an important anomaly which predisposes to the persistence of chronic inflammation.

Irregularities of the septum may play a morbid role even without reducing the capacity of the nasal passage. An irregular septal surface favors chronic inflammation, perhaps by impeding the flow of morbid secretions. Hence, successful operations of septal deformities often prove of service even where no stenosis existed. They are not rarely the starting point of morbid reflexes, especially when the spurs are sharp, or when they come in contact with the surface of the turbinals.

For these various reasons operative treatment of septal deformities is often indicated and in the case of extensive malformation it is usually satisfactory. But the minor irregularities, and especially the deformities due to moderate septal deviation, are not so easily benefited mechanically. The novice can not be too strongly warned against attempting operations indiscriminately, as many of these fail primarily for mechanical reasons, or produce but a temporary result on account of relapses.

INJURY OF THE CAVUM PHARYNGEUM; REPORT OF A CASE.

BY EMIL ARONSON, M.D.

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Several years ago, while practicing in Europe I received a call to Mr. D., a gamekeeper, who had sustained an injury from the explosion of a gun. In the morning Mr. D. had tried his first experiment with his new gun. While the members of his family were looking on they saw him fall to the ground with blood oozing from nose and ear. He was carried unconscious into the house. After some time he regained consciousness but did not complain of the presence of a foreign body in his throat, yet his family thought it necessary to send for their family physician. This gentleman arrived, examined the throat and stated that except a piece of a tooth which was lodged in the posterior wall of the pharynx, nothing could be found. Promising to return in a day or two to remove that remnant of the tooth he left the house. Other relatives of the injured man, much surprised at the indifference of this gentleman, decided to send for me.

Inspection reveals the following conditions: Upper lip swollen, upper right incisors are missing; some loose fragments are hanging in the alveoli. The palate, the mucosa buccalis, the tongue, uvula and posterior wall of the pharynx are discolored, powder-stained and covered with coagulated blood; on the right side of the posterior wall in the region of the constrictor pharyngeus superior and medius is a mass of indistinct shape and color.

The gun consists of two long tubes which can be attached to each other. After placing the cartridge in one tube, the other tube is screwed on to it. At the end of this long tube the inventor inserted an iron bolt, he put the tube to his mouth and expected that by very forced expiration the bolt could be driven against the cartridge. His calculation failed to prove correct at the first trial. He did not consider that the moment the bolt and cartridge would meet explosive gases would become free, which, if no valve was provided, would drive the bolt back into the mouth of the experimenter.

Although the patient felt perfectly comfortable and there were no symptoms of stenosis, I managed to

make out a large, smooth, round, metallic body in the back wall of the pharynx. Trying twice, I failed to grasp this with a long forceps, due to the impossibility of pressing the points of the forceps into the hard iron bolt. I then took a long Langenbeck retractor and using it as a lever removed the bolt, which weighed nineteen grams and was four and a half centimeters long.

I prescribed an antiseptic gargle and directed ice and antipyrin for the intense headache, which appeared in the course of the week. In about ten days the patient was well again. A few conclusive remarks about the direction of the projectile: The upper incisors were struck first and knocked out. The projectile then changed its direction and passed through the oral cavity to become imbedded in the muscles of the pharynx, where it lodged on one of the vertebræ. It is remarkable and of value in regard to diagnosis, how very little pain was felt by the patient, who for more than twelve hours did not believe there was a foreign body in his throat. This case shows how valuable an objective examination is and teaches us not to rely entirely upon the patient's statements or upon the observations of Schroetter (notably, on "Diseases of the Ear," 1876 and 1882), who says that in such injuries of the pharynx the patients always claim to feel the foreign body in the throat.

DISEASES OF THE EYE CAUSED BY DISEASES OF THE NOSE.

Read before the Chicago Academy of Medicine, December, 1897.

BY ALLEN T. HAIGHT, M.D.

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There are no organs of the human body more closely connected than the eye and the nose. No organ suffers more from reflexes than the eye from the nose. The slightest offense to the mucous membrane of the nasal chambers will instantly cause suffering to the eye. Let one come in contact with smoke or other irritants to the Schneiderian membrane and the eye will soon respond to its danger and shed tears. The reason for this is clear, as the eye is directly connected with the nose by the nasal duct, the same mucous membrane, histologically connected, continues to cover the eye lids, the globe and the orbits.

The lachrymal artery with its branch, the anterior ethmoid, supplies blood nourishment to both the lachrymal sac and the nasal duct. The nerve supply is received in common from branches of the ophthalmic nerve and Gasserian ganglion. The lachrymal sac, the dilated part of the nasal duct, is situated in a channel of the nasal process of the superior maxillary and lachrymal bones. Its formation is fibrous and elastic, lined with mucous membrane, continuous with that of the nose. The membrane of the lachrymal sac and canaliculi is lined with pavement epithelium, but in the main duct the epithelium is partly of a cylindric variety. The middle lachrymal organ (Fig. 1) consists of a small double puncta, located from six to eight millimeters from the apex of the inner canthal angle, opening into the corresponding superior and inferior canaliculi, which meet toward the inner canthus in the lachrymal sac.

"The lachrymal secretion is forced through the puncta into the canalicula, then enters the sac and