

deal most effectually with an opaque capsule; he may pick it with the point from any attachment it may have formed to the iris, or if it hangs flaccid he may entangle and detach it by pulling or twisting. In certain cases the pupil I found nearly closed, and adhering to a smaller cataract of nearly cartilagenous hardness; in these I have introduced the needle, and with the point picked up the adhesions between the margin of the pupil and this hard mass, which I have placed in the anterior chamber, and removed through an opening in the cornea with a pair of forceps. It may be said that all this might be accomplished by a diminutive needle, on the plan of Scarpa's; but not, I conclude, with the same prospect of success, on account of the greater size of even the smallest of such needles."

Again, "The size of the needle is known in the shops as number *seven*, being the forty-fourth part of an inch in diameter, about one-half the size of the finest Saunders' needle that is made. The point can be turned to the requisite curve by means of a pair of cutting forceps or the ward of a small key, of course without heat, which would destroy its temper. It must not, however, be expected that all needles are so soft as to be bent thus cold; there may not be ten in one hundred of this temper, but when once turned, they retain the curve without any danger of bending or breaking, and certainly possess a degree of strength and temper never observed in needles separately forged, and finished by the cutlers. They should always be tried before use, by passing them repeatedly through thick calf-skin leather. After they have received the requisite curve, the point should be cut flat on each side on a firm hone, and carefully examined with a magnifying glass, to ascertain that it is perfect. The extent to which the point should be curved may be left to the choice of the surgeon, reminding him that the greater the curve the more effectual the needle will be when introduced, but the difficulty of introducing it through the cornea will also be greater. I therefore recommend those who use it for the first time to choose one slightly curved. After the point has been turned, the needle, held in the jaws of a pair of pliers or a vice, is to be run down into a cedar handle, without cement, leaving only *half an inch* of blade, which I have found to answer every purpose. If the handle be left long it will yield, and spring when opposed to resistance. The handle should be about the fifth of an inch in diameter, and four inches long. I use the needles made for camel's-hair pencils, and find that a metallic ferula, which increases the length, is unnecessary and objectionable. A needle thus constructed, and preserved free from rust, I have used the same one dozen times, without sharpening.

"The surgeon, provided with such a needle, places himself in the usual position with respect to the patient, availing himself of whatever assistance he may find necessary to secure the lids. He