

England on American Artillery at Fort Sumter.

The following is from the *Army and Navy Gazette* (London):—"It may be concluded as certain that the guns used by Gillmore were Parrott's rifled ordnance. Their work has been effectually done. Had such guns been available in the trenches before Sebastopol, the Allies would have made short work, not only of the Redan and Malakoff, and *bastion du mâle*, but of the shipping and of the forts at the other side of the harbor. It must not be supposed that Sumter was a flimsy, gingerbread fort. It was constructed of a peculiar kind of hard, close brick, six and seven feet thick; the arches of the casemates and the supporting pillars were of 8 and 9 feet in thickness. The faces presented to the breaching batteries must have subtended at 3,500 yards, an exceedingly small angle, and the elevation of the fort was low. But so great was the accuracy of the fire that a vast proportion of the shots struck it; so great the penetration, that the brickwork was perforated 'like a rotten cheese,' so low the trajectory, that the shot, instead of plunging into, passed through the fort, and made clean breaches through both walls. Now, the guns that did this work cost, we believe, just one-fourth of our ordnance, cwt. for cwt.; they are light and very easily handled. The gun itself is finely rifled, with grooves varying from four and five in number for small calibers, to six and seven for the larger; but, as Mr. Parrott is still 'experimenting,' no settled plan has been arrived at, and all we know is that the pitch is not so sharp as is the case in our rifled guns. The projectile is like the conical Armstrong, and has a leaden sabot and coating—at least it is coated and based with some soft metal.

"In this journal the attention of the Government authorities has been called again and again to the Parrott and Dahlgren guns. The Americans have constructed cannon of calibers which to us are known only as of theoretical and probable attainment, and they have armed batteries hundreds of miles from their arsenals, with the most powerful guns ever used in war, which have been carried by sea and in stormy waters to the enemy's shores. Before such projectiles as these guns carry, the breaching of masonry, whether of brick or stone, is a question of short time. And, in face of these facts, we are obliged to record that our scientific officers are of opinion that our 'best gun for breaching purposes is the old 68-pounder!' Why, we know what that can do! We know that at 3,500 yards its fire would be about as effectual as that of Mons Meg. These trials at 200 yards are perfectly fatuous, if no other results than these, or such as these, be gained by them. It is of no use saying Sumter was of brick; it was at least as good a work as most of our existing fortifications, and infinitely less easy 'to splinter up' than a work of granite or rubble masonry. In substance it resembled very much our martello towers on the beach at Hythe. Have we any gun which could breach one of these at 3,500 yards? . . . The authorities have had no experience of the effect of such shot as the Dahlgrens propel. They have not got the guns to discharge them. When next the ordnance officers and gentlemen meet, let them apply their minds to the little experiments the Americans have been making for their benefit at Sumter. It is astounding to see what progress has been made in artillery since the Crimean war."

MISCELLANEOUS SUMMARY.

THE WAY TO CARRY PETROLEUM OIL.—The tanked ship lately arrived in the Mersey from Philadelphia, with a cargo of crude petroleum oil, in bulk, belonging to the Liverpool and Ramsey Oil Refining and Chemical Works Company. This is the first iron-tanked vessel with petroleum oil that has arrived in Liverpool. The *Jane* was specially constructed for conveying oil from America to the company's works at Ramsey, where it is discharged into hermetically sealed floating tanks which are moored in the river, thus preventing the smell and waste from leakage so much complained of. The vessel made the passage in 24 days.

It is stated, on the best authority, that out of two millions of dollars of postal currency that have been canceled and burned, not two hundred were counterfeit. The imitations are poor, and easily detected.

BEWARE OF REDUCED GAS LIGHTS.—In the Fire Marshall's Report for this city, he says:—"Many persons have a habit of lowering the gas light in their bedrooms to a faint jet at night. This, to say nothing of its pernicious influence upon the health, may be productive of serious accidents. When the gas is reduced so low, a very slight cause—the buzzing of a fly even—will serve to put it out, and the sleeper is left to inhale a poisoned atmosphere, or to incur the risk of an explosion should any one chance to enter the room with a light. Where gas lights are thus lowered, a glass should always be used as a protection to them. Many fires have occurred in consequence of the dim light, not noticed after sunrise, on the window being opened by the occupant or servant; the curtain is blown against the burner and a fire ensues."

TELEGRAPHIC BLUNDERS.—The following specimens of the degree of intelligence exercised by the Submarine Telegraph Company is taken from the columns of a London paper:—"36, Cannon street, Sept. 7. Sir,—We enclose a telegram just received, *via* Suez, from our Sydney firm, Messrs. Willis, Merry and Co., which is quite unintelligible to us, excepting the words 'yourselves sold.' This we certainly are, as we pay to the Submarine Telegraph Company £3 for such information, which comes to us monthly in this mutilated form. We are, Sir, your obedient servants, W. L. Merry and Co. Telegram:—"Market unaltered decline probable market very active limit land ten Mansfield one Spence two yourselves sold hundred.'" Monument-yard, Sept. 8.

THE AIR-BLADDER OF FISHES.—The use of the air-bladder of fishes still puzzles the *savant*. M. Moreau has informed the Academy of France that, by his experiments, it must be considered as an oxygen reservoir, filled for the sustenance of the life of the fish. Perch, when put in a situation in which they were unable to renew the oxygen of the air-bladder, were asphyxiated. The quantity of oxygen in the air-bladder diminished proportionably with the duration of the experiment; and when it arrived at zero, the fish died.

REMARKABLE OCCURENCE.—A negro cook in one of the regiments on Morris Island lately conceived the idea of making sinkers for fish lines out of the lead around Parrott shot. To this end he placed a shell in a stove and sat down, ladle in hand, to catch the molten lead as it fell. Just about the time the lead should have fused, the stove separated into very minute fragments, and the last seen of the smelter was a series of involuntary gymnastics creditable to his agility but unpleasant from their abruptness.

THE Camden (N. J.) Journal, states that a large woolen manufactory is now being erected on Cooper's Creek, near that place. It will be the most extensive in New Jersey, as more than a million of dollars are to be invested in the buildings, machinery, and stock. It is to be only two stories high, but will cover an extensive area, and give employment to about 300 persons.

TO DESTROY INFECTIOUS AIR.—At a late meeting of the British Scientific Association at Newcastle, Dr. Richardson said the best way to destroy organic poison in rooms was to place iodine in a small box with a perforated lid. During the epidemic of the small-pox in London, he had seen this used with great benefit. Dr. Murray Thomson said charcoal was now used in the hospitals in India with beneficial effect. It was hung up in bags from the rafters.

About 300 men are now engaged in gold mining on the Chaudiere river, near Quebec, C. E. The gold found there is in the form of small pellets, and is very pure; but the searching for it is tantalizing. Some men will labor for days without obtaining a single grain, while others will make about \$50 per day.

The extensive establishment of John A. Roebling, for the manufacture of wire rope, Trenton, N. J., is driven to its utmost capacity. Mr. Roebling is now constructing an extensive bridge over the Ohio river, Cincinnati, which will cost about \$1,500,000.

THE Newark (N. J.) Advertiser states that business is very lively in that city at present. Hat manufacturers especially are unable to complete their orders as fast as is desired.

Mechanical and other Items of the War.

A large Martin boiler, intended for the United States gunboat *Sunapee*, burst in the Washington Iron Works, at Newburg, N. Y., where it was being tested. Several persons were fatally scalded, and the buildings were demolished. This is the first case on record, we think, of this sort of boiler exploding. The loss, amounting to \$25,000, falls on the company.

The Burnside Rifle Factory, at Providence, R. I., had not fairly got in operation when the war commenced; its resources were at once turned to supplying the Government, and within the past year it has been enlarged to nearly double its former capacity. It now gives employment to 540 hands, and turns out 100 finished rifles per day. The ammunition is also furnished in a metallic cartridge ready for use.

Mr. C. W. Whitney, the designer and builder of the *Keokuk*, associated with Messrs. Johnson & Higgins, has entered into a contract with the Government to raise the above vessel, now lying sunk off Morris Island. The work is to be prosecuted at once.

Work on the iron-clad battery *Tecumseh* is being pushed forward very rapidly. The turret is now being placed upon the vessel, and she is expected to be entirely completed, ready for service, in a few weeks.

The first vessel built on this Continent, says the *Historical Magazine*, was the *Virginia*, of Sagadoc, which made her first voyage in 1608, to Europe.

The Army of the Potomac used no less than 20,000 tons of lead in bullets during 1862.

NEW YORK MARKETS.

Bread.—Pilot, navy, and crackers, 4c. to 8c. per lb.
Candles.—Adamantine, sperm, and stearic, 19c. to 45c. per lb.
Coal.—Anthracite, nut, and egg size, \$7 50 to \$8 50 per 2,000 lbs.
Coffee.—St. Domingo and Java, 19c. to 38c. per lb.
Copper.—Sheathing and ingot, 30c. to 32c. per lb.
Cordage.—Manilla, American, and Russian, 15c. to 20c. per lb.
Cotton.—Ordinary, Middling fair, 74c. to 88c. per lb.
Domestic Goods.—Sheetings, 21c. to 36c. per yard; drills, 16c. to 40c.; shirtings, 23c. to 28½c.; stripes, 26c. to 47½c.; ticks, 25c. to 65c.; prints, 20c. to 23c.; ginghams, 21c. to 26c.; cotton flannels, 25c. to 40c.; cassimeres, \$1 25 to \$2 50; woolen flannels, 40c. to 60c.; satinetts, 50c. to 80c.; woolen cloth, \$1 25 to \$1 10; duck, American, \$1.
Flax.—From 16c. to 18c. per lb.
Flour and Meal. \$5 to \$9 50 per barrel; rye, \$5 to \$5 50; corn, \$4 40 to \$5.
Grain.—Wheat, \$1 13 to \$1 75 per bushel; oats, 65c. to 73c.; corn, 88c. to 93c.
Gunpowder.—Blasting and rifle, 16c. to 28c. per lb.
Hemp.—American, \$1 80 to \$2 70 per tun.
Hops. 25c. to 27c. per lb.
Iron.—Scotch pig, \$40 to \$42 50 per tun; American, \$38; Bar-Swedens, \$125; English, \$72 50 to \$87 50; Sheet—Russia, 17c. to 18c. per lb.; English, 5½c. to 7c.
Lead.—English, \$8 40 per 100 lbs.; pipe and sheet, 11c. per lb.
Leather.—Oak-tanned sole-leather, 38c. to 45c. per lb.; sole hemlock 26c. to 31½c. per lb.
Lumber.—Spruce board, \$15 to \$19 per 1,000 feet; white oak plank, \$35 to \$40; white oak staves, \$50 to \$135.
Molasses.—From 45c. to 62½c. per gallon.
Naval Stores.—Turpentine spirits, \$2 75 to \$2 80 per gallon; rosin, \$37 to \$41 per barrel of 280 lbs.
Oils.—Linseed, \$1 35 per gallon; sperm, \$1 47 to \$1 70; crude petroleum, 34c. to 36c.; refined petroleum, 55c. to 65c.
Spelter. 8½c. per lb.
Steel.—English, 20c. to 29c. per lb.; English spring, 8c. to 15c.; American spring, 6c. to 7c.; German, 10c. to 17c.; English blister, 12c. to 21c.; American blister, 5½c. to 6½c.
Sugar.—Brown, 11c. to 15c. per lb.; white, 15½c. to 16½c.
Tea.—From 48c. to \$1 40 per lb.—20 cents duty.
Tin.—Banca, 52c. per lb.; English, 44½c.; plates, \$8 to \$13 per box.
Tobacco.—Connecticut fillers and wrappers, 20c. to 45c. per lb.; Ohio fillers and wrappers, 15c. to 30c.; Cuba fillers and wrappers, 90c. to \$2.
Wool.—American Saxony fleece, 70c. to 72c. per lb.; Merino, 67c. to 69c.; California (unwashed), 25c. to 50c.
 The trade sales of books which have just closed in New York, have been the most extensive that have taken place for a number of years. The book trade never has been better than during the present fall. All the book printing and binding establishments are working overtime. The demand for spruce and pine lumber is good; while the supply is very limited. The prices of sugar are very high, and the report is prevalent that this is not owing to any scarcity of supply, but the demands of large speculating holders, who control the market. American pig-iron is scarce, and No. 1 brands rule at from \$37 to \$38 per tun. Cotton has not been so high in price for fifty years, and it is gradually advancing with increased activity in the Manchester manufactories. The price of cotton goods advanced last week about 2 cents per yard. Domestic silk manufactures are being rapidly developed; the tariff on foreign goods favoring their production. We heard recently that several new silk factories will soon go into operation in the vicinity of New York. Silk in pieces is now made at Cohoes, N. Y., but not on such a scale as at Hartford, Conn.