

Maddaloni and into the sea. So grand and so destructive an eruption has not been known for many years, and even now we cannot tell how or when it will terminate. The mountain is literally seamed with lava, and many fear a violent explosion as the final scene of the tragedy.

[From Dickens' Household Words, May 26.]

### A Steamer of Twenty-five Thousand Tons Burthen.

The huge fabric erecting at the Isle of Dogs, (below London) as yet bears no resemblance to any known kind of craft. At a distance the eye is unable to detect any particular proportions about it. A close inspection, however, shows a line of uprights at each end which mark the shelving proportions of stem and stern, and then one can perceive that the object before us is really intended for a ship.

Standing on the banks of the river Thames, with a vast open space on one side and Greenwich Hospital on the other, it is not easy to form a just conception of this marine monster, which, for want of a better name, we call Leviathan.

It is being built by Scott, Russell & Company, from designs by Mr. Brunel, the engineer, whose conception the entire fabric is. When we remind our readers that the Royal Albert line-of-battle ship, of one hundred and twenty guns, is something under four thousand tons, and about two hundred and twenty feet in length, and that the Simla and Himalaya, at present the largest steamers afloat, are only three hundred and twenty feet in length, or thereabouts, they may form some idea of the proportions of this Eastern Steam Navigation Company's ship, when they are told that it will be six hundred and eighty feet in length and of twenty-five thousand tons burden; in other words, of more than six times the capacity of our largest men-of-war, and above double the length of the largest steamship afloat.

Our readers will have frequently heard discussions as to the relative merits of paddles and screws. In the Leviathan the screw will be combined with the paddle, worked by engines nominally of two thousand six hundred horse power, but in reality capable of being worked up to ten thousand horse power.

To guard against accidents at sea to machinery, and to prevent any detention from such a cause, the paddle wheels will not only be perfectly distinct from each other in their working, but each will be set in motion by several sets of machinery of superabundant power, so that at all times derangements or cleaning of one or two cylinders or boilers will not interfere with the progress of the ship.

Steam will be the sole propelling power, no canvas being contemplated in this vessel. In fixing the great size of the Leviathan, its projector believes that he has obtained the elements of a speed hitherto unknown in ocean-going steamers.

It is confidently predicted that by the great length of the Leviathan she will be enabled to pass through the water at an average speed, in all weathers, of fifteen knots an hour, with a smaller power in proportion to tonnage than ordinary vessels now require to make ten knots. The contracting speed of most ocean mail-carrying steamers is eight knots.

We believe that the Eastern Steam Navigation Company intend making their first voyage to Australia. The actual distances from Milford Haven, the company's starting point, to Port Philip is less than 12,000 miles, if no ports be touched at. A speed of fifteen knots or miles an hour averaged from land to land would take the Leviathan to the golden colony in about thirty-two days. This can only be accomplished, even at that high speed, by avoiding all stoppages for coal, which, besides detaining a ship many days in the different ports, carries her a great distance out of the direct steaming course. Here we find another novelty brought to bear by Mr. Brunel.

A ship of this huge capacity can carry 12,000 tons of coals—quite sufficient, it is stated, for her consumption on the outward and homeward voyages. Space will still be left for 5,000 tons of cargo, the massive machinery, and 4,000 passengers, with their luggage, and all necessary stores for use.

The advantage of this arrangement is two-fold. Besides the avoidance of stoppages for coaling on the voyage, the ship earns all the freight which must otherwise have been paid to sailing vessels for the conveyance of fuel to the coaling depots, which, on three-fourths of the quantity consumed on one voyage, would amount to a sum sufficient to build and equip a steamer of two or three hundred tons.

In order to compensate for the great loss of weight caused by all this enormous consumption of fuel, and to maintain an equal immersion of the paddles, the coal will, to a certain extent, be replaced by water pumped into the water-tight compartments forming the skin of the ship, and of which we shall presently have occasion to speak. In addition to this arrangement, the paddles have been so adjusted on the wheels as to be as efficient at one draught of water as at another.

It is impossible to judge of the future finish or accommodation of such a gigantic ship as the Leviathan from the present state of the iron hull. Immense divisions of metal plates, reaching to an incredible height, with sub-compartments at right angles, appear to divide the monster fabric into a number of square and oblong spaces, each of which would contain an eight-roomed house of Camden Town build, or a semi-detached villa from Stockwell at forty pounds per annum.

We inspected a model of this ship in wood, and could scarcely believe that the unsightly mass of iron plates, rivets and joints, just beheld, could by any possible ingenuity, be wrought into anything so beautifully symmetrical as the long arrow-like little craft before us, tapering off forward as sharply as a woodman's lutelet or a Thames wherry. I will now tell how the monster was constructed.

From that model we were enabled to understand where the engines, coals, stores and cargo would be placed, and moreover where the two thousand first class passengers would be berthed in their five hundred state cabins, and where the two thousand second class and steerage passengers would be placed, without nearly as much crowding as in an ordinary passenger or emigrant ship.

Large indeed must that steamer be which can provide a main deck saloon sixty feet in length, and forty in width, and fifteen feet in height, with a second class saloon only twenty feet shorter, and a foot or two less in height. The Leviathan has these, and they appear but small compartments of the huge interior.

It would prove a fortunate circumstance for our military authorities, who are so much in want of steam transports to the seat of war, if this monster ship were ready for sea at the present moment.

There are just now two divisions of the French army of ten thousand men each, ready to be conveyed to the scenes of their future operations. The Leviathan, with just sufficient fuel for so short a voyage, could take on board one of those divisions entire, with horses, fodder, artillery and ammunition; it could land those ten thousand men, with proper arrangements in the Crimea; could return and carry the second of those small armies; and could arrive back at Marseilles for the second time within one month from her first starting.

It has been deemed an achievement worthy of mention to convey an entire regiment of light cavalry from Bombay to the Crimea, by way of the Red Sea and Egypt, in about two months. If the calculations as to the speed of the Leviathan are correct—which more learned heads than ours declare them to be—then the iron ship could have conveyed at least half a dozen regiments of cavalry from Bombay to Balaklava, by way of Cape of Good Hope and the Straits of Gibraltar, in two thirds of the time, and not much greater cost than was required for the one regiment conveyed through Egypt.

Had the old system of ship-building still prevailed with regard to sea-going steamers—had our shipwrights worked on the wooden wall principle, instead of the plate and rivet method—we would never have possessed such noble steamships as are owned by our large commercial companies. Certain it is that the Leviathan could not have been built on the wooden system. The mightiest giants of Indian forests, of fabulous age in countless numbers, would not have sufficed to produce a ship of half her size.

Strength enough could not have been obtained with the most ponderous masses of timber-work, braced as they might have been with iron and copper, to have floated so mighty a load of cargo, machinery and living beings. Yet the monster of which we are now speaking—so new in its various appliances of power, so wonderful in its unheard-of capacity—is composed of plates of iron less than one inch in thickness.

The secret of the great strength attained by this comparatively small amount of metal is in the peculiar structure of the hull. It is built throughout in distinct compartments, on the principle of the Britannia Tubular Bridge, and when finished will be in fact a huge tubular ship.

The principle of that structure need not here be dwelt upon. It will suffice to explain that the whole of this vessel will be divided into ten huge water-tight compartments, by means of iron plate bulkheads carried up to the upper deck, thereby extending far above the water line.

In addition to this great safeguard against accident, the whole length of the ship, except where she tapers off at either end, is protected by a double skin of metal plating, the outer one being distant three feet from the interior. These double tubular sides are carried too far above the deepest water mark, and inasmuch as the traverse bulkheads extend to the outer of these skins, they are divided into many water-tight sub-divisions, any one or two of which, though torn or fractured, and filled with water, would not affect the buoyancy or safety of the ship.

Besides the great transverse divisions before alluded to, there are two enormously strong longitudinal bulkheads of iron running from stern to stern, each forty feet from the inner skin, and carried to the upper deck, adding greatly to the solidity and safety of the vessel.

The main compartments thus formed by the bulkheads have a means of communication by iron sliding doors near the top, easily and effectually closed in time of need. In this way not only are all the most exposed portions of the ship double skinned, but the body is cut up into a great number of very large but perfectly distinct fire and water proof compartments, forming, indeed, so many colossal iron safes. If we can imagine a rock to penetrate the double skin, and make its sharp way into any of these compartments, it might fill with water without any detriment to the rest of the ship.

One of the most terrible calamities that can befall a vessel at sea is undoubtedly a fire. The iron water tight bulkheads would seem to defy that destructive element sufficiently; but, in order to make assurance doubly sure, the builders are experimenting with a view to employing only prepared unflammable wood for the interior fittings.

Such is the Leviathan. She is to be launched, unlike any other ship, broadside to the water by means of hydraulic power, and early next spring is expected to make a trial trip to the United States and back in less than a fortnight.

In contemplating this Babbalanja vessel our small acquaintance with things nautical, dwarfs down to Lilliputian insignificance. Before reaching the Isle of Dogs we had imagined we had possessed some acquaintance with ship building and marine engineering. One of the Leviathan's cylinders was sufficient to extinguish our pretensions.

### Another mode of Planting Potatoes.

For two years we have been trying to induce some of our readers to try an experiment in the cultivation of potatoes, but whether we have been successful or not we have no means of knowing, as no person has reported progress. There is no crop that has paid so well the past season as potatoes, and there is no crop so certain or so easily raised. Potatoes have been a legal tender in this market ever since free bank money began to depreciate, at one dollar and fifty cents a bushel. There is no crop that may be raised so easily as potatoes, nor one that can be raised more profitably. With the hope that some of the readers of the Courier may be induced to try the experiment the coming season, and report the results, we again publish the plan for raising this indispensable vegetable.

Let the farmer or the gardener select some refuse lot, or part of a lot, of sod ground. Do not plow it, but when planting time comes, say between the 10th of May and 1st of June, place potato cuttings on the grass of the said ground, from twelve to eighteen inches apart, using about the same amount, or perhaps a little more seed than is used in the ordinary way of planting. Cover the ground thus sown with coarse straw, corn-stalks, leaves, or any other refuse matter of the kind, to a depth of six to ten inches—just enough to kill the grass and prevent it growing.

The potato vines will find their way through this covering without difficulty, and form a mat, which will prevent the straw or other covering from being blown off by the wind. Potatoes planted in this way will need no plowing or hoeing. In the fall, when the vines are killed with frost, take a strong rake and uncover the potatoes, which will be found covering the ground, large, dry, and clean enough for the dinner kettle, without washing. The ground will be found to have lost none of its virtue, but will in fact, be enriched by the process. The labor prescribed, it will be seen, is much less than will be required by the old method of plowing, planting, hoeing and digging. The result will be, in nine cases out of ten, a much larger crop of much nicer potatoes—and what is better still, they will not be subject to the rot.

Almost every farmer has stacks of straw which have been run over by his stock during the winter, and which is of no use except for this purpose. Why not, at least, try this simple experiment? Its cost is trifling, except for the seed.

Farmers of Tippecanoe, how many of you will give the experiment a fair trial? Measure your ground, and report the result for the information of the rest of the readers of the Courier. Select two spots of ground, if you choose—one wet and the other dry—so as to meet the season. If the season should be dry, your wet ground will be more likely to succeed; if the season be wet, your dry ground will produce the best.

Several farmers and gardeners promised to try the experiment last year, but we have heard of none that did so. For your encouragement we will state that we have ourselves raised at the rate of over nine hundred bushels of potatoes to the acre, by this simple method. A big story, but true, notwithstanding. If this table vegetable should command the price of the past winter, we presume our farmer readers would be satisfied with one third of that amount, and make more money at that than by raising corn.—[Lafayette (Indiana) Courier, April 2.]

**THE LOVE OF HOME.**—It is only shallow minded pretenders who either make distinguished origin a matter of personal merit, or obscure origin a matter of personal reproach. Taunt and scoffing at the humble condition of early life, affects nobody in America but those who are foolish enough to indulge in them, and they are generally sufficiently punished by rebuke.

A man who is not ashamed of himself need not be ashamed of his early condition. It did not happen to me to be born in a log cabin, but my elder brothers and sisters were born in a log cabin, raised among the snow drifts of New Hampshire, at a period so early that when the smoke first rose from its rude chimney, and curled over the frozen hills, there was no similar evidence of a white man's habitation between it and the settlements on the rivers of Canada.—Its remains still exist: I make it an annual visit. I carry my children to it, teach them the hardships endured by the generations gone before them.

I love to dwell on the tender recollections, the kindred ties, the early affections, and the narrations and incidents which mingle with all I know of this primitive family abode.

I weep to think that none of those who inhabited it are now among the living; and if ever I fail in affectionate veneration for him who raised it, and defended it against savage violence and destruction, cherished all domestic comforts beneath its roof, and through fire and blood of seven years revolutionary war, shrunk from no toil, no sacrifice, to serve his country, and to raise his children to a condition better than his own, may my name, and the name of my posterity, be blotted forever from the memory of mankind.—[D. Webster.]

**A BEAUTIFUL THOUGHT.**—As in the light of cultivated reason you look abroad and see a wealth of beauty, a profusion of goodness in the work of Him who has sown flowers in the wilderness, and painted the bird, and enameled the insect, in the simplicity and universality of His laws, you can read this lesson. An uneducated man dreams not of the sunlight which now in its splendor floods the firmament and the landscape; he cannot comprehend how much of the loveliness of the world results from the com-

posite character of light, and from the reflecting propensities of most physical bodies.

If instead of red, yellow, and blue, which the analysis of the prism and experiments of absorption have shown to be its constituents, it had homogenous, simple white, how changed would all have been. The growing corn, the ripe harvest, the blossom and the fruit, the fresh greenness of spring, and autumn's robe of many colors, the hues of the violet, the lily and the rose, the silvery form of the rivulet, the emerald of the river and the purple of the ocean, would have been alike unknown. The rainbow would have been but a pale streak in the grey sky, and dull vapors would have canopied the sun, instead of the clouds which, in the dyes of flaming brilliancy, curtain his rising up and going down. There would have been no distinction between the blood of the children and the flush of health, the paleness of decay, the hectic of disease, and the lividness of death. There would have been an unvaried, unmeaning leaden hue where we now see the changing and expressive countenance, the tinted earth and gorgeous firmament.

### VALUE OF FARMS IN DIFFERENT STATES.

The late census shows the aggregate cash value of all the farms in the several States. Distributing this aggregate according to the white population of each State, we find the following result: New Jersey is the highest. The aggregate cash value of the farms in that State is \$120,237,511; the population is 485,555, which gives for each inhabitant \$245 60. The next of all the States is Vermont, in which the cash value of the farms is equal to \$201 for each inhabitant. Connecticut is next on the list, and nearly equal to Vermont, being \$196 41. Massachusetts is far below either Vermont or Connecticut. Her population is 994,514; the aggregate value of her farms is \$109,976,347, which is equal to only \$109 77 to each person. To be equal per inhabitant to the ratio of Vermont, Massachusetts should have an aggregate value of farms of \$199,897,314, a difference of more than \$90,000,000, and to be equal per inhabitant to Connecticut, she should have a value in farms of \$197,292,494, a difference exceeding \$88,000,000. The average in Ohio, without fractions of a dollar, is \$181 to each inhabitant, in New York \$179, in Pennsylvania \$172, in Virginia \$152. In Illinois and other Western States, although the aggregate intrinsic value is far greater, the cash value is far less.—[Ex.]

**PHYSICAL BENEFIT OF SUNDAY.**—The Sabbath is God's special present to the working man, and one of its chief objects is to prolong his life, and preserve efficient his working tone. In the vital system it acts like a compensation pond; it replenishes the spirits, the elasticity and vigor, which the last six days have drained away, and supplies the force which is to fill the six days succeeding; and in the economy of existence, it answers the same purpose as in the economy of income, is answered by a savings bank. The frugal man who puts aside a pound a day, and another pound next month, and who in a quiet way is always putting by his stated pound from time to time, when he grows old and frail, gets not only the same pounds back again, but a good many more beside. And the conscientious man who husbands one day of existence every week—who instead of allowing the Sabbath to be trampled on and torn in the hurry and scramble of life, treasures it devoutly up—and the Lord of the Sabbath keeps it for him, and length of days and a hale old age gives it back with usury.—The Saving's Bank of human existence is the weekly Sabbath.—[North British Review.]

**BLIND PEOPLE.**—Stanley, the organist, and many blind musicians, have been the best musicians of their time; and a schoolmistress in England could discover that two boys were playing in a distant corner of the room instead of studying, although a person using his eyes could not detect the slightest sound. Professor Sanderson, who was blind, could, in a few moments, tell how many persons were in a mixed company, and of each sex. A blind French lady could dance in figure dances, sew, and thread her own needle. A blind man in Derbyshire, England, has actually been a surveyor and planner of roads, his ear guiding him to the distance as accurately as the eye of others; and the late Justice Fielding, who was blind, on walking into a room for the first time, after speaking a few words, said, "This room is about twenty-two feet long, eighteen wide, and twelve high; all of which was revealed to him with accuracy through the medium of his ear.—[Dollar Newspaper.]

**DRESS.**—Butchers usually kill their victims before dressing them. Mothers frequently dress before killing them. We noticed an innocent little girl of about five years, in the street yesterday, dressed and pinched within an inch of her life. For health and comfort, she might as well have been in the embrace of a young anaconda. But then, though the pattern was scant, it was a love of a pattern, and the little creature wore a butterfly on her head, and of course it was all right, and she was a darling. How would one manage to have a game of romps, do you think, with such an anatomy of silk, lace, and ribbons? One might as well attempt to romp with a faner show-case. They have passed a law, and a very good one it is, to protect quails. We want another; a law to protect children. If they are afraid the race of quails will be destroyed, what are we to say of children? Why, there are places in this land of ours, where one can see five hundred epitomes of humanity, without seeing a single specimen of an old fashioned, red-cheeked, checked-apron child.—[Boston Advertiser.]