

## NOTES ON MILITARY AND NAVAL AFFAIRS.

## THE SITUATION.

During the past week the country has been electrified with another success. The navy has again achieved an important victory in the bombardment and reduction of Fort Henry on the Tennessee river, which is about 55 miles from Paducah. We publish on another page a carefully-prepared map of the States of Kentucky and Tennessee, which will show our readers all the important points now in dispute. We begin with Paintsville, Eastern Kentucky, which is up the Big Sandy river some 50 miles. This point was recently held by General Humphrey Marshall and his gang of marauders. In a letter just received by us, from a resident of that place, we are informed that Humphrey's men seized about everything they could lay their hands on—in some cases leaving the loyal people destitute of almost every comfort. We have an order now from that place for a few necessary things, which at once suggests the devastating operations of war. Colonel Garfield, at the head of some 4,000 Union troops, drove back Humphrey and his men, and is now encamped at Paintsville. Picketon and Barbourville in Kentucky and Knoxville in Tennessee are all noted places on the Eastern section of the map. A little to the westward are Somerset, Mill Spring and Monticello, all famous places. Still further west are Munfordsville, Bowling Green and Nashville, and farther still are Fort Donaldson, Fort Henry, Paducah, and that all-important point, Columbus, which is no doubt soon to be the theater of a great battle. Our readers will find the map one of the most comprehensive and best executed which has yet appeared, and will prove invaluable for future reference.

## CAPTURE OF FORT HENRY.

The attack on Fort Henry began on the 7th inst at 11:30 o'clock in the forenoon. A fleet of gunboats, consisting of the *Essex*, Commodore Porter; the *Carondelet*, Commodore Walker; the *Cincinnati*, Commodore Strembel; the *St. Louis*, Lieut. Paulding; the *Conastoga*, Lieut. Phelps; the *Taylor*, Lieut. Gwinn, and the *Lexington*, Lieut. Shirk, all under the command of Flag-Officer A. H. Foote, opened a terrific fire upon the fort. The gunboats advanced boldly against the fort, receiving and returning the storms of shot and shell, when, getting within 300 yards of the enemy's work, the boats came to a stand and poured into him right and left. At 1 o'clock the enemy struck his flag and surrendered. General Lloyd Tilghman and his staff, with 60 men, were made prisoners. Such cheering, such wild excitement as seized the throats, arms or caps of the four or five hundred sailors of the gunboats can be imagined. The fort mounted 20 guns and 17 mortars. Most of the guns were 32 and 34 pounders, besides one 10-inch Columbiad. One of their rifled 32-pounders burst during the engagement, wounding one of their gunners. The *Essex* was disabled at the commencement of the fight, in consequence of a ball penetrating her boiler. By this accident several gallant marines were scalded, some of them fatally. The loss of life in the action was comparatively small. We have already published a full account of the Western gunboats. They are built very wide, in proportion to their length, giving them almost the same steadiness in action that a stationary land battery would possess. They are constructed on the same principle as the famous iron battery at Charleston, the sides sloping upward and downward from the water line at an angle of 45°. The bow battery on each boat consists of solid oak timber 26 inches in thickness, plated on the exterior surface with iron two and a half inches thick. The boats were built so that in action they could be kept "bow on;" hence the superior strength of the bow battery. Broadside were so arranged as to be delivered with terrible effect while shifting position. To facilitate movements in action, the engines and machinery are of the most powerful kind. The boilers are five in number, constructed to work in connection with or independent of each other. In case of damage done to any one or more of them, a valve was arranged to close the connection between damaged and undamaged boilers, and the latter operate as if nothing had happened.

It is reported that the amount of plunder secured by the victory at Mill Spring and Fort Henry will exceed one million dollars. An attack on Fort Donaldson on the Cumberland rivers was hourly expected, and it is thought that a severe battle must ensue.

## BURNSIDE'S SUCCESS.

One of the most gratifying pieces of news which has cheered all loyal hearts, is the success of General Burnside's expedition. After many vexatious delays and much painful solicitude, he at last got his expedition under way from Hatteras up Pamlico Sound on Wednesday the 5th inst., making toward Roanoke Island, which serves as a guard or key to Albermarle Sound. The island itself is about seven miles long and three broad. On both the island itself, at Nag's Head and on the mainland, strong earth-work fortifications have been thrown up, and, according to intelligence gathered from secession sources, there was besides an entrenched camp in the center of the island, consisting of 5,000 men under Major-General Hill, of North Carolina. Reports also state that the valiant Ex-Gov. Wise, whose extraordinary fighting capacities we have before noticed, was sent down to reinforce the position. Under the leadership of this modern Boanerges, General Burnside, who is every inch a soldier, was promised a very different kind of reception to that which General Butler encountered at the attack on Hatteras. General Burnside's arrival at Hatteras was known at least twenty days before he began the attack, which afforded the enemy ample time to prepare for it.

All the information we have respecting the battle, at the time of going to press, was obtained from the enemy by means of a flag of truce, but it is sufficiently comforting. The information is vague as to the time the attack on Roanoke Island began, but we judge, from the meager details at hand, that it commenced on Friday, and that the island was taken possession of on Sunday, at which time a large force of Union troops were landed.

The secessionists had a small fleet of gunboats, under command of Captain Lynch, who, we understand, conducted the famous Dead Sea Expedition while he was an officer in the United States Navy. One of the vessels of this fleet was the propeller *Fanny*, which was captured by the rebels in Pamlico Sound about the time Hatteras was taken. It is reported that Lynch's fleet was completely destroyed. The exact number of rebel troops on the island is not yet known, but Gen. Huger, commanding at Norfolk, telegraphed to Richmond that only 50 escaped.

The Richmond *Examiner*, of the 10th, in a leading editorial, says, "The loss of an entire army on Roanoke Island is certainly the most painful event of the war. The intelligence of yesterday by telegraph is fully confirmed. Twenty-five hundred brave troops on an island in the sea were exposed to the force of the Burnside fleet. They resisted with the most determined courage, but when 15,000 Federal troops were landed against them, retreat being cut off by the surrounding element, they were forced to surrender. This is a repetition of the Hatteras affair on a large scale."

Some 700 prisoners were taken at Hatteras, and if this is on a much larger scale we can safely put down the captured forces at over 3,000. The reports about the loss in killed and wounded are vague, but the Confederates acknowledge about 300 killed and 1,000 wounded, among the latter is Capt. O. Jennings Wise, of Richmond, a son of the ex-Governor. Gen. Wise it seems was ill at Nag's Head, and when the situation became dangerous he was placed in an ambulance and removed toward Norfolk. This was very unfortunate, as he could have no hand whatever in the fight, and thus escaped being made a prisoner. The *Norfolk Day Book* states that Gen. Burnside advanced in full force upon Elizabeth City, and began an attack on that place. The citizens finding resistance vain evacuated the place, but before doing so set fire to the town. Additional particulars of this important engagement will be looked for with deep interest.

## MISCELLANEOUS.

The government, it is stated, has issued an order prohibiting the exportation of quinine and opium to Cuba for the future. It seems that immense quantities have been recently sent from New York to Havana, the real destination of which is the Southern States. Quinine is an article of considerable manufacture in Philadelphia.

Kentucky has a voting population of but 156,000 in all. The portion of the State in possession of the Union troops contains 100,000 of that total number of voters, and of that population she has full 30,000 enlisted under the banner of the Union for the

war! Who will dare say that Kentucky is not loyal to the Union?

A letter from James Guthrie, the Secretary of the Treasury under General Pierce's Administration, generally sustains the financial view taken by Secretary Chase. It also approves of General McClellan's defensive position upon the Potomac; but he thinks that offensive operations by the Union columns are the best plans for driving the rebels out of Kentucky. General Buell is made the subject of his highest commendation.

The Southern papers say the blockade is utterly defective, and yet find it so hard to get flannel that they have to call on the women to contribute their old skirts for use in making fixed ammunition. Why not import flannels, if the blockade is so loose?

The steamship *Bavaria* recently brought to this port four thousand sabers and over forty-five thousand stand of firearms, besides equipments of various descriptions and samples of arms, which enterprising manufacturers are sending here for sale.

Hon. Horace Maynard, of Tennessee, has received a letter from his son, who is the Adjutant of the First Regiment of loyal Tennessee Volunteers, in which he writes that "the citizens on the other side of the Cumberland river stated that the secessionists threw down their arms;" to which it is added that 1,500 stand of arms were, it is understood, found in the line of retreat, "stacked up," with many more scattered around.

## Gold and Silver Inks.

To prepare gold ink, take honey and gold leaf equal parts; grind together upon a painter's porphyry slab with a muller, until the gold is reduced to the finest possible state of division, and the mass becomes perfectly homogeneous, when it must be agitated with 20 or 30 times its weight of hot water, and then allowed to settle and the water poured off; this process must be repeated with fresh water 2 or 3 times, when the gold must be dried and then mixed up with a little weak gum water for use. The brilliancy of writing performed with this ink is considerable, and may be increased by burnishing. Gold ink may also be made by mixing precipitated gold powder with a little gum water. Silver ink is prepared in the same manner as the gold. By dissolving gold in aqua regia and then adding ether, a solution is obtained which, when applied to polished iron, will coat it with a thin pellicle of gold.

## Great Wrought-iron Shot—The Ericsson Battery.

The Ericsson iron-plated floating battery at Green Point has been armed with two 11-inch Columbiads, which have been furnished with 400 wrought-iron round shot, each ball costing \$47 and weighing 184 lbs. These balls were made by forging square blocks of iron at the Novelty Works, then turning them in the lathe. The cost of the 400 amounts to \$18,800, and their total weight is 73,600 lbs. Cast-iron shot are liable to break in pieces when fired against thick iron plates. These wrought-iron shot are for smashing through the sides of such secession floating batteries as the *Merrimac*, at Norfolk; and *Hollin's Turtle* at New Orleans.

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A NEW ASTEROID.—Dr. C. H. F. Peters, Director of the Hamilton College Observatory, in searching for the Asteroid Maia, has discovered a new one, which is probably nearer the earth than any other before known. The known Asteroids now number 72.

MR. BROADWOOD, a celebrated manufacturer of pianofortes in London, died recently, leaving a fortune of \$1,600,000, all made by his business.

MAP OF KENTUCKY AND PART OF TENNESSEE



The rebellion against the rightful authority of the country has had the effect to stimulate increased interest in the geography of the United States and its vast contiguous territories. We always knew that we had an immense country, but since the outbreak of the war its magnitude has seemed to considerably increase. The map which we publish this week of two great States, is, in reality, not much more than

a patch on the surface. Kentucky is a loyal State, Eastern and Middle Tennessee are equally so, and but for the presence of an army of secessionists, ready to suppress every loyal demonstration, we should see that noble State redeemed and reunited. We think the government is now ready to show its full power against the rebellion, and a few months, at least, will, it seems to us, settle the fate of the Republic.

Jeff. Davis's armies must be defeated before loyalty will dare to show its front. Many Europeans have expressed wonder and surprise that twenty millions of people should be so long in overcoming half that number. They either ignore or are ignorant of the fact that at the outset the government, through the treachery of Cobb, Floyd and Thompson, was nearly bankrupt and disarmed.