Scientific American

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Scientific Papers---Dr. Lardner and Newspapers.

In the "Louisville Journal" of the 12th ult., we find the leading editorial article devoted to a discussion of the "Caloric Ship Ericsson," the arguments of which are founded on incorrect information. It says:—

"We perceive that some of the scientific papers doubt the success of Mr. Ericsson's application of caloric to the propulsion of vessels. This verdict, rendered by some scientific men, might be very discouraging did we not remember that other scientific men have heretofore made sad blunders in relation to navigation. In 1835, Dr. Lardner, who was considered very competent authority on all matters appertaining to science, *demonstrated* the impracticability of crossing the Atlantic in vessels propelled by steam. There were some thick-headed fellows about Bristol, who, not having sufficient reverence for the dicta of science, profanely proceeded to build the steamship Great Western, and actually undertook to do what Lardner had proved impracticable, and actually did it. The steamer, in the face of the demonstration, crossed and re-crossed the Atlantic, thus showing that even a scientific demonstration may be prostrated by the perseverence of resolute men."

We suppose that the allusion to scientific papers was intended for us, as no paper nor magazine in our country, ostensibly devoted to science or art, but the "Scientific American," has openly committed itself—not doubting, but asserting, and giving good reasons for it, that the Hot Air Ship can never supersede the steamship. Prof. Silliman, Editor of the "American Journal of Science," in a recent lecture delivered in this city, said a few words about the Ericsson, but did not commit himself fully, he only said,—"he was not yet prepared to speak the elegy of steam, but would believe it a motive, still-existing power, and one likely to continue such for a long period yet to come."

It is perfectly easy for some men to doubt and scout the success of any new experiment; this we have not done about the "Ericsson;" we have only presented our reasons, founded on scientific knowledge and a consideration of the subject, why hot-air, as a motive agent, cannot compete with steam. Any professedly scientific man, who cannot give a reason for a favorable or unfavorable opinion, is a sham; there are too many men of this stamp among us. They stand mum, look wise on new subjects, and are always able to predict events (after they come to pass). We speak thus of ostensibly scientific, but really superficial men.

For one mistake, which a *real scientific man* makes about scientific matters, an unscientific man makes a thousand. Who, then, is most to be trusted in expressing an opinion about the merits of steam and hot-air as motive agents, the mere newspaper men, or the scientific papers? The former, according to the opinion of the "Louisville Journal," because Dr. Lardner had *demonstrated the impracticability* of Atlantic navigation. We say the latter, because many newspapers cannot even be trusted with matters of fact; they are more likely to report the false than the true, and they are not qualified to express a correct opinion respecting matters of science, or even what they see with their eyes. We will now adduce proof in support of these assertions.

Dr. Lardner never made any such statements as those attributed to him by the "Louisville Journal." The assertion that "he had demonstrated the impracticability of Atlantic steam navigation," is an untruth which has been floating about from newspaper to newspaper, and from tongue to tongue of superficial lecturers for years, to the great injury of the reputation of scientific men. We contradicted this floating untruth about Dr. Lardner more than a year ago, on page 117, Vol. 7, yet here we see it again repeated,—it still floats on, doing its mischievous work. We do not say it has been thus wilfully employed by the editor of the "Journal;" we believe far otherwise of him—he has honestly believed it to be true, because, it has been a common rumor; but Dr. Lardner believed, and so expressed himself, that ocean steam navigation was practicable from the time it was first proposed. His speech made in Bristol in 1837, on this subject, as published in the "London Times," represents him to have said,—"he considered the voyage practicable, but almost all depended on a first attempt; its failure would retard the ultimate consummation of the project." What Dr. Lardner did affirm about the success of Atlantic ocean navigation, was, "that long sea voyages by steam could not be maintained with that certainty indispensable to commercial success, without a government subsidy of a considerable amount." He was a true scientific prophet, as our government increase of subsidy to the Collins' line of steamers has shown. As truth should be the object of all discussion, if the editor of the "Louisville Journal" will examine the last edition of Lardner on the Steam Engine, pages 295–97, he will find what we state to be true.

Let us now present the reasons adduced by the "Journal" for coinciding with the general Daily Press of New York, in the opinion "the days of steam are numbered, and caloric triumphant." The "Journal" says:—

"We have taken a very lively interest in the discovery of Capt. Ericsson, and have been of those who confidently believed in its success. Our faith is founded on the descriptions given of the Ericsson by those intelligent editors of New York who accompanied her on her trial trip. These gentlemen examined the machinery of the ship and watched its operations, and how they could be deceived is what we cannot understand. There was a huge ship going against wind and tide at the rate of nine miles an hour, with a far less amount of fire than is used on steamers, propelled by an engine of great simplicity which was operated altogether by caloric. Now, how is it possible that a man of sense, with good eyesight, could be placed in a position so favorable for observing what was going on, and yet be imposed on and deluded as the New York editors must have been if the Ericsson did not accomplish as much as they described?"

These reasons are precisely the very ones that would lead us to a different conclusion. Here we see a steamship moving at the rate of 16 miles per hour (the Baltic passing the Ericsson), and a new ship, driven by hot air, moving at the rate of six or seven—not nine—knots an hour—nor with wind or tide against it, as stated; and a number of New York editors, on witnessing such a feat, when warm with wine, shout aloud, "the days of steam are numbered." Why, if we so acted in the face of hard facts and common sense, we would expect the public to be setting us down as demented.

We would be glad could we conscientiously say, "steam is now superseded by a superior and more economical motive agent,"—but we must speak that only which we believe to be true. We believe that the overlauding of new projects, by men incapable of expressing correct opinions respecting them, tends to retard the advance of science, art, and invention. Men of capital, who have been deceived by an inefficient invention once, become prejudiced against all new projects, and look upon good ones in as unfavorable a light as they do upon poor ones. It is our duty to correct wrong opinions upon such matters.

The Hot Air Ship left New York on Tuesday, the 15th ult.; it went out a short distance to sea and then returned to the Bay and anchored all night. It moved out again next day, and on Monday, the 21st ult., it was telegraphed to New York that it had arrived at Alexandria. Next day, the 22nd, it was telegraphed—by some friend no doubt—from Washington to the daily papers in New York, that after the Ericsson left New York Bay at 9 A. M., on Wednesday morning, she went, in the face of a gale, for 80 miles, the wind then changed and she turned and came back in its teeth, and then proceeded on her trip to Alexandria, and arrived at the mouth of the Potomac on Saturday morning. This was strange manœuvring, and it has a strange look about it. At any rate, from the time she left New York to go to Alexandria, it took her nearly six days. If we allow 27 hours for her anchorage in the Potomac, and one day lost at New York, she was 93 hours on her passage—the six days amount to 144 hours; her friends say she made the passage in 73 hours. Well, let us institute a comparison between what she did and what was performed by the Baltic on her passage to Washington in the month of February, last year. The Baltic steamship, Collins' line, left New York on the 26th of Feb., 1852, at 11 A. M., and arrived at Alexandria in 48 hours exactly. She anchored all night in the river below, and was detained for three hours on a sand bar, thereby losing 15 hours out of the 48, making her sailing time 33 hours. Being of much larger tonnage than the Ericsson, she had to feel her way up the river, and could easily have made the trip in 30 hours. But allowing her to have taken 33 hours and the Ericsson 73; the latter took 40 hours more to do the same thing, seven hours more than double the amount of time. If we take the whole time of the Ericsson—6 days, or 144 hours—and the Baltic, 48 hours, we have 144÷48=3, or three times longer than the Baltic. A New York clipper can beat this by a day or two at least, and not use any coals at all; and if speed cannot be obtained what is the use of being at the great expense of engines when sails can do better?

The "New York Times;" in reference to this trip, says: "It must go far towards establishing in the public mind, the success and importance of this remarkable invention." If this trip goes to establish the success of the caloric engine, upon the same principle of reasoning, if it took one week longer still to make the trip, it would be a still stronger proof of its success. What logic and what a want of common observation. Well, does this trip look as if "the days of steam were numbered?" We trow not. Proposals have been made to the United States Government to construct vessels of war to be propelled by hot-air engines; they are not adapted in form nor mode of action for war vessels.

In making the foregoing remarks we have looked facts in the face, and have not drawn our conclusions from fancy. It appears to us that if the owners of the Ericsson have such confidence in her powers and economy, they can easily set steam competition at defiance, and put the question beyond a doubt. Would it not be wiser and more common-sense and business like for them, then, to set her at once on a voyage to Liverpool or any other port, and make her pay her way, instead of being at the great expense of mugging around the New York and Chesapeake Bays for a month or two, to show her off? That this is not done, does not look well in our eyes, nor in the eyes of rational business men.

Events of the Week.

Art and Taste—The artist who can paint a good hand is fit to achieve any work requiring care, skill, and taste; while, on the other hand, it makes no matter what the kind of an imagination a painter has, though it be as gorgeous as that of Fuseli, if he cannot draw correctly, or if he does not paint carefully—that is, bestowing all his attention upon one part, such as the face, and exhibiting gross carelessness about the other parts—he is sure to fail, and can never rise to the first rank of artists. In painting a full-length portrait, many suppose that the face is the only part which should be painted true to life. It is also true that many artists can paint a face well, who cannot paint a hand or a foot. Hence it is that we often see portraits of persons that we know, with the bodies, hands, and feet of people we never saw, stuck on to them. It is more difficult, we suppose, to paint a hand and a foot than a face; or, being more familiar with the hand, every person is better qualified to exercise the office of a critic with respect to its true delineation on the canvas. Be that as it may: we never were more strongly impressed with carelessness in respect to the execution of female hands, by any artist, than those of the Empress of France, on the first page of the "Imperial Marriage Supplement of the London Illustrated News." The artist has drawn a very good figure, and a tolerable face,—but such hands, especially the left hand why it is not a hand at all, but looks like the huge paw of a Spanish wolf-dog. We hope these few words will not be lost on our artists:—be careful of every part of your pictures.

Parker's Water Wheel.—We have received a letter from J. Sloan, of Sloan's Mills, Ky., directing our attention to the error of one figure in Vol. 6, page 272, Scientific American, where an experimental wheel of Mr. Parker's of 10 inches diameter, is stated to have had "six discharging apertures of 9 square inches aggregate section." It should have been "6 inches," instead of 9. He has a copy of 186 experiments made by Mr. Parker, and he has made many himself and has found that the best effect is produced when the area of inlet is the same as that of the wheel. He asserts that the articles on Water Wheels, in Vol. 6 are valuable and recognized as standard authority, and that every error, however small, should be carefully noted. This is true: those millwrights who have proportioned their wheels, with an inlet of 10½ square inches to 9 of the discharge areas, will therefore get a better effect by narrowing the inlet area to equal those of the wheel.

Carpenters—We have received a letter from L. M. Parker, of Shrewsbury, Mass., on the subject of the condition of the "Carpenter's Trade." He served an apprenticeship at his business, learned draughting, and was indentured to learn the trade complete. He has noticed a great decline in the learning of the trade thoroughly, hence there is too great a quantity of wretched carpenter work to be seen in most of the houses erected at the present day. He attributes much of this evil to the general appetite for "cheap work, and a great deal of it" to the preference given to that made by men incapable of producing good work. Mere botches are now found to be contractors—men who can neither design nor execute, but they do their work cheap, and produce a great quantity of it. This is too true,—the general carpenter work executed in this city is exceedingly poor, and a discredit, unjustly, to the trade, which comprises many thoroughly skilled and ingenious men.

The India Rubber Case—The Decision.—The Commissioner of Patents, S. H. Hodges, gave his decision on the application for an extension of Hayward's patent, on the 23d inst. His conclusions were, that he must dismiss the application for the extension of the patent prayed for by Goodyear and Hayward, the applicant having, with a full knowledge of the value of the patent, sold it for the valuation fixed by himself, and therefore that there is no good reason, either from the ingenuity of the invention or its utility to the public, to warrant the extension of the patent for seven years farther. We cannot see what other decision the Commissioner could have made; it is strictly according to law, as noticed by us recently, on page 181, when discussing this case. The objections against the extension were made in writing and read in his hearing.

The Ether Case in the Senate.—Mr. Walker, from the Select Committee to which were referred memorials from the claimants of etherization, has reported as follows:—"that the credit and honor of the discovery belongs to one of the following-named persons, all citizens of the United States, viz., W.T. G. Morton Horace Wells, or Charles T. Jackson; but, as to the particular one to whom the discovery should be awarded, the testimony before the committee is not sufficiently clear, and they think the point should not be settled by Congress without a judicial inquiry. The committee has no hesitancy in saying that to the man who has bestowed this boon upon mankind, when he shall certainly be made known, the highest honor and reward are due compatible with the institutions of the country to bestow. The discovery is eminently meritorious, and its use by the Government of vast and incalculable value and benefit, they recommend to the favorable consideration of the Senate an amendment to the army appropriation bill, giving $100,000, when a decree of the court of the northern district of New York is obtained, showing the person entitled to be regarded as the discoverer."

This resolution has been passed, and we hope it will settle this controversy for ever, by the examination of testimony adduced by all the claimants.

The business of putting provisions in hermetically sealed cans has become an important one in Portland, Me.