

INTRODUCTORY.

• This volume contains a review of the mineral industries of the United States during the calendar year 1886. The statistical tables contained in the three preceding volumes of this series have been brought forward to the close of 1886. With this exception repetition has been avoided wherever possible, and the technical information here contained is supplementary to that already published. The four volumes should therefore be consulted together.

Acknowledgments.—The names of contributors of special articles are given in connection with the subjects of which they were given charge. In regard to sources of information, much valuable aid has been furnished by the State bureaus of labor and statistics and by associations of manufacturers. A large majority of the statistics resulted, however, from applications directly to producers; and, recognizing the fact that it has become necessary for many of them to employ statistical clerks to answer the demands made upon them for information from various compilers, it is gratifying to testify to the general spirit of interest and hearty co operation which makes a report of this nature possible.

Arrangement of matter.—The subject matter is arranged under the various mineral substances treated. For example, everything pertaining to coal will be found under that head, except its bearing upon other minerals, to which cross references are made.

The time covered by the report is in general the calendar year 1886, except where the conditions of special industries have made other more natural divisions of time. In consideration of the necessary delay in publishing information from so many sources, it should be noted that the statements made by contributors represents their views shortly after the close of the year 1886, although later information has been incorporated in the report in a few instances of important developments. Advance bulletins giving the main facts concerning the more important industries were published as soon as the reports were complete.

Imports and exports.—The statistics of imports and exports are due to the courtesy of the Bureau of Statistics of the Treasury Department; they embrace imported articles entered for immediate consumption, plus the withdrawals from warehouses during the fiscal year ending June 30 of the years mentioned.

The units of quantity adopted are those most commonly in use in the several industries. The ton of 2,240 pounds is in this report called

the "long" ton, and that of 2,000 pounds is called the "short" ton; the terms "gross" ton and "net" ton being sometimes misleading, as for instance where "gross ton of ore" might be taken to mean a ton (of perhaps only 2,000 pounds) including moisture, or where "net" might be understood as referring to the weight after deducting the tare of package, etc. In quoting statistics of the European continent the "metric" ton (tonne) of 2,204 pounds avoirdupois is generally adopted and is specified. For Great Britain and its colonies the long ton of 2,240 pounds is the unit. Pounds are avoirdupois throughout, unless otherwise specified.

The statistics of the weights of imports into and exports from the United States are quoted in long tons and long hundredweights (112 pounds), these being the units adopted at the custom-houses.

Calendar and fiscal years.—Unless otherwise specified, years are understood to be calendar years ending December 31. The Government fiscal year ends June 30, and is designated by the number of the calendar year in which it is completed. Imports and exports, with a very few exceptions, are given by fiscal years because they are thus reported by the Treasury Department, and because a considerable delay would ensue if a computation by calendar years were attempted. It is admitted that for purposes of comparison the calendar year would be a more convenient time unit.