

safely say occurs to everyone, often many times in the course of a year.

Foreign bodies on or in the eye are the only injuries to that organ which are at all common. Bits of dirt, especially coal dust, are the usual things that get into the eye, but eyelashes, flies and the points of needles are also frequently met with in this situation and are often very troublesome.

Whenever you get anything in your eye endeavour to get it out again as soon as possible. The popular method of removing bodies from the eye is with the corner of a pocket-handkerchief, and if this is attempted at once with a reasonable amount of gentleness it very rarely fails. If you cannot get the object out of your eye by this method, bathing

the eye with warm water may remove it. If this does not succeed, there are two alternatives, one, is to sweep right round the eye under the lids with a camel-hair brush. Be very careful that the brush is absolutely clean and that there are no loose hairs. This is a rather painful but often very effectual proceeding; or, you may evert the eyelids and examine the ocular surface. If this is done, any object, however small, can be discovered and removed. Though a trivial manoeuvre in the hands of one accustomed to the work, it is not at all an easy thing to do at the first attempt. To examine the part of the eye hidden by the lower lid is easy; tell the person to look up and then pull down the eyelid. Unfortunately foreign bodies usually ascend and so are not often found here.

To see the upper part of the eyeball tell the person to look down; place a penholder or some such object across the upper lid; take hold of the margin of the lid and turn it over. Anything that may be lurking here will be discovered. It seems easy enough in theory does it not? but—well, wait until you have occasion to try it.

If a body is left on the surface of the eyeball it may cause terrible damage, but usually it gets swept away by the drainage system of the eye.

If you should ever be so unfortunate as to get the tip of a needle or other object imbedded in the eye, do not try to remove it yourself, but go immediately to the nearest surgeon, as this is a very serious accident.

SO EASY.

By SOMERVILLE GIBNEY.

PINS AND NEEDLES.

THE two following experiments seem eminently suitable for girls, as they are performed with articles which are regarded as belonging to their particular province, viz., pins and needles. We will take them in this order. For the first we require two kinds of pins, a hatpin and a hairpin, a ring and a penny, and let the hairpin be one of the straight kind without any crinkles in it. Open out the legs somewhat wider than they are naturally, and form the end of one leg into a hook, and bend the other into the form shown in Fig. 1, then insert the penny in the fold, pressing the pin on to the two flat sides, so that it holds the coin tightly, hang the ring on to the hook, or should you find it necessary for the purpose of balance, two or three rings; place the coin near its edge on the point of the hatpin, as in the Fig. 2, and, if you have arranged matters properly, you will find it will balance there, apparently fixed on the point, and yet



swaying about. You can then give this superstructure a circular motion so that it revolves on the hatpin point, and if you allow this motion to continue long enough, you will find that the pin will bore a hole right through the penny, seeing that the steel of the pin is a much harder metal than the bronze of the penny. The more neatly you bend the hairpin in the first instance the more effective will be the experiment; and mind the two legs when bent for the reception of the penny and ring are still in a line as they were before you commenced operations on them. The figure No. 2 of course represents the left hand of the performer as seen by herself.

The second experiment can, with a little arrangement, be made into a kind of mild conjuring trick, it will afford greater amusement this way, and I believe that it was in

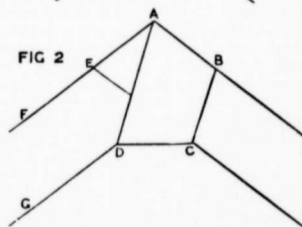
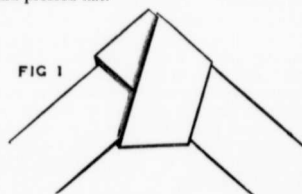
this form that it was first exhibited by the great Dr. Comus. All you require is a paper of medium-sized needles, with good points, and a few pieces of different coloured sewing cotton, about three inches in length. Place the person about to try the experiment some two to two and a half yards in front of the closed door of the room you are in, and request her to select a needle from the paper and throw it at the door, making it stick in. She may throw every one of the needles in the paper, but she will not succeed. When she is tired of trying, offer to show her how it is done and in order to convince her that there is no trick about it, ask her to select any needle she likes for your use, and so that you may not change it, and that she may know it again to thread it with one of the pieces of coloured cotton. On its being handed to you thus prepared, you have but to throw it with some force towards the door and it will stick in without any difficulty. The secret of success lies in the fact that the needle is threaded, the cotton acting as the feathers do on an arrow, and keeping the point to the front; so that by the very means you take to apparently avoid deception, you provide the deception itself. On withdrawing the needle from the door be sure to unthread it, otherwise should other experiment with it they would quickly discover your seeming skill was but "a bubble reputation." You must do all in your power to draw attention from the thread when in the needle, merely treating it as a means of identification. Your secret will no doubt be discovered before long, and if so you can still obtain further amusement by marking a target on the door with soft chalk, which will rub off, leaving no mark, and using the needles threaded, as arrows. If you would score largely at this game aim low, for you will find that in throwing sharply, the needles have a tendency to rise, and more darts will be found above the bull's-eye than below it. It will be as well if you lay down a sheet of white paper in front of the door for the needles to fall on. You will easily find them again on that.

LIGHTNING GEOMETRY.

To draw a perfect star of five points is a lengthy and a no slight undertaking even for a person armed with rule and compasses and a knowledge of geometry; but without the one or the other it is practically an impossibility, and yet by the means I am about to describe you can manage one that will answer all your purposes very easily:—

If you want a small one take a strip of cap paper or any other paper which is thin, and will let light through it, and yet at the same

time is tough, and will not tear easily. Let the strip be about a foot long, and an inch wide, and mind that the two long sides are perfectly parallel. (If you wish for a bigger star you must take a broader strip, but as you increase the width you must increase the length). Tie this strip into an ordinary knot, the commencement of which is shown in Fig. 1, taking care as you pull it tight that the paper does not crumple up, and that the edges shall meet each other exactly at A B C D E, Fig. 2, which shows the knot pulled tight and pressed flat.



Now double the part of the strip E D G F across the figure so that the edge D G shall exactly coincide with D C, when the edge E F will cut the point B, and your work is done for if you hold this up to a strong light you will see your five-pointed star in shadow with a perfect pentagon in darker shadow in the centre as in Fig. 3.

