

and many kindred topics. Physiology, ethnology, philology, political economy, all contribute their quota; and all these branches of science have their devoted students, men who regard as interesting every thing which relates to man, and who, aware that he is a mystery, that many fields of investigation have as yet scarcely been trodden, are bent upon increasing our acquaintance with ourselves. Never was so much attempted before (would that the attempts were in all cases wise!) to investigate moral philosophy; never was so much known respecting the various tribes of man, the relation of language, and the condition of the numerous nations of the earth. The second question, *Where do we dwell?* calls into requisition many sciences—physical geography for the surface, geology for the crust of the earth; chemistry dealing with the elements, electricity for the subtler agencies of the atmosphere. For physical geography every region, almost every islet, in the globe, has been laid under contribution, its facts collected, classified, and compared by such men as Humboldt, Berghaus, and such a woman as no country but England could produce, Mary Somerville. Geology, as a science, belongs almost exclusively to this age, and perhaps in no department of inquiry has the inductive method proved more successful, so that now we can look back through many cycles of ages, and, assisted by men like Cuvier, Agassiz, Buckland and Lyell, we can form an idea of what this planet was ere man was formed. Discoveries in this science are so rapid, such skill has been attained by men like those first named, that it is very difficult to keep up with them as they advance, or to remember the interesting facts which they can interpret from the mystic characters engraven on the various leaves of the great stone book. Not less successful, but much more elegant and minute, are the chemical wonders and combinations which science is discovering; while the laws of light, magnetism, and electricity are being combined into a system, and increasing our acquaintance with the subtle and intangible fluids that float around. To the third question, *What relation do we sustain to the universe?* Astronomy, with various handmaiden sciences, replies; and within the last few years how much has been accomplished by Herschell, Rosse, Adams, and Leverrier. The field is boundless, and no limit can be placed to the discoveries which may yet be made;—all these discoveries, in all these branches of science, enlarging our views of the wisdom and benevolence of Him by whom the universe was created and is upheld. We may characterize this as

11. *An age in which this scientific research is made to subserve the purposes of art, and to minister to the comforts and conveniences of life.* A vulgar spirit has often sneered at the solitary student poring over dead languages, experimenting upon herbs or earths, rambling over rocks, or, in the laboratory or workshop, pursuing some curious investigations of mechanism or chemical science. To such a spirit what an idle man was Galvani playing with a dead frog! What a great baby Franklin, with his kite, catching and bottling up the lightning! Watt, with his tea kettle, watching the steam as it made the lid to rattle and poured forth from the spout! In the eyes of vulgar and mere money-getting men, how much better if these experimentalists had been usefully employed, Galvani with his patients, Franklin with his printing press, Watt in his workshop! But who can tell the practical results—results such as the money-maker loves—to which the discoveries of these men have led? To the successful experiments of Watt we must trace the origin of the steam-engine, that mighty slave of man, lending its Titanic power to manufactures and locomotion—power so tremendous that to it the work of a hundred horses is but play; so docile and easily guided that by it the most delicate operations of the spinning-wheel and the loom can be conducted under the superintendence of a child; so indomitable that it can plough the waves of the Atlantic in a wintry gale; so swift that on land distance is all but annihilated, and we perform with ease, in a few hours, journeys which our fathers would have required days, if not weeks, to accomplish. Truly steam may be regarded as one of the chief agents of social progress and modern civilisation. The purposes to which the electric fluid can be applied by means of the galvanic battery are still but partially known. To refer but to one, the most remarkable application of science in the present day, by which that fluid is made man's messenger—the electric telegraph, by which man's words can outstrip the winds, can speed with the rapidity of lightning, and can cause the arrest of the criminal fleeing from the scene of his crime, thus subserving the ends of retributive justice, and showing how all things can be made to array themselves against the evil-doer. A few years since geology was regarded but as the amusement of the curious, or as the tool of distasteful sophists; now its applications to art are numerous and important. The engineer, the coal-viewer, the iron-master, are all under obligation to it, and without some practical knowledge of its laws will often err. By it the localities for the sinking of Artesian wells—these supplying districts in which there are no surface springs, and bringing up from great depths water, tepid, or almost boiling, by subterranean heat—are indicated, and thus the divining-rod of the last century for the discovery of minerals and of water is needed no more. Chemical discovery, in the hands of men like Liebig and Johnston, is applied to agriculture, reducing to certain fixed laws the rotation of crops, the species of manure, and the invigoration of exhausted soils; while, in the hands of others, chemistry is made to minister to medicine and surgical skill, and substances for which no use could be found by their discoverers are applied either

for the assuagement of pain, or the alleviation of disease, or the prolongation of life. The present age is so strictly utilitarian that a use is discovered or demanded for everything animate or inanimate, and we can almost fancy that above its portals are traced the words, so appalling to idlers—"No admission except on business here."

From the London People's Journal.

### COURAGE! FAINT HEART.

Work'st thou weary, soon, and late?  
Think not thine own the worst estate,  
Nor be thy heart disconsolate.

Lo! 'st thou in sadness and despair?  
Deem not thy lot extreme or rare,  
Nor hope to be exempt from care.

Hast thou the sense of constant pain,  
From fallen hopes, oft reared in vain?  
Take courage, friend, and build again.

Is all thy pleasant youth departing,  
And after years of strife and smarting,  
Thou art just where thou wast at starting?

Think thou hast gained some wholesome lore,  
Something thou didst not know before,  
Which may be used in quest of more.

If now thou canst not see the light,  
Take comfort in the gloom of night,  
And wrench from darkness some delight.

Thou knowest not the face of joy?  
Bethink thee, he was ever so,  
To show himself to girl or boy.

And wouldst thou dream that he will be  
Content to take pastime with thee,  
And deck thy manhood gracefully?

Consider all the weary days,  
Wasted in fruitless, vain delays,  
To welcome pleasure to thy gaze—

Who never came, who has not come;  
Whom, should'st thou linger for till doom,  
Thou must at last walk lonely home.

Consider too, the aching head,  
Nightly laid down upon thy bed,  
And then by sleep scarce visited.

What hast thou gained by such distress,  
By all thy chase of happiness?  
A life of pain without success.

Expect not, then, that thou wilt see  
Thy life from care or sorrow free,  
But be content to let it be.

Work out thy fate with manly pride,  
Bear well whate'er may thee betide,  
And patiently the end abide.

From Hogg's Instructor.

### THE LIFE-BOAT CAPTAIN.

Human nature never rises so much above itself as when, in the midst of imminent peril, it casts aside all selfish considerations, and rushes forward, braving every danger, to save a perishing fellow creature. And it is truly creditable to our species, that on such occasions there is seldom wanting sound hearts and strong arms to 'dare what man dares' in the attempt. This is true heroism. In the battle-field, warriors may perform what have been styled 'prodigies of valour'; but there the combatant is under a degree of excitement, prompted and maintained by the clangour and fury of opposing arms, which is entirely wanting in those cases to which we refer. It is not the combative propensities that animate the hero of whom we speak; but the pure sympathies of a kind and courageous heart. Courage it is in the truest sense—courage to grapple, as it may be, with the devouring elements of fire, or flood, or storm. It is no mere blind or instinctive burst of heroism, but proceeds from a comprehensive though rapid glance at the difficulties to be overcome, the means to be used, and a determination to hazard all—life itself, in the cause of humanity.

The inhabitants of the more frequented sea-coasts witness many harrowing scenes of shipwreck and suffering which their inland neighbours only hear of by report, and can form little idea of the reality. The east and west coasts of Scotland are particularly exposed; the first to the gales of the German Sea, and the latter to the storms which blow from the Atlantic. The writer of this resided for a number of years at a port on the west coast, where casualties were of frequent occurrence. Being one of those river harbours, with a narrow entrance and a dangerous bar, it was extremely difficult to enter in stormy weather. Sometimes eight or ten vessels may be seen, in a morning after a heavy gale, dashed against the piers or on shore. Comparatively few lives were lost however. Like most other ports of any importance, it had an excellent life-boat, kept on a four-wheeled carriage in a wooden house erected for the purpose, near what was called the slip, where, when required, she could be instantaneously launched. When a vessel happened to be in danger in the bay, or to get stranded in taking the bar, the great bulk of the population turned out in the utmost anxiety for the fate of those on board, all willing to lend a helping hand as far as in their power. The launching of the life-boat was an affair of deep interest. In the

gloom might be seen the unfortunate vessel, her flag of distress almost torn to ribbons by the gale, blowing with fearful violence from the south-west, as she dragged and strained her only remaining bower anchor, or was dashed against the rocks to the leeward of the harbour. And who, amidst that wild commotion of waters, lashing over all the usual boundaries of dykes and piers, like huge mountains rolling inwards to the feet of the spectators, who so bold as to peril their lives in an attempt to save the unfortunate? Amidst the crowd, which gave way on all hands for the 'captain of the life-boat,' might be seen a red-faced, broad-set, bandy-legged, oldish man, pushing forward with all speed towards the boat as she lay uncarried at the mouth of the slip. 'Now my lads,' he would exclaim, addressing the seamen around him, as, with his hands on the gunwale, he lifted himself into the stern with surprising agility, and grasping the tiller, sat ready for duty. In less time than it requires to tell it, every oar would be manned by as fine a body of young athletic seamen as eye could wish to look upon, all volunteers of the instant, stripped of their jackets ready to obey their worthy captain. Next moment, launched by the willing crowd, amidst the intensely excited cheers of the multitude, old Tom and his gallant crew might be seen dashing through the waves, sometimes above, sometimes below, while another prolonged cheer, mingling with the bellowing storm, would at length announce their having emerged from the breakers and the spray on the bar. 'Now they are safe; there they go, the gallant fellows!' are the exclamations of thousands. Now they gain upon the wreck; now they endeavour to board her; but, oh, these foaming waves! they will be smashed to atoms against the ship. No; thanks to the strong build and the sheathing of cork of the life-boat, she is safe. Now, under the lee-bow of the ship they are more steady. A rope is made fast to the bulwarks of the wreck, which will be carried ashore by the boat; and there now she is filled with passengers, the crew, more hardy, will be able to get on shore by means of the rope. There she puts away from the wreck, and is careered before the waves towards the shore, where hundreds of brave men are standing breast-high amidst the thundering billows, ready to aid in running her upon the beach from amongst the breakers. And there they come—one thorough immersion and they are safe amidst the shouts of the spectators. Who would not be the 'life boat captain' and his hardy crew at that moment! Greater are they in the eyes of the multitude—in the gratitude of those they have saved—than the mightiest heroes of the sword in ancient or modern times.

Many and oft are the times old Tom has enjoyed the warm plaudits of his fellow citizens, by the alacrity with which he volunteered his services in the life-boat. No weather could appal him. Wherever a human being was in distress, there the worthy old man was ready to adventure himself; and his 'now, my boys,' uttered as he lifted himself into the boat, never failed to command a bold and willing crew. Often have we ejaculated to ourselves on witnessing such scenes, surely the 'wooden walls' never can want defenders where so much of true gallantry exists. When the services of the life boat were required at any considerable distance along the coast, horses were yoked to the carriage on which it usually rested, and then might be seen the captain and his volunteers, seated and ready to be launched, driven along the beach with all the speed that whip and spur could effect. Old Tom had no gratitude for his services. He was 'captain of the life boat,' as he frequently was designated, by universal acclamation, or a species of prescriptive right, which no one presumed to dispute with so worthy and disinterested a commander. A gift of drink-money sometimes to the crew, from the funds of the port, or from the parties benefited, was all the emolument arising from the service. Old Tom, it must be admitted, was, like most retired sea-captains, fond of his grog; and on such occasions, he sat not less proudly at the head of the large oblong table in the back parlour of Lucky Mac's, surrounded by his jolly crew, than he did in the boat itself with the tiller in his hand. He was garrulous, and the young seamen were delighted to listen to his stories—all of the sea as they were—probably of some of the more memorable of the many cases of shipwreck in which he had been nobly engaged. Old Tom, however, though he took his grog at all times with a due degree of regularity, was no drunkard in the common acceptation of the term. He was not a solitary tippler; and 'grog time of day'—high twelve—always brought him into contact with some old messmates, killers of time, like himself, whose tastes were vastly similar, and who, indeed, had many things in common. They were jolly tars enough, had 'sailed the world round,' and were now enjoying the fruits of early activity in a green old age.

### PEDDLING WITHOUT A LICENSE.

There was in Illinois a sheriff, named Nickem, who was particularly expert in ferreting out and punishing pedlars who travelled without a license. One day he saw a pedlar coming up the road, and, as usual, he accosted him in hopes of finding a culprit, whom he might fine.

'Fine morning,' said Nickem, reining up his nag in front of the pedlar's wagon.

'Tis pooty fine, I guess, fur your wooden country,' said the pedlar.

'What have you got to sell, any thing?' said the sheriff.

'Guess I huv, a few notions, one sort or whet. What'd yeon like to hev? Got some rale slick taxers, and some prime strops; an

article I guess you want, Squire by the look o' yer beard. And here's some rale gen-noo-wine paste blacking—make them old cow-hide boots o' yours shine like a dollar.'

'Thank you,' said Nickem, 'I don't use blackin', grease is better, we allow, out this way. But what's that stuff in the bottles thar—is it good to take?' continued he, pointing to a lot of labelled bottles.

'Well, I guess, Squire, it is a sort o' good; its balm o' Columby; good for the har, and eures the belly ache; all nation fine stuff for assuetin' poor human natur, as the poet says, in the affairs of life. And such stuff for expandin' the ideas, and causin' 'em to flow spontaneously! Knew a feller once who took a bottle on a 4th of July, and scissors! didn't he make a flaming speech! Daniel Webster and Henry Clay got ashamed of themselves, and went clear hum! Fact, by gosh!'

'What d'ye ask for it?' inquired Nickem.

'A dollar a bottle's the price, Squire, but see'n its you, guess I'll let you hev it for seventy-five cents. Cheap as dirt, arat it?'

'Well, I reckon I'll take a bottle; thar's the change,' said Nickem.

'And thar's the balm o' Columby. Haint nothin' else in my line to-day Squire?' said the composed and vivacious Yankee.

'B'lieve not, oh! yes, now I think of it, stranger, have you got a license for peddlin' in this State?' said Nickem, coming to business.

'Guess I hev, Squire, may be yeon'd like to see it?'

'Well, stranger, seein' as I'm the high sheriff of this county, I reckon I shall trouble you to show your license?'

'Oh, sartin, sartin, squire, yeon can see it; there it is, all fixed up in black and white, nice as wax, arat it?'

'It is all right, perfectly right,' said Nickem, folding up the document and handing it back to the pedlar, and added, 'I don't know, now that I've bought this stuff, that I keer any thing about it. I reckon I may as well sell it to you again; wha'll you give for it?'

'Oh! wall I don't know that the darn'd stuff's any use to me, but seein' its yeon, sheriff, guess I'll give yeon 'bout thirty-seven and a half cents for it, quietly responded the trader. The high sheriff handed over the bottle, and received the change, when the pedlar observed—

'I say yeon, guess I've a question to ask just now, hev yeon got a pedlar's license 'bout yeon trowsers?'

'No; I have no use for the article,' said Nickem.

'Haint, eh? Well I guess we'll see 'bout that, purty darn'd soon. Ef I understand the law, now it's a clear case, that you've been a tradin' with me, hawkin' and pedlin' Balm o' Columby on the highway, and I shall inform on yeon, I'll be darned ef I don't!'

Reaching the town, the Yankee was as good as his word, and the high sheriff was nicked and fined for peddling without a license! The Sheriff was heard to say, you might as well try to hold a greased eel, as a live Yankee.

### WANTS OF THE WORKING CLASSES.

Two things are required on the part of the working classes to adjust themselves to the state of society, as one altering or improving, viz: skill or practical knowledge, so that when one branch of productive labor fails, from improvement or fluctuation, they may resort to another; and economy, that they may provide against 'a rainy day,' and instead of seeking relief in combination and outrage, have the means of support until the arrival of more favorable times. These qualities will appear only where there has been some training of the head and heart. Let the mind be taught to think, and the judgment fitted for correct decision, and the difference will be manifest, as it is now in cases occasionally witnessed; the intelligent will not be the dupes of demagogues or incendiaries, and the thrifty will discover a higher tone of feeling than their improvident neighbors.

### GRACE BEFORE MEAT.

A young man, somewhere down East, fell in love with the daughter of a staid old deacon, who used frequently to invite him to dinner. The deacon one day called upon him to ask the customary blessing, and not wishing to have it understood that there was any one thing he could not do, he made the offer. Hastily recollecting all he could of the usual form, he began and made an excellent start of it, but for his life, could not tell how to close it off. It was easier to go on than stop. Finally, making a desperate dash after a period, he closed off thus—'In conclusion, my dear sir, I remain very truly and respectfully your obedient servant.' He has not dined with that deacon since.

A young lady addressed by a judge and a sheriff was asked which she liked best. 'Although,' said she, 'I like judgment well, I like execution better.'

'Shall we take a 'bus up Broadway,' said a young New Yorker, who was showing his country cousin the wonders of the city.

'Oh dear, no,' said the frightened girl; 'I would not do that in the street.'

ORIGIN OF BILL OF EXCHANGE.—From the laborious researches of Messrs. Blanqui and Nonquier, it would appear that the exact date of this Jewish invention must reascend as far as their expulsion from France, by Philippe Augustus, in 1181. Montesquieu says