of the glands. If the contraction be prolonged, as in violent coughing, catarrh, etc., excessive blood supply leads to hypertrophy. The inter-arytenoid space, when the muscle is contracted on phonation, presents numerous longitudinal folds and clefts. These folds, swollen out with blood, press between the vocal cords like a polypus, and lead in turn to obstinate coughing. Histologically the excessive stimulation and blood supply leads to thickening especially of these mucous folds, between which lie deep valleys. The edges of the folds are covered with hypertrophied layers of epithelium ; the spaces between them are but slightly so covered. As these folds lie together in front the secretion of the glands is imprisoned, and the imprisonment of these secretions, mingled with infective sputum from the lungs, leads to the production of longitudinal ulcers. Not only may they become infected with tubercle bacilli, and thus become tubercular ulcers quite independently of actual deposits of tubercle, but the numerous micrococci and schizomycetes occurring in the sputa derived from pulmonary cavities (Orth) may lead to direct infection of a simple erosion.

The "erosive ulcers" which occur at the processus vocales may become infected in the same manner. The difference between the erosive and the tubercular ulcer of this region is that the latter has a sharper edge, does not possess at the commencement any catarrhal areola, and occurs not on the inner aspect of the processus vocalis (as the erosive ulcer does), but on its upper surface.

Follicular or glandular ulcers occur upon the inter-arytenoid fold, in the glands of the vocal cords, the epiglottis—that is, in the regions where glands occur. The tubercular deposit is sometimes in the acini of the glands, at others outside them. Cornil and Ranvier have proved the deposit of tubercle in the interior of the acini. There is an invasion of small cell formation, in which giant cells are seen, and the affected glandular lobule becomes rapidly caseous, ending in the production of a deep, irregular-edged, sometimes crateriform ulcer.

CLINICAL NOTES.

By DR. ROBERTSON, Surgeon, Throat and Ear Hospital,
Newcastle-on-Tyne.

Phthisis Laryngea Hypertrophica — Perichondritis — Tracheotomy—Recovery.—Thomas Veetch, aged thirty-eight, furnaceman, complaining of great difficulty in breathing and dysphagia. History : Thirteen years ago hæmoptysis ; one year ago dyspnœa and dysphagia began. Examination : Omega-shaped epiglottis, contracted ary-epiglottic bands ; false cords greatly thickened, especially right, which conceals both vocal cords. This band ulcerated ; externally box of larynx protuberant ; point of cricoid indistinguishable. Tracheotomy, May 28, 1891. Trachea deeply situated ; its upper part, including cricoid, enveloped in a dense layer of adventitious tissue, half an inch thick anteriorly, which binds down and constricts

trachea. Operation under cocaine. An unusually long canula required to reach trachea. Weight before operation, 7 st. 11 lbs. 8 ozs.; a month after, 8 st. 8 lbs., when he resumed work, and has continued at this ever since. There is a cavity in right apex. Cough and expectoration have diminished: appetite fair. External wound dressed with an auramine ointment, which seems to prevent tubercular infection of same. Menthol in ether is inhaled through tube. Remarks: This case proves the benefit of tracheotomy in tubercular laryngitis. The patient was practically doomed had no intervention been made. The unusual complication met with at the operation was no doubt due to extension of tubercular infection into the tissues in front of the larynx. The observance of the rule to keep strictly to the middle line in operating aided in this case greatly, especially as the land-mark of the cricoid was *non est*.

Laryngo-Pharyngeal Stenosis. — William Nelson, aged sixty-one, complaining of dyspnœa, dysphonia, and dysphagia for one year. History: For twenty years has had ulceration of lips, mouth, tongue, and throat. Examination with laryngoscope: Omega-shaped epiglottis. Through chink diameter of pencil one-eighth of an inch of both vocal cords seen, which apparently move freely. With finger on each side of the epiglottis two bands can be felt running from each side of this to opposing surface of oro-pharynx, leaving an aperture for breathing and swallowing, through which tip of finger only can be made to touch arytenoids. The posterior wall of rest of larynx evidently adherent to opposite pharyngeal wall. Tracheotomy, May 14, 1891, under cocaine, to relieve breathing. The dyspnœa fast reducing patient. A further effort was made with blunt-pointed scissors to sever bands referred to. This, however, was followed by dangerous hæmorrhage, and desisted from. An effort is now being made with graduated bougies to enlarge stenosis. Remarks: The above is an unusual form of stenosis; in fact, I have seen no illustration of such a condition. In Schroetter's works none approaching such is given.

A PRELIMINARY DRILL FOR LARYNGOSCOPY.

FURTHER NOTE.

SINCE the appearance of my paper under the above title, my friend Mr. Wyatt Wingrave has made the very apt suggestion that the sound "eh," which I have stated to be unused by English people, is almost exactly produced in the words "air" and "hair" as uttered by them. I have acted on his suggestion, and recommend the adoption of the word "hair" as a means of leading the patient to the emission of the vowel-sound "eh," which I consider of great value in facilitating laryngoscopy.

Dundas Grant.