

**DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL
SURVEY, BULLETIN 376. PEAT
DEPOSITS OF MAINE**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649521494

Department of the Interior United States Geological Survey, Bulletin 376. Peat Deposits of
Maine by Edson S. Bastin & Charles A. Davis

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EDSON S. BASTIN & CHARLES A. DAVIS

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DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

BULLETIN 376

PEAT DEPOSITS OF MAINE

BY

EDSON S. BASTIN

AND

CHARLES A. DAVIS

PREPARED IN COOPERATION WITH THE MAINE
STATE SURVEY COMMISSION



WASHINGTON
GOVERNMENT PRINTING OFFICE
1909

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PEAT DEPOSITS OF MAINE

By EDSON S. BASTIN and CHARLES A. DAVIS.

PREFACE.

It is the purpose of this report to present an estimate of the extent and value of the more accessible peat deposits of Maine and to direct attention to their economic importance as an undeveloped source of fuel supply and as raw material for various other uses. The more general portions of the report are based upon an extended inquiry that is being conducted by the United States Geological Survey into the peat deposits of the United States.

The field studies of the Maine bogs were made principally by E. S. Bastin, of the United States Geological Survey, the expenses being shared equally by the Federal Survey and the Maine State Survey Commission. Field work extended over a period of about one and a half months in the summer of 1906. Because of the brief time available for the work and the undeveloped state of most of the deposits, it was considered best to investigate only those bogs whose character or situation was most favorable for future commercial development, especial attention being paid to bogs near the larger cities and convenient to transportation lines. The general floral characters of the bogs were noted, but the field work was directed principally to determining the approximate size of the bogs, the depths of peat in their different portions, and its general physical characters. Field examinations of a few of the Maine bogs were made by C. A. Davis during the summers of 1907 and 1908, principally for the purpose of determining what plants had been most active in the formation of the fresh-water and salt-water peats.

The locality descriptions and the summary for the State are by Mr. Bastin. The sections on the origin and uses of peat were prepared by Professor Davis and all determinations of fuel values were made under the auspices of the United States Geological Survey, as a part of more general investigations of the fuels of the United States.

Acknowledgments are due to Dr. Dana W. Fellows, of the Portland Society of Natural History, for the determination of most of the species of living plants collected from the Maine bogs, and to Dr. P. L. Ricker, of the United States Department of Agriculture, for the determination of some others. Mr. Edward B. Chamberlain, of New York City, kindly identified a number of the mosses collected.

FUEL IN NEW ENGLAND.

In the days of the early settlement of the New England States the country was heavily covered by forests, and wood for fuel and other purposes was abundant and cheap; it was used lavishly and as if it were drawn from an inexhaustible supply, as it was often said to be.

No natural resource, however, is actually inexhaustible, and as the country became more thickly populated the forests gave place to farms, and new and increasing demands arose for wood of all sorts. With the depletion of the supply it became an expensive fuel even with improved forms of heating appliances, and except in remote regions it was replaced to a large degree by coal, a substance of higher fuel value, which, because of its greater compactness, was more easily transported from the regions where it was mined to the points where it was needed for consumption. The limited supplies, and more especially the limited areas of production of coal, and the necessity of long hauls by rail to the consumers, have led of late to a steady advancement in prices. The coal trade has become so carefully organized that competition has become practically eliminated, but at the same time the increasing demand for fuel for industrial purposes indicates that present prices are unlikely to be lowered, even if competition among producers is again restored by legislation.

The problem of cheaper fuel, ever before the manufacturer and the householder, became even more prominent than usual during the strike of the coal miners of the anthracite region in the winter of 1902-3, when the whole country was brought face to face with the fact that it was almost entirely dependent on these miners and their employers for a great part of its fuel supply. At that time attention was called by various writers familiar with conditions in the countries of northern Europe to the fact that those countries, possessing a more severe climate than ours, were using great quantities of peat for fuel, and that peat was known to be very abundant in the northern part of the United States but, except in rare instances and in the crudest way, had never been prepared for use. Public interest was at once aroused, and during the next few months many experimental and speculative plants were established to convert peat into fuel. Unfortunately many of these attempts were financially unsuccessful, and as the