

A SAILOR'S SONG.

In your issue of May 2, 1870, is a "Sailor's Saturday Night Song," written by Mr. Carter. I send you another written by Lieutenant (now Commodore) William B. Whittling, for Saturday evening, October 7, 1843, on board of the U. S. ship *Macedonia*, and sung on the occasion to the tune of "Sparkling and Bright."

Tho' far from home, o'er distant seas,
Strange skies above our heads,
Our ship to many a fairing breeze
Her swelling canvas spreads,
Or to the gale,
We clue up sail,
And weather brace our haul,
Then reef away,
While lightnings play
Mid thunders in the squall.
Our hearts are light,
Our spirits bright,
As here to-night
We fill;
Our wives our toasts,
Our ship our boast,
We fear no host
Nor ill.

O proudly beats the sailor's heart
When storms sweep o'er the sea
For then it is his noble art
Proves him its lord to be,
When to his will,
His vessel still
Obeys each prompt command
Oh, are there not,
In the sailor's lot,
Joys never known on land?
Our hearts are light,
Our spirits bright,
While here to-night
We fill;
Our flag our boast,
Our ship our host,
We fear no host
Nor ill.

And when at last our cruise is o'er,
No watch to mar our rest,
Again we greet these friends on shore
Whose love our life has blest.
No gloom shall shade,
No care invade,
Where home's bright altars burn;
Earth knows no bliss
More sweet than this
Which welcomes our return
With hearts as light,
And spirits bright,
As here to-night
We fill;
Our wives our toasts,
Our home our host,
We'll fear no host
Nor ill.

—U. S. Army and Navy Journal, 16th May.

WESTERN SURVEYS.

The New York *Tribune* gives an account of the survey under charge of Lieutenant G. M. Wheeler, U. S. A., the officer conducting the United States Survey West of the 100th Meridian.

The scheme of the survey primarily includes entire mapping of the Territories; not a sporadic survey, touching here and there on points of interest, but a complete one, connecting it with that of the Coast and Lake Survey and extending the determinations of locality over the entire area of the United States. The atlas sheets when finished will delineate the whole country west of the 100th meridian—an area of nearly 1,500,000 square miles. In the past three years the survey has covered 225,000 square miles, and at this rate it will take fully ten years to complete it without assistance from other sources.

Better to facilitate topographical representation, and to preserve uniformity of publication as to scale and size, the region west of the 100th meridian has been laid off in rectangles, each embracing about 18,000 square miles. Each map published will be on a scale of one inch to eight miles, and will represent the area in one of these rectangles. Thus as the work proceeds the maps will comprise a continuous series in atlas form. Six of these maps are now in the hands of the engraver, and the advance proofs indicate fine examples of topographi-

cal work, giving in detail the mountain systems, valleys, water-courses, routes of communication, etc.

Each belt of triangles is checked at distances not exceeding 200 miles by bases that now or hereafter will be further checked by the primary astronomical positions. The survey was most successful in obtaining the requisite topographical information over large areas in Utah, Colorado, Arizona, and New Mexico. At the present time this is rapidly undergoing reduction for the final atlas sheets. Up to the present time, the area covered by the survey has been as follows:

TABLE SHOWING THE AREA SURVEYED.

	1869.	1871.	1872	1873	'69 '73
Nevada	26,400	27,200	6,200	...	59,800
California	...	19,150	...	...	19,150
Utah	...	...	34,400	2,500	36,900
Arizona	...	32,400	9,900	17,500	59,800
New Mexico	...	...	...	...	31,000
Colorado	...	...	...	21,500	21,500
Total	26,400	78,100	50,500	72,500	228,150

The total cost of this work has been a little less than \$225,000; approximately one dollar per square mile or one eighth of a cent per acre.

The following general subjects for observation will give an idea of the undertaking:

1. The establishment of primary geographical positions by astronomical methods.
2. Obtaining accurate topographical information by trigonometric methods of the various mountain systems of the valleys and of the detrical plains.
3. Determination of altitudes (hypsometrically.)
4. Careful study of geological formations.
5. Examination and collections of the living and extinct fauna and flora.
6. Investigation of resources (wood, water, grass and agricultural productions.)
7. Ascertaining location and extent of precious and economic minerals.
8. Observation of climatic oscillations and influences, and season of rain and snow-fall.
9. Selection of routes of communication for rail and common roads, for military and other purposes.
10. Researches as to utilizing the present water supply as a means of irrigation.
11. Ascertaining the condition of mining and other industries.

The first to attempt and organized survey were Captains Lewis and Clark, who were sent out under the auspices of the Government of the United States in 1804. They were absent until 1806. They were followed by Major Pike, U. S. Army, 1807, who discovered the source of the Great Colorado of the West. Reuter and Robertson were the next, 1818. After them, Major S. H. Long, U. S. Army, conducted an exploring party, under orders from the Secretary of War. The first explorers of the sources of the Mississippi were Lieutenant J. Allan and Mr. Schoolcraft, 1832. The wanderings of Captain Bonneville, U. S. Army, from 1832 to 1836, were woven into a graceful narrative by Washington Irving. In the order of dates, subsequent explorations were made by the following officers: Commander Wilkes, U. S. Navy, 1838-42; Nicolet, under Bureau of Engineers, 1836-44; Lieut. J. C. Fremont, Engineers, 1842; Captain Boone, of the Dragoons, 1843; Captain J. Allan, 1843; Lieutenant Fremont; 1844-45, assisted by Lieutenants Abert and Peck, Abert, Engineers,

1845; Franklin, Engineers, 1846-47; Abert and Peck, Engineers, 1846-47; Colonel St. George Cooke, 1846-47; Warner, Engineers, 1847-49; Derby Engineers, 1849; Lieutenant Webster, Engineers 1849; Lieut. Simpson, Engineers, 1849; Captain Murcy, Infantry, 1849; Captain Stansbury, Engineers, 1849; Colonel Johnston, Infantry, assisted by Lieutenants Smith, Bryan and Michler, Engineers, 1849-57; Lieutenant Parke, Captains Pope, Sitgrave, Lieutenant Woodruff, Engineers, 1851; Captain Murcy, assisted by Captain McClellan, Engineers, 1852. From 1852 to 1857 the explorations and surveys for a railroad route from the Mississippi river to the Pacific ocean were carried on, principally by officers of the Corps of Topographical Engineers. The resulting reports attained a world wide reputation on account of their valuable data, and to this day they are frequently consulted.

The Engineer Bureau of the War Department has, since its organization, published several hundred maps, which are the most accurate, and, consequently, the most frequently consulted. Of the map prepared and compiled by Lieutenant (now Major General) G. K. Warren, a large edition has been distributed. It is still the best map of territories west of the Mississippi river. To the common intelligence there is no medium that conveys information so directly as graphic illustration.

To secure an economical and yet thorough prosecution of the work intrusted to his charge, it is proposed by Lieut. Wheeler that the unit of force in any given area shall consist of three field parties, with at least one officer in executive charge, one to be known as the triangulation party, the two others as parties for collecting topographical, meteorological, geological, and other data. These parties will carry on their operations in lines nearly parallel and make a thorough trigonometric connection over the entire district surveyed.

For the main astronomical work there will be three distinct parties; one to occupy the central and connecting station at Ogden, Utah, to be in charge of an engineer officer; a second to occupy points accessible by railroad communication within the area west of the 100th meridian, and a third lightly equipped for duty away from the railroad connections, yet at points where the telegraph has penetrated. The parties so organized would consist of one officer, in charge; officers in charge of parties and assistants; three civilian astronomical assistants; six civilian topographical assistants (including meteorological observation); four civilian geological assistants, one naturalist and three assistants; one photographer.

The following officers (besides civilian assistants) have been connected with the Survey: Lieut. Geo. M. Wheeler, Corps of Engineers; in charge; Lieut. R. L. Hoxie, Corps of Engineers; Lieut. Wm. L. Marshall, Corps of Engineers; Lieut. S. E. Tillman, Corps of Engineers; Lieut. Andrew H. Russell, 3rd U. S. Cavalry; A. A. Surgeon H. C. Yarrow, U. S. A., naturalist; A. A. Surgeon J. F. Rothrock, U. S. A., botanist; A. A. Surgeon C. G. Newberry, U. S. A.; Hospital Steward T. V. Brown, U. S. A., meteorological observer.

FOREIGN POLICY.

On the accession of the present Government to office we seriously warned our readers that the rock ahead was our Foreign Policy. It was in that direction that the