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THE SIZE OF THE PUPIL AS AN AID TO DIAGNOSIS.*

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The general practitioner, no less than the specialist, notices in almost every case brought before him for diagnosis, the *size*, the *shape*, and the *mobility* of the pupils.

First, in regard to the size, they may be contracted or dilated, or they may be unequal—one being larger than the other.

Then in regard to the shape, they may, instead of being circular in outline, be oval or irregular in shape.

And in regard to the mobility, instead of reacting to the light (or other stimulus) they may be immovable, or fixed.

Any of these changes suggest some abnormality, and it is the object of this paper first, to place on record the principal conditions in which these changes are seen, and second, to assist in the interpretation of these changes.

In order to understand the subject we must briefly glance at the anatomy of the iris: in so far as it has to do with the changes in the shape of the pupils. We will find that nature has provided a special means for the contraction of the pupil, and a special means for its dilatation.

In the structure of this very vascular curtain is to be found smooth muscle. The fibres of this muscular tissue are arranged in two directions.

First, we find them arranged in a circular manner around the pupillary edge, forming a sphincter of the pupil, and known by the name of the *sphincter pupillæ muscle*. The remaining

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