

the effervescence lasts, and while the wine is filled with air-bubbles. But as the effervescence subsides, the sound becomes clearer and clearer, till at last the glass rings as usual, when the air bubbles have disappeared. By reproducing the effervescence, the sound is deadened as before. The same experiment may be made with effervescing malt liquors; and with still more effect by putting a piece of sponge, or a little wool or tow, into a tumbler of water. The cause of the result obtained by M. Chladni is, that the glass and the liquid contained, in order to give a musical tone, must vibrate regularly in unison as a system; and if any considerable part of a system is unsuceptible of regular vibration, the whole must be so. This experiment has been employed by Humboldt to illustrate and explain the phenomenon of distant sounds being more distinctly heard during the night.—*Encyclopædia Americana*.

#### NEW AND IMPORTANT INVENTION.

Among the many useful and scientific discoveries of the day, we are called upon to notice, particularly, one which is said to be of inestimable value and importance. Mr. J. C. F. Salomon of Pennsylvania, obtained a few days ago letters patent from the United States for a *Safety Steam-Boiler*, so that any degree of pressure upon it could not produce its explosion. The Philanthropist will receive the glad tidings of this invention as the dawn of a better day for the navigator and merchant, and contemplating the saving of human life and limb from destruction by the application of this ingenious invention, will hail the inventor as a public benefactor. Every scientific man who has seen the model, we are told, pronounces it unequalled in its importance. We insert an extract of a letter on the subject of the *Safety-Boiler*, written to Mr. Salomon, by one of the most scientific mechanics of our

country, and one, too, to whom the public is indebted for several valuable inventions in other branches of machinery. "Dear Sir,—I have taken the liberty of addressing you on the subject of your newly invented *Steam-Boiler*, and I assure you the more I examine the principle and mode of its construction, the more confident I am that in every sense of the word it is preferable to any I have ever seen before, and for strength and durability it cannot be surpassed. It presents a greater surface for the fire to act upon than the common cylinder boiler, the heat will act with double the advantage to what it would on a round cylinder boiler. In short, I think when this principle of yours is fairly tested, it will appear better in practice than in theory. Every man of science will give it the preference. The same weight of metal I venture to say, cannot be put in any other form to contain as many cubic feet of water, and have the same strength. It is my opinion that it will be capable of resisting almost any pressure of steam that can be conceived of."

We understand that the ingenious inventor was not permitted to take out a patent without opposition, a claim for priority of invention having been alleged in behalf of another claimant. Mr. Salomon was, however, enabled to prove an earlier period of publication, and the arbitrators, to whom the matters in question were referred, gave their award in favour of him. This circumstance is another evidence of the very great importance of the invention; for even the approval of a plan of machinery, by a man of as much science and skill as Col. Humphreys, (the other competitor,) would go far in recommending it to attention. A full test will, we are informed, soon be made of this invention, and it is boldly predicted that the *Safety Steamboat Boiler* will prove itself, if not the first, one of the first and most valuable inventions of the age.—*National Intelligencer*.