

**IMPROVEMENTS OF
NEW YORK
HARBOR, 1885-1891**

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Improvements of New York Harbor, 1885-1891 by Joseph Edwards

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JOSEPH EDWARDS

**IMPROVEMENTS OF
NEW YORK
HARBOR, 1885-1891**

IMPROVEMENT

OF

THE STATE OF
CALIFORNIA

NEW YORK HARBOR,

1885 TO 1891.

COMPLIMENTS OF

JOSEPH EDWARDS.

NEW YORK,

1893.

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1893

ENGINEER OFFICE, U. S. ARMY.

Room F 7, Army Building, 99 Whitehall Street,

NEW YORK, N. Y., May 3, 1893.

MR. JOSEPH EDWARDS,

President, The Joseph Edwards Dredging Co.,

16 Exchange Place, New York City.

SIR—I have the honor to state, in answer to your inquiry, that the United States made, during the four years beginning April, 1887, and terminating February, 1891, six contracts with The Joseph Edwards Dredging Company, New York City, for the improvement, by hydraulic dredging, of the southern entrance to New York Harbor, extending from the sea face of the bar in Gedney Channel westward and northward along the Main Ship Channel to and beyond the northern entrance to the Swash Channel, Lower Bay.

The contracts were successfully and satisfactorily executed by the use of "Edwards' Cataract Pumps," installed in steamers, and the total quantity of material excavated in this way by The Joseph Edwards Dredging Company was 4,300,000 cubic yards.

Very truly yours,

G. L. GILLESPIE,

Lieut.-Col., Corps of Engineers.

793990

BECAUSE of having designed the plant with which the Improvement of New York Harbor has been successfully accomplished, as well as having had the general management of the same and the execution of the work so far as done by the Joseph Edwards Dredging Company, I am receiving various inquiries relating thereto, from engineers and others, who are contemplating similar improvements elsewhere; for which reason I have deemed it advisable, as a means of facilitating response to such inquiries, to prepare the following account of this Improvement, including the accompanying description and illustrations of the means employed.

JOSEPH EDWARDS.

PREFACE.

The following account of the Improvement of New York Harbor refers briefly to the necessity which had arisen for deeper water in the Lower Bay; the location and character of its channels, and their condition before the undertaking was commenced and at its completion; the projects recommended by Government Engineers to improve them; why dredging was finally adopted; nature and magnitude of the work; difficulties encountered and results attained; Government appropriations made for, and estimated and actual cost of the Improvement; means and method of executing the work, and evidences of its permanency; by whom the work was successfully performed, and the various prices per cubic yard paid therefor; together with a brief description of the plant employed; *and why the Swash Channel should be improved.*

TO THE
ADVISORY
COMMISSION

CONTENTS.

	PAGE
PREFACE.....	5
IMPORTANCE OF THE IMPROVEMENT.....	8
CHANNELS OF NEW YORK HARBOR.....	9
MAP OF THE LOWER BAY SHOWING THE CHANNELS.....	10
CONDITION OF THE CHANNELS BEFORE THE IMPROVEMENT WAS MADE.....	10
FIRST ACTION TAKEN BY THE GOVERNMENT TO IMPROVE THEM ..	11
PROJECTS PROPOSED BY GOVERNMENT ENGINEERS.....	12
PROJECT AND RECOMMENDATION OF COL. G. L. GILLESPIE.....	12
PROJECT AND RECOMMENDATION OF THE BOARD OF ENGINEERS...	15
PERMANENCY OF THE IMPROVEMENT TESTED AS THE WORK PRO- GRESSED.....	16
GOVERNMENT APPROPRIATIONS FOR THE IMPROVEMENT.....	18
ITS ESTIMATED COST BY CONTRACTION SUPPLEMENTED BY DREDG- ING.....	18
WHAT THE IMPROVEMENT HAS ACTUALLY COST.....	19
SAVING TO THE GOVERNMENT BY MEANS OF DREDGING.....	20
DIFFERENCE BETWEEN AMOUNT OF MATERIAL CONTRACTORS WERE PAID FOR REMOVING AND AMOUNT OF CHANNEL SPACE OB- TAINED.....	20
BY WHOM THE WORK WAS DONE.....	21
AVERAGE PRICES PAID DIFFERENT CONTRACTORS, AND GENERAL AVERAGE PRICE.....	21
TABULAR STATEMENT OF CONTRACTS TAKEN AND WORK DONE BY THE JOSEPH EDWARDS DREDGING Co.....	22
TABULAR STATEMENT OF CONTRACTS TAKEN AND WORK DONE BY OTHER CONTRACTORS.....	22
TABULAR STATEMENT EMBRACING CONTRACTS, WORK DONE, ETC., OF ALL CONTRACTORS.....	23
TIME TAKEN TO EXECUTE THE IMPROVEMENT.....	24
NATURE OF THE MATERIAL, AND AMOUNT HANDLED COMPARED WITH AMOUNTS CONTRACTORS WERE PAID FOR REMOVING. 24	24

	PAGE
MAGNITUDE OF THE UNDERTAKING.....	25
HOW THE WORK WAS DONE, OR THE SYSTEM OF DREDGING EMPLOYED	25
RELATING TO DIFFICULTIES ENCOUNTERED	26
GOVERNMENT ENGINEERS IN CHARGE.....	29
HARMONIOUS RELATIONS BETWEEN ENGINEERS AND CONTRACTORS..	29
THE PUMPS THE VITAL PARTS OF THE PLANT.....	30
SPECIAL EVIDENCE OF THE CAPACITY OF THE EDWARDS CATARACT PUMP.....	30
ADVANTAGES OF PUMP-DREDGING OVER OTHER SYSTEMS.....	34
OUTLINE DESCRIPTION OF THE PLANT.....	34
METHOD OF WORKING THE DREDGING STEAMERS.....	38
SPECIAL FEATURES OF THE PUMP	40
SPECIAL FEATURES OF THE DRAGS AND SUCTION PIPES, AND THEIR CONNECTIONS WITH THE PUMPS AND SHIPS.....	47
REASONS WHY THE SWASH CHANNEL OF NEW YORK HARBOR SHOULD BE IMPROVED.....	54
FACILITY WITH WHICH IT COULD BE IMPROVED.....	54
CERTAINTY OF THE PERMANENCY OF ITS IMPROVEMENT ...	54
ADVANTAGES OF ITS POSITION AND DIRECTION	57
ITS ECONOMICAL ADVANTAGES OVER THE MAIN SHIP CHANNEL.....	58
NECESSITY OF ITS IMPROVEMENT	58
WHY THE MAIN SHIP CHANNEL HAS BEEN HERETOFORE EMPLOYED.....	59
WHY THE SWASH CHANNEL WAS NOT IMPROVED.....	60
EXPLANATION OF PLATES.....	62