

work of her own, because to-morrow was sure to be like yesterday, and the day following as the years before the flood; or if she did now and then give a thought to the future, it was only to wonder whether she would one day be a happy wife, or whether her lot would still be cast in the home of her childhood. But in our time a girl's studies are mostly shaped towards some definite end, she realises that it is better to do one thing well than to have an uncertain smattering of several, so she devotes herself to languages, to music, to mathematics (if she have an eye to "higher education"), or perhaps to art.

Unless very much pressed by examinations, a process which often takes all the pleasure out of study, and leaves only a feverish eagerness in its place, there is something very delightful in conquering difficulties, and in testing progress and comparing notes. And in such pursuits as art and music, where a girl possesses a true gift for either, her studies take the form rather of developing an important part of her being, than the mere acquisition of knowledge or gain of skill.

Among the joys of girlhood is friendship, which, though often laughed at as absurd and "missish," is, nevertheless, very sweet. Most girls, even if they have sisters, have also some special friend to whom they vow eternal devotion, write voluminous letters when they are apart, and for whom they contrive all sorts of little presents, more or less useful or ornamental. If the friend is an ordinarily good girl, this affection is beneficial to both parties, takes each a little out of her own small circle as well as out of herself, and widens her horizon. It is often very pure and unselfish, and, especially between girls who never marry, endures as long as they live.

But there comes a time when, to use the ordinary phrase, a girl's education is finished, when books are somewhat laid aside, and she becomes a young lady at large, free to follow her own bent if she has one, and generally disposed to see as much as she can of the world. A wholesome-natured girl is ready for anything, and "takes the goods the gods provide" with all simplicity. She enjoys a country ramble thoroughly, trips along with feet as light as her heart, plays vigorously at lawn tennis when she has the opportunity, reads the books and sees the pictures of the day, and adds wonderfully to the brightness of the home circle. She is her father's pride, her mother's viceregent, and her brother's "chum." This is the halcyon time of life, when innocent pleasures have not begun to pall, and when the future is rosy with the sunshine of love and happiness. Our Mary grows critical about her appearance, detects the smallest approach to a misfit in her frocks, and is somewhat difficult to please in the matter of hats and bonnets. It is quite natural that she should wish to look her best, and if a lover comes along who sees in her

"His heaven-born Eve, on whose unsullied brow
The shadow of the sinning never came,"

and she reciprocates his feeling, a new world opens before her, and her parents live their own youth over again as they feel that the new love only deepens old ones, and draws all natural ties closer. This is as it ought to be, and a wise lover, knowing that a dutiful daughter makes a good wife, will rejoice to see it, and congratulate himself on having won the heart of a girl who so winsomely answers to the sweet name of Mary.

ELIZA CLARKE.

WHY CAN'T I SLEEP?

BY A FAMILY DOCTOR.



RECOGNISING the very great importance of a sufficient allowance of good, wholesome sleep to all who would desire to have long life and happiness, I am about to lay before the readers of this Magazine some of my ideas on sleep, in briefest epitome, and in as plain and practical a way as I can.

I will bear invalids in my mind's eye as I write, for if good sleep is a necessity of life to the strong and robust, it is ten times more so to the ailing and weakly. Indeed the securing of a few hours' refreshing sleep is in thousands of cases the first step towards recovery, and no disease whatever can be removed until the power to sleep be restored.

In a former paper I made some attempt to explain to my readers the physiology of sleep, and, I think, showed satisfactorily that it could not be obtained when the capillaries of the brain were over-gorged

with blood, as from the excitement caused by over-eating or drinking, by talking, by worry, or even by thinking.

As to what I might term the psychology of sleep I shall say nothing at present.

The question I wish to answer now with some degree of satisfaction to myself and benefit to many is that which forms the title of my article, "Why can't I sleep?"

It is one that during seasons of hard work and mental worry every one has to ask himself, or happy he is if he has not.

The individual who retires to bed at night and, instead of falling soon into sound sleep, lies and tosses about and thinks, hearing every hour strike till probably three or four in the morning, is very far indeed from being in a satisfactory condition of health. He is nervously ill, he is out of sorts both mentally and bodily, and the sooner he takes judicious steps to

obtain relief the better, because the less chance there will be of his state becoming chronic.

But he must find out the causes of his trouble and endeavour to remove these, for in cases of insomnia, as it is called by the profession, or, in plainer language, sleeplessness, the treating of symptoms alone is a dangerous practice and wholly useless.

Very often the first deviation from healthful sleep is wantonly, though unwittingly, caused by the individual himself. He gives himself up to fits of thinking after lying down. These may or may not be pleasant enough at first, but the end, if the custom be not cut short in time, never fails to become disastrous. I may admit that the temptation to think in bed is often difficult to resist, especially by brain-workers, but these men ought to bear in mind that by giving way to it they are positively weakening their brain and nerve power, and rendering themselves less capable of taking a solid stand in the every-day battle of life.

The night is meant by nature for repose and sleep, and we cannot thwart nature or break her rules with any degree of impunity.

But I will suppose I am addressing some who have passed the first stage of sleeplessness, and whose health is really beginning to suffer from the inability to obtain refreshing rest during the silent hours.

What shall such a one do to recover?

We all remember the sweet sleep of our childish days, how thoroughly awake, how thoroughly happy and cheerful we used to be after we were up and dressed. One reason for this was doubtless that we had neither care nor worry. We lay down in our beds forgetting all the world and oblivious even to the probability of danger. How different it may be now when we find it almost impossible to banish all thoughts of the busy day that has passed, or to brush care from our pillows!

Sleeplessness, in probably nine cases out of ten, is caused by continual mental strain or worry. The capillaries of the brain become stretched and lose their resiliency; they are unable therefore to empty themselves of blood when the hour of rest comes round, and so wakefulness continues far into the night, until the body is fairly worn out and sinks into the lethargy of exhaustion.

It will be well for people who suffer thus to at once take a holiday. You say you cannot; that business will not permit you. I doubt this very much. Would you really throw your life, or probably your reason, away for the sake of business? The question is one you ought to try to answer. But it is my privilege to tell you that, in the earlier stages of sleeplessness, a few weeks' stay at a bracing seaside place often acts like magic, people return home restored to health and *calm*—return home to positively wonder that the cares and worries that so bothered them could have been such bogies.

Above all other remedies for sleeplessness I place change of air and change of scene, in conjunction with plain nutritious diet and a more natural way of living.

Why can I not sleep? It may be that you really have—unknown to you—some functional derangement

of the liver, the stomach, or the heart. This must be removed, and sleep will return to your pillow, and with it health.

Think and consider whether of late you have given way to any table indiscretion that may have affected the liver, and rendered it either sluggish or too active. In these cases, the blood will in reality have become poisoned and contaminated with bile, the mind becomes dull and probably gloomy all day, and over-active towards nightfall. The sure indication of treatment is to strictly regulate the diet for a few weeks, to take an occasional blue-pill at night, with a glass of Pullna water half an hour before breakfast, and to take a course of Turkish baths (if permitted by your own medical adviser), with a reasonable amount of exercise in the open air.

Dyspepsia will produce sleeplessness, and may in ordinary cases be cured in the same way, though aperients should rather be avoided. Most careful regulation of diet is, however, a *sine qua non*.

It is not a good plan to go to bed with an entirely empty stomach. Again, if the body feels hot, a cold bath followed by a bottle of soda-water and fifteen grains of the bicarbonate of soda will have a good effect. Sometimes a hot bath will do more good than a cold one; the state of one's own feelings is to be consulted, and the results made a mental note of.

Do you smoke much? If so, a return to health is not to be expected until the habit is overcome.

Exercise in abundance taken during the day in the open air is in hundreds of cases a cure for sleeplessness; but this exercise should not be of a too fatiguing kind, it should be spread over a great many hours, it should be pleasant calming exercise, and not continued up to a late hour. Over-fatigue must be carefully avoided.

The practice of taking stimulants to any extent is very apt to produce sleeplessness by keeping up an unnatural excitement of the brain.

Wine negus has been recommended as a night-cap, and even stronger stimulants. They should only be prescribed by a medical man, for they are narcotics, and narcotics in any form tend to make matters worse in the long run.

Well then, what I wish particularly to impress upon my readers is the fact that the causes of sleeplessness *must* be sought out and removed, before there can be the slightest chance or hope of anything like a permanent cure.

Then hygiene steps in for good—regulation of diet, and of your entire and complete method of living.

Rise betimes and have that bracing cold bath, with a few handfuls of sea-salt in it, eat some fruit before breakfast, notably prunes, oranges, grapes, or stewed apples. Avoid tea and coffee and cigar allurements. Take no kind of stimulant on an empty stomach. Avoid fret and care and over-excitement during the day. Determine—if you can—that nothing shall annoy or irritate you.

Take exercise—you must, even though at great expense and inconvenience.

Cycling in moderation, and without "spurting" or rushing up hills, is the best and most delightful of

exercises, but beware of catching cold; always change a damp under-garment before sitting down to dinner, and, previously to re-dressing, it will be found most refreshing to rub the body with a cold wet sponge, then to dry with a rough towel. Never eat when fatigued. Dine early, live plainly, taking nothing that is in the least likely to disagree with you.

Take a last good walk about an hour before retiring for the night.

Look upon narcotics in any shape as poison.

And now a word or two about the bed-room itself. The room should be large, most cleanly and free from dust, with a proper system of ventilation by door and windows.

The temperature should be as equable all through the night and through the year as possible—from 50° to 60° according to age; the old and very young requiring more warmth than the young and middle-aged.

As to beds, the best sleep I think is obtained on a wire mattress over which is placed a bed of horse-hair, several inches deep. On the top of this may be spread two or three blankets, then the sheet. It will thus be even and smooth.

There is no doubt that many people will find it far better for their permanent health to sleep altogether in wool, especially those who are of a rheumatic or gouty diathesis, or subject to colds and coughs.

The night-shirt should in these cases be wool, light wool bed-socks should be worn, and the sheets should also be of wool. Not so the pillows, however, because

I advise the head to be kept cool during sleep, and would not counsel the wearing even of night-caps, far less the drinking of them.

No more bed-clothes should be worn than suffice to keep up the temperature of comfort.

The pillows should be large and springy and not too yielding. They ought to be covered with the softest and finest of linen.

Curtains right round the bed are objectionable, for the air one breathes at night cannot be too pure.

The bed should be raised about two feet from the floor. We must not forget that carbonic acid which we expire, if not carried away by a judicious system of ventilation, lies low, being heavier than air.

The system adopted by some of reading in bed has been, I think, too universally condemned. If perusing the pages of a magazine, or newspaper, for a short time before putting the light out (due care being taken to keep the light in a safe place), serves to calm the mind and brain and prevent the thoughts from recurring to the scenes of the day that has passed, or being troubled by the probable events of the coming morrow, I maintain that it can be productive only of good.

In conclusion let me warn all brain-workers who are troubled with wakefulness to see to their condition without delay. To remain in health is a duty one owes not only to himself, but to his friends and relations; and want of sufficient sleep is more productive of bodily trouble than insufficient food, or meals taken at irregular hours.

THE BUILDING OF THE SHIPS.



IF we go "over the border and away," like the fair Ellen did, of whom Lady Heron sung in Holy Rood, there is between the land of Burns and that of the lochs, the great city of Glasgow, which began a prosperous career with tobacco and sugar, and has increased it with ships. The industrial history of Glasgow is a varied and honourable one: the names of Watt, of Bell, of Neilson, and Tennant come readily to the mind—of Watt, whose discoveries made quick travel possible; of Bell, whose monument at Dungleigh is a reminder of the little vessel which "was the first steamer;" of Neilson, whose hot blast experiments in Glasgow changed the fortunes of the British iron trade; and of Charles Tennant, whose bleaching powder discovery made him fame and fortune, and gave a new future to the chemical trade. By road, river, and rail, almost incomparable facilities are afforded for the traveller to and from the Clyde; and thus it is that many imitate the old song, and "go to Kelvin-grove."

The four chief commercial rivers of Britain have

different characteristics—the Thames in its aggregation of trade and traffic from all parts of the world; the Mersey in its great American passenger traffic; the Tyne in its coal trade; and the Clyde in its shipbuilding. There are other characteristics of each, but to the stranger those named are the most apparent. The Clyde, as a commercial river, is the outgrowth of this century, for in that time the revenue of the Clyde Trustees has risen from £3,000 to close upon £300,000 yearly. The river has given birth to great lines of steamers; it is the point of departure for gigantic vessels—those for goods, passengers, emigrants are well known. Around Glasgow are coal and iron, and the application of these, and the outgrowth of great shipbuilding industries, have of late years given to the Clyde the first place amongst the ports where the "building of the ships" is carried on. On the Clyde, in 1812, Bell launched his *Comet*, and gathering greatness has since, in naval construction, distinguished the river. But the vessels now built are far other than those of seventy years ago, and before we go farther it may be well to indicate to the eye the change in the ships of to-day and the past.