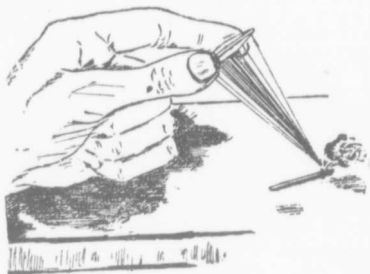


XXXVI. THE EYES

If one of the boys will provide a burning glass or lens, it will be very useful in helping us to understand



BURNING GLASS

something about the wonderful structure of the eye. With it concentrate the rays from the sun on the point of a match. It will take fire. There is one point only at which it will burn. If you hold a piece of paper behind the lens,

and parallel with it, you will observe that the rays are concentrated directly opposite the middle of the lens. This is the burning place, and is called the focal point. With a ruler you will be able to measure exactly the distance between the lens and this focal point. Now if you are fortunate enough to have several such lenses having different degrees of convexity, you will find the focal point different in each case. Thus, you will observe that for each different shaped lens there is only one point at which the light rays are concentrated. Beyond that point the rays commence to diverge again.