drills, in poor soil, and in a sheltered situation. Later on, when the worst of the winter is over, they will necessarily require attention, of which we may perhaps say something when the time comes round. And now for the fruit, for we promised at the outset not to forget that.

First, then-plaudite omnes pueri-there are the apples and pears to be gathered. And let us give our eager young friends, who are doubtless burning to give gardener a helping hand, a little piece of advice by way of a caution. It will never do to "shie at them," for on no account must the fruit be bruised. Only those apples can be admitted to the store-room which can be guaranteed as gathered by hand and placednot bumped, or pitched violently-in the hampers or whatever are your receptacles for them at the bottom of your trees. Nevertheless, as it is perfectly impossible to avoid many casualties during the process of gathering the fruit, it is well to have a second hamper, in which to put by themselves all those that the ladder, eager climbing, clumsiness, &c., have caused to fall to the ground; and see afterwards that these apples are the first to be used, for it is notorious that bruised fruit never keeps for any length of time. Frost and damp are again the enemies with which we have to contend. Pears it is certainly better to put on shelves, so arranging them that one does not touch another. Apples may be treated a little more roughly. Lay them on straw-it does not much matter if they are close together; nay, some even put them by in heaps as you would beet-root—and then cover them over also with straw. One thing we should premisethey must be gathered when thoroughly dry. Experience of your own trees will tell you which are the best ones for keeping sound. Those very large, green and not particularly rosy, but luscious ones, commonly known as the coddlings, are perhaps about the worst to keep. They seem to have a wonderful facility for turning utterly brown without any apparent cause, and are frequently seen rotten upon the trees, although even held on firmly by their stalk. It will, however,

be generally found that they ripen often as early as the middle or end of August, and they will naturally therefore be the first used. Nor will it be much to our purpose to enumerate all the various kinds of this most popular and domestic fruit. Sometimes it would almost seem as if each county had its own peculiar "weakness;" one sort thrives better here, another there; here they are scarce, or, as we should say in Kent, "platty;" there they grow in profusion. I recollect some years ago, when travelling outside a Herefordshire mail coach, at a time when apples are supposed to be ripe, being tempted to make a dash at one which came within my reach from an overhanging bough of a tree under which we passed; nor have I either forgotten the grim delight of the coachman, as he looked into my distorted features, for I had as speedily ejected my spoil. The quality of the fruit was evidently known to him, while it is needless to add that to myself it evidently was not.

If it be a good season, grapes grown "in the open" will be now rapidly ripening. The fruit may require some protection; do not, however, strip any leaves from your vine, and see that it is secure against damage from high wind. As October advances, wasps and large flies begin to crawl lazily about, but will more than ever appreciate the warmth of your greenhouse. Those grapes therefore that are still hanging under glass on your vine, it is well to protect by drawing gauze bags over them. Your melons and cucumbers are over, but you can yet make some use of the frames in which they were grown. Clear off the plants, stir the earth and manure about a little, and place on its surface a little mushroom spawn, and in a few days you will have a very delicious accompaniment with your next steak. If you are particularly fond of mushroom gathering in the fields, pray make a careful selection, or the consequences might be most serious. Mushrooms easily peel; toadstools, as a rule, do not; a pleasant earthy fragrance, too, pervades the one, and most generally, a particularly unpleasant fragrance the other!

## SOME SIMPLE DIRECTIONS FOR THE PREVENTION OF SICKNESS.

BY A FAMILY DOCTOR.



NCE upon a time, as fairy tales begin, there lived somewhere in England a very naughty old gentleman; and this ancient party, going out one stormy winter's night, and being used to a warmer climate, caught a severe cold, which settled on his lungs. Then this bad old man was in great terror, and sent for the apothecary, and

then for the clergyman, and made a vow that, if spared to get well again, he would give up all his naughty ways, and live the life of a saint. He did get well, but no sooner was he about again than he forgot his vows, and took to all his evil ways once more. Now, those of my former papers which were dedicated to the Hygeian goddess have been mostly addressed to the sick: moral from anecdote above—it is very easy to preach to the sick; you are sure of a patient hearing; but a much more arduous task is mine in the present paper—I have to talk seriously to the hale and hearty. Do you know that out in strange seas, in tropical countries like those that wash the shores of Africa, and which are but badly represented on charts, a man is always stationed at the mainmasthead, to give timely warning of the vessel's approach to shoal-water, or breakers ahead; and that thus

many a stately ship is saved from wreck, makes good her voyage, and enters port in safety? Thus, for once in a way, I am going to drop the "Family Doctor," and be, for this month only, "the man at the masthead." I cannot, to be sure, point you out all the shoals, nor report all the breakers ahead; but I can so far put you in the way of plain sailing that, if you cannot steer yourself, the fault will rest with you, and not with the man at the mast-head.

Now we medical men know full well that quite twothirds of all the ills that human flesh is heir to may be prevented by reasonable adhesion to the commonest and simplest rules of health, and that it is much more easy to keep well when you are well, than to get well after you have sickened. If people would only believe this, and feel it to be true, what an amount of suffering might be saved to the human race!

Let us, then, at present throw physic to the dogs for physic cannot prevent disease—and consider our subject in a natural, common-sense way, under the following heads :- 1, The Air we Breathe; 2, The Food we Eat; 3, Exercise; 4, Work for Body and Mind; 5, Clothing; 6, Ablution; and 7, Sleep.

I. The Air we Breathe.-I think in a former paper I stated that without a proper supply of pure air the heat of the body could not be kept up. Heat is the great source of all existence—if it be not life itself both in the animal and vegetable kingdoms. Tender flowerets do not bloom in winter, and only in summer can we find the myriad forms of insect life which beautify our fields and woods.

But the heat of our bodies is not kept up from simple contact with the external atmosphere, but from chemical contact with the oxygen of the air we breathe, which changes the carbon in our lungs into carbonic acid, and flows along in our arteries, producing chemical changes in every capillary in our bodies, with a like result—heat. We have thus, as it were, two fires constantly burning within us-one in the minutest bloodvessels (which are everywhere), and one in our lungs. On these depend our health-aye, and our life itself. Impure or vitiated air is a fruitful source of disease. Listen: for every volume of pure oxygen we inhale, we exhale a volume of carbonic acid which is deadly to animal life. It has been computed that every adult person vitiates by respiration alone 400 cubic inches of air a minute, and that every individual requires between three and four cubic feet of pure air in the same space of time. Surely, then, the advantage of ventilation, and living as much as possible in the open air, must be patent to the most obtuse as a simple preventive to sickness. Folios might be written on the evils which accrue from badly-ventilated mills, shops, offices, schools, dwelling-houses, andlast, but not least-churches. It was once my lot to live for two months in an open boat. We were on a savage coast, where a landing could be but seldom effected, and that only at a great risk; so our fare was meagre, and our water neither good nor over-plentiful. Our beds were boards; but, oh! the air was pure around us. I never felt in such ruddy health before, and never slept so soundly since. Some friends of to keep yourself in health and avoid sickness, this

mine have recently returned from a journey to the Rocky Mountains. For six months theirs was a camp life in pine forest or hill. Few insurance companies would have accepted their lives before they started; few ploughboys now are there who would not envy them their glowing health and rampant appetites. Just one more example. A new species of treatment for nervous diseases is not uncommon in America. The patient is sent into camp either in a mountainous region or by the sea-side, and a sine qua non of the treatment is that he must do everything for himself, from blacking his boots to cooking his dinner; and some of the most hopeless cases have thus been cured -nor do I wonder.

2. The Food we Eat .- I have a white rat-smile not, reader, it is the dearest of pets-its coat is longer and glossier than ermine, and its loving eyes sparkle like garnets twain. When I first became possessor of this little rodent, I was puzzled to think what I should feed it on, in order to keep it in health and spirits. Nobody could tell me, so I just gave it a little morsel of everything, and my pet knew itself what to take and what to refuse; and now I, too, know exactly what its requirements are. But how did my rat acquire its knowledge? From reading books? Nay, but from instinct. And you, too, have instinct. "Instinct than reason makes more healthy meals." My precepts, then, as regards food as a preventive against sickness are these :- Eat only what you know agrees with you. Avoid spiced and potted foods and high game. Avoid a variety of dishes at one meal. (N.B. If you eat in moderation, and not to repletion, you will never need stimulants to assist digestion, and this alone will add ten years at least to your existence.) Meals ought to be taken at regular hours; breakfast abundant, dinner moderately so, and supper light, simple, and not sloppy. Tea and coffee are better before than after meals, and of wine and spirits the less the better.

3. Exercise.—The food we eat maintains the blood in its purity. If the circulation is not quickened by regular exercise, we languish, and lose all appetite and all pleasure in life, every organ in the body becomes weakened, and even the heart itself gets thinner in its walls for want of the stimulus of exertion, as does a blacksmith's arm who is out on strike. Exercise, if properly directed, brings the whole machinery of animal life into good working order. And the whole secret of making exercise healthful is to take that form of it which gives you pleasure. I pity in my very heart men I often meet "out for a constitutional"doing the measured mile, as it were, and thinking, poor souls, they are deriving benefit therefrom. It is quite the other way. The mind has everything to do with exercise, if we would use it so as to keep sickness at bay; so pray bear this in mind: as you know, after bathing, from the genial glow that steals through you, that you have received some benefit, so with exercise -it cannot have done you good unless you have really enjoyed it.

4. Work for Body and Mind .- If you indeed wish

becomes simply imperative. Most of us in this weary world have work enough, goodness knows, and have need of more relaxation than we get; but there are thousands in fair England who are positively dying of ennui, and, very strange to say, they know of but one cure for it; that failing, they fade and die. Their cure is excitement-kept up anyhow, and at any expense. But they do not truly enjoy themselves. They break one of nature's laws. Man was made to toil, and only in work can there be lasting enjoyment. Ennui kills slowly but surely-hardly less surely than the excitement which is called upon to banish it. I feel deeply for people who suffer from this form of nervousness, for there is plenty to do in this world, if they could but think so, and it is a very terrible thing to have only one object in lifeto kill time. Yes, it is true that a certain proportion of labour or work, both mental and physical, is absolutely necessary to prolong life and avert sickness.

5. Clothing.—This is indeed an important part of my subject. Clothing, mind you-not dress; that is quite another matter. Now clothing means protection for the body-that is, the keeping the body in that temperature which best conduces to health; and this leads me at once to remark that that temperature varies in different people and at different ages, and as it does so must be the nature and quality of our raiment. In a variable climate like that of our country, too much attention cannot be given to clothing, and it is really better to err on the side of abundance than the reverse, especially if one is somewhere about forty. Youth may resist a great deal-I say may, look you-may resist draughts, damp sheets. wet feet, and wet clothes dried on the body; but it is for the young as well as their elders to remember that all these things tend to induce sickness, and lay the seeds of future disease. In winter our clothing ought to be loose, light, and yet abundant. Cotton is much warmer than linen, and wool than either; and probably there is nothing better next the skin than fine flannel, not even excepting silk itself. In summer, except in very hot weather, the custom of wearing flannel should not be given up; but if it be more agreeable, cotton may be worn next the skin, and the flannel over it. The colour of a garment has something to do with its comfort: light-coloured garments radiate light and heat, and thus are best adapted for summer wear. Blue or black, on the contrary, are more suitable for winter use.

Children and aged people should always be warmly clad, whether they feel the cold or not.

Thousands of children belonging to the rich (not the poor—the poor have some excuse) are annually sacrificed at the shrine of silly fashion. Bring them up hardy, do you? You sow the seeds in their system of future consumption, and pave the way for them to an early grave.

In our clothing—I speak now to the young and middle-aged—as in our food and exercise, we may to a great extent be safely guided by our instincts. Our bodies should be kept at that temperature which we

feel to be agreeable. But don't forget the fickle, changeable climate in which we live.

6. Ablution.-How often have I in this Magazine advised and insisted upon the daily use of the bath, and the perfect and complete ablution of the whole body? Well, if you will not take for an excuse the possibility of my having something new each time to tell you, you must at least admit that good advice can't be too often given. I may be enthusiastic on the subject, but if so I am enthusiastic in a glorious cause; and I maintain that to those in ordinary good health the daily matutinal cold, shower, plunge, or sponge bath is not only a great preventive of sickness in this country-whatever it may be in the cold North -but it is an absolute necessity if we would live to anything like old age. Bear this in mind, however: the bath, in whatever way or form taken, ought to be used, not as the Romans in the days of their decline used it, to patch up an effete manhood, that it might further undergo the luxurious and intemperate pleasures of the table, but as a healthy tonic, and to render the body cool, the skin fresh and pliant, and the blood pure, thus in a great measure, by the relief given to internal organs, setting disease at defiance. Once a day in winter, and twice a day in summer if so inclined, is quite enough for this purpose. I would not have you like an English friend of mine who sojourned last summer at Dunoon, on the Firth o' Clyde. His landlady summed him up in these words :- "I never saw sic' a chiel in a' ma born days, for it's wash in the mornin' and bathe at nicht, and slungeing his head and scrubbin' his taes, and ploupin' [plunging] in o' the river and oot o' the river, and in o' the sea and oot o' the sea. Mon! d'ye ken he's for a' the warld like a great muckle puddock" [big frog .

7. Sleep.—You will doubtless believe me when I inform you that the power in our bodies of repelling disease and preventing sickness depends to a great extent upon the strength of our constitution—i.e., our nervous system. Sleep is granted to us by nature as a period of repose, during which the nervous centres may be revived and repaired for the loss they have undergone during the busy hours of the bygone day. "Sleep is the rest of the nervous centres."

The want of sleep, on the contrary, shatters the nerves, the health, and the constitution. Insomnia, or sleeplessness, is the precursor to many a dreadful disease, insanity among the number; and it is a warning which no one should neglect. Eight hours out of every twenty-four the average man ought to have—and that too of good, sound, refreshing slumber. You may not have six, nor even five, and that too disturbed. Is it so? Then let me tell you there are "breakers ahead." See to it.

In times of trouble, when sickness and disease are about, and mayhap we see our dearest friend languishing on the bed of death, it becomes more than ever our duty to ourselves and our neighbours to preserve our health and *strength* intact, lest we be the next to succumb, and thus the illness spread. Then more than ever should we guard against cold, wet, or damp.

We cannot, it is true, prevent a certain amount of sorrow and mental depression, and we cannot entirely banish fear, and these two are the very traitors that open the door to the enemy. In cases of this kind, my advice is to keep up your heart and spirits as much as you can, do not over-fatigue yourself, be prevailed upon to take rest, and above all, do not

neglect food; it is unkind even to the friend you watch to do so. I may mention that quinine and iron are excellent preventives of sickness in such cases. Well, and if you do believe in charms or amulets, what then? Wear them, by all means; but the best prophylactery is that which you shall find only in your own closet and—from Above.

## A HARD CASE.

CHAPTER THE FOURTEENTH.

"And hopes, and fears that kindle hope,
An undistinguishable throng."—Coleridge.

SEVERAL months passed away, with many efforts and disappointments to Lynn after he left home. He had been fortunate enough to find, through some of his German friends, almost immediate employment in the English branch of a Frankfort bank, with a salary of £120 a year; but though at first he was charmed with his good fortune, and thought he should like the work, he very soon tired of its monotony.

Never before had the days and weeks seemed so long or the winter so gloomy, and never had he longed so much for a cheerful home and pleasant companions. He knew few people in London, and was too unhappy to care for making new acquaintances, and for some time shut himself up and refused to join in any of the amusements which his fellow-clerks, out of pity for his loneliness and low spirits, pressed upon him. It was not only from disinclination for society that he kept himself apart, he had other motives equally strong. He wished to show Bertha that for her sake he could overcome his old habits of idleness and self-indulgence, and work hard and steadily; and by putting by every penny he could spare, he hoped to save enough to convince her that the income, which he found more than enough for one, might with care be made to do for two. With these thoughts to give him courage for a time he did well; but saving was so altogether contrary to his habits, and so irksome and disagreeable, that, half unconsciously, little by little, first in one way, then in another, he began to give it up.

If Bertha had 'promised to marry him some day, if he had this hope definitely before him, he was sure he could do well and bear anything; but what could be more depressing and discouraging than his present state of uncertainty? What more unsatisfactory than to deny himself every pleasure, when in the end he might win nothing by it? What wonder if his courage failed, if his old habits of self-indulgence were too strong to be resisted, when a future so uncertain lay before him? Before the six months, during which Bertha had promised to stay at Crayford, were over, his good resolutions had come to an end; he had not only spent all he had saved, but was considerably in debt. Now he could no longer hope to go to her with a new character for steadiness and self-control; his only plea must be that she was necessary to him, not

to his happiness alone, but to his success and wellbeing; that without her encouragement he was fit for nothing, that he could not persevere in any effort except for her sake, but must let life slip by as easily as possible under his altered circumstances, neither looking nor caring beyond the present. If she loved him, she would do anything to save him from the hopeless, careless life which by himself he had not strength of purpose to avoid; but if not, could he wish her to sacrifice herself for him? Could he wish to marry her, knowing the unequal terms on which her want of love for him would place them? He scarcely knew, but he almost believed there were no circumstances under which he should cease to wish it. And he would be so devoted, he would take such care that no hardships or privations ever came near her, he would work so hard to provide pleasures and luxuries for her, she must be happy, she must learn to love him, and there was no knowing how well he might turn out with her help and encouragement.

During all these months Bertha's future had been a matter of the greatest difficulty and anxiety to Mrs. Greenwood. While Lynn was bound by his promise neither to see her nor write to her all might go well, but after that there would be no further check upon their intercourse. Whether Bertha remained at Crayford or found a home elsewhere, she and Lynn would be at liberty to hear and see as much as they pleased of each other, and, either as a relief from the dulness of home or from drudgery elsewhere, Mrs. Greenwood felt sure Bertha would accept the second offer whichunless hard work had cured him of his infatuation-no doubt, Lynn would make her. It would be difficult to know whether the well-known discomforts of home or the uncertainties of a new life would be the more likely to hasten the marriage, which, now that her threats had failed, Mrs. Greenwood felt poweriess to prevent. But, after careful consideration, she decided that if Bertha could be persuaded to stay it would be best to keep her. Wherever she went people would make inquiries about her family, and ask many questions which it would be impossible to answer; and even if Bertha herself showed no curiosity, which was very unlikely, others might not be so easily satisfied.

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