

ual dexterity that the most eminent mechanics have succeeded; and those who aim at renown but despise the road thereto will do well to remember this fact.

THE IRON-CLADS AT FORT SUMTER.

Now that the smoke of battle has cleared away, and the fearful cannonading at Fort Sumter, which so annoyed the twittering reporters has ceased, we may review the event dispassionately and with reason; at least, in so far as it concerns the offensive and defensive powers of the *Monitors*. The daily press, through its accredited representatives, made great haste to assure the public that their favorite batteries, those in which (not unwisely) they placed the greatest confidence, were altogether unsuitable and, in fact, were not available against heavy artillery. At the time we were compelled, against our judgment, in view of the overwhelming representations of these self-constituted authorities, to accept as a fact that we were beaten in the contest and compelled to retire from the fort by sheer force alone. Even at the time of the action, and in days supervening, that portion of the press of the country who criticized the conduct of the attack were immediately frowned down, and, to say the least, sent to "Coventry" by other papers, whose interests or opinions led them to sustain the part our commanders took on that occasion. We were treated with graphic accounts of the effects of the rebel shot on the *Monitors'* turrets, and it was asserted that the most destructive shot that was fired on the occasion struck the *Passaic's* turret near the top, and after scooping out an immense portion of it, broke all the eleven plates and spent its force on the pilot-house, which it very nearly demolished. This is the spirit, if not the exact letter, of the accounts furnished. Now, we have examined the turret of the *Passaic* since her arrival here for repairs, and with all due respect for the reporter's rhetoric and his sensorial paragraph, we must say that it is *bosh*. The shot *did* strike the turret, *did* scoop out a portion (which might weigh 25 pounds), and *did* strike the pilot-house with great force, besides breaking the turret plates in its passage. But what of all this? When iron meets iron (as when Greek meets Greek) then comes the tug of war, and it is not to be supposed that a shot moving at the rate of say 1,500 feet per second will strike an iron structure in its weakest part and not damage it.

The simple facts of this loudly-trumpeted performance of the rebels are that the shot which struck the *Passaic* did not endanger her safety in the least; for all the effect they had on her externally she might have been fighting away till this hour and, in reality, have been none the worse for it. We have examined the shot-marks on the *Passaic*, said to be sixty-eight in all, though we did not count them, and find an accurate representation of the Whitworth shot impressed in the turret in many places. If these much-boasted projectiles are not able to do any greater damage than they did, we may safely defy all the English iron-clads and their armaments. The Whitworth shot or *fac-similes* of them, in a majority of cases struck sideways; they reached the turret in all possible positions and show very poor shooting on the part of the rebels. There were several bolts driven in on the turret which injured the persons within; but the majority of the indentations and scars could be covered by and filled with a common tea-saucer. These are, simply, the "terrible" effects of the rebel shot. Now what person possessing ordinary judgment and at all conversant with the properties of iron, could conscientiously report that the *Monitors* were unable to cope with artillery? For our own part we assert that the favorable opinions hitherto expressed in regard to those vessels have been greatly strengthened, and we do not hesitate to say that, with the present artillery, they can successfully defy any fort or any iron-clad afloat; so far as the impregnability of their armor is involved we would not hesitate an instant to confide our personal safety to the thickness of their walls. We have no desire to disparage any official in connection with this subject, but so far as the *Monitors* being disabled (except temporarily) in the late attack is concerned, we must avow our utter skepticism. The *Passaic* is the only iron-clad sent North; *ergo* the *Passaic* must be the one most injured. What injuries are those that merely indent iron plates, and what terrible shot those must be which strike and

leave no sign internally to tell the story of their spent force and impotent rage! We think a much better sensational report could have been made on the occasion by writing the facts: How the minions of the rebel Government did their utmost to demolish the *Monitors* and how signally they failed; how, backed and aided by English capital and skill, they hurled their powerful projectiles against the impenetrable iron-clads and were worsted in the encounter; how grandly those little vessels withstood the enemy's fury; and how, saving one poor little eggshell craft, they bore unflinchingly the most furious cannonading that was ever known, in the shortest space of time. These features would have been worth commenting upon, and were we in the rebels' situation we should prefer a naval assault to take any shape but that proceeding from a fleet of those vessels. Properly handled and armed they can defy any ship now floating; and improvements are being made which will render their utility past all doubt.

We have considered in this light merely the question of the impregnability of the *Monitors*—supposed to be the first requisite of a modern war-vessel; that they have other objectionable features we do not deny, but taking them as representatives of fighting machines—the greatest offensive power in the very smallest compass—they cannot be excelled, and the nation does well to estimate them among its staunchest defenses.

It is singular, in viewing the effects of the shot on the *Passaic's* turret, to note that they exhibit none of the characteristics of a plunging fire. The shot that "scooped out a tremendous portion" of the top of the *Passaic's* turret struck the pilot-house at nearly the same height, showing that it must have been fired at point-blank range, or nearly so. So also those that struck the base of the turret—no marks are visible on the deck which would lead the observer to suppose that the missiles were fired from such an elevation as the barrette of Fort Sumter; and we conjecture that the batteries on Morris Island and Battery Bee must have taken a hand in the engagement, although we think it is stated in the reports that those batteries were silent. We hope, when the *Monitors* attack Charleston again, they will go there with the intention of doing their duty, and not come back with school-boy tales of monstrous torpedoes. The sluggard will not plow by reason of the cold; and the fool saith "There is a lion in the streets, I shall be slain without!"

The Income Tax.

We copy the following explanation of the income-tax law from the *Legal and Insurance Reporter*; the whole matter is very simply explained, and will be found useful to many of our readers:—

"Every person must make a return of the receipts of his business, or of his property of every description. Guardians, trustees and administrators must do the same in their character as fiduciary agents. The assessors decide what deductions the law allows, but assessments are submitted to examination, and appeals may be made. If persons refuse to make a statement of their income, or the statement is not deemed to be true, a list will be made on the best information the assessors can obtain, subject to the oath or affirmation of the persons assessed, as prescribed by the law. Mechanics, manufacturers and merchants will return the whole amounts of the avails or revenue of their business, and a statement of the expenses of the same for labor, material, &c. Co partners will return their share or interest in the co-partnership income; corporators, the amount of profits, whether in the form of dividends or otherwise. Salaried men will return the full amount of the salaries received. A return must be made of the income or dividends derived from stock in any bank, insurance company, savings institution, trust company, railroad, railroad bonds, steamboat, ferryboat, or bridge, between January 1, 1862, and August 31, 1862, inclusive. The net gains or profits of manufacturers must be returned. All income received from bonds, mortgages, notes, stock in gas companies or manufacturing companies, during the whole of the year 1862, is to be returned and taxed. The deductions made from the aggregate income of any person, are \$600 in the first place; State and local taxes of the calendar year, January 1, 1862, to De-

cember 31; interest, dividends, &c., of stock in banks and other moneyed corporations, from which the statute tax of three per cent. has already been deducted or retained, *i. e.* since August 31, 1862. Receipts derived from advertisements on which a duty shall already have been paid; the rent actually paid for rent of a dwelling-house or estate, the residence of persons assessed. The value of rent of house occupied by owner is not deducted. The amount of hired labor, and value of the board of such labor. Persons receiving rent are entitled to deduct the cost of repairs, insurance and interest on incumbrance upon rented property. The cost of extraordinary repairs, new structures, &c., will in no case be deducted."

DEATH OF BENJAMIN PIKE, SEN.

One of our old and much respected citizen mechanics has lately gone "where the weary are at rest." Benjamin Pike, Sen., the well-known philosophical instrument-maker, died at his residence in this city on the 2d inst., at the advanced age of eighty-six years. Since his decease we have gleaned some interesting facts respecting his life and character. Mr. Pike was born in London in 1777, and came to this country in 1798, at the age of 21 years. In 1805, he established himself in business, in this city, as an optician and manufacturer of mathematical and philosophical instruments, and he soon became widely known for his mechanical skill. He was an enthusiast in his profession and gave it his undivided time and attention. His ambition was to serve the public with instruments equal to the increasing demands of science. He was a careful and diligent student; and after the labors of the day had ended he thoroughly informed himself of the researches and advance of natural philosophy. For half a century his store was the headquarters of scientific men, and he was the companion of Fulton, Eckford and others whose genius has done credit to our country. He manufactured models and instruments for them, and he was really the great pioneer manufacturer of philosophical instruments in America. Several years since he purchased a farm, a short distance from the city, which afforded him much quiet pleasure in his declining years, but to the last he manifested a deep interest in all things connected with skillful and ingenious mechanism. In manner he was unobtrusive and retiring, a man of few words but large ideas, and a consistent Christian.

Assistant War-Secretary Watson.

"The Assistant Secretary of War, Peter H. Watson, went to the State of New York to-day, to find in the quiet of a Delaware county farm, the health and strength which he has so prodigally wasted in the service of the Government. When the history of the gigantic struggle to save the great republic is written, mention will be made of those men who, noiselessly and in the recesses of departmental bureaus, have, with complete conscientiousness, great intelligence and that rare courage which dares pursue a line of duty through obloquy and opposition, organized armies, created navies, guarded the Treasury, purified administration and repressed domestic treason. Among these none will have a more honorable or enduring fame than the Assistant War-Secretary, Watson."

[We copy the above from a special dispatch of the *New York Times*, and can heartily endorse these deserved words of commendation. Mr. Watson is one of the most laborious and faithful men in the service of the Government.—Eds.]

FAST NAVAL STEAMERS.—Two fast steamers are to be built at once for the Government; capable of overhauling any foreign ship now afloat. Mr. Delano, the naval constructor at this port, and Mr. Henry Steers of Greenpoint, are to furnish each a model, while Mr. E. N. Dickerson is to design the engines. The vessels will be about 300 feet in length and 8,000 tons burthen.

It is stated that an Irish girl, an operative in Smith's paper mill, Lee, Mass., recently found five genuine \$1,000 Treasury notes in the paper rags, and another girl in another mill, in another lot of rags, found a gold chain valued at \$60.

PHILADELPHIA receives \$400,000 per annum for water rents.