

REPORT OF THE SECRETARY OF WAR.

WAR DEPARTMENT,
December 1, 1856.

SIR: I have the honor to submit the following report of the operations of the army for the past year, and to lay before you the reports of the several bureaus of the War Department, and communications from other officers of the army.

The authorized strength of the army, as now posted, is 17,894. The actual strength at the date of the consolidation of the returns, July 1, 1856, was 15,562. The number of enlistments made during the twelve months ending September 30, 1856, was 4,440. The number of persons offering to enlist, but who were refused on account of minority and unfitness for service, was 5,594. The number of casualties in the army, by deaths, discharges, and desertions, during the year ending June 30, 1856, was 6,090; of which 3,223 were by desertion.

The accompanying tables exhibit the distribution of the troops in the several military departments. During the past year the department of the Pacific has been reinforced by three companies of the 1st dragoons and the 9th regiment of infantry. A post has been established at Tucson, New Mexico, for the protection of the valley of the Santa Cruz, and the restraint of the Indians north of the Gila, and is at present garrisoned by four companies of the 1st dragoons. The regiment of mounted riflemen, in consequence of threatened hostilities with the Navajo Indians in New Mexico, was ordered, in June last, to that department from Texas. Two companies of the 2d dragoons and the 2d regiment of infantry occupy the posts located on the Upper Missouri at the close of the late campaign against the Sioux Indians.

An expedition has been sent to the northern boundary of Minnesota Territory for the purpose of acquiring information respecting that region of country and the Indians residing there, upon whom it was supposed the appearance of a body of troops among them would exercise a beneficial influence. The knowledge thus gained will determine the most eligible site for a military post in that quarter, should it hereafter be deemed advisable to establish one.

The Indian difficulties on the western plains have been successfully terminated, except those with the Cheyennes.

The troops designated and held in readiness during the past summer, for campaign against them, it was hoped and believed would not

only have reduced that particular tribe to good order, but would have sufficed to insure as much of peace and security to transient persons over all the plains north of Red river and west of the Missouri as is compatible with the continuance thereof of wandering uncivilized tribes.

In Texas, though the amount of military force has been reduced within the past year, we have had reason to congratulate ourselves upon less frequent disturbances than have existed for some years past; but owing to the fact that the State of Texas owns all the land, with the exception of the two small reservations recently made, the Indians of that State are without any permanent home; and the control which can be exercised over them, under those circumstances, can never be sufficient either to give security to the whites, or in any material degree to ameliorate the condition of the Indians. Could the fragmentary tribes in Texas be removed to lands owned by the United States north of the Red river, a great reduction would be made in the expenditures now required in Texas for the maintenance of many military posts, which would then become wholly useless, whilst a great service would be rendered to the development of the resources of that State; and surely better prospects would be offered for the improvement of the Indian tribes.

The Indians within the limits of the department of New Mexico have generally observed their treaty stipulations. Occasional depredations have been committed by them, but none, it is believed, of a serious nature, or indicating any settled hostility on their part.

The Indian hostilities existing in Oregon and Washington Territories at the date of the last annual report from this department, which threatened to be of a very formidable character, have been generally suppressed. A combination embracing most of the tribes inhabiting those Territories was entered into, and the extermination of the whites seemed to be their purpose; but the military expeditions sent against them have been conducted with much energy, and have been so far successful that, with a few exceptions, their hostile demonstrations have ceased. The disturbances on Puget's Sound and in the Rogue River valley are reported as terminated; and it is hoped that the tribes in and about Walla-Walla valley, between whom and the troops a collision recently took place, will speedily be brought to terms.

Military positions have been occupied in the country recently in possession of the Indians, and judicious movements of the troops will, it is believed, prevent any outbreak of a general nature hereafter.

Much information respecting the origin and progress of this war was communicated to Congress at its last session, and published in Senate Documents Nos. 26 and 66, and House Documents Nos. 93 and 118. The reports of subsequent events contain full information respecting the transactions.

The possessory rights secured to the Hudson's Bay and Puget's Sound companies leave, in this portion of our Territory, traders and others who possess great influence over the Indian tribes, but owe no allegiance to the United States. It will be readily perceived that preceding and during hostilities such persons cannot be expected to pursue any other course than that which would preserve to them the trade and good will of the Indians, and, therefore, that their presence

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cannot be otherwise than detrimental to the control of the United States over those tribes. In this connexion, it may not be inappropriate to suggest the propriety of speedily extinguishing such possessory rights.

I regret to state that the efforts of the department have thus far proved unavailing to effect the removal of the Seminole Indians remaining in the peninsula of Florida to the new home provided for them west of the Mississippi river. These Indians have within the past year given repeated evidence of their hostility, and the department has made the necessary arrangements to carry on a vigorous campaign against them during the present season. As large a force as the demands of the service in other quarters will permit has been concentrated in Florida for this purpose, consisting of four companies of the 1st artillery, ten companies of the 4th artillery, the 5th regiment of infantry, and a limited number of volunteer militia, all under the command of Brevet Brigadier General Harney.

The expense and embarrassment to the military service resulting from the present policy of locating posts in advance of settlement, and along emigrant routes across the continent, continue to be seriously felt. It is manifested in the large amounts required for transportation, and in the small garrisons found at most of the posts.

A policy adopted to subserve the purposes of a given case suggests a revision with every material change of circumstances. When from the communities originally established along the Atlantic slope of the United States industrial emigrants went forth to penetrate the wilderness of the Mississippi valley, they found on every hand a fertility which invited to agricultural labor, and each settlement soon became productive of all the necessities of life. Military posts advanced with the progress of the pioneer, and whilst the one afforded protection, the labor of the other soon furnished the supplies required for subsistence. The general fund of the United States was indemnified for expenditures to support these advanced military posts by the results which followed from the appropriation and cultivation of its wild domain. If we have now passed the limit of general fertility, and pushed our military posts into a region where they can never be surrounded by an agricultural producing population, then the circumstances have so materially changed as to call for a revision of the policy which was founded upon a different condition of things, and connected with results which are no longer attainable. The reports of reconnaissance submitted by the War Department within the last two years have given such general and detailed accounts of the character of the country between the Mississippi river and the Pacific ocean as to render here unnecessary its further geographical description. Those reports sufficiently show that, with few exceptions, the country lying between the one hundredth meridian of longitude and the coast-range of mountains overlooking the Pacific ocean, is not susceptible of cultivation without the aid of artificial means, and that the country can probably never be covered by agricultural settlements. A limit has, therefore, been reached, beyond which civilization has ceased to follow in the train of advancing military posts, and the service and support of the military peace establishment is essentially

altered. A new post, established in the desert region to which I have referred, does not become the nucleus of a settlement from which, in a short time, the provisions and forage can be drawn, and the expense for transportation thus reduced to the necessary supply of clothing, groceries, implements, and munitions, but all the heavy articles of subsistence must be procured at a remote market and transported to such frontier posts. Nor is this the only difference; for to this increased amount of transportation is also to be added the difference between the expense of transporting along navigable rivers or over roads through continuous settlements, and that of passing through a desert region where no supplies or assistance are to be obtained, and no roads to be found except those built by the United States, the combustible structures of which are at all times liable to be destroyed by the nomadic tribes who inhabit the country. Without entering more minutely into detail, it will be seen why the cost of transportation has increased so greatly within a few years past, and why efforts, by rigid economy, to reduce the general expense for the army, must prove unavailing until the character of the service required of it has been radically modified. The views presented in relation to the inutility of military posts in this desert region, as connected with the development of the resources of the country, have been expanded in their application by the military reconnaissance referred to, but do not rest upon that species of evidence alone.

The settlement of the Territory of New Mexico was begun long anterior to that of a large portion of the populous districts of the United States, yet to this day cultivation has extended but very little beyond the narrow valleys of the Rio Bravo and the Santa Cruz; and though Forts Laramie and Kearny, on the Oregon route, were established more than eight years since, no agricultural settlements have grown up around either, and thus are the conclusions drawn from the reports of reconnoitering parties as to the general character of the country satisfactorily confirmed. Though we have been in the habit of believing that the great basin of the Territory of Utah presented a fertile oasis, recent events have furnished much reason for doubt as to its capability to sustain any considerable population depending from year to year on the agricultural products which each year's cultivation affords. Assuming, then, that the limits of the fertile regions have been sufficiently well ascertained, and that future operations should be made to conform to the character of the country, the true interests of the public service would seem to suggest important modifications of the policy which heretofore directed the employment of the military force. Instead of dispersing the troops to form small garrisons at numerous posts where they exhibit only weakness to a savage foe, it is suggested that within the fertile regions a few points accessible by steamboats or by railways should be selected, at which large garrisons should be maintained, and from which strong detachments should annually be sent out into the Indian country during the season when the grass will suffice for the support of cavalry horses, and beasts of draught and burden. These detachments would be available both to hunt up and chastise those tribes who had committed depredations, and by passing along the main routes to California, and Oregon and Washington Territories,

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would give the needful protection to emigrants during the season of their transit. Experience has shown that small posts are nearly powerless beyond their own limits. Some of the most flagrant depredations have been committed on parties in the vicinity of such military posts, and their inability to pursue and punish the offenders has tended to bring into disrepute the power and energy of the United States, whose citizens were the victims of predatory attacks. Indeed, it is quite supposable that these posts, being fixed points in the route of emigrants, afford the Indians the opportunity of observing each train which passes, and thus enable them to determine upon future operations.

Cavalry cannot be sustained in a state of efficiency unless provided during the winter with stables, grain and hay. At some of the remote posts even the material for construction must be transported a great distance, and the forage can only be furnished at prices which extreme necessity alone will justify. For example: corn delivered at Fort Laramie costs about five dollars a bushel. Infantry garrisons are less expensive, because less forage is required; but, under such circumstances, neither can be sustained except at great cost.

It may be proper further to consider the comparative value of troops thus distributed, and of those serving by detachments from large garrisons quartered in eligible positions. If sufficient garrisons were kept at all the posts now established for the purpose of making expeditions at any time from them among the neighboring tribes, which would require a very considerable augmentation of the present military establishment and a commensurate increase of appropriations for its support, it is not believed that they would be equally effective with marching detachments of the same numerical strength. Their position would be known, their preparations for taking the field would be observed, and a considerable force would necessarily be left behind for the protection of the public property at each military post. The instruction and discipline in quarters would be inferior to that of large garrisons, and the capacity of the troops suddenly emerging from quarters to begin the forced marches of pursuit would be less than that of men inured by a long march and frequent bivouacs to bear fatigue and protect themselves against exposures incident to service in the field. The policy of distribution as at present pursued also involves the frequent construction and abandonment of posts, and with such garrisons as we may expect to have with the present or probable size of the army, involves the employment of all the troops for long periods at constant labor, alike injurious to military instruction and the contentment of the soldier. His compensation at such times is far inferior to that of the common laborer on the frontier, and the prospect of abandoning the position soon after he has made it comparatively comfortable leaves him without an adequate inducement for the sacrifice he is called on to make. A laborer without pay or promise of improvement in his condition, a soldier without the forms and excitement of military life, it is hardly to be wondered at that this state of things should lead to desertion, which has become so frequent as to be one of the great evils of the service. Under the other policy which has been suggested, the troops would be comfortably quartered in the midst of

civilization, their summer campaigns would be the field practice of their profession, the temporary dangers and toils of which give zest to a soldier's life; and if to these be added the prospect of a return to the comforts, associations, and means of instruction of a large garrison at a well-established post, it is not seen why the service could not be rendered attractive to persons of military spirit, and it is believed that the efficiency of the troops would be increased proportionally as the expense of supporting them would be diminished.

The occupation of Algeria by the French, presents a case having much parallelism to that of our western frontier, and affords us the opportunity of profiting by their experience. Their practice, as far as understood by me, is to leave the desert region to the possession of the nomadic tribes; their outposts, having strong garrisons, are established near the limits of the cultivated region, and their services performed by large detachments making expeditions into the desert regions as required. The marching columns being sufficiently strong to inflict punishment wherever it is deserved, have inspired, it is said, the native tribes with such respect for their power that it has seldom been found necessary to chastise any tribe a second time.

As our present policy rests upon various acts of legislation and the concurrent views of several preceding administrations, a change as radical as that which is here suggested should receive critical examination, and, perhaps, require legislative action before being adopted. The department, if left to the free exercise of its judgment, would have abandoned the policy at present followed, by adopting a few eligible positions, easy of access, and in the midst of a region so productive as to sustain large settlements, from which the bulk of the supplies of the garrisons could be drawn.

More than the usual number of resignations within the past year give evidence of a defective organization, of a policy injurious to professional pride, and of the necessity of increased compensation. Whilst the hard service and frontier stations of the officers of the army require of them sacrifices which no other officers of the government are called upon to make, the expense of living has been greatly augmented, and their pay is nearly the same as that which was fixed more than fifty years ago. There is surely no economy in a practice which must, in the end, drive the more active and intellectual from a service which they adorn, and in which their country specially requires them, to seek a competent support in some other pursuit. As little does it accord with the spirit of generosity or justice to ask at their hands the sacrifice which so many of them make to professional pride and habitual love for their country's service and their country's flag. But little can be hoped until radical changes can be effected, such as can only be suggested after a minute study by the Executive who shall have the good fortune to find the legislative branch prepared to co-operate with him, both in the investigation and the application of a remedy to those evils which belong to changes with which the legislation has not kept pace.

Though special acts have, from time to time, made provisions for the widows and orphans of officers and soldiers of the army who have lost their lives in the discharge of their duty, no such general pro-

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vision has been made for the army as that which subsists in relation to the widows and orphans of officers and seamen of the navy. If there was ever a just ground for this discrimination, it is believed that it no longer exists. Whilst the army has no claim to be paid by its government for the capture of the public property of an enemy, large sums have, from time to time, inured to the benefit of our government from that source; and the policy which encourages to deeds of daring in naval warfare by the assurance that the brave sailor who falls in maintaining the honor of his country's flag, leaves in his government a protector and guardian to the family deprived of his support, is certainly, in principle and degree, equally applicable to the soldier, who perils his life in the same cause, and, without the chance of being enriched by pillage, incurs the hazard of leaving his wife and children to want. I would, therefore, again recommend that such legislation be asked as will place the widows and orphans of officers and soldiers of the army on the same footing, with respect to pensions, as those of the officers and seamen of the navy.

I have so often brought forward the necessity of provision by which disabled officers should be retired from active service, that I should be deterred from again repeating it, but for the conviction that it is indispensable to the efficiency of the army, and that each year but renders greater the injury to the public service, resulting from the want of the measure heretofore recommended.

I have to renew the recommendation heretofore presented for such legislation as will give certain and permanent rules for the determination of rank and command, than which nothing is more necessary to secure harmony and efficiency in an army. The act of September 20, 1776, known as the "rules and articles of war," was originally reported by Mr. Jefferson and Mr. John Adams. The latter gives, as a reason for their adoption, that "there was extant one system of articles of war, which had carried two empires to the head of mankind—the Roman and the British—for the British articles of war were only a literal translation of the Roman," and cites as an "observation founded in undoubted fact, that the prosperity of nations had been in proportion to the discipline of their forces by sea and land."

The commendation bestowed by such high authority upon the system then adopted, in connexion with its real merit, may have protected it from future criticism and innovation; and did the circumstances which now surround us continue to be the same as at that time, I should not venture to recommend a legislative revision. But as changes have occurred which give new application to the terms then employed, the necessity is exigent and evident, either for the revision of the subsequent laws, which affect the rules and articles of war, or for a modification of those articles, so as to make them conform to the requirements resulting from subsequent legislation and altered circumstances.

It is true that a revision of the original act was made in 1806, but it contained no important alteration; and since then various acts of legislation, changing the organization of the army, have given rise to questions of construction, and created such radical difficulties in the application of the original rule that further legislation can alone furnish an adequate remedy. For instance, the law known as the

rules and articles of war recognizes three kinds of commissioned officers, viz: those of the line of the army, of the marine corps, and of the militia. It is scarcely to be doubted that the phrase "line of the army" meant the army of the confederation, and included all its officers, whether staff or regimental. But subsequent legislation, creating special corps or departments composed of officers whose duties do not involve the command of troops, has given rise to, and perhaps produced, a necessity for a construction of the phrase "line of the army," which places regimental and staff officers in a relation inconsistent with the general principles of subordination, and which must sometimes seriously embarrass, if not defeat, the great purposes of a campaign. Believing that officers of the army should, with as few exceptions as practicable, have rank effective for purposes of command, I have heretofore presented a proposition for reorganization, which, among other things, was designed to secure generally to officers of the staff that knowledge which can only be acquired by the performance of company and regimental duty. To the views heretofore communicated, in relation to the reorganization of the army, I have only to add that additional experience has but confirmed them.

In the last annual report I called attention to an existing abuse in the discharge from the army of persons who, having represented themselves to the recruiting officers as being of mature age, had, after enlistment and transportation to distant posts, brought forward evidence sufficient to require their discharge, under the provision of the act of September 28, 1850, which directs that "it shall be the duty of the Secretary of War to order the discharge of any soldier of the army of the United States, who, at the time of his enlistment, was under the age of twenty-one years, upon evidence being produced to him that such enlistment was without the consent of his parent or guardian." The regulations of the recruiting service provide carefully devised checks against the enlistment of minors; and if deliberate frauds are practised upon recruiting officers, it is submitted whether legislation should not provide a penalty, rather than attach a premium to its successful perpetration. Experience has shown that the practice is increasing, and the last year furnished examples of its repetition by the same offender. Should a recruiting officer, from neglect or otherwise, enlist a minor so immature that a bare inspection would expose the fact, it is fair to assume that upon proof being submitted, the Secretary of War, besides holding the officer to strict account, would order the discharge of the minor on the application of his parent or guardian, though there should be no mandatory provision of law to require it. But if he should fail in this, in any case so clear as to present an instance of real hardship, it is not to be doubted that an appeal to the civil courts would give adequate protection to the rights of the parent or guardian.

The annual estimates being for the current expenditures, presuppose an annual settlement of all accounts, but it is well known that delays occur for a much longer period, and appropriations for the current year are not unfrequently charged with the settlement of accounts of many years standing. As long as this practice continues, deficiencies must arise, for which the department preparing the esti-

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mate is in no degree responsible. It is believed that, as an administrative policy, it would be more wise to require all such arrearages to be grouped with expenditures resulting from unforeseen contingencies, and for which the appropriations were inadequate, into an annual deficiency bill, where an exact account should be rendered of each item of additional appropriation asked for.

To simplify the accounts of disbursements in the military service, and to expedite their final settlement, I have heretofore repeatedly recommended that instead of being arbitrarily divided, as they now are, between two auditors, they should be concentrated at the office of one; and I have to renew the recommendation that an accountant be authorized for the War Department, as the means of securing uniformity in decisions upon that class of questions which, resting upon military usage and the records of the War Office, are necessarily referred to it, and decided by the Secretary of War according to the nature of the case.

Attention is again called to the want of legislation upon the subject of military sites, and the recommendations in my last annual report in that respect are renewed.

The great improvements recently made in small arms, whereby their effective range has been much increased, must, to a considerable extent, supersede the necessity for cannon of small calibre. This consideration, added to the heavy expense attending the maintenance of light batteries in a state of efficiency, has induced the department to limit the number of such batteries to four; and for the purpose of instruction in the use of garrison, sea-coast and siege guns, to assemble one company from each regiment of artillery at the fortification best adapted to experimental firing according to the various modes which the contingencies of active service may demand.

The report of the Colonel of Ordnance is referred to for detailed information in regard to the operations of that branch of the military service under his charge. With the limited means furnished by the appropriations for the year, progress in providing armament for the fortifications, in the manufacturing of small arms of the improved models, and in applying the recent improvements to those of the old model, has necessarily been slow. The fortifications now under construction, and those authorized to be constructed, will require for their armament about 23,000 pieces of ordnance and 3,000 gun-carriages in addition to those at the forts and arsenals. To procure these and to supply each mounted piece at the forts with one hundred rounds of ammunition will, at the usual rate of appropriations, require a period of forty years; but many fortifications not yet commenced or even projected will no doubt be built within that period, so that at the end of the time stated our armament will not probably be more complete than it is at present. It requires no argument to show that fortifications without guns are worse than useless, and guns will have only a part of their value without fortifications. It is therefore evident that armament should keep pace with fortifications, and the latter progress with the necessities for defence. I recommend more liberal appropriations for this object and have estimated accordingly.

The use of wrought iron instead of wood, as a material for gun-

carriages has engaged the attention of the Ordnance department. The durability of this material for gun carriages, especially for a country which may expect to enjoy such long periods of peace, that wooden ones would decay before being required for use, justifies their trial under all circumstances of exposure, and I have directed the proper experiments to be made for determining the fitness of wrought iron for the purpose.

The subject of mounting, in certain positions covering narrow channels, guns of large calibre, to throw hollow projectiles of great diameter and weight, containing sufficient charges of powder to render a single one destructive to any vessel into which it may penetrate, has been examined in connexion with the relative efficiency and destructiveness of such guns and those of the largest of our adopted calibres. Experiment can alone determine whether it is advisable or not to adopt the proposed increase of calibre, and to what extent, and special estimates will be made for the purpose.

In order to simplify our field artillery and at the same time to increase the range and power of that arm, preparation is in progress for trial by the light artillery companies of four batteries of light twelve pounders. These guns are to be made to take the same ammunition as our present twelve pounders, and also to be light enough to be readily managed under the circumstances of service where six pounder batteries are now used. It is intended to have, for general use, but the one piece for field artillery; and for positions, requiring artillery where a gun of that weight cannot be carried, to use the twelve pounder mountain howitzer.

The experiments on gun-metal, which have been carried on by the Ordnance department for some years past, and the results of which have recently been published, have done much to improve the quality of our cannon, and the work contains valuable information on the subject of which it treats. It is quoted and favorably noticed in a late English work "on the physical conditions involved in the construction of artillery, and causes of the destruction of cannon in service." One of the author's remarks, referring to our ordnance reports, is, that "the United States ordnance has really done more to advance, *experimentally*, the art of manufacturing cannon than all the European services together." These experiments have been directed to the determination of the ultimate cohesion of gun-metal, and did not take into consideration the injury sustained by cannon from the continued repetition of the ordinary strains of service-charges. They should be pursued further, for investigation, in regard to extension prior to rupture, by less strains than are requisite to produce it. The information already acquired on this subject would be much more valuable to the government, if we had a national foundry where it could be applied to practical use. Further investigations might also be made with more facility and accuracy at such an establishment; and I renew the recommendation, heretofore repeatedly made, for the proper legislation to authorize its construction.

The operations at the national armories have been restricted to the completion of new models for small arms; the alteration of old models to long range rifled arms, and to the preparations requisite for the

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exclusive manufacture of the adopted new model, of which many of the parts have been fabricated. This model, which is common in its general principles to all our small arms, is a rifled arm, (such as is commonly called the Minié rifle,) with the improvement of a lock, after Maynard's plan, self-priming, when used with the Maynard primers, and as well adapted to use with the percussion cap as the ordinary percussion lock. The alteration of flint lock to rifled arms, with the self-priming lock, has been effected to the limited extent which the means available for the purpose would allow. The results of trials with these arms leave no doubt of the propriety of the measure, which I heretofore recommended, of altering all the old model arms of the United States, including those distributed to States and Territories, by converting them into rifled arms, with the percussion self-priming lock, so as to make them conform to the new model. The arguments then advanced in favor of granting the authority and means for executing this measure have lost none of their force by subsequent reflection and experience. The propriety and necessity of using only the best and most effective arms is obvious. With a population accustomed to the use of arms, familiar with, and competent to judge of their merits or defects, the moral effect of feeling themselves inferior, in their armament and equipment would be disastrous. The only point, then, which remains for consideration is, whether the improvements can be applied to our present arms, so as to give to them the desired efficiency. The importance of the improvements and the susceptibility of our arms to receive them are not matters of theory or speculation, but have been proved by actual trial. It is not proposed to hasten, inconsiderately, to the adoption of a scheme of questionable advantage, but one which has undergone various and repeated tests in our own and in other countries, and the merits of which have been practicably established. New models of small arms, with the improvements before mentioned, have been completed, and the alteration of arms of the old model, so as to apply to them all the modern improvements, has been commenced and has progressed far enough to show conclusively that they can be made equal in efficiency to those of the new model. There is in the United States arsenals, and in possession of the States, upwards of half a million of these arms, which have cost between six and seven millions of dollars. In their present condition they are very inferior to the improved arms, and, in order to be made properly efficient and servicable, they must be altered. It will be remembered that, for many years past, this government has steadily, and at great cost, been filling our arsenals with arms of superior quality, according to any then known standards. Recent improvements have rendered these arms relatively inferior; but, fortunately, we need not lose the fruit of our previous labors. In a short time, with adequate means, we may apply to our present stock of arms these recent improvements, and thus rapidly and satisfactorily give to them the greatest known military efficiency. The propriety of the measure being demonstrated, its execution becomes a mere question of time. Shall it be done as rapidly as practicable, or linger on through the long period of time which will be required to do the work, with the ordinary appropriation? The rapid accomplishment

of this work has the advantage of being more economical, for it is obvious that, as the number of arms altered in a given time is increased, the *pro rata* cost is diminished; to which is to be added another and more important consideration, that of being prepared at the earliest period to meet any emergency.

Reports of experiments by the Ordnance department with the improved small arms have been printed and distributed for the use of the army and militia; to the latter in the proportion of their distributive share of arms as fixed by law. The diffusion among the volunteer and militia troops of the information therein contained, respecting the improved arms, will enable them to learn their powers and understand, theoretically, their use, in anticipation of having such weapons furnished to them.

But to give them a practical knowledge of improved small arms they should be placed in their hands for purposes of instruction in time of peace; and, to this end, I renew the recommendation heretofore made for an appropriation which will enable the government to alter the small arms heretofore issued to the States for the use of the militia, so as to make them conform to the improved model which has been adopted for the United States service. And it is also recommended that the attention of Congress be called to the necessity of providing, by law, a better system of accountability for arms furnished by the general government to the States.

From the failure of inventors and patentees to deliver the breech-loading arms, which were ordered for trial, it has not been possible yet to make the practical tests which are necessary to ascertain "the best breech-loading rifle," or whether any of those, which, on preliminary examination, presumed to be useful, will be found, after trial in the field, worthy of being adopted into the military service.

The District of Columbia armory building will soon be completed at a cost not exceeding the appropriation, which, it will be remembered, did not include furniture for the building, nor the improvement of the adjacent grounds.

Sites have been selected for the new arsenals in Texas, New Mexico, and Washington Territory, for which appropriations were made at the last session of Congress, and measures have been taken to secure valid titles thereto, as required by law, before commencing the needful buildings.

A greater concentration of the operations of the Ordnance department, so far as respects arsenals of construction, is desirable. To confine such work to four principal arsenals—one at the north and one at the south in the Atlantic States; a third in the west, on the Mississippi, or at a point convenient for the transportation of its products to that river; and a fourth on the Pacific coast—will secure the advantages of greater uniformity and economy in constructing, and at the same time afford practical instruction to the officers and enlisted men in all the various duties of this branch of the military service. This may be done without reducing the number of arsenals of deposit, or interfering with the establishment of others at desirable positions, the purpose being merely to restrict construction to the four principal arsenals located as above stated. Of the present arsenals, one cer-

tainly, the Watervliet arsenal, in New York, and another probably, the North Carolina arsenal, at Fayetteville, may be used as arsenals of construction. These, with the arsenal just begun at Benicia, California, may, by proper additions to their present buildings, workshops, machinery, and other means for storage and fabrication, be made three of the constructing arsenals. The public land pertaining to the arsenal at St. Louis is too contracted to be suitable for this purpose, for which, in all other respects, it would answer well. The remaining arsenal of construction should, therefore, be built on a suitable site, to be selected for the purpose. To effect this desirable arrangement will require legislation, appropriating means for increasing the capacity of these arsenals if selected from those already existing, and for their construction if they are to be built.

Our seacoast fortifications, the condition of which is described in the report of the Chief Engineer, have been in steady progress during the past year, but much yet remains to be done before many of the most important works will be completed according to the plans adopted.

Whatever may have been the opinion in regard to the value of fortifications for harbor defence, it is believed that recent events have fully demonstrated their sufficiency. The failure of the formidable naval armaments of the allies against the fortified places in the Black sea and the Baltic would seem to show conclusively that properly constructed fortifications are a sure reliance against the most formidable fleets; whilst these operations, at the same time, exhibit the ability with which a maritime nation may, from a condition of profound peace, fit out expeditions of great magnitude to operate on a distant enemy. Remoteness from the great naval powers of the world can, therefore, no longer be considered as giving to our commercial cities immunity from the danger of a sudden descent; they may, however, it is seen, be adequately protected by proper preparation, but such preparation requires time for its accomplishment. Fortifications, in order to insure their full efficiency, are not the work of a few weeks or months, but often of many years. Batteries hastily constructed may be useful as auxiliaries to more important defences, but they should seldom be relied on alone. When it is necessary to resort to such temporary works, it would be easy to show that these defences are far less economical than permanent works in cost of construction, in the amount of the necessary armament, and in the number of men required for their service. Indeed, this will be obvious to any one who has, by examination of a permanent fort, compared the easy management, and the rapidity and efficiency of fire of its heavy guns, with those that must be used behind a hastily constructed breastwork, and particularly where rapid firing against a moving body is required.

The defences of many of our most important seaports, which are still inadequately protected, can be properly effected only by liberal and regular grants from Congress for the completion of the works already under construction, and for the commencement of such new ones as it is proposed to erect. Economy of construction will be promoted by the appropriation of sums as large as can be judiciously applied within the year, and earlier efficiency will be attained as the works may thus be brought sooner to a state of completion; therefore,

the estimates for the next year have been prepared with a view to hasten the completion of all the most important works now under construction.

During the late war in Europe a commission of officers of the army was sent out, with your approbation, to use the opportunity afforded by extensive military preparations and movements of troops, to collect information which might be useful in our service. The commission, composed of three officers of different corps, visited the scenes of operations in the northern and southern parts of Russia, and many military establishments in England, France, Prussia and Austria. In Russia they were received with the most courteous liberality, and every facility which their time allowed was extended to them for accomplishing their object. They did not obtain access to places actually besieged, but they were permitted to examine the extensive and interesting fortifications of Cronstadt, before which an allied fleet was then lying. At St. Petersburg and Moscow, they visited the camps, barracks, military schools, hospitals and arsenals; at Warsaw, and in its vicinity, they had an opportunity of seeing fortifications of great extent, constructed on the modern system of the Russian engineers, who have acquired deserved celebrity by the skill and energy displayed in the protracted defence of Sebastopol.

The English government, "trusting to the honor of officers," freely permitted the commission to visit their camp in the Crimea; but the conditions at that time stipulated by the French authorities, in according a like permission, could not be then acceded to by the commission without giving up other important objects. On arriving in the Crimea, a short time after the retreat of the Russians from the south side of the harbor of Sebastopol, the commission met with a hospitable reception and kind assistance from the commanders and other officers of the English and Sardinian armies. Their visit to the Crimea at this time enabled them to see the camp arrangements, troops and siege works of the allies, and also to examine the fortifications of Sebastopol, in the state in which they were left after the last assault. Here and at Constantinople the arrangements for the transportation and subsistence of the troops and for the cure of the sick and wounded, in the field and permanent hospitals, also came under their notice.

In returning from the east they examined, with the courteous permission of the governments, many of the Prussian and Austrian military establishments, fortifications, arsenals and other manufactories, military schools and barracks of the various corps of troops. In passing through Belgium they visited the government foundry for cannon and some of the manufactories of small arms at Liege; and in entering France they had opportunities of seeing some of the principal fortifications, arsenals and dock yards.

The commission returned home in April last, after an absence of a year. The preparation of their detailed report is delayed by the necessity of assigning some of the officers to other duty, but it will probably be completed before the end of the approaching session of Congress.

The Military Academy continues successfully to perform its high

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mission. It is steadily advancing in all which facilitates thorough instruction; and whilst its purpose is mainly the education of warrant officers to prepare them for the responsibilities of higher grades, its benefits are co-extensive with the Union, and its influence felt in all the pursuits of our country. The mode of appointment prevents its advantages from ever being confined to any class of society—to any political party or geographical section; and as it is the first step in the military ladder, the army is thus furnished with a body of officers who represent the whole country, and who, by being reared in its service, may be expected to feel for the country as a whole, and in any and every contingency to prove a reliable bulwark for the common defence. Since the organization of the academy in 1802, it has steadily expanded with the increasing growth of the country, and the requirements of the institution have long since changed it from its original character of an engineer station and made it an important post of the army, at which every arm and a great majority of the regiments are represented in the persons of their officers. In the meantime, a demand for engineer officers in surveys and works of construction has not permitted the corps of engineers to furnish more than a small portion of the officers selected for duty at the academy. Thus it will be seen, from the necessity of the case, that the condition of the academy has long since ceased to conform to the terms of the law for its establishment, as was more specifically set forth in my last annual report.

For more detailed information, I refer to the annual report of the Board of Visitors and the report of the Chief Engineer, who, by his office, is also inspector of the academy.

The military roads in the various Territories provided for by acts of Congress have been steadily progressing; some are now completed, and work on them terminated; others are under contract, or in charge of officers, and will be prosecuted as the means placed at the disposal of the department will admit. Experience, thus far obtained, has demonstrated that in all cases, except where the location is in a prairie country, the appropriations will prove inadequate to complete the roads in a substantial manner.

This remark especially applies to the Territories of Washington, Oregon, and Minnesota. It is readily accounted for in the first two by the rugged mountains, deep and rapid streams, and the unusually heavy forest found throughout that region; in the last, on account of the great length of the roads, the heavy forest, and the number of streams to be bridged. For their completion on the scale originally contemplated additional means will be required.

By act of Congress dated February 17, 1855, \$10,000 was appropriated for cutting out the timber on the road from Fort Ripley, via Crow-wing river, to the main road leading to the Red river of the North. The location of the route, as indicated, was found circuitous and objectionable. Under the circumstances, it was considered the duty of the department to suspend all action on this road until Congress could so modify the terms of the law as to admit of the money being expended along the most advantageous line. Such a modification is recommended.

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An appropriation of \$30,000 was made on February 6, 1855, for the construction of the road from the Great Falls of the Missouri to intersect the road leading from Walla-Walla to Puget Sound. This sum was entirely inadequate to effect the object as an independent measure, and the department contemplated using it in connexion with the movement of a body of troops from the Upper Missouri to the valley of the Columbia river; but the unexpected demand created by the hostilities in Washington and Oregon Territories rendered it necessary to despatch the troops designed for this service by another and a speedier route. It has, therefore, not been possible advantageously to expend the appropriation, and the work has not been commenced.

The general rule which I have adopted and insisted upon, where a new appropriation has been made for a specific object, as for the construction of a road between two named points, is to determine on a plan for the work according to the scale indicated by the amount appropriated; and if it be evidently impossible, upon any plan which can be devised, to accomplish the proposed object with the means conferred, then to delay the commencement of the work, and report the fact, that either an additional appropriation may be made, or the work be abandoned. This rule, of course, has no application to those annual appropriations which are made as parts of the estimate originally presented for the completion of a work for which many years of continuous operation would be necessarily required.

The appropriations for the harbor and river works, intrusted to the corps of topographical engineers, are so nearly exhausted, that, with a very few exceptions, the operations upon them cannot be continued, yet they nearly all remain unfinished.

In carrying into effect the law of 1852, making appropriations for various internal improvements, the department has endeavored, with each appropriation, to complete the improvement for which it was made, but the means have been generally found so insufficient as to render this impracticable; and I recommend that these unfinished works, for the continuation of which there are no adequate means, with the material and small balance of money on hand, be turned over to the local authorities of each place where constructions have been commenced, that they may be completed by means to be derived from those most immediately interested.

Dredge boats have been built from appropriations for each of the northern lakes, except Superior, and when appropriations for the improvements on a lake are exhausted, the boat is not considered transferable for operations elsewhere, and the department is left without means for its custody and occasional repair. Their peculiar construction rendering them of little value for any other purpose than that for which they were originally designed, it is not found possible to realize by their sale more than a small fraction of their original cost. It is recommended that authority be conferred on the Secretary of War to transfer these boats into any lake for the improvement of which there may be available means; and, further, when no longer required for public purpose, to authorize their use by any town, corporation, or company, under such regulations and conditions as will secure their return to the United States in good order, whenever they may be again required.

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The survey of the northwestern lakes has progressed during the past season on a scale commensurate with the appropriations for that object, and the value of the work and the creditable manner in which it has been performed are evinced by the high appreciation in which the charts are held by the navigators of the lakes. The necessity for exact knowledge of these inland seas, which form an exposed part of our frontier, is too obvious to require elucidation.

For more detailed information on the condition of these several works reference is made to the report of the colonel of topographical engineers.

A report is herewith submitted from the office of this department connected with the explorations made to ascertain the most practicable route for a railroad to the Pacific, to which I refer for a detailed account of the duties performed in that relation during the past year.

My last annual report contained a brief reference to the principal results of the explorations and surveys made during that year in connexion with the routes near the 35th and 32d parallels, and between the Gila and Rio Grande. The report of the officer charged with these duties shows the proposed railroad line between the bay of San Francisco and the plain of Los Angeles to be an eminently practicable route. It occupies the valley of the San José and Salinas rivers, crosses the Santa Lucia mountains near San Luis Obispo, traverses the rolling country adjacent to the coast as far as Tres Alamos river, and thence to the mouth of the Gaviote creek, either passes along the valley of Santa Inez river and the Gaviote Pass or follows the coast, turning Point Conception; from the mouth of Gaviote creek it follows the shore-line to San Buenaventura, and crosses the Santa Clara plain, the Lemi Pass, and the San Fernando plain to Los Angeles.

The distance from San José, near the bay of San Francisco, to Los Angeles, by the shortest line, is 396 miles. Two tunnels are proposed, each three-fourths of a mile in length, one on the San Luis Pass, through the Santa Lucia mountains, and the other in the Lemi Pass. The estimated cost of this route, including equipment, is \$20,823,750, or about \$52,600 per mile.

A favorable pass, leading from the valley of the Salinas river to the Tulares valley, was discovered by this party, forming a good connexion with the bay of San Francisco for the route of the 35th parallel.

The results of the survey, it was formerly stated, have greatly improved the aspect of the first route surveyed between the Pimas villages on the Gila and the Rio Grande, by changing the line for nearly half the distance from barren ground to cultivable valleys, and entirely avoiding a *jornada* of eighty miles which occurs in that section. The route now follows the valleys of the Gila and the San Pedro rivers to the mouth of the Arivaypa, a tributary of the San Pedro discovered by this party, continues up that stream to its source, crosses between Mount Graham and Chiricahui mountains by a very favorable pass, proceeds in a direct course through the Peloncillo mountains and joins the former line in the vicinity of Col Cooke's emigrant road. From this point to the Rio Grande the route lies in the lowest line of the depression which characterizes the plateau

of the Sierra Madre in this latitude, the mean elevation of which is about 4,400 feet above the level of the sea, the summit being 4,600 feet above that level.

The maximum grade upon this route is 64.4 feet per mile. The route for two-thirds of the distance is represented as being most favorable for a railroad; the remaining one-third being nearly equally divided between ground of a rolling and mountainous character.

The examinations of this party, in reference to the practicability of procuring water, show that it may be obtained at suitable distances by common wells and conduits, supplied from permanent streams. In some localities artesian wells might probably be resorted to successfully.

The estimated cost of the whole distance, 345 miles, is \$15,300,000, or about \$44,000 per mile. The estimate, based upon a thorough re-examination of the ground, and a close study of the subject by the officers in charge of the survey, coincides very nearly with that made by the officer who presented the general revisory report upon the first explorations.

It is deemed proper to call especial attention to this coincidence, so strongly exhibiting the general reliability of these estimates, because a minority report made at the last session of Congress, from a committee of the House of Representatives, characterized the estimates, based on the reconnaissances of the topographical engineers, as unreliable, and adduced to sustain that disparaging reflection, the fact that on one of the lines explored, the preliminary estimate of the officer in charge greatly exceeded that which he presented after a further study of his observations in the field; this, too, being in disregard of the fact that the first estimate was hastily made by the explorer to meet a pressing demand for his report, and was at the time stated by him to have been prepared in anticipation of the future examination of the data he had collected. In the remarks of the revising officer which accompanied the reports it was also pointed out that this estimate was probably largely in excess.

Although the two lines between the Gila and Rio Grande, of which the estimated cost is so nearly alike, are over different routes, the features of the ground, so far as they would affect the cost of construction of a railroad, are nearly identical; the advantages of the new line depending upon other considerations already enumerated.

Similar remarks may be applied to the estimated cost of the two routes between the plains of Los Angeles and San Francisco, though the coincidence there is not so close, the character of the ground being such as would cause a difference of expense in the road-bed formation.

In addition to his own results, the officer in command of this party has presented those of an instrumental survey from San Diego bay, through Warner's Pass to the Colorado desert, made under the auspices of the San Diego and Gila Railroad Company.

The engineer of this company estimates the cost of a railroad on this route from San Diego to Fort Yuma, distance 189.1 miles, at \$7,571,500; one half of this distance being estimated at \$14,615 per mile, and the other half at \$65,085 per mile. These estimates are much less than those contained in the reports of the officers of this department for routes passing over similar ground. Either standard of cost per mile applied to the routes from Fort Yuma to San Diego

and from Fort Yuma to San Pedro, through the San Gorgonio pass, gives about the same total amount of cost for each route. The line to San Diego forms the shortest route to the Pacific, the distances being, from Fulton to San Diego 1,548 miles, from Fulton to San Pedro 1,618 miles. If the final terminus of a Pacific railroad is to be San Francisco, the route through the San Gorgonio Pass to San Pedro is preferable to that to San Diego, since the former port is about 100 miles the nearer to San Francisco.

The party directed to explore the country between the Sacramento and Columbia rivers, with a view to ascertain the practicability of connecting these valleys by a railroad, examined two routes, one east, the other west of the Cascade range.

The former accomplishes the passage of the western chain of the Sierra Nevada by following Pitt river. The route then traverses a sterile plateau elevated from four to five thousand feet above the sea, to the head of the Des Chutes river. Serious obstacles to the construction of a railroad are encountered at the cañon of Pitt river, and near upper Klamath lake. Wood and water are sufficiently abundant. The deep cañons in which the Des Chutes river and its tributaries flow render it impracticable for a railroad to follow its valley to the Columbia river. A practicable although difficult pass was examined through the Cascade range near Diamond Peak, by which the road can reach the Willamette valley; the route through which to the Columbia is very favorable to the construction of a railroad. The route west of the Cascade range is through the Willamette, Umpqua, Rogue River, and Shasta valleys. It proved to be more favorable than had been anticipated, and had not the smallness of the party and its inability to obtain an escort during the existence of Indian hostilities prevented lateral reconnaissances, it appears probable that a practicable line to Fort Reading would have been found, traversing for nearly the whole distance a fertile and inhabited region.

Between the Columbia river and Fort Lane in Rogue River valley, the Kalapooya mountains, Umpqua mountains and the Grave Creek hills are the chief obstacles to the construction of a railroad. An excellent pass through the first, and a difficult but practicable pass through the second, were surveyed. The Grave Creek hills, it is thought, can be turned.

Information respecting a pass from Rogue River valley to the plateau east of the Cascade mountains makes it probable that an easy connexion with the first route examined may be made, and this will be especially important should the obstacles encountered between Fort Lane and Fort Reading be shown by further examination to be insurmountable.

The pass examined through the Siskiyou mountains which separate Rogue River and Shasta valleys was very unfavorable to the construction of a railroad.

From Shasta valley to Fort Reading the route over the Scott and Trinity mountains is reported utterly impracticable. A feasible location between these places might be obtained by following the Sacramento valley.

The route east of the Cascade range may be considered practicable. The total distance by it from Benicia to Vancouver is about 800 miles,

of which only 350 miles are in a fertile and settled region. The construction for about 250 miles would be very difficult and costly ; for the remainder of the distance the work would be light.

The principal advantage of a route west of the Cascade range would consist in its traversing a fertile and inhabited country. By the line surveyed the total distance from Benicia to Vanconver is 680 miles, of which 500 would be easy of construction, 100 difficult and costly, and 80 so difficult and expensive as to be considered impracticable.

Additional experiments have been made, during the past year, by the party previously engaged in testing the practicability of procuring water by means of artesian wells upon the Llano Estacado, and upon the table-lands west of the Rio Grande. In the latter region the trial has not been prosecuted sufficiently far to admit of satisfactory conclusions. The work upon the Llano, which had been suspended until additional tubing could be procured, was resumed, and a well has been sunk to the depth of 861 feet. At the depths of 245 and 676 feet seams of pure and palatable water were laid open ; the first rising in the well 25 feet, and the second to within 110 feet of the surface. As no water rose above this point it has not yet been practically demonstrated that, in this region, there are subterranean streams which can be made to flow upon the surface ; but nothing has been developed to change the opinion, heretofore expressed, that the experiment will be attended with success, if prosecuted to the depth then contemplated by the department.

More detailed information regarding the late operations will be found in the report from the office connected with these explorations. The well has been left in such condition that the boring may be continued from the point where it ceased, should future appropriations admit the resumption of the work.

The important results that may attend the solution of this question, not only in connexion with the construction of a railroad, but also in the development of the resources which the country may contain, have been already noticed in previous reports from this department.

The topographical survey carried on in connexion with this work have improved the location of that portion of the railroad route near the thirty-second parallel east of the Rio Grande.

Since the last annual report the cargo of camels, thirty-two in number, then referred to as being expected, have been landed on the coast of Texas and taken into the interior of the country. Much time was required for their recovery from the effects of a long sea voyage, and but little use has therefore been made of them in the transportation of supplies. On one occasion, it is reported, that a train, consisting of wagons and camels, was sent from Camp Verde to San Antonio, a distance of sixty miles, over a road not worse than those usually found on the frontier, and the result as given is, that the quantity brought back by six camels (3,648 pounds) was equal to the loads of two wagons drawn by six mules each, and the time occupied by the camels was two days and six hours ; that by the wagons four days and thirty minutes. On another occasion, the capacity of the camel for travelling over steep acclivities and on muddy roads was tested with the most satisfactory result. Instead of making the detour, rendered necessary in the location of the road, to avoid a rugged

mountain, impracticable for wagons, the camels followed a trail which passed directly over it; and a heavy rain occurring whilst they were at the depot to which they had been sent for supplies, the road was rendered so muddy that it was considered impassable by loaded wagons, the train of camels was nevertheless loaded with an average of 328 pounds each, and returned to their encampment, a distance of sixty miles, in two days, suffering, as it is reported, no interruption or unusual fatigue from the mud over which they passed, or the torrents of rain which fell upon them.

These tests fully realize the anticipations entertained of their usefulness in the transportation of military supplies.

The experiment of introducing them into the climate of the United States has been confined to the southern frontier of Texas. Thus far the result is as favorable as the most sanguine could have hoped. Of thirty-four animals imported, two have died—one from accidental injury, and the other from cause unknown. When it is remembered that this is the year of their acclimation, in a climate subject to sudden and violent changes, and of the use by them of herbage very different from that of the countries from which they were imported, there is every reason to believe that as little difficulty will be encountered in the acclimation of the camel as that of the horse or the ox.

The very intelligent officer who was sent abroad to procure them, and who has remained in charge of them, expresses entire confidence, both of their great value for purposes of transportation and of their adaptation to the climate of a large part of the United States.

When we remember that the camel was among the first beasts domesticated by man, it furnishes ground for no little surprise that we should have remained, down to the present day, so little informed of its habitudes and physiology. The information which has been acquired in the progress of this experiment is of a highly interesting character, and must serve to dispel most of those apprehensions which were entertained when it was first proposed to introduce camels into the United States for military purposes. By the kindness of the Secretary of the Navy, I have been again permitted to freight a store-ship, on its return voyage from the Mediterranean, with another cargo of these animals, to be purchased from the unexpended balance of the appropriation, and Lieutenant D. D. Porter, of the navy, commanding, was charged with the duty of procuring them, and it is expected that another shipment of about forty in number will be landed during the present winter on the coast of Texas, and sent up to the encampment where those formerly obtained are now located, where we shall have for practical test about seventy animals.

The construction of the Capitol extension has advanced as rapidly as the supply of marble would permit. The building is roofed in, the ceilings of the representatives and of the senate chamber are completed, and the interior finish is begun.

Several committee rooms have been finished, and others, though not yet painted, have been temporarily occupied by committees, in consequence of the deficiency of room in the old building. The decoration of these rooms was thus deferred, to be resumed during the recess of Congress.

The vast quantity of marble for the porticos, in which there are a

hundred columns, will require at least two seasons for its delivery, but the occupation of the building need not be delayed until the completion of these porticos. As soon as the main body of the wings is completed, which, including the ventilating and heating apparatus, it is expected will be accomplished during the next summer, the building may be occupied.

In my last annual report, and in communications since made in answer to resolutions of Congress, it was announced that specimens of painting and decoration, of encaustic tile-flooring, of cast-iron windows and door casings, had been prepared for the inspection of Congress, and that other improvements on the original plan were contemplated.

It was then stated that if this higher style of finish was adopted, the cost of the building must be proportionably increased. And as the original plan and estimate was for the lower style of finish found in the main building, it was deemed proper to submit to Congress for decision the question of changing the style to the higher standard of the present state of architectural skill; and it was suggested that improvements might be introduced to a greater or less extent, as Congress might provide. Awaiting the decision of this question, no further appropriation for the Capitol extension was presented in the annual estimates of this department. During the session, and with the understanding that it was the will of Congress that the higher style of finish should be introduced into the whole building, an estimate for the current year's expenditure was transmitted to Congress, and an appropriation was made in accordance with it. I have this year caused estimates to be made on the hypothesis that the building is to be completed, both as to material and workmanship, so as to conform throughout to those parts which have already been constructed; and it appears that the additional sum which will thus be required is two million one hundred thousand dollars, of which a portion is asked in the annual estimate for the next fiscal year.

The work upon the new dome, suspended during the session of Congress, has been resumed. The machinery for the removal of the masonry of the old dome and construction of the new has been erected, and the old dome has been completely demolished.

Great care is necessary in forming upon the old walls the foundations to support the iron work, and the means adopted and described in the report of the officer in charge seem well adapted to insure success.

The design which was originally adopted by Congress appears to have been in advance of a study of its details and an estimate of its cost. Inquiries by the committees of the House of Representatives, and to which the department replied, indicated a probable change in the plan of the dome; and under these circumstances, it has been deemed advisable to await further action. Therefore, no estimate is presented by this department for the continuation of that structure, as the amount that will be required must depend upon the plan to be executed.

The continuation of the General Post Office building has been urged as rapidly as the supply of materials allowed. A large part of the cellar and basement story is constructed, and much marble has been

worked, and is ready to be set in the upper stories as soon as the granite to complete the basement is received.

The workmanship of the Post Office and Capitol extensions is such as to reflect credit upon the mechanics of our country.

These buildings promise to be enduring monuments of the present state of the arts in the United States.

The work upon the Washington aqueduct was suspended in July for the want of means, and the appropriation made in August did not, on account of the season, then allow of, if indeed it was intended for a resumption of operations.

The terms of that appropriation, as construed by the department, limited its application to the payment of existing liabilities and the preservation of the work. The doubt thus suggested as to the future policy of Congress in reference to the further prosecution of the work, has prevented me from submitting an estimate for that purpose.

Every interruption in the progress of construction must increase its final cost, and be attended by loss, both to the government and to the contractors; therefore, should it be decided to complete the aqueduct, it is believed that true economy would be promoted by granting sufficient means to undertake the whole work at the same time. For further information in relation to the Capitol and Post Office extensions, and the construction of the aqueduct, I refer to the report of the officer who has charge of, and has so ably and satisfactorily conducted them.

Attention is invited to the necessity for further legislation to improve the condition and render more perfect the instruction of the militia force of the United States. This subject has claimed the attention of many of your illustrious predecessors, and has been in the most urgent terms presented to the consideration of Congress at various times, beginning with the first year in the existence of our constitutional Union; but little has been done for the practical advancement of an object which, in the language of President Washington, "is abundantly urged by its own importance." It is rather to be feared, judging by the irregular and very defective returns received at this department, that the militia system is falling into disuse. This would seem to indicate a defect in the organization, and a necessity for further action by Congress. That body, in the language of President Jefferson, when speaking of the state of the militia in 1808, "alone having the power to produce an uniform state of preparation in this great organ of defence."

During the past year books of tactical instruction and of experiments in the firing of small arms at the long ranges obtained by modern improvements have been issued to the States for the use of the militia. A new edition of the Army Regulations, which will soon be published, it is designed to distribute in like manner; and it is recommended that provision be made which will enable the department to supply such text-books as will give to the militia the means of acquiring the necessary information in respect to the various duties of troops in the field; all of which is requisite that Congress may fully provide for the use of the militia "to execute the laws of the Union, suppress insurrection, and repel invasion," as empowered by the Constitution. To use the language of President Jefferson, in his last

annual message, "the extraordinary character of the times in which we live" impresses with more than usual force the necessity for a thorough organization of the militia, described by President Washington "as the natural defence of the country, the most effectual as well as economical preservative of peace." The use of the army and navy for the preservation of domestic order is for many reasons objectionable, and should only be resorted to when the peculiar necessities of the case shall justify it. Should the civil authorities, aided by a posse, at any time be insufficient to enforce obedience to the laws, the nature of our institutions seems to indicate as the next step the employment of the militia. The authority conferred to employ the army and navy was not granted in the first instance, but after a lapse of years was added to that for the employment of the militia, and would seem to be the remedy for such extraordinary cases as justify a resort to the additional means granted; but the occurrence of such cases must in no small degree depend upon the perfection of the organization and discipline of the militia.

Since my last annual report the unhappy condition of affairs in the Territory of Kansas has caused the troops stationed there to be diverted from the campaign in which it was designed to employ them against the Cheyenne Indians, and devolved upon them the delicate and most ungracious task of intervening to suppress insurrectionary movements by citizens of the United States against the organized government of the Territory. To maintain the supremacy of law, and to sustain the regularly constituted authorities of the government, they were compelled to take the field against those whom it is their habit to regard not only with feelings of kindness, but with protective care. Energy tempered with forbearance, and firmness directed by more than ordinary judgment, have enabled them to check civil strife, and to restore order and tranquillity, without shedding one drop of blood.

In aid of the civil authorities they have arrested violators of the peace; have expelled lawless bands from the Territory; and, vigilantly guarding its borders, have met and disarmed bodies of men organized, armed, equipped, and advancing for aggressive invasion, whilst the actual use of their own weapons has been reserved for the common enemies of the United States.

I concur in the high commendation which the commanding general of the department of the west bestows on Lieutenant Colonel Cooke, commanding in the field, and to the officers and men who have thus satisfactorily performed the disagreeable duty which was imposed upon them; and I am sure they could receive no more grateful reward than an exemption from the future performance of such duty, and the assurance that their labors have contributed to the tranquillity and prosperity of the country in which they are stationed. Upon notice from the executive of the Territory that peace has been restored, the troops have been withdrawn from the field and returned to winter quarters.

I have the honor to be, very respectfully, your obedient servant,
JEFF'N DAVIS,
Secretary of War.

THE PRESIDENT OF THE UNITED STATES.

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Documents accompanying the report of the Secretary of War.

- No. 1. Letters from the Secretary of War and the Adjutant General.
- No. 2. Reports from Colonel E. V. Sumner.
- No. 3. Reports from the department of the west.
- No. 4. Reports from the department of the Pacific.
- No. 5. Report upon the progress of the Pacific railroad, explorations and surveys.
- No. 6. Report on the Capitol extension, reconstruction of dome, and Post Office extension.
- No. 7. Communication from the Commanding General and statements of the Adjutant General.
- No. 8. Report of the Quartermaster General.
- No. 9. Report of the Commissary General.
- No. 10. Report of the Paymaster General.
- No. 11. Report of the Surgeon General.
- No. 12. Report of the Chief Engineer.
- No. 13. Report of the Chief Topographical Engineer.
- No. 14. Report of the Chief of Ordnance.

No. 1.

LETTERS FROM THE SECRETARY OF WAR AND THE ADJUTANT GENERAL.

Letters from the Secretary of War, to—

- Colonel E. V. Sumner, May 23, 1856.
- General P. F. Smith, June 22, 1856.
- General P. F. Smith, September 3, 1856.
- Governors of Kentucky and Illinois, September 3, 1856.
- Major W. H. Emory, September 3, 1856.
- General P. F. Smith, (telegraph,) September 9, 1856.

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No. 4.

REPORTS FROM THE DEPARTMENT OF THE PACIFIC.

June 17, 1856.—From General John E. Wool; enclosing—

Letter from Captain D. R. Jones to Lieutenant Colonel R. C. Buchanan, June 16, 1856.

Letter from Lieutenant C. H. Rundell to Lieutenant F. H. Bates.

Letter from Colonel G. Wright to Captain D. R. Jones, May 30, 1856.

July 1, 1856.—From General John E. Wool; enclosing—

A. Letter from Lieutenant Colonel R. C. Buchanan to Captain D. R. Jones, June 24, 1856.

B. Letter from Colonel Silas Casey to General J. E. Wool, June 2, 1856.

C. Letter from Colonel Silas Casey to Captain D. R. Jones, June 6, 1856.

D. Letter from Colonel Silas Casey to Captain D. R. Jones, June 20, 1856.

E. Letter from Colonel G. Wright to Captain D. R. Jones, June 11, 1856.

F. Letter from Colonel G. Wright to Captain D. R. Jones, June 20, 1856.

G. Letter from Captain E. D. Townsend to Colonel G. Wright, January 19, 1856.

Special orders No. 6, January 19, 1856.

July 4, 1856.—From General John E. Wool; enclosing—

Letter from Major W. W. Mackall to Colonel G. Wright, July 3, 1856.

July 19, 1856.—From Major W. W. Mackall.

August 14, 1856.—From General J. E. Wool; enclosing—

No. 1. Letter from Major W. W. Mackall to Colonel G. Wright, August 2, 1856.

No. 2. Letter from Major W. W. Mackall to Colonel S. Casey, August 2, 1856.

Letter from Colonel S. Casey to Major W. W. Mackall, July 21, 1856.

Letter from Governor I. I. Stevens to Colonel S. Casey.

Letter from Colonel S. Casey to Governor I. I. Stevens, July 18, 1856.

No. 3. Letter from Tandler & Co. to General J. E. Wool, July 29, 1856.

Letter from Major O. Cross to Tandler & Co., July 30, 1856.

No. 4. Letter from Colonel S. Casey to Major W. W. Mackall, July 11, 1856.

No. 16. Letter from Colonel G. Wright to Captain D. R. Jones, July 7, 1856.

- No. 17. Letter from Colonel G. Wright to Captain D. R. Jones,
July 9, 1856.
- No. 18. Letter from Colonel G. Wright to Major W. W. Mack-
all, July 18, 1856.
- No. 19. Letter from Colonel G. Wright to Major W. W. Mack-
all, July 18, 1856.
- August 19, 1856.—From General J. E. Wool; enclosing—
Report from Captain H. M. Judah of an engagement with
Mcdoc and Des Chutes Indians, August 7, 1856.
- September 19, 1856.—From General J. E. Wool; enclosing—
Letter from Colonel G. Wright to Major W. W. Mackall, Sep-
tember 8, 1856.
- September 3, 1856.—From General J. E. Wool; enclosing—
No. 20. Letter from Colonel G. Wright to Major W. W. Mack-
all, July 25, 1856.
- No. 21. Letter from Colonel G. Wright to Major W. W. Mack-
all, July 27, 1856.
- No. 22. Letter from Colonel G. Wright to Major W. W. Mack-
all, August 3, 1856.
- Letter from Colonel G. Wright to Major W. W. Mack-
all, August 17, 1856.
- Letter from Colonel G. Wright to Major W. W. Mack-
all, August 24, 1856.
- Letter from Colonel G. Wright to Major W. W. Mack-
all, August 24, 1856.
- Letter from Major W. W. Mackall to Colonel G.
Wright, September 1, 1856.
- October 4, 1856.—From General J. E. Wool; enclosing—
Letter from Colonel G. Wright to Major W. W. Mackall, Sep-
tember 20, 1856.
- October 19, 1856.—From General J. E. Wool; enclosing—
Letter from Colonel G. Wright to Major W. W. Mackall, Oc-
tober 2, 1856.
- Letter from Colonel E. J. Steptoe to Colonel G. Wright, Sep-
tember 18, 1856.
- Letter from Colonel E. J. Steptoe to Colonel G. Wright, Sep-
tember 20, 1856.
- Letter from Colonel E. J. Steptoe to Colonel G. Wright, Sep-
tember 26, 1856.
- Letter from Governor I. I. Stevens to Colonel E. J. Steptoe.
- Letter from Governor I. I. Stevens to Colonel E. J. Steptoe.
- Letter from Major W. W. Mackall to Colonel G. Wright, Oc-
tober 19, 1856.