

Cape Canaveral was suspended at the breaking out of the war, in the contractor's hands, with the understanding that the work should be resumed on notice being given by the board. Notice has been given accordingly, and the contractor has signified his intention to finish the tower as soon as possible.

The entrances to the following places have been buoyed: Winyah bay and Georgetown, (Battle Channel,) Bull's bay, Charleston, Stono river, North and South Edisto, St. Helena sound, Port Royal, Tybee and Calibogue sound, Warsaw sound and Wilmington river, Ossibaw sound and Ogeechee river, Sapelo sound, Doboy sound, St. Simon's sound, Fernandina and St. Mary's, St. John's river, St. Augustine.

In the seventh light-house district, which embraces the coast of Florida, from St. Augustine to Egmont key, the service has been carefully attended, and the lights and other aids to navigation which had been undisturbed by the enemy have been maintained in an efficient condition. Those which had been injured will be re-established as soon as practicable, energetic efforts to this end being in progress.

The important light stations, Cape Florida and Jupiter inlet, have received the especial attention of the board, and an experienced agent has been sent to that district with instructions to use every exertion to re-light those points, and the board has reason to hope that by next spring both of these lights will be again in operation.

The buoyage of the district has been kept up to the standard of efficiency so far as the limited means at the disposal of the board would permit.

In the eighth and ninth districts, embracing the Gulf coast from Egmont to Rio Grande, Texas, the work of re-establishing lights and other aids to navigation discontinued by the enemy has been kept prominently in view, and no effort has been spared to accomplish, so far as the means at the disposal of the board would permit, this desirable result.

The lights, &c., reported last year as having been restored to operation, have been maintained in an efficient manner, but at great cost, in consequence of the peculiar state of the markets in that region, the scarcity of skilled labor and the high price of materials forcing upon the service in these districts an expense entirely disproportioned to that of other districts.

The following stations have been repaired and refitted during the year, and are now in operation: Ship shoal, Shell keys, Southwest reef, St. Joseph's, Round island, (Miss.) Sand island, Bolivar Point and Padre island; and others are in course of refitting, and it is expected that in a few months most of those unlighted will be in full course of useful operation.

The buoyage of the district has received careful attention, and the board has great reason to congratulate itself upon having under such difficulties accomplished so much towards a restoration of needed facilities to the commerce of the Gulf.

In the tenth and eleventh districts, which embrace all lights from Lakes Erie and Ontario, and rivers St. Lawrence and Niagara, the various aids to navigation have been kept generally in good order, and the disposition of buoys and beacons leaves but little to be desired. No complaints in this respect have been received. The inspector bears testimony to the general attention to duty displayed by the keepers and assistants.

The work of rebuilding the light-house at Green island (destroyed by fire 1st January, 1864) has been pressed forward, notwithstanding the failure of Congress to provide the funds specially requested for the work, and a light was exhibited from the new structure on the 1st July, 1865. In the erection of this light-house a new and more suitable site was adopted. The expenses of this construction were very heavy; yet, as the work was of imperative necessity, the general fund for repairs was drawn upon to meet the bills. A special estimate

of this work is submitted, out of which it is proposed to reimburse the general fund for the amounts drawn from it.

The erection of the range-lights authorized by act of Congress for Maumee bay has not advanced during the year to the extent hoped for by the board. The delay has been occasioned partly by the difficult and complicated questions involved, but mainly on account of the impossibility of procuring the necessary land at private sale at prices warranted by the circumstances of the case. Resort was necessarily had to a tedious suit at law, which has just resulted in securing the requisite land to the government at reasonable rates. The work will be pressed forward to completion.

Upon an examination of the light-house at Mamajuda, it was found necessary to rebuild it, the present structures not being thought worthy of the repairs required to make them habitable. Temporary measures of protection have been adopted, and a special estimate to cover the cost of rebuilding is submitted.

The dilapidated condition of the light-houses at Galloo island and Turtle island has been heretofore reported, and special estimates to cover the cost of necessary repairs are again submitted. These stations are very important, and it is desirable that the necessary funds should be provided as soon as possible.

The light-house tower at Presque Isle having been reported to require immediate attention to preserve it from falling, a special examination was made. It was found to have settled very considerably; the masonry, moreover, being cracked, with a tendency to further insecurity. It is recommended that this tower be taken down upon the close of navigation this season, and rebuilt upon a proper and more suitable site. A special estimate to cover the cost is submitted.

The temporary range-lights at Cedar Point, Sandusky bay, referred to in the last annual report as having been established, have been continued, and the importance of rendering these aids permanent is such as to warrant the board in submitting a special estimate designed to cover the cost of suitable structures.

Many other works of repair in this district of less extent than the foregoing require attention. It is proposed to complete them as time and opportunity permit.

The eleventh light-house district embraces Lakes St. Clair, Huron, Michigan, and Superior, and Green bay and tributaries.

The lights and other aids to navigation within its limits have been maintained in an efficient condition. Various extensive works of renovation have been in hand during the past year, some of which have been completed. Others are still in progress; while many, from the large expense involved, must necessarily await congressional action.

The buoys, likewise, have been well attended.

The works of repair at Windmill Point light station, in contemplation at the date of the last annual report, have been completed, and a new distinctive illuminating apparatus will be put in operation on the opening of the next season of navigation.

The necessary timber for rebuilding the beacon and pier at Kenosha, Wisconsin, has finally been procured after much delay, and the work will be prosecuted to insure, if possible, the completion of the structures during the present season of navigation.

The requisite materials, timber and ballast stone, for the authorized structures at Racine, have been delivered, and the work is being vigorously pushed in order to secure it before the fall gales set in.

The extensive works reported last year as being in progress at Milwaukee have well advanced during the year, and it is expected that the light-house will be nearly completed by the close of navigation.

The light-house at Point Peninsula, between Big and Little Bay de Noquet,

Michigan, for which an appropriation was made by Congress July 2, 1864, has been completed and lighted.

Efforts have been made to establish a light at Sand Point, as authorized by act of Congress of July 2, 1864. A suitable sight was selected, but up to this time the holders of the land have been unable to convey a valid title to the United States. This being, under the law, a pre-requisite, nothing could be done in the matter beyond the preparation of plans and estimates for the work.

A system of range-lights for entering Copper harbor, authorized by act of Congress of June 20, 1860, has been completed and the lights exhibited. The necessary land at Fort Wilkins for the purposes of these range-lights, together with the valuable buildings which occupy it, were, by the courtesy of the War Department, transferred to the Light-house Board.

In the last report reference was made to works then in progress for securing the foundation of the light-house at La Pointe, Michigan. It has been found that the movement of the sand was not arrested by the measures then adopted, and instructions have been given to have the entire surface of the ground covered with broken stone.

The light-house at Minnesota Point having been found to require considerable repairs, prompt measures to this end were accordingly taken.

The special estimates submitted last year for necessary protective works for the light-house at Wangoshance shoal, Straits of Mackinac, having failed to receive the sanction of Congress, nothing could be done toward arresting the increasing dilapidation and decay at this station, which, in point of importance to the interests of navigation, is second to none in the lake region. The pier surrounding the light-house, and designed for its protection, is in course of rapid destruction, and when once destroyed, the light-house must give way. Because of the exposed position, the works required at this point are of a very expensive character, and after a careful study of the whole subject, the board is of opinion that, to carry out the work in a substantial and satisfactory manner, the sum of \$200,000 will be required, but has thought it expedient to estimate for only a part of this amount, (\$90,000,) to be expended during the year ending June 30, 1866.

A fog-signal is more needed at this point than at any other on the lakes, being the turning point of all vessels passing through the Straits of Mackinac. A special estimate for its establishment is submitted.

The necessity for establishing a system of range-lights at St. Clair Flats has been brought to the attention of the board, and has received careful consideration. Deeming these ranges of manifest usefulness, a special estimate is submitted.

The importance of substituting new and efficient fog-signals at various stations in this district, in place of the bells now in use, has been developed, and a special appropriation is asked to cover the expense.

A light-house at or near old Fort Mackinac is much needed to enable vessels to pass through the straits at night, and McGulpin's Point, about two miles distant, is designated by the engineer of the district as the most suitable location. A special estimate is accordingly submitted.

The most salient point on the eastern shore of Lake Michigan, between Point Betsey and Muskegon, is known as Grand Pointe au Sable, and is unmarked by night. It is a principal landmark for day navigation, and it would seem that the interests of commerce demand that it be suitably lighted. A special estimate is submitted.

The extension of the pier at Chicago during the past summer for a distance of 450 feet into the lake renders it necessary to build a small beacon-light at the end of the pier to mark it.

The light-house tower at Kenosha is found to need extensive repairs. The inner wall is literally crumbling to pieces, and the outer wall also shows several

cracks, caused by the action of frost, as in the case of the tower at Presque Isle, Pennsylvania. A special estimate of the cost of these repairs is submitted.

A light-house at Eagle Bluff, on the east coast of Green bay, is much needed to enable steamers plying between lake ports and the port of Green Bay, which use the east channel almost exclusively, to pass between the Little Sister island and the Frying Pan shoals. It is the most prominent bluff on the western shore of Green bay. For the erection of this light a special appropriation is recommended.

The Grand Island light-house was found, upon examination, to be in a wretched condition, on account of the inferior materials employed in its original construction. This structure, which is difficult of access, should be rebuilt in the most substantial manner, so that no further repairs will be required for many years to come.

The existing appropriation of \$6,000 for lights at the two entrances of Grand Island harbor, Lake Superior, having been found insufficient to carry on the work, an additional appropriation is respectfully recommended.

A special estimate is also submitted to cover the cost of expensive repairs and renovations found to be necessary at Marquette light-house station.

The Huron islands, Lake Superior, lying as they do in the track of vessels bound to the Portage, are a constant source of anxiety to the navigators, wrecks having frequently occurred at this point. The large and rapidly increasing commerce passing this point warrant the establishment of a suitable light and fog-signal, for which an appropriation is accordingly recommended.

A pier having been built at the mouth of Portage river, and the channel straightened and deepened, a small light is needed to mark the entrance.

A special appropriation is likewise recommended for the establishment of a light-house to mark the channel between Keweenaw Point and Manitou island, Lake Superior, a dangerous passage, at present unmarked by a light, which is deemed very necessary.

Estimates of expense of certain essential works of rebuilding at Copper Harbor and Ontonagon light-stations are submitted.

A special committee of the board was sent to the northwest lakes to ascertain the wants of commerce in that locality. The examination was particularly directed to Green bay and surroundings, and a special estimate to cover the cost of certain necessary aids to navigation, which will comprise a third class light-house on Mahnomah or Chambers island, range-lights at entrance to Fox river, a beacon on Peshtego shoal, &c., is submitted.

The twelfth light-house district embraces the entire Pacific coast of the United States. The various lights and buoys have been kept in an efficient condition, and no complaints on this score have been received.

The failure of Congress to provide at the last session for certain new works for which special estimates had been submitted has confined the engineering work of the district to ordinary repairs and renovations, and preparations for the new works when the necessary special appropriations shall be available.

The buoyage of the district has been well attended to.

The new light-house at Ediz Hook has been completed and lighted.

Having thus given a detailed account of the operations and condition of the light-house establishment in the several districts, there remain but a few matters of general importance to notice.

In anticipation of the ultimate overthrow of the rebellion, and the consequent necessity of providing as promptly as possible for a sudden revival of trade to southern ports, the board took measures to provide ready for use when required, a number of lanterns of the various classes, the lenses having previously been provided as heretofore reported. These, having been constructed, were, after careful inspection, received and stored.

The board has had good reason to congratulate itself on having taken this

timely precaution, being thus enabled to hasten materially the re-establishment of lights at many stations where the lanterns had been destroyed by the enemy.

In like manner the board provided for a supply of iron buoys of the several classes and sizes, being thus prepared, on the restoration of trade to any particular port, to re-establish the necessary buoys. These buoys are now in course of construction by contract, at favorable rates to the government.

Upon the close of the war, instructions were given to the acting light-house engineers in the southern districts to inquire for, and recover if possible, the light-house property, comprising illuminating apparatus and other material which had been scattered during the hostilities. This work has been, in a great measure, successfully accomplished, and mainly by the action of the War Department, through which much valuable material has been reclaimed. The apparatus recovered has been forwarded to New York for repairs, being in most instances considerably damaged. That which was fit for immediate use has been either so applied or stored, until the towers were in a condition to receive it.

Under sanction obtained from the department an arrangement was made with the Navy Department for the transfer to this board of some small steamers which had been advertised for sale, to be used as light-house and buoy tenders. These steamers, six in number, are to take the place of a larger number of small and inefficient sailing vessels. This arrangement, though attended with some immediate additional expense, will ultimately prove beneficial and economical.

The board has, during the year, given its earnest consideration to the use of lard oil. A large quantity was purchased under contract and distributed to the lights which are fitted with lamps adapted to its use, and the board has yet to record the first case of well-grounded complaint on the part of keepers of the lights so produced, or on the part of mariners. The board is therefore much encouraged in its hope of introducing a cheaper and more certain article of illumination than sperm oil, which has now reached a price far beyond the reach of ordinary appropriations, while the continuance of the supply is a matter of great uncertainty. It is true that lard oil is at present unusually scarce, yet this is only a temporary condition, which, in consideration of the abounding means of supply, cannot long exist.

Very respectfully,

W. B. SHUBRICK,
Rear-Admiral, Chairman.

REPORT OF THE SUPERINTENDENT OF THE COAST SURVEY.

UNITED STATES COAST SURVEY OFFICE,
Washington, October 10, 1865.

SIR: The estimates for the deficiency in appropriations for the survey of the coast for the fiscal year 1865-'66, together with those for the fiscal year 1866-'67, are herewith respectfully submitted; and I have the honor to request that, if approved, they be included in your estimates for appropriations.

In regard to the existence of a deficiency, it is only necessary to recall the fact that the late Congress failed to pass the general appropriation bill in which the items for the coast survey are included. No appropriation was, therefore, made for the fiscal year 1865-'66. The work has been continued out of the unexpended balances of previous appropriations, and some aid of the same nature afforded by the Treasury Department. The appropriations asked for this work had been approved by both houses during the progress of the bill, and the amounts now estimated for are intended to meet the expenditures for the remainder of the fiscal year, upon the same scale of appropriation.

The following is a brief sketch of the progress made during the past year. While the war continued, a number of parties were connected with, and rendered efficient aid in, naval and military operations, as during the preceding year.

Four parties were attached to the South Atlantic blockading squadron and the military department of the south, by whom a complete resurvey of the entrance to Charleston harbor was effected; a survey of the inside water passages between St. Helena and Port Royal sounds; of Broad river and Whale branch to Port Royal ferry; of Wilmington and Thunderbolt rivers, and the other communications between Savannah and Wassaw and Ossabaw sounds, besides mapping the rebel defences of Charleston and Savannah, and replacing temporary lights, beacons, and buoys, under instructions from the Light-house Board, as fast as the places were reoccupied by the national forces. The entrance to Darien was examined and buoyed, for the transportation of released Union prisoners. Four topographers of the Coast Survey accompanied Sherman's march from Savannah to Goldsboro', and rendered efficient aid in military reconnoissance.

Two parties were connected with the North Atlantic blockading squadron, one of whom, after assisting in the operations against the rebel defences of Wilmington, N. C., made a complete resurvey of both entrances to Cape Fear river, while the other re-lighted and buoyed those channels, as well as that leading into Beaufort harbor, N. C., which at one time was of great importance as a base of supplies. After the close of hostilities the survey of Cape Lookout shoals and the off-shore work on the coast of North Carolina has been continued.

A topographical survey of the north bank of the Potomac river, from the vicinity of Washington to Harper's Ferry, has been made by a party attached to the middle military department, while two others have continued the detailed surveys of approaches to Baltimore and Washington. One topographer was attached to the army operating in the valley of Virginia, and has furnished reconnoissances of the battle-fields of Fisher's Hill and Cedar Creek; another was on duty with the army in Tennessee, and has mapped Lookout mountain and its approaches.

In connexion with the Mississippi squadron, a party of Coast Survey officers furnished with a gunboat, have made a very valuable reconnoissance map of over two hundred miles of the Tennessee river, from the Muscle Shoals to its mouth; of the lower Ohio, from Paducah to Cairo; and of some ninety miles of the Mississippi river, from Cairo up to St. Mary's. The latter work necessarily ceased when, owing to the reduction of the squadron, a vessel could no longer be assigned to the use of the party. It may be hoped, however, that the great and obvious usefulness, in a national point of view, of a reliable map of the Mississippi river may lead Congress to make a special appropriation for the further prosecution of that work, the commencement of which involved no public expenditure that would not otherwise have been incurred.

In the regular progress of the survey in the northern sections, parties have been at work, during the summer and autumn, on Passamaquoddy, Gouldsborough, Frenchman's and Penobscot bays, on Muscongus sound, and Medomak, Damariscotta and New Meadow rivers, on the coast of Maine; on Narragansett bay and its dependencies, in Rhode Island; on the coast of New Jersey; and the connexion of the primary triangulation in sections 1 and 2 has been completed by the superintendent's party.

On the western coast, the coast triangulation between San Francisco and Monterey bays has been completed; that of Suisun bay has been continued; the topography between Point Año Nuevo and Point San Pedro, and the off-shore hydrography south of San Francisco, have been continued, and the topography and hydrography of Koos bay have been completed.

An early resumption of the work in the southern sections is contemplated, and is provided for, on a moderate scale, in the estimates herewith presented.

The table below gives the amounts estimated to supply the deficiency for the fiscal year 1865-'66 in parallel columns, with the estimates which were originally presented for the whole fiscal year, and were approved by both houses of the last Congress, but failed to become a law before the expiration of its session :

Object.	Estimated for fiscal year 1863-'66, but not appropriated.	Estimated for deficiency for 1865-'66.
For survey of the Atlantic and Gulf coasts of the United States, including compensation of civilians engaged in the work, per act of March 3, 1843.....	\$181,000	\$120,000
For continuing the survey of the western coast of the United States, including compensation of civilians engaged in the work, per act of September 30, 1850.....	100,000	75,000
For continuing the survey of the reefs, shoals, keys, and coast of South Florida, including compensation of civilians engaged in the work, per act of March 3, 1849.....	11,000	11,000
For publishing the observations made in the progress of the survey of the coast of the United States, including compensation of civilians engaged in the work, per act of March 3, 1843.....	4,000	4,000
For repairs of steamers and sailing schooners used in the survey, per act of March 2, 1853.....	20,000	20,000
For pay and rations of engineers for three steamers used in the hydrography of the Coast Survey, no longer supplied by the Navy Department.....	6,000	6,000
Total.....	322,000	236,000

During the continuance of the rebellion the field operations of the coast survey have been unavoidably much restricted. In the southern sections they were carried on only as far as requisite and practicable in connexion with the operations of the naval forces. In most cases where officers of the Coast Survey have served with military or naval commands the working parties have been furnished from the same, and the pay and subsistence of the officers only have been paid from the coast survey appropriations. The coast survey vessels attached to the squadrons have been furnished with coal and kept in repair by the navy.

Under these circumstances a corresponding reduction in the expenditures for the coast survey was made, which, from considerations of economy, was extended to the work on the western coast. The appropriations, which had amounted to over four hundred and fifty thousand dollars in 1860, were reduced, in accordance with the estimates submitted, to about three hundred thousand dollars during the war.

The estimates herewith presented for the fiscal year 1866-'67 approach more nearly to the scale of expenditure before the war. They contemplate the resumption of the work in the southern sections, which, beside being called for to aid in the development of the resources of that part of our country, will be productive of great economy, since it will, as formerly, enable the same parties to be employed in the south during the winter, that are at work in the north during the summer. Without any material increase in the salaries and office expenses the amount of field-work accomplished will be far more than proportionally augmented. Owing to the great increase in the price of labor and supplies of every kind, the appropriations asked for, although the same in

amount of the two principal items as those for 1860-'61, will be far from being equivalent to the latter; they are as low as is consistent with an economical prosecution of the work in the several localities where it has been commenced.

The item providing for the continuation of the survey of the Florida reefs and keys has been diminished from forty to twenty-five thousand dollars, because that work is proportionally far advanced towards completion. The item providing for repairs of vessels, on the contrary, is unavoidably increased from ten to twenty thousand dollars on account of the great increase in the cost of such repairs, and because a larger amount of refitting is at present necessary on account of greater wear and tear during the war.

The subjoined table exhibits, in parallel columns, the appropriations made before the war, those during the war, and the estimates now submitted for the fiscal year 1866-'67 :

Object.	Appropriated 1860-'61.	Appropriated 1864-'65.	Estimated for 1866-'67.
For survey of the Atlantic and Gulf coasts of the United States, including compensation of civilians engaged in the work, per act of March 3, 1843.....	\$250,000	\$178,000	\$250,000
For continuing the survey of the western coast of the United States, including compensation of civilians engaged in the work, per act of September 30, 1850.....	130,000	100,000	130,000
For continuing the survey of the reefs, shoals, keys, and coast of South Florida, including compensation of civilians engaged in the work, per act of March 3, 1849.....	40,000	11,000	25,000
For completing the line to connect the triangulation on the Atlantic coast with that on the Gulf of Mexico, across the Florida peninsula, including compensation of civilians engaged in the work, per act of March 3, 1843.....	5,000
For publishing the observations made in the progress of the survey of the coast of the United States, including compensation of civilians engaged in the work, per act of March 3, 1843.....	5,000	4,000	5,000
For repairs of steamers and sailing schooners used in the survey, per act of March 2, 1853.....	10,000	4,000	20,000
For fuel and quarters, and for mileage or transportation, for officers and enlisted soldiers of the army serving in the coast survey, in cases no longer provided for by the quartermaster's department, per act of August 31, 1852.....	5,000
For pay and rations of engineers for steamers used in the hydrography of the coast survey, no longer supplied by the Navy Department.....	12,800	9,000	10,000
Total.....	457,800	306,000	440,000

Respectfully submitted:

For A. D. BACHE,
Superintendent U. S. Coast Survey,
J. E. HILGARD,
Assistant in charge of Office.

Hon. HUGH McCULLOCH,
Secretary of the Treasury.

REPORT OF THE SUPERVISING INSPECTOR OF STEAMBOATS.

SIR: The board of supervising inspectors of steam vessels met in its annual session, in the city of St. Louis, Missouri, pursuant to adjournment, on the 11th day of October, 1865, and having had under consideration various matters of interest arising from the operations of the steamboat laws, have the honor of presenting their thirteenth annual report.

The board, in their annual report of last year, alluded to the evil effects which the act of April 29, 1864, would produce if continued so as to interfere with or supersede the rules of the board of steamboat inspectors upon the inland waters of the United States.

The act of 1864 ignores the use of the steam-whistle, without which it is difficult to conceive how some of the inland waters of the United States can be navigated, without falling back into dangers and fearful collisions, which, before its introduction, continually shocked the public mind. To these waters, especially those of the western rivers, the simple rule that all vessels when meeting shall take the right is not satisfactory nor sufficient; rapid currents and eddies have much to do in determining the proper course of safety. As a general rule, it is proper that vessels in meeting each other should take the right; but it is not, under some circumstances, practicable, and it is in such cases that the rules of the board of inspectors provide a safe and proper remedy by the introduction of the steam-whistle. The rules will themselves best exemplify the nature of the navigation to which they relate, and they are introduced to show how intimately the signals of the whistle are interwoven with the rules of navigation on the waters referred to:

Rule 1st. When steamers are approaching each other the signals for passing shall be one sound made by the steam-whistle to keep to the right, and two sounds made by the steam-whistle to keep to the left. These signals to be first made by the ascending steamer. If the dangers of navigation, darkness of the night, narrowness of the river, or any other cause, render it necessary for the descending steamer to take the other side, she can do so by making the necessary signal, and the ascending steamer must govern herself accordingly. These signals to be observed by all steamers, whether by day or night.

Rule 3d. When two boats are about to enter a narrow channel at the same time, the ascending boat shall be stopped below such channel until the descending boat shall have passed through it; but should two boats unavoidably meet in such channel, then it shall be the duty of the pilot of the ascending boat to make the proper signal, and when answered by the descending boat, to lie as close as possible to the side of the channel the exchange of signals may have determined as allowed by rule first, and either stop the engines, or move them so as only to give his boat steerage way, and the pilot of the descending boat shall cause his boat to be worked slowly until he has passed the ascending steamer."

The act of 1864 requires mast-head lights, where the character of the navigation does not require them, and upon vessels which have no masts abolishes stern lights, where stern lights are quite necessary. In fact, the act seems to supersede that of August 30, 1852, crushing out the beneficial provisions which have been so long and favorably practiced in the navigation of steam-vessels. The board therefore must continue to be embarrassed in the exercise of their official power in relation to signals of sounds or of lights as heretofore, unless the act of 1864 be so construed as to confine its provisions to oceanic waters, or to those on which the navigation of English, French, and Americans are more particularly and mutually concerned, and then not until some guarantee that English navigators on our northern frontier shall more particularly observe the rules they seek to impose upon us.

Remonstrances from the most influential navigators have been presented against the application of any law which shall break up the system of American signals as heretofore established. The continued accumulation of steam-vessels in all the bays, harbors, and rivers, shows there is increasing need of them, notwithstanding the law of 1864 turns back this tide of improvement and throws into confusion the discretionary power, which for twelve years has been usefully exercised in perfecting a system for steamers which is now adopted by common consent as the best means of safety yet devised, for while it concedes the common rule requiring vessels to take the right when the wishes of pilots are not otherwise expressed, yet it also affords the use of a language by which any misunderstanding may be avoided or corrected.

The provisions of the act should therefore be modified so as to confine its

operations to ocean navigation, or to exclude its application from the interior waters of the United States. On the western waters mast-head lights are impracticable, no mast being used as at sea; and head-lights upon the stem, or other low positions forward, give a false aspect to the surface of the water, so that pilots cannot well determine the channel or the snags which they are liable to encounter, nor in approaching other boats can they distinguish such lights from the numerous shore lights, which are generally on the same level and usually placed at the several landings. In this case the law should not require head-lights.

Another rule of the board of inspectors seems to be superseded by the act of 1864, by which it is determined, as in former times, that when two steamers are sailing in the same direction the boat ahead shall have the preference. The faster boat, if she would pass, may be prevented by the zigzag course of the boat ahead, and thus, as in former contentions with opposition lines provoked by such continued obstinacy, the faster boat astern drives into the stern or side of the privileged boat, to the great danger of boat and passengers. The rules of the board established a rule which allows the faster boat behind to pass by signals, rendering danger quite out of the question. The vast increase of tonnage of passenger steamers, and the numerous steamers placed under the law of 1852, by the act of Congress approved June 8, 1864, renders it imperative that more time should be devoted to the duty of inspectors than can be done by most of the local inspectors, at the rate of pay now allowed by same. No man can in these times give his whole time to this duty and support his family on the annual pay which the law allows to many districts, after deducting 5 per cent. tax, and this at the same places where common laborers receive \$1 75 to \$2 per day; and even where local inspectors receive a fair salary, so as to devote their time wholly to the work, they cannot possibly do what the interests of the department demand, so great is the pressure of duty upon some of the districts. The law requires an inspection at least once in each year. The board does not, therefore, hesitate to recommend to your notice the necessity of an act of Congress so fixing the salaries of the inspectors as to enable them to devote their entire time to this service. Underwriters and ship-owners complain that extensive combinations of pilots, especially at the west, are in existence to embarrass the operation of the steamboat law, and to force upon the inspectors their demand for the control of the licensing power, or at least to the limitation of the number of pilots on the rivers, so as to compel the owners of boats to pay exorbitant wages for their services, and they refuse to work as pilots on any boat that has an apprentice on board, and throw every obstacle to advancement in the way of young men desirous to become pilots. They object to licenses being granted except upon the recommendation of two or more of their own number. In that they do all they can to exact wages far beyond the sums paid to officers on steamers requiring equal talent, skill, and fidelity. A law of Congress seems to be called for to secure proper privileges to apprentices and others who may be desirous of becoming pilots.

Freight boats form a class of steamers which seem to have been omitted in the act of 1864 from the list no longer to be exempt from the necessity of inspection under the act of 1852. They should with equal justice be included with tow-boats and ferry-boats. Inspectors seem to feel the importance of a more strenuous effort to sustain the dignity and responsibility of their office, and manifest great zeal in the performance of their duty; but under the increase and increasing amount of service required, the encouraging hand of Congress will be essential to the preservation of able men in the districts, and the promotion of a proper enthusiasm in the performance of official duty.

It is believed the power of the board of supervising inspectors was intended, by the act which established the organization, to have been free to carry out the

provisions of the law to the fullest capabilities of the engineering profession of the country, so that it might stand on a par with other boards established for similar purposes of public usefulness upon the coasts and harbors of the United States, and that it was not intended that those rules should be filtered away by rival State or national organizations; yet it is observable that such is the tendency, to the great detriment of its influence upon the public mind.

The large number of accidents reported from some of the districts the past year may be referred to various ruling causes. *Recklessness*, induced by the war, which extends its mischievous tendencies into all branches of trade, is particularly observable among those employed in or on board some classes of steamers. A large number of boats have been used during the war as transports, tugs, and freight boats; these have been depreciated by long and continued use, purchased and put on duty without proper examination, and run without precaution or regard to safety. These will doubtless be found among the most numerous causes of these terrible calamities, which seem to be beyond the reach of official remedy.

The board, at the present session, have revised the rules and regulations according to the suggestions of experience, and have determined to require sealed or locked safety-valves, which are to be taken wholly from the control of all persons engaged in navigating steam-vessels.

The following are statements of the important occurrences which have been brought to the notice of the board during the past year:

Total number of steamers inspected during the year 1865.....	2, 270
Tonnage of steamers inspected during the year 1865.....	714, 994
Number of pilots licensed during the year 1865.....	3, 172
Number of engineers licensed during the year 1865.....	4, 035
Number of boilers which would not bear hydrostatic test.....	35
Number of violations of law investigated.....	28
Number of lives lost by explosion.....	1, 527
Number of lives lost by foundering or beaching.....	503
	530
Total number of lives lost.....	2, 560
Total number of lives saved by life-saving apparatus, as required by law.....	34
Loss of property by explosion.....	\$110, 000
Loss of property by fire.....	\$148, 550
Loss of property by wreck or foundering.....	\$165, 000
Total loss of property on inspected steamers.....	\$423, 550
Estimated value of steamers inspected in 1865.....	\$221, 016, 800
Estimated value of steamers inspected in 1864.....	\$165, 762, 600
Increase in value from 1864 to 1865.....	\$55, 254, 200
Total number of passengers carried.....	111, 377, 964

The reports from supervising districts, together with the tabular statements, will show in detail what statistics are upon the records of the several districts.

All of which is respectfully submitted.

JAMES N. MULLER, *Secretary.*

P. B. STILLMAN, *President.*

REPORT OF THE DIRECTOR OF THE MINT.

MINT OF THE UNITED STATES,
Philadelphia, September 29, 1865.

SIR: I have the honor to present the following report of the operations of the mint and its branches for the fiscal year ending June 30, 1865.—The deposits and coinage of the fiscal year just closed exhibit a very satisfactory increase over those of the previous year.

The amount of bullion in value received at the mint and branches during the fiscal year was as follows: Gold, \$31,065,349 74; silver, \$1,183,405 23; total deposits, \$32,248,754 97. From this sum a deduction must be made for re-deposits or bars made at one branch of the mint and deposited at another for coinage. Making this reduction, the amount will be \$27,982,849 09.

The coinage for the same period was as follows: Gold coin, \$25,107,217 50; unparted and fine gold bars, \$5,578,482 45; silver coin, \$636,308; silver bars, \$313,910 69; cents coined, including the two and three cent pieces, bronze and nickel, \$1,183,330; total coinage, \$32,819,248 64. Number of pieces of all denominations coined, 87,323,851.

The distribution of the bullion received at the mint and branches was as follows: At Philadelphia, gold deposited, \$6,465,212 17; gold coined, \$6,436,377 50; fine gold bars, \$85,310 24; silver deposits and purchases, \$315,943 99; silver coined, \$307,508; silver bars, \$3,671 66; cents coined, one, two and three-cent pieces, \$1,183,330; total deposits of gold and silver, \$6,781,156 16; total coinage, \$8,016,197 40. Number of pieces, 85,548,735.

At the branch mint, San Francisco, the gold deposits were, \$18,808,318 49; gold coined, \$18,670,840; silver deposits and purchases, \$540,299 20; silver coined, \$328,800; silver bars, \$145,235 58; total coinage of gold and silver, \$19,144,875 58. Number of pieces, 1,775,116.

The assay office in New York received during the year in gold bullion, \$5,250,260 04; in silver, \$320,111 23; number of fine gold bars stamped at that office, 2,175; value, \$4,947,809 21; silver bars, 1,859; value, \$165,003 45; total value of gold and silver bullion, \$5,570,371 27.

Branch mint at Denver, gold deposits, \$541,559 04; silver, \$7,050 81; total deposits, \$548,609 85. Number of stamped bars, 469; value, \$545,363. The report of the superintendent of this branch represents its operations during the year as successful and encouraging. It is engaged in melting, refining, assaying and stamping gold bullion, returning the same to the depositor in the form of unparted bars, bearing the government stamp of weight and fineness.

In my last annual report in reference to this branch mint I remarked that "the efficiency and usefulness of this branch would be greatly increased if a safe and expeditious mode of transportation could be secured. An overland route of six hundred miles is a formidable obstacle in the way of commercial intercourse with our eastern cities and markets. In addition, the hostility of the Indian tribes along the route, doubtless instigated by rebel emissaries and bad white men, has increased the difficulty and dangers of inter-communication, and the transportation of bullion to the Atlantic markets. These difficulties will probably be obviated in due time, and that institution will then assume her proper position as a branch mint.

Efforts have been made to introduce a system of purchases and exchanges, by which the government will assume the risk of transporting bullion from Denver to places where it may be needed for coinage or purchase. The government, by purchasing the bullion at Denver, and paying therefor by draft in specie on the treasurers in the Atlantic States, would relieve the owners of all responsibility, and enable them to convert their bullion into eastern funds with

but little expense. The act of Congress establishing a branch mint at Denver provides that "the superintendent of said branch mint at Denver be authorized, under the direction of the Secretary of the Treasury, and on terms to be prescribed by him, to issue, in payment of the gold-dust and bullion deposited for assay and coinage, or bars, drafts or certificates of deposit, payable at the treasury, or any sub-treasury of the United States, to any depositor electing to receive payment in that form."

This provision embodies the true policy of the government in relation to the deposits of bullion in branch mints or assaying offices distant from our great commercial centres. Its accomplishment would not only benefit the hardy miner and the gold regions of Colorado, but also the general commercial interests of the country and government. Renewed efforts ought to be made to introduce this system, and when the difficulties now in the way are removed, and the overland stage route to Denver is in full and successful operation, satisfactory arrangements can be made with that company and others, by which the bullion purchased by the government will be safely brought to the eastern cities and depositories.

The superintendent at Denver constantly urges the necessity for a prompt introduction of the system of purchase and exchange, as contemplated in the act of Congress, to which reference has been made; and, concurring in the necessity for such action, I most respectfully ask the early and favorable consideration of this subject by your department.

Under the efficient management of the superintendent of the branch mint at San Francisco, its operations have been well and successfully performed. The coinage of the past year has been very large. The monthly deposits of bullion are increasing, and it is confidently predicted that the yield of the mines for the current year will largely exceed that of any former period. The past has been a success; the future is full of encouragement.

In this connexion it is gratifying to know that Congress, fully appreciating the magnitude and importance of the mineral wealth of the Pacific States, has made an appropriation for the erection of a new mint-building at San Francisco. The present building is not only unsafe, but wholly inadequate for the increasing business of that branch mint. The new structure should be, in architecture, capacity, machinery, and every particular, adapted to the present and future of California and the Pacific States.

BRANCH MINTS.

The suppression of the rebellion and the anticipated early return of the recalcitrant States to their allegiance present the question, What shall be done with the branch mints at New Orleans, Louisiana; Charlotte, North Carolina; and Dahlonega, Georgia? In my annual report of 1862 it was suggested that the branch mint at New Orleans, after the re-establishment of law and order in Louisiana, might be successfully operated, and that the branch mints at Charlotte and Dahlonega ought not to be employed again for minting purposes. My opinions on this subject are unchanged. The commercial importance of New Orleans, and the relations of that city to every portion of our country, justified the establishment there of a branch mint; and the amount coined in that institution from its organization, in 1838, to January, 1861, confirmed the propriety of its location at that place. During the period of its active operations, the total coinage was over seventy millions of dollars, as follows: \$40,381,615 in gold, and \$29,890,037 in silver. The deposits of silver at this branch have always been large; and it is worthy of consideration whether the coinage there should not, for the present, at least, be confined to silver.

The same reasons for re-opening the branches at Charlotte and Dahlonega do not exist. They are away from the commercial centres, inland, and of little

commercial importance in themselves. The existence of gold mines in their respective localities may be a reason for re-opening them as assay offices, but not for minting purposes. The results of their operations from their commencement, in 1838, to February, 1861, do not sustain the policy of their original establishment. The coinage of both these branches is limited, by act of Congress, to gold. At Charlotte the total coinage during the twenty-three years of the existence of this branch was only \$5,048,641 50; and at Dahlonega for the same period, \$6,121,919; an average annual coinage of about \$250,000; declining at Dahlonega, from 1857 to 1861, to an annual coinage of about \$70,000; and at Charlotte, for the same period, of less than \$150,000. These facts seem to be conclusive on the question of re-opening these branches for minting purposes, and particularly when there is no great probability of a large increase in the gold production of those localities.

To meet every commercial want of those places, and also the interests of the miners of gold, the re-opening of these branches for melting, refining, assaying, and stamping gold bullion would be amply sufficient; giving to the superintendent or treasurer of each branch authority to issue, in payment for gold-dust, bullion, or bars deposited for assay, drafts or certificates of deposit, payable in specie at the treasury, or any sub-treasury of the United States, to any depositor electing to receive payment in that form. This provision would wholly supersede the necessity of coining at these branches, or any imaginary benefits resulting therefrom.

The able and interesting report of Professor James C. Booth, appointed, at the suggestion of your department, to examine the condition, &c., of these branch mints, and which has been submitted to you, confirms the views now expressed.

On the subject of assay offices for our gold-mining regions, and the impolicy of multiplying branch mints, my sentiments were fully expressed in my last annual report, to which you are respectfully referred.

GOLD-MINING REGIONS.

The reports from the gold and silver mining portions of the United States are of the most encouraging character. The developments of the past year prove the supply of those minerals to be inexhaustible. With the restoration of the peace and unity of our country and the suppression of the Indian hostilities the production of the precious metals will be greatly increased. The recent discoveries of rich gold deposits have stimulated emigration; capital is hourly seeking investment; the energy of our people has been aroused, and every indication, individual and national, foretells a successful future to this most interesting portion of the United States.

It is not easy to obtain any other reliable statistics than those officially appended to the reports of the director of the mint, but these do not assume to give the amount of the entire production of the precious metals. The shipments to other countries must be large. For example, we are vaguely assured that the silver mines of Nevada average a shipment of one ton daily, which would equal twelve millions of dollars annually. If so, we see but little of this: a small part goes into California circulation, and a large part to China, where it makes one purchase and does no further good to the world, being practically withdrawn from circulation.

We have frequent opportunities for conversation with persons who travel or reside in the various mining regions of the United States and of contiguous provinces, and it is interesting to hear their accounts of the vast developments of wealth and prospects of profitable industry.

Thousands of square miles, made up of snowy mountains, deep cañons, and sterile plains, long supposed to be worthless, and really so for agricultural purposes, are now found to compete in value with the rich garden lands of the cul-

tivated east. Where food cannot be produced, ores and minerals may be dug up to pay for it; if the search disappoints some, it rewards others; and the whole land, tied together politically and socially, feels, or will feel, the beneficent effects of these grand discoveries.

Yet it will be well to guard against exaggeration. It must be remembered that it is not enough to find gold and silver even in considerable quantities; there must be conveniences for living, for mining, and extracting; especially there must be a good supply of wood and water. So important is this, miners tell us that where ore prospects, say, two hundred dollars to the ton, while wood and water can scarcely be had, the mine is really of no value, or of less value than an ore of twenty dollars to the ton, with these adjuvants at hand. On this account, it is said, the silver mines of the famous Humboldt region are, at present, of little practical value. Some of the mining regions will be benefited by the approach of railroad facilities; others, perhaps, must remain forever shut out from the line of profitable labor. But we will not limit the energy or enterprise of the American people.

It is also interesting to observe the incessant efforts to improve the methods of extraction. It is one thing to find where the metals lie, another to bring them to the surface, and still another to get out a paying result, and not leave too large a share lying inextricably in the heap of tailings. Great progress has been made in mining economy within the last fifteen years, judging from the repeated assurance that an ore of gold or silver yielding only fifteen or twenty dollars to the ton, in a good locality, is worth working. In fact, the poor ores are deemed more desirable, all things considered, than the rich ores, which are apt to prove mere pockets.

The advance of the mining art will give new life to our mines at the east and south, where the advantages are so great. Indeed, an experienced capitalist in mines from Nevada, on hearing our report upon a sample of gold ore from a new mine not far from the seat of government, declared "he would rather work it than his mines in the west."

We have also an interesting statement, and one particularly so at this juncture of our national affairs, from a proprietor in the gold region of North Carolina, that "the system of paid labor is likely to show its just and natural effects in the increased return of gold."

There is a published statement that gold mining has been actively recommenced in several counties of Virginia on both sides of the James river, west of Richmond, and with encouraging success. Gold has also recently been found in Maryland, at various points, near the Potomac and Susquehanna. As regards the mines further south, the report of Prof. Booth furnishes the latest and best information.

Outside of our lines, in Canada and Nova Scotia, there are gold workings, and prospects of a most important and satisfactory character. Occasional deposits from those localities are made here and in New York.

With resources illimitable, the precious metals inexhaustible, and our fields rich in the affluence of an abundant production—with a population energetic and enterprising, bold and brave, our country's future is not problematical. National repudiation, even in the presence of a national debt numbered by hundreds of millions, will find no place in the patriotic thought of a reunited and grateful people; and national bankruptcy will only be named in the whisperings of cowardice or the suggestions of treason.

BRONZE AND NICKEL COINAGE.

The coinage of the cent and two-cent piece from the bronze alloy has been very large, but not in excess of the demand. They have been distributed to almost every part of the United States, and many into States, west and south.

that heretofore refused to use such coin as currency. The total amount issued during the year will be found in the tables annexed to this report.

As required by law, this bronze and nickel alloy has been regularly assayed and reported by the assayer of the mint, and the legal proportion of the constituent metals found to have been steadily maintained.

By the act of Congress passed March 3, 1865, authority was given to coin a three-cent piece of nickel and copper alloy as a substitute, to some extent, for the fractional paper currency. This coin has been issued and put in circulation. It is neat in appearance, convenient in size, and will become a popular coin. If, in addition to the already prohibited issue of three-cent notes, the five-cent notes of the fractional paper currency were withdrawn, or the circulation limited and gradually reduced, the demand for this new coin would be much increased. Its increased production and circulation would not only furnish a more desirable currency than paper, but would become a source of large revenue to the government. From the profits of the bronze and nickel coinage we have transferred to the treasury of the United States, during the fiscal year just closed, four hundred thousand dollars, (\$400,000,) and a few weeks after the expiration of the year the further sum of one hundred thousand dollars (\$100,000) was in like manner transferred; the fund remaining being sufficient for all the purposes of this coinage.

From this same nickel alloy a coin of the denomination of five cents, and which would be a popular substitute for the five-cent note, could easily be made. This suggestion, however, is respectfully submitted, in view of the probable withdrawal of the smaller denominations of the fractional paper currency, and as preparative and aid to its accomplishment. This to continue only until the resumption of specie payments, or for a fixed and limited period. In a country abounding in the precious metals, and with silver generally in excess of all demands for coinage, or other purposes, in time of peace, "tokens," or coins of inferior alloy, should not be permitted to take the place permanently of silver in the coinage of pieces above the denomination of three cents.

If the nickel alloy coin of five cents shall be adopted, temporarily or otherwise, provision should be made for its redemption in currency, in sums not less than one hundred dollars, and in manner to suit the convenience of the government, and prevent its becoming troublesome by capricious use. At the proper time similar provision should be made for the redemption of the three-cent piece, in sums not less than sixty dollars. This would secure confidence and circulation for this coin.

MOTTO COINS.

By the fifth section of the act of Congress of March 3, 1865, already referred to, the director of the mint, with the approval of the Secretary of the Treasury, was authorized to place upon all the gold and silver coins of the United States susceptible of such addition, thereafter to be issued, the motto "In God we trust." The direction was at once given to prepare the necessary dies; and it is confidently expected that before the close of the calendar year the gold and silver coins of the mint of the United States will have impressed upon them, by national authority, the distinct and unequivocal recognition of the sovereignty of God, and our nation's trust in Him. We have added to our nation's honor by honoring Him who is "King of kings and Lord of lords."

STATEMENT OF FOREIGN COINS.

The statement of foreign coins required by law to be made annually will be found appended to this report. We have no changes to make in these tables, as no coins differing from those named in the previous report were presented during the year for examination or assay.

The medal department of the mint is in successful operation. A large number of national and other medals have been manufactured during the year. The productions of this department are duly appreciated by the public and approved by the government.

Valuable additions have been made to the cabinet of coins and medals during the year by gift and purchase. It is a place of great resort, and multitudes from every section of our country are daily visitants. The collection of coins is large and valuable. The annual appropriation for the purchase of coins, &c., should be increased. It is now only three hundred dollars.

Very respectfully, your obedient servant,
JAMES POLLOCK, *Director of the Mint.*

Hon. H. McCulloch,
Secretary of the Treasury, Washington, D. C.

REPORT OF THE SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
December 4, 1865.

SIR: I have the honor to submit the following summary of the operations of the Department of the Interior during the past year, and of the present condition of the diversified and important public interests under its direction.

LANDS.

It appears from the report of the Commissioner of the General Land Office that during the fiscal year ending June 30, 1865, public lands were disposed of as follows:

Acres sold for cash.....	557,212.53
Acres located with military warrants.....	348,660.00
Acres located with agricultural scrip.....	460,130.27
Acres selected under agricultural college grant.....	808,358.11
Acres approved to the States as swamp lands.....	571,429.24
Acres approved to the States for railroads.....	607,415.39
Acres taken under the homestead law.....	1,160,532.92
	4,513,738.46
During the quarter ending September 30, 1865, the aggregate quantity taken for the same purposes was.....	880,591.13
Making, during five quarters, the total number of acres..	5,394,329.59

The cash receipts from sales, homestead and location fees, for the same five quarters, ending September 30, 1865, were \$1,038,400 78.

The cash sales for the year ending June 30, 1865, amounted to \$748,427 25, an excess of \$70,420 04 over the sum received from the same source the previous year.

During the fiscal year ending June 30, 1865, 4,161,778 acres of public lands were surveyed. The aggregate quantity of surveyed public lands undisposed of September 30, 1865, was 132,285,035 acres.

Owing to the failure of the appropriation for that purpose at the last session of Congress, no contracts have been made for surveys during the current fiscal