readily removed from the orbit. Sometimes it will be ne­ceſſary to enlarge the opening of the eyelids, by cutting the external angle to allow the eyeball to be more readily removed. The whole of the diſeaſed parts are now to be ſeparated by a knife bent ſo as to correſpond with the ſides of the orbit, guarding at the ſame time againſt wounding the perioſteum or the bones of the orbit, which are com­monly extremely thin. The eye being in this manner ex­tirpated, the hemorrhagy from the ocular arteries is to be ſuppreſſed by means of agaric, or by a bit of ſponge ; then over this is to be laid ſoft lint, with a napkin to cover the whole. After ſuppuration takes place, the dreſſings are to be removed, when a little lint, applied with an emol­lient pledget over it, will be ſufficient as long as any mat­ter is discharged. After the wound is healed, the deformity may be in ſome measure obviated by wearing an artificial eye; though it is chiefly in caſes where part of the humours of the eye have been evacuated that this can be uſed with much propriety ; for when the orbit is empty the artificial eye sinks too far into it.

Sect. VIII. *Of the Cataract.*

The ancients, and ſome of the modern writers, had **a** confuſed idea of the ſeat of the cataract ; different authors placing it in different parts of the eye. It conſiſts of an affection of the cryſtalline lens or of its capſule, by which the rays of light are prevented from falling upon the retina ; and is therefore the ſame diſeaſe with the glaucoma of the ancients. It commonly begins with a dimneſs of fight ; and this generally continues a conſiderable time before any opa­city can be obſerved in the lens. As the diſeaſe advances the opacity becomes ſenſible, and the patient imagines there are particles of duſt or motes upon the eye, or in the air. This opacity gradually increaſes till the perſon either becomes entirely blind, or can merely diſtinguiſh light from darkneſs. The diſeaſe commonly comes on rapidly, though fometimes its progreſs is slow and gradual. The opacity of the lens is found to be nearly in proportion to the degree of blindneſs the patient is affected with ; it gradually changes from a ſtate of tranſparency to a perfectly white, or light grey colour. In ſome very rare inſtances a black cataract is found. Sometimes the diſeaſe is confined to a particular ſpot of the lens, but generally the whole is affect­ed. The conſiſtence alſo varies, being at one time hard, at another entirely diſſolved. When the eye is otherwiſe found, the pupil moves according to the degree of light in which it is placed. This diſeaſe is ſeldom attended with pain ; ſometimes, however, every expoſure to light creates uneasineſs, owing probably to inflammation in the bottom of the eye. The real cauſe of cataract is not yet well understood. Numbers of authors conſider it as proceeding from a preternatural contraction of the vessels of the lens, ariſing ſometimes from external violence, though more com­monly from ſome internal and occult cauſe. The diſeaſe is diſtinguiſhed from the gutta ſerena, by the pupils in the lat­ter being never affected with light, and from no opacity being obſerved in the lens. It is diſtinguiſhed from hypo­pyon, ſtaphyloma, or any other diſeaſe in the fore part of the eye, by the evident marks which theſe affections pro­duce, as well as by the pain attending their beginning. But it is difficult to determine when the opacity is in the lens **or** in its capſule. The lens is generally affected ; when the capſule is the ſeat of the diſeaſe, it is termed the membranous cataract.

With reſpect to the treatment : If the diſeaſe be in the incipient ſtate, mercury, particularly calomel in ſmall doſes, has been attended with ſome advantage. When any degree of inflammation is preſent, blood-letting and cooling regimen will ſometimes be neceſſary. Electricity, extract, hyoſcyami, flammula Jovis, &c. have likewiſe been extolled ; but after theſe or other remedies have failed, the cure muſt depend upon a chirurgical operation. For this purpoſe two methods are in general uſe. The firſt of theſe, and which was prac­tiſed for a long time before the other, is called *couching.* It is done with a view to allow the rays of light to fall upon the retina ; and it conſiſts in removing the lens from its capſule, and lodging it in ſome part of the vitreous humour, where it may be entirely off the axis of the eye, and where it is ſuppoſed, in courſe of time, to dissolve.

The other method is termed *extraction,* where, after an inciſion has been made in the cornea, the lens is puſhed through the pupil, and then entirely removed from the eye. Each of theſe methods has been much practiſed, and it is ſtill a matter of doubt to which we ought to give the pre­ference. The next circumſtance deſerving attention is the time at which the operation for couching or extracting can with moſt propriety be performed. Formerly it was thought neceſſary to wait till the lens had a certain degree of con­ſiſtence, or was become ripe; but no certain marks of fluidity or firmneſs have been yet diſcovered; neither indeed is there any neceſſity for attending particularly to it, as the operation may be practiſed in every period of the diſeaſe, providing the retina be ſound, the iris have the power of contracting, and the cornea be tranſparent. The proper time for the operation is when the opacity of the lens is ſo conſiderable as to prevent the patient from following his ordinary occupa­tion. When this is not the caſe, or when the patient has the uſe of one eye, it ought not to be performed, as it is always attended with ſome degree of danger.

When the operation is to be performed, the following is the method of doing it : And firſt, *of couching the catarad.* To guard as much as poſſible againſt the effects of inflam­mation, the patient ſhould be confined, for ſeveral days pre­vious to the operation, to a low regimen ; and two or three doſes of ſome cooling laxative ſhould be given at proper intervals. After this he is to be ſeated with his face to­wards the light ; but ſunſhine ought to be avoided. Some, however, prefer a ſide-light both on account of the operator and patient. One aſſiſtant is to ſupport the head, while others ſecure the arms. The operator is either to be ſeated with his elbow reſting upon a table; or, which is preferred by ſome, he ought to ſtand, reſting his arm upon the side of the patient. The eye being fixed by the ſpeculum (fig. 29.), or in ſuch a manner as to allow the whole of the cornea and a ſmall portion oſ the ſclerotic coat to pro­trude, a couching needle (fig. 31.) is to be held in the right hand, in the manner of a writing pen, if the left eye be the ſubject of operation ; the ring and little fingers are to be ſupported upon the cheek or temple of the patient : The needle is to be entered in an horizontal direction through the ſclerotic coat, a little below the axis of the eye, and about one fourth of a line behind the edge of the cornea, ſo as to get entirely behind the iris. If the needle be of the flat form, the flat ſide ought to be oppoſed to the iris, to prevent that ſubſtance from being wounded. The point of the needle is to be carried forwards till it be diſ­covered behind the pupil. The operator is now common­ly directed to puſh the point into the lens, and depreſs it at once to the bottom of the eye ; but in this way the lens either burſts through the capſule at an improper place, or it carries the capſule with it, tearing it from the parts to which it is connected. Inſtead of this, the needle ought firſt to be puſhed into the lens near its under edge, as Dr Taylor adviſes, and then carried ſome way down into the vi­treous humour, ſo as to clear the way for the lens. It is then to be drawn a little back, and carried to the upper