

REPORT

OF THE

SECRETARY OF WAR;

BEING PART OF

THE MESSAGE AND DOCUMENTS

COMMUNICATED TO THE

TWO HOUSES OF CONGRESS

AT THE

BEGINNING OF THE FIRST SESSION OF THE FORTY-FOURTH CONGRESS.

VOLUME II.
PART I.

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1875.

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REPORT
OF
THE CHIEF OF ENGINEERS.

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\$20,000. The rock was finally removed by blasting on the 7th day of August, 1875.

Balance in Treasury of United States July 1, 1874.....	\$25,000 00
Amount expended during the fiscal year ending June 30, 1875.....	24,999 75
Amount available July 1, 1875.....	25
Amount required for the fiscal year ending June 30, 1877.....	000 00

(See Appendix FF 1.)

3. *Improvement of the harbor of San Diego, California.*—The preliminary survey of the locality of the contemplated improvement, which is to turn the San Diego River into False Bay, has been made, the requisite maps prepared, and a project of improvement submitted, which has been referred to the Board of Engineers for the Pacific coast for report, chiefly as to the selection of the plans of construction.

Amount appropriated by act approved March 3, 1875.....	\$80,000 00
Amount expended during the fiscal year ending June 30, 1875.....	1,669 26
Amount available July 1, 1875.....	78,330 74
Amount required for the fiscal year ending June 30, 1877.....	000 00

(See Appendix FF 2.)

EXAMINATIONS AND SURVEYS FOR IMPROVEMENT.

To comply with the provisions of the river and harbor act of June 23, 1874, Lieutenant-Colonel Stewart was charged with and has completed the following, the reports of which were transmitted to Congress at its last session, and printed in H. R. Ex. Doc. No. 75, parts 1 and 5:

1. *Examination of the estuary in Santa Barbara Channel, near Point Muger, California.* (See Appendix FF 3.)

2. *Examination and survey of the San Joaquin River below Stockton, California.* (See Appendix FF 4.)

IMPROVEMENT OF RIVERS IN OREGON AND WASHINGTON TERRITORY.

Officer in charge, Maj. N. Michler, Corps of Engineers.

1. *Improvement of the Lower Willamette and Columbia Rivers, from Portland, Oregon, to the sea.*—The United States dredge was employed during the year upon Swan Island and Post-Office Bars of the Willamette River, upon the mouth of the Willamette, and on Saint Helen's Bar and Hog's Back Shoals of Columbia River.

A dam was built across Percy's Slough, which was partially destroyed by the June freshet of the Columbia. Examinations, surveys, and soundings were made of all the bars.

A new cut was scraped out, and a new channel discovered at Hog's Back; both were marked by buoys and beacons. The shore-lines of Point Adams and Sand Island, at the mouth of the Columbia, were re-surveyed and soundings made on the bar. An examination of Willamette Slough was also made.

It is proposed during the current year to continue the operations of dredging and scraping at the several localities enumerated. Also to construct dikes or dams at the heads of Willamette and Percy's Sloughs; to close the slough between Sauvie's and Coon's Islands, and to construct a dike from the foot of Percy's Island out into deep water at the junction of the two rivers.

An additional dredger is needed.

Statistical statements of wheat and flour shipments and other information will be found in the appendix.

Amount appropriated by act approved March 3, 1875	\$20,000 00
Amount expended during the fiscal year ending June 30, 1875	13,374 26
Amount available July 1, 1875	6,625 74
Amount required for the fiscal year ending June 30, 1877	50,000 00

(See Appendix GG 1.)

2. *Improvement of the Upper Willamette River, Oregon.*—The United States snag-boat was employed in removing rocks, snags, stumps, and roots. Over nine hundred large snags were removed.

In addition to the removal of snags and other obstructions during the current fiscal year, wing-dams will be constructed at many dangerous points. The heads of useless sloughs will be filled. A survey and thorough examination of the river between Oregon City and Eugene City will be made, with a view of obtaining reliable information upon which to base future improvements. Tables of the amounts of tonnage of wheat and flour, and of general merchandise transported down the Willamette and Yamhill will be found in the appendix.

Amount appropriated by act approved March 3, 1875	\$7,500 00
Amount expended during the fiscal year ending June 30, 1875	7,500 00
Amount required for the fiscal year ending June 30, 1877	50,000 00

(See Appendix GG 2.)

3. *Improvement of the Upper Columbia and Snake Rivers, Oregon, and Washington and Idaho Territories.*—Operations during the winter working season, from the latter part of November, 1874, until toward the latter part of March, 1875, were carried on at the two localities known as Squally Hook and Umatilla Upper Rapids, and consisted in the blasting and displacement of nine dangerous rocks in the channel of the river.

During the working season of the present fiscal year it is proposed to carry on this operation at the Umatilla Upper Rapids, Rock Creek Rapid, Owyhee Rapid, and Homly Rapid, Columbia River, and at Pine-Tree Rapid, Snake River, and remove all rocks from the channel of the river, so as to have 6 feet water at the lowest stage.

Amount in hands of officer and subject to his check July 1, 1874	\$55 85
Amount appropriated by act approved March 3, 1875	20,000 00
Amount expended during the fiscal year ending June 30, 1875	19,411 34
Amount available July 1, 1875	644 51
Amount required for the fiscal year ending June 30, 1877	30,000 00

(See Appendix GG 3.)

4. *Umpqua River, Oregon.*—No additional work was done toward the improvement of the navigation of this river during the fiscal year.

There is a balance remaining of the appropriation of March 3, 1871, of \$4,685.89.

EXAMINATIONS AND SURVEYS FOR IMPROVEMENT.

Major Michler was charged with and has completed the following, for which provision was made in the act of June 23, 1874:

1. *Cascades and Dalles of the Columbia River, Oregon, and Washington Territory, for the purpose of ascertaining the practicability and cost of constructing canals and locks at such points.* (See Appendix GG 4.)

2. *Skaget River, for removing jams, Washington Territory.* (See Appendix GG 5.)

3. *Yamhill River, Oregon, for removing rocks and sand-bars.* (See Appendix GG 6.)

4. *Snohomish River, for removing jams, Washington Territory.* (See Appendix GG 7.)