originate in the cavity of the tube, or ſwellings or ulcers in the throat may affect it ſo as to cauſe ſome degree of deafneſs. When this is the caſe, it is practicable to intro­duce a pipe, fig. 64. crooked at the extremity, through the mouth or noſe, and then to inject into the mouth of the euſtachian tube any mild fluid which may be thought fitteſt for the purpoſe, though no great dependence is to be placed upon the attempt.

Formerly piercing the lobes of the ears was ſometimes recommended in complaints of the head, and was conſidered as a chirurgical operation ; but it is now never practiſed, unleſs for the sake of ornament. As the ſubſtances ſuſpended at the ears are ſometimes ſo heavy as to tear down the parts, the perforation ſhould be made as high on the lobes as can be done with propriety, and care ſhould be taken that the perforations be made exactly in the correſponding parts of the ears. Previous to the perforation the lobes may be marked with ink ; then the patient being ſeated, the lobe of the ear ſhould be ſtretched upon a piece of cork placed beneath it, and perforated with an inſtrument, fig. 65. The cork is then to be withdrawn with the point of the in­ſtrument ſticking in it : A ſmall piece of lead, or ſilver, or gold-wire, is now to be inſerted into that part of the inſtru­ment which remains in the ear, and on being drawn into the perforation, the wire is to be left in it. By rubbing it with oil, and moving it daily, the paſſage will ſoon become callous, and fit for receiving the ornament intended for it.

Chap. XVIII. Of the Wry Neck.

Wry neck may be owing to different cauſes.; as con­traction of the ſkin in conſequence of burns, or other kinds of sores ; relaxation of the muſeles of one ſide of the neck, particularly the maſtoid, while thoſe of the other ſide con­tinue to act with vigour ; preternatural contraction of the muſcles of one ſide of the neck, the others having their uſual power ; or, a bend in the vertebræ of the neck.

When the diſeaſe is owing to a contraction of the ſkin, this is to be divided through the whole of the contracted part, guarding againſt cutting the external jugular vein. When the contraction of the maſtoid muscle is the cauſe of the diſeaſe, the muſcle ſhould be divided by gentle ſtrokes, ſo as to run no riſk of wounding the great veſſels ſituated under it. When an inciſion is made either with a view to divide the muſcle or the ſkin, the head is afterwards, by means of a machine (fig. 66. ), to be kept in a proper poſture during the cureuntilnew granulations form and fill up the empty ſpace. When the diſeaſe is merely owing to a curve of the bones of the neck, the ſame kind of machinery may be uſeful with that recommended for cure in the other parts of the ſpine. But ſometimes the diſeaſe ariſes from an affection of the bones of a more ſerious nature. Here the diſeaſe in the vertebræ commonly begins with a slight pain, which gradually be­comes worſe, and the head is turned over to the ſound ſide. As the diſeaſe becomes worſe, a fulneſs can be obſerved very painful to the touch ; and moving the head becomes ſo diſtreſſing as to be almoſt impracticable. The only me­thod which has been found to be effectual in this caſe, is the insertion of a pea-iſſue on each ſide of the tumor, and retaining it till the pain and ſtiffneſs are entirely removed.

Chap. XIX. *Of Bronchotomy and Oeſophagotomy.*

The operation of bronchotomy is an inciſion made in the trachea, to make way for air into the lungs, when reſpiration is obſtructed to ſuch a degree that life is in danger. If the patient’s breathing be already ſtopped, the operation ought to be done with the greateſt expedition ; uſing any inſtrument which will moſt readily make an opening in the trachea, as the delay of a few moments will often put a period to the perſon’s exiſtence. Experience has shown, indeed, that in by much the greater number of caſes, by a total ſtoppage of reſpiration for only five or six minutes, life is irrecoverably deſtroyed.

In performing the operation, where, from the nature of the caſe, ſufficient time is allowed, the patient is to be laid on his back upon a table, and properly ſecured by aſſiſtants. A longitudinal inciſion is to be made, about an inch and an half long, through the ſkin and cellular ſubſtance ; beginning at the under edge of the thyroid cartilage ; the ſterno-hyoid and thyroid muſcles are then to be ſeparated ; the thyroid gland is to be avoided as much as poſſible, on account of its vaſcularity. As ſoon as the trachea is laid bare, the bleeding-veſſels, to prevent coughing, are to be ſecured ; then, with a common lancet, a puncture is to be made as high as may ſeem practicable between two rings of the trachea, of ſuch a ſize as to admit the introduction of a double canula (fig. 65.), large enough to allow the patient to breathe freely, and of ſuch a length as neither to be in danger of slipping out, nor of irritating the back part of the trachea. Such a canula has long been recom­mended by Doctor Monro in his courſe of ſurgery. Pre­vious to the introduction the canula may be put through ſeveral plies of linen compreſs ; or theſe may be firſt slit half way down, and applied ſo that any of them may­be removed and replaced at pleaſure. This double ca­nula is to be fixed by a ſtrap round the neck ; and when mucus obſtructs the paſſage of the inſtrument, the inner tube can be withdrawn, cleared, and readily replaced ; while the patient is, during this time, breathing through the outer one ; and by means of a ſcrew the tribes can be regulated according to the motions of the trachea. After the canula is fixed, it ought to be covered with a piece of muffin or crape, to prevent the admiſſion of duſt, inſects, &c. As ſoon as the cauſes inducing ſuffocation are removed, the canula is to be withdrawn, and the ſkin immediately brought over the orifice, and retained there by a slip of adheſive plaſter.

By oeſophagotomy is underſtood the cutting open the ceſophagus, to allow ſubſtances sticking in it, and which cannot be extracted otherwiſe, to be removed. It is only to be done, however, in caſes of the moſt extreme danger, as it is attended with much hazard ; and there are only two inſtances yet on record of its having been performed with ſucceſs, though there are ſeveral inſtances of wounds in the ceſophagus being healed. The operation may be rendered neceſſary, where obſtructions of the ceſophagus become ſo complete as to prevent the paſſage of nouriſhment into the ſtomach, or of air into the lungs. But it is evident, that when the obſtructing cauſe is in the under end of the ceſophagus, any inciſion becomes uſeleſs.

In performing the operation, the patient is to be ſecured in the ſame manner as for bronchotomy, and an inciſion made through the ſkin and cellular ſubſtance as directly oppoſite as poſſible to the part obſtructed. If it be done with a view to remove an obſtruction, the muſcles over the trachea are to be pulled to one ſide, and the trachea to the other, by means of a blunt hook ; by which the ceſo­phagus will be brought into view. If the obſtructed part now come in ſight, the inciſion is to be made directly upon the obſtructing body, which is to be extracted by a pair of ſmall forceps ; but if the obſtruction happen to be farther down than we can with ſafety have acceſs to the oeſophagus, the inciſion is to be enlarged as much as poſſible, that the forceps may be able to reach and extract it. When the operation is performed, the wound will be difficult to