

NOTES ON MILITARY AND NAVAL AFFAIRS

AFFAIRS IN MISSOURI.

There seems to be a head to military affairs in Missouri which is both wise and energetic. Major-General Halleck is evidently a man of great capacity, and thoroughly comprehends the work he has to do. He does not recognize the doctrine that the enemy is to be handled with velvet mittens, but believes in smiting him "hip and thigh," as Joshua did the Amorites. He has determined not only to shoot the bridge burners, but he is bringing the unarmed secessionists up to the ring. He has recently issued orders requiring the president, directors and all responsible employees of the various railroads in the State to come forward and take the oath of allegiance; also the president and professors of the State University, which was endowed by the United States to do the same. General Halleck intimates that he cannot allow treason to be taught in a University thus endowed. There was a recent split in the Chamber of Commerce in St. Louis, growing out of a hostile feeling between different members on the Union question. The Union members withdrew and formed a new chamber, leaving the secessionists to conduct their own chamber to suit themselves. Gen. Halleck, however, has notified the secession members that they will not be allowed to serve unless they take the oath of allegiance. He has also insisted upon the same conditions in respect to the directors and librarian of the Mercantile Library. General Halleck recently made a levy upon prominent secessionists to aid in supporting Union refugees who were driven from their homes by the rebel marauders. In one case, a man by the name of Engler sought, through his attorney, by writ of replevin, to recover his goods. General Halleck seized Engler and his attorney and shut them up, as a warning to all who would undertake to thwart his authority. He has now asked and obtained permission from the Government to expel from the city during the war some few hundred of the noisiest secessionist who have made him a great deal of trouble. It is reported that his operations thus far have been attended with the happiest results. The peace, prosperity and happiness of Missouri are all bound up in the Union.

AFFAIRS AT THE SOUTH.

A solemn wail comes up from Cobb, Tombs and Crawford in an address to the people of Georgia. They say "our enemy has exhibited an energy, a perseverance and an amount of resources which we had hardly expected. . . . An immense army has been organized for our destruction, which is being disciplined to the unthinking stolidity of regulars. With the exclusive possession of the sea, our enemy is enabled to throw upon the shores of every State the nucleus of an army. And the threat is made, and doubtless the attempt will follow in early spring, to crush us with a giant's grasp by a simultaneous movement along our entire borders. . . . With whatever alacrity our people may rush to arms, and with whatever energy our government may use its resources, we cannot expect to cope with our enemy either in numbers, equipments, or munitions of war. To provide against these odds, we must look to desperate courage, unflinching daring and universal self-sacrifice." Cobb no doubt remembers his operations in the Treasury, Floyd in the War and Thompson in the Interior Departments, and wonders at the resources and energy of the people. These patriots then proceed to advise that the women and children be supplied with firebrands "to burn the loved homes of our youth that the fields of our heritage may be made desolate." And this is the entertainment which Cobb, Toombs and their conferees have prepared for the people of Georgia, who were a year ago prosperous and great under the blessings of our Union.

Cannon are being manufactured at the Phoenix Iron Works, New Orleans, but the process is slow and the quality inferior. The testing is imperfectly done, and serious consequences will take place when they come to be used in actual service. F. W. C. Cooke is manufacturing muskets and pistols at his machine shops, but the quantity turned out weekly is small and the quality inferior. The prices of arms are very high, and the stocks held by dealers are entirely exhausted. The greatest security of metals of all kinds prevails, and the quality of iron used for cannon brings almost fabulous prices. They are dependent for iron on Tennessee, and the supply is not near by equal to the demand. A small quantity of lead had been brought

from Mexico through Texas, and old pipe is being melted to supply bullets. Copper is exceedingly scarce and high. In some shells used by the batteries at Columbus, and which were manufactured at New Orleans, the fuses were made of lead. The firing caused the melting of the fuses before leaving the gun, and a number were wounded while standing around. Since then orders came to make the fuses of copper. Powder brings from \$2 to \$3 per pound, and is of miserably quality at that.

The greatest secrecy is observed in all the military operations of the Confederates, and strangers are excluded at the point of the bayonet from the ship-yards and fortifications. The newspapers are not allowed to publish anything in reference to them. The newspapers are short of paper, and they make their appearance on half sheets of brown paper, and many are suspended.

EXPENSES OF THE WAR.

The greatest secrecy prevails with regard to the operations of the Confederate Treasury, no report ever being made or even asked for. The only limit to the issues of its promises to pay is the capacity to print and sign them. Notwithstanding this unlimited scope of issue the Government owes large sums to contractors and others engaged in operations with it. Loud complaints are constantly being made of this, several millions being owed in New Orleans. Our informant, after a careful calculation on data obtained from the best sources, is convinced that the daily expenses of the war to the Confederate States, owing to the inflation of prices, and the corruptions of the government, is at the rate of over two millions of dollars a day, or fully equal to ours, while their entire army is not half of ours, and a navy they only have on paper and on the stocks.

AFFAIRS AT THE NORTH.

A flag of truce came in from Manassas to Washington on the 3d inst. It is said to cover a message from Jefferson Davis to President Lincoln, announcing that if the Federal government permit the rebel bridge burners in Missouri to be hung, under the order of General Halleck, that the Federal prisoners—Colonels Corcoran, Lee, Wilcox and others, held as hostages for the safety of the pirates—shall be immediately hung in retaliation.

By the steamship *Nova Scotia*, which arrived on the 5th inst., we have news that the *London Times*, opposes England's interference in American affairs.

MANUFACTURE OF ARMS.

There are now employed in the United States Armory, at Springfield, Mass., 1,400 men. The number of guns fabricated during the last month was 10,500—the largest number ever made in one month. The whole number turned out from June 30, 1861, to Jan. 31, 1862, was 44,072. These guns were issued as soon as finished, and are now, most of them, in the hands of soldiers. The iron used in this armory for barrels was for several years imported from England, but the scalps are now made at Worcester, from ore dug in New York, on the line of the Western Railroad. Beside developing and encouraging home resources and industry, the American iron is found to be as good as the English. A new department, in charge of Capt. Balch, an ordnance officer, has been established at the Armory, called the New England Department for Carriage Contracts. Here are stored battery wagons, forges, saddle trees, and all the numerous tools and accoutrements connected with a battery. This department has contracted within the last five months for 150 battery wagons, 150 forges, 1,000 carriages, 4,000 sets of harness, and 60,000 accoutrements. The forges and batteries are manufactured at Concord, Worcester, New Haven and Troy, and sent to Springfield to be packed with tools and spare parts to keep the batteries in order.

ERICSSON'S IRON-CLAD BATTERY.

Our readers will remember that we gave a full description of this battery on page 331 of our last volume; it was the first published account. She is now launched and rapidly preparing for sea, and Captain Ericsson says she will soon be placed under Confederate fire. He expresses confidence that she can sink the *Merrimac* in a given number of minutes; and in case he can't sink her in one hour, he can bang at her any number of hours, without any fear of her armament, until he does sink her. As for her battering ram, he has an impression that "two can play at that game," and he has no hesitation in challenging a

game of this sort. It is intimated that he will seek occasion to try it before the batteries at Norfolk. That is just the place for such an experiment, or possibly Fort Pulaski at Savannah. If his floating battery will stand the hammering it would get at either place, he may consider its reputation and his own as an inventor in this department of science as established beyond any cavil. If it accomplishes what is expected of it, we shall have a tolerably effective defence to any of the mail-clad vessels in the English or French navy.

The New Iron-clad Gunboats.

From discussions in Congress the public has now obtained some information respecting the character of the twenty new iron-clad gunboats recommended to be built for the navy. On the 4th inst., when the bill providing for them was before the Senate, Mr. Morrill, of Maine, stated he had seen the plans of these boats; they were all alike, and resembled scows. They were to be one thousand tons burden, and not intended to go out of sight of land. He asserted there were no rolling mills in the country which could do the work for them within a less space of time than twelve months. Mr. Hale said he was informed they could be built in five months, and were strongly recommended by the Secretary of the Navy. Mr. Colamer, of Vermont, asked if they were to be sea-going vessels. He was answered by Mr. Grimes, of Iowa, who said they were not intended for cruisers.

It appears to us that unless the new iron gunboats are designed and constructed so that they can be employed for cruising, and active war purposes as good sea boats, they will be of little or no use to the country.

Extraordinary Ductility of the Bessemer Steel.

At a recent meeting of the Manchester Literary and Philosophical Society Mr. Brockbank exhibited some samples of steel manufactured by Mr. Bessemer's process. These specimens have been bent and twisted cold, and showed a remarkable degree of ductility. He stated that the Bessemer steel was one of the most plastic and manageable of metals—more so even than copper. It could be bent, flanged or twisted, either hot or cold, without annealing, and over a considerable range of temperature—which is not the case with ordinary steel or copper. A plate of 18 inches diameter had been forced through a series of dies until it formed a tube 13 feet long and 1½ inches diameter, without any crack or flaw. A ring of metal could at one heat be hammered into a die to form a locomotive engine chimney top. In drilling a circular hole into a plate continuous shavings are formed—whereas, in copper or Low Moor plates, or any other metal, the shavings break in pieces 1/16th of an inch long. Thin sheets of the Bessemer soft steel can be bent backward and forward hundreds of times without a fracture, and are almost as malleable as paper.

Lumber Trade of Albany.

At Albany, N. Y., is the greatest lumber mart of the Eastern States; its condition is an index to the trade in general. The following tables in the *Albany Evening Journal* are a review of the trade for the past six years, and it shows that the business done last year was less than in 1857—the year of the panic:—

Year	RECEIPTS DURING THE YEARS NAMED.			
	Boards and Scantling.	Shingles.	Timber.	Staves.
1856	223,345,545	36,899	14,539	102,548,492
1857	180,997,629	70,004	85,104	153,264,629
1858	267,406,411	31,823	119,497	135,011,817
1859	291,771,762	48,756	70,381	114,570,503
1860	301,022,600	41,222	46,888	148,735,369
1861	162,952,527	31,782	44,754	143,784,471
	VALUATION OF THE RECEIPTS DURING THE YEARS NAMED.			
1856	\$3,573,529	\$129,147	\$2,616	\$461,468
1857	2,881,560	248,515	15,218	689,691
1858	4,412,205	111,383	20,314	540,047
1859	4,887,177	170,646	11,965	458,282
1860	5,042,128	144,277	7,971	594,942
1861	2,729,454	111,237	7,697	575,138

SCREWING ON NUTS.—We have sometimes known nuts on thrashing machines, circular saws, &c., to be found so tight that no wrench would remove them. This was because they had been held in the hand till they became warm, and being then applied to very cold screws in winter, they contracted by cooling on, and thus held the screw with an immovable grasp. Always avoid putting a warm nut on a cold screw; and to remove it, apply a large heated iron in contact with the nut, so as to heat and expand it, and it will loosen at once—or a cloth wet with boiling water will accomplish the same purpose.—*Country Gentleman*.