



Corrugated Plates for Ships.

MESSRS. EDITORS:—Since reading some particulars about steel-clad ships in the SCIENTIFIC AMERICAN, it has occurred to me that ships could be rendered shot-proof by using one half the thickness of steel with which the French and English ships are clad, in the following manner, viz., by corrugating or fluting the outside of the steel, or giving it an undulating surface with elevations and depressions like an old-fashioned wooden wash-board. The steel could easily be made so by heating and being crimped by a steam hammer. The philosophy of this arrangement would be simply to destroy the effect of the ball by giving it a lateral push or glancing the ball. I do believe that not one ball in ten would strike directly in the trough. Place them so as to run lengthwise on the ship near the water, so as not to prevent the speed of the ship, and have the water-line in a perpendicular position.

For example, if a person is falling from the roof of a house, give him a push at right angles with the perpendicular line of descent, and you break the force of the fall. This fact is well known to you, and probably to many. All I am after, then, is to push the ball sidewise. I should like to have the SCIENTIFIC AMERICAN talk a little on the subject. The idea may be old to you.

J. C. STODDARD.

Worcester, Mass., May 16, 1861.

[As our correspondent supposes, the idea is not new. It has been proposed by Commander Dahlgren and somewhat extensively discussed, but the subject is by no means exhausted. On the contrary, it forms one of the fairest fields for invention and experiment that is now open.—Eds.]

American-made Fire-brick.

MESSRS. EDITORS:—Reading in your issue of the 11th inst. an article on "Fire-clay Manufactures," brought to my mind that, in January last, I saw a notice in your paper of a patent issued in this country in the name of A. L. Boisson, of Lyons, France (obtained through your Agency), for an improvement in the preparation of the clay and the sand, for making a very superior quality of fire-brick, and also for a new plan of a kiln for burning all kinds of fire-clay articles. Such is the perfection of the kiln that it will save from 40 to 50 per cent in the cost of fuel.

Both of the above improvements were put into practice, last winter, at the works of Messrs. Palmer, Newton & Co., fire-brick manufacturers, Albany, N. Y., and so satisfactory were the results of the experiments that the firm purchased a right for the city of Albany.

Some of the bricks were built in the fire bridge (alternately with others) of a puddling furnace. After the furnace had been run the usual length of time, and had stopped for repair, the ordinary kind of fire-bricks were melted down, while the patent bricks were only colored, and retained their full original shape; and it was remarked by the workmen that had the fire bridge been built entirely of the patent bricks it would have lasted at least thrice as long as usual.

These bricks will be invaluable in gas works now that clay retorts are coming into general use, and as clay retorts will last from two and a half to three years without rebuilding, the furnaces must be made to endure that long. These bricks are invaluable on that account, and will supply the requirements. Gas engineers and owners of puddling furnaces will no doubt appreciate their value.

Albany, N. Y., May 15, 1861.

Patriotic Contributions.

Since our publication of the patriotic contributions to the support of the government, we have received several communications informing us of omissions. For instance, A. Homer Trego, of Lambertville, N. J., says that that town contains about 500 voters, and they have 160 volunteers now at the seat of war. All the officers and some of the privates have been presented with revolvers. All were furnished with a full supply of under-clothing, rubber blankets, vestments, &c. About \$100 per month is subscribed for the sup-

port of the families that are left. Two other companies are organized and under drill, besides the lads from 16 to 18, numbering about 30, who are under good drill. The following letters, being short, we give as a fair sample of the lot:—

MESSRS. EDITORS.—In the SCIENTIFIC AMERICAN of May 25, 1861, on page 333, you have published a list of "Patriotic Contributions," &c. In that list are some mistakes which, for history's sake, I hope you will correct.

You say—"New Jersey (State) \$1,000,000." It should be \$2,000,000, as per resolution of extra session of the Legislature just concluded.

Again—"Burlington, Vt., \$3,000." It should be \$13,000, as, to my certain knowledge, one large manufacturing company there—the Messrs. Harding—gave \$10,000.

Then, again, an omission. This city has voted \$10,000, and obtained leave of the Legislature to issue bonds to that amount. Rahway, Elizabeth, and other towns also have voted large sums.

A CONSTANT READER.

Trenton, N. J., May 16, 1861.

MESSRS. EDITORS.—I noticed in the list of "Patriotic Contributions" published in your paper, that Malden, Mass., has only contributed \$2,000. That is a mistake; a company has been formed and \$4,500 have been raised to equip them. The town has also voted \$10,000 for the support of the families of those who enlist, and if more is wanted they will raise more. I wish the town done justice, and so I pen you this note. If necessary, Malden can raise a regiment and put them into the field in a few days. I, for one, should my country need me, will go and stand by the "Stars and Stripes," as long as I live.

P. S. Malden furnished men for the Revolutionary War, and she can furnish men for this war.

LETTERS FROM THE SOUTH.

PETERSBURG, Va., May 6, 1861.

MESSRS. EDITORS:—Yours of the 27th ult., covering \$25, together with the Letters Patent of my Self-acting Railroad, was duly received, for which I must say I am obliged to you.

You say we of the Middle States are beside ourselves. For what? For contending for our constitutional rights, and quitting your corrupt, rotten and rascally government, governed by a mean, vile abolitionist, who tramples on the constitution as he does the dirt he walks upon. Yet you say you are all for the "Stars and Stripes." Well, we of the South are just as unanimous against the "Stars and Stripes" as you abolitionists are for them, and we never intend to live under your "Stars and Stripes" again. You never can conquer or subdue us. We will fight—every man, woman and child of us—as long as we live, and will teach our children, from generation to generation, to hate and fight a Yankee worse than hell and the devil. I tell you our negroes will fight you all nearly as unanimous as their masters; for they, too, know the meanest masters in the South are Yankees who have settled among us. You may think these statements not correct, but when your mean, low, mercenary soldiers invade the South you will then see what I have written you is true.

But the "Stars and Stripes" to a Yankee is every and all things. Yes, so you say; but your real object is to keep us in the future as we have been in the past—make the South hewers of wood and drawers of water to the Yankee States. That is what you want and mean by the "Stars and Stripes." When did the South ever infringe upon the rights of the North? Never, in the whole history of the government. But the North never has treated the South as her equals. We must pay cod-fishing bounties. The coasting trade must be done in Yankee ships. We must pay high protective tariffs. What are we told as to the territories? "Ah, yes, you people of the South can't emigrate to them as equals with a Yankee." And, now, what is old Abe Lincoln doing? Why, violating the constitution with perfect impunity. The constitution expressly confides the war making to Congress, and it must be against a foreign State. And "Abe" says a State can't secede. To raise and support armies is the special prerogative of Congress. No preference shall be given by any regulation of commerce or revenue to the ports of one State over that of another—so says the constitution. Yet "old Abe" blockades the ports of nine States. The constitution requires the President to take care of the public property. What did "Abe" do? What has he done at Harper's Ferry and at the Navy Yard in this State? But it is needless to say more. I could give a dozen plain violations of the constitution by that old usurper in the last two months. Yet your howling, hypocritical, fanatical set of blue-bellied abolitionists still proclaim for the "Stars and Stripes." Well, you can have the "Stars and Stripes;" WE NEVER WILL, CERTAIN. You never will subdue us; we will fight you from generation to generation, and, as Hannibal of old has done, will swear our children to hate and fight a Yankee as the greatest duty he can perform to his God and country. Yes, sir; we will teach it from the cradle to the grave as the most sacred duty in life.

Yes, I expect I am one of the earliest subscribers you had in western North Carolina to the SCIENTIFIC AMERICAN, which is more than 10 years ago, and have induced hundreds to subscribe for it, little thinking I was patronizing an abolitionist, and one who would seek the first opportunity to imbrue his hands in my blood. Well, sir, as this is the case, come on; let me know what regiment and company you are in and I will meet you in battle, and if I don't make one abolitionist bite the dust then you may have my head. You will find when you invade our soil that you Yankees will have to fight perfect devils, for you have no idea what hatred universally pervades all and every one in the South. All ages, sex, colors and races hate a damned blue-bellied Yankee worse than hell. But you think you can whip us! Well, come on; you will get hell put to you all. With all the hate, scorn and contempt man can feel, I have for a Yankee abolitionist,

J. C. WHITSON.

A short time previous to the receipt of this letter our friend Whitson congratulated us upon our success in his behalf, and even now thanks us for our fidelity in returning money due to him. We submit, however, that he is now acting in an underhand manner toward us in spite of our good offices to him.

He wants to find out where we are going to fight, so that he may have a sly pop at us, perchance, from behind a tree or stone wall. A fair and open combatant will not conceal his own fighting ground under such circumstances. We have no murderous designs on our friend. We will state, however, that all our fighting will be done in the army of the constitution and the Union—a Union formed by Washington, Jefferson, Madison, and sustained by Jackson, Clay, Polk, Webster, and a host of other national men—dead and living. We want no better government, and if enemies of our peace and happiness—violent men North and South—have worked together to impair its integrity, they have found no sympathy from us. We are content to change our government and our institutions only in a legal and peaceful manner, and regard all violations and violators as enemies of social order and stable government.

LOOK OUT! LOOK OUT!!

FOR THE SCIENTIFIC AMERICAN, published in New York, and edited by MUNN & CO. It is against the South, and Southern Mechanics and Artisans ought to drop the scurrilous sheet. Rebels, indeed! I wonder if rebels are not able to get patents as well as Black Republicans. Stop that paper, ye Southern men. may 3 34

A SUBSCRIBER FOR TEN YEARS.

MESSRS. EDITORS.—The last number of your paper, bearing date May 4, 1861, was duly received, in which I find you to have gone stark mad! I also inclose you an advertisement for which I paid \$1 (and that willingly, too), to show to those of the South the character of your paper. Your paper treats altogether on scientific subjects, and it was decidedly going out of your way to publish the articles contained in your last issue. I shall, if I am spared (although a rebel in your eyes), look out sharply for your paper amongst us, and do all I can to blast your character and reputation as unbiassed men. I also send you the rebel President's message, which I hope you will peruse (if not too insane), and come a little to your senses. That message covers the whole ground of argument, and is not to be refuted. The several States, in 1787, by each of their sovereign powers, dedicated themselves to each other and made the one Old United States, but, at the time, reserved their sovereignty to retake to themselves the control and management of their individual States provided their independent rights were infringed. Have not the Southern States, therefore, a right to do as they like with their own? Do you think you can make us remain and support your rotten government, after the bitter hate you have all shown us? No! never, if you beat us. Can you thus make us do what we do not want to do? Never!! If your free States have the power to pass their Personal Liberty Bills and Laws, we then have a right to leave such an unjust and overbearing set of men; but argument is futile in this war of fanaticism.

Respectfully,

Mobile, Ala., May 4, 1861.

P. S. You will therefore stop my paper from this time forth, for evermore. Amen.

COURTLAND, Ala., May 9, 1861.

MESSRS. EDITORS:—You will please stop my SCIENTIFIC AMERICAN. I want no communication in any shape with abolitionists. I will never patronize anyone that will sustain Lincoln and his blood-thirsty, Heaven-daring crew. I, like many others, was strong for the Union until Lincoln made known his fiendish course by calling out 75,000 men. He is getting a military power at his control that will, before twelve months, make many quail and tremble that are now almost willing to bend the knee and wipe the dust off his boots. He'll give you a standing army, to the sorrow of many a Northern heart. With due respect,

Our correspondent having failed to give us his name, we are unable to stop his paper. If, however, he wishes us to cease only on account of our supposed abolition sentiments, we shall doubtless be able to continue our intercourse with him for some time to come. It is a matter of surprise to us that many Southern people cannot tolerate a supporter of the Federal government without denouncing him as an abolitionist. Knowing this charge to be false, not only with reference to ourselves, but also in reference to our people generally, we might be content to pay no attention to it; but the charge is persistently made to influence the whole population of the South against the North in a most unworthy manner, and deserves to be rebuked. Even a New Orleans paper pronounced General Butler an African, leaving out of view the fact that he was the Breckinridge candidate for Governor of Massachusetts at the last election, and that, while in Maryland, he offered to Governor Hicks the soldiers under his command to suppress servile insurrection. It is a bad cause that must rely upon such stuff to maintain it. Our friend seems to commiserate us on the prospect of our being subjected to a military power supported by a standing army. We apprehend that, at the worst, we shall be as free as himself in this respect. Let come what may, hereafter, the United States must maintain a standing army. This Southern revolution will render it absolutely necessary. The government must have more ready machinery to protect itself against danger by land and sea.