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**Affairs in Utah and the territories. Letter from the Secretary of War, transmitting, in compliance with House resolution of the 5th instant, the report of Brevet Brigadier General James F. Rusling, inspector, &c., for the year ending June 30, 1867**

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AFFAIRS IN UTAH AND THE TERRITORIES.

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LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

*In compliance with House resolution of the 5th instant, the report of Brevet Brigadier General James F. Rusling, inspector, &c., for the year ending June 30, 1867.*

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JUNE 17, 1868.—Referred to the Committee of Elections, and printed by order of the committee under a resolution of the House of March 7, 1867.

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WAR DEPARTMENT,  
*Washington City, June 16, 1868.*

SIR: In compliance with the resolution of the House of Representatives, dated the 5th instant, I have the honor to transmit herewith a copy of the report of Brevet Brigadier General James F. Rusling, inspector of the quartermasters' department, to the Quartermaster General, for the year ending June 30, 1867.

Very respectfully, your obedient servant,

J. M. SCHOFIELD,  
*Secretary of War.*

Hon. SCHUYLER COLFAX,  
*Speaker of the House of Representatives.*

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OFFICE ACTING INSPECTOR QUARTERMASTERS' DEPARTMENT,  
*Washington, D. C., August 26, 1867.*

SIR: In compliance with General Orders No. 43, Quartermaster General's Office, current series, I beg leave to submit the following as my annual report for the fiscal year ending June 30, 1867, and thence to date:

July 1, 1866, found me stationed at Washington, D. C., as inspector of the quartermasters' department, appointed April 29, 1865, after about four years' previous service in the quartermaster's department, in the field and at depot, east and west. The details of this service, and my military history to date, appear in my annual report for 1866, and hence are omitted now. My first duty in July was an order from you to inspect the depot at Pittsburg, Pennsylvania. I arrived there July 3, inspected the depot on the 5th, and reported results to you in detail July 9, from Washington, D. C. My recommendations, in the main, I believe, were approved, and resulted in a considerable saving there.

Subsequently, for several days, I was engaged at Washington, D. C., in closing up some unfinished business, reports, &c.

July 17 I received your orders of July 10, directing inspections across the plains and on the Pacific coast, and July 23 proceeded west in the execution of them.

These orders were, in substance, as follows :

QUARTERMASTER GENERAL'S OFFICE,  
*Washington, D. C., July 10, 1866.*

GENERAL: You will immediately enter upon a tour of inspection of the affairs of the quartermasters' department, as administered at Fort Leavenworth, Kansas, and thence west, via Denver City and Salt Lake City, to the Pacific coast.

After a thorough and careful inspection of the management of the department at Fort Leavenworth, you will visit Fort Riley, Kansas, and inspect that depot, after which you will proceed, via Fort Kearney, Post Cottonwood, (Fort McPherson.) Fort Sedgwick, &c., to Denver City, inspecting those and intermediate posts while *en route*.

Upon reaching Denver City you will confer with Brevet Colonel J. B. Howard, depot quartermaster, as to the practicability of breaking up that depot, and removing the stores to other points where needed. Thence to Salt Lake City, where a rigid inspection is needed. Thence to San Francisco, California.

Upon reaching the Pacific coast, you will confer with the commanding general and chief quartermaster of the military division of the Pacific, and having procured necessary information relative to the locality, the importance, &c., of the various posts, you will proceed upon a careful inspection throughout California, Washington Territory, Oregon, Nevada, and Arizona Territory.

Upon completing this duty, you will return to this city via the isthmus, and report in person to the Quartermaster General.

It will be necessary to keep this office fully informed, in advance, as to your probable whereabouts, so that such instructions as may be necessary may be telegraphed to you at the stations where you are on duty.

You are authorized to take a clerk with you.

In making these inspections, you are requested to give particular attention to points set forth in the enclosed memoranda.

Very respectfully, your obedient servant,

M. C. MEIGS,

*Quartermaster General, Brevet Major General U. S. A.*

Brevet Brigadier General JAMES F. RUSLING,

*Inspector Quartermasters' Department, Washington, D. C.*

The memoranda referred to (some 12 pages of letter paper) embraced the following points in detail: First, public animals; second, clothing, camp, and garrison equipage; third, ocean transportation; fourth, rail, river, and land transportation; fifth, regular supplies—fuel, forage, lumber, &c.; sixth, reservations—public and private buildings, cemeteries, &c.; seventh, employes, fire department, &c.; and, eighth, public accounts and miscellaneous matters.

Indorsed upon my orders, subsequently, was the following :

HEADQUARTERS OF THE ARMY, *July 18, 1866.*

Commanding officers will, on the requisition of Brevet Brigadier General Rusling, furnish the necessary escorts to enable him to make the within directed inspections.

By command of Lieutenant General Grant.

GEORGE K. LEET.

*Assistant Adjutant General.*

Arriving in St. Louis, Missouri, (1,000 miles west from Washington, D. C.) July 27, the 28th (Saturday) was spent in consultation with Brevet Brigadier General Easton, chief quartermaster, (General Sherman being absent east,) and other officers at headquarters military division of the Missouri, which then embraced the plains west as far as Great Salt Lake City. Having procured such information as was thus accessible relative to the depots and posts I was about to visit, I left St. Louis July 30, and reached Fort Leavenworth, Kansas, 322 miles northwest, early next day. August 1, I began my inspection of

the large and important depot there, that supplies posts north as far as Fort Reno, Dakota Territory, west as far as Camp Douglas, Utah Territory, and southwest beyond Santa Fé and Albuquerque, New Mexico, and was kept busily engaged at this and my report until August 9.

Its relations to the Union Pacific railroad and Northern Pacific railroad, now stretching out across the plains, from Kansas City and Omaha City respectively, were fully considered, and the views then advanced were confirmed by subsequent observations, as per my reports.

August 10, I left for Fort Riley, Kansas, at the junction of the Republican and Smoky Hill rivers, by railroad, and reached there late that night, 135 miles west, travelling the last 32 miles by stage coach.

At Fort Riley a careful inspection was made, because of its relation to the Union Pacific railroad, and I was further detained there somewhat by the illness of my clerk.

My report rendered, I left Fort Riley, however, August 16, and from there crossed the prairies by ambulance, 223 miles, to Fort Kearney, Nebraska, on the Platte, arriving there on the 21st. The route travelled was 65 miles north to Marysville, where the great overland stage road was struck, and thence 158 miles northwest to Fort Kearney.

A practicable road, somewhat shorter, was reported up the Republican, Little Blue, &c.; but no guide could be had, and the Indians between were reported troublesome. We struck the Little Blue, however, on the 19th, and travelled up it most of two days, but met no Indians; saw some abandoned ranches, with the corn left growing, and heard ugly accounts of the Pawnees *ahead and behind*, but were unmolested. My escort consisted of five infantrymen in an army wagon; otherwise, there were three of us, besides the drivers.

The post at Fort Kearney was inspected the day of arrival there, and report rendered next day—August 22. The Northern Pacific railroad had just then reached Fort Kearney, and was being pushed westward with energy, at the rate of one and a half or two miles per day. August 23, I left Fort Kearney, by overland stage coach, as the cheapest and most expeditious mode of travelling, and reached Fort McPherson, (Post Cottonwood,) Nebraska, 95 miles west, up the Platte, early next day.

My inspection there and report, which recommended the transfer of the post to the railroad crossing of the North Platte, &c., consumed the 24th and 25th; and the 26th was Sunday. August 27, left for Fort Sedgwick, 110 miles west, on the South Platte, near Julesburg, Colorado Territory, and reached there next day.

August 29 to September 1 was spent in inspecting the post and rendering report, which called your attention particularly to the large accumulation and great loss of forage there, if not other property, and the grave costliness of the post generally; and September 2 was Sunday.

Left Fort Sedgwick September 3, at 2 a. m., and reached Fort Morgan, on the South Platte, 105 miles west, late that night. The next day I inspected the post, and same night left for Denver, Colorado Territory, 85 miles further west, where I arrived at 9 a. m., September 5. Total distance from Fort Leavenworth to Denver, by the route travelled, as given by the stations, 753 miles; direct route by stage road, as per official tables, 642 miles. Stage full, and no escort from Fort Kearney to Denver. Many Indians seen on the road, chiefly Sioux, but all peaceable. Weather from Fort Leavenworth throughout fine.

From Denver I mailed you my report on Fort Morgan, which recommended the abandonment of the post, &c., and tarried there several days, inspecting the depot and considering its bearings, value, &c., as directed in your orders.

September 10, I forwarded my report on Denver, &c., and subsequently was gratified to learn that the views taken were substantially concurred in by Lieu-

tenant General Sherman, whom I met at Denver, September 11 and 12, being then engaged in a wide inspection of his military division.

September 10, I proceeded to Black Hawk and Central City, the chief mining centres of Colorado, and returned next day via Idaho City; some 85 miles in all.

September 12, I forwarded a special report from Denver calling attention, 1st, to the large number of public animals, branded U. S., on the plains, in the possession of settlers, freighters, the stage company, &c.; 2d, to the practice of sending out government and contractors' teams from Omaha, Nebraska City, and Fort Leavenworth, without sufficient arms, in violation of existing orders; 3d, to the manner of building posts on the plains, proper materials to be used, &c., as far as then seen; 4th, to the relative importance, practically, of the Platte posts inspected; and, 5th, to the unnecessary extent of many government reservations, in my judgment, retarding settlements, &c. To inform myself more fully, however, as to the value of Denver as a depot of the quartermasters' department, I decided on a trip into southern Colorado, that I might see something of its alleged agricultural and lumber resources for myself. This was not directed expressly in my orders, but being urged by Colonel Howard and advised by General Sherman, it seemed proper to undertake it. Accompanied by Colonel Howard I accordingly left Denver, September 13, by ambulance, and travelled down the eastern base of the Rocky mountains about 175 miles, when we crossed the mountains at Sangre del Christo pass, and descended to Fort Garland, in San Luis Park, about 200 miles in all from Denver.

From Denver we first struck Monument creek, and followed that down to its junction with the Fontaine qui Bouilli, near Pike's Peak, and thence down the Bouilli to its junction with the Arkansas, near Pueblo. At Pueblo we crossed the Arkansas, and thence the Greenhorn and Huerfano, with their rich bottom lands, reaching Fort Garland, as stated, on the 20th.

At Fort Garland I met Lieutenant General Sherman again, and also General Kit Carson, and had very interesting conversations with them both about Colorado generally. Perhaps no person living knows more of the Rocky mountain country and the great internal basin of the continent in general than Kit Carson, if anybody as much, and few of the border men are so reliable in their statements. He impressed me as a man of rare candor and perfect truthfulness, and this, unfortunately, is a good deal more than can be said of much of our population in the new territories.

On the 20th, still, we proceeded 15 miles southwest to San Luis del Culebra, through the heart of San Luis Park, but returned to Garland again next morning. No inspection was made at Fort Garland, and consequently no report.

September 22, we left Fort Garland for Denver, and reached there again on the 29th.

This return trip was first 30 miles northwest to the Rio Grande, where we found Governor Cumming and Kit Carson holding a treaty with the Ute Indians, (1,000 or so of them,) and then about north across Poncho pass into South Park, at Fair Play, and thence northeast again to Denver. This return trip, it will be seen, was through the heart of the Rocky mountains, about 258 miles, while the trip down skirted the base of them for some 200, so that my opportunities for seeing that part of Colorado may be regarded as ample. My observations confirmed what had been told me, in the main, as to the resources of that region, especially as regards *forage*, and the results were reported to you October 2 from Denver.

Total distance travelled about 515 miles. The first 100 miles or so through a Cheyenne and Arapaho country, the balance through a Ute region. We had no escort any part of the way, but our party usually numbered about a dozen persons, teamsters and all. The trip to Fort Garland was pronounced dangerous by many people at Denver, without a strong escort, and the return trip through

the mountains impracticable, on account of hostile Utes, &c. We did not see one hostile Indian, and did not lose an article of property, though considerably among Indians. Vigilance, of course, was exercised throughout, and much care taken in passing supposed dangerous localities.

Before leaving Denver the papers there reported the Utes in open hostilities about Fort Garland, threatening the post, attacking settlers, driving off stock, &c. We found the Utes entirely quiet, and one Indian killed, supposed by lightning, but no whites whatever recently. Weather throughout fine, mostly, though we had a drizzly day on the Arkansas, and a pretty cold night, September 26, when we camped on top of the Rocky mountains, at Poncho pass. Next morning, at sunrise, water froze in our tin cups while at breakfast.

I left Denver again, going west, by overland stage-coach, October 4, and crossing the Rocky mountains again at Bridger's pass, Dakota Territory, as also the Cache le Poudre, North Platte, and Green rivers while en route, reached Fort Bridger, on Black's fork of Green river, Utah Territory, 480 miles west of Denver, October 8, travelling day and night. This was the first post inspected on the Pacific slope of the continent, the waters of Black's fork, which passes through the post, flowing thence by Green river and the great Colorado of the West, perhaps 2,000 miles away to the Gulf of California. Fort Bridger, established in 1858 by General Albert Sidney Johnson as a depot of supplies and base of operations against the Mormons, was long regarded as the key to Great Salt Lake valley, and will continue of importance, militarily considered, till the Pacific railroad reaches and passes there. The post was inspected October 9 and 10, and my report written October 11, though not forwarded until subsequently from Salt Lake.

This done, I left Fort Bridger October 12, by overland stage-coach, and, crossing the Wahsatch mountains, reached Salt Lake City, Utah Territory, 120 miles west, October 13. Total distance from Denver, Colorado Territory, about 600 miles; coach half full inside, and no military escort. Passed through Cheyenne, Dakota, and Ute country, but saw no Indians. We did hear ugly accounts of them, and were made a little nervous one night, while changing horses at a stage station, (Willow Springs, near North Platte,) by a stampede of mules down the road, and a sharp cry from the stock-tenders of "Here come Indians." But no red skins appeared after all; and the mules were all recovered. Weather generally good, though some rain and snow in crossing the Wahsatch mountains. Over two feet of snow there and at Fort Bridger a week after I passed, and travel much embarrassed.

I arrived at Great Salt Lake City October 13, as stated, but found myself ill, and, immediately afterwards, was taken down with an attack of mountain fever, which incapacitated me for duty until about the 29th. I then began my inspection of the post there, Camp Douglas, but being still feeble was unable to finish the same and forward report before November 5.

Meanwhile a telegram was received from General Meigs, notifying me of certain papers en route from Washington by mail, alleging irregularities at Camp Douglas, and directing me to investigate the same while there.

These papers were received, and the charges proving groundless, as appeared on investigation, a special report was also forwarded to you November 6.

The time thus lost at Great Salt Lake City, though much regretted in some respects, was not without its use in others.

It afforded an opportunity of studying the logistical relations of Camp Douglas very fully, as directed in my memoranda instructions, and gave me a larger knowledge of Utah, and a more thorough insight into Mormonism than had been anticipated.

My conclusions were bad, unfavorable to the wholesale despotism and barbarism there, as I did not hesitate to say in my report on Camp Douglas, in recommending an increased military force there, &c.



In consequence of this loss of time, however, I decided to vary from the letter of your orders, and strike northwest through Idaho, to the Columbia river first, and report at San Francisco, California, afterwards. This, because, if I had proceeded on to San Francisco direct, I would have to ascend the Oregon coast north, and the Columbia river east, back to Idaho, and then retrace my steps to San Francisco again, thus passing twice over the same route with considerable loss of time.

I accordingly left Camp Douglas, November 7, by stage-coach, and crossing Snake river or Lewis's fork of the Columbia on the 10th, reached Fort Boise, Boise City, Indian territory, about 400 miles northwest, November 11.

Here I was taken ill again, and was not able to leave for the Columbia until November 19. Meanwhile the post at Fort Boise was inspected, and your attention called to grave expenditures in that district relating to forage, transportation, &c., as per report rendered December 3 from Fort Vancouver. Leaving Fort Boise November 19, as stated, I proceeded thence by ambulance to Umatilla, on the Columbia, 270 miles, being still too feeble to travel day and night by stage coach, and arrived there November 26, crossing the Snake river again, and Blue mountains, while en route. Total distance from Great Salt Lake City to the Columbia, at Umatilla, about 670 miles. No military escort any part of the way. Country passed through occupied nominally by Utes, Bannacks, Snakes, Cayuses, Walla-Wallas, and Umatillas; but no hostile bands encountered.

Weather raw and bad generally, and an ugly snow storm in crossing the summit of the Blue mountains.

At Umatilla I was detained one day by not connecting with the down river boat.

I left there, however, November 28, by steamer, and was not sorry to escape stage coaches and ambulances once more, after my long jaunt of over 2,500 miles from Fort Leavenworth across the plains and mountains by them.

Descending the Columbia through the grand scenery of the Cascade mountains, and passing its wild rapids by easy railroad portages, Fort Vancouver was reached November 29, about 200 miles or so west from Umatilla.

This well-arranged post, our chief depot on the northwest coast formerly, but now comparatively superannuated, was inspected November 30 and 31, and I continued there until December 5, completing report on Fort Boise, and informing myself as to the condition of affairs and their bearings from that point generally. In this last I was much assisted by Major General Steele, commanding department of the Columbia, and other officers there, to whom I would express my obligations. December 5, I proceeded to Portland, Oregon, on the Willamette river, some 18 miles by river from Fort Vancouver, and was detained there until December 11, waiting for the San Francisco steamer.

While there I met Colonel Babbitt, December 7 and 10, who had just arrived at Portland December 6 from San Francisco, to assume charge of the department of the Columbia, having long been in charge at San Francisco of the department of California and the Pacific coast generally. I was fortunate in meeting him thus, as it afforded an opportunity of conferring freely about his new field of duty, and of obtaining from him information that proved valuable afterwards in considering affairs on the Pacific coast in general.

At Portland, also, I met Captain Ainsworth, President of the Oregon Steam Navigation Company, and other citizens of repute, who cheerfully accorded me all information in their power relating to that section of the country. My conclusions as to the value of Portland to the quartermasters' department, as compared with Fort Vancouver, and my recommendations accordingly, were embraced in my report on Fort Vancouver, December 24, from San Francisco, this having been delayed by the non-reception of sub-reports, due from Brevet

Lieutenant Colonel Hodges, assistant quartermaster there, since November 30 and December 1.

Leaving Portland, Oregon, December 11, by ocean steamer, the mouth of the Columbia was passed the morning of the 12th, and San Francisco reached about noon of the 15th, after an unusually rough passage.

Total distance from Portland about 811 miles. December 16 was Sunday. On the 17th, in compliance with your orders, I reported to Major General Halleck, commanding military division Pacific, and Brevet Major General Allen, his chief quartermaster, who both approved my inspection of Fort Boise and Fort Vancouver first, before coming to San Francisco, as it would probably have been too late in the season to reach Fort Boise if I had not. This variation from your orders, I would here say, was also subsequently approved by yourself. After conferring with General Halleck "relative to the locality, the importance, &c., of various ports" to be inspected, he addressed me a communication, December 21, requesting me to visit and inspect if possible all the depots and posts in the military division of the Pacific.

This was forwarded to you for instructions immediately afterwards, and subsequently you telegraphed me, January 23, to inspect only the chief depots, leaving others to department inspectors. This was communicated to General H., who had already referred me to his chief quartermaster, General Allen, for further and final conference on the subject. Meanwhile my regular inspection of the depot at San Francisco had been proceeded with, and my report thereon rendered January 26.

As the chief depot for the entire Pacific coast, much consideration and study were given to San Francisco, relative to its value, bearings, dependencies, &c., and changes there recommended, in connection with officers, purchases, transportation, &c., that it is believed would result in large savings to the quartermaster department. General Meigs's letter of October 12, 1866, calling my attention specially to the grave costliness of the quartermaster department on the Pacific coast, and directing me "to make every possible practicable reduction, correcting and reporting extravagances wherever found to exist," also reached me at San Francisco, December 17, and was replied to in part December 20, and in full by a summary report on the Pacific coast generally, rendered August 15, after my return to Washington.

A full investigation of the blanket question at San Francisco was also made, and a special report thereon forwarded January 3, in accordance with orders, before leaving Washington; also, a special report, January 18, on the comparative advantages of the Colorado river and Rio Colorado, as routes of supply for Camp Douglas, Utah Territory, Fort Bridger, Utah Territory, &c.; and also a special report, January 30, relative to alleged frauds at Drum barracks, California, &c., in pursuance of your instructions before leaving Washington.

These various duties detained me at San Francisco until February 9, when I left for San Diego, California, by ocean steamer, reaching San Diego, about 500 miles south, on the 12th. Having inspected the public buildings still there, and acquired such other information as was desired, I left there again on the evening of the 13th, and returned by steamer to San Pedro, California, about 100 miles north, whence, February 14, I ascended by tug to Wilmington, or Drum barracks, some six miles up a slough or gut of the sea.

The depot and post at Drum barracks were inspected February 15 and 16, but my clerk becoming ill here, my report was postponed, and indeed afterwards I decided to leave him behind and proceed on to Arizona alone, rather than lose time by waiting for his recovery. Hence my report on Drum barracks was not rendered until May 8, at San Francisco, after my return from Arizona. The severe character of that report, as to the inadvisability of Drum barracks, and the waste of public funds and property there generally, was much



regretted, but was and is believed to have been more than justified by abundant facts.

My study of affairs at San Francisco, with your various instructions before me, and such records and reports as were there accessible, had led me to believe that there was little left in the department of the Columbia that had not been already treated of in my reports on Forts Boise and Vancouver sufficiently, unless, perhaps, the posts on Puget sound, should time be had to go there. The extraordinary expenditures of the department of California, however, had early arrested my attention, and as the bulk of these were mainly for transportation and supplies in Arizona, I resolved to go down into Arizona, examine into its routes, and visit our three chief depots there, Fort Yuma, Tucson, and Fort Whipple, for myself. This interfered materially with my prearranged plans, as it was my intention on leaving Washington to reach here again by April 1, at the furthest, and this might readily have been done had Arizona been omitted.

So, also, it was my conviction at San Francisco that pretty much all the substantial facts relating to Arizona were already in my possession, as afterwards appeared. Nevertheless, to satisfy myself fully, and as an answer to all objections that might be made to my recommendations, that I knew nothing about Arizona, because never there, I decided on the long and perhaps dangerous trip through that region above stated.

It was intended to proceed from Drum barracks to Fort Yuma by stage-coach, but the stage route, with stock, coaches, &c., was just being changed, and as it was uncertain when a stage would leave, or when it would get through, I decided to make the journey by ambulance.

I accordingly left Drum barracks, February 19, and reached Fort Yuma, 310 miles southeast, across the southern California or Colorado desert, February 28.

The post at Fort Yuma, as the main depot for all Arizona then, and necessarily the chief depot for all posts in central and northern Arizona for years to come, was carefully inspected March 1 and 2, and the 3d was Sunday.

Its relations to the Colorado river and to Arizona generally were fully considered, and your attention called to various matters there needing correction, involving the saving or loss of many thousands of dollars annually, in my judgment.

Report begun at San Francisco, California, May 16, but rendered at Washington, D. C., July 19. March 4, I left Fort Yuma for Tucson by ambulance, there being no stages on the route, nor any running then in all Arizona.

There were four of us together, and our outfit consisted of two ambulances, but without tents or other camp equipage except mess-kit, as I decided to travel light and thus rapidly as possible. Two wagon-sheets were taken along to pitch as tents, if necessary; but we seldom used them, preferring to sleep out instead in the dry and pure air there. During the entire trip we seldom slept in-doors, but spread our blankets on the ground, where we happened to camp.

We arrived at Maricopa Wells, about 200 miles east, directly up the Gila, March 8, and remained there and at the Pimo villages, 12 miles south, during the 9th and 10th. Total distance to Maricopa Wells from Drum barracks, about 510 miles. Country nominally occupied by Dieganos, Yumas, Cocopas, Papagos, Maricopas, and Pimos, but no hostile Indians encountered. No military escort any part of the way. Total party to Fort Yuma, three persons; from Fort Yuma on, seven persons, including drivers, cook, &c. Weather generally very good; but one bad sand-storm, and considerable heat in the middle of the day usually. The desert, so called, between Gila Bend and Maricopa Wells not bad.

At Maricopa Wells and Pimo villages, the Maricopa and Pimo Indians occupy a reservation 25 miles long by 4 wide, embracing both sides of the Gila, and live in villages to the number of 6,000 or 8,000 souls. They are sort of half or quarter civilized; have cattle, horses, sheep, &c., and in 1866 raised

some 2,000,000 or more pounds of corn and wheat for sale. The bulk of this was bought by Indian traders at from 1 to 2 cents per pound, coin, in trade, and then much of it resold to the quartermasters' department at 7 cents per pound, coin.

The facts were given at length in my report on Camp McDowell, subsequently, and the recommendation made that steps be taken by the quartermasters' department to purchase grain direct from these Indians hereafter, as far as needed. The road between Maricopa Wells and Tucson had been but little travelled of late, and Apaches were reported on it a few days before.

To satisfy others rather than myself, because my own convictions were there was no danger, an escort of three infantrymen was procured at Maricopa Wells and mounted on our ambulances. With these we left Pimo villages March 11, and reached Tucson, 93 miles south, on the 13th. The sub-depot and post there were inspected March 14, 15, and 16, and the 17th was Sunday.

The chief object of my going to Tucson at all was to collect on the spot all the facts obtainable relating to the proposed route of supply for Tucson and its dependencies, via Libertad or Guaymas, Mexico, instead of via Fort Yuma, as heretofore. A careful study was given to the subject while there, and the results were embodied in a report afterwards rendered at Washington, D. C., July 20, with accompanying maps and documents, and containing recommendations that, if adopted, it is believed will save the quartermasters' department perhaps \$200,000, coin, annually, in the supply of posts in southern Arizona alone. In 1866 the cost of government freight put down at Tucson, from San Francisco, was about 20 cents per pound, coin, in all. If the proposed route be adopted, the cost in 1867 will not exceed six or seven cents per pound, coin, the whole distance, it is calculated. The facts and figures as to this, given in my report on Tucson, are deemed specially important, and I trust will be considered by the department accordingly.

While at Tucson, March 16, I also visited the venerable church of San Javier del Bac, some 10 miles south of Tucson, on the road to Tubac, a relic of the old Spanish rule in Arizona. The church seems to have been built about 100 years ago, of large, red brick, rough coated with cement, and is still in a good state of preservation. Inside it is handsomely frescoed, and was no doubt once rich in paintings, ornaments, &c., though these now have mostly disappeared. It is cruciform in style, and the front, towers, &c., have originally been profusely decorated with saints, animals, &c., in niche or bas-relief. It was no doubt a link in the chain of Spanish missions that the Jesuits, a century ago, established from the city of Mexico to northern California, and was abandoned with the subsequent collapse of their priestly power. A dirty village of Papago Indians now crouches at its feet, who regard the structure with a superstitious reverence, and will not allow the fine chime of bells still there to be removed. Altogether this church is the best and oldest civilized structure to be found in Arizona. Very slight repairs would make it fit for occupancy and worship again; but there are no inhabitants there, except the Papagos referred to, to worship in it.

I left Tucson on my return March 18, and reached Maricopa Wells again on the 21st. Total distance travelled, down and back, about 200 miles.

Apaches were heard of at Blue Water station, nearly half way, where they had shot an arrow at a horse a week or so before, but none were seen. Weather good going down, but heavy rains one day coming back. The desert, so called, between Pimo villages and Tucson not bad.

At Maricopa Wells we had every prospect of being embarrassed by the spring floods in the Gila and Salt rivers for a month or more. These rivers lay directly across our path to Prescott and Fort Whipple, for which I was now bound; nobody had forded them for a month, and they were still reported at freshet height, without bridges or ferries. Indeed, they had just risen

higher in the past few days, and Colonel Crittenden, 32d infantry, with a portion of his command en route from Fort Yuma for Tucson, was reported cut off by the overflow of the Gila somewhere between Yuma and Maricopa Wells. I decided to wait a few days, as nothing better could be done, though the delay was very vexatious at such an out-of-the-world place as Maricopa Wells, where the mail then was very intermittent, and no newspapers had been received later than we had seen before leaving San Francisco. March 24th Colonel Crittenden arrived safe at Maricopa Wells, and reported the road open to Fort Yuma, though still bad in places. Meanwhile I had heard of a small row-boat, on the Gila, some six miles away, near the ford to Camp McDowell, and decided to try crossing the Gila with that, swimming our animals. If successful there, I proposed to transport the boat 35 miles across the country northwest to Salt river, and there cross again and go up to Camp McDowell. From there no road was known down the north side of Salt river to the regular Prescott or Fort Whipple road; but I inferred we could get through, as there were no mountains or cañons intervening.

The regular road from Camp McDowell to Fort Whipple was across the Salt and Gila rivers southwest, and then turning north across the Gila again below the junction of Salt river with it. At this last point the Gila was so over its bottoms that crossing there was reported impracticable, even with the boat. We accordingly left Maricopa Wells, March 25, and at dark were safe across the Gila with our two ambulances, baggage, mess-kit, a week's supply of grain for teams and escort, &c.

The Gila was found perhaps 75 yards wide by 10 or 12 feet deep, and running like a mill race. Some difficulty occurred in getting the mules into and across it, but eventually they all reached the north bank in safety. March 26, we drove across the country to the McDowell crossing of Salt river, and felt a little disheartened on arriving there to find it about twice as wide and bad as the Gila. However, with our cockle-shell boat, we succeeded in getting across in two days, March 27 and 28, without the loss of an article or an animal. I, myself, crossed late on the 27th, and having already sent a messenger up to Camp McDowell, found an ambulance and an escort waiting to take us to that post. This was still 15 miles off, northwest, on the Rio Verde—a branch of Salt river—through a cañon yet infested with Apaches; but we arrived there safely about 8 p. m. The post was inspected March 28, and its importance recognized for the protection and observation of that part of Arizona. Your attention was also called to certain irregularities and deficiencies in supplies there that had resulted badly for the public service. The troops had been attacked by scurvy for want of antiscorbutics, and the public animals had suffered much for want of grain during two months or so.

*Report rendered at Washington, D. C., July 26*—I left Camp McDowell late the same day and rejoined my ambulances, &c., at the crossing, soon after dark.

No guide to the Prescott road was obtainable; but an escort of six cavalrymen and six mounted infantrymen were furnished, as the best the post could do. The animals of these were so broken down for want of forage, though the best on hand, that three were sent back to Camp McDowell before going three miles, and ultimately five of the balance were got through to Fort Whipple, by good care and regular feeding with the grain brought along from Maricopa Wells. An army wagon, with a six-mule team from Camp McDowell, furnished transportation for the soldiers as the cavalry animals successively gave out.

Camp Reno, a post that is to be, was found halted temporarily near Camp McDowell, the commanding officer deeming the point selected for its location impracticable, and having so reported, was awaiting orders.

The McDowell crossing of Salt river was left March 29, and a course taken

by the compass across the bends of the river, in the direction of the Prescott road as much as possible, without losing sight much of the cottonwoods that line the river. At night we made the river and bivouacked till morning.

Next morning we forded the Aqua Trio, a branch of the Gila, through wide bottoms of mud and quicksands, and struck the Prescott road near White Tanks, 8½ p. m. For two days we were without a guide, in an unexplored region, struggling through matted chemisal and mesquite bottoms, floundering through quicksands, or climbing barren mesas; but we got safely out at last, and found our inferences as to the geography of the country about correct. March 31 was mostly spent in ascending the cañon of the Hassayampa. The Prescott road, which is the only road from southern to northern Arizona for some 12 or 15 miles before reaching Wickenburg, strikes the Hassayampa and follows up its bed for about that distance to Wickenburg, as the only practicable route as yet through the mountains there.

Ordinarily this Hassayampa is one of what are called Arizona's "dry rivers," but we found two or three feet of water flowing there, with quicksands that seemed to have no bottom this side of China and Japan, and consequently there had been no travel up or down the cañon for a month or more. It was impossible to return to Maricopa Wells, as our forage and rations were both about exhausted, and besides our improvised ferry-boat had returned to the Gila.

So we plunged into the Hassayampa about 10 a. m., and from that time until about 6 p. m. we crossed and recrossed, and floundered up the river the best we could at least 15 or 20 times.

Sometimes a cavalryman on horseback, prospecting the way, would mire his horse down until it seemed impossible to get him out. Again, an infantryman on foot would suddenly sink in to his arm-pits, and call for his comrades to come and pull him out. Then an ambulance would slip and half of it commence sinking, while the other half remained on solid ground.

Then part of a six-mule team would go in and flounder around or turn a summersault out of the harness, and perhaps come near drowning before they could be extricated, while the balance would remain firm. Fortunately the harness and ambulances, held well together, and we had capital drivers, or we never would have gotten up the Hassayampa. As it was, we made Wickenburg just at nightfall, and halted there a day and a half then to rest and recruit the animals, &c. Leaving there about noon, April 2, I halted at Camp Skull valley the night of the 3d, inspecting it, and reached Fort Whipple the evening of the 4th. Total distance from Maricopa Wells, by the route travelled, about 260 miles. Country occupied nominally by Tonto Apaches and Yavapais, both reported hostile. None, however, seen, though they shot a Mexican in the cañon of the Hassayampa a few days before we reached there. Weather good, but cold and frosty at night, as we neared Prescott, because of great elevation of country there above the sea, some 5,700 feet. I was fortunate in making the trip from Maricopa Wells in the short time I did, or in making it at all just then. No wagons had been through for some weeks, and none went through for several weeks afterwards, as I subsequently learned.

Fort Whipple, as the sub-depot for northern Arizona, sustaining the same relations there that Tucson does in southern Arizona, though on a smaller scale, was carefully inspected April 5 and 6; and the 7th was Sunday.

Your attention was called to the importance of the post, the unserviceable character of its buildings, the necessity of opening a new and shorter route of communication with the Colorado river and so to Fort Yuma, &c. Report rendered at Washington, D. C., July 27.

April 8 to 11 was spent with Brevet Brigadier General Gregg, commanding district of Prescott, in a scout after Apaches, with a detachment of 8th cavalry, through the country east of Fort Whipple to Hell cañon, &c.

No Apaches were found then, but it afforded a good opportunity for observing

the country there, and the results of the scout led to a subsequent one, in which 50 or 60 Apaches were killed and their lurking places east of Whipple cleaned out generally. April 12, I was detained at Fort Whipple by a severe storm of rain and snow, but leaving there on the 13th, Los Angeles, California, was reached on the 26th.

While en route the minor posts at Camp Mojave, Arizona Territory, Camp Rock Springs, California, and Camp Cady, California, were also inspected, and reports on these afterwards rendered at Washington, D. C., August 1 and 2.

These inspections consumed one day, and another was lost by an ambulance breaking down at Pai Ute Hill, April 19, between Camp Mojave and Camp Rock Springs, California.

The three posts last mentioned were not considered of much importance, and the general route for troops and supplies from Fort Whipple via Camps Mojave and Cady to Drum Barracks, was reported roundabout, unadvisable, and bad.

Another route, partly new, via Camp McPherson, Bill Williams Fork, Aubrey city, and so across the desert to San Diego, was recommended as perhaps 100 miles shorter and otherwise preferable instead.

The Colorado river was recrossed at Camp Mojave, and found to be a broad stream there with four or five feet of water, April 18, although Hardyville, five miles above, had been reported as "the head of navigation." There can be no doubt as to the certain navigability of this river to Callville, some 600 miles from its mouth, and within say 450 miles of Great Salt Lake City, at least nine months in the year, with light-draught steamboats and barges, and how much further up than that future explorations alone can determine. Lieutenant Ives's exploration of the Colorado in 1858—seems to have been much like a farce, and his report something of a fable, as far as could be learned. The alleged "Big cañon" of the Colorado, so remarkable in its wonders and so inaccessible to travel, according to Lieutenant Ives, is believed to be largely a myth, from the best information now obtainable.

The Colorado can be explored, and should be, in my judgment, from end to end. The Mojave river was also crossed and recrossed, perhaps 20 times, between Soda lake and Cajon pass, but this disappears in the desert east of Camp Cady, and is of no account generally, though once reported by a noted officer as navigable for light-draught steamboats from the Colorado up.

Unfortunately for his theory they don't connect, the desert drinking the Mojave up.

At Los Angeles I was detained April 27 to 29 waiting for the San Francisco steamer. April 30 I proceeded to Drum barracks, 18 miles, and left there, or rather San Pedro, the same evening for San Francisco, where I arrived May 2, about 400 miles. Total distance from Fort Whipple to Drum barracks by route travelled, about 498 miles. The country occupied nominally by Yavapais, Hualapais, Mojaves, Pai Utes, Chemehuevis, &c., all reported more or less hostile. No hostile Indians seen, however, though fresh moccasin tracks were observed several days, and one night between Camp Rock Springs, California, and Camp Cady, California, an Indian camp-fire appeared about three miles off, near Mud springs. As night-march was being made to avoid the heat and glare of the sun going down to Soda lake, we probably passed without being observed, as no red skins turned up afterwards.

My escort from Camp Whipple to Fort Mojave, 175 miles, was a non-commissioned officer and five cavalymen; from Fort Mojave the balance of the way to Drum barracks, a non-commissioned officer and our men.

Weather generally good, though frosty the first two or three nights out from Prescott, and very hot by day afterwards in crossing the desert between Camp Mojave and San Bernardino.

At Prescott, Arizona Territory, 5,700 feet above the sea, hail and snow April



12; at Soda lake, California, 1,075 feet above the sea, thermometer 98° in the shade April 21.

During the latter part of March, especially across the desert, rattlesnakes, centipedes, &c., bad. Total distance travelled in this tour through southern California and Arizona, from San Francisco back to San Francisco, about 2,468 miles. Time occupied February 9 to May 2, inclusive. My conclusions as to Arizona and the condition of affairs there generally have been stated so fully in my summary report on the Pacific coast, (August 15,) that I beg to omit them here.

On my return to San Francisco, I found a variety of matters awaiting attention. The first work done was to send you a special report on the alleged irregularities and frauds at Fort Colville, Washington Territory, referred to me for investigation and report, so long before as September 29, but which I was unable to satisfy myself about until my return from Arizona.

From affidavits, &c., then received from Colonel Babbitt, chief quartermaster department of the Columbia, who had kindly undertaken to aid in the matter, I was able to make up a satisfactory report, and forwarded same to you May 6.

Next I proceeded to prepare my reports on depots and posts inspected, in the order in which they had been visited.

The report on Drtm barracks was forwarded May 8. The report on Fort Yuma was commenced May 16, but stopped afterwards for want of sub-reports not then received.

Finding that most other sub-reports due from officers in Arizona were yet to arrive at San Francisco by mail, my time at most of the posts not sufficing for the preparation of them while there, I decided to proceed to Fort Churchill, Nevada, and inspect that post.

I accordingly left San Francisco, California, May 16, by steamer, and taking the railroad at Sacramento, and the stage-coach at Cisco next day, reached Virginia City, Nevada, about 300 miles east, May 18, via Donner lake. The 19th, being Sunday, was spent at Virginia City, and May 20 I proceeded to Fort Churchill, some 28 miles east. The post was inspected the same day, and found to be of slight importance as either a post or a depot of the quartermaster department.

Report rendered August 6, from Washington, subsequently.

Leaving Fort Churchill on the 21st, I returned to Virginia City, and leaving there on the 22d, recrossed the Sierra Nevadas via Lake Tahoe and Placerville, reaching Sacramento city again about noon of the 23d. In crossing the mountains from six to eight feet of snow was still found for perhaps 10 or 12 miles on the Donner Lake route, and about the same for perhaps five or six miles on the Placerville route.

The past winter had been an unusually severe one, and snow had fallen on the Sierra Nevadas from 20 to 30 feet in depth in many instances, covering telegraph poles, breaking down trees, crushing buildings, &c.

I had already decided to omit visiting posts on Puget's sound, believing they possessed no importance not embraced sufficiently in my report on Fort Vancouver and San Francisco. So I had decided to close my inspections on the Pacific coast with Fort Churchill, and return east by the steamer of June 10, and had ordered sub-reports to San Francisco accordingly.

Knowing these had not yet reached there, and being unable to work satisfactorily without them, I decided to defer all further reports until my return to Washington, and meanwhile proceeded to the Yosemite valley and the Big Trees.

Taking the stage at Sacramento, May 24, I arrived the same afternoon at Stockton, 50 miles south, passing through almost continuous wheat-fields, and the next day proceeded 80 miles southeast to Coulterville, much of which was also wheat-fields.

At Coulterville, May 26, horses were mounted, and the Yosemite reached next



day about sun-down, some 50 miles in all, across the foot-hills and among the Sierra Nevadas.

This ride itself was very interesting and picturesque; but the Yosemite was surpassingly grand and sublime. The deep snows on the mountains, now melting rapidly in the hot sun, had swollen the usually quiet waterfalls into vast cataracts, and the grandeur of the sights in the wonderful valley seemed almost equalled by the sublimity of the sounds.

The trees in the valley were filled with blue-birds and robins. Wild-flowers were out in bloom, and strawberries were ripening in the dense grass. But the mountain-tops above were crowned with snow, while each side the vast granite walls of the valley rose from half a mile to a mile and a quarter in height, almost perpendicularly. Length of valley about eight miles, varying in width from half a mile to a mile. Height of walls from 3,000 to 6,400 feet. Height of greatest waterfall—the Yosemite—2,600 feet, about 15 times that of Niagara. May 28 to 30 was spent in the Yosemite, visiting most points of interest, and May 31 I started to return via the Big Trees and Mariposa.

Nobody had been out of the valley over the Mariposa trail this season, and but one or two persons over the Coulterville trail.

But it was found practicable, though difficult for some six miles across the summit, where the snow still lay from three to four feet deep. While floundering through this with our horses, a grizzly bear with two small cubs was encountered, but she turned on seeing us, and we were not prepared to follow her. June 1 I visited the grove of big trees, near Clark's, and found six of them to measure 30 feet each in diameter, 50 of them over 16 feet each, and 200 over 12 feet each.

A section of one tree, lying on the ground, with the heart burnt out by fire, two of us on horseback rode through abreast.

In another, still standing, but with the heart much burnt out, three of us on horseback rode round in single file, and there was room enough left for two or three horsemen more.

Another, still growing vigorously, but very aged, measured over 100 feet in circumference at the base, and one of the first limbs, perhaps 100 feet from the ground, was said to be six feet in diameter.

In all there are about 600 trees in the grove there, some small, but most very gigantic. There is a smaller grove at Calaveras, and other trees of the same variety are reported elsewhere along the mountains; but the Mariposa grove is believed to contain the largest trees, and the most of them. The same day I reached Mariposa, by horseback, some 50 miles from the Yosemite. Taking the stage here June 2, I reached Stockton again June 3, about 100 miles, and went from there to San Francisco by steamer, about 125 miles more, the same night. Total distance to Virginia City and return, via Yosemite, 955 miles.

June 4 to June 9 was spent in closing up matters at San Francisco, and June 10 I sailed for New York, via Panama, in accordance with your orders.

An accident on the Panama railroad detained us on the isthmus some hours, but I reached New York safely July 4, and Washington, D. C., shortly after.

Since my return here I have been engaged in rendering back reports on depots and posts inspected on the Pacific coast, and in adjusting some unsettled accounts with the Treasury Department, deferred until my return to Washington.

Total distance from San Francisco to Washington, via isthmus of Panama, 6,336 miles. Total distance from Washington, D. C., to Pacific coast and return, by routes travelled, as herein indicated, 14,697 miles. Of this about 1,813 miles were by railroad; 1,709 miles by stage-coach; 2,572 miles by ambulance; 250 miles on horse (or mule) back; and 8,353 miles by steamboat. The period occupied was one year, less 13 days.

The long tour thus made across the continent and on the Pacific coast, much of which was over ground never before visited by an inspector of the quartermas-

ters' department, suggests some general conclusions, which I beg leave respectfully to submit as follows. Some of them are mentioned with diffidence, because not strictly within my province, perhaps, as inspector of the quartermasters' department; but believing them of interest to the department nevertheless, they are submitted for what they are worth, my tour considered :

I. Chief quartermasters of departments should be required to visit every post in their departments, either in person or by conscientious, courageous inspecting officers, at least once a year, so as to inform themselves fully as to the character of posts, the resources of the surrounding country, routes of supply, &c.

They should be held responsible for a thorough promulgation of your general orders, and required to instruct their officers from time to time by circulars or general orders of their own, calling uniform attention to everything of a general nature, &c. The importance of this is believed to be great from the uniformity and general correctness of action observed in the military division of the Missouri, and the contrariety and frequent incorrectness of action found in the military division of the Pacific. So the corps of quartermasters should be so increased as to give a captain and assistant quartermaster, in my judgment, to every important post, with supervisory control of quartermasters' affairs at adjacent smaller posts not provided with assistant quartermasters. He should be the permanent property and money officer of the post, not liable to change ordinarily, and should also be acting commissary of subsistence, acting ordnance officer, &c. He would thus gradually inform himself fully as to the resources of the country, the shortest and best routes of supply, &c., and would leave behind him when relieved such full and accurate records as would aid his successor materially. Now most posts are manned by subalterns, who seldom serve as quartermaster more than a few months at one place before their commanders are ordered off and they go with them. As a rule such officers pay but slight attention to quartermaster duties, and seldom leave behind them records that are of much value to their successors.

The aggregate difference in cost to the government of this change would be slight so far as the pay department is concerned, while so far as the quartermasters' department is concerned it is believed it would result in a saving of many thousands of dollars annually, aside from increased efficiency to the service.

II. The troops for duty on the plains, and on the Pacific coast and in our new States and Territories generally, should be mostly cavalry. From much observation and talk with both officers and citizens while en route, I am convinced that infantry are of but little if any use after Indians, and that sending them into an Indian country is mainly a dead waste of time and money.

So I think small posts, a hundred miles or so apart, of but little practical advantage against Indians, as they raid around and between them, and go pretty much where they please, the same as if the petty posts were not there.

It struck me, as a wiser policy, to have only strong posts, and to garrison these with infantry, while the cavalry should be held in hand as a movable column, and kept in motion from point to point where Indians are reported as much as possible.

The posts should be regarded merely as depots and rendezvous for the cavalry, which should be kept in the saddle summer and winter as far as practicable. It will be recollected, of course, that the Indians are nearly all mounted, and travel more or less at all seasons in much of our Indian country.

So all troops, whether infantry or cavalry, should be armed with the Spencer carbine seven-shooter. This would increase their effective strength virtually seven-fold without much additional increase of transportation; and, besides, the savages have a profound respect for the "much-shoots" and "heap-shoots," as they term our repeating carbines. This last matter was brought to my attention by many officers, especially in Arizona, and I have received letters since my

return here urging the importance of this. The reasons are so cogent and so obvious that I forbear to suggest them further.

So the cavalry should be mounted as far as practicable on native or half-breed horses. These animals have been unaccustomed to the grain feed and good care of eastern horses, and consequently will pick up a living and get along tolerably where an eastern horse would break down or starve. Repeated instances of this were heard of and seen during my tour. In pursuing Indians this is very important, as no forage can usually be taken along. The saving in first cost, also, is a very considerable item.

No cavalry horses were being received at posts on the plains, but in the department of the Columbia the quartermasters' department was paying from \$175 to \$225 per head for Oregon or eastern-bred cavalry horses, while in the department of California we were buying the native or California horse for about \$73 coin, which was apparently rendering as good service as the higher-priced animal, if not better, in Arizona, Nevada, &c., where he was wanted for duty. For further evidence as to this, please see reports on San Francisco and Drum barracks, California.

Major General McDowell, commanding department of California, deserves much credit for the efforts he has made to introduce these horses into the service there.

III. Our military reservations, as a rule, are unnecessarily large, and thus defeat the main object of posts, namely, to promote settlements.

These were found to vary in size, from one mile square to 10 miles square, while others again were found 25 miles long, north and south, by 20 miles wide, east and west. The large extent of these was either to keep citizens off from too close proximity to the posts, because of the demoralizing results of intercourse with the troops, or to embrace certain wood or grass lands that were deemed important to the posts. In answer to the first, it may be said that troops will always find their way to the ranches of citizens, when they can get what they crave there, whether one mile off or 10 miles, as was observed in repeated instances. As to the second, it is not believed that such reserved wood and grass lands, in the main, have resulted economically for the government in the long run.

At many posts patent mowers were found, but at scarcely any was the quartermaster department procuring its supply of hay by this means. It had been proven by actual trial that we could get hay cheaper on contract, loaning the contractors the use of the mowers, and it is believed the same would be the case generally as regards fuel. To cut and haul the wood ourselves, extra employes and teams must usually be kept on hand, or else the troops diverted from their regular military pursuits.

This last defeats the military object of posts as points of offence against Indians, and is demoralizing to the service in many ways.

Calculations made at several posts showed that the actual cost of fuel procured by troops, counting cost of extra teams, employes, extra-duty men, &c., amounted to more than it could have been delivered for on contract, notwithstanding the apparent cheapness of former method. As to this, please see report on Fort Bridger, Utah Territory, particularly.

Besides, it is understood that the chief object of posts at all is to promote settlements, and thus do away with the necessity for troops in those regions eventually. By retaining only what land is really necessary about a post, say a mile square or so from the flag-staff, and procuring all supplies on contract, or in open market where this seems most advisable, people would be encouraged to settle near for a market, our aggregate supplies would be procured cheaper, and in the end such settlements would become self-sustaining and self-protecting.

Now, the great extent of our reservations, and the attempts at times to furnish all regular supplies ourselves, retard and repel population, and in some instances,

as at Fort Leavenworth, Kansas, Fort Boise, Idaho Territory, Fort Vancouver, Washington Territory, and Presidio, San Francisco, California, become very embarrassing to growing towns and cities.

In this same connection, it is believed all such irregular and delusive enterprises as are termed "post farms" should be discouraged and prohibited. The total cost to the government of all they produce, it can readily be shown, would be one-third more ordinarily than if the same were procured on contract. Besides, they retard settlements, and are most demoralizing to troops as to discipline, and almost destructive of real efficiency.

Soldiers, in the main, enlist to scout and fight Indians, not to dig ditches and farm. They like the Spencer carbine and the revolver, but, as a rule, detest the axe, hoe, shovel, &c., and no extra-duty pay can reconcile them to them. For some exposition of such a farm, in detail, please see report on Camp McDowell, Arizona Territory.

In general, therefore, it is believed that our military reservations should not exceed a mile or so square, with the flag-staff as a centre, and that all extent beyond this only serves practically to defeat the very object for which posts are established ordinarily, to wit, to promote settlements and subdue Indians.

IV. Posts should be located with a view to their permanency or temporariness, as far as practicable, and then the quartermaster department be called on to do its work accordingly.

A temporary post should be built and conducted just so as to get along, and should be regarded as a thing of months only, at the furthest. But a permanent post should be built well, and kept decent and comfortable and safe, no matter what the cost. The materials should be stone, preferably, but these need not be cut and dressed at large expense, as at one post inspected. Failing stone, then lumber; lastly, adobes. Sod huts or houses are unsuitable and bad in every way, except at very temporary posts. They require great labor, and when completed are damp and soon bulge out or tumble down, sometimes fatally injuring those inside.

Adobes are good and well adapted to much of the plains country, Arizona, &c., because so cool, but they need board floors or good cement, and the general, almost universal, testimony of our officers was that adobe roofs would leak in heavy rains. This, at least, was the case at our hastily constructed posts, and the inside condition of the quarters and barracks of many of them, in consequence of this, was anything but commendable. Officers and soldiers both complained of this, and many thought that the only remedy is good shingle roofs. No doubt these are more advisable, where their cost would not be too great.

But the Mexicans contrive to make tight adobe roofs in southern Colorado and Arizona, as I saw myself, and, therefore, it is not seen why the quartermaster department cannot do the same. The chief trouble with many post buildings inspected was, their adobe or dirt roofs had been put on too slanting; and, therefore, suffered much from wash during hard rains. They should be almost flat, with small poles laid close together first, these covered with old canvas or hides, and then adobes or good stiff clay tamped carefully down on top.

After each rain, for a season or two, a little more clay should be added, and then it is believed they would suffice very well, as a rule.

As adobes will probably be used over a wide extent of territory for many years to come, it is respectfully recommended that full instructions as to the best way of making and preserving such buildings be prepared and promulgated throughout the army.

Quartermasters who have been stationed in New Mexico for some time would probably be able to furnish the information readily.

The cost of lumber at many posts averages from \$60 per thousand to \$250, delivered, which, of course, renders its use inadvisable in such districts, if adobes can be made to do.

The cheapest lumber found was at Fort Vancouver, Washington Territory, \$17 per thousand; the dearest at Tucson, Arizona Territory, \$250 per thousand, coin.

The general character of post buildings was found to be bad, and is believed to be a fruitful source of discontent, desertions, &c. One post inspected had lost 25 men by desertion in one month, with their cavalry horses, accoutrements, Spencer carbines, &c., complete, and many instances of this kind were reported to me. In fact, no humane farmer east would think of sheltering his horses or cattle in such uncomfortable and wretched structures, huts, willow-hurdles, adobe shanties, &c., as compose many of our posts in the new States and Territories now. It is submitted that our gallant officers and soldiers, who are serving the government faithfully in those distant regions, where they are deprived necessarily of many of the blessings of civilization, deserve at least decent and comfortable quarters, and they have a right to expect this at the hands of the United States.

Their present accommodations, in great part, are simply wretched, and it is not believed that the War Department here, or the American people, desire any such barbarous economy, if it be real economy in the end.

A part of my instructions read, "Are the barracks such as to enable the troops to live in health and decent comfort? The desire of the Quartermaster General is that the troops should be so housed and supplied as to be contented, and to improve their physical and moral condition, and prevent desertion and vice." I regret to say my answer must be *no*, emphatically, at the great majority of posts inspected, especially on the Pacific coast, and in my judgment a thorough reform is needed in this respect as soon as practicable. The first cost would, of course, be large; but when it is reflected that the bulk of our troops are enlistments east, who are only got to our distant posts at great expense, it will be seen that desertions to the extent now common there are very costly to the government, and would go far to offset, if not soon extinguish, the increased cost of comfortable quarters. Aside from this the general interests of the service would, of course, be enhanced many fold. For other observations as to this please see special reports from Denver, Colorado Territory, September 12 and October 2, 1866; also summary report on Pacific coast, August 15, 1867.

In this connection it is also suggested that the quartermaster department should equip all such posts with all necessary permanent furniture, such as tables, beds, wardrobes, washstands, chairs, matting, &c.

These have now to be provided by officers themselves, where they are provided at all, and the cost falls very heavy in those distant regions where all mechanical skill is at a premium. An officer cannot afford to furnish his quarters with much comfort at such places, as he is liable to be ordered five hundred or a thousand miles away the next week, and where he has his wife or family with him this becomes very hard. The present rule of the service requiring officers to furnish such articles themselves may do very well in the east, but at frontier posts, in my judgment, it should be modified as indicated. The aggregate cost to the quartermaster department would not be great, while it would relieve individual officers of an unjust burden, as I think, and at the same time promote the general decency and comfort of our distant posts immeasurably.

In this connection, also, your attention is called to the propriety of furnishing all chief depots and posts with adequate protection against fire.

The losses of the department from this cause for the past two years or so have been very considerable. The fires at Nashville, Tennessee, Hilton Head, South Carolina, Fort Riley, Kansas, and Memphis, Tennessee, alone have aggregated about \$3,000,000, I believe, not counting minor losses elsewhere.

Most depots and posts inspected were supplied with water, for current use and against fires, by means of one or more water wagons.

The aggregate annual cost of one of these clumsy concerns, counting interest



on first cost of wagon and team, wages of driver, his rations, forage for animals, necessary repairs, &c., at the rates current at the post where used, would usually provide the post with a good wood-burning engine, and sufficient water-pipe, hose, &c., complete, in two years or so.

This would give water in abundance ordinarily, and at the same time afford reasonable precautions against fires, whereas the present system of water-wagons affords scarcely any.

At some of the posts the annual cost of the water-wagons was so great that an engine, water-pipe, &c., would have paid for themselves the first year.

The aggregate cost of such simple arrangements as water-wagons, &c., does not at first appear, because the items are scattered along from month to month, whereas the cost of the better arrangements suggested comes altogether, and therefore seems greater. But the calculations are very easy in demonstration of the above, and the duty of a quartermaster, I take it, is to find out such "penny-wise and pound-foolish" arrangements and substitute more judicious ones speedily. At various depots and posts the introduction of water from streams or springs adjacent was, therefore, recommended, by means of wood-burning or caloric engines, water-pipe, &c., and it is believed the interests of the service would be largely promoted thereby.

At many points, as at Fort Leavenworth, Fort Riley, Fort Vancouver, Fort Yuma, &c., the amount of public property on hand was very large, running up into the millions—buildings and all included—so that the cost of this improvement would be justified at once, merely as a measure of insurance against fire, as the United States does not insure otherwise.

For fuller facts as to this, please see reports on Fort Leavenworth, Fort Vancouver, Fort Whipple, &c.

V. Fuel and forage are both very costly items at all our scattered posts, and, therefore, as little of each should be used as can possibly be got along with. The cost of wood on hand was found to vary from \$4 25 per cord at Fort Vancouver, Washington Territory, where timber abounds, to \$75 and \$100 per cord at Fort Sedgwick, Colorado Territory, where there is not a tree for 50 miles.

A new contract, however, had just been executed at Fort Sedgwick for wood at \$46 per cord, which was to come from the Rocky mountains, 185 miles west, by return freight trains. But few attempts had been made to discover and use peat or coal, though one or the other is believed to exist in many localities. The cost of grain was found to be from 80 cents per bushel, United States currency, at Fort Riley, Kansas, to \$9 per bushel, coin, at Camp Rock Springs, California; of hay, from \$7 50 per ton, at Fort Riley, Kansas, to \$84 per ton, at Fort Yuma, California. In many districts, particularly in southern California and Arizona, the climate is so mild that it is believed the regulation allowance of fuel might safely be reduced; also on the plains, in summer.

The use of petroleum, with the patent petroleum stoves, now in extensive use in many eastern cities, it is believed, would suffice well for cooking purposes at many posts a large part of the year, and their introduction would perhaps be advisable on the score of economy.

So, large wood-burning stoves in general should be furnished to all posts where wood is scarce, as it mostly is across the plains and on the Pacific coast. The first cost would be considerable, but they would pay for themselves the first season, as a rule. As to forage, the country adjacent to the posts should be relied on as far as practicable, and in most instances a supply can thus be had, it is believed, with judicious management, if the reservations be reduced as recommended.

Never should grain be shipped from distant points, if a supply can be procured about the posts at the same, or nearly the same cost. This, to encourage settlements there, and thus reduce prices eventually.

At one post inspected grain had been shipped nearly 3,000 miles, and put



down at the post at a cost of \$7 56 per bushel, coin, although the country adjacent was believed to contain sufficient; but the farmers had not bid at as low a figure.

By proper management, however, it would seem this grain could have been obtained at least as low, as the military posts were about the only markets there.

With our troops kept well in motion, it is not believed that the forage ration can be much reduced, as a rule.

This has been tried on the Pacific coast, but the results were not satisfactory, as per report on Fort Whipple, Arizona Territory.

The only reform on the forage question that seems practicable is, to reduce the public animals at all posts to the minimum.

A considerable excess of animals was found at many posts, especially in the military division of the Missouri, as was believed, and their reduction was recommended accordingly. So, grazing should be resorted to in all cases where practicable, particularly at all posts located near mountain cañons, where good grass exists the year round.

A saving of fully \$30,000 was thus effected at one post inspected, on a suggestion made while there, and similar results would doubtless appear at others, with due knowledge and forethought.

I know it has been asserted that no such mountain cañons exist, but I saw some in the Rocky mountains and Sierra Nevadas, and heard of many others, where citizens assured me they grazed their surplus animals satisfactorily—horses, mules, cattle, &c.—all winter without grain; and, if *they* can do so, why not the quartermasters' department.

VI. As a rule, it is not believed advisable for the quartermasters' department to do its own transportation, but rather should procure this on contract, after due public advertisement, as provided by the regulations.

This latter system was in general use everywhere, but did not seem managed on the Pacific coast as judiciously as on the plains. The rates of freight by wagon, from Fort Leavenworth to Camp Douglas, Utah Territory, (Great Salt Lake City,) averaged about  $1\frac{1}{2}$  cents per pound per hundred miles, United States currency. This in military division of the Missouri. In the department of the Columbia, rates by wagon averaged, in the district of the Boise, from  $2\frac{64}{100}$  cents to  $8\frac{29}{100}$  cents per pound per hundred miles. In the department of California, from 1 to 6 cents, coin, per pound per hundred miles. This in military division of the Pacific.

This difference was caused, as believed, partly from want of thorough advertisement, and partly from want of proper organization and management of the quartermasters' department on the Pacific coast. The defects of this last are stated so fully in my summary report on the coast, August 15, that I forbear to repeat them here.

The difference in roads—wood, water, grass, &c.—on the plains and on the Pacific coast, is not so much as would be supposed, and other differences, such as greenbacks, coin, &c., are not believed sufficient to justify or explain the large difference in freight charges referred to. Where the quartermasters' department, from necessity, must attempt transportation itself, depot quartermasters should be authorized and required to organize twelve mule trains, with the large wagons or "prairie schooners" in use on the plains and Pacific coast, which carry from 6,000 to 8,000 pounds each.

A lesson should be learned from old freighters there, who use only these huge wagons, and thus save immensely in the cost of forage, wages of teamsters, &c.

For ordinary marches, scouting duty, &c., the army wagon, with its six-mule team, to carry 2,000 or 2,500 pounds, is of course hard to be beat, as the war satisfactorily demonstrated; but for general freighting purposes, in the new States and Territories, the "prairie schooner" is two or three times cheaper, and far more efficient, as believed.

This problem of transportation, however, will be much simplified soon by the completion of the Pacific railroad.

August 23, when inspecting Fort Kearney, Nebraska, the eastern terminus of the road had then reached there, and was being pushed west a mile or two per day. It is now, I believe, advancing rapidly up Lodge Pole creek, and is expected to reach the base of the Rocky mountains by winter.

May 17, when en route to Fort Churchill, Nevada, I passed the western terminus near Cisco, California, where some 10,000 Chinamen were engaged in tunnelling the summit of the Sierra Nevada, and grading track even beyond. Doubtless by July 4, 1870, this great continental enterprise will be completed, and this will reduce our freights at least one-half at all posts bordering on or near it.

How great a saving this will be, only the records of your office can show; but it is believed the aggregate would pay for the total outlay in building the road itself, in a very few years. At many posts, however, wagon transportation must still be resorted to, but this should be on contract, as far as possible, for reasons given in various reports.

In this connection use should be made of water transportation via the Columbia and the Colorado rivers, as far as practicable, both of which are believed to be navigable to a much greater extent than heretofore used.

The Columbia, under the auspices of the energetic and enterprising Oregon Steam Navigation Company, bids fair to be developed soon, in all its parts. But the Colorado, so valuable to Arizona and the entire internal basin of the continent, is still comparatively unknown, and has never yet been satisfactorily explored.

For full facts as to this, and its vast importance to Utah, Arizona, and all that part of the continent, please see reports on Camp Douglas, Utah Territory, Fort Yuma, California, and a special report from San Francisco, January 18. Its speedy exploration throughout from Green river, near Fort Bridger, Utah Territory, down, and from the Gulf of California up, is deemed a matter of high national importance, and is most urgently recommended accordingly. This can be done at no very great expense, and some branch of the government should lose no time in undertaking it, in my judgment. The results, aside from those stated, according to Kit Carson and other reliable frontiersmen, would be to open up a very valuable section of country west of the Rocky mountains, as well as south of the Sierra de la Plata mountains, both agriculturally and minerally considered, of which but little is now known to the world.

Of the importance, geographically considered, of knowing what the Colorado itself really is, nothing has been said, as the other considerations mentioned would seem sufficient.

It is also suggested, in this connection, that the cheapest, as well as much the most expeditious mode of travelling by officers under orders, is by stage coach at even the high rates current on the plains and the Pacific coast. Careful calculations as to this, compared with the cost of travelling by ambulance, were given in report on Fort Leavenworth, and the facts there stated were more than confirmed by subsequent observations. This may seem doubtful on first consideration, but when interest on original cost of team, the cost of forage, rations, wages of teamsters, loss of time, &c., are all computed, the expense will be found three or four times as great, without computing the expense of the usual mounted escort, which is, of course, very considerable.

VII. The general expenses of the quartermasters' department on the plains and the Pacific coast, it is believed, have been much increased from the want of prompt payment of vouchers, for services and supplies, when due.

This has been caused, of course, by the want of funds at the several posts, and especially at the chief points for purchases and disbursements. The result was, holders of vouchers, contractors, employés, &c., were compelled to throw

them on the market for what they would bring, and in this way they lost from five to fifty per cent., depending on the ruling discount where sold.

One very heavy contractor on the Pacific coast told me that he never realized over ninety per cent. from his vouchers, and oftentimes he deemed himself fortunate if he got seventy-five. Of course this loss is charged back to the quartermasters' department, by increased prices in subsequent contracts, and has to be paid back by the government some way in the end.

The aggregate indebtedness of all posts inspected footed up \$1,601,208 82. Of this, about \$1,500,000 was on the Pacific coast, and the current rates of our vouchers at many posts there were very unsatisfactory, not to say humiliating. After deducting all funds on hand, it was estimated there was still a deficit there, December 31, of about \$353,757 03.

The chief quartermaster of that military division had recently assumed charge there, and was making strenuous efforts to call in this indebtedness and extinguish it, with a view to restore the credit of the department, &c. But his efforts will avail little, unless funds hereafter are promptly remitted and kept in sufficient amounts at all chief points. Each post, it is believed, should have enough funds to cancel all indebtedness properly accruing there, such as wages to employés, payment for regular supplies obtainable there, current post expenses, &c.; but all graver accounts, such as for quartermasters' stores, animals, transportation, &c., should be payable only at chief depots, where funds should always be on hand to meet these.

No reason is known why this cannot be done, by timely estimates and prompt remittances. The result, it is believed, would be a saving of from 25 to 33½ per centum annually at most posts inspected, and the same, I judge, would hold good of the great majority of posts in our new States and Territories.

For further as to this, please see Summary Report on the Pacific Coast.

VIII. Our general accounts of Indian outrages and troubles, in the main, it is believed, are greatly exaggerated, and but few of them should be received without much allowance. As some evidence of this, my own wide experience, over nearly 5,000 miles of Indian country, part of the time without escort, and never with more than half a dozen or so mounted men, is cited as suggestive. Accounts of my being cut off and massacred preceded and followed me several times, especially in Arizona, but not one hostile Indian was seen.

No doubt some were in the country, but by keeping my little party well together, and exercising common vigilance day and night, all attacks were avoided, as it is believed they would be in most cases, where parties of three or more are travelling together. The trouble is, single men set off on long journeys alone; or if in parties, no Indians having appeared for several days, some wander on ahead or straggle behind, without arms, when suddenly arrows whiz from behind rocks or down cañons, and men are found dead in the road with their scalps gone. No man is safe in an Indian country without his revolver constantly strapped to his body, and his repeating rifle within reach.

Old frontiersmen and prudent immigrants understand this, and "govern themselves accordingly;" but, unfortunately, many persons now travelling on the plains or wandering among the mountains do not, or at least *will* not, and they have to take the consequences.

It is believed, however, that three-fourths of all the Indian outrages reported are either false, or are old accounts revamped to suit the occasion; and that, of the balance, fully three-fourths would never happen with the exercise of customary prudence and vigilance.

This opinion is based on a careful examination into a multitude of such reports, to insure my own safety, through eleven of our new States and Territories, and is not believed to be over-stated.

My honest conviction as to the Indian, after passing through some twenty-seven (27) tribes while *en route*, extending from the Missouri to the Rocky

mountains, from the mountains to the Columbia, from the Columbia almost to Sonora, and thence back to San Francisco, through the heart of southern California and Arizona, is, that while he is neither "Lo, the poor Indian," of the English classics, nor the "Noble Red Man," of Cooper's novels, neither is he the warlike and blood-thirsty fiend, the besotted brute and beggar, that so many modern accounts from the border represent him to be.

It would be well for his wholesale slanderers to recollect that neither are our modern borderers all Nally Bumpos and Daniel Boones; and that our best representatives of these, such as Jim Bridger, Kit Carson, &c., all speak well of the Indians, and defend them on all occasions. The truth is, the Indian is simply an ignorant, untutored savage, not comprehending our civilization, and who sees, perhaps sort of half blindly, that white men's ways, however good *per se*, only injure him. They *do* injure him, by squatting upon his best lands, cutting down his finest forests, and driving away or exterminating his choicest game.

The chief return he receives is bad whisky, that demoralizes and ruins him, and now and then a big talk with some Indian agent, followed by a lot of useless trinkets, or gaudy apparel, or flimsy blankets, that serve rather to injure than benefit him.

Brigham Young once said, with wonted shrewdness, "I can kill more Indians with a sack of flour than a keg of powder, and twice as many with a bale of blankets as an equal number of guns."

Fish-hooks are invariably distributed, although often the country has no fish to catch, because fish-hooks happened to be useful to Indians half a century ago in Michigan or Tennessee.

Ploughs and seeds are sent to tribes that live mostly by the chase, while agriculturally inclined Indians, such as the Mojaves, Maricopas, Pimos, and Papagos, in Arizona, can get neither, and hardly ever see an agent, if reports be true. Indeed I was told the Mojaves had never yet had an agent, and could not get one to visit them even.

The Maricopas and Pimos are first-rate Indians, have long been peaceable, and are the best Indians met in my entire tour. Yet for years they have been trying to get carts, to aid their squaws in hauling grain, and in procuring fuel especially, which just there has become so scarce that the poor squaws have to pack it five or six miles on their backs or heads.

No carts have been furnished, after repeated application, as an Indian trader there told me; but fish-hooks arrive regularly, though there is scarcely an eatable fish in the Gila just there.

The main efforts of the Indian department in Arizona, indeed, seemed to be to bribe or pacify the hostile Apaches or Hualapais into friendly Indians, by gifts, presents, annuities, &c. As if "gifts" or "annuities" ever *pacified* a hostile Indian yet, or ever will. Carbines and revolvers are the best logic for such; but kindness, and encouragement, and everything else needed, for all Indians that behave themselves, and are willing to settle down and go to farming.

It is vain to say that our Indian laws are humane, and that the government means only right and justice by these its wards. The Indian is as God made him, and he cannot understand these things. The only thing that he does understand is, that his condition is constantly becoming worse and his numbers fewer, while in the same ratio the white man improves. Savage that he is, he cannot fail to comprehend this, and hence he is in a condition illy to brook whatever outrages are offered to him.

And these, it is believed, in a great majority of cases, come originally from bad white men. Indians have their bad individuals too; but as a race, they are more quiet and inoffensive than Anglo-Saxons on the border, and, to be plain, much less disposed to intrude upon their neighbors.

Once roused, however, they make no discrimination as to individuals, and unhappily soon spread hostilities far and wide. Hence the borderers proclaim extermination, and practically carry it out, as far as they are concerned. All through the mining regions of California, Nevada, Colorado, &c., the pick-axe and the rifle, the shovel and the revolver have gone hand in hand, and the Indians have generally disappeared like the buffalo, &c., on the Platte.

Our borderers, indeed, claim that the Indian is not of our era; "has no rights that white men are bound to respect;" but that he is of the same historic period with the buffalo and panther, antelope and wolf, and should be made to pass away with them.

Add to this the heavy local patronage necessarily of all posts and passing bodies of troops, and the secret of most Indian hostilities and Indian wars, so called, it is not difficult to perceive. Most assuredly General Sherman was right when he said, last spring, "You can have an Indian war or not; just as you choose."

Such things are simply at the discretion of our own troops and people, and the country should not fail to understand this accordingly.

Three things, it seems to me, should be accepted about this Indian question as axiomatic, after which much becomes clear. First, that the white man is bound to go where he pleases across the American continent, no matter what opposes. This is as certain as destiny and as irresistible as gravitation, whether liked or not. Second, that contact between the two races under existing arrangements, while never free of danger to the white man, is ruinous and destructive to the Indian; and, third, that a humane and Christian nation like ours, as a whole, will not consent to the wholesale extermination of the red man, like the panther and the grizzly.

These admitted, the remedy seems plain, to wit: total separation, as far as and as speedily as possible. General Sherman's plan to clear out the Indians between the Platte and Arkansas west to the Rocky mountains is the most practical scheme proposed yet; but this involves either extermination or providing the savages with homes elsewhere, and to this last all possible schemes of a humane nature must come at last.

Scattered reservations, on the present system of the Indian department, avail little, because the Indians cannot be kept there without a vast army to watch them.

But large reservations, with many tribes near together, mutually dependent on and emulating each other, as in the case of the Indian territory, and from which all white men should be excluded, except the necessary agents, troops, &c., it is believed is the wisest plan yet devised and the one that affords the best hope for the future. The first cost of establishing such reservations and collecting the Indians in them, will, of course, be great; but it is believed this would be repaid in less than ten years by the saving in posts, troops, transportation, &c., as well as many valuable lives now annually lost.

The difficulty in locating such reservations need not be great, if the trouble is taken to travel faithfully through our Indian regions and see what is most advisable from observation on the spot.

I believe the plan recently proposed in Congress embraces several of these features, and so far it is believed will be found judicious; but I have not been able to examine it with much care.

Connected with this, of course the conduct of Indian affairs should be transferred bodily and solely to the War Department, where it formerly was, and should always have remained. To a disinterested person familiar with the facts there can scarcely be two opinions about this, and I am sure I hardly heard a difference of opinion on this subject from the time I entered the Indian country till I came out of it.

All classes of citizens in the new States and Territories, as a rule, and even



many Indian agents I met, favored this transfer, as a matter of right and justice and good common-sense policy, and the wonder of nearly everybody was, that Congress had not ordered this transfer long ago.

It would seem due alike to the Indian and the white man, and it is believed there never will be any permanent settlement of this vexed Indian question till this is done.

"Wanted, an Indian policy," was the great and crying want of the government on the plains and the Pacific coast when I was there; and something definite and comprehensive, that can be steadily worked up to hereafter in all our Territories, it is respectfully suggested should be decided on and ordered speedily.

Now, every military department, and almost every military district, as well as Indian agency, has its own pet policy, or rather impolicy, and no two agree long anywhere. The only thing certain is, that the Indians are cheated and maltreated, and are steadily disappearing, from a variety of causes, many of them disgraceful to the nation; while the white man occasionally gets killed, but on the whole as steadily increases. Is there not brain enough somewhere in the government to devise and execute some other plan, whose results shall be wiser and less sad than these, and more worthy of humane and Christian people?

IX. In my report on Camp Douglass, Utah Territory, some remarks were made on the condition of affairs in Utah generally.

As practical measures to meet the case in part, it was recommended, first, that Mormons be excluded from contracts, so as to avoid the anomaly of the government paying 10 per centum of the profits thereof into the hands of its avowed enemies, the contractors' "tithes" to the church; and second, that the military force at Camp Douglass be largely increased, so as to give adequate protection to Gentile life and property there, and enable the United States courts to enforce existing laws, at all hazards. I would repeat all then said and would further add, that the real condition of affairs in Utah is but feebly understood east, and that the government seems to be indulging in illusions with regard to those malcontents that do not promise to be realized.

It was my fortune to spend over three weeks at Great Salt Lake City, from October 14 to November 7, inclusive. During that time I met most of the federal officers, military and civil, then there; also Brigham Young, Daniel H. Wells, Heber Kimball, George Q. Cannon, Hiram Clawson, and most of the Mormon dignitaries; also attended the annual muster and review of the Mormon militia, November 1; and, by free conversation with merchants and business men generally, of all shades of opinion, in Utah and elsewhere, I endeavored to inform myself faithfully as to the true condition of affairs in that much-debated Territory.

My conclusion was and is—all one-sided, interested or intimidated accounts to the contrary—that there is no substantial liberty of speech or of the press in Utah, and no safety for Gentile life or property without a tacit acquiescence in the existing order of things there. "We are glad to see Gentiles come in here, and welcome strangers generally, if they mind their own business; but if they get to talking about our peculiar institutions, they had better leave; Salt Lake is no place for such folks." This was the remark of a Mormon to me, high in the councils of the church, and was corroborated again and again by what others said.

It is the same as it was south before the war. "Peculiar institutions," whether slavery or polygamy, breed the same results, whether in South Carolina or Utah, and the only safe alternative for outsiders is acquiescence or emigration.

How far the leaders of the Mormons directly order outrages and crimes against Gentiles is perhaps a mooted question; but that the pulpit-teachings of the



church and Mormon public opinion generally do encourage and sanction such outrages and crimes ought not to be longer doubted.

At the Mormon tabernacle in Great Salt Lake City, October 14, during regular public worship of two hours or more, I being present, the government of the United States and the people thereof were bitterly assailed in addresses by prominent Mormons, (and this occurs, more or less, every Sabbath, as excellent people there assured me;) the direct tendency of the gist of which was to incite sedition and promote unlawful violence towards Gentiles. That this was the result, Mormons, without much hesitation, admitted; and also admitted that Dr. Robinson's death, October 22, while I was there, probably resulted from "ignorant and fanatic Mormons," though they denied further participation than this of the church in the murder, and resented the idea of "Thugs," or "Danites," or "Destroying angels," &c. The federal judiciary were strong in asserting this, and cited it as their chief reason for their failure to enforce the laws against Mormon offenders: They said they were well assured of the whereabouts of the murderers of Mr. Brassfield and others, particularly of those engaged in the famous, or rather infamous, Mountain Meadow massacre; but to attempt to arrest and try them before a Mormon jury would only result in a judicial farce, worse even than that of John H. Surratt's, just terminated here.

The church—that is to say, Brigham Young—is supreme, because Young's word is law and gospel in Utah as yet, all accounts to the contrary. Reports of the weakening of his influence appear from time to time; but the fact remains, as is evident from a week's sojourn in Great Salt Lake City, if a man chooses to observe and think for himself, that Brigham Young is still governor *de facto* there of the State of Deseret, no matter whom the President may send out as governor *de jure* of the Territory of Utah. The legislature of the "State of Deseret" still convenes regularly; Brigham Young sends in his message to them; and they proceed to re-enact the laws of the territorial legislature, &c. In other words, as Mormons, they decline to recognize the United States territorial organization any further than they have to, and would reject it altogether if they had the power to. To this end all efforts are bent now, strange as it may seem, and the people are carefully manipulated and indoctrinated into the belief that, like the ancient Israelites, they are "God's chosen people," and therefore invincible against the United States and all other Gentile opposers.

Hence the Utah militia, instead of being organized by and reporting to the territorial governor by law, as in all other States and Territories, I believe, is organized by Mormons, consists chiefly of Mormons, and reports solely to Mormons; its *lieutenant general* being D. H. Wells, one of the "presidents" of the "church of latter-day saints," and a mere creature of Brigham Young, if reports are to be credited; and its adjutant general *brigadier general* Hiram Clawson, Young's own son-in-law. One of the brigades is also commanded by Brigham Young, jr., and another son or two are "colonels," &c.

This militia organization foots up some 1,500 or 2,000 men in Great Salt Lake county alone, with infantry, cavalry, a battery of howitzers, &c., such as they are.

It carries the flag of the "State of Deseret" and of the old Nauvoo legion, as well as the United States standard *ex necessitate*, and is ready for trouble whenever and wherever Brigham Young sees fit to order it.

The territorial governor (Durkee) assured me that he had made repeated efforts to have this militia disbanded, or its control turned over to himself, as it should be; but, so far, without effect, and he had no reason to believe it would be done without the necessary action of Congress. As to polygamy itself, although in open violation of our national laws, it seems to be largely on the increase.

It was bad enough before the passage of the recent laws on the subject in 1862, I believe. Since then, however, the Mormon leaders appear to have studiously

inculcated the practice of it, so as to implicate as many persons of both sexes as possible in it; and thus render the future execution of the anti-polygamy laws very difficult, if not well-nigh impracticable.

In the conversation of many Mormons persons of the female sex have already sunk to "my women," about the same as they speak of their other domestic animals, or as our southern slave lords used to speak of their "likely young niggers."

On this point, however, nothing more need be said than that the whole thing is simply an organized insult to Christianity and an outrage against the civilization of the age—in very truth, slavery's hideous and exquisite "twin relic of barbarism," and that the American government ought not to lend it the sanction of its flag a day longer than it must.

Apart from all this, however, it suffices for me to know, as an officer, that it is a flagrant and perpetual violation of noted public law, and I should be false to my sense of duty did I not reprobate and condemn it accordingly. This much, at least, seems due to the commission I bear.

The hopes of a peaceful solution of the question, I regret to say, did not strike me when there as so apparent as could be wished. The population of the Territory was reported as numbering from 75,000 to 100,000 souls. Mormons put it at 25,000 or 50,000 more; but their figures were believed to be inaccurate.

Of these barely 2,500 or so were Gentiles, and from these of course are to be deducted the usual proportion of time-servers and mercenary men, who have no fixed principles beyond lust for money.

The permanent Gentile immigration was not believed to have averaged above 200 or 300 per year for some time back, while the Mormon immigration, chiefly from Europe, had averaged about 1,500 or 2,000 for several years, and in 1866 it was reported over 3,000.

In addition, calculate the rapid increase in Utah itself from the "much-married" condition of the Mormon males, and you will observe that the prospect of overcoming and neutralizing Mormonism in this way does not seem very flattering.

The Pacific railroad, when completed, of course will have its influences. But will it not advantage Mormondom also? and is it not reasonable to suppose that Gentile emigration will even then avoid Utah largely, unless there be radical changes there, making all men equally safe and respected as in Massachusetts or Illinois; just as free labor, no matter what the stimulus, declined to go south before the war and don't care much to do so now, if statistics are to be credited? I confess I have great faith in the moral power of bayonets, when exhibited on the right side. The nation found it necessary to invoke them against slavery when nothing else would suffice, and I am not clear that we shall not yet have to invoke them against polygamy, the other "twin relic," before we are well quit of that diabolism.

At all events, it is but right and just that the national laws should be respected and enforced in Utah, while they are laws, the same as in Louisiana or Ohio; and this all civil and military federal officers met in Utah, with one exception, (and he living with Mormons,) declared impracticable, without a larger increase of troops there.

The governor and judges of the courts, especially, insisted upon this as a *sine quo non*, if they were to be expected to uphold the dignity of the laws and the sovereignty of the nation, and, I regret to say, I must concur with them, from the disloyal and lawless temper of the people observed while there. Hence the specific recommendations in my report on Camp Douglas, Utah Territory, before alluded to, and this somewhat fuller notice of Mormondom now.

Other projects relating to Utah, such as the reconstruction of the courts there, the selection of federal jurors by the United States marshal, the appointment only of Gentiles to federal offices, &c., are all perhaps good *per se*, but it is

believed, from the best information accessible, that they all involve military force, more or less, at least in some shape, as necessary to their faithful enforcement.

In the above it has been endeavored to give a brief but just statement of affairs in Utah as they really are. Nothing has been said about the general industry and thrift of the Mormons, their sobriety, observance of law and order towards each other, &c., nor their general ignorance, want of schools, lack of newspapers, &c., because these may be conceded. So, no doubt, bad Gentiles sometimes find their way there and do bad things, and, no doubt, the Mormons also have sometimes been much wronged and traduced. But all these, it is respectfully submitted, are side issues, and in no way affect, the main question. The *vital fact* remains, unfortunate as it may be, that *the Mormons are a lawless and seditious community of people, hostile to persons not of their faith and practice, and that they live boastfully in defiance of the public laws of the Union.*

I am not unaware that another inspecting officer, recently in Utah, has reported somewhat differently, for whose opinions on other subjects, when free from prejudice, I have due regard.

But I cannot consent to ignore facts, or whitewash Brigham Young and his régime. As the officer referred to, however, was there only *two* days, (important duties requiring his presence in the department of the Columbia,) his observations were necessarily limited, and it may be charitably presumed he was misled in his conclusions accordingly.

But as I happened in Utah nearly a month, unfortunately, with access to many sources of information, sufficient opportunity was afforded for a full and careful study of the subject, as far as practicable, and here it is. If it be doubted let the President or Congress order a proper commission to proceed there, composed of persons insensible to menace and above suspicion of collusion, to investigate and report, and the result, it is believed, however much regretted, would shock the nation and astonish Christendom.

General Connor, United States volunteers, formerly commanding Utah, perhaps had his faults, as most men have; but fear of Brigham Young, or otherwise misdeeming himself before that noted polygamist, if not open traitor, was not among them. He, at least, comprehended Mormonism, as perhaps few have, and had all that just and manly indignation against its enormities which, it is respectfully submitted, every soldier should have who fears God and honors woman, or respects the laws of his country.

X. The general condition of the country passed through may be summed up as follows: All eastern and middle Kansas is a rich and fertile country of rolling prairie, and lacks only timber to make it eligible for settlements. And this, it seems, improves with the settlement of the country and the consequent gradual cessation of the annual fires.

Western Kansas, also, has much valuable land, and along all its rivers and streams, where there is satisfactory immunity from Indians, farms are everywhere appearing. The back prairies and table lands are settling slower, of course, but the general border pushes the "great American desert," so called, west yearly many miles. In passing from Fort Riley to Fort Kearney I was astonished to find ranches every few miles; and, in fact, the same may be said to be the case substantially from Fort Kearney up the Platte to the Rocky mountains. The valley of the Platte varies from five to ten miles in width. The bottom lands in this mostly grow good grass, and this, with constant water, is the secret of that valley being chosen as the main route for travel and freight west. The great amount of this is a source of constant surprise to the passing traveller. Trains of 10, 20, or 100 great "prairie schooners," with 10 or 12 yoke of oxen attached to each, or 12 mules, were almost constantly in sight, and never a day passed up to Denver without meeting several. Beyond Denver,

however, fewer were met, although they appeared more or less all the way to the Columbia.

This traffic, for the year 1866, centred chiefly at Omaha, Nebraska City, Atchison, and Leavenworth, and these four points alone it was estimated sent out about 25,000,000 pounds of freight, employing 6,000 wagons, 20,000 mules, 34,000 oxen, and perhaps 10,000 men, first and last. About half of this, it was thought, went to Colorado, the balance to New Mexico, Utah, Montana, Idaho, &c.

The stage stations up the Platte are usually 10 or 12 miles apart, and at or near most of the stations a rancho or two besides will be found.

No great attempt has been made yet to cultivate farms in the Platte valley west of Fort Kearny, but as it mostly raises good grass spontaneously no reason is seen why it should not grow oats, barley, wheat potatoes, &c., with proper cultivation, though it may be too far north for Indian corn.

But little timber appears anywhere along the Platte west of Fort Kearny. Some few cottonwoods fringe the river banks, and here and there considerable red cedar is found in cañons of the side bluffs, but the total amount of all kinds is small.

Once out of the valley, either north or south, you ascend abrupt bluffs and strike the high, flat plains proper, than which nothing could have been more parched or withered up when I passed west in September and October last.

These sweep in very moderate undulations from western Kansas and Nebraska to the Rocky mountains, and but little is seen of them from the stage-coach.

A canter over them once or twice after antelope, while *en route* to Denver, revealed well what they were and how hopeless their future is without artesian wells, or some other such appliance to furnish water. Still, buffalo grass grows here luxuriantly in early spring and summer, and the old, well-trod buffalo trails to and from the Platte, indicate that there must have been plenty of buffalo here once, though now all have disappeared. On the Smoky Hill route to Denver buffalo still abound in vast herds, but on the Platte route, from Fort Kearny to Denver, and indeed thence west to the Pacific, not a buffalo was seen.

As you approach Denver the bluffs crowd down and the Platte valley becomes narrower, and when you arrive there the plains are found to descend slightly to the mountains, instead of gently ascending, as supposed. The route, however, has been a constant though gradual ascent. For at St. Louis you are only 300 feet above the sea; at the mouth of the Platte, 900 feet; while at Denver you have got up to 4,000 feet, two-thirds the height of Mount Washington, although seemingly on a plain.

From Denver south, along the base of the Rocky mountains, descending the valley of the Fontaine qui Bouilli to the Arkansas is an excellent country; so also is the broad valley of the Arkansas, and especially the rich valleys of the Greenhorn, Huerfano, and Purgatory. Numerous ranches dot these valleys already, and thousands of acres of oats, barley, wheat, Mexican corn, &c., are yearly cultivated there.

One rancho I stopped at one night, on the Greenhorn, had on hand 1,000 horses, 3,000 cattle, 6,000 sheep, and expected to sell in 1866 \$80,000 worth of grain.

Crossing the Rocky mountains into San Luis Park, large settlements of Mexicans are found there. They raise barley and some oats, but the elevation above the sea, some 6,000 feet, is too great to mature Indian corn. They raise cattle and sheep, however, in large numbers, grazing them on the fine bottoms of the Rio Grande, and the Park is susceptible of a much larger population than it promises to have soon.

Passing out of San Luis Park north, some excellent farms and superb ranches were found scattered about among the little valleys in the very heart of the mountains, and more are being established there year by year.

The fact that they do graze cattle and horses there all the year round is

indisputable, because the ranchemen there are in the habit of going down to Denver in the fall and buying up all the surplus freight animals, which, after being grazed all winter in the cañons and valleys of the mountains, are returned to Denver again in the spring and sold for beeves. The evidence received of this fact is conclusive, and without doubt there are such cañons for grazing stock in the Rocky mountains from San Luis Park on the south to Bridger's Pass on the north, and how much further I am unable to say.

In scenery the Rocky mountains surpass all descriptions of them yet published, and my trip down their base and back through the Parks was a journey of constant wonder and delight at their grand and sublime aspects.

From Denver north, following the overland route, there seemed to be little good cultivable land, for want of water, until you reach Laporte, on the Cache le Poudre. The valleys of this stream and of Lodge Pole creek are both highly fertile, and numerous claims have already been established there.

Of Colorado in general it may be said, that she has plenty of timber among the mountains, but little elsewhere. Of rich, fertile lands, she has a great abundance, but the climate lacks rain, and the farmer to be successful must resort to irrigation. This is now being done very generally there, and the result is splendid fruit and vegetables, and as fine crops otherwise as can be raised anywhere. Two or three years ago Colorado was importing flour and grain largely from the Missouri at heavy cost, but in 1865 she was believed to be self-supporting, and 1866-7 expected to have a considerable surplus over.

That portion of Dakota that the overland route passes through may be described as worth little in general, though there are some good grazing lands on the North Platte and Greene rivers. On the head-waters of Green river, or Smith's and Black's forks, about Fort Bridger, there is a fine stretch of good land, but no settlements.

Indeed, from the Cache le Poudre, until you pass the Washatch mountains at Echo cañon, some 400 miles or so, there are few settlements worth mentioning, and much of the country seems as if it must ever remain so.

The Rocky mountains are crossed so gradually, at Bridger's pass by winding among the foot-hills and keeping along the slopes, that you are not aware when you are over the summit, and when you strike the first water flowing west at Sulphur Springs, starting thence on its long journey down the Green and Colorado rivers via the Gulf of California to the Pacific, you can scarcely credit it.

Here you enter what is called the "Bitter creek country," and a more forlorn and desolate region than there is there for some 200 miles, it would be difficult to conceive of. The mountains are bare and ragged with rocks. The bluffs are rent and torn. The streams are shrunken and tainted with alkali. Trees all disappear, and vegetation, such as it is, subsides into sage-brush and grease-wood. Solitary crows hover along the road, gleaning a stray grain of corn here and there, or taking a last pick at the bones of some unfortunate mule or ox that has fallen dead by the wayside; but beyond these, or perhaps a skulking cayate or dodging gopher, most animal life ceases. The soil, when I passed there, was a fine, impalpable, alkali dust, that penetrated everywhere, and made one about as uncomfortable and wretched as possible. If you washed, your hands were sure to become sore, and your face to peel off; if you did not, you were miserable and liable to half suffocate. The only redeeming feature that the Bitter creek country appeared to have is good bituminous coal, that nature seems to have placed there, as some compensation for its otherwise general desolation. This was reported in several places, and at one of the stage-stations (Black Buttes) a vein had been opened just at the station, and the coal was being used for household purposes, when I passed by. Petroleum was also reported further west, along the foot of the Wahsatch mountains, not far from



Fort Bridger, and there seems to be little doubt of several fine natural flowing wells there.

Great Salt Lake valley is perhaps 50 miles wide, east and west, by 150 long, north and south, and already is largely settled up by the Mormons. Their settlements, however, have overflowed into various other valleys there, extending north to Bear river, and south nearly to the Colorado, and whenever a good supply of water is obtainable in that region, you are pretty sure to find a collection of Mormon ranches. The general soil there is rich and fertile, but requires thorough irrigation to become productive. This has been secured by careful collection and husbanding of the mountain streams, and what was once an unsightly desert there, now presents green fields and abounding fruits and flowers.

The industry and thrift of the people of Utah, indeed, are beyond praise, and their leaders have justly a right to boast on this score.

Leaving Salt Lake going northwest to the Columbia, you pass more or less Mormon settlements until you cross Bear river, where the road forks, one branch going northeast to Montana, and the other continuing on northwest through Idaho.

Thence crossing the Snake river and so on almost to Boise City, some 300 miles, the country is volcanic and barren, and as a whole it would seem quite worthless for farming purposes. Snake river flows in a deep basaltic cañon, without much bottoms to speak of, and few, if any, settlements occur there. Indeed, the necessary stage-stations are about the only settlements, from Bear river, until you approach Boise City, when farms thicken up again along the valley of Boise river.

From Boise City, however, to the Columbia, settlements are scattered along pretty regularly down Piatt river, Burnt river, Powder river, Grand Ronde valley, &c., except of course on the Blue mountains. Along the bulk of the route there were excellent grazing lands, and water sufficient to irrigate a wide breadth of territory there, should this be desired. Wood also was more frequent, and on the mountains adjacent timber grew in great abundance.

Along the Umatilla river there are a good many settlements, and Umatilla, at its mouth, is a town of perhaps 1,000 inhabitants.

The Columbia flows mostly in a cañon of considerable depth, much like the Snake, though not so deep, and has no bottoms from Umatilla down to its passage through the Cascade mountains, that seemed to amount to much. So its valley proper and plateaus adjacent were barren and sterile, for want of rain, which seldom falls in this latitude during summer, east of the Cascade mountains.

Once through the Cascade mountains, however, you enter into a new climate, where rains abound all summer, and snows in winter, and where the flora are luxuriant accordingly. A ride of a few hours here, by river and rail, through the Cascade mountains, takes you from a comparatively rainless to an almost perpetually rainy region, and the changes of the country in other respects are in accordance with this. The one is eastern Oregon and Washington, the other western, and it is not surprising to hear the Oregonians called web-feet, after being there a few days in November or December, and learning that the post records at Fort Vancouver show 120 consecutive days of rain there, in some years. The country is covered mostly with a dense growth of fir and pine, and much of the land will prove valuable when settled up. The valley of the Willamette, in Oregon, is already so.

The unique and wonderful scenery of the Columbia, with Mount Hood, Mount Jefferson, Mount Adams, Mount St. Helens, and Mount Rainier, is itself well worth a trip across the continent, and in time will attract the tourists of the world. The general aspects of California are so well known, that but little need be said here. The valleys of the Sacramento, San Joaquin, and San José,



in central California, the only ones visited there, already abound in cities and towns, and the supposed farming limits in each are stretching out wider each year. At Santa Barbara and Los Angeles are wide districts of country, already fruitful with vineyards and orange groves, and about San Diego there are some fine stock ranches, though the country there improves more slowly. California, in fact, is already a great grain, wine, and stock raising State, and yet perhaps less than a hundredth part of her soil is under cultivation as it should be. She has great resources of both climate and soil, and lacks only population to soon become one of the first States in the Union.

Southern California, however, from San Bernardino to Fort Yuma, as a general thing, seemed to be worth little. The soil is thin and sandy, and the great lack of rain and water there seemed to be converting more and more of the country into desert each year.

What little streams there are usually run but a few miles and then sink, and the general appearance of the country seemed to indicate that this was becoming more and more the case yearly. So also said the most intelligent people met there. A large portion of the country there from Vallacita to Fort Yuma practically, nearly 150 miles, is substantially a desert now, and is, indeed, called the Yuma or Colorado desert.

This is crossed only by wells sunk at intervals to supply necessary water, and in general is scarcely less barren and desolate, if not as dangerous to travel, as the Great Sahara. The sand storms that are liable to blow here any day in the year, what with their scorching wind and driving sand, can be but little if any inferior to the dreaded simoons of Africa and Arabia, and are a great trial to men and animals. One of these occurred at Fort Yuma while I was there, and lasted two days, following me afterwards for a day longer, to some extent, while journeying up the Gila. Crossing the Colorado at Fort Yuma you pass into Arizona, and thence up the Gila to Maricopa Wells and the Pimo villages there are few settlements, and not much prospect of more soon.

When the southern overland mail route passed down the Gila before the war, stations sprang up all along; but this route being abandoned in 1861, the stations have also mostly disappeared since then, and only a few yet remain.

The valley of the Gila has some fine bottoms, that with irrigation would be very productive; but settlers alleged great difficulty in taking the water out of the Gila, because of its quicksands, shifting banks, &c. Hence, many farms heretofore established there have since been abandoned, and scarcely any remain along the entire route of about 200 miles from Fort Yuma to Maricopa Wells.

The last 45 miles of this are rated a desert, but it does not compare with the Yuma desert.

The chief lands just there (Maricopa Wells) are in the hands of the Maricopa and Pimo Indians, and are guaranteed to them by the government, as a reservation. From there south to Tucson there are no settlements, except two or three isolated stations, and the country as a whole amounts to but little for want of water. One space of 50 miles is called a desert, but it is crossed readily. Some portions near the Santa Cruz river would suffice for grazing, but there is no stock in the country there now, worth mentioning. About Tucson there is a considerable breadth of country devoted to farming and grazing, and this might be greatly extended by a proper husbanding of the water of the Santa Cruz river, a little stream that sinks in the desert, some 20 miles north of Tucson, on its way to the Gila, probably.

Returning to Maricopa Wells, thence to Camp McDowell, some 50 miles northeast across the Gila and Salt rivers, you pass through an excellent country, that lacks only irrigation to become a garden. The Salt river itself has also broad bottoms that would produce largely with proper cultivation.

All the region there, between both rivers, and along their bottoms, for many miles, bears evidence of very extensive settlement and cultivation at some period.

The *acequias* or water ditches elsewhere observed, as in Colorado, Utah, California, &c., are usually only three or four feet wide, by one or two deep; but here in Arizona, along Salt river, are old *acequias* twenty or thirty feet wide, by ten or twelve deep, extending like great canals for miles, and then branching off into smaller ones over a wide expanse of country. Some of these are large enough to conduct away pretty nearly all the water that now flows in Salt river ordinarily. But they were probably used as reservoirs, being each filled during high water or freshets, and then feeding their contents out into the smaller ditches, as wanted, during the dry season. They must have cost a vast deal of labor, and many of them are in an excellent state of preservation. Scattered along the bottoms of Salt river, and crowning pretty much all the prominences in that region, are the ruins of large towns and separate houses, and the rectangular lines of rooms, buildings, streets, &c., are still quite visible in many places.

Who the builders and occupiers of these were is unknown, but they are supposed to have been the old Aztec inhabitants of that portion of America.

There are no settlements of farms there now, but the region is susceptible of a large population, by utilizing Salt river, as this ancient people must have done.

From Camp McDowell, northwest to Fort Whipple or Prescott, the country is generally barren or desolate, though there are districts, as on the Agua Frio, Hassayampa, and Date creek, where settlements might be made successfully. On the Hassayampa, indeed, about Wickenburg, and at Skull valley, there are a few farms now, but the amount of settlement may be rated as small. About Prescott and east along Granite creek there are numerous farms, and apparently more prospects of population than elsewhere in Arizona visited. The timber here is quite extensive, over an area perhaps 10 or 12 miles square; but the climate still requires irrigation for successful farming, the same as everywhere else in southern California and Arizona.

Leaving Prescott, in Williamson's valley, there is a considerable extent of good grass land and some few farms, as also at the toll-gate several miles further west; but from there into Camp Mojave, over 100 miles, the country is broken and volcanic, and about as barren and desolate as can well be imagined. Not a ranch, even, anywhere. Near Camp Mojave are some good bottom lands along the Colorado, but these are principally occupied by the Mojave Indians.

A little farming is done near Hardyville and Mojave City, but the total is very small.

From the Colorado to Camp Cady, some 141 miles, there are no settlements, and the country is so barren, sandy, alkali, and volcanic, as a rule, that it does not seem as if there ever will be much population there, if any.

The country as a whole is simply the prolongation north of the Colorado or Yuma desert, and seems hopeless for human use in general.

West of Camp Cady, along the Mojave river, there are a few ranches; but the amount of farming done, and the value of the country there generally, is sufficiently indicated by the fact that the ranchmen were importing grain, and the stage company hay also, from San Bernardino, when I passed through.

The bulk of Arizona and southern California visited, I think it fair to state, may be regarded as comparatively worthless, for general settlement purposes; from lack of wood and water principally, though, no doubt, there are rich gold, silver, and copper mines, especially in Arizona.

Coming out of all this region of general barrenness and desolation, after a tedious ambulance ride of nearly two months, and descending by Cajon pass into the Los Angeles plains, April 26, in the midst of their rich spring verdure, was one of the most delightful sensations of my tour. Behind was the desert, with its rattlesnakes and Indians of all sorts, from Apaches to Chimehuevis; before, waving grass and multitudinous flowers, and vineyards and orange-groves, with the broad Pacific rolling in the distance; while to the right, as we

turned north, was the lofty Coast range, its serrated peaks still capped with snow.

Returning to San Francisco, and ascending the valley of the Sacramento, taking the railroad there to Cisco, you are soon among the foot-hills of the Sierra Nevadas, but find mining settlements and some farms pretty much to the summit. Crossing the mountains and descending to Donner lake, in Nevada, you soon strike a rainless sterile region again, but find a few settlements scattered along thence to Virginia City.

Along the Truckee river, however, farms are rapidly increasing, and though the soil appears to be afflicted a good deal with alkali, still, by irrigation and careful farming, much good grain, vegetables, &c., are being raised.

The amount of these will probably increase very rapidly. About Fort Churchill, and from Virginia City through Carson valley, many settlements have sprung up, and until the base of the Sierra Nevadas is reached again, farms are constantly in view. Crossing the mountains by Lake Tahoe to Placerville, California, an excellent country is found there, sprinkled thick with settlements, and this extends thence pretty much to Sacramento again.

In much of the region about Placerville, &c., farms are being converted into vineyards and orchards, especially on the side-hills, and the change will doubtless be a very profitable one.

The peculiar and wonderful scenery of the Sierra Nevadas, with their snow-capped peaks and gigantic forests, is hardly to be over-stated, and the people of the Atlantic States have rich treats in store for them there, and in the Rocky mountains, when the Pacific railroad is completed.

The blessings this great continental railroad is destined to confer upon the region between the Missouri river and the Pacific ocean, aside from its great importance as a means of national defence binding the Pacific States to the Atlantic, no man can estimate who has not passed over the country referred to. It will be a civilizer most potent; a pacificator most sure; a defence most invincible; and the nation could well afford to build and equip it gratis, rather than not have it built at all. Wise men were they who projected it, and wiser still the statesmen who fostered and encouraged it.

The great lack of much of the country passed over is, of course, timber.

Sufficient can usually be found, or grown by irrigation, for fuel purposes; but for building purposes, fencing, &c., it must come chiefly from the mountains or abroad. In many sections, where irrigation has to be resorted to anyhow, for crop purposes, the farmers are beginning to plant willows, cottonwood, and other quick-growing trees, along their outside *acequias*, and these will soon serve the double purpose of fencing and fuel, by trimming, &c. This ought to be resorted to more generally over most of the region visited, and it is presumed soon will be. Water, also, is deficient in many districts; but still there is sufficient of this for a thousand-fold more irrigating purposes than it is now put to.

With the application of water, the soil there generally seems to become very fertile, and by husbanding it in reservoirs, &c., thousands of acres might be cultivated, and doubtless some day will be, where one is now.

The mineral resources of the country passed through engaged but little of my attention. Mines were visited, however, in Colorado, Idaho, California, Arizona, and Nevada, and there can be no doubt of their inexhaustible riches.

In many places mining operations were inactive, especially in Colorado and Arizona, because of the refractory nature of the sulphurets encountered; but some new process, it was hoped, would soon be discovered, that would enable the ores to be worked at a profit, when operations would be resumed actively.

This is the great want of most all our mining regions now.

There are plenty of ores that assay well in small quantities, and are, in fact, of exceeding richness. But when you come to mill them out in large amounts by any known process, the quantity of gold or silver realized is often less than

one-half or one-fourth the amount contained, and they cease to be regarded as "pay ore." Indeed, ores were seen that were reported to assay \$100 and \$150 per ton; but when put into the mill, it was impossible to stamp out over \$12 or \$15 per ton, and this would not pay expenses.

The estimated gold and silver product of the regions passed through, (with Montana not visited,) for the year 1866, appears to be about as follows, as near as the facts could be ascertained :

Colorado .....	\$15,000,000
Idaho .....	5,000,000
Montana .....	15,000,000
California .....	25,000,000
Nevada .....	15,000,000
 Total .....	 <u>75,000,000</u>

Arizona, no reliable reports; but total amount believed small.

XI. The general results of the year's inspections it is perhaps difficult to state specifically, as the data are so different from what they were last year.

So, while reductions favoring economy have been recommended at various depots and posts, other changes have also been recommended that will involve increased expenditures temporarily, though it was believed they would make for real economy and efficiency in the end.

The detailed information given in the separate reports alone, it is believed, will prove of special value to the department, as so little was known here previously of many of the posts inspected, their condition, resources of the country, routes of supply, &c. But aside from this, an analysis of my reports for the fiscal year and to date shows that practical recommendations have been made, in many instances already carried out, that involve probable savings per annum under existing military arrangements when the inspections were made, about as follows :

Pittsburg, Pennsylvania .....	\$26,396
Military division of the Missouri .....	908,953
Military division of the Pacific .....	1,500,000
 Total .....	 <u>2,435,349</u>

The general changes on the Pacific coast recommended, it is believed, would result in at least the saving in the military division of the Pacific, stated, and perhaps more.

The inspections made involved 30 reports and 270 letters, summing up 1,606 pages in all, and necessitated 15,437 miles of travel by land and water. The results indicated, it is respectfully submitted, demonstrate satisfactorily the usefulness and wisdom of the division of inspections, and it would seem would well justify its continuance in the future.

This, however, is impracticable without inspectors of adequate rank and authority, and for these the present army bill omits to provide.

A volunteer officer now, with the rank of captain, can effect but little, and his pay and emoluments, as I happen to know, would not ordinarily meet his hotel bills. The records of the division since 1864, it is believed, would readily show that the assigned inspectors when on duty repaid the total amount of their pay, commutation, clerk-hire, travelling expenses, &c., annually every week they served, and some of them every day.

It would seem, therefore, that there could be no wiser or more judicious thing than to add three or more such inspectors to the staff of the Quartermaster Gene-

ral permanently. One of these might be assigned to the Atlantic States, west to the Mississippi; another to the States and Territories west to the Rocky mountains; and another to the balance of the States and Territories west to the Pacific ocean.

These are the three natural military divisions of the country, as well as geographical, and a competent inspector would find enough to do in each to keep him busy the year round, if a mind to do it. And it is confidently believed, from what I know myself, as already intimated, that he would save the government his total pay, expenses, &c., per annum, a hundred times over, ordinarily, if not more.

This closes my "personal narrative report," for the period indicated, as called for by para. IV, General Orders No. 43, Quartermaster General's Office, C. S., heretofore referred to. Having had no money nor property transactions for the year, or business embraced in the other paragraphs of the general order referred to, nothing further seems necessary in order to close here, also, my annual report for the fiscal year and to date. For the apparent undue length of this report no apology, however, seems necessary; it was judged best to furnish you thus a general résumé of route travelled, observations, conclusions, &c., and to embody the whole thus for the information of the department.

It will elucidate some things, perhaps, not clear in my separate reports, as I sought in them to give only the facts as to individual posts; while in this I have endeavored to correct and summarize the whole.

A map herewith indicates the points visited, and traces the route pursued from Fort Leavenworth, &c.

With this report my connection with the quartermasters' department and the United States army also ceases.

My resignation, it will be remembered, was tendered over a year ago, (April 14, 1866,) but action on it was suspended that I might first execute your orders relating to the plains and the Pacific coast.

This done, pending orders meet my wishes, and I accordingly with this report retire from the service.

To yourself, and subordinate officers of the Quartermaster General's Office, for confidence and support, I desire to express much indebtedness and return sincere thanks; and to other officers of the department and army, with whom I have been associated for now six years, for kindness and valued information as needed, I would acknowledge many obligations.

In conclusion, I am, general, very respectfully, your obedient servant,

JAMES F. RUSLING,

*Bvt. Brig. General and Acting Inspector Q. M. Dept.*

A true copy :

H. A. ROYCE,

*Brevet Colonel and Assistant Quartermaster.*