

THE GATHERER.

For the sake of the Poor Hospital Patients.

A suggestion was made, a few months back, to decorate the interior walls of our dreary town-halls with large paintings for the benefit of the general public. Since giving publication to that suggestion, a proposal somewhat similar in kind has been made by a gentleman to decorate the wards of our hospitals with choice paintings, bronzes, china, sculpture, old armour, ornamental clocks, tasteful tiles, and other decorations. This is a noble idea well worthy of support. What an inexhaustible fund for brain-employment and pleasure, such ornaments would afford to the poor patients who are compelled to pass weeks and sometimes years together in their sick-beds! The art-treasures would cheer them in their suffering, and would help to distract the consciousness of their present pain. The proposer himself has offered to contribute a hundred guineas to the fund, provided that a thousand other subscribers of an equal amount come forward before next May. We hope the promoter will receive hearty co-operation, feeling confident of the success and value of the scheme if the working committee of the fund are found to be energetic and thoroughly well organised.

How to make a Model Village.

We have seen a village so well kept, that the roads about it were in better order than even the houses in other parts. Now, there is no reason why model



SUMMER-TIME.

villages should not form the rule rather than the exception. In summer-time, certainly, it is hardly possible to find fault. Every red-tiled house, shaded by green trees, looks then like the home of peace: trailing plants adorn its walls and hang about its

windows, and the passer-by sees nothing but beauty. But wait till winter. The road, in most cases, is then like the bed of a stream; the cart-ruts are ankle-deep with mud; the red tiles, no longer hidden by the



WINTER-TIME.

leaves, show themselves broken and irregular; and one gets much too clear a view of dilapidated doorsteps and broken windows, the last stuffed maybe with old stockings. There is a dismal swamp about the village well, the churchyard is overgrown with weeds, and the wayside inn is the picture of gaunt misery.

Two or three active spirits in a village might change all this. They might begin by looking to their own abodes, and making everything about them so neat that, when winter comes and robs them of their garlands, they will still look well. The good example would soon be followed, especially if "the gentry" were to take an interest in the matter. A Village Improvement Society might then be started, having for its objects the diffusing of enlightened principles among the inhabitants, and the keeping of the roads, the well, the churchyard, and other public properties in good order. A bazaar would be a good way of raising the necessary funds, and perhaps, one of these days, a philanthropist might be found in each county to offer a prize for the best-kept village.

Education in the Metropolis.

From the Registrar-General's return lately issued, it appears that in the case of 1,284 marriages out of 33,248 celebrated in London in the year 1874, both the man and the woman signed by mark, while there were 4,488 instances in which one of the parties signed in

a similar manner. In all, then, nearly 11 per cent. of the people of the metropolis married during the year, were unable to write their names. These figures do not say much for the state of education in the capital city of the most civilised nation of the world. It is to be hoped, however, that in another decade the Education Act, aided by the sound and useful literature now devoted to the purposes of Popular Education, may have accomplished much of its contemplated work, and that the percentage will then be materially decreased.

Sleep for the Sleepless.

Sleep has many friends and many foes. Its best friend is weariness, but even weariness and it sometimes fall out. The last method we have heard of for curing cases of pure sleeplessness, when unaccompanied by pain or disease, is the following:—Get out of bed and take a linen bandage—but a large handkerchief neatly folded longways will do as well, perhaps better. Dip one half of the handkerchief into water, pass the wet portion round the wrist, over this lay the dry half, and tuck in the end so as to make all secure. Lie down again—the wet bandage will be found to exercise a most soothing influence on the pulse; this will soon extend over all the nervous system, and calm refreshing sleep will be the result.

Electric Fire-Alarms and Frost-Alarms.

Every method for giving timely warning of fire is so much ground gained in the struggle between that destructive agent and life and property. One fire-alarm has lately struck us as of considerable ingenuity. It forms one of the many uses of electricity. The apparatus consists of two large electric bells, and connected with these bells are self-acting instruments enclosed in circular metal cases, these cases being placed here and there in any large building to be protected. On the outside of each case are two connecting studs, to which are attached two wires, one leading from the battery and the other to the two bells. The metal cases contain a compound spring, which expands as the temperature increases. After expanding to a certain point representing a high degree, which could only be occasioned by a fire, it makes a connection with the battery and the two bells, which immediately begin ringing, and continue to sound as long as the temperature is maintained, or, in other words, as long as the fire lasts. Some further details connected with this ingenious contrivance have been communicated to us by the manufacturer, Mr. T. T. Markham, but they are perhaps of too technical a nature for the general reader. The battery requires attention only about once a year. We find that this electric fire-alarm is being adopted in many large mills and public works, the bells being fixed at the fire-stations, and communicating with the works by a telegraphic wire.

A frost-alarm may be constructed on the same principle—that is to say, just as the elevation of the temperature above a certain point sets the electric bells in motion, so its depression below a certain point

might be made to do the same thing. This would be of special service in green-houses to give warning of an unexpected frost coming on during the night. Immediately on the frost setting in, the whole household would be roused, and no peace would be obtained till the fire was lit and the temperature raised. Some may think the remedy in this case worse than the disease, but no one who loves his plants will be of that opinion.

Orchards and Market-Gardens.

It is strange that fruit and vegetable gardening should not receive among us that attention as an industry which it deserves—all the more so now that the production of meat and its supply at a more moderate cost to the consumer is under constant review. At the present time we are paying a sum of six million pounds sterling every year for imported fruits alone. France, Jersey, Holland, Spain, and Portugal send us grapes, melons, and figs; we get enormous quantities of apples from France and America, and pears from France and the Channel Islands. So satisfactory to fruit-growers are the prices now realised in our markets, that news reaches us from the Continent of fruit-culture being rapidly extended in many agricultural and pastoral districts. For some kinds of fruit our growers have but a poor chance in competing with their Continental rivals, but for other sorts the British grower has many advantages, and might develop a very profitable industry. We import, for example, apples and other hardy fruits, at a yearly cost of nearly two million pounds, and all the time we have thousands of acres of cultivated land devoted to a far less remunerative purpose—timber-growing—and thousands of acres besides lying waste. As it is, the demand for fruit and vegetables exceeds the supply, and this demand, it is worth observing, arises in a great measure from a growing taste for fruit and vegetables as articles of food among the more intelligent of our labouring population, who, after all, influence the sale of food commodities far more than the wealthier classes.

A Talking Machine.

The latest, and perhaps the most curious invention ever heard of, is that of a talking machine. One was shown by the inventor at the Grand Hotel in Paris, a little while ago. The machine made a speech to his attentive and admiring audience, in these words—"I was born in America. I can speak all languages, and am very pleased to see you. I thank you for this visit." We hear that the invention has taken thirty years to produce, and is composed of a table with pedals, an organ bellows, and a key-board. The middle of the instrument represents the human lungs, larynx, glottis, and tongue. It is curious to imagine to what purpose such an apparatus could be put. Perhaps it will find its way into the streets of our great towns, acting as a vocal advertisement to the passers-by; or may be placed on the platforms of our important railway stations to call out the names of the places, for the benefit of those passengers who complain so bitterly of the unintelligible tones of the railway officials.

Sunken Rocks on the High Seas.

The dismal list of missing ships which saddened every one during the winter, must have recalled to some minds a danger that has been almost ignored by modern mariners and chart-makers. This is the existence at sea of unsurveyed rocks and reefs. That these are to be met with on the great ocean highways is perhaps unlikely, but that they exist in the by-ways of the sea is pretty certain. In the Atlantic, unsurveyed rocks have been seen repeatedly by captains, officers, and all hands. Various British Governments, it is true, have sent out ships which have searched for them in vain; and, because these ships failed to find what many had seen with their actual eye-sight, some have held the rocks to be non-existing. But it should be remembered that the position given by the observers was, in most cases, obtained by what is called "dead reckoning," consequently it was a most difficult task to find the rocks again. One point of importance is that rocks and reefs may grow into existence. A gradual upheaval, or an active mass of coral insects, may form a dangerous reef where a few years before the navigation was perfectly safe. This ever-changing and growing nature of reefs applies especially to Australian and Pacific waters. Rocks may also be thrown up by volcanic agency, and they may, it is some consolation to think, disappear in the same way.

The subject is one of interest to all Governments, but especially to our own, for the ocean is our special care. A permanent International Commission of Oceanic Survey might very well be appointed, and periodical surveys might be made under its direction. Sailing the sea would then be a safer calling than it is now.

Answer to Double Acrostic on page 127.

Truly most beauteous to the sight
Is *Maiden* fair, and pure, and bright;
But still more fair, and far more dear,
Maiden as *Matron* may appear.

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| M | Ah! woe betide the luckless vessel
With <i>Maelstrom</i> left in deadly wrestle. | M |
| A | With grateful hearts, boys, cease to roam,
The <i>Arethusa</i> is your home. | A |
| I | Both king and beggar, truth to speak,
Were once, we know, an <i>Infant</i> weak. | T |
| D | You puzzled me the most, by far;
You're not a <i>Door</i> when you're a <i>Door</i> . | R |
| E | Thy voice is very dear to me,
Sweet <i>Echo</i> , in its sympathy. | O |
| N | Boast, <i>Nankin</i> , of the wide renown
Your splendid tower has given the town. | N |

M. B.

Answer to Hidden Quotation on page 191.

"A man he was to all the country dear,
And passing rich with forty pounds a year."
Goldsmith, "Deserted Village."

The Growth of the Earth.

Few persons, perhaps, have ever thought about it, but it is a fact nevertheless that the earth is, has always been, and so long as it forms part of the present solar system must continue to be, increasing in size. Hundreds of thousands of meteoric bodies, to which we recently alluded when speaking of cosmic dust, become incorporated with it every twenty-four hours: four hundred millions, it is computed, are added in the course of each year. These meteors—solid substantial bodies all of them—travel in vast belts, and in highly eccentric orbits, round the sun. These belts are very numerous, and when their orbits intersect that of the earth the meteors come within the influence of its gravitation: on entering our atmosphere they become luminous, and fall to the surface in those periodical showers of shooting stars that are so well known. Every night some falling stars are seen, and in certain months, and on particular nights, there is an incessant shower of the golden rain. Of course, meteors go on falling throughout the day, though we do not see them. They vary in weight between a few grains and a ton. One, indeed, is known to have fallen in South America weighing fifteen tons, and enormous blocks of meteoric iron have recently been discovered in the neighbourhood of Baffin's Bay, the largest weighing nearly twenty tons. But though the earth is in this way adding to its bulk, it will take a long time before it exceeds all reasonable proportions. On the authority of Mr. R. A. Proctor, millions of years must elapse before a single foot is added to its diameter.

Double Acrostic.

No thought of wife or home disturbs his breast,
He eats the luscious fruit and feels at rest;
Content to dwell in sweet and calm repose,
Far from the toils of life and all its woes.

All must possess it, and most profess it,
Though some repress it, far more confess it.

I loved a maid, was married to her brother,
She wooed and wedded him who was my lover.

If once by this you find you're fairly tied,
To make the bond more fast should be your pride.

Her charms so wrought upon her slave,
That, though a hero bold and brave,
He parted with his lion's skin,
And, like a child, her wool did spin.

A reptile am I, both harmless and tame,
Yet said by the ancients to live in the flame;
But Pliny, to prove whether this was a fact,
Put me into the fire—I was burnt in the act!

By Greenwich Time.

One of the great objects of Greenwich Observatory is to obtain and preserve exact time. Greenwich time has come to be the standard over almost all the kingdom. We could name, however, some towns which still authorise the use of local mean time within their liberties, and where the business of the place is

actually regulated by it. An end should be put to this unscientific state of things, and this will be facilitated by an invention which has just come under our notice. It consists of an apparatus by means of which clocks can be automatically "set to time." The mechanism is of the simplest; it interferes in no way with the works of a timepiece, and can be applied to any clock in or out of doors. Hitherto all attempts to regulate clocks by means of electricity have failed to yield practical results. The new system, however—the result of the ingenuity of Messrs. Barraud and Lund—avoids the error of controlling clocks by means of an electric current. "A narrow slit cut in the dial of an existing clock admits two projecting pins. These are arranged so as to catch, whether slow or fast, the minute hand at given intervals, and to set the clock to true time. The pins, attached to a pair of slotted levers, connect with an electro-magnet. The mechanism required can be easily screwed in its place, and it remains entirely disconnected from the works of a clock to which the apparatus has been attached." Any number of clocks, varying in size and calibre, can, on receipt of one time-signal, be simultaneously set to accord with each other in denoting Greenwich time. This invention must eventually prove a great boon. Railway travellers, for one thing, will have the satisfaction of knowing that the clocks along the line are no longer subject to those freaks of inaccuracy which have caused so many accidents and delays; bankers and merchants will be able, at a small outlay, to secure true Greenwich time in their City establishments, and provincial towns will not now have much excuse for indulging in the eccentricity of local mean time.

Lighting up Railway Carriages.

A disagreeable feature of railway travelling is often dim and insufficient light. With light enough, a journey need never prove tedious, for then one can read; but without light what can one do but study the unseasonable art of falling asleep? Railways, however, are showing themselves, in some instances, anxious to keep pace with the times. Oil, on a few lines, has given place to coal-gas, and coal-gas has recently been supplemented by gas made from shale-oil, paraffin refuse, and other substances of a similar character. This last method of lighting carriages—known as Pintsch's lighting system—has been tried on many Continental railways, and has been adopted in the travelling post-offices of the German Empire, and the saloon trains of the Emperors of Germany and Russia. It was introduced some time back into this country, and has been employed for more than a year on the St. John's Wood line. The process of manufacturing the gas for the line is carried on in two small rooms close to the Baker Street station. Here are to be found a pumping machine, retort, and meter, and

on an elevated piece of ground outside is a high-pressure holder. Pipes convey the gas to the side of the rails, and, once the gas is prepared, the process of supplying a train with light is sufficiently rapid. By means of hose and tubes, a carriage can in one minute be furnished with enough gas to last for twenty-four hours. In point of economy this novel method of illumination appears to possess great advantages over oil and coal-gas. The average cost of oil lamps is estimated at from five-eighths of a penny to three-farthings per hour, whereas the lamps of the new system will just cost the railway company about a halfpenny. As to the quality of the light, it is clear, strong, and steady, and the lamps are so constructed that there is no danger of the jet being extinguished by a sudden gust of wind. The gas supply is not likely to fail either. On the St. John's Wood line it has been found most convenient to furnish each train with no more gas than will last for twenty-four hours; but it would be quite possible to provide a train at starting with gas enough for a journey to Inverness and back.

A New Remedy for Neuralgia.

The pain of neuralgia, it is but small consolation to sufferers to know, is one of the most agonising affections to which the human system is subject. No wonder then that, in the search for remedies, the resources of the *Materia Medica* have been about exhausted. Untiring zeal, however, has brought another remedy to light, and a distinguished authority has some ground for saying that, "among the many improved methods of treatment during the last twenty years in the practice of medicine, no one is more striking than the success with which the agony of neuralgia is now relieved, as a rule." Formerly, during the paroxysm, comparatively little could be done by way of affording relief. External applications were chiefly trusted to in the hope—often vain enough—that they might, in some degree, palliate the suffering until the disease itself had been conquered, after a longer or shorter interval, by quinine, iron, or some such drug. But now all this is altered. The new remedy, which is slowly making its way into the domain of practical medicine, is prepared from the yellow jasmine (*Gelsemium sempervirens*). In the hands of many able physicians it has proved of surprising power, the usual expression of patients being, "It acts like a charm." It is specially useful in cases of neuralgic pain in the face and jaws. This potent drug has been long used in America, not only for neuralgia, but for fevers, including ague and influenza. It was introduced quite recently into this country, under circumstances of peculiar interest, arising out of cases of accidental poisoning, and we may be sure that such a successful remedy, for such a painful complaint, is not now likely to be lost sight of.

