

MINERAL RESOURCES OF THE UNITED STATES, 1904.

DAVID T. DAY, *Chief of Division.*

INTRODUCTION.

The arrangement and scope of this volume are practically the same as in the twenty preceding reports of the series Mineral Resources of the United States. Each report records the development of the mineral industries of the United States since the time covered by the preceding number of the series; the reports should therefore be consulted together. Every chapter in this report is a census of the productive features of the industry under discussion. The statistics of the imports and exports of minerals, which form an essential part of the volume, are obtained through the courtesy of the Chief of the Bureau of Statistics, Department of Commerce and Labor.

ACKNOWLEDGMENTS.

Except as noted above, and in a few isolated instances where some other well-established agency already exists by which the statistics are collected accurately, the figures are obtained directly from the producers, and it is impossible to acknowledge here, otherwise than by brief mention, the invaluable assistance which has been freely rendered by them and by the voluntary contributions of many local experts. The names of the statistical experts who, acting under the authority of the United States, have collected statistics from the producers are given at the heads of the special chapters. The technical press, besides affording much information concerning new mining enterprises, has been largely drawn upon for prices, market reports, and new technical processes.

As heretofore, the publication of this volume has been anticipated to a great extent by the issue in advance, in pamphlet form, of the several chapters which compose it.

The summary gives the principal statistical information recorded in this report.

In presenting these statistics all unnecessary duplication has been avoided. The coke product discussed in the following pages and amounting to 23,621,520 short tons, valued at \$46,026,183, is excluded from the tabular statement, as the quantity and value of the coal used in its manufacture is included in the statistics of coal production. Similarly, white lead, red lead, sublimed lead, zinc lead, litharge, and orange mineral, whose average aggregate value for the last ten years has exceeded \$10,000,000, are not given in the table, the base from which they are made being included in the output of pig lead. Zinc oxide, or zinc white, made directly from the ores, and consequently not included in spelter production, is tabulated. The production of pig iron and its value are given in the table as the best means of presenting the statistics of the production of iron in the first marketable condition. The value of brick and pottery clays, rather than the value of the manufactured products, is embraced in the tabular statement, although the statistics of brick, tile, and pottery production are presented in detail in the report. Inflation of valuation and all unnecessary duplication are thus avoided.