Cataract is simply opacity of the crystalline lens, and is termed *mature* when the whole lens substance is involved. As the lens becomes somewhat firm at about forty-five years, a cataract developing at and after that period is termed *hard* or *senile;* and also *nuclear*, because the denser nucleus of the lens is frequently opaque and of an amber tint, while the cortex is but partly invaded. Mature cataract can be pretty surely detected without artificial aid, but not so with the immature; and the sight is sometimes very dim from the posterior layers of lens tissue being opaque long before the rest of it is affected. As a rule, therefore, a diagnosis should not be made at a glance, even when the background of the pupil seems gray, but the method of examination just gone through should generally be followed. For there is a physiological haziness of the lens in old subjects which simulates cataract to the naked eye. Besides, dimness of vision is often due to morbid changes in the vitreous, or at the fundus only discernible with the ophthal moscope; and again, cataract may follow or be secondary to other affections, as glaucoma, detachment of the retina, disease of choroid, &c., which would invalidate an operation.

It is important to note the *tension* or hardness of the eyeball, the degree of sight, and the extent of the field of vision. The tension is tested, as already shown, by gentle palpation with the tips of the index fingers upon the lid, the eye being closed; and it should specially be observed if there be a dilated or very sluggish pupil, so as to exclude *glaucoma*, the simple or chronic, non-inflammatory form of which not infrequently occurs in those of forty-five years and upwards. A hard globe, with a large, insensitive pupil indicates glaucoma, and the removal of a cataractous lens,—if such be present—in order to restore sight, would likely prove worse than futile. I was once asked by a brother practitioner to see a case in which he proposed to operate for cataract. The appearance of the lens was deceptive, for it was not opaque, but the eye proved to be glaucomatous, the optic disk being deeply cupped, owing to excessive intraocular pressure. Again, in simple cataract an object, as the hand, can be discerned when moved between the eye and a window or light, &c., and in a darkened room, the position of a lamp flame can be determined in any part of the field of vision.* In confirmed glaucoma, on the other hand, the inner or nasal half at least of the field is generally quite blind; while a blank in the lower or upper half would most likely be due to detachment of the retina in an opposite part of the fundus.

In the case before us the cataract is without apparent cause, and this is the common experience. Mal-nutrition of the lens may be considered the direct cause of cataract, and, as already stated, may be secondary to glaucoma, disease of choroid, diabetes, &c., or due to a jostling of the lens in its fossa or its luxation from concussion of the ball. There is often an hereditary tendency to cataract, and in many cases, too, it seems fairly attributable to excessive use of the eyes. The lens substance also becomes opaque under the action of the aqueous humour, when the latter has access to it through a puncture or rent of the capsule, as by a foreign body, instrument, &c.; and, again, where the iris is largely adherent to the lens capsule, owing to neglected iritis, secondary opacity of the lens often supervenes. In this instance the operation on the left eye will be deferred until the patient finds the dimness of the other begin to interfere with her work. Formerly, it was the practice not to operate until the second eye became blind, but it is now held that the anxiety and mental desuetude and the enforced physical inactivity caused by such delay militate against the success of the operation; and, therefore, the eye first involved is operated on while the cataract is yet ripening in its fellow. As, however, one eye often becomes blind many months or several years before the other, the operation on the eye primarily affected will generally not be required and as a rule should not be advised until its cataract is fully mature. Indeed, it may be several months after an eye has become practically blind before the lens substance up to the anterior capsule has become opaque.

* A patient was once under my care for sympathetic ophthalmia induced by an operation for cataract upon an eye that had been stone-blind for years, the surgeon having seemingly neglected to test the sight.