

The French paper *la Liberte* publishes the following particulars in relation to the escape of Marshal Bazaine: "Some fresh information enables us to assign to the evasion a motive which we previously hesitated to believe. One of our correspondents writes that the prospect alone of an important command in the Spanish army decided the Marshal to quit his prison. Negotiations, more or less authorized, had been opened for nearly a month past between him and a Spanish agent calling himself the delegate of his Government. On this subject it is proper to point out, that the ex-Marshal had already been formerly several years in the service of Spain, during the war from 1831 to 1840; he made a campaign against the Carlists, in quality of Lieutenant, in the mixed legion authorized by King Louis Philippe. On his return to France after the peace, he had to abandon all the grades which he had attained; the Government refusing to recognize them because they were acquired in foreign service. Since that period the Marshal has kept up numerous relations in the Peninsula and has many friends there. The ex-Queen is the god-mother of one of his children, and he has commanded in chief for several years in an old Spanish colony. His wife is Mexican, that is to say, of Spanish extraction. He speaks and writes Castilian perfectly well, and has always avinced the warmest sympathies for Spain."

ELECTRICAL TORPEDOES.

In a letter dated New York Hotel, N. Y., 1874, Captain Hunter Davidson, late of the Confederate service, lays claim to the first successful application of electrical torpedoes or submarine mines in time of war, and as a system of defence. The substance of his letter is as follows:

The first idea of using torpedoes on the Confederate side, originated I believe with the Hon. S. R. Mallory, Secretary of the Navy, and he directed the distinguished Captain M. F. Maury, LL. D., to make experiments with a view to their general employment if practicable. I was selected as his immediate assistant. His work commenced in the spring of 1862, and continued for a few months only with electrical torpedoes. He had arrived at no definite conclusion from his experiments, in any particular when he left the Confederacy for Europe, and I was ordered to take charge, subject to orders from the Navy Department only, and remained so until near the closing scenes of the war, when I was relieved in command by Captain J. Pembroke Jones.

The means used in my electrical torpedo defences differed in every essential particular from those used by Captain Maury in his experiments. The peculiar construction of the Mines, the methods of fixing them in position and connecting them with the cables and batteries; the determination of the quantities of powder to use at different depths and the effective areas, the batteries used for firing, and also for testing the mines, as well as the organization and equipment of the stations from which the mines were controlled, all formed a complete system devised by myself. The results of this system were that the first vessels ever injured or destroyed in war, by electrical torpedoes, were by the Torpedo department operating under my immediate command, and I may add the only ones, that I am aware of.

Those who are not well acquainted with history of our civil war will find ample proof

of my statements on file in the Navy Department at Washington, and also by reference to Admirals Porter and S. P. Lee, and Commander W. B. Cushing, U. S. Navy, for the fact that an efficient system of torpedo defences did exist on the James River during the war, and to the Hon. S. R. Mallory; Captain J. M. Brooke, inventor of the Merrimac, the Brooke Gun, and the deep sea sounding apparatus; and also to Captain Wm. H. Parker, formerly Superintendent of the Confederate Naval School, that organized and commanded these defences, and was the first to make them successful. There are volumes of evidence to this effect that can be produced when necessary.

I hold letters from the three last named gentlemen, and from the late General R. E. Lee in reference to the efficiency of my Torpedo Department - also a letter from the Hon. S. R. Mallory in which he says "I regarded your service as equivalent to that of a well appointed fleet or army," and this had reference only to the defence of Richmond. In fact when the system was nearly completed and inspected in person by President Davis, General Lee, and Secretary Mallory, it was immediately decided to withdraw large numbers of troops from that quarter for offensive operations elsewhere, it being well understood that the Union armies could not advance without the assistance of the Federal Squadron, which advance was for a long time effectually prevented by my system of Submarine defences. Many vessels were disabled or destroyed by mechanical or contact torpedoes, but such effect is known to be the result of mere chance, often as fatal to friend as foe, and produces no such demoralizing effect as the certain destruction which awaits any vessel attempting to pass electrical torpedoes.

In regard to the efficiency of the torpedo defences employed by me during the war, as compared with those of the present day, I have to say that I have been almost constantly on torpedo duty ashore and fleet since our war making the subject a study in several foreign countries and our own, and have not yet seen any material improvement or development of the original system and if we were at war with any great naval power tomorrow I should prefer to rely upon it when the hour of trial came. There are several beautiful and ingenious methods devised by those who hate to lose practice in war, but my experience will not permit me to give them approval.

Now if we are to consider practical success as the test of an invention, have I not a right to this? Am I not as much entitled to it as Morse to the telegraph? Howe to the Sewing Machine? Colt to the Revolver? And as many other men to their inventions whose success did not carry with it the original conception of the necessity for the invention, nor the first attempts to carry out the idea, nor in whose inventions as patented is there one original scientific principle? It is the effect produced by all in combination, and this is the basis of ninety nine out of a hundred patents. And the first successful attempt to achieve an important physical object by original principles or art in combining those which are known, is the only test by which we can be governed in awarding a patent entitling one to an invention. Is not where shall we draw the line of distinction? How shall we proceed with a patent office?

In the year 1860, Congress adopted by an almost unanimous vote my invention for "lowering, detaching, attaching, and securing boats at sea," and directed the Secret-

tary of the Navy to purchase the patent right for the use of the Navy, which was done. The marine world had probably seen the necessity for such an invention since the days of Noah, and there is not one original mechanical principle in it. It is simply a combination. The invention was several years before the country in scientific journals; was carefully examined and tested at sea in several ships by some of the best officers in the Navy and discussed during two sessions in Congress, yet I have never known any one to dispute my claim thereto.

The efficiency of electrical torpedo defences is so universally recognized at this day, and they appear so simple to the initiated, that many of the "I know it" kind may exclaim, "why I don't see any invention in the matter, for it has been long known that if a chance was got at a slip with so much powder under her, she was bound to go up." But then if so simple why did not Fulton or Bushnell in the early history of our country, or the Russians during the Crimean war stamp the fact upon the times, so as to render it, as it is now a system of defense that no nation dares neglect. And how did it become so? I trust to history for the answer.

If any one had to contend with the abuse and sneers, and ridicule whilst in the performance of torpedo duty day and night, that fell upon me during the war, he would realize that at late as the summer of 1863 some of the ablest men of the day, did not regard torpedo warfare as worthy of consideration; and the very attempts of Fulton and of Bushnell, and of the Russians were used by those men in argument that my attempt also would be fruitless. Much of the light has to struggle through mediums of darkness and resistance, and gradually breaks in upon us. Our theories rarely assume a practical form, but as in many other circumstances so in naval and military matters we are controlled by theory (we rely every association having one of its own) until the test, the practice comes, and then in war we see how the mist vanishes and light appears! Some have made the lucky cast and win.

Can any one think of a war that did not cause him to wonder at his own want of forethought? How weapons and methods are changed! How rank is cup-sized! How he came out of the struggle other roads higher on the ladders of science and art!

And every discovery of a new or improved weapon proves to be a step towards greater civilization and peace.

Appropos of the foregoing, I remember that a distinguished Admiral sent word to me when under a flag of truce during the war, that if I came down to his squadron again in a certain boat, (in which I had made the first successful attack with the "Leo Spar-Torpedo") he would not respect the flag, as he did not acknowledge that I was engaged in civilized or legitimate warfare. This glanced from my armor as many a worse shot did from my own side though for other reasons, for I felt that as he was the only sufferer then, he saw the matter from but one point of view, but that time would set it even as I replied in substance to the effect, - "respicite finem" - I mean indeed war is not far off, for the official reports of the day were that the Admiral took up my torpedo mines as the territory was conquered, and turned them against us; and certain it is that his squadron was soon after armed with the "Leo Spar-Torpedo."