

THE BELL OF THE ATLANTIC.

BY C. F. STERLING.

"For several days after the wreck of this steamer, her bell, swung by the wind or the motion of the waves, continued toll over the scene of the melancholy disaster."—NEW YORK PAPER.

Mournfully, mournfully, over the wave,
Heavily swinging,
Dolefully ringing,
Over the perished and over their grave,
Over the resting place God to them gave,
Tolls the bell!

What thinks the mariner passing the shore,
Listening sadly,
While the winds madly,
On his reefed canvas ragingly pour,
As the rough billows foam, break and roar,
Tolls the bell!

Warningly, warningly, heard he its tone,
And as he listened,
Bright the wave glistened,
Fogless and clear the winter moon shone,
As 'crossed the waters far spread and lone,
Toll'd the bell!

Terribly, forcefully, blows the wind on,
Sweeping by boldly,
While the stars coldly,
Shivering rays shed, the blue seas upon,
And as the wave-crests fire helmets don,
Tolls the bell!

Snow-clad and icy, the coast gleamed afar,
Seems the shore whitest,
Seems the wave brightest!
But vainly he seeks the beacon's glad star,
That warns from the reef when on the hid bar
Tolls the bell!

Little the mariner deemed as he pass'd
That the bell tolling,
Sadly was knolling,
Many souls' requiem—swung by the blast,
Or that waves rolling 'gainst a lone mast,
Toll'd the bell!

Nothing the mariner reck'd then or though
How the storm-demon,
Terror of seaman!
Oft by him fearlessly, dauntlessly, fought,
Over the death and the woe it had wrought,
Toll'd the bell!

Oh! had he known that arm'd in its might,
To its aid calling,
Death the Appalling!
The bleak blast unfetter'd its wrath in the night,
And as the dying sank down in affright,
Toll'd the bell!

To God who then spared him he would have
bow'd—
Bow'd with humility,
Childlike docility,
Learning how feeble is man, daring, proud;
Praying for those o'er whose watery shroud
Toll'd the bell!

CHAGRIN FALLS, CUYAHOGA CO., (O.) }
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Mr. Porter.

In perusing the Scientific American dated Jan. 2d I discover a description of a water wheel by Mr. George Gay Jr. of Westford, N. Y. being just like one I am engaged in building; with this difference, that I use four floats instead of two, and that I use a second flume or penstock which is attached to the main flume, and situated over the front or driving half of the wheel for the purpose, that the water may raise in it till the volume is of a sufficient force to drive the wheel.

If you will give this an insertion in your valuable paper as soon as practicable you will much oblige,

Yours &c. ADIN GAUNTT.

Profits of Bees.

R. R. Childs, Pittsfield, Vt. thinks keeping bees very profitable. He says one of his neighbors has realized more profit the last four or five years in the produce of honey than any other man in Pittsfield with five times the amount of money invested in any other way. We intend to have something to say on this subject soon, and present a new, novel, and peculiar plan for a series of ornamental hives.

Practical Mechanism.

Some author has observed that "the due cultivation of practical manual arts, has a greater tendency to polish and humanize mankind, than mere speculative science, however refined and sublime it may be." At the first perusal of this, we might not consider it altogether true; but upon a more close and critical, the veracity of the quotation will become more and more apparent; for although it be true that a poet, by his lofty imagination and felicity of diction, may be able to captivate the heart and subdue it to a softer feeling for the human race, and enlarge its powers, these writings are perused by comparatively a small portion of the community. A Blair, a Sherlocke, or a Taylor, may write on the beauty of religion and morality, with the "tongue of men or of angels," but still few peruse them with that attention to render service to the mass of mankind. But a cultivator of the practical manual arts, the moment he has invented a piece of mechanism of great utility to man, renders to every person, be his situation what it may, a work which sets every intellect more or less enquiring into its properties and effects; it is a silent monitor of the vast stretch of which the power of thought is capable of attaining; it speaks with a "still small voice" to the idle, the thoughtless, and the dissipated—"See what my fellow man is capable of doing, and why should I spend my days in sloth and obscurity? my powers of mind are as capable of comprehension as the inventor's, and yet I am going to the grave unknown." Among all the nations of antiquity, civilization and urbanity of manners kept pace in a community with the improvement of the citizens in mechanical and scientific attainments.—The invention of the screw, the lever, the telescope, the art of printing, in fact every useful discovery, tended in its practical effect to soften the manners, to enlarge the heart, and to render man in the aggregate more happy, elevated and kind to his species. This subject has never, perhaps, been considered so thoroughly as it should be. It strikes us that this is a matter for enquiry, which would amply repay the trouble of investigation; that it would be productive of immense utility to mankind, and tend to elevate the inventors of useful mechanical arts to that rank in the world they so richly deserve.—*Mechanics Journal.*

Test for readily distinguishing Iron from Steel.

To distinguish iron from steel by a chemical process, take pure nitric acid, dilute it with so much water, that it will only feebly act upon the blade of a common table knife. If a drop of the acid thus diluted, be suffered to fall upon steel, and allowed to remain upon it for a few minutes, and then washed off, with water, it will leave behind a black spot. But if a drop of this acid be suffered to act upon iron in the same manner, the spot will not be black, but of a whitish grey color. The black stain is owing to the conversion of the carbon of the steel into charcoal, which thus becomes predominant, and iron being nearly free from carbon, can produce only a grey stain.

The utility of this test is not confined to finished articles manufactured of steel, but its application enables the workmen in iron and steel to ascertain also the quantity and uniformity of texture of unfinished articles.

The Tongue.

A white fur on the tongue attends simple fever and inflammation. Yellowness of the tongue attends a derangement of the liver, and is common to bilious and typhus fevers. A tongue vividly red on the tip and edges, or down the centre, or over the whole surface, attends inflammation of the mucous membrane of the stomach or bowels. A white velvety tongue, attends mental diseases. A tongue red at the lips, becoming brown, dry and glazed, attends typhus state." The descriptions of symptoms might be extended infinitely, taking in all the propensities and obliquities of mental and moral condition. The tongue is a most expressive as well as unruly member.

An Albany paper speaking of the weather, excuses itself from chronicling all the changes therein, as such a task would require the employment of an extra clerk.

The Physical Sciences.

The following facts in relation to the physical sciences, are condensed from Dick's General Diffusion of Knowledge: "The physical sciences are of the greatest utility in almost every department of art. To masons, architects, ship-builders, carpenters, and every other class employed in combining materials, raising weights, quarrying stones, building piers and bridges, splitting rocks, or pumping water from the bowels of the earth—a knowledge of the principles of mechanics and dynamics is of the first importance. By means of these sciences the nature of the lever and other mechanical powers may be learned, and their forces estimated—the force produced by any particular combination of these powers calculated—and the best mode of applying such force to accomplish certain effects, ascertained. By a combination of the mechanical powers the smallest force may be multiplied to an almost indefinite extent, and with such assistance man has been enabled to rear works and perform operations which excite astonishment, and which his own physical strength, assisted by all that the lower animals could furnish, would have been altogether inadequate to accomplish. An acquaintance with the experiments which have been made to determine the strength of materials; and the results which have been deduced from them, is of immense importance to every class of mechanics employed in engineering and architectural operations. From such experiments,—which have only been lately attended to on scientific principles,—many useful deductions might be made respecting the best form of mortices, joints, beams, tenons, scraps, &c.; the art of Mast making, and the manner of disposing and combining the strength of different substances in naval architecture, and in the rearing of our buildings. For example—from the experiments now alluded to, it has been deduced, that the strength of any material depends chiefly on its depth, or on that dimension which is in the direction of its strain.—A bar of timber of one inch in breadth, and two inches in depth, is four times as strong as a bar of only one inch deep; and it is twice as strong as a bar two inches broad and one deep, that is, a joint or lever is always strongest when laid on its edge. Hence it follows, that the strongest joist that can be cut out of a round tree is not the one which has the greatest quantity of timber in it, but such that the product of its breadth by the square of its depth shall be the greatest possible. Again, from the same experiments it is found, that a hollow tube is stronger than a solid rod containing the same amount of matter. This property of hollow tubes is also accompanied with greater stiffness; and the superiority in strength and stiffness is so much the greater as the surrounding shell is thinner in proportion to its diameter. Hence we find the bones of men and animals are formed hollow, which renders them incomparably stronger and stiffer, gives more room for the insertion of muscles, and makes them lighter and more agile, than if they were constructed of solid matter. In like manner the bones of birds, which are thinner than those of other animals, and the quills in their wings, acquire by their thinness the strength which is necessary, while they are so light as to give sufficient buoyancy to the animal in its flight through the aerial regions. Our engineers and carpenters have, of late, begun to imitate nature in this respect, and now make their axles and other parts of machinery hollow, which both saves a portion of materials and renders them stronger than if they were solid."

Wisdom for the Young

Is the title of a beautiful volume, excellent as beautiful, just published by J. C. Riker, 129 Fulton St. is edited by L. D. Dewey, and consists of the advice of Chief Justice Hale to his children, and opinions of distinguished Americans on the Bible and the Sabbath, and some well written and valuable papers by the editor.

This is a book that every christian and patriot would rejoice to have read by the youth of our country. It is a work for this nation. It will preserve a model of the American character, and perpetuate our free institutions.—Let it be read by all, especially by mechanics.

The Iron Mountain in Missouri.

The Iron Mountain proper is about a mile and a half long, and about one mile broad—or rather more than a section of land; while the Pilot Knob is twice as high as the Iron Mountain, but has not as much surface. Here you travel upon nothing but iron lumps as far as the eye can reach; there you see the whole top of the mountain forming one sheet of iron. Here they have penetrated but ten feet into the ground—the surface iron being all, too, large lumps—while on the Pilot Knob, they have penetrated, on the summit and at the base, at least 259 feet. The iron ore found here is of the richest kind; it yields at least 60 per cent of pig metal, and I saw but very few slugs lying about the furnace. At St. Louis they prefer the pig iron from the Iron Mountain to that of Tennessee. The company intend making, in a short time, 20 tons per day, or 7,500 tons per annum. It would pay a profit to export the ore to the other States for smelting, where fuel is more abundant. The supply of the ore in this region is inexhaustible.

The Iron Mountain is one mile broad, four hundred and forty-four feet high, and three miles long. The lumps of iron increase in size ascending towards the summit. The Pilot Knob is the highest peak of mountains in the whole neighborhood, and cannot be less than fifteen hundred feet high; it is said to be a mile from the base to the summit, but this appears highly incredible. The iron ore is micaceous oxide of iron, but not a magnetic oxide, as some former writers have called it.

The material in the Pilot Knob has never been used for casting purposes, but some few years ago, edge tools were manufactured from the crude ore. The quantity of pig iron produced at present is about ten tons per day, performed by four discharges in twenty-four hours, but the present furnace having given way, it must be replaced by a more substantial and larger one, which is estimated to produce twenty-four tons per day. The distance from the Iron Mountain to the landing place on the Mississippi river is 40 miles, and it costs only one quarter of a cent a pound for transportation.

The Rose among the Thorns.

A pious man, who lived deeply grieved and afflicted in the midst of his persecutors, once walked sadly up and down his garden, almost doubting as to the care of Providence. As if held fast, he stopped before a rosebush, and the spirit of the rose thus addressed him—"Do I not give life to a beautiful plant! a cup of thanksgiving (full of sweet perfumes,) to the Lord, in the name of all the flowers: his offering of incense. And where do you see me? Among thorns. But they do not sting: they protect and give me my juices. Thy enemies do likewise: and should not thy spirit be more firm than a fading flower? The man went away strengthened; his soul became a cup of thanksgiving for his persecutions."

A Reverend Volunteer.

The Rev. W. H. T. Barnes, is a volunteer in Captain Naylor's company from Philadelphia, en route for Mexico. No one will dispute that clergymen have as good a right to fight as other folks; and we presume some would not regret to see an entire regiment of these volunteers.

The Happy Man.

An eastern caliph, being sorely afflicted with *ennui*, was advised that an exchange of shirts with a man that was perfectly happy would cure him. After a long search, he discovered such a person, but was informed the happy fellow had no shirt.

A succession of Bars.

A musician forsook his bars of music for the bar of a tavern, which soon brought him to the bar of the bench, and this was quickly succeeded by the grated bars of a prison, from which he effected his escape by means of a crow bar! but being re-taken, was *ar-bar-*ously conducted to the elevated bars of the scaffold.

Telegraph in Canada.

The Telegraph Company formed at Montreal have advertised for contracts for the construction of a telegraphic line between Montreal and Toronto. Arrangements are in progress for extending the line from Montreal to Halifax.