspnœa came on again. With still greater difficulty and danger the lobe was removed. Within fourteen days puffy swelling was noted about eyelids, backs of wrists, and over metatarsus of both feet. Also some mental torpidity. She also had fits, characterized by great lividity of face, stertorous breathing, dyspnœa, quick pulse, eyes staring and protruding, pupils dilated, and carotids throbbing, ending in copious perspiration. No albuminuria. All these symptoms increased, and pulmonary infiltration supervened. She died nineteen days after the last operation. Sir William draws attention to the marked myxœdematous symptoms and to their rapid onset. He then mentions two other cases of thyroidectomy done by himself, in one of which he partially removed the gland with permanently good result. In the other, division of the isthmus was followed by a satisfactory issue.—*Brit. Med. Jour.*, Oct. 16, 1886.

VIII. On the Surgical Treatment of Certain Tumours of the Neck. FREDERICK B. JESSETT, F. R. C. S. Mr. Jessett advocates a somewhat bolder surgery in dealing with deep tumours of the neck. He views with very little fear ligation of both carotid artery and internal jugular vein. Even division of vagus, sympathetic, phrenic, laryngeal nerves have been divided with "only temporary inconvenience."

In one of the cases operated on there was a large growth, which

had formed slowly, deeply seated and extending from the ear nearly to the clavicle, and quite immovable. No pain, but congestion of conjunctiva, some opacity of cornea with a central ulcer, also ptosis. Left half of face redder than the right, and apparently warmer. Treatment left condition of eye unaffected. The growth was then removed and found to consist of caseous glands. The man made a good recovery, and within a week the ocular troubles disappeared. Mr. Jessett goes on to narrate several cases of both innocent and malignant growths which have been extirpated with good results, and sums up as follows: (1). All innocent tumors in these regions may be removed. (2). That malignant growths may be removed when situated in the triangles of the neck, provided they are freely movable, that the skin and superficial structures are not implicated, notwithstanding their size and the possibility of the large vessels being implicated in the growth.—*Brit. Med. Jour.*, Oct. 16, 1885.

IX. Adenoid Growths in the Pharynx. Sir WILLIAM B. DALBY. These growths can be removed by many methods, and if done thoroughly the result is always satisfactory. If the operator is possessed of an efficient finger-nail, nothing can be better, but all surgeon's fingers are not sufficiently adapted to and strong enough to remove some of the firmer kinds of growth. In these cases Sir William Dalby recommends his artificial finger-nail. The instrument is so made that the sensitive tip of the finger is uncovered, and is most useful in estimating by touch what is being done. By this method also the head can be bent forward, and by this means the blood is prevented from running downwards. Then, again, the artificial nail works so thoroughly that all growth can be removed at one sitting. In children it is best to employ an anæsthetic. Besides, the departure of the three symptoms, viz, the tendency to Eustachian obstruction, the consequent deafness (which generally directs attention to the trouble), and the nasal obstruction—which follows the removal of the adenoid growths, there are other advantages to be reckoned, such as the better prospects of recovery in cases of diphtheria or scarlet fever occurring, with an empty rather than a blocked pharynx, as well as the better chances of the middle ear escaping destruction during diseases

The improvement also of the general health, with free nasal breathing, as well as diminished tendency to bronchial affections, require only mention to be appreciated.—*Lancet*, Oct. 2, 1886.

H. H. TAYLOR (London).

X. Congenital Stenosis of the Trachea from Abnormal Curvature of the Cartilage Rings. By Dr. M. SCHMIDT (Cuxhaven). Female child, æt. 6 months, well developed and nourished, had, since her birth, always much difficulty in breathing. At times violent attacks of dyspnœa with accompanying cyanosis of the lips and cold sweats, especially during the night. Loud inspiratory stridor always present. Nostrils much distended, especially on inspiration. The deep inspiratory drawing-in of the epigastrium and lower sides of the thorax, where not only the intercostal spaces, but large portions of the thorax-walls were sunken in even, very noticeable. Nothing abnormal about the neck, nor did a digital examination of the orifice of the larynx, per os, reveal anything that could cause the symptoms above mentioned. The inspiratory stenosis-murmur resembled closely that of laryngeal croup, and pointed to the larynx as the point of obstruction to the breathing. Tracheotomy proposed. Four days later crico-tracheotomy performed and a canula introduced. This had no beneficial influence whatever on the dyspnœa, and the condition of the patient remained unimproved. Collapse soon followed, the pulse became weak and frequent, and death ensued the next day. At the autopsy it was found that the larynx, œsophagus, thyroid and thymus glands were normal. The trachea was dissected free of its surroundings, and nothing abnormal observed when inspected posteriorly. On opening it, however, (in the usual manner, posteriorly in the middle) and spreading it out, the upper cartilage rings yielded easily to the pressure as usual. Lower down, on the contrary, the left sides of the rings were stiff, offering considerable resistance to the pressure made on them in this way, and turning more slowly inward. When the whole trachea was spread out it was seen that the curvature of the upper rings was quite flattened out, while the left sides of the lower rings formed with their anterior portions a sharp angular crease. This caused a veritable ridge in the lower portion of the trachea, appearing

on the mucous surface of the organ as a vertical line at the boundary of the anterior and left lateral parts. Along the line the curving of all the lower rings was broken by the angular bend inwards. In the lower portion of the trachea on the left wall was also a somewhat concave impression as if caused by the pressure of an egg-shaped body. This reached down to the bifurcation; the angle, where the left bronchus joins the trachea, appearing in consequence, somewhat rounded out. The length of the affected portion of the trachea, from the bifurcation upward, measured 2.8 cm., the whole length of the trachea to the cricoid cartilage being 4.6 cm. No cause for the stenosis was found. This deformity of the trachea would satisfactorily explain the phenomena observed during life. The stenosis, while great enough to give rise to the dyspnoea and continued stridor, had not been sufficiently large to cause death. Complication with the operative trauma was followed by fatal results. The opening made in the trachea being situated above the stenosed portion, and the lower end of the canula not reaching it either, of course no beneficial result to the patient could take place. Inferior tracheotomy alone could have accomplished anything. Author considers the case one of congenital stenosis of the trachea, caused by faulty curvature of the cartilage. His case is instructive, as demonstrating that in similar cases where tracheotomy is indicated, it will be well to do this as low down as possible.—*Deutsch. Med. Wochenschrift*. No. 40. Oct. 7, 1886.

XI. Isolated Extirpation of the Cricoid Cartilage for Ecchondroma. By Dr. A. BOCKER (Berlin). Rokitsanski reported cases of hyperostosis and exostosis of the ossified larynx cartilages, but to Virchow we are indebted for our knowledge of ecchondroma of the larynx. They are found as diffuse and smooth growths, also as knotty circumscribed excrescences, on both the thyroid and cricoid cartilages, having the general tendency of growing inwards, into the lumen of the larynx. Ecchondroma may be easily mistaken for polypi, being covered with normal mucous membrane. They are not operative from above. The number of published cases is small. Those of Macilvain (1831) and Ryland (1835) should not be included, as it is somewhat

probable that both were cases of hyperplasia of the connective tissue, as we often see in syphilis. The first authenticated case is that of Froriep, published in 1834. The chondrom, the size of a walnut, was situated on the inner surface of the larynx, extending far into the lumen and resting on the right vocal chord. A second case was reported by Mackenzie in 1880. The chondroma, as large as a hen's egg, arose from the cricoid cartilage, growing downwards and in front of the anterior surface of the trachea. Türck reported the first laryngoscopic observation (*i. e.*, on the living subject) of such a tumour, in 1863, and to this must be added a case of Störk in Vienna, one published by Ehrendorfer, and lastly a case reported by Asch, in 1884.

The author gives the following cases:

Case I. Male, *æt.* 23, healthy in appearance, and showing nothing abnormal about the neck. Laryngoscopic examination disclosed a small tumour, the size of a bean, covered with normal mucous membrane, lying just beneath the right vocal chord quite near its anterior attachment. It arose from the inner surface of the thyroid cartilage near the anterior line of union. The anterior end of the right chord was raised upwards somewhat and displaced outwardly by the tumour. The membrane of the rest of the larynx was normal. Examination with the sound showed the tumour to be hard and knotty and firmly attached to the lamella of the thyroid. Attempts to grasp it with a forceps were unsuccessful. Its entire removal was finally effected with the help of a cutting forceps, constructed on the plan of those of Luer. The speech of the patient was completely restored. The tumour consisted of hyaline cartilage.

Case II. Male, *æt.* 62, of middle size, pale and slender appearance. Had had difficulty in breathing for some time, which had increased of late. No pulmonary catarrh. A distinct stenotic murmur heard during quick inspiration. Laryngoscopic examination. Larynx showed no inflammatory process. On intonation the vocal chords closed in the normal manner. On inspiration, however, a somewhat rounded, oval tumour was seen extending into the lumen of the larynx from its posterior wall just beneath the posterior end of the vocal chords. It arose from the whole inner surface of the lamella of the

thyroid and the neighboring left arch of the cricoid cartilage, reducing the lumen of the larynx so much that but a sickle-like aperture remained for breathing. Tumour had a smooth surface, being about the size of a hazelnut. Swallowing easy. Extirpation advised. Tracheotomy first, with division of the three upper rings. Digital examination showed the tumour to be immovable, its place of attachment being the same as described above. A tampon-canula of Hahn was introduced, the cricoid cartilage divided in the median line. The cricoid was so much involved in the neoplasm, that the removal of the tumour alone was not possible. The incision, therefore, lengthened upwards to the hyoid bone and the whole cricoid excised. Hæmorrhage was considerable. Wound washed out with solution of corrosive sublimate and plugged with iodoform gauze. No fever followed the operation. Patient could eat and drink without difficulty or discomfort. A secondary hæmorrhage occurring five days later, exhausted the patient somewhat, but did not otherwise affect his recovery. Discharged cured in five weeks. The tumour had the structure of hyaline cartilage and showed a regressive metamorphosis of the cellular elements. Various changes in the larynx of the patient took place after removal of the cricoid. The chords appeared shortened and wobbled somewhat on intonation. The arytenoid cartilages approached nearer one another, and on inspiration the chords rested against each other. Patient wears a canula, closing it when speaking or using a simple ventilated canula of Bruns. His voice is distinct but hoarse and rough. He is healthy and feels well and strong. Bruns lately operated a case of ecchondrosis of the larynx, arising from the plate of the cricoid, by chiseling it off. The canula could, of course, be dispensed with afterwards in this case.—*Deutsch. Med. Wochen.* No. 43. Oct. 28, 1886.

C. J. COLLES (New York).

ABDOMEN.

I. Contributions to the Theory of Hernia. By Prof. E. KUESTER (Berlin). Besides the hernia inguino-properitonealis of Krönlein and the h. inguino-interstitialis of Goyrand (v. ANNALS, 1886.