ODE TO KITTENHOOD.

KITTEN mine! how full thy face is
Of the most perplexing graces.
Wingless butterfly thou art,
Lightest throb on Nature's heart.
When I o'er thy sweetness rave,
Or of thee affection crave,
Thou dost give a toss of scorn,
Followed by a—rosy yawn!
I could censure if I would
Such coy pranks of kittenhood!

Life is a chromatic scale
Of scampers after mouse and tail.
And thy gladness never wavers,
Breaking out in sharps and quavers.
For thy days together flow
One perpetual Allegro!
Oh! that Music's measure could
But describe thy kittenhood!

Then that sidelong pirouette,
Dancer never rivalled yet!
And my poet's tongue must fail
To convey that witching tail.
Now a note of exclamation!
Now a curved interrogation.
Point, to indicate each mood
Of a changeful kittenhood.

What a serpentine emotion
Thrills thee at some novel notion;
Head to tail there runs that shiver
In an undulating quiver.

Then to roll—a ball of fur
With a liquid, crooning purr.
Life to thee is all so good,
Optimist of kittenhood!

Thou art but a Merry Thought,
Luring pleasures out of nought.
Shivering shadows thou dost woo,
And the dancing sunbeam too;
For all shadows are to thee
Potent deep reality!
And all the trees in every wood
Just made for blithest kittenhood!

Was thy little silken gown
Spun from floating thistle-down,
With its rings of light and dark,
Each a tiny water-mark?
Wavelet thou from Fairy ocean,
Ever in a bright commotion.
Thou, for wonder, daily food,
In thy dainty kittenhood.

What a spell of witchery lies
In those wide-orbed saucy eyes!
Magic little mirrors blue
That the sky has looked into.
Art thou fay or prison'd Peri,
Thou that never seemest weary?
Not yet art thou understood
Through each maze of kittenhood.
Shadeless glancing kittenhood!
Blue-eyed dancing kittenhood! V. R.

HOW TO TAKE CARE OF OUR SIGHT.

BY "THE NEW DOCTOR."

THE friendships made at school sometimes last throughout life, but too often they cease to exist when schooldays are passed.

When I was at school I had one great friend, and for the six years during which we were at the same school we were inseparable. The day came when we had to leave and henceforth we followed different paths in this maze of life. My friend moved to Edinburgh and I remained in London, so we did not see each other for many years. Later he went to Sandhurst to study for the army, and about the same time I entered upon the study of medicine.

The other day, whilst walking in Regent Street, I met this man, who had been so dear to me at college. He had altered a good deal—he is past thirty now, and very careworn. When we had spoken on indifferent matters I asked him how he had got on in the army. He was a clever man and I felt sure that he had been successful. He told me that he went up for his examination, passed high up in the list and was highly delighted with his success. But he had to pass the physical examination, and here he failed; his eyesight was not sufficiently good for the service. He failed, the whole of his special education had been wasted, and unfortunately, as so often happens in such cases, his career was hopelessly ruined.

I had noticed, when I first saw him, that he wore glasses, and on looking closer at them I could tell that he had a high degree of error of refraction. He was so short-sighted that without glasses he was unable to read.

Why had he not found out that he could not pass the physical examination, and so saved himself from the expense and trouble of an education that would be useless to him?

I did not tell him how foolish he was not to have had his sight tested before he entered Sandhurst, but I shall say now that no one should enter for the services without being certain, at the time he enters, that he can pass the physical tests.

This is a girl's paper, I know, and girls cannot enter the services, but nearly all of you have brothers, so that this subject will not be without interest for you.

Having given this caution for your brothers and sons I will now give some other warnings which, I hope, will be of use to yourselves.

How terrible it must be to be blind! But it is not so hopeless as it was in the time of our fathers. The science of ophthalmology, that is the study of disease of the eye, has advanced by more rapid strides than any other of the varied departments of the art of healing.

The result of this increased and gradually increasing knowledge of the eye is having great results. Blindness itself is very much less common than it was formerly, and now most cases of incipient blindness can be stopped, if timely steps be taken; and complete blindness cured when it has once developed. Let us look forward to a time when blindness will be no more.

We all love our eyes. Let us not abuse them. They are given to us to use, and to use carefully. What is their chief use? Undoubtedly to enable us to educate our minds by reading. So many books and pamphlets are published nowadays that no one can have any difficulty to find matter to read. But the material at hand must be sifted; it is wrong to read everything. But it is not my place to tell you what you should read, but how you should read.

A few points about reading are not out of place here, as it is very necessary to attend to them, which most of you do unconsciously.

Never read in a bad or flickering light. Always have the light at your back so that it may shine upon the book and not into your eyes. Hold the book you are reading at the distance from your head at which you can read best. This distance will depend upon your age and whether or not your sight is perfect. Never read very small or blurred print—there is no necessity to do so now that paper and printing are so cheap. Never under any circumstances read with one eye-glass, and do not read for too long at a time, so as to tire your eyes.

Your eyes may not be quite perfect, and therefore you may experience difficulty in reading. Find out what is the matter and have it remedied at once.

The commonest conditions which give rise to difficulty in reading are "errors of refraction." By this term is meant that the optical arrangements of the eyes are not as they should be. Errors of refraction can hardly be called diseases, though if neglected they may cause disastrous results. There are three common errors of refraction which I will now describe in detail.

Long-sight (scientifically called hypermetropia) is one of the commonest errors that are met with in the eye. The name commonly given to this condition, long-sight, is rather misleading. The individuals with this error do not see farther than those whose sight is correct. Our eyes could see to infinity except that the size of objects very far off is too small to be perceptible to our vision.

What is really meant by long-sight is that the near point (that is the nearest point from the eye at which a person can read) recedes from the eye, so that a long-sighted person cannot read a book placed near her eyes, the distance, of course, varying with the amount of error present.

Long sight is met with in two very different conditions. The first is that which is so common in children and young adults; the latter (known as presbyopia) is the normal condition of the eyes of old persons. Nearly everybody becomes long-sighted at fifty; this is the reason why nearly all old people wear glasses.

The first kind of long sight is due to the eye being shorter than it ought to be. It often exists at birth, but usually does not become apparent until the child begins to read, when it is noticed that she holds the book as far away from her as possible.

Other symptoms may be present. The child may complain of headache, difficulty in recognising persons, and sometimes, not by any means rarely, she may develop a squint; the squint usually being "convergent," that is, both eyes looking inwards at the nose.

How common this condition is, can only be appreciated by those who are accustomed to examine eyes daily. A slight degree of this error gives rise to practically no symptoms and is usually not discovered except by accident. It is consequently of little importance.

But the higher degrees of long-sightedness are also very common and imperatively call for glasses. If the higher grades of long-sight are left untreated many serious effects may follow; reading being rendered impossible, education suffers to a great extent; then, as I said before, a squint may develop and often, after a time, the squinting eye may become quite blind.

The second kind of long-sight is that met with in old persons. Here is a typical case:

"Mr. H——, sixty years of age, came to me yesterday afternoon. He gave me the following history. He had always been healthy and until he was forty-nine his eyesight was perfect. Since then he has noticed that he has had to hold his newspaper farther and farther away from him until he found it necessary to hold it at arm's length. Just lately he has found this insufficient and so has had great difficulty in reading his paper.

The treatment for both forms of long-sightedness is the same, it is glasses. The spectacles used for this error are bi-convex, that is the same shape as a magnifying glass.

As individuals with long-sight can see distance plainly, glasses are not needed for distant vision, unless indeed the error be exceedingly great. Persons with long-sight, therefore, only need glasses for near vision—writing, reading and working.

The treatment of squint I will refer to later on.

The other common error of refraction is the reverse of this, it is short-sightedness. In this condition the eye is longer than it should be and the head is often of an elongated shape. This error is perhaps even more common than long-sightedness.

A person with short sight can see things near her eye tolerably distinctly, but the distance is blurred. In a slight case the person could see to work or even to recognise the faces of her friends she meets in the street, but the horizon is always indefinite. We meet with grades of this affection from as slight a case as I have described above up to almost complete blindness. People with this condition are liable to various serious diseases of the eyes.

The treatment here is, as in the former condition, glasses. But for short-sighted persons the glasses must be of a different shape; they must be concave, that is hollowed out. Such lenses as these, instead of magnifying, diminish the size of the object looked at.

In the milder grades of short-sightedness spectacles are only needed for distant vision, near vision not being very much interfered with. If, however, the error is excessive, glasses will be needed both for near and distant vision, but those for the former should be less strong.

Squint is not such a common complication here as it is with long-sight; when it does occur it is usually of the divergent variety, that is, both eyes look away from the nose.

The last error of refraction that occurs is known by the name of "astigmatism." In this condition the surface of the eye, the transparent surface or "cornea" instead of being rounded equally in all directions is spoon-shaped, being curved more in one direction than in another. Everybody has a more or less spoon-shaped cornea, but it is only when this defect is exaggerated that the possessor is aware of its existence. The symptom is that it is impossible to see horizontal and perpendicular lines at the same time. Thus, if a person with a normal eye looks at a slated roof, she will see lines crossing each other at right angles; but, if she has a spoon-shaped cornea she will not be able to see the crossing lines. She could see, either the lines parallel with the street or those going in the opposite direction, but she would be unable to see both these sets of lines at the same time.

The treatment for this is also glasses; but glasses of a peculiar shape; they must be in the form of a cylinder, convex or concave in one direction, and straight or with a different curve in the other direction—something like a rolled-up sheet of paper.

Now let us talk about squints. These are very much more common than is usually supposed. They are due chiefly to two causes—errors of refraction and paralysis of the muscles of the eye. I am not going to talk about those due to paralysis, they do not come within the scope of this paper; but I am going to tell you about those squints due to errors of refraction.

As I have told you above, the imperfections of the optical apparatus of the eye can be remedied by means of glasses. Squint never results from these imperfections if proper and suitable glasses are worn. Consequently, every one with long or short sight of severe grade (the slighter grades rarely produce squint) ought to wear spectacles. More than this every mother should find out whether her children's sight is correct, and if it is not, she should see that any fault is corrected. It is the duty of every mother to do this.

I lay particular stress upon this subject, because a week ago a woman brought her daughter to see me because the child could not read. I examined her eyes and found that she was very long-sighted and had a tendency to squint. I told the woman what the condition was and that her daughter must wear spectacles, she replied, "If it has pleased God to make my daughter with defective eyes they ought to remain so, for no one has the right to interfere with the works of the Almighty."

I almost fell down when I heard this statement, and I must confess that, for a time, I was dumbfounded. I did not need very many minutes, however, to collect myself, and then I replied: Have we not the Divine example to cure the sick? Did not Christ Himself remove disease from the afflicted? and did He not give His apostles power to do so after He had left them? Surely this argument is sufficient to show that we have the right to do what we can to remove or remedy the diseases of our bodies. If you refer to Genesis you will see that man brought death and sorrow into the world by his fall. Hunger and thirst (as actual suffering, not the desire to eat, for this was created in man in the beginning) were also brought into the world by sin. But were our first parents to starve? Certainly not. "By the sweat of thy brow thou shalt eat thy bread." Not only were they not left to die of hunger, but they were commanded to appease their hunger at the cost of severe trouble. Is not a man also commanded to take care of his body and to do all in his power to remove another of the curses that resulted from the sin of Adam? Surely it must be so.

A physician is no magician or wizard. His knowledge is not the outcome of occult science or dealings with Satan; it is obtained by "the sweat of his brow," as truly as is the work of the labourer. By his study he fulfils his duty, and in the practice of his profession he follows as far as he is able the example of his Divine Master.

The idea held by this woman is so common, that I have given the above proofs; and surely, there can be no gainsaying that they are proofs that the idea held by her and by many others is contrary to the teaching of religion.

It is as much a duty for parents to see to the physical defects of their childeren as it is for them to educate or feed them.

To return to the case I was talking about; the woman was not convinced and would not let her daughter wear spectacles. Although only under very exceptional circumstances, it is right to do so, I wrote to the girl's father and told him the circumstances of the case, and he at once obtained glasses for his child.

Here is another strange popular delusion. People have an idea that looking at the tip of your nose is squinting. This is absolutely wrong; we have a special centre in the brain to enable us to converge our eyes so as to look straight in front of us. Perhaps you will say: "Oh, you must be wrong, because I knew a girl whose eyes became 'fixed' from looking at her nose." I do not doubt your word, but if you were to examine the girl's eyes you would find that she was very long-sighted, and that she converged her eyes in her violent struggle to see objects near her.

Now let us return to squints. I have said that all squints that occur as the result of errors of refraction are due to neglect to treat the cause. It must, however, be said, that sometimes in a child the squint is the first symptom which attracts notice.

The treatment is to correct the error of refraction that caused the squint. If this is not sufficient (and it is not always in old squints, especially when the squinting eye has become blind) some operation will be necessary.

Let us leave the subject of refraction and talk about an injury which, I think I may

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 manœuvre 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.

FIG 2

FIG 1

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'seye 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.

FIG 1

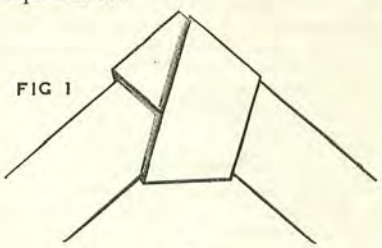
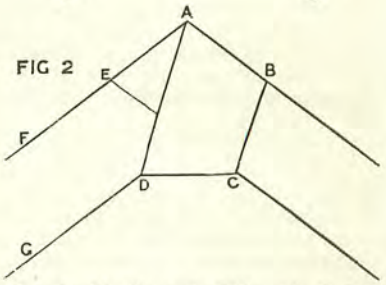


FIG 2



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.

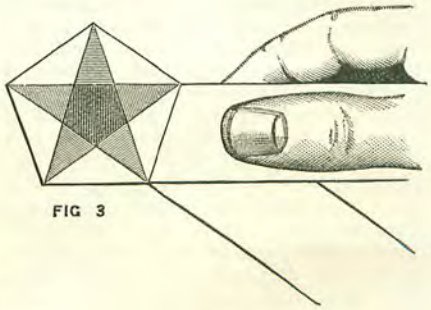


FIG 3