

TABLE II.—ITALY.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
XIII, p. 150.	F. 25 yrs.	"Tumor, as large as a hen's egg, on the left side of the neck."		Iodine tried without effect. Aug. 8, 1842. Ligation of the extremity of the trunk of the superior thyroid artery. Incision of tumor and excision of all the central "carne" in pieces.	Recovery.	Open wound. Phlegmon of neck and pulmonary disturbances. Venesection, purgatives, etc. All symptoms disappeared in two weeks. Wound healed in a month.
XIV, p. 151.	M. 9 yrs.	Tumor, the size of a hen's egg, "protruding at the summit of the right lobe of the thyroid gland beside the larynx."		1843. The tumor, easily enucleated, was found to be a "sarcoma" the size of a "nut."	Recovery.	The "cortex" was divided to a depth of a millimeter. Thereupon the tumor was exposed.
XV, p. 152.	F. 16 yrs.	Goitre on the right side of the neck, size of a fist, "which pressed close to the lower jaw."		Pomade of iodide and burnt sponge had been tried without effect. 1844. After torsion of an anterior branch of the superior thyroid artery, the tumor was split, exposing to view a circumscribed sarcoma the size of a hen's egg. This being enucleated, "the empty cortex collapsed." Loss of blood amounted to a few ounces.	Recovery.	Post-operation symptoms: Phlegmon of the neck; dysphagia and pain in the chest; headache; restlessness; fever. Treatment: "Six generous bleedings of the arm, 40 leeches at the temple, repeated purgatives, and most severe diet. After these measures the symptoms in the head, neck and chest disappeared and the wound, after copious suppuration, healed at the end of five weeks."
XVI, p. 153.	M. 24 yrs.	Tumor, the size of a lemon, in the left lobe.	Dyspnea; attacks of suffocation.	Iodine and burnt sponge had been tried without effect. 1845. Incision of tumor exposed a large coriaceous cyst which was excised except at the base, where the capsule was adherent to parts in the mediastinal region. Torsion was applied to a wounded artery.	Recovery.	"Inflammation in the wound was dissipated by two bleedings and 20 leeches. After copious suppuration the cavity was reduced to a fistula which closed in about two months."
XVII, p. 154.	M. 27 yrs.	Goitre, the size of a fist, in the right lobe, extending to the manubrium.	Mental anxiety; dyspnea; dry cough.	1846. "Extraction of two sarcomata the size of a 'nut'; a cartilaginous cyst full of limpid serum was excised." Duration of operation "15 minutes without wounding vessels and without hemorrhage."	Recovery.	Post-operation symptoms: Fever, with swelling of the neck; difficulty in breathing; congestion of the head; somnolence. Treatment: "Five generous bleedings of the arm and in a week all the symptoms disappeared and the wound, after abundant suppuration, was reduced to a small fistula, which was still open when the patient left the hospital."

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Prof. F., chir. primario Spedale Maggiore di Bologna. sottosternale de tessuto tie operato colla legadel tumore. ione delle memorie chiriche ed ostetriche, Bologna, 1869, i, 112. ally published by Rasiulli. delle scienze med. di Bologna, 1845, s. 3 ^a , vii, 237.	F. 27 yrs.	Rapidly growing, partly subclavicular, tumor. Diagnosed "Walther's aneurismatic goitre" because of "thrill and peculiar pulsation."	Attacks of suffocation; dyspnea; dysphagia.	1833. Ligation of the pedicle of the tumor. The ligature on subsequent occasions was drawn tighter.	Recovery.	"The tumor came away in the hands of the operator on the eighth day. A sudden spurt of blood was controlled by filling up the wound with lint and by light compression with the hand."
Luigi prof. di clinica urgica in Pavia. legatura delle arterie tie per la cura del bronchele. i universali di medicina, no, 1850, cxxxvi, 5.	F. 17 yrs.	Goitre on the left side of the neck the size of a mandarin. Duration from childhood.	Dyspnea; dysphagia.	July 28, 1850. Ligation of left inferior thyroid artery. Ligation of left superior thyroid artery. Duration of operation three-quarters of an hour.	Recovery. "Good health, no trace of the tumor."	First case of ligation of the inferior thyroid artery.
di una cisti tiroidea mente guarita. rgagni, Napoli, 1876, i, 258.	F.	Cystic tumor of isthmus larger than a mandarin. Duration seven years.		1875. Puncture of cyst. Iodine injections. Vertical incision about one month later. "The walls of the cyst were attached to the skin on each side by two sutures. Between the sutures the sac was incised. From the cyst came turbid liquid and granular matter." "Drainage tube for the first few days, and frequent injections of tincture of iodine and carbolic solution."	Recovery. "Some months after the discharge of patient there was no return of the tumor."	Post operation: "The cavity grew smaller day by day, and at the same time a small tumor appeared around the aperture. After two months there was only a fistulous opening terminating in the little tumor. Treatment with nitrate of silver soon closed this fistula."
A., medico chirurgo ario, Ospitale Civico, ste. a cistica; estirpazione, igione. onto sanitario dell'Ospitale Civico di Trieste per	F. 18 yrs.	Cystic goitre, the size of a hen's egg. Duration two years.		Aug. 11, 1873. Extirpation. Hemorrhage during operation was slight, but some hours post operation a more severe hemorrhage supervened, probably on account of the slipping of a ligature.	Recovery.	The patient was a cretin. Very brief account of case.

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E. of Pavia. <i>Azione totale di gozzo noduloso. Guarigione. della R. accad. di med. Torino, 1878, s. 3, xxiii, p. 365. before the Accademia ch 15, 1878.)</i>	F. 28 yrs.	Parenchymatous goitre, the size of an infant's head, in the center of the neck. Duration from childhood.	Attacks of suffocation; voice low and thick; speech difficult; "respiration gasping with whistling."	Sept., 1868. Spedale Maggiore of Milan. Professor Albertini attempted extirpation, but had to desist on account of severe hemorrhage (according to the story of the patient). Severe suppuration lasted for months. His second attempt to operate was futile on account of hemorrhage. Jan. 22, 1877. Dr. Bottini. "The central part of the morbid mass was ligated and the mass removed." Duration of operation 30 minutes. Fifty-two ligatures were applied, without wounding a single vein or artery. Lister methods scrupulously adhered to.	Recovery.	"Twenty-five ligature threads, gathered together at the lower angle of the wound, came away little by little." Zambianchi, in 1873, refers to this case of Bottini's as the first total extirpation of goitre in Italian surgery. Perassi, at the meeting of the Accademia of April 5, 1878, refers to this communication of Bottini's, and gives a case of his own of removal of a very large "bronco-lipo-cele," which he accomplished in 1864. It does not seem quite clear that this was a total extirpation. First goitre case in which Listerism was employed in Italy. All vessels divided between two ligatures.
I, p. 371. given in greater detail in della R. accad. di med., no. 1878, s. 3, xxiv, 179. caso di estirpazione completa di gozzo parenchimatoso. Guarigione.	M. 40 yrs.	Large parenchymatous goitre on the right side of the neck. Duration about two years.		March 19, 1878. "Procedure the same as in the preceding case. Fifty-four ligatures were applied. While, on account of ligating the vessels before dividing, there was no spurt of arterial blood, there was enough blood lost to give the operator uneasiness at times.	Recovery.	Probably an excision of isthmus and right lobe.
della R. accad. di med., no. 1878, s. 3, xxiv, 170. p. 185. fully described by Baiardi, dini and Bricchetti. cistico. Asportazione le. Guarigione. ratore gazz. delle clin. di Torino, 1880, xvi, 181.	F. 18 yrs.	Cystic goitre, the size of a large mandarin, extending from one sternomastoid to the other, divided into two lobes, the right a little larger than the left. Duration four years.	Dyspnea.	1878. Total extirpation. "The operation was difficult, for in spite of proceeding with the greatest caution and always dividing the tissues between two ligatures, hemorrhage was severe." Forty-eight ligatures were applied.	Recovery.	Vertical incision. Tracheal "pedicle" of goitre surrounded by catgut ligature; ablation beyond ligature. This is probably the first total extirpation for Italy.
voluminoso esportato con esso mediante il taglio legatura della R. accad. di med., no. 1878, s. 3, xxiii, 399. at the meeting of April 1878.)	M. 46 yrs.	An enormous goitre, "bronco-lipo-cele," which hung over the breast down to the abdomen. Duration 15 years.		Aug. 18, 1864. Operation without anesthesia. The tumor was first punctured. The attempt to excise it had to be abandoned. Seven ligatures were passed through the pedicle; the tumor was then ablated.	Recovery.	The goitre in Marzuttini's case (No. 1) also hung down over the breast. In Timothy Holmes's case (Great Britain, No. 23) the cyst hung below the patient's waist.

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. E. ni, Iginio, pazione totale di gozzo rostrale, eseguita con cesso nella clinica opera della R. universita di ia. med. italiana, Lom dia, 1879, xxxix, 481.	M. 31 yrs.	Substernal goitre, the size of a small mandarin. Duration 22 years.	Dyspnea.	Nov. 10 (year?). Total enucleation of a tumor of the isthmus—partly substernal.	Recovery.	Bottini uses catgut for the peripheral ligatures; silk for the central. Strict antiseptic precautions.
o, F. pazione di gozzo. Guarigione. ratore. Gazz. delle niche, Torino, 1879, xv,	F. 25 yrs.	Spherical tumor of isthmus, size of a fist. Duration about four years.	Dyspnea on exertion; suffocation from the slightest pressure on the tumor; dysphagia.	April 21, 1879. Tumor incised and emptied of its contents. Severe hemorrhage from the cavity was controlled by ligature of some small arteries and by compression sponges. The anterior portion of the sac was removed with scissors and the edges of the remaining portion were sutured to the margin of the skin-wound.	Recovery.	Operation similar to the eventration which Kocher performed upon intrathoracic goitres too large for delivery, but without justification in this case.
i, L., Spedale Mauriziano Torino. so gozzo vascolare guarito la legatura elastica. della R. accad. di med. Torino, 1879, s. 3, xxvi,	M. 49 yrs.	Large pendulous, cylindrical tumor of the neck, which covered part of the sternum. Duration 30 years. "After two years of growth a second tumor appeared on the first. The first tumor was hard, but the second was soft."	Hemorrhage from the tumor, necessitating surgical interference.	May 13, 1879. The pendulous tumor, skin included, was firmly ligated with an elastic cord. The skin was thrown into radiating folds by the ligature. May 13. The sloughing tumor was ablated 3 cm. from the ligature. Immediately a considerable hemorrhage occurred; a second encircling ligature was applied.	Recovery.	This performance resembles the proceeding of Matthias Mayor (1826).
ini, Professor, Ospitale ggior, Milan. rtazione di gozzo. degli ospitali, Milano, 30, i, 476.	F. 57 yrs.	Large goitre. Duration eight years.		Date not given. Extirpation. Twenty-two ligatures were applied. Very slight hemorrhage. Scrupulous antiseptics. Duration 32 minutes.	Recovery.	Very brief notes. Unable to state the nature of the operation.
i, E. rdi, Tansini and Bricchetti, rofa del lobo medio. tirpazione. Guarigione. ervatore. Gazz. delle clin. di Torino, 1880, xvi, 117.	F. 12 yrs.	Tumor, the size of a nut, immediately over the larynx. Duration one year.		1877. Enucleation of tumor; ligation of pedicle.	Recovery.	

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G., Ospedale Maggiore di Bologna. C. A., follicolare con parziale enucleazione cistica curato estirpazione della ghiandola tiroidea. Guarigione. delle scienze mediche, Bologna, 1880, s. 6, vi, 388.	F. 19 yrs.	"Tumor on the anterior and center of neck, the size of a fetus' head at five months." Duration 13 years.		June 29, 1880. Precise nature of operation not clear. Partial enucleation and tracheotomy; ligation of pedicle over trachea in parts; ablation. Rupture of a cyst in course of the operation.	Recovery.	Vertical incision. Péan and Billroth forceps left hanging in wound for three or four days.
L. di una voluminosa cisti follicolare della tiroide rita colla spaccatura. p. 263.	F. 67 yrs.	Tumor, the size of an adult's head, reaching from the lower jaw to the sternum and on the right and left to the anterior border of the trapezius. Duration about 41 years. Skin over tumor shiny, tense and livid.	Cyanosis; breathing stertorous; suffocation; alteration in the voice; cerebral symptoms.	The patient had been bled at the temple for cerebral symptoms with only temporary relief. 1880. Tumor incised, evacuation of about 900 gm. of colloid substance.	Recovery.	Explored with the finger, the tumor proved to be a cyst lined with calcareous plaques.
E. ni, I. metodica estirpazione del gozzo della R. accad. di medicina di Torino, 1880, s. 3, viii, 81. I, p. 84. pazione di enorme gozzo enchimatoso. Insuccesso.	M. 43 yrs.	Tumor in front and sides, size of the head of the patient. The surface of the tumor is nodular and overrun by large and numerous veins. Duration 24 years.	Dyspnea.	Feb. 14, 1880. Curved incision from the right mastoid process to the left sternomastoid. It was proposed to attack the tumor on the left. Although blunt dissection was used there was severe hemorrhage. Controlling the hemorrhage with difficulty, operator attempted to detach the tumor between double ligatures, but this did not succeed. Then the operator attacked it from above, proceeding now to the right and now to the left, and "thanks to about 200 ligatures," succeeded in removing the tumor.	† Died March 5, 1880, from sepsis.	Oblique collar incision. At autopsy two aberrant lobes were found behind the sternum and a lobe, probably aberrant, in the neck. These cases are often excessively vascular—some have been almost inoperable. I presume that this case was a very difficult one for the period, and that the operation was creditably performed by this masterful surgeon.
II, p. 88. pazione completa di gozzo enchimatoso retrosternale. arigione.	M. 19 yrs.	"Tumor in the lower part of the right carotid region; the size of a hen's egg." Duration one month.		May 3, 1880. Enucleation.	Recovery.	The tumor contained a large cystic cavity filled with brownish blood. Microscopic examination showed fetal type of thyroid gland. This is the first mention that I have found of this type of tumor—Wölfler's classic monograph on tumors of the thyroid gland appeared the same year.
III, p. 90. pazione completa di gozzo prevalentemente vascolare. arigione.	F. 60 yrs.	"In the lower two-thirds of the neck are two tumors, each the size of a mandarin, divided in the midline by a furrow." Duration a few months.	Dyspnea.	May 3, 1880. Local anesthesia. Enucleation of the tumors which were very vascular.	Recovery.	First mention of local anesthesia. Bottini used a blunt instrument in placing the ligatures—after the manner of v. Bruns and others of his day. He was evidently well supplied with artery clamps.

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la metodica estirpazione del gozzo. r. internazionale delle scienze mediche, Napoli, 1881, ii, 139. s., p. 143.	F. 70 yrs.	Trachea compressed by an enormous goitre.		Date not given. Extirpation. The operation required 150 ligatures.	Recovery.	Bottini devotes only three lines to the report of this case, of which we find no mention elsewhere.
niatti, Prof. V., Hospital of San Luigi, Turin. vecchi, P., tributions to the radical cure of goitre. e San Francisco Western Lancet, 1881, x, 241. s., p. 245.	M. 60 yrs.	Circumscribed tumor of the right lobe, extending back of the sternum. Duration from childhood.	Pain; dyspnea. Ulcer; erysipelas.	May, 1879. "Total extirpation" of the right lobe. Posterior surface of sternum denuded in course of operation.	† Died from pleuritis in a few days. Mediastinal infection.	Colomiatti was assisted by Devecchi, and on the death of the patient remarked to him that if he should meet with an identical case he would trephine the sternum and introduce a drainage tube for the free flow of the secretions.
ani, G., chir.-prim. operatore all' Ospedale Maggiore di Lodi. esportazione del gozzo per mezzo del laccio elastico. Gazz. degli ospitali, Milano, 1881, ii, 241. s. I, p. 243. gozzo di mediocre volume. Esportazione. Guarigione.	F. 19 yrs.	"Tumor, the size of an orange, situated to the right of the larynx." Duration nine years.		May 16, 1880. Tumor partly enucleated and pedicle ligated. Antiseptic precautions were observed. Large vessels encountered were divided between two ligatures. Duration of operation "a few minutes."	Recovery.	May 21, 1880. "The greater part of the completely mortified tumor excised." May 31, 1880. "The ligature fell away and with it the pedicle."
s. II, p. 244. gozzo molto voluminoso. Esportazione. Morte.	F. 25 yrs.	Tumor occupying the anterior part and both sides of the neck. Duration about two years.	Dyspnea. Goitre interferes with the movement of the neck.	Oct. 17, 1880. Tumor partly enucleated and pedicle ligated. "Antiseptic precautions scrupulously observed." Duration of operation 13 minutes.	† Died Nov. 7, 1880. "Typhoid fever." Death probably due to sepsis.	"The tumor was removed with scissors on the fourth day; erysipelas on the fifth day; the ligature came away on the 12th day. Aphonia was present after operation." Probably a left-sided lobectomy.
n. III, p. 247. gozzo retrotracheale. Esportazione.	M. 13 yrs.	Hard goitre, the size of a large nut, firmly fixed to the right side of the trachea. Another tumor was palpated behind the trachea, a little to the left, the size of a large nut.	Labored breathing; feeling of suffocation at night.	Jan. 14, 1881. Tumor behind the trachea was partly enucleated and pedicle ligated.	Recovery.	"Three days after the operation the goitre was smaller. The ligature fell away on the 14th day."
mmi, M. estirpazione totale di gozzo follicolare-coloide, prima curato colle iniezioni parenchimatose di iodio. Raccogliatore medico. Forti, 1881.	F. 40 yrs.	Very large globular goitre occupies the whole front of the neck and extends behind the manubrium. Duration many years.	The patient "has pel-lagra." Dizziness; noises in the ears; dyspnea.	May 22, 1879. No anesthetic. Longitudinal incision. Ligation of the short, thick pedicle. Hemorrhage from two openings in the hardened capsule of the goitre. Tightening the ligature did not control the hemorrhage. The margins of the open-	Recovery.	May 23. Tumor ablated in front of the metal ligature which came away on the third day.

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ro, G. F. ortazione del lobo destro ella tiroide; resezione della aringe; autoplastia delle aringe; morte per emorragia econdaria all'undicesimo giorno. r. della R. accad. di med. ti Torino, 1881, s. 3, xxix, 4.	M.	Epithelioma of right thyroid lobe, secondary to cancer of larynx. Duration a few weeks.		Jan. 10, 1881. Vertical incision. Re- moval of the tumor with the resec- tion of the right wall of the pharynx. The opening in the pharynx was closed with a layer of skin. The ligature of the superior thyroid artery was displaced and violent hemorrhage occurred. Catgut liga- tures were used.	† Died Jan. 25, 1881, suddenly from hemorrhage. In- fection.	Aug. 19, 1880. Novaro extirpated the whole larynx for epithelioma. The enlargement of the right thyroid lobe was evidently a recurrence of the neoplasm.
nelli, E. ntributo all'esportazione del gozzo coll'allacciatura elas- tica. glielmo da Saliceto. Ghor. li med., farmacia e sci. afi- ni, Piacenza, 1881-82, anno ii, 229.	F. About 19 yrs.	Spherical, midline goitre, the size of two mandarins, furrowed transversely by three lines and having the appearance of three lobes. Diagnosis: "Vascular and aneurysmatic bronchocele." Duration seven years.	For a year or more the voice has been harsh and hoarse. Attacks of dyspnea and dys- phagia.	Jan. 26 (year?). In isolating the tumor embarrassing hemorrhage oc- curred. As the tumor had no real pedicle, a double elastic ligature was thrown around it to control the hemorrhage. Hemorrhage continued, and was controlled by "piazzas hemostasis" and cotton and ice. About two hours post operation there was another hemorrhage. Lister pre- cautions. Infection.	Recovery.	Patient became so exsanguinated in the course of the operation that an Esmarch bandage was applied above the pelvis.
ti, L., Ospedale Mauriziano, Turin. e casi di gozzo guariti colla esportazione. r. della R. accad. di med. ti Torino, 1882, 3 s., xxx, 308. s. I, 808.	M. 11 yrs.	Rounded tumor on the right side, size of an orange. Duration about one year.	Severe dyspnea.	Puncture and iodine treatment with- out effect. April 16, 1882. Two cysts were re- moved on the right side. Finding the left lobe "hypertrophied" the whole gland was removed, according to the method of Billroth. The su- perior and inferior thyroid arteries were "previously ligated."	Recovery.	Longitudinal incision still employed. First instance in Italy of preliminary ligation of the thyroid arteries.
s. II, p. 809.	F. 42 yrs.	Colloid goitre, the size of a hen's egg, on the right side. Left lobe "especial- ly hypertrophied." Duration from childhood.	Dyspnea; dysphagia.	Op. I.—June 5 (1882?). Removal of tumor on right side. Op. II.—June 22 (year?). "The en- tire thyroid gland was removed." This operation "was rather long and difficult."	Recovery.	The second operation was performed because no relief followed the first.
s., II, p. 811.	F. 18 yrs.	Large cystic tumor in a n "hypertrophied" left lobe. Duration 18 months.	Dyspnea; dysphagia.	June 18, 1882. Left lobe of the thyroid gland entirely removed. "Each little vessel was ligated."	Recovery.	Presumably the "hypertrophy" of the left lobe which contained the cyst was due to presence of other adenomata.
ch, Ospedale Civile di Vene- zia, G. B., ortazione e guarigione di un gozzo mediante il laccio elastico. zz. med. ital., Lombardia, Milano, 1882, xlii, 108.	F. 50 yrs.	Ovoid tumor at the level of the thyroid cartilage, on the right side of the neck, the size of a large orange. Near this is another small mobile tumor, the size of a pigeon's egg. Duration 34 years.	No symptoms.	Sept. 24, 1881. Enucleation of tumor. Elastic ligature applied to the base. Strict antiseptic precautions.	Recovery.	Sept. 27, 1881. With the scissors the gangrenous tumor was detached about one-half cm. from the ligature. Sept. 28. Patient is almost voiceless and unable to swallow. Oct. 19, 1881. The ligature fell away. Oct. 29. The difficulty in swallowing and loss of voice were of short dura- tion.

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G., Ospedale Maggiore di ogno. a, R. casi di gozzo follicolare rati con l'estirpazione la glandiola tiroidea. urigione. glitore medico, Forli, 5, s. 4, xx, 373. I, p. 376.	M. 22 yrs.	Large tumor in front of the neck, divided in two by a longitudinal sulcus, the right side larger than the left. Duration 10 years.	Slight dysphagia; se- vere dyspnea; slight cyanosis; pupils are dilated and react very slowly.	Nov. 15, 1882. Excision of entire gland. Enucleation of a little nodule pro- jecting from the right half of the gland which compressed the trachea. Fifty-four catgut ligatures were ap- plied, the four thyroid arteries in- cluded. Rigorous antiseptic precautions were used. After the operation, as be- fore, the pulse was 70.	Recovery.	Dec. 22, 1882. Pleurisy. Vertical in- cision supplemented by transverse ones; vessels ligated as encountered; isthmus ("pedicle") carefully dis- sected from trachea (for first time in Italy).
II, p. 387.	F. 12 yrs.	Hypertrophied thyroid, di- vided in two by a longi- tudinal sulcus, the right half flatter and extended, the left more prominent. Small hard, resistant nodules palpated between the right sterno-mastoid and the end of the right half of the tumor.	Severe dyspnea, accom- panied by a sense of distress.	April 22 (year not given). Total ex- cision of thyroid. The same method was followed as in the preceding case. Thirty-five catgut ligatures were ap- plied. Antiseptic dressing.	Recovery.	Semilunar flap (for first time in Italy).
E., University of Pavia. dianchi, F., metodica estirpazione del go. li universali di med. e r., Milano, 1883, cclxv, I, p. 356.	M. 11 yrs.	"Parenchymatous goitre, the size of a small melon, in the middle of the neck, a little more developed to- ward the right." Duration about two years.	Dyspnea.	Dec. 6, 1881. Enucleation.	Recovery.	"The parenchymatous tumor was in- terspersed with small cysts."
II, p. 357.	F. 22 yrs.	"Parenchymatous goitre, the size of the head of an in- fant, occupying the front and sides of the neck. It is formed of three lobes, the left as large as the other two together." Duration 11 years.	Dyspnea; attacks of suffocation.	March 4, 1882. "Total extirpation." A severe hemorrhage occurred in isolating the tumor behind the in- sertion of the sternomastoid, which was controlled with difficulty.	Recovery.	Not clear that this was a total extir- pation. Wound suppurated. "The tumor consisted of small cysts enclosed in colloid substance." "When 15 years old, patient was attended by Professor Porta at Pavia, who treated her with a seton."
III, p. 363.	F. 39 yrs.	Parenchymatous goitre, the size of the head of an in- fant, on the left side of the neck. Duration 19 years.	Dyspnea; voice weak; difficulty of speech.	April 25, 1882. This operation was just like the preceding one, the only difference being that some skin, which had been stretched over the tumor, was removed.	Recovery. Some disturbance of res- piration on ac- count of S-shaped deformity of the trachea.	"The tumor consisted of numerous cysts with colloid contents."
IV and V, pp. 365 and 366.	F. 17 yrs.	First admission: Jan. 21, 1882. Cystic adenoma, the size of a hen's egg, in the lower part of the right carotid region.	Dyspnea.	Four years previously the tumor had been punctured in the Pavia clinic. Op. I.—Jan. 31, 1882. "Operation was a little difficult on account of firm adhesions, but the tumor was	Recovery. Dis- charged cured Feb. 26, 1882.	The typical attacks of tetany, called convulsions, were first observed Feb. 6, 13 days after the second operation. The patient, greatly agitated, noisy and destructive, became unmanage-

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I, p. 368.	M. 48 yrs.	"Cystic goitre with calcareous concretions on the right side of the neck, the size of a large melon." Duration 28 years.	Abscess, the result of treatment by leeches and poultices.	Dec. 14, 1882. Enucleation.	Recovery.	
VII, p. 370.	F. 21 yrs.	A tumor in the center of the neck, another to the left. To the right is a nodule the size of a mandarin with many nodules of varying sizes in groups. Diagnosis: "Goitre and sarcoma of left cervical glands." Duration of tumor in the center of neck, 10 years. Of the one to the left, 13 months.	Dyspnea; dysphagia; bass and raucous voice.	March 11, 1883. The two tumors and "the other glands" were removed. The wound was closed with two drainage tubes and twisted sutures.	† Died March 18, 1883. Pneumonia.	Autopsy: "The tumor was a sarcoma of the thyroid gland infiltrating all the cervical glands."
VIII, p. 374.	M. 16 yrs.	Cystic goitre, the size of an orange, in the lower part of the neck, a little to the left. Duration about five years.	Dyspnea; attacks of suffocation.	May 26, 1883. Enucleation. "Very little loss of blood." The tumor was found to extend below the clavicle. "The trachea did not assume its normal position, and the breathing was not improved."	† Died June, 5, 1883.	Autopsy: "A piece of the thyroid lobe was found reaching behind the trachea, compressing it laterally and pushing it to the right. This was undoubtedly the cause of the attacks of suffocation and of death."
IX, p. 376.	M. 63 yrs.	"Sarcoma of the thyroid filling completely the jugular fossa and reaching deeply behind the sternum. Duration about four months.	Voice bass and raucous; dyspnea; dysphagia; attacks of suffocation.	May 26, 1883. The operator did not succeed in freeing the tumor from the sides of the cartilage of the larynx or from the first rings of the trachea. Using the "Tauschbatterie" to control hemorrhage, the greater part of the tumor was cut out, and the remainder was scraped out with a Volkmann spoon.	Uneventful recovery.	Oblique longitudinal incision. Microscopic examination: "Sarcoma." "The wound healed by granulation." One would not have expected this.
X, p. 378.	F. 25 yrs.	Cystic tumor, as large as an orange, filling the jugular fossa and extending behind the sternum.	Low, raucous voice and difficulty in speaking; severe respiratory disturbance.	June 2, 1883. Slightly oblique incision from right to left. Not succeeding in isolating the tumor from above, the portion behind the sternum was lifted out, thus relieving the respiration. This portion was larger than appeared at examination, and its isolation was laborious on account of the firm adhesions and the large vessels encountered. Trachea small and flattened laterally.	Recovery.	Specimen: There were cysts, varying in size, in the tumor.

TABLE III.—GREAT BRITAIN AND IRELAND

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
Benjamin. Chief account of bronchocele, and chir. observations, i, iii, 184.	F.	(?)	(?)	Ineffectual attempt at removal. Operation performed by another surgeon notwithstanding protest from Gooch.	† Died "in less than a week." Bleeding never controlled.	Operation discontinued on account of hemorrhage.
	F.	(?)	(?)	Nearly fatal hemorrhage. Gooch protested against the operation.	Recovery.	"The young lady's life was preserved only by having a succession of persons to keep constant pressure upon the bleeding vessels day and night for near a week, with their fingers upon proper compresses," <i>vid. text.</i>
, Sir Wm. Allan, variations on the surgical tomy of the head and k, Edinburgh, 1811, p. m manuscript notes taken Dr. Brown."	.....	.....	.....	Date not given. Ligation of "the arteries going to an enlarged thyroid gland." (Superior thyroid arteries.)	† Died of hospital gangrene.	Post operation: "In a week the tumor was reduced one-third in its size. The ligatures then sloughed off; repeated bleeding took place from the arteries, and by the extension of the hospital gangrene, the carotid itself was laid open."
Henry, R. C. S., surgeon the Salisbury Infirmary. er, Sir Astley, of bronchocele in which superior thyroideal artery successfully tied. chir. trans., Lond., 1819, 312.	F. 17 yrs.	"The thyroid glands were large and pressed on the trachea."	Dyspnea; dysphagia.	Dec. 29 (1818?). Ligation of left superior thyroid artery.	Improved.	"Her breathing much improved and the size of the tumor reduced nearly half." "Discharged Feb. 14, quite well." Possibly infection of the wound contributed to the exceptional result.
uy's Hospital. of bronchocele. st, Lond., 1824, ii, 358.	F. 28 yrs.	General enlargement of thyroid, particularly of right lobe. Duration two years.	Marked exophthalmus; nervousness; livid countenance; irritability; vertigo; headache; dysphagia.	June 11 (year not given). Ligation of right superior thyroid artery—undoubtedly only its median branch. Duration of operation one hour.	† Died two days post operation.	Unmistakably a case of Graves' disease. Graves' paper appeared in 1835. Operator greatly embarrassed by a superficial vein. First day post operation the patient was bled and cupped.
H., F. R. S., St. Bartholomew's Hospital. of bronchocele, in which superior thyroid arteries tied. Med. and Phys. Jour., 6, lvi, 201.	F. 17 yrs.	Bronchocele of considerable magnitude, in front of neck. Duration four years.	Interrupted menstruation; dyspnea; dysphagia; headache. "State of health in every respect bad." Pulse 120. Greatly enlarged superior thyroid arteries.	Op. I.—Aug. 2, 1823. Ligation of right superior thyroid artery which was "as large as a carotid artery." Op. II.—Sept. 11, 1823. Ligation of left superior thyroid artery.	Recovery.	Tumor diminished in size. Dyspnea and dysphagia disappeared. Perhaps earliest case in which pulse rate is mentioned. Undoubtedly a case of hyperthyroidism. Perhaps the first operation for Graves' disease. Jan., 1824. "Health greatly restored." The infection which followed operation in these days was probably responsible for the good result of

TABLE III.—GREAT BRITAIN AND IRELAND.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
of the right lobe of the thyroid gland. Lond., 1829, ii, 351.	F. 24 yrs.	"Enlarged thyroid gland." No further details.	None mentioned.	May 22, —. Operator believes that he removed the right lobe. "It was impossible to remove the whole of the gland on account of the large vessels in the neighborhood."	† Died about 15 days post operation, probably from infection.	Report of operation and of the case very meagre and indefinite; am unable to state what part or what kind of gland was removed.
L., Edinburgh Royal Infirmary. Removal of the isthmus of the thyroid gland—re-d. Med. Gaz., 1830, vi, 477.	M. 47 yrs.	Tumor of isthmus "larger than a goose's egg." Duration about three years.	Dyspnea; voice "considerably impaired."	Feb. 10, —. Tumor "detached from its more loose connexions." The "remaining attachment" transfixed and ligated. Tumor left to slough away. "Surrounded the lower part of the tumor by two semicircular incisions."	Recovery.	Profuse bleeding—"... if the operation had been finished by means of the knife, the patient might have sunk before the hemorrhage could have been arrested, it being impossible to apply any great degree of pressure in that situation."—Liston.
St. George's Hospital. Removal of the thyroid artery, enlargement of the thyroid gland. Lond., 1832, ii, 314.	M.	Tumor of right thyroid gland.	.....	June 21 (1832?). "Ligature of the right superior thyroid artery." Evidently its median branch.	Recovery.	No subsequent note.
Robert, North London tal. W. J. E., of removal of part of thyroid gland. Annals of Med., Pharm., Lond., 1837, i, 11.	F. 23 yrs.	Large goitre, greater on right side. Duration eight years.	Dyspnea.	Dec. 14, —. Transfixion of tumor of right lobe and ligation. Removal by strangulation.	Recovery.	Probably cretinoid child.
Robert, F. R. S., University College Hospital. Removal of the mastoid muscle. Lond., 1840, ii, 31.	M. 43 yrs.	Large bronchocele on left side of neck. Duration six years.	Dyspnea.	Jan. 28 (year not given). Sternomastoid muscle divided to relieve pressure.	Recovery. Dyspnea somewhat relieved.	No attempt made to remove the tumor. England's most dexterous operator evidently helpless when confronted with a goitre.
cele treated by ligation. Lond., 1841, i, 691.	F. 13 yrs.	Bronchocele, size of small orange, on right side. "Always had slight swelling." Rapid increase in size in last two years.	Respiration impeded only "when child laughs."	Oct. 26, —. Transfixion and ligation of pedicle.	Recovery.	Eighth day patient fainted from profuse secondary hemorrhage. Seventeenth day, hemorrhage.
—Encysted tumor on thyroid body. on the operations of y, Phila., Liston & Co., 1846, 320.	 24 yrs.	Encysted tumor, size of an apple, "upon the box of the larynx." Present from birth.	Caused no symptoms.	No date. Enucleation of "sac containing a thin pellucid fluid."	Recovery.	Relation to thyroid gland not determined.
—Cystic tumor on the thyroid body. on the operations of y, Phila., Liston & Co., 1846, 321.	M. 10 yrs.	Cystic tumor, size of small hen's egg, "front of throat." Existed since birth.	"Inconvenience."	Nov. 11, —. Enucleation of cyst. Precise situation not stated. No vessels ligated.	Recovery.	Considered by Liston to be a tumor of the thyroid gland.

TABLE III.—GREAT BRITAIN AND IRELAND.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
S. A., F. R. C. S., St. James's Hospital. Removal of dyspnea from bronchocele relieved by the division of the cervical fascia. Hosp. Gaz., 1857, iv, 1.	M. 17 yrs.	Bronchocele. Duration about four years.	On admission, March 12, 1857, laborious breathing. March 13, comatose; respiration 5; "pulse slow and feeble."	March 13, 1857. Laryngotomy and tracheal catheter.	Recovery.	Larynx and wound closed in seven days. "... peas were placed in the external wound to keep up the discharge." Operator helpless.
D. W., Dublin. Removal of an osseous tumor of the thyroid gland. Times & Gaz., Lond., ii, 685.	F. 21 yrs.	Osseous tumor, size of bantam's egg, in right lobe. Duration about 10 years.	Dysphagia and aphonia.	Date not given. Enucleation.	Recovery.	Tumor, sawed in two, was found to be "composed of perfectly formed ossific matter."
n, E., F. R. C. S. I., St. James's Hospital. Removal of the thyroid gland. Quart. Jour. Med. Sci., xi, 315.	F. 16 yrs.	Large colloid goitre.	.....	June 10, —. Both lobes were dislocated so as to protrude out of the wound. "Pedicle" tied by encircling ligature caused alarming asphyxia; therefore, transfixed and ligated.	Recovery.	Patient fainted from great loss of blood. The "pedicle" in this case was the part adherent to the trachea (the isthmus). Operator surprised to find that the goitre could be so easily dislocated.
., Hull General Infirmary. Removal of bronchocele of the thyroid body; remarks on the practicability of excision under such circumstances. Med. Jour., Lond., 1865, ii, p. 6.	M. 21 yrs.	Bronchocele, size of a hen's egg, in front of trachea. Duration "long time."	Dyspnea.	Nov. 13, 1864. Incision, eventration and ligation of neck of sac. Tracheotomy two hours post operation, presumably necessitated by asphyxia due to the encircling ligature.	† Died two days post operation.	Autopsy: Both lobes studded with small tumors, evidently adenomata.
II, p. 6.	M. 21 yrs.	Bronchocele, size of a hen's egg, in front of trachea. Both lobes slightly enlarged. Duration three or four years.	Dysphagia; dyspnea.	May 9, 1865. Blunt enucleation of central tumor.	Recovery.	In course of operation, other tumors were observed on each side of the central one—operator "resisted temptation" to remove them.
Alfred. Removal of the neck in connection with the thyroid gland; remarks on the structure thyroidal; very. Hosp. Reports, Lond., s. 3, xvi, 484.	F. 40 yrs.	Tumor, "size of shaddock," front and right side of neck. Undoubtedly adenoma. Duration 26 years.	Dyspnea; dysphagia.	May, 1870. Enucleation. The tumor had only "an adhesive connection with the side of the thyroid gland." Operator realized that he had not removed the right lobe of the gland.	Recovery.	Carefully performed operation by an unusually competent surgeon.

TABLE III.—GREAT BRITAIN AND IRELAND.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
A. E. Guy's Hospital. val of cystic bronchocele. Med. Record, 1878, i, first briefly reported in Brit. Med. Jour., Lond., i, 286.	F. 36 yrs.	Cystic bronchocele of isthmus, size of large orange. Duration about five years.	Dyspnea; dysphagia.	Date not given. Enucleation.	Recovery.	The two lobes were seen and appeared to be normal. The tumor was, evidently, an adenoma with degenerated center.
val of bronchocele. Hosp. Gaz., 1878, ii, 38.	F. 47 yrs.	Bronchocele 19½ inches in circumference. Duration 20 years.	.....	Date not given. Either an excision of both lobes or enucleation of a large adenoma from each side. Description of operation not sufficiently definite.	Not stated.	Mr. Durham thought that thyrotomy would be an appropriate name for this operation. Torsion was applied to all the arteries; the veins were ligated with catgut.
Timothy, surgeon to St. George's Hospital and professor of surgery and pathology, at College Surgeons. In which a large bronchocele was removed with result. Jour. Med. Sci., Phila., n. s., lxx, 17, ation.	F. 65 yrs.	Enormous cyst of thyroid which hung below patient's waist. Weighed about seven pounds. Duration about 40 years.	So greatly reduced in strength that death seemed inevitable.	June 19, 1872. Skillfully and carefully performed extirpation. Vessels tied as encountered.	† Died 39 hours post operation. Hemorrhage and erysipelas.	Vid. abstract and illustration given in text. The innominate artery could be felt; the subclavian passed in front of the pedicle.
Leeds General Infirmary. enlargement of thyroid; extirpation; recovery. t, Lond., 1878, ii, 841.	M. 7 yrs.	Cyst of right lobe and isthmus, size of small hen's egg. Duration about four years.	No symptoms.	Oct. 2, 1873. Extruded by pressure through incision of 2 inches. Pedicle at isthmus transfixed and ligated.	Recovery.	
James. n, P. H., on of the thyroid gland. Med. Jour., 1874, xix,	(?)	Cystic goitre.	.....	Cyst tapped and then opened, because "aneurismal signs" developed. Hemorrhage uncontrollable. The "patient died in our hands" writes Watson.	† Death from hemorrhage.	Note that in these recent days a great surgeon was powerless when confronted with blood vessels. Patrick Heron Watson assisted at the operation.
Prof.	(?)	Tumor of isthmus of the thyroid gland.	.....	Extirpation of tumor of isthmus. "Great bleeding attending upon the division of the vascular connexion."	Recovery.	Watson assisted.
Patrick Heron, F. R. S., C. S. E., Edinburgh. on of the thyroid gland. Med. Jour., 1874, xix,	F.	"Central tumor, size of a China orange." Duration "many years."	.....	May, 1871. Excision of both lobes—the second lobe by his special method.	Recovery.	Vid. abstract and comments on Watson's method in text. Profuse hemorrhage on freeing the first lobe.
II, p. 253.	F.	Multilocular cystic goitre, size of two fists.	Anemia; slight degree of exophthalmus. Pulse not mentioned.	May, 1871. Excision of both lobes by Watson's method.	Recovery.	The goitre was probably made up of adenomata with cystic degeneration. In course of operation the long silk ligature, which included the vessels of the left superior pole, slipped. The gush of blood was controlled by pressure of sponge, no attempt being made to catch the vessels.

TABLE III.—GREAT BRITAIN AND IRELAND.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
III, p. 254.	F.	Multiple cystic goitre.	Anemia; exophthalmus. No mention of other symptoms of hyperthyroidism.	Autumn 1871. Excision of both lobes by Watson's method.	Recovery. "The anemia and exophthalmia which were present on admission, markedly diminished after the operation."	Catgut ligatures used and cut short. Presumably an adenomatous goitre, inasmuch as patient had exophthalmus.
IV, p. 254.	F.	Multiple cystic goitre.	.....	1872. Excision of both lobes—Watson's method.	Recovery.	
V, p. 254.	F.	Multiple cystic goitre, size of large fist; it "had grown steadily for 23 years."	Anemia; exophthalmus. The goitre pulsated.	March 1, 1872. Excision of both lobes.	Recovery. No note as to effect of operation upon the exophthalmus.	"A pulsating swelling" with bruit developed in the situation of the right superior pole six weeks or more after operation. "It then presented all the characters of an aneurysm with a venous communication." In about three weeks it disappeared.
sion of the thyroid gland. Med. Jour., Lond., 1875, 386. VI, p. 387.	(?)	.....	.....	Watson's method.	Recovery.	
VII, p. 387.	(?)	.....	.....	Watson's method.	Recovery.	
VIII, p. 387.	(?)	Large tumor adherent to the trachea.	.....	Watson's method.	† Died a few hours after operation.	Profuse hemorrhage. Death caused by aspiration of blood into wounded trachea.
n, C. H. trophy of thyroid gland, id successful removal of ht lobe. s. Bristol Med.-Chir. Soc., 4-78, i, 71.	F. 13 yrs.	"Enlarged thyroid gland," right lobe larger than left.	"On July 28, 1874, she appeared premoribund, with stridulous breathing and livid countenance."	July 28, 1874. Excision right lobe. Superior and inferior thyroid vessels ligated as adhesions, but not recognized.	Recovery and relief.	The nature of the goitre is not stated. Creditable operation.
use, Westminster Hospital, Sir G. Duncan, sion of the isthmus to relieve dyspnea in certain cases	F. 29 yrs.	Enlargement of thyroid gland, right lobe the larger. Isthmus decidedly enlarged. Duration two years.	Facial turgescence; dyspnea; discomfort and tension about neck; nausea and vomiting for about 10	July 11, 1874. Excision of isthmus.	Recovery and relief.	Sir Duncan writes, "I believe that this is the first occasion in which the isthmus has been either wholly removed or divided, at my suggestion." He would prefer, as a rule,

TABLE III.—GREAT BRITAIN AND IRELAND.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
n. ase II, p. 121.	F. 17 yrs.	Tumor "of the entire front of the neck." Duration since birth.	Dyspnea; dysphagia; laryngeal cough; facial turgescence.	Dec. 15 (1874?). Aneurism-needle armed with double thread passed under the isthmus. The ligatures were tied at two points with the idea that sloughing would take place between them.	Recovery.	
hurst, H. R. Tumor of the thyroid gland. <i>Brit. Med. Jour.</i> , Lond., 1875, i, 59.	.....	Pendulous tumor, size of "small melon."	.....	Nov. 4, 1874. Blunt dissection. Encapsulated growth removed by galvano-cautery.	Recovery.	Meagre description.
ice, Professor, Royal Infirmary, Edinburgh. <i>Ann. notes of Mr. T. F. Charvase.</i> Excision of a large bronchocele. <i>Lancet</i> , London, 1877, ii, 843.	F. 18 yrs.	Large bronchocele involving the entire gland. Right side of neck larger than left. Duration three years.	Dyspnea; "thrill over præcordia; first cardiac sound at apex somewhat thumping; second sound accentuated. No exophthalmus."	Sept. 28, 1877. Total excision after method of Patrick Watson, except that the isthmus was divided and each lobe removed separately.	† Died within 24 hours; possibly of hyperthyroidism.	Clever operation. Trachea flattened from side to side. Sterno-hyoid, omo-hyoid and thyro-hyoid muscles divided. "Considering the vascularity of the organ, comparatively little hemorrhage occurred." First instance in Great Britain of division of isthmus and removal separately of each lobe.
od, Surgeon-Major K. Successful removal of bronchocele. <i>Indian Med. Gaz.</i> , Calcutta, 1880, xv, 250.	M. 29 yrs.	Goitre, "size of child's head, more prominent on the right than on the left side." Duration eight years.	Respiration and deglutition not impeded.	July 22, 1880. Excision of entire gland, according to the method of Watson, the author states. Antiseptic precautions.	Recovery.	From the author's description of the operation one would conclude that the method employed was not precisely Watson's. Professor McConnell, who examined the specimen, compared its size to a man's fist.
ell, F. A. Tumor of the thyroid gland. <i>Lancet</i> , Lond., 1880, ii, 339.	F. 23 yrs.	Tumor, size of duck's egg, right side of neck, extending from about third ring of trachea to upper border of thyroid cartilage, overlapped by edge of sternomastoid muscle. Thickening of isthmus. Duration three years.	.....	July 20, —. Blunt dissection and excision, right lobe and isthmus. Antiseptic precautions, including carbolic spray.	Recovery.	The tumor was probably an adenoma and presumably enucleable.
W. Tumor of thyroid; removal. <i>Brit. Med. Jour.</i> , Lond., 1881, i, 282.	F. 27 yrs.	Bronchocele, size of a turkey's egg, right lobe. Duration eight years.	Dyspnea; suffocation; pain.	Dec. 16, 1880. Blunt and bloodless enucleation and ligation of pedicle with "loop of carbolized catgut."	Recovery.	"The tumor was found to be composed of hypertrophied gland tissue." It was, presumably, an adenoma.
head, W., F. R. C. S., R. S., Edin., Manchester Royal Infirmary. Excision of the thyroid gland. <i>Brit. Med. Jour.</i> , Lond., 1881, i, 779.	F. 51 yrs.	Pendulous goitre extending from thyroid cartilage to sternum. Both lobes enlarged. Duration 30 years.	Dyspnea; suffocation; hoarseness.	May 21, —. Excision of entire thyroid gland by Watson's method. Antiseptics.	Recovery.	June 29, —. "The voice has been daily improving, and in every other respect the patient had regained perfect health."

TABLE III.—GREAT BRITAIN AND IRELAND.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
B., Resident Surgeon, St. Thomas's Hospital. Excision of bronchocele in which thyroid was removed during an attack of dyspnea. <i>I. Path. Soc.</i> , Lond., 1882, xiii, 364.	M. 15 yrs.	"Bronchocele." Duration eight years.	Dyspnea.	Oct. 26 (1881?). Preliminary venesection from jugular vein; only 1½ ounces dark blood flowed. Tracheotomy. Gland was removed "without the loss of any material additional blood."	† Died the day after operation.	Meagre report.
II, p. 365.	F. 33 yrs.	Large bronchocele mainly on left side. Duration "ever since she could remember."	Great dyspnea; stridulous breathing; voice hoarse; left vocal cord paralyzed.	Dates not given. Op. I.—Gland incised. Op. II.—Gland incised. Op. III.—Tracheotomy.	† Died about six weeks after first operation.	Operations undertaken in attacks of extreme dyspnea.
A. E. Excision of small goitre: recovery. <i>Brit. Med. Jour.</i> , Lond., 1883, i, 1066.	F. 21 yrs.	Tumor of right lobe, 3 inches in transverse diameter, 2 inches in vertical. Evidently an adenoma. Duration seven years.	Dyspnea, paroxysmal at times; anemia and "vascular excitement."	Aug. 24, 1881. Excision of right lobe. Vessels tied as encountered.	Recovery.	Prior to operation had been treated with leeches, injection of iodine, seton, electricity.
Jennett, Queen's Hospital, Birmingham. Excision of large bronchocele, with preliminary tracheotomy. <i>Brit. Med. Jour.</i> , Lond., 1883, i, 1227.	F. 42 yrs.	Large tumor "covering the trachea from the hyoid bone down to the sternum." Duration 20 years.	Dyspnea; cough; voice faint and husky; slight exophthalmus.	(1881?). Preliminary tracheotomy. Excision.	† Died four days post operation.	Treated with injections and with hydrofluoric acid, iodine, ergotin, etc., by mouth. Tapped and only blood obtained. Death "apparently from suppurative bronchitis." Operator states that it was "probably an adenoid tumor, undergoing sarcomatous change."
W. T., F. R. C. S., pro-anatomy, Royal College of Surgeons, Ireland. Removal of the thyroid gland. <i>Lancet</i> , Lond., 1883, i, 231, 295.	M. 17 yrs.	"Enormous goitre involving the entire gland." "Hanging down as low as the abdomen." Duration since birth.	"Cretinish"; constant cough; laryngeal irritation; stridulous breathing; "impending death."	March 10, 1882. Op. I.—Excision of right lobe and isthmus. Two and one-half hours. March 8, 1883. Op. II.—Excision of left lobe. Two hours. Antiseptic precautions.	† Died fifth day after second operation, sepsis and pulmonary thrombosis.	Difficult operations, cautiously and admirably performed. Autopsy: Thrombosis of pulmonary artery and of internal jugular, innominate and superior cava veins, due undoubtedly to the infection of the wound which had filled with blood.
, Sydney, St. Thomas's Hospital. Excision of the thyroid gland in a male, producing pressure on the trachea and causing attacks of dyspnea; removal of isthmus; atrophy of	M. 18 yrs.	"Greatly enlarged thyroid gland." Duration seven or eight years.	Dyspnea.	March 17, 1883. Excision of isthmus between silk ligatures, which were left hanging out of wound "for drainage." Drainage tube.	Recovery. Complete relief.	The trachea was found at operation to be flattened from side to side. May 4, 1883. "The thyroid cannot be felt."

TABLE IV.—UNITED STATES AND CANADA

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
Charles, New York, 1807. S. D., es of the thyroid gland. a of Surgery, Phila., 1832, Ed., ii, 354.	F.	Goitre extending from chin to sternum and from ear to ear. Duration 22 years.		1807. Freed with knife and fingers up to tracheal attachment; base tied off with stout ligature.	Recovery.	Only two small arteries tied.
alentine, professor of sur- , N. Y.				Removed goitre weighing three pounds.	Died. †	
h, H. G., Baltimore, Md. of bronchocele relieved by ng up one of the superior oid arteries. can Medical Recorder, la., 1822, v, 116.	F.	General enlargement of thy-roid gland. More or less circumscribed tumor of left lobe. Duration about 20 years.	Dysphagia; difficulty of speech; strong pulsa-tion of left carotid and superior thyroid arteries.	May 10, 1821. "Superior thyroid artery," ligated with "animal liga-ture."	Recovery.	Mistaken for aneurism of carotid by many physicians.
N. R., professor of sur- y, University of Mary- l, Balto., Md. ation of the thyroid id. American Archives M. & Sci., Balto., 1835, ii, 309.	F. 40 yrs.	Large, somewhat pendulous, tumor of right lobe. Duration presumably 20 years.	Ulceration of skin over lower part of tumor.	Date not given. Probably an enuclea-tion of large adenoma of right lobe.	Death on the 13th day post opera-tion. Sepsis.	Case fully described in text. Opera-tion skillfully performed. Superior thyroid artery wounded and secured early in operation.
. r of the thyroid gland cessfully extirpated. n Med. & Surg. Jour., 7, xxxv, 297.	F. 30 yrs.	Large tumor of left lobe. Duration five years.	Dysphagia; dyspnea.	Aug. 13, 1835. Extirpation of tumor, probably an adenoma. Dissection from below upwards along inner border.	Recovery.	Inferior thyroid artery closed by tor-sion; furious bleeding from acci-dentally divided superior thyroid artery controlled by actual cautery applied blindly in pocket. Patient was bled 18 ounces on day following operation.
. A., Richmond, Va. ort of a case in which an argement of the isthmus the thyroid body was suc- cessfully extirpated. ia Med. & Surg. Jour., hmond, 1854, ii, 115.	F. 26 yrs.	Tumor of isthmus, size of hen's egg. Thick fibrous capsule, very vascular in-terior. Duration 12 years.	Dysphagia; dyspnea.	Sept. 7, 1853. Removed by strangula-tion; transfixion with two needles armed with double ligatures of silk, the eight ends of which were tied each to the ones adjacent.	Recovery.	"The internal portion of the tumor closely resembled the parenchyma of the placenta, a similitude I borrow from Sacchi, who has noticed this species of goitre." It was "a spongy tissue composed almost ex-clusively of a congeries of enlarged vessels."
. H. H., San Francisco, gement of the isthmus right lobe of the thyroid nd with bony deposit; ration; cure. ic Med. & Surg. Jour., i Francisco, 1858, i, 53.	M. 26 yrs.	Enlargement of isthmus and right lobe. "Irregular and large portions of bone rest-ed on the trachea." Duration nine years.	Vertigo; dyspnea; aphonia.	Dec. 1, 1857. Short incision into tu-mor and eventration. Profuse hem-orrhage controlled by ligating wall of sac under transfixing tenaculum.	Recovery.	On eventration "blood gushed from the wound in fearful quantity."

224

William S. Halsted

TABLE IV.—UNITED STATES AND CANADA.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
E. S., professor of anat- and surgery, Univer- of the Pacific, San isco. on for the removal of hocele. Death of the nt. ancet & Observer, 1860, 5.	F. 24 yrs.	Circumscribed bronchocele, left side, extending from clavicle to chin. Duration four years.	Tumor apparently so vascular that consult-ants diagnosed aneu-rism.	No date. Futile attempts to use éca-seur. Excision after preliminary ligation of the carotid.	† Died five hours post operation. Hem-orrhage.	Inferior thyroid and four other arteries tied in course of operation. Abstract in text.
: away of bronchocele ut hemorrhage, with a Remarks. Surg. Reporter, Phila., viii, 38.	F. 27 yrs.	Bronchocele of isthmus, size of hen's egg. Duration 10 months.	"Mental anxiety."	March 27, 1861. Transfixed above and below, tied, and excised above liga-tures.	Recovery.	States, in general way, that he has previously transfixed thyroid tumors so as to include the thyroid arteries and then transfixed the gland in many places and ligated.
ul removal of thyroid ed. Times, N. Y., 1862,	F. 54 yrs.	Tumor, size of fist, chiefly in left lobe and slightly substernal. Duration 42 years.	Dysphagia; dyspnea; de-flected trachea.	Date not given. Removed by écraseur.	Recovery.	Profuse venous bleeding, unmanageable until écraseur was applied.
S., Lexington, Mo. n for the removal of a goitrous tumor of the	Negro. M. 34 yrs.	Cystic tumor, left side.		July 1, 1863. Ligation of artery sup-posed to be inferior thyroid; opera-tion abandoned for fear of fatal hem-orrhage.		Another large vessel, size of goose quill, arising from subclavian, "dipped into the tumor on the under side, passed through it, and again showed itself running along the superior border of tumor . . . then dipped into it again." Smith be-lieved this to be the transversalis colli. Vid. text for Valentine Mott's observations.
J. W., surgeon, Boston Hospital, Boston, Mass. cele originating in ica; operation; re- Med. & Surg. Jour., xxiii, 332.	F. 24 yrs.	"Solid" tumor, a little to the right and just below the larynx. Size 1½ inches by 2 inches.		July 19, 1865. Excision of entire gland. "No very great hemorrhage." The left lobe at operation was found to be much larger than the right.	Recovery.	Only one of the two cases was operated upon. "The ready removal of it without profuse hemorrhage would seem to indicate early surgical inter-ference with these growths." The descriptions of the growth before and at operation conflict. Am in doubt as to the nature of the en-largement.
. W., Portland, Me. stul removal of a large ocele.	F. 45 yrs.	Bronchocele weighing 1 pound 9 ounces. Duration 25 years.	Dysphagia; dyspnea; headache; giddiness.	Aug., 1866? Operation badly de-scribed; apparently a one-sided	Recovery.	"Fearful hemorrhage" from veins on exposing the tumor. Pedicle "con-

The Operative Story of Goitre

TABLE IV.—UNITED STATES AND CANADA.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
hall, E. L., Keithsburg, Ill. Extirpation of the entire thyroid gland. Recovery. <i>Chicago Med. Jour.</i> , 1887, xxiv, 77.	M. 40 yrs.	Tumor weighing 1 pound 11 ounces. Duration many years.	Dyspnea; attacks of suffocation; headache; despondency.	Jan. 18, 1852. Excision of entire gland. Anesthesia declined by patient. Careful ligation of the four thyroid arteries as preliminary to excision.	Recovery.	Operation admirably performed. Marshall reports a lobectomy by Geo. McClellan, Sr., of Philadelphia. (Date not given.)
en, J. Mason, Boston, Mass. Large encysted thyroid tumor of the neck. Incision. Recovery. <i>Surgical observations with cases and operations</i> , Boston, 1867, 506.	F. 56 yrs.	Large cystic tumor occupying whole front of neck, from chin to sternum. Duration 54 years.	"Fullness in head."	Op. I.—June 20, 1860. Cyst incised and tent introduced. Op. II.—June 30, 1860. "Sac freely incised and covered with large poultice."	Recovery.	
roid tumor. Twice removed. <i>Id.</i> , p. 507.	F. 35 yrs.	Cyst of right lobe. Subsequent cyst in same situation, size of an apple. Duration about seven years.	First tumor painful. Second tumor caused dyspnea.	Op. I.—Nov., 1851. Extirpation of cyst. Op. II.—May, 1858. Incision of sac and ligation of mouth of sac.	Recovery.	Cyst probably only partially removed at first operation. Repeated hemorrhages for five days after second operation. Sac obliterated by supuration.
man, G. C., professor of surgery, Medical College, Ohio. Pedunculated bronchocele successfully removed. <i>Am. Jour. Med. Sci., Phila.</i> , 1870, n. s., lix, 93.	F. 36 yrs.	Oblong tumor of isthmus 3 1/2 inches long, circumference 4 inches, "looking much like a banana." Duration 15 years.	Tumor had caused no symptoms. Operation to relieve "unsightly deformity."	Feb., 1869. Extirpation. Blunt dissection; tumor wrenched from its connections.	Recovery.	Tumor being completely isolated was "suddenly wrenched from its connections," thereupon appalling hemorrhage from superior and inferior thyroid arteries. Bleeding controlled by sponges retained by transfixing needle and twisted suture.
ne, W. W., Portland, Me. Free cases of bronchocele successfully removed. <i>Am. Jour. Med. Sci., Phila.</i> , 1871, n. s., lxi, 80. <i>Id.</i> , p. 81.	F. 40 yrs.	Tumor, size of small orange, in right lobe.	Dysphagia.	Oct. 25, 1869. Enucleation.	"Recovery."	Simple operation except for "adhesions to esophagus."
se III, p. 82.	F. 35 yrs.	Tumor "involving both lobes, being of immense size."	Headache; vertigo; dysphagia; dyspnea; aphonia; thrill; bruit. "Pulsated everywhere." Diagnosed aneurism by "a prominent surgeon."	Jan. 20, 1870. Probably a double lobectomy. Vertical transfixion along midline and ligation of "pedicle" on both sides. "Most fearful hemorrhage."		Before operation "considered the chances 100 to 1 that she would die on the table. . . ." <i>Vid.</i> text for author's description.

TABLE IV.—UNITED STATES AND CANADA.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
F. F., Philadelphia Hosp. Extirpation of the thyroid gland for cystic enlargement. <i>Photographic Review Med. & Surg., Phila.</i> , 1872, ii, 17.	F. 23 yrs.	Very large cystic goitre, probably of isthmus and right lobe. Duration 14 years.	Dysphagia; pain; slight dyspnea.	April, 1871. Excision carefully performed after ligation of four thyroid arteries.	Recovery.	Operations well performed in bloodless manner.
Id., p. 17.	Sex and age not given.	"Another very large growth" similar to that in case given above.		1871. Precise date not given. Similar operation as in case given above.	† Died three weeks post operation. Pneumonia.	The operation was practically bloodless. The patient recovered normally and at the time of death the wound was almost healed.
E. M., F. R. C. S., professor obstetrics, City Hospital, Toronto, Canada. Cystic disease of the half of the thyroid gland and its removal. <i>Lancet</i> , Toronto, 1873, 9.	F. 18 yrs.	Tumor, size of pullet's egg, at right side of the larynx. (Fibro-cystic.) Duration 2 1/2 years.	Dysphagia; "voice seriously affected."	Op. I.—April 10, 1872. Unnamed surgeon removed "upper portion only of the tumor." Op. II.—Oct. 31, 1872. By Hodder. Enucleation-excision of right lobe, which was hypertrophied and contained an adenoma.	Recovery.	Voice somewhat restored. Dysphagia disappeared. Superior and inferior thyroid arteries were the only ones which required ligation.
G. E., Professor of surgery, McGill Univ., Montreal, Canada. Removal of the right lobe of the thyroid body. <i>Med. & Surg. Jour., Montreal</i> , 1873, i, 208. <i>Id.</i> , 211.	F. 21 yrs.	Fibro-cystic tumor. "Huge central mass and two lateral" portions. Duration 18 years.	Dyspnea.	About June 8, 1872. Excision of both lobes. Ligation of superior and inferior thyroid arteries "which appeared small." Tumor twice tapped previously.	Recovery.	Presumably an excision of both lobes. The tumor consisted of three distinct lobes. A ligature was applied to the pedicle over trachea. Creditable operation.
and Tupper, Wabasha, Minn. Removal of right lobe of the thyroid gland, for cystic degeneration. <i>Surg. Reporter, Phila.</i> , xxxii, 361.	F. 40 yrs.	Large cystic tumor, right lobe. Duration a number of years.	Anxiety; nervousness; slight dyspnea; slight dysphagia.	No date. Enucleation and removal by écraseur, right lobe.	Recovery.	Relatively trivial operation.
Physician accoucheur at Female Home, etc., Montreal. Removal of the right lobe of the thyroid body. <i>Med. & Surg. Jour., Montreal</i> , 1873, i, 208. <i>Id.</i> , 211.	F. 32 yrs.	"Fibro-cystic bronchocele, size of small teacup," in left lobe. Duration 16 years.	Difficulty in breathing at times.	Oct. 24, 1874. Probably an enucleation of an adenoma.	Recovery.	Left superior thyroid artery ligated in course of operation.

TABLE IV.—UNITED STATES AND CANADA.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
1. Frank H., New York. Division of isthmus of the thyroid gland to relieve dyspnea from bronchocele. Record, N. Y., 1876, xi,	M. 50 yrs.	Large bronchocele which encircled the trachea.	Dyspnea so excessive as to necessitate support of tumor by an attendant for three days prior to the operation.	Jan. 8, 1849. Division of isthmus and removal, perhaps, of part of goitre without relief of dyspnea. Hence tracheotomy.	† Died three days and four hours post operation.	Cause of death not stated.
W., Massachusetts General Hospital, Boston, Mass. Med. & Surg. Jour., 1876, 727.	F. 20 yrs.	Solid tumor 6 inches x 8 inches. Duration two years.	Slight tracheal obstruction.	March 25, 1876. Enucleation of tumor—probably adenoma. Pedicle in midline transfixed and tied.	Recovery.	Simple operation. Carbolic acid dressing. First case in America in which mention is made of an antiseptic. Year of Lister's visit to America.
J., Carney Hospital, Boston, Mass. Adenoma of the thyroid; excision; cure. Med. & Surg. Jour., 1876, 44.	F. 32 yrs.	Cystic adenomata of isthmus of left lobe. Duration eight years.	Dyspnea.	Op. I.—Nov. 21, 1875. Excision-enucleation of tumor over trachea. Cretaceous contents. Op. II.—Dec. 15, 1875. Excision-enucleation of tumor of left lobe.	Recovery.	After first operation: Left vocal cord immovable. Operation carefully performed by blunt dissection and in fairly bloodless manner.
hby, W. A., Colborne,ario. ir, J. A., val of right thyroid ad. la Lancet, Toronto, 1876-ix, 73.	M. 19 yrs.	Right thyroid gland enlarged. (Somewhat larger than human heart.) Duration four years.	Pressure on larynx. "Death from dyspnea was likely soon to result."	Date not given. "Removal of the right thyroid gland." Probably an enucleation of an adenoma.	Recovery.	
J. F., Sisters of Charity pital, Buffalo, N. Y. Ability of extirpating the thyroid gland in some cases disease, with report of a lo Med. & Surg. Jour., 1877, xvi, 323.	M. 15 yrs.	Cystic tumors of right gland. Duration eight years.	Dyspnea.	Enucleation. No large vessels encountered.	Recovery.	Profuse bleeding from small vessels at base of tumor seared by actual cautery.
C. A., val of the thyroid gland. lo Med. & Surg. Jour., 1877, xvii, 207.	M. 42 yrs.	Large calcified and cystic adenoma of isthmus. Duration 23 years.	Slight suffocation at night.	Oct. 25, —. Enucleation. The inferior thyroid arteries were ligated and divided.	Recovery.	Extirpation of tumor composed of cysts and calcified masses, measured 9 inches in circumference, 3½ inches in breadth, 4 inches in length, 2½ inches in thickness. The ligatures of silk were left long.
Wm. ssful removal of right e of thyroid gland by the fe. it Lancet, 1878, i, 833.	F. 40 yrs.	Tumor, size of an orange, right lobe.	Neuralgia in back of neck, shoulder and head; tingling sensation in the arms and hand.	April, 1878. Excision-enucleation of right lobe—partly substernal. Superior thyroid artery accidentally torn and secured with difficulty.	Recovery.	"The wound was closed when suppuration was fully established, and the ligatures came away slowly during three or four weeks." Pedicle ligated with waxed cobbler's thread.

TABLE IV.—UNITED STATES AND CANADA.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
n, R. A., lecturer on anatomy University of California. successful cases of extirpation of the thyroid gland for fibro-cystic tumors. I. nern Lancet, San Francisco, 1878-79, vii, 263.	F. 56 yrs.	Large "fibro-cystic tumor." Duration about 15 years.	Pain; suffocation; dysphagia.	Op. I.—Sept., 1877. Free incision into the sac; drainage until healed from bottom. Op. II.—Oct. 15, 1877. Excision of left lobe and isthmus; possibly of right lobe also.	Recovery.	A portion of the anterior wall of the pharynx and the greater cornua of the hyoid bone were cut away in course of the operation. "Branches of the inferior and superior thyroid arteries were cut and tied, but the hemorrhage was insignificant."
n, R. A., San Francisco male Hospital. II, p. 265.	F. 30 yrs.	Large fibro-cystic tumor. Duration 14 years.	Pain.	Jan. 16, 1878. "Enucleation of tumor. A few vessels were cut and ligated."	Recovery.	
un, Donald, professor of surgery, University of Michigan. ic goitre, complicated by ilepsy. Excision of the st. Recovery with complete and permanent cure of e epilepsy. sician & Surgeon, Mich., 79, i, 9.	M. 29 yrs.	Cystic goitre, size of an orange.	Sleeplessness; epilepsy.	Cyst tapped twice. March 18, 1876. Enucleation of cyst. Profuse hemorrhage controlled by transfixion ligatures.	Recovery.	The epilepsy followed an injury of the head. Three years post operation; No return of epilepsy.
chi, P. tributions to the study of e radical cure of goitre. Francisco Western Lancet, 81, x, 241.	M. 24 yrs.	Large cystic goitre of right lobe and isthmus. Duration eight years.	Dyspnea.	June 16, 1881. Enucleation of cyst.	Recovery.	No large blood vessels were encountered. Operation carefully performed.
aw, T. A. ration of the thyroid gland. oit Clinic, 1882, i, 1.	.....	.....	.....	.....	.....	Unable to obtain the original communication.
i, J. A., surgeon to Mt. nai Hospital, New York. e cases of goitre recently eated by excision. Record, N. Y., 1882, xxi,	F. 22 yrs.	Tumor of left lobe and isthmus.	.....	July, 1881. Cystic portion of tumor aspirated and injected with tincture of iodine, by Dr. Gerster. Sept. 7, 1881. Excision-enucleation. Superior and inferior thyroid arteries ligated, and finally the pedicle en masse.	Recovery.	Cure with aphonia, which is believed to have disappeared. The tumor was probably an adenoma with cystic center, and enucleable.
W. A., St. Mary's Hospital, Quincy, Ill. nell, G. W., irpation of thyroid gland e enucleation	F. 3 yrs.	Tumor weighing 8 ounces. Duration one year.	Dyspnea.	Dec. 6, 1881. Enucleation.	Recovery.	

TABLE IV.—UNITED STATES AND CANADA.—CONTINUED

Operator and Publication	Sex and Age	Location and Duration	Symptoms	Operation	Result	Remarks
D. W., surgeon Boston Hospital, Boston, Mass. 1 of the goitre.	F. 36 yrs.	Solid tumor, size of small orange, in front and to right of trachea. Duration four years.	"Great pain."	Date not given. Extirpation by blunt dissection. Pedicle transfixed, ligated; tumor was cut away and the base burned with the galvano-cautery.	Recovery.	Dr. Cheever's operative work may be regarded as typical of the best methods in America of the period. He enucleated small tumors of the thyroid, but considered removal of a large double bronchocele as "out of the question," although in 1865 he apparently removed the entire gland. <i>Vid.</i> case No. 12.
p. 131.	F. 23 yrs.	Solid tumor, size of lemon, to right of midline, and small one, correspondingly situated, on left side. Duration two years.		Dec. 14, —. Extirpation by blunt dissection. Transfixion ligatures of pedicle, tumor cut away, and base burned with the galvano-cautery.	Recovery.	Wound dressed with carbolized oil and syringed daily.
p. 133.	"Young girl."	Small circumscribed tumor of "one lobe."		Date not given. The tumor "was removed without hemorrhage." No particulars.	Recovery.	Described in only three lines.
p. 133.	"Young lady."	Bronchocele. Small circumscribed tumor.		Date not given. Tumor "removed without trouble."	Recovery.	A four-line description.
J. H. d by Watkins, W. W., Mo. al extirpation of a rebbly large bronchocele. is Med. & Surg. Jour., xiv, 409.	M. 29 yrs.	General enlargement of thyroid gland. Duration nearly eight years.	"Impeded cerebral circulation"; eyes somewhat prominent; mental anxiety.	May 10, 1883. Left lobe removed by "the tear-process or enucleation." Left superior thyroid artery torn through near its origin. Operator unable to determine whether inferior thyroid artery had been divided or not.	Recovery.	Probably a mild case of Graves' disease. Three months post operation: The remaining portion of the gland (the pyramid and right lobe) had decreased one-third and the cerebral symptoms had nearly disappeared. Crude operation.
A., surgeon to Mt. Hospital, New York. Excision. Cure. record, New York, 1883, 566.	F. 16 yrs.	Circumscribed tumor of right thyroid lobe. Duration four years.		Oct. 10, 1883. Excision-enucleation. Superior and inferior thyroid arteries ligated, and finally the pedicle en masse.	Recovery.	The remains of the right lobe probably removed, as well as the tumor.

TABLE V.—GERMANY, AUSTRIA AND SWITZERLAND

The Operative Story of Goitre

Author and Publication	Num of Cas
Hildanus, Fabric. (1596)	2
Hildanus, Fabric., ii, 399; Hildanus, F., Opera, p. 216, Obs. xxxv; Langenbeck, Chirurgie, Bd. v, 306. (Ref., Günther.)	
Vogel, A. F.	
Observationes quaedam chirurgicae defendit, Kiliae, 1771. (Ref., Günther.)	
Freitag, J. H. (about 1694)	
Epistola de glandulae thyroideae, partim osseae, partim meliceridis froman referentis Extirpatione, Lipsiae, 1778; Weiz, Neue Auszüge aus Dissert. f. Wundärzte, Bd. iv, 66; Langenbeck, Chir., Bd. v, 304. (Ref., Günther.)	
Eichenberg	
Ephemerid. med. physio. germ. acad. Natur. curios. Dec. ii. Ann. v, 453; Langenbeck, Chirurgie, Bd. v, 304. Ann. (Ref., Günther.)	
Kergel, Saxony (about 1800)	
Bernstein, J. G., Praktisches Handbuch f. Wundärzte, Leipzig, 1800, N. Aufl., Th. iii, 604.	
v. Walther, Ph.	
Neue Heilart des Kropfes durch die Unterbindung der oberen Schilddrüsenschlagadern, u. s. w., Sulzbach, 1817. (Ref., Chelius, M. J.)	
v. Klein, Stuttgart	
Jour. d. Chir. u. Augen-Heilk., Berlin, 1820, i, 106.	
Zang	
Höring, Rust's Magazin f. d. gesamte Heilk., Berlin, 1820, vii, 314.	
Hedenus, J. A. W., Dresden (about 1800)	
Jour. d. Chir. u. Augen-Heilk., Berlin, 1821, ii, 237.	
v. Walther, Ph.	
Jour. d. Chir. u. Augen-Heilk., Berlin, 1821, ii, 584.	
Fritze, Cl.	
Hedenus, A. G., Tractatus de glandula thyroideae, Lipsiae, 1823, 256, footnote 612.	
Gräfe, Berlin (1820)	
Hedenus, A. G., Tractatus de glandula thyroideae, Lipsiae, 1823, 255, 276, 292.	
Ohle, Dresden	
Hedenus, A. G., Tractatus de glandula thyroideae, Lipsiae, 1823, 291.	

Author and Publication	Number of Cases
Weiss, Dresden	1
Hedenus, A. G., Tractatus de glandula thyreoides, Lipsiae, 1822, 291.	
Wedemeyer	1
Neue Bibliothek f. d. Chir. u. Ophthalmologie (Langenbeck, Göttingen, 1822, iii, 185.	
Schmidt, H., Paderborn	1
Zatmann, De strumae extirpatione, Dissert., Bonn, 1829, 26. (Ref., Günther.)	
v. Walther, Ph.	2
Zatmann, De strumae extirpatione, Dissert., Bonn, 1829, 22 and 26 (Ref., Günther.)	
Mandt, Greifswald (about 1832)	1
Rust's Magazin f. d. gesamte Heilk., Berlin, 1832, xxxvii, 387.	
Langenbeck, Göttingen	1
Langenbeck's Chirurgie, 1834, v, 303.	
Madelung, Gotha (1844-46)	1
Schmidt's Jahrb., Leipzig, 1847, lvi, 279.	
Dieffenbach, J. F., Leipzig	1
Dieffenbach, Die Operative Chirurgie, Leipzig, 1848, ii, 331.	
Pirogoff, N.	1
Rapport médical d'un voyage en Caucase, St. Pétersbourg, 1849; Schmidt's Jahrb., 1850, lxvii, 116. (Ref., Günther.)	
Schnh, Wien	3
Wien. med. Wochenschr., 1859, ix, 641 and 657.	
Klein, A.	1
Dissert., Tübingen, 1860, 30.	
Schnh, Wien	1
Wien. med. Wochenschr., 1860, x, 145.	
Meel, Brackenheim	4
Med. Corresp.-Bl. d. württemb. ärztl. Vereins, Stuttgart, 1861, xxxi, 227.	
Name of operator not given	2
Deutsche Clin., 1861, 167. (Ref., Günther.)	
Middeldorf, P., Breslau	1
Lebert, Krankheiten der Schilddrüse, Breslau, 1862, 220.	
Franko, Leipzig (about 1834)	1
Günther, G. B., Lehre v. d. blutigen Operationen am menschlichen Körper, Leipzig u. Heidelb., 1864, 369.	
Bovet, A.	1
Gaz. des. hop., Paris, 1865, xxxviii, 105.	

Author and Publication	Number of Cases
Sick, P., Stuttgart	
Med. Corresp.-Bl. d. württemb. ärztl. Vereins, Stuttgart, 1867, xxxvii, 199.	
Gärtner, Stuttgart	
Med. Corresp.-Bl. d. württemb. ärztl. Vereins, Stuttgart, 1867, xxxvii, 303.	
Hofmoeckl,	
Wien. med. Presse, 1869, x, 39, 64, 90.	
Emmet, Bern	
Brière, V., Inaug. Dissert., Lausanne, 1871, 40, 41, 42.	
Hopmann, Köln	
Deutsche Zeitschr. f. Chir., Leipzig, 1873, ii, 185.	
Lücke, A., Bern (1865-72)	
Deutsche Zeitschr. f. Chir., Leipzig, 1873, ii, 337.	
v. Cheilus, F., Dresden	
jahresh. d. Gesellschaft f. Natur- und Heilk., Dresden, 1874, 13.	
Kappeler, O., Münsterlingen	
Chir. Beobachtungen aus dem Thurgauischen Kantonsospital Münsterlingen, 1865-70, Frauenfeld, 1874, 99 (five cases).	
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 314 (1868-1882, 28 cases).	
Gärner, Stuttgart	
Med. Corresp.-Bl. d. württemb. ärztl. Vereins, Stuttgart, 1876, xlv, 233.	
Küster, E., Berlin (1875)	
Bruburger, Deutsche Mil. ärztl. Zeitschr., Berlin, 1876, v, 453.	
v. Bruns, V., Tübingen (1851-70)	
Süsskind, Inaug.-Abhandl., Tübingen, 1877.	
Rose, E. (1878)	
Arch. f. klin. Chir., Berlin, 1878, xxii, 1.	
Bilroth, Th. (1860-81)	
Wölfler, A., Wien. med. Wochenschr., 1882, xxxii, 5.	
Martin	
Rev. méd. de la Suisse romande, Genève, 1882, ii, 590.	
v. Riedel	
Wien. med. Wochenschr., 1883, xxxii, 1109.	
Koehler, Th., Bern (1872-83)	
Arch. f. klin. Chir., Berlin, 1883, xxix, 300.	
v. Bruns, V. and P., Tübingen (1877-81)	
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 317.	
Kuhn, St. Gallen (1878-80)	
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 318.	

Author and Publication	Number of Cases
Czerny, Heidelberg (1872-81)	11
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 319.	
Maas, Freiburg i. B. (1878-81)	10
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 320.	
Kottmann, A., Solothurn (1879-81)	9
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 321.	
Bircher, Aarau	5
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 328.	
Kaufmann, Zürich (1880-81)	3
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 329.	
Niehans, P., Bern (1880-81)	3
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 329.	
Baumgärtner, Baden-Baden	2
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 329.	
Borel, F., Neuchâtel (1877-82)	15
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 330.	
Haflter, Frauenfeld (1881-82)	4
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 333.	
Courvoisier, Riehen (1881)	2
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 334.	
Berney, A., Rolle (1855)	1
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 335.	
Emmert	2
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 355.	
Krebs	3
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 355.	
Gussenbauer	11
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 355.	
Albert	9
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 355.	
Boéchat	1
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 355.	
Schäpfer (1881)	1
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, 355.	
v. Murralt, W., Zürich	108
Koehler, Th., Arch. f. klin. Chir., Berlin, 1883, xxix, foot-note.	
Julliard, G.	31
Revue de chirurgie, Paris, 1883, iii, 585.	
Total	575

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The Operative Story of Goitre

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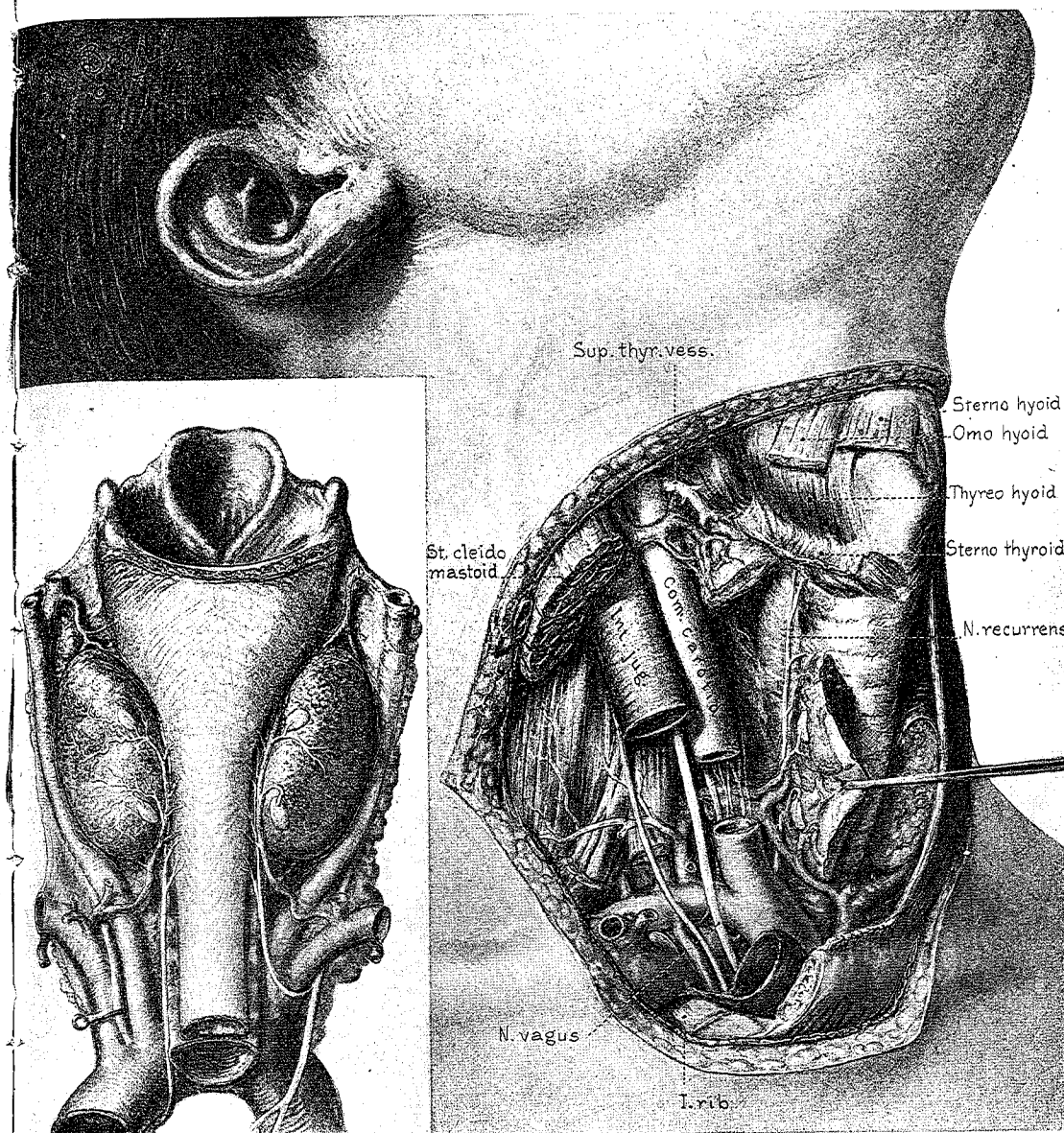
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The Operative Story of Goitre

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Dissection of the operative field. The right lobe of the thyroid gland has been removed in the typical manner, a slice having been left posteriorly in order to preserve the integrity of the parathyroid bodies and the recurrent laryngeal nerve. This slice is drawn toward the midline with a hook. The insert, slightly elaborated by Mr. Broedel, was drawn for the author by Mr. H. M. Evans in 1907 from one of many dissections made by the latter for his study of the arterial supply of the parathyroid glands.

THE OPERATION FOR EXOPHTHALMIC OR HYPERPLASTIC GOITRE.

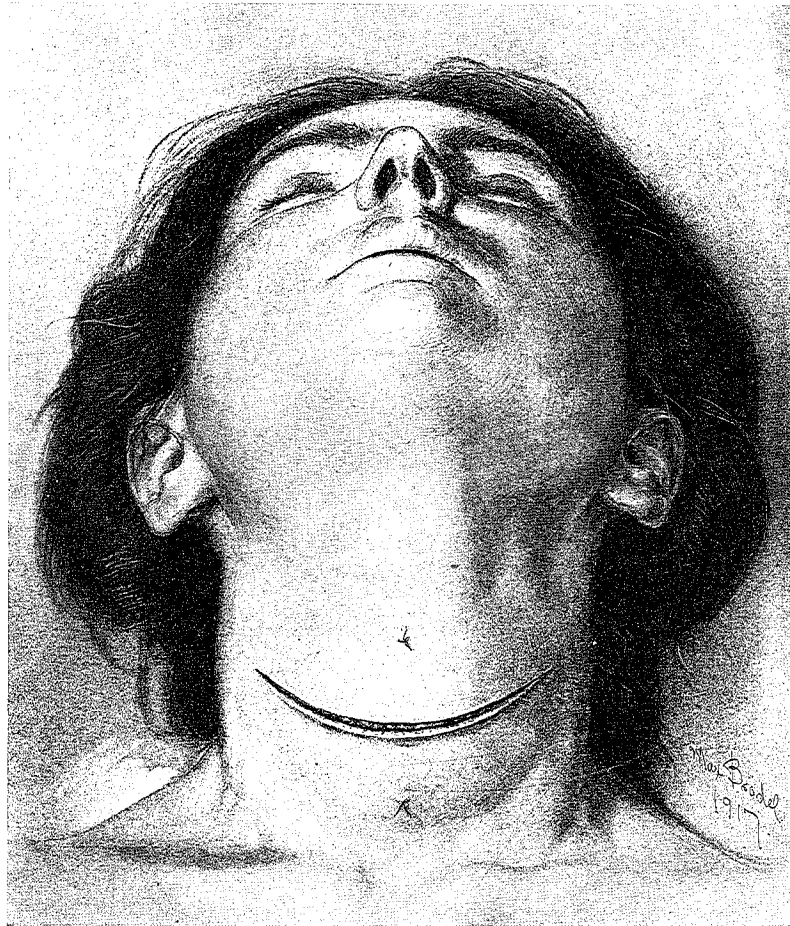


FIG. 1.—The little knots of silk mark the midline and guide the operator in closing the wound.

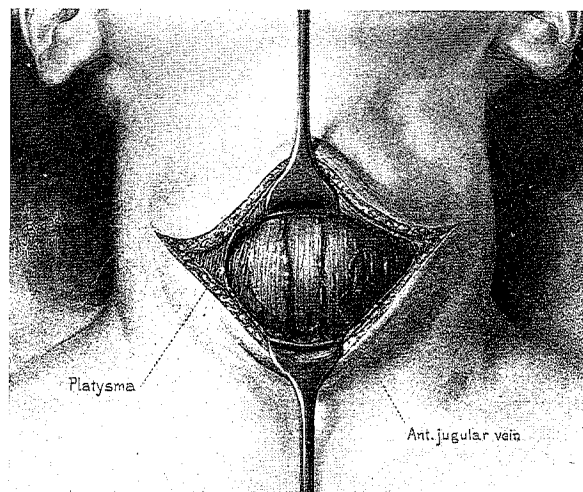


FIG. 2.—The skin and platysma muscle have been divided.
THE OPERATION FOR EXOPHTHALMIC OR HYPERPLASTIC GOITRE.

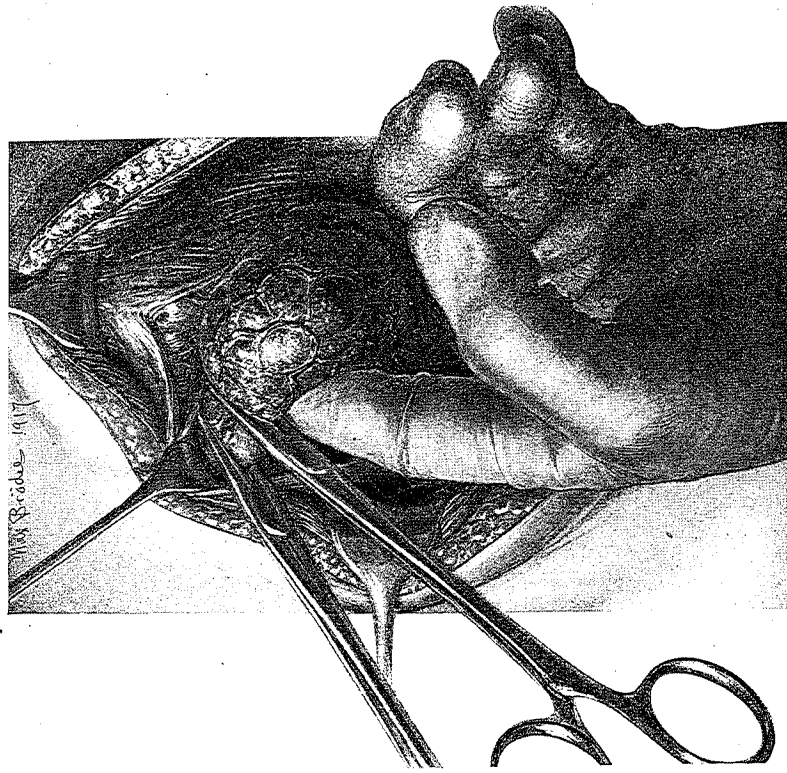


FIG. 2.—At this stage of the operation the muscles are drawn away from the lobe by one broad, deep concave retractor instead of by the two small ones which in this and the preceding drawing serve to define clearly the two retracted muscles. The superior pole is caught between two finely pointed clamps.

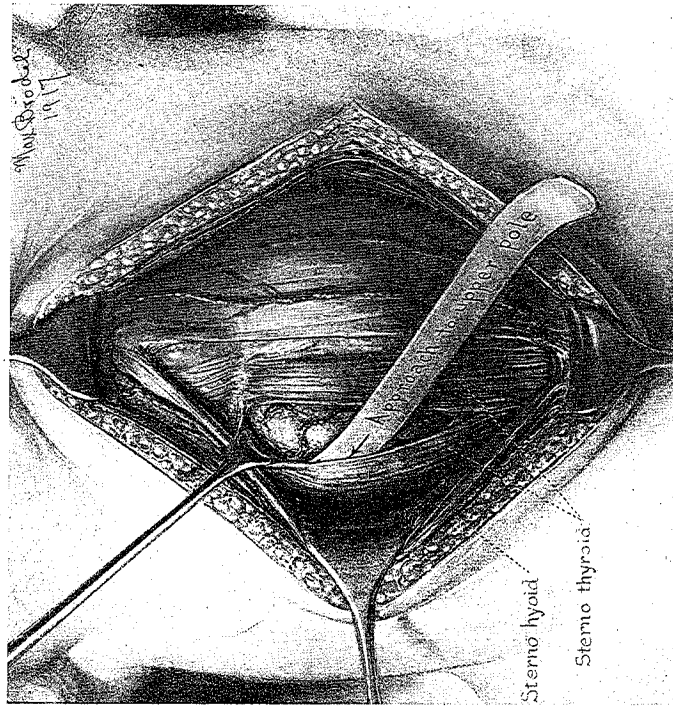


FIG. 1.—The spatula introduced between the gland and the sternothyroid muscle is contributed by the artist in order to carry the lettering.

THE OPERATION FOR EXOPHTHALMIC OR HYPERPLASTIC GOITRE.

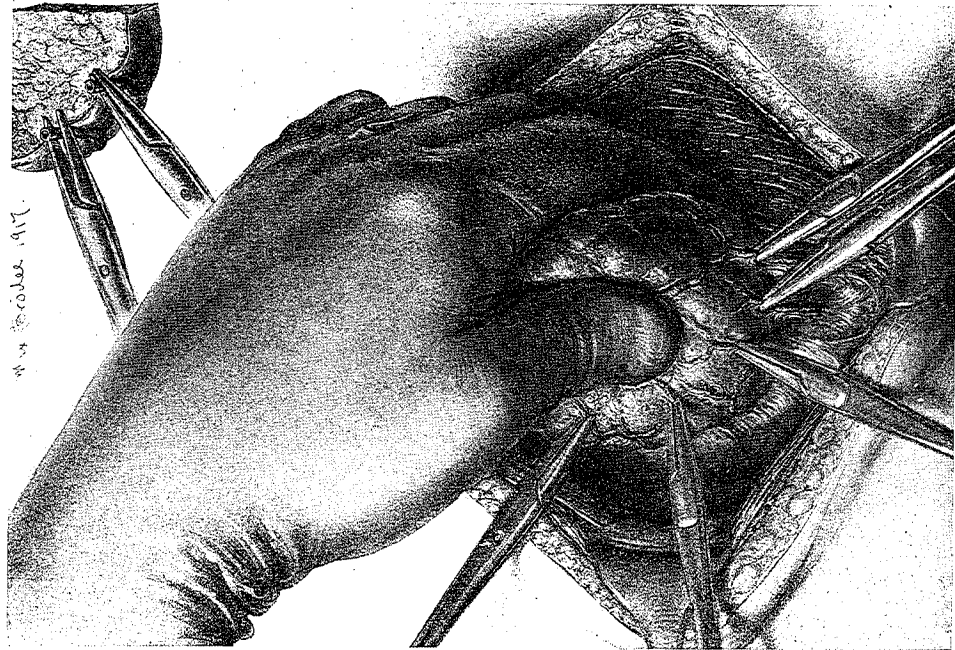


FIG. 2.—The lobe is rolled inwards and the blood vessels have been clamped at a safe distance from the recurrent nerve and the parathyroid glands. Clamps are employed in greater number than is indicated in the drawing.

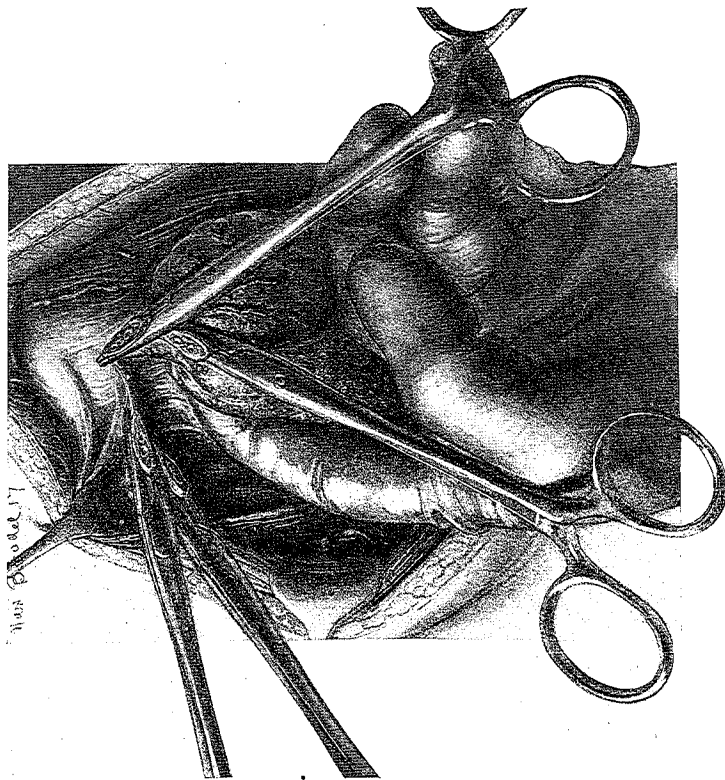


FIG. 1.—The tip of the superior pole has been divided between the clamps.

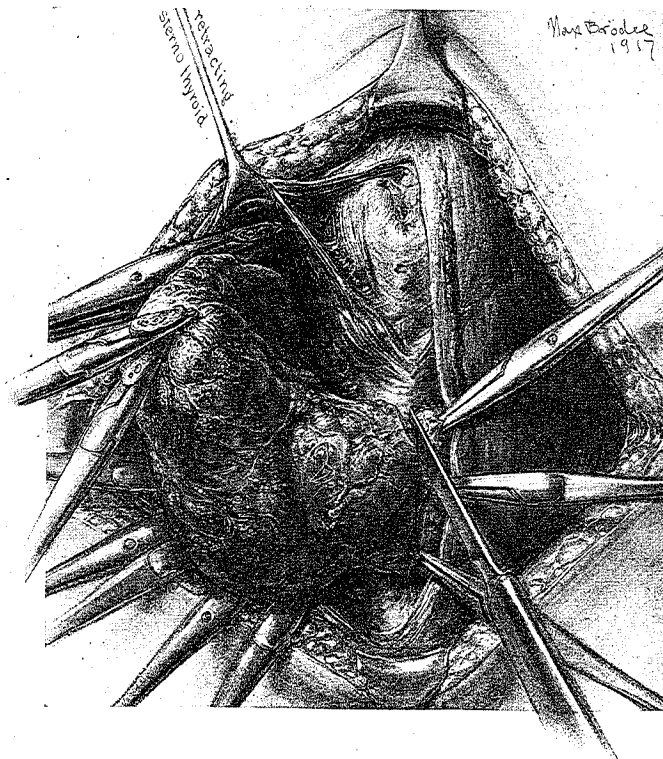


FIG. 1.—The act of dividing the isthmus. Usually, before division, the isthmus is freed from the trachea by a slender blunt dissector and ligated on the hitherto undisturbed side.



FIG. 2.—The isthmus has been divided, and the lobe, rolled outwards, is being sliced through just distal to the girdle of clamps shown in Plate XVII, Fig. 2.

THE OPERATION FOR EXOPHTHALMIC OR HYPERPLASTIC GOITRE.

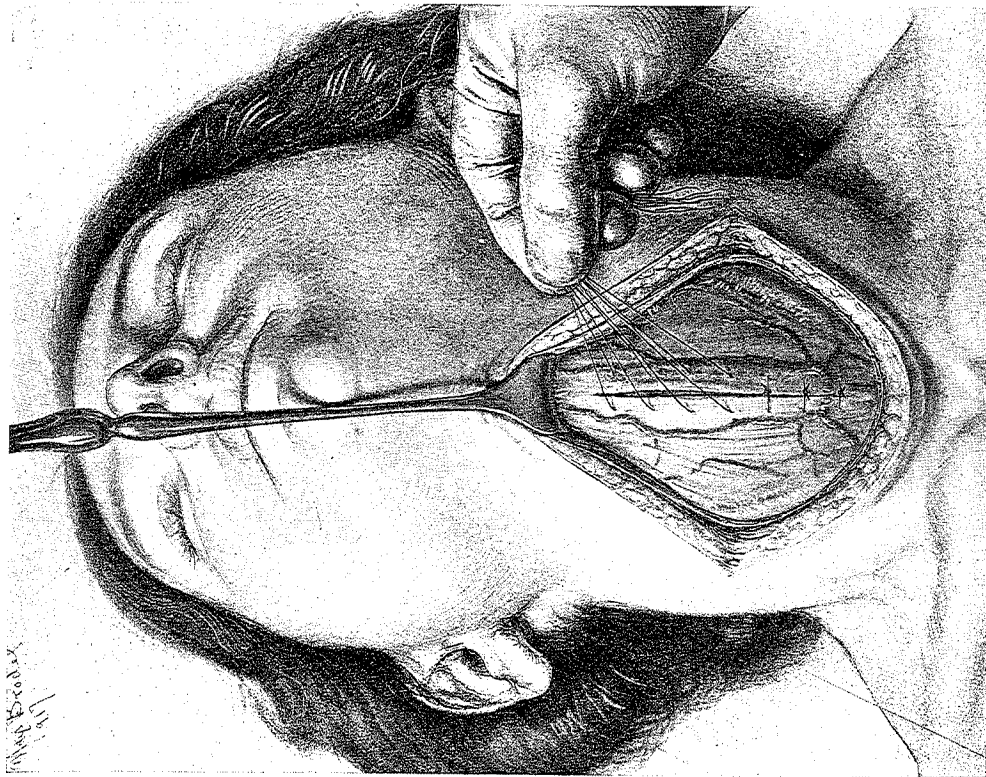


FIG. 2.—The wound is closed without drainage. For the sake of clearness the artist has depicted a coarser silk than we use for these sutures.

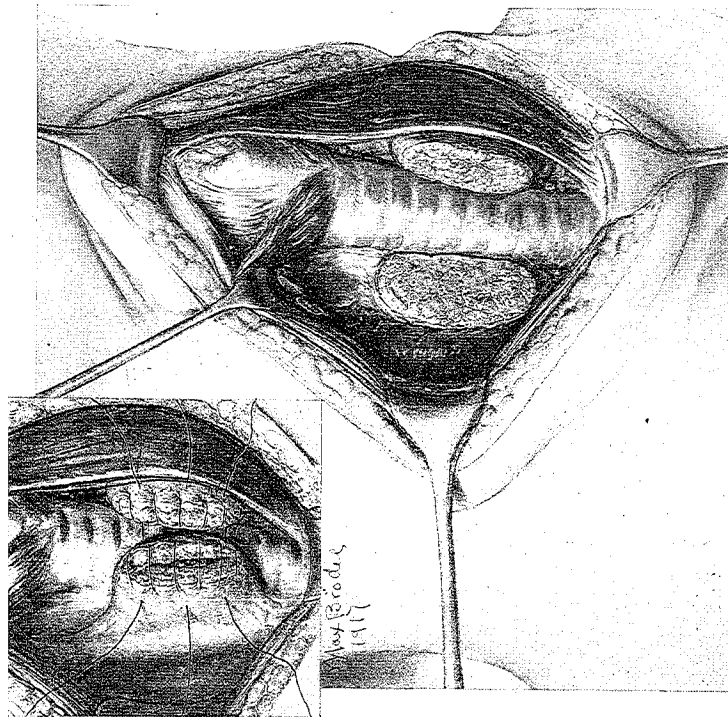


FIG. 1.—Occasionally, but rarely, the stump of the excised lobe rides forward as shown in the insert; and in a few such instances I have sutured it to the stump of the isthmus. The stitches over this stump are usually of the mattress type; in any event they become buried on lying.

THE OPERATION FOR EXOPHTHALMIC OR HYPERPLASTIC GOITRE.

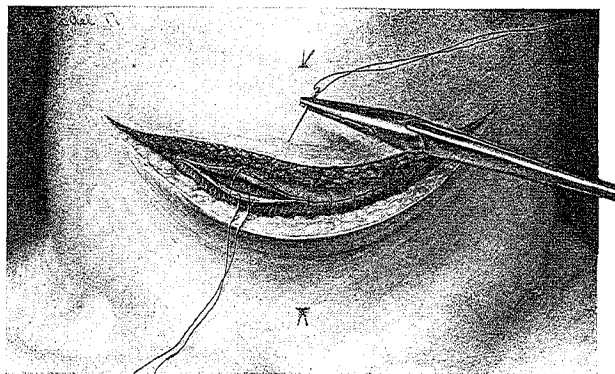


FIG. 1.—The suture of the platysma muscle. Note the short straight needle which is much used in our clinic.

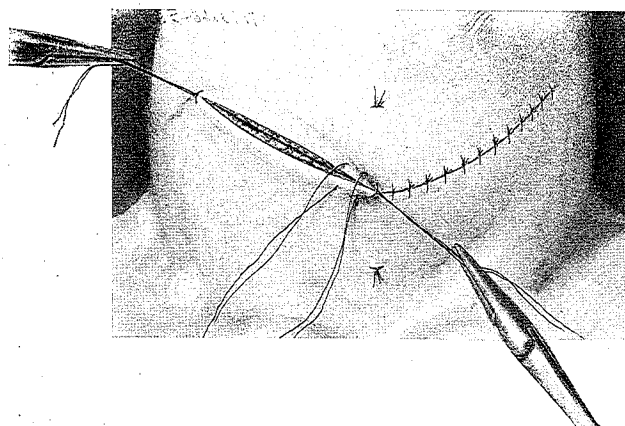


FIG. 2.—Shows the central stitch in line with the landmarks above and below.

THE OPERATION FOR EXOPHTHALMIC OR HYPERPLASTIC GOITRE.

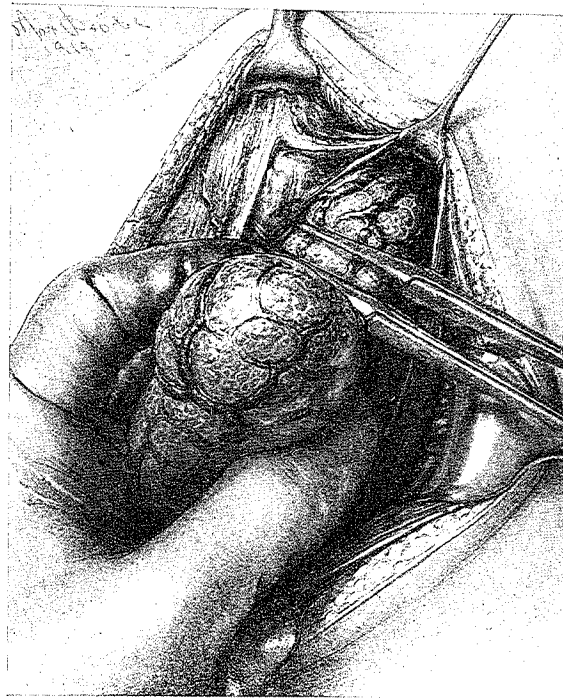


FIG. 1.

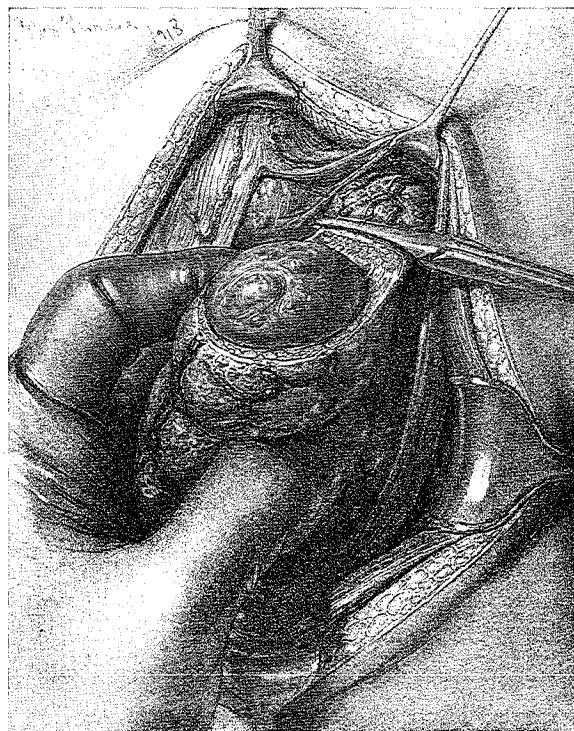
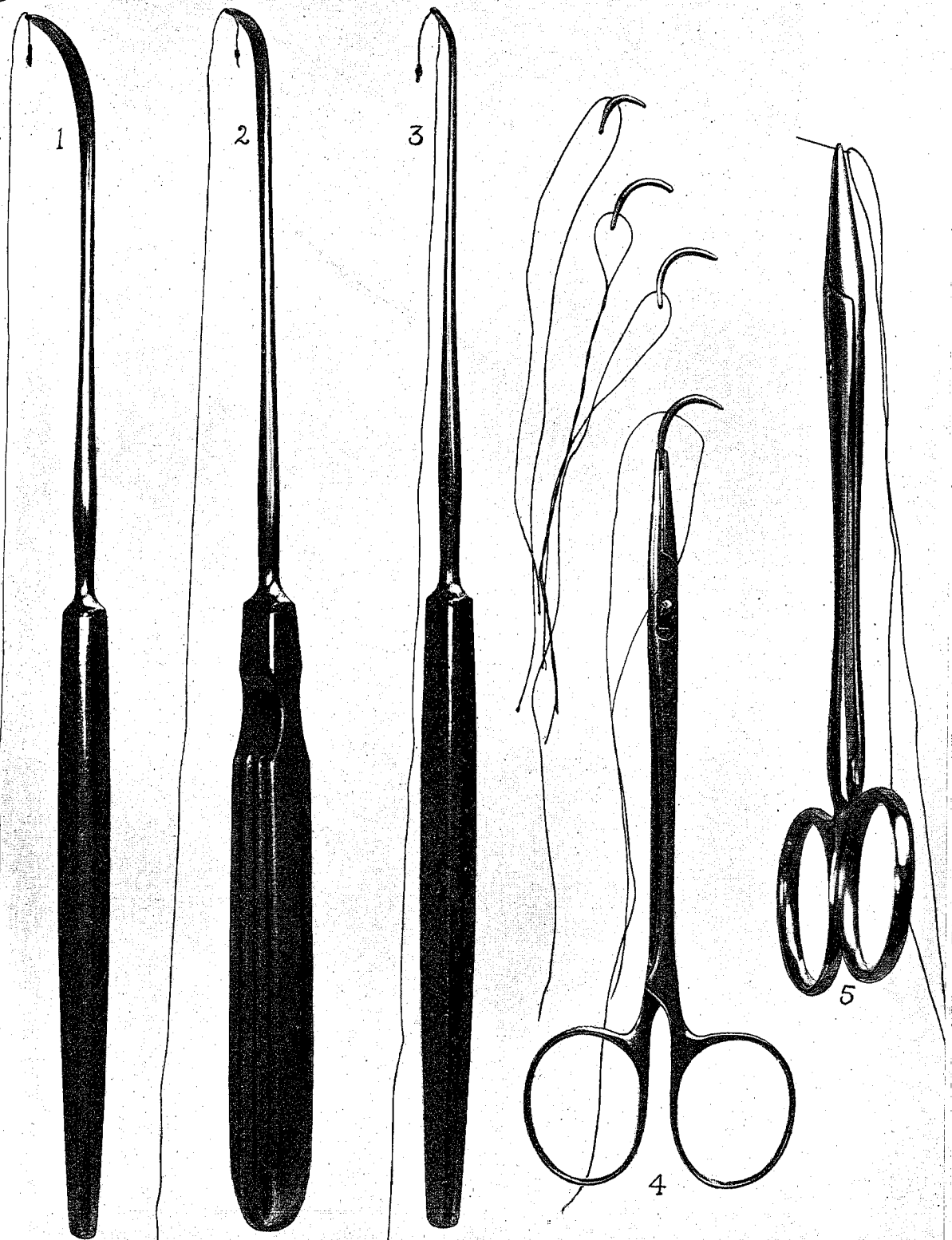


FIG. 2.

FIGS. 1 AND 2.—One of the methods which we employ in enucleating an adenoma. The lower clamp is applied as close as possible to the tumor which partly extrudes itself on removal of this clamp after the incision (Fig. 2) is made between the clamps into or through the superior pole.

ENUCLEATION OF AN ADENOMA.



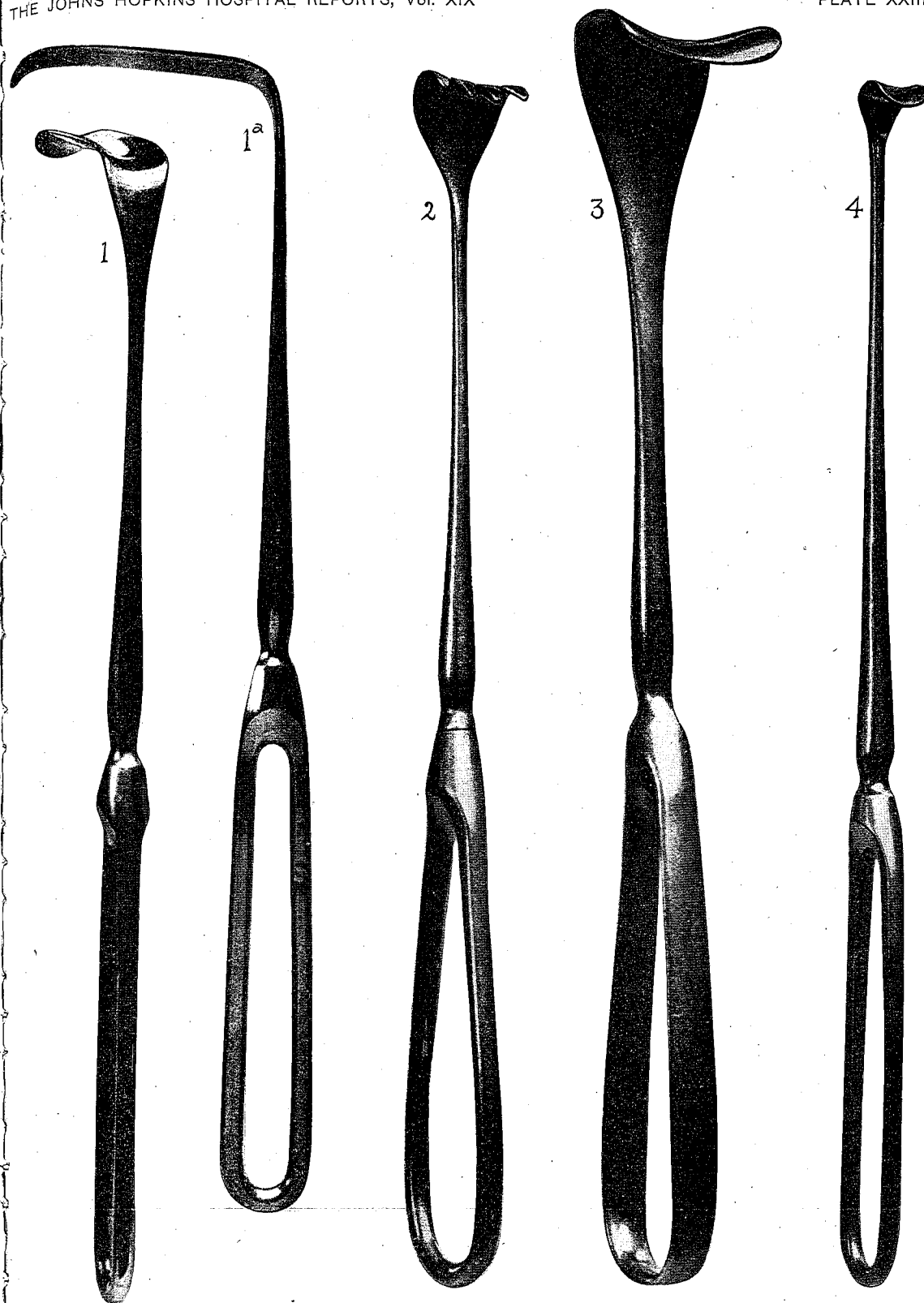
FIGS. 1 AND 2.—Curved, fine-edged dissectors armed with a thread in the manner described in the text. These instruments are especially useful in the ligation of large deeply situated vessels such as the common iliacs, the innominates (vein and artery) and the left subclavian and carotid arteries within the thorax. The fine thread serves as a leading string for the tape with which we ligate large arteries.

FIG. 3.—Aneurism-needle employed in ligation of the inferior thyroid artery.

FIG. 4.—Mosquito clamp carrying one of the semicircular aneurism-needles; unfortunately, it has lost its original delicate form in the hands of successive instrument makers.

FIG. 5.—This clamp was a decided departure from the forms in use at the time it was designed, about 30 years ago. Except for a modification in the beak it is essentially the same as the clamp made for me in 1878 by Otto and Reiner of New York. The broken off cambric needle in its jaws is a ligature carrier—a form of aneurism-needle we frequently employ.

INSTRUMENTS DESIGNED BY THE AUTHOR IN 1888-89 FOR THE JOHNS HOPKINS HOSPITAL.



FIGS. 1 AND 1^a.—Two views of a retractor designed for use in the operation of ligating the inferior thyroid artery. The blades should be very thin, thinner than depicted, in order to take as little space as possible in the small, deep wound.

FIGS. 2 AND 3.—Forms generally used in the clinic.

FIG. 4.—Blood vessel retractor.

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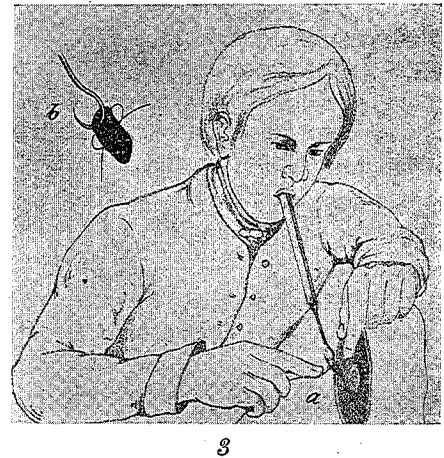
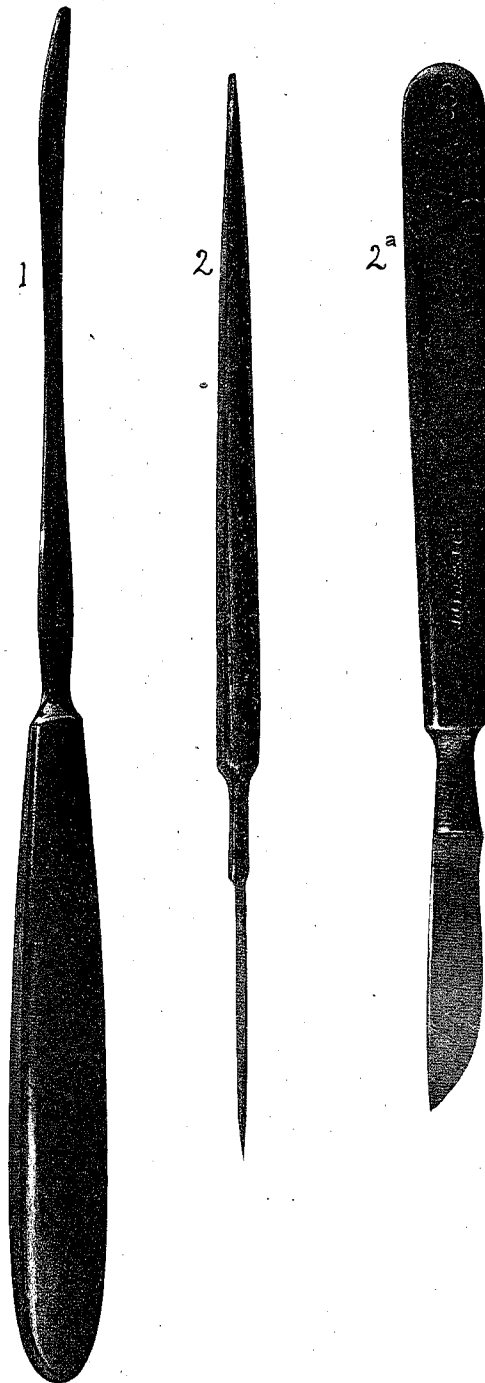


FIG. 1.—Blunt dissector for arterial work. The operator should use two of these in freeing an artery, an assistant aiding with a third.

FIGS. 2 AND 2^a.—Two views of the knife. The handle being hollow is well balanced, and its tip, drawn out to a fine edge, makes an excellent dissector.

FIG. 3.—Taken from Günther's *Lehre von den blutigen Operationen am menschlichen Körper*, Leipzig, 1859, Vol. I, Plate 5, opp. p. 36.

INSTRUMENTS DESIGNED BY THE AUTHOR IN 1888-89 FOR THE JOHNS HOPKINS HOSPITAL.