

Bibliography of Iron Ore Resources of the World (To January 1955)

GEOLOGICAL SURVEY BULLETIN 1019-D



Bibliography of Iron Ore Resources of the World (To January 1955)

By GWENDOLYN W. LUTTRELL

CONTRIBUTIONS TO BIBLIOGRAPHY OF MINERAL RESOURCES

G E O L O G I C A L S U R V E Y B U L L E T I N 1 0 1 9 - D



UNITED STATES DEPARTMENT OF THE INTERIOR

Fred A. Seaton, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

CONTENTS

	Page
Introduction.....	187
Serials.....	189
Bibliography.....	203
Subject index.....	337
Author index.....	359

A CONTRIBUTION TO BIBLIOGRAPHY OF MINERAL RESOURCES

BIBLIOGRAPHY OF IRON ORE RESOURCES OF THE WORLD (TO JANUARY 1955)

By Gwendolyn W. Luttrell

INTRODUCTION

This bibliography contains references to much of the important literature on iron ore deposits of the world. Abstracts of reports and reports that contain little information are omitted. References in foreign languages do not have English summaries unless indicated. The reports are numbered consecutively from 1 to 2732, and these numbers are used for reference in the subject and author indexes.

U. S. Geological Survey professional papers, bulletins, and water-supply papers that are available can be purchased at the prices indicated from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. They may also be purchased on an over-the-counter basis from his authorized agents, Geological Survey offices at 468 New Customhouse, Denver, Colo., 504 Federal Building, Salt Lake City, Utah; 807 Post Office and Courthouse, Los Angeles, Calif.; 724 U. S. Appraisers Building, San Francisco, Calif.; and the E. F. Glover Building, Anchorage, Alaska. Circulars may be obtained free on application to the Geological Survey at Washington 25, D. C. or at the Denver Federal Center, Denver, Colo.

The geologic folios, maps, and charts are sold by the Geological Survey. Remittances for those covering areas east of the Mississippi River may be addressed to the Geological Survey, Washington 25, D. C. Maps of areas west of the Mississippi River may be ordered from the Geological Survey, Denver Federal Center, Denver, Colo., or obtained by over-the-counter sale (but not by mail) from the Geological Survey offices mentioned above. Requests originating in Alaska for maps of Alaska may be ordered from the Geological Survey, P. O. Box 1088, Fairbanks, Alaska.

Those references preceded by an asterisk (*) are out of print, but they can be seen at many public and university libraries. Open-File reports and maps can be seen at the Geological Survey Library, Room 1033, General Services Building, Washington, D. C., and

at various field offices whose addresses can be obtained by writing to the Geological Survey. Preliminary reports and maps can be seen at the Geological Survey Library; some can be obtained from the Geological Survey, Washington 25, D. C.

U. S. Bureau of Mines book publications can be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Reports of Investigations and Information Circulars can be obtained free from the Bureau of Mines Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa.

SERIALS

- Acad. Colombiana Cienc. Rev.—Revista de la Academia Colombiana de Ciencias Exactas, Físicas y Naturales. Bogotá.
- Acad. Nat. Sci. Philadelphia Notulae Naturae; Proc.—Academy of Natural Sciences of Philadelphia, Notulae Naturae; Proceedings.
- Acad. sci. [Paris] Comptes rendus—Académie des sciences Comptes rendus hebdomadaires des séances. Paris.
- Acad. Sci. St. Louis Trans.—Transactions of the Academy of Science of St. Louis. St. Louis, Mo.
- Accad. sci. Torino, Cl. sci. Atti.—Accademia delle scienze di Torino, Classe di scienze fisiche, matematiche e naturali, Atti.
- Aerial Geol. Geophys. Survey Northern Australia Rept. Western Australia—Aerial, Geological, and Geophysical Survey of Northern Australia, Report Western Australia. Canberra.
- Akad. nauk SSSR Doklady—Akademiya nauk SSSR, Doklady. Moscow-Leningrad.
- Akad. nauk SSSR, Dal'nevostochnoye otdel. filial Izv.—Akademiya nauk SSSR, Dal'nevostochnoye otdeleniye filial, Izvestiya. Vladivostok.
- Akad. nauk SSSR, Inst. geol. nauk Trudy—Akademiya nauk SSSR, Institut geologicheskikh nauk, Trudy. Leningrad.
- Akad. nauk SSSR, Petrog. inst. Trudy—Akademiya nauk SSSR, Petrograficheskii institut, Trudy.
- Akad. nauk URSS, Inst. geol. Geol. zhurnal—Akademiya nauk URSS, Institut geologii, Geologicheskii zhurnal. Kiev, U. R. S. R.
- K. Akad. Wetensch. Amsterdam Proc.—Koninklijke Akademie van Wetenschappen te Amsterdam Proceedings.
- Ala. Geol. Survey Bull.; Circ.; Special Rept.—Alabama Geological Survey, Bulletin; Circular; Special Report. University, Ala.
- Ala. Indus. Sci. Soc. Proc.—Alabama Industrial and Scientific Society, Proceedings. Tuscaloosa.
- Alberta Sci. Indus. Research Council Ann. Rept.—Alberta Scientific and Industrial Research Council, Annual Report.
- Allied Powers, GHQ Tokyo, Nat. Res. Sec. Rept.—Supreme Commander for the Allied Powers, General Headquarters, Natural Resources Sec., Tokyo.
- Am. Assoc. Adv. Sci. Pub.; Proc.—Publication of the American Association for the Advancement of Science; Proceedings. Washington.
- Am. Assoc. Petroleum Geologists Bull.—American Association of Petroleum Geologists, Bulletin. Tulsa, Okla.
- Am. Chem. Soc., Va. Sec. Bull.—American Chemical Society, Virginia Section, Bulletin.
- Am. Geologist—American Geologist. Minneapolis, Minn.
- Am. Inst. Min. (Metall.) Eng. Trans.; Tech. Paper; Bull.; Contr.—American Institute of Mining (and Metallurgical) Engineers, Transactions; Technical Paper; Bulletin; Contributions. New York.
- Am. Jour. Sci.—American Journal of Science, New Haven, Conn.
- Am. Min. Cong., 13th Sess., Los Angeles, 1910, Proc.—American Mining Congress, 13th Annual Session, Los Angeles, 1910, Proceedings.
- Am. Mineralogist—American Mineralogist. Washington.
- Am. Philos. Soc. Proc.; Trans.—American Philosophical Society, Proceedings; Transactions. Philadelphia, Pa.
- Am. Sci. Cong., 8th, Washington, 1940, Proc.—American Scientific Congress, 8th, Washington, 1940, Proceedings.

- Annales mines [Paris] Mém.—Annales des mines [Paris], Mémoire.
 Archiv Eisenhüttenw.—Archiv für das Eisenhüttenwesen. Düsseldorf, Germany.
 Ariz. Univ. Bur. Mines Bull.—Arizona, University, Bureau of Mines Bulletin.
 Ark. Geol. Survey County Min. Rept.; Ann. Rept.—Arkansas Geological Survey, County Mining Report; Annual Report. Little Rock, Ark.
 Assoc. Geol. Argentina Rev.—Asociación Geológica Argentina Revista. Buenos Aires.
 Asoc. Venezolana Geologia, Minería y Petróleo Bol.—Asociación Venezolana de Geología, Minería y Petróleo, Boletín. Caracas.
 Australasian Inst. Mining and Metallurgy Proc.; Trans.—Australasian Institute of Mining and Metallurgy, Proceedings; Transactions. Melbourne.
 Badische geol. Abh.—Badische geologische Abhandlungen. Karlsruhe.
 Beitr. angew. Geophysik—Beiträge zur angewandte Geophysik. Leipzig.
 Beitr. Geologie Schweiz, Geotech. Ser.—Beiträge zur Geologie der Schweiz, Geotechnische Serie. Bern.
 Berg- u. hüttenm. Jahrb.—Berg- und hüttenmannische Jahrbuch. Wien.
 Black Hills Engineer—Black Hills Engineer. Rapid City, S. Dak.
 Blast Furnace and Steel Plant—Blast Furnace and Steel Plant. Cleveland; Pittsburgh.
 Bol. Minas y Petróleo [México]—Boletín de Minas y Petróleo (México, Dirección General de Minas y Petróleo). México, D. F.
 Bol. Minas y Petróleo [Bogotá]—Boletín de Minas y Petróleo. Bogotá, Colombia.
 Bol. Minero [México]—Boletín Minero. México, D. F.
 Bol. Minero [Santiago]—Boletín Minero. Santiago de Chile.
 Bol. oficial minas [Madrid]—Boletín oficial de minas, metalurgia y combustibles. Madrid.
 Boston Soc. Nat. History Proc.—Boston Society of Natural History, Proceedings.
 Brasil, Div. Fomento Produção Min. Bol.—Brasil, Divisão do Fomento da Produção Mineral, Boletim. Rio de Janeiro.
 Brasil, Div. Geologia e Mineralogía Bol.—Brasil, Divisão de Geologia e Mineralogía, Boletim. Rio de Janeiro.
 British Columbia Dept. Mines Ann. Rept.—British Columbia Department of Mines, Annual Report. Victoria, B. C.
 British Iron and Steel Federation Monthly Statist. Bull.—British Iron and Steel Federation, Monthly Statistical Bulletin. London.
 Bull. écon. Indochine—Bulletin économique de l'Indo-Chine. Hanoi.
 Calif. Acad. Nat. Sci. Proc.—California Academy of Natural Science, Proceedings. San Francisco.
 Calif. Div. Mines Bull; Special Rept.—California Department of Natural Resources, Division of Mines Bulletin; Special Report. San Francisco.
 Calif. Jour. Mines and Geology—California Journal of Mines and Geology. San Francisco.
 Calif. Min. Jour.—California Mining Journal. Santa Cruz, Calif.
 Canada Supt. Mines Rept.—Canada, Department of the Interior, Report of the Superintendent of Mines. Ottawa.
 Canada Geol. Survey Bull.; Mem.; Paper; Rept. Progress; Summary Rept.—Canada, Geological Survey Bulletin; Memoir; Paper; Report of Progress; Summary Report. Ottawa.
 Canada Mines Branch Bull.; Mem.; Summary Rept.—Canada, Department of Mines and Technical Surveys, Mines Branch Bulletin; Memoir; Summary Report. Ottawa.
 Canadian Geog. Jour.—Canadian Geographical Journal. Montreal.
 Canadian Inst. Proc.; Trans.—Canadian Institute, Proceedings; Transactions. Toronto.
 Canadian Inst. Mining and Metallurgy Bull.; Trans.—Canadian Institute of Mining and Metallurgy Bulletin; Transactions. Montreal.
 Canadian Jour. Research.—Canadian Journal of Research. Ottawa.
 Canadian Min. Inst. Bull.; Jour.; Quart. Bull.; Trans.—Canadian Mining Institute Bulletin; Journal; Quarterly Bulletin; Transactions.

- Canadian Min. Jour.—Canadian Mining Journal. Toronto-Quebec.
- Canadian Min. Metall. Bull.—Canadian Mining and Metallurgical Bulletin. Montreal-Toronto.
- Canadian Min. Rev.—Canadian Mining Review. Ottawa.
- Canadian Naturalist—Canadian Naturalist and Quarterly Journal of Science. Montreal.
- Chem. Eng. and Min. Rev.—Chemical Engineering and Mining Review. Melbourne, Australia.
- Chronique mines coloniales—La Chronique des mines coloniales. Paris.
- Col. Ingenieros Venezuela Rev. an.—Colegio de Ingenieros de Venezuela. Revista anual. Caracas.
- Colliery Guardian—Colliery Guardian. London.
- Colonial Geology and Min. Res.—Colonial Geology and Mineral Resources. London.
- Colo. Geol. Survey Bull.—Colorado Geological Survey Bulletin.
- Colo. School Mines Ann. Rept.; Bienn. Rept.; Quart.—Colorado School of Mines Annual Report; Biennial Report; Quarterly.
- Colo. Sci. Soc. Proc.—Colorado Scientific Society Proceedings. Denver.
- Columbia Univ., School Mines Quart.—Columbia University, School of Mines Quarterly. New York.
- Com. Directivo Inv. Rec. Min. México Bol.—Comité Directivo para la Investigación de los Recursos Minerales de México, Boletín.
- R. Com. geol. Italia Boll.—Real Comitato geologica d'Italia, Bolletino.
- Com. Mapa Geol. España Bol.; Mem.—Comisión del Mapa Geológico de España, Boletín; Memorias. Madrid.
- Comm. études géol. bassin lorrain—Commission d'études géologiques du bassin lorrain. Nancy.
- Comm. géol. Finlande Bull.—Bulletin du Commission géologique de Finlande. Helsinki.
- Compilación estudios geol. oficiales Colombia—Colombia, Servicio Geológico Nacional, Compilación de los estudios geológicos oficiales en Colombia. Bogotá.
- Cong. Cient. Mexicano Mem.—Congreso Científico Mexicano Memoria. México, D. F.
- Cong. géol. internat., 11^e sess., Stockholm, 1910, Comptes rendus—Congrès géologique internationale, 11^e session, Stockholm, 1910, Comptes rendus.
- Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus—Congrès géologique internationale, 19^e session, Alger, 1952, Comptes rendus.
- Cong. internat. mines, 7^e sess., Paris, 1935, Sec. géologie appl. Comptes rendus—Congrès international des mines, de la métallurgie et de la géologie appliquée, 7^e session, Paris, 1935, Section de géologie appliquée, Comptes rendus.
- Cong. sci., Elisabethville [Belgian Congo], 1950, Comptes rendus—Congrès scientifique, Elisabethville [Belgian Congo], 1950, Comptes rendus. Bruxelles, Comité spécial du Katanga, 1951-52.
- Conn. Geol. Nat. History Survey Bull.—Connecticut Geological and Natural History Survey Bulletin. Hartford.
- Conn. Soc. Civil Engineers Ann. Rept.—Connecticut Society of Civil Engineers, Annual Report. New Haven.
- Connecticut Mag.—Connecticut Magazine.
- Conseil recherches sci. Indochine, Comptes rendus—Conseil de recherches scientifiques de l'Indochine, Comptes rendus des séances. Hanoi.
- Cuba, Dirección Montes y Minas Bol. minas—Cuba, Dirección de Montes y Minas, Boletín de Minas. Habana.
- Cuerpo Ingenieros Minas Perú Bol.—Boletín del Cuerpo de Ingenieros de Minas del Perú. Lima.
- Denison Univ. Sci. Labs. Bull.; Jour.—Denison University Scientific Laboratories Bulletin; Journal. Granville, Ohio.
- Deutsche Geol. Gesell. Zeitschr.—Deutsche Geologische Gesellschaft, Zeitschrift. Berlin.
- Dir. Nac. Minería y Geología Argentina Bol.—Dirección Nacional de Minería y Geología [Argentina], Boletín.

- Eclogae Geol. Helvetiae—Eclogae Geologicae Helvetiae. Lucerne, Switzerland.
 Econ. Geography—Economic Geography. Worcester, Mass.
 Econ. Geology—Economic Geology. Urbana, Ill.
 Edinburgh Geol. Soc. Trans.—Edinburgh Geological Society, Transactions.
 Elisha Mitchell Sci. Soc. Jour.—Elisha Mitchell Scientific Society Journal.
 Chapel Hill, N. C.
 Eng. Club Philadelphia Proc.—Engineering Club of Philadelphia, Proceedings.
 Eng. Jour.—Engineering Journal. Montreal, Canada.
 Eng. Mag.—Engineering Magazine. New York.
 Eng. Min. Jour.—Engineering and Mining Journal. New York.
 Escuela Nac. Ingenieros [Lima] Bol.—Escuela Nacional de Ingenieros [Lima]
 Boletin.
 Explosives Engineer—Explosives Engineer. Wilmington, Del.
 Facoltà sci. Univ. Cagliari Rend.—Rendiconti del Seminario della Facoltà di
 scienze della Università di Cagliari. Cagliari, Italy.
 Federated Inst. Min. Engineers Trans.—Federated Institution of Mining Engi-
 neers Transactions. Newcastle-upon-Tyne.
 Fennia—Fennia. Helsinki, Finland.
 Field Columbian Mus. Pub. Geology Ser.—Field Columbian Museum, Publi-
 cations in Geology Series. Chicago.
 Focus [Netherlands]—Focus. N. Holland, Netherlands.
 Földtani Közlöny—Földtani Közönlony Sztrókay. Budapest.
 Fortschr. Mineralogie—Fortschritte der Mineralogie. Krefeld-Ürdingen,
 Germany.
 Franklin Inst. Jour.—Journal of the Franklin Institute. Philadelphia, Pa.
 Freiberg. Geol. Gesell. Ber.—Freiberger Geologische Gesellschaft, Bericht.
 Ga. Geol. Survey Bull., Inf. Circ.—Georgia Geological Survey Bulletin; Infor-
 mation Circular.
 Génie civil—Le Génie civil. Paris.
 Geog. Rev.—Geographical Review. New York.
 Geog. Wochenschr. [Halle]—Geographische Wochenschrift. Halle, Germany.
 Geol. and Sci. Bull.—Geological and Scientific Bulletin. Houston, Tex.
 Geol. Blätter Nordost-Bayern—Geologische Blätter für Nordost-Bayern und
 angränzende Gebiete. Erlangen, Germany.
 Geol. Bundesanst. [Austria] Jahrb.; Verh.—Geologische Bundesanstalt
 [Austria] Jahrbuch; Verhandlungen. Vienna.
 Geol. fören. Stockholm Förh.—Geologiska föreningens i Stockholm Förhand-
 lingar.
 Geol. Inst. Upsala Bull.—Bulletin of the Geological Institution of Upsala.
 Upsala, Sweden.
 Geol. Jahrb.; Beiheft—Geologisches Jahrbuch (Geologische Landesanstalt der
 Bundesrepublik Deutschland); Beiheft. Celle, Germany.
 Geol. Karte Elsass-Lothringen Abh.—Abhandlungen der Geologischen Karte
 Elsass-Lothringen.
 Geol. kom. Izv.; Zapiski—Geologicheskii komitet, Izvestiya; Zapiski.
 Geol. Landesanst. [Germany] Archiv Lagerstättenf.; Geol. Jahrb.—Geologi-
 sche Landesanstalten [Germany], Archiv für Lagerstättenforschung;
 Geologisches Jahrbuch. Hannover.
 Geol. Landesanst. Elsass-Lothringen Mitt.—Geologische Landesanstalt Elsass-
 Lothringen, Mitteilungen.
 Geol. Landesanst. [Mecklenburg] Mitt.—Geologische Landesanstalt [Mecklen-
 burg], Mitteilungen.
 Geol. Landesunters. bayer. Oberbergamtes Abh.—Abhandlungen der geologi-
 schen Landesuntersuchung am bayerischen Oberbergamtes.
 Geol. Mag.—Geological Magazine. London.
 Geol. Min. Metall. Soc. India Bull.; Quart. Jour.—Geological, Mining, and
 Metallurgical Society of India, Bulletin; Quarterly Journal. Calcutta.
 K.-k. Geol. Reichsanst. Jahrb.—Kaiserlich-königlich Geologische Reichsan-
 stalt, Jahrbuch. Vienna.
 Geol. Rundschau—Geologische Rundschau, Zeitschrift für allgemeine Geologie.
 Stuttgart, Germany.
 Geol. Soc. America Bull.—Geological Society of America, Bulletin. New York.

- Geol. Soc. Australasia Trans.; News Bull. —Geological Society of Australasia, Transactions; News Bulletin. Melbourne.
- Geol. Soc. China Bull. —Geological Society of China, Bulletin. Peiping.
- Geol. Soc. Glasgow Trans. —Geological Society of Glasgow, Transactions.
- Geol. Soc. India Rec.; Quart. Jour. —Geological Society of India, Records; Quarterly Journal. Calcutta.
- Geol. Soc. Japan Jour. —Geological Society of Japan, Journal. Tokyo.
- Geol. Soc. London Quart. Jour.; Abs. Proc. —Geological Society of London, Quarterly Journal; Abstract of Proceedings.
- Geol. Soc. Pa. Trans. —Geological Society of Pennsylvania, Transactions.
- Geol. Soc. South Africa Proc.; Trans. —Geological Society of South Africa, Proceedings; Transactions. Johannesburg.
- Geol. Survey British Guiana Rept. —Geological Survey of British Guiana, Report. Georgetown.
- Geol. Survey China Geol. Bull.; Geol. Mem. —Geological Survey of China, Geological Bulletin; Geological Memoir. Nanking.
- Geol. Survey Great Britain Bull.; Mem.; Special Repts. Min. Res. Great Britain; Summary Progress; War-time Pamph. —Geological Survey of Great Britain Bulletin; Memoirs; Special Reports on Mineral Resources of Great Britain; Summary of Progress; War-time Pamphlet. London.
- Geol. Survey India Mem.; Rec. —Geological Survey of India, Memoirs; Records. Calcutta.
- Geol. Survey [Japan] Rept. —Japan, Geological Survey, Report. Tokyo.
- Geol. Survey South Africa Mem. —Geological Survey of South Africa, Memoir. Pretoria.
- Geol. Survey Victoria Rec. —Geological Survey of Victoria, Records. Melbourne.
- Geol. Survey Western Australia Bull. —Geological Survey of Western Australia, Bulletin. Perth.
- Geol.-palaeont. Inst. Univ. Greifswald Abh. —Geologisch-Palaeontologisches Institut Univ. Greifswald Abhandlungen.
- Geologica Bavarica —Geologica Bavarica. Munich, Germany.
- Geologie Meere u. Binnengewässer —Geologie der Meere und Binnengewässer. Berlin.
- Geologists' Assoc. London Proc. —Geologists' Association of London, Proceedings.
- Geophysics —Geophysics. Tulsa, Okla. -Austin, Tex.
- Glav. geol. -razved. uprav. Izv. —Izvestiya glavnogo geologo-razvedochnogo upravleniya. Moscow-Leningrad.
- Glav. geol. -razved. uprav. Trudy —Trudy glavnogo geologo-razvedochnogo upravleniya. Moscow-Leningrad.
- Glav. geol. -razved. uprav. Vestnik —Vestnik glavnogo geologo - razvedochnogo upravleniya. Moscow-Leningrad.
- Glückauf —Glückauf, berg- und hüttenmännische Zeitschrift, Essen, Germany.
- Gold Coast Geol. Survey Bull. —Gold Coast Geological Survey Bulletin. Accra.
- Harvard Coll. Mus. Comp. Zoology Bull. —Harvard College Museum of Comparative Zoology, Bulletin. Cambridge, Mass.
- Heidelberg. Beitr. Mineralogie und Petrographie —Heidelberger Beiträge zur Mineralogie und Petrographie. Heidelberg, Germany.
- Houille, mineraux, pétrole —Houille, mineraux, pétrole. Paris.
- Hunan Geol. Survey Bull. —Hunan Geological Survey, Bulletin. Changsha, China.
- Hyderabad Geol. Service Bull. —Hyderabad Geological Service, Bulletin. Hyderabad. Deccan, India.
- Idaho Bur. Mines and Geology Pamph.; Min. Res. Rept. —Idaho Bureau of Mines and Geology, Pamphlet; Mineral Resources Report. Moscow, Idaho.
- Ill. State Acad. Sci. Trans. —Illinois State Academy of Science, Transactions. Springfield.
- Ill. State Geol. Survey Bull. —Illinois State Geological Survey, Bulletin. Urbana.
- Imp. Inst. Bull.; Mon. Min. Res. —Imperial Institute, Bulletin; Monographs on Mineral Resources. London.
- Ind. Acad. Sci. Proc. —Indiana Academy of Science, Proceedings. Indianapolis.

- Ind. Dept. Conserv., Div. Geology Pub.—Indiana Department of Conservation, Division of Geology, Publication, Bloomington.
- Ind. Dept. Geology Ann. Rept.—Indiana Department of Geology, Annual Report.
- Indian Min. Jour.—Indian Mining Journal. Calcutta.
- Indian Minerals—Indian Minerals. Calcutta.
- Ingenieria [Buenos Aires]—La Ingenieria. Buenos Aires.
- Ingenieur Nederlandsch-Indië—De Ingenieur Nederlandsch-Indië. Bandoeng.
- Ingeniörsvetenskapsakad. Handl.—Ingeniörsvetenskapsakademien, Handlingar. Stockholm.
- Inst. Civil Engineers Minutes of Proc.—Institution of Civil Engineers, Minutes of Proceedings. London.
- Inst. Geol. España Bol.—Instituto Geologico de España Boletín. Madrid.
- Inst. Geología México Bol.; Fol. Divulgacion—Instituto Geologia de México, Boletín; Folleto de Divulgación. México, D. F.
- Inst. Geol. Min. España Bol.; Mem.; Notas y comun.—Instituto Geológico y Minero de España, Boletín; Memorias; Notas y comunicaciones. Madrid.
- Inst. geol. României Anuarul—Institutul geologic al României. Bucarest.
- Inst. géol. Roumanie Comptes rendus—Institution géologique de Roumanie, Comptes rendus.
- Inst. Hierro y Acero [Madrid]—Instituto del Hierro y del Acero. Madrid, Spain.
- Inst. Ingenieros Civiles Espana Anuario—Instituto de Ingenieros Civiles de España, Anuario. Madrid.
- Inst. Min. Engineers [London] Trans.—Institution of Mining Engineers, Transactions. London.
- Inst. Mining and Metallurgy Bull.; Trans.—Institution of Mining and Metallurgy, Bulletin; Transactions. London.
- Inst. Nac. Inv. Recursos Min. [Mexico] Bol.—Instituto Nacional [Mexico] para la Investigación de los Recursos Minerales, Boletín. México, D. F.
- Internat. Eng. Cong., San Francisco, 1915, Trans.—International Engineering Congress, San Francisco, 1915, Transactions.
- Internat. Geol. Cong., 14th Sess., Madrid, 1926—International Geological Congress, 14th session, Madrid, 1926.
- Internat. Geol. Cong., 15th sess., South Africa, 1929, Compte rendu—International Geological Congress, 15th session, South Africa, 1929, Compte rendu. Pretoria.
- Internat. Geol. Cong., 16th sess., United States, 1933—International Geological Congress, 16th session, United States, 1933.
- Internat. Geol. Cong., 18th sess., London, 1948, Proc.—International Geological Congress, 18th session, Great Britain, 1948, Proceedings.
- Internat. Min. Cong., 4th, Boise, 1902, Proc.—International Mining Congress, 4th, Boise, 1901, Proceedings.
- Iowa Geol. Survey—Iowa Geological Survey, Iowa City, Iowa.
- Iron Age—The Iron Age. New York.
- Iron and Coal Trades Rev.—Iron and Coal Trades Review. London.
- Iron and Steel—Iron and Steel. London.
- Iron and Steel Engineer—Iron and Steel Engineer. Pittsburgh, Pa.
- Iron and Steel Inst. Jour.—Iron and Steel Institute Journal. London.
- Jamaica Geol. Survey Dept. Bull.—Jamaica Geological Survey Department Bulletin.
- Jammu and Kashmir Govts. Min. Survey Rept.—Jammu and Kashmir Governments, Mining Survey Report.
- Japanese Assoc. Mineralogists Jour.—Japanese Association of Mineralogists, Journal. Sendai.
- Japanese Jour. Geology and Geography—Japanese Journal of Geology and Geography. Tokyo.
- Jassy, Univ., Annales sci.—Annales scientifiques de L'Université de Jassy.
- Jernkontorets annaler—Jernkontorets annaler, Tidskrift för Svenska Bergshandlingen. Stockholm.
- Jour. Chem. Education—Journal of Chemical Education. Easton, Pa.
- Jour. Geography [Tokyo]—Journal of Geography. Tokyo.

- Jour. Geology—Journal of Geology. Chicago.
- Jour. Sci. Indus. Research [Delhi]—Journal of Scientific and Industrial Research. Delhi.
- Kans. Geol. Soc. Guidebook—Kansas Geological Society, Guidebook.
- Kans. State Geol. Survey Bull.—Kansas State Geological Survey, Bulletin.
- Kazan' gosudar. univ. Trudy; Uchenyye zapiski geologiya—Kazanskiy gosudarstvennyi universitet, Trudy; Uchenyye zapiski geologiya.
- Ky. Geol. Survey Bull.; Rept. Progress—Kentucky Geological Survey, Bulletin; Report of Progress. Frankfort.
- Ky. Univ., Eng. Expt. Sta. Bull.—Kentucky University, Engineering Experiment Station, Bulletin. Frankfort.
- Kwangtung and Kwangsi Geol. Survey Geol. Bull.—Kwangtung and Kwangsi Geological Survey, Geological Bulletin. Shihpai, Canton.
- Lake Superior Min. Inst. Proc.—Lake Superior Mining Institute Proceedings. Ishpeming, Mich.
- Leningrad. gornyy inst. Zapiski—Leningradskiy gornyy institut, Zapiski. Moskva-Leningrad.
- Leningrad. geol. trest Trudy—Trudy Leningradskogo geologicheskogo tresta.
- Leningrad. geol.-gidro.-geod. trest Izv.—Izvestiya Leningradskogo geologo-gidrogeodezicheskogo tresta.
- Leningrad. geol.-razved. trest Trudy—Trudy Leningradskogo geologo-razvedochnogo tresta.
- Life Mag.—Life Magazine. New York.
- Lunds Geol.-mineralog. inst. Medd.—Meddelanden från Lunds Geologisk-mineralogiska institution. Lund, Sweden.
- Lyceum Nat. History New York Annals—Lyceum of Natural History of New York, Annals.
- Maden Tetkik Arama [Ankara]—Maden Tetkik ve Arama. Ankara, Turkey.
- Magyar állami Földt. Intézet Évi Jelentése—A Magyar állami Földtani Intézet, Évi Jelentése (Annales Institute Publici Geologiae Hungarici). Budapest.
- Magyar kir. József Nádor műszaki és gazdaságtudományi egyetem, A bányá- és kohómérnöki osztály Közleményei—Magyar királyi József Nádor műszaki és gazdaságtudományi egyetem, A bányá- és kohómérnöki osztály Közleményei [Royal Hungarian Palatine Josef University, Department of Mining and Metallurgy, Publication]. Sopron.
- Maine Board Agriculture Ann. Rept.—Maine Board of Agriculture, Annual Report. Augusta.
- Maine Geol. Survey Bull.—Maine Geological Survey Bulletin. Augusta.
- Manchester Geol. Survey Trans.—Manchester Geological Survey, Transactions. Manchester, England.
- Manchoukuo Geol. Inst. Bull.; Mem.—Manchoukuo Geological Institute, Bulletin, Memoir. Mukden.
- Mass. Inst. Technology, Technology Quart.—Massachusetts Institute of Technology, Technology Quarterly and Proceedings of the Society of Arts. Boston.
- Material'y geologiya Zapadno-sibirsk. kraya—Material'y geologiya Zapadno-sibirskogo kraya (Records of the Geology of the West-Siberian Region). Tomsk.
- Material'y po geologii Vostochnoy Sibiri. Material'y po geologii i polyezn'im iskopayem' im Vostochnoy Sibiri. Irkutsk.
- Material'y po geologii Zapadnoy Sibiri. Material'y po geologii Zapadnoy Sibiri. Tomsk.
- Material'y obshchey priklad. geologii—Material'y po obshchey i prikladnoy geologii. Petrograd-Leningrad.
- Md. Dept. Geology, Mines, and Water Res. County Rept.—Maryland Department of Geology, Mines, and Water Resources, County Report.
- Md. Geol. Survey County Rept.—Maryland Geological Survey, County Report.
- Meddel. om Grønland—Meddelelser om Grønland. Copenhagen.
- Metall u. Erz—Metall und Erz, Zeitschrift für Erzbergbau, Metallhüttenwesen, und Metallkunde. Stuttgart, Germany.
- Mich. Acad. Science Rept.; Papers—Michigan Academy of Science, Arts, and Letters, Report; Papers.

- Mich. Conserv. —Michigan Conservation.
 Mich. Geol. Survey Pub.; Progress Rept. —Michigan Geological Survey, Publications; Progress Report.
 Mich. Pioneer Collections—Michigan Pioneer Collections.
 Midland Inst. Min. Engineers Trans. —Midland Institute of Mining Engineers, Transactions.
 Mil. Engineer—Military Engineer. Washington.
 Min. and Metallurgy—Mining and Metallurgy. New York.
 Min. Cong. Jour. —Mining Congress Journal. Washington.
 Min. Eng. —Mining Engineering. New York.
 Min. Geol. Metall. Inst. India Trans. —Mining, Geological, and Metallurgical Institute of India, Transactions. Calcutta.
 Min. Geology [Tokyo] —Mining Geology. Tokyo.
 Min. Jour. [London] —Mining Journal. London.
 Min. Mag. —Mining Magazine. London.
 Min. Newsletter [Manila] —Mining Newsletter. Manila.
 Min. Res. Alberta Ann. Rept. —Mineral Resources of Alberta, Annual Report.
 Min. Sci. Press—Mining and Scientific Press. San Francisco.
 Min. Science—Mining Science. Denver.
 Min. Soc. Nova Scotia Jour. —Mining Society of Nova Scotia, Journal.
 Min. Technology—Mining Technology. New York.
 Min. World—Mining World. Seattle.
 Mine and Quarry Eng. —Mine and Quarry Engineering. London.
 Miner—The Miner. Vancouver, B. C.
 Mineralog. Mag. —Mineralogical Magazine and Journal of the Mineralogical Society. London.
 Mineralog. petrog. Mitt. —Mineralogische und petrographische Mitteilungen. Vienna.
 Minería [Lima] —Minería. Lima, Peru.
 Mines and Minerals—Mines and Minerals. London.
 Mines, carrières—Mines, carrières, et grandes entreprises. Paris.
 Mines Mag. —Mines Magazine. Denver, Colo.
 Ministerio Fomento Perú Bol. —Boletín del Ministerio de Fomento del Perú, Boletín. Lima.
 Minn. Acad. Sci. Bull. —Minnesota Academy of Science, Bulletin. St. Paul, Minn.
 Minn. Geol. Survey Ann. Rept.; Bull. —Minnesota Geological Survey, Annual Report; Bulletin. Minneapolis, Minn.
 Minn., Iron Range Res. and Rehabilitation Comm.—Iron Range Resources and Rehabilitation Commission. St. Paul, Minn.
 Minn. School Mines, Expt. Sta. Bull. —Minnesota School of Mines, Experiment Station, Bulletin.
 Minn. Univ. Ann. Min. Symposium—Minnesota, University, General Extension Division, Annual Mining Symposium.
 Minn. Univ. Engineers' Year Book—Minnesota, University, Engineers' Year Book. St. Paul.
 Minn. Univ., Inst. Technology, Mines Expt. Sta. Inf. Circ. —Minnesota, University, Institute of Technology, Mines Experiment Station, Information Circular.
 Miss. Geol. Survey Bull. —Mississippi Geological Survey, Bulletin.
 Mo. Bur. Geology and Mines Bull. —Missouri Bureau of Geology and Mines, Bulletin. Rolla.
 Mo. Geol. Survey and Water Res. —Missouri Geological Survey and Water Resources. Rolla.
 Mo. Univ., School Mines and Metallurgy Bull., Tech. ser. —Missouri University, School of Mines and Metallurgy, Bulletin, Technical series. Rolla.
 Mont. Bur. Mines and Geology Mem. —Montana Bureau of Mines and Geology, Memoir. Butte.
 Moskov. geol. -gidro. -geod. trest Trudy; Zapiski —Trudy Moskovskogo geologo-gidro-geodezicheskogo tresta; Zapiski. Moskva.

- Moskov. geol.-razved. trest Trudy—Trudy Moskovskogo geologo-razvedochnogo tresta, Trudy.
- Moskov. obshch. ispytateley Prirody; Izv.—Moskovskoye obshchestvo ispytateley, Izvestiya (Société des naturalistes de Moscou, Bulletin).
- Mus. Argentino Cienc. Nat. Pub.—Museo Argentino de Ciencias Naturales, Publicaciones. Buenos Aires.
- Mus. Mineralóg. Geol. Univ. Coimbra Mem. e Notícias—Memórias e Notícias, Publicações do Museu Mineralógico e Geológico da Universidade de Coimbra. Coimbra, Portugal.
- Mysore Geol. Dept. Rec.—Mysore Geological Department, Records. Bangalore.
- Mysore Geologists' Assoc. Bull.—Mysore Geologists' Association, Bulletin. Bangalore.
- Mysore Univ. Jour.—Mysore University, Half-Yearly Journal. Bangalore.
- N. C. Dept. Conserv., Div. Min. Res. Bull.; Inf. Circ.; Econ. Paper—North Carolina Department of Conservation and Development, Division of Mineral Resources, Bulletin; Information Circular; Economic Paper. Raleigh.
- N. C. Geol. Survey Bull.; Bienn. Rept.—North Carolina Geological Survey Bulletin; Biennial Report. Raleigh.
- N. H. Acad. Sci.—New Hampshire Academy of Science.
- N. H. State Plan. Devel. Comm. Min. Res. Survey—New Hampshire State Planning and Development Commission, Mineral Resources Survey. Concord, N. H.
- N. J. Dept. Conserv. Geol. Ser. Bull.—New Jersey Department of Conservation and Economic Development, Geological Series Bulletin. Trenton.
- N. J. Geol. Survey Ann. Rept.—New Jersey Geological Survey, Annual Report. Trenton.
- N. Mex. Bur. Mines and Min. Res. Bull.—New Mexico Bureau of Mines and Mineral Resources, Bulletin.
- N. Mex. Univ. Pubs. Geology—University of New Mexico Publications in Geology. Albuquerque.
- N. Y. Acad. Sci. Annals; Trans.—New York Academy of Sciences, Annals; Transactions. New York, N. Y.
- N. Y. Geol. Survey Ann. Rept.—New York Geological Survey, Annual Report.
- N. Y. State Geologist Ann. Rept.—New York State Geologist, Annual Report.
- N. Y. State Mus. Bull.; Ann. Rept.—New York State Museum, Bulletin; Annual Report. Albany, N. Y.
- Nat. Science Assoc. Staten Island Proc.—Natural Science Association of Staten Island, Proceedings. New Brighton, N. Y.
- Natl. Research Inst. Geology [China] Contr.; Mem.—National Research Institute of Geology [China], Contribution; Memoir. Shanghai.
- Natur und Volk—Natur und Volk. Frankfurt-am-Main, Germany.
- Naturf. Gesell. Bern Mitt.—Naturforschende Gesellschaft zu Bern, Mitteilungen.
- Naturf. Gesell. Graubündens Verh.—Naturforschende Gesellschaft Graubündens, Verhandlungen. Chur, Switzerland.
- Naturf. Gesell. Schaffhausens Mitt.—Naturforschende Gesellschaft Schaffhausens Mitteilungen. Schaffhausen, Switzerland.
- Naturh. Ver. Preuss. Rheinlande Verh.—Verhandlungen des Naturhistorischen Vereins der Preussischen Rheinlande und Westfalens. Bonn.
- Naturw. Ver. Steiermark Mitt.—Mitteilungen des Naturwissenschaftlicher Vereines für Steiermark. Graz, Austria.
- Nauch.-issled. inst. geologii i mineralologii Trudy—Nauchno-issledovatel'skiy institut geologii i mineralologii, Trudy, Moskva-Leningrad.
- Neues Jahrb., Beil.-Band—Neues Jahrbuch für Mineralogie, Geologie, und Paläontologie, Beilage-Band. Stuttgart, Germany.
- Neues Jahrb. Mineralogie, Monatsh.—Neues Jahrbuch für Mineralogie, Monatshefte. Stuttgart, Germany.
- Nev. Bur. Mines Bull.—Nevada Bureau of Mines, Bulletin.
- New England Inst. Min. Eng. Trans.—New England Institute of Mining Engineering, Transactions.
- Newfoundland Geol. Survey Bull.; Inf. Circ.—Newfoundland Geological Survey, Bulletin; Information Circular. St. Johns.

- New South Wales Dept. Mines Ann. Rept.—New South Wales Department of Mines, Annual Report. Sydney.
- New South Wales Geol. Survey Mem.—New South Wales Geological Survey, Memoirs. Sydney.
- New Zealand Geol. Survey Bull.—New Zealand Geological Survey, Bulletin. Kaduna.
- New Zealand Inst. Trans. and Proc.—Transactions and Proceedings of the New Zealand Institute. Wellington.
- New Zealand Jour. Sci. and Technology—New Zealand Journal of Science and Technology. Wellington.
- Norges Geol. Undersøkelse—Norges Geologiske Undersøkelse. Oslo.
- North England Inst. Min. Mech. Engineers Trans.—North of England Institute of Mining and Mechanical Engineers, Transactions. Newcastle-upon-Tyne.
- Nova Scotia Dept. Mines Ann. Rept.—Nova Scotia Department of Mines, Annual Report. Halifax.
- Nova Scotian Inst. (Nat.) Sci. Proc. and Trans.—Nova Scotian Institute of (Natural) Science, Proceedings and Transactions. Halifax.
- Oberhess. Gesell. Natur- u. Heilkunde. Ber., Neue Folge—Oberhessische Gesellschaft für Natur- und Heilkunde zu Giessen, Bericht, Neue Folge.
- Oberrhein. Geol. Ver. Jahresber. u. Mitt.—Oberrheinischer Geologischer Verein, Jahresberichte und Mitteilungen. Stuttgart.
- Oberschles. Berg- u. Hüttenm. Ver. Zeitschr.—Oberschlesischer Berg- und Hüttenmännischer Verein, Zeitschrift. Katowice, Poland.
- Obshch. izucheniya Manchzhursk. kraya Trudy; Izv.—Obshchestvo izucheniya Manchzhurskogo kraya, Trudy [Manchuria Research Society, Annals]; Izvestiya. Mukden.
- Office Algérie d'action écon. et touristique—Office Algérie d'action économique et touristique. Alger.
- Ohio Geol. Survey, 4th ser., Bull.; Inf. Circ.; Rept.—Ohio Geological Survey, Bulletin; Information Circular; Report. Columbus.
- Ohio Min. Jour.—Ohio Mining Journal.
- Okla. Acad. Sci. Proc.—Oklahoma Academy of Science, Proceedings. Norman.
- Okla. Geol. Survey Bull.; Circ.; Mineral Rept.—Oklahoma Geological Survey, Bulletin; Circular; Mineral Report. Norman.
- Ontario Dept. (Bur.) Mines Ann. Rept.; Prelim. Rept.; Indus. Mineral Circ.—Ontario Department (Bureau) of Mines, Annual Report; Preliminary Report; Industrial Mineral Circular. Toronto.
- Oreg. Bur. Mines and Geology Min. Res. Oreg.—Oregon Bureau of Mines and Geology, Mineral Resources of Oregon. Portland.
- Oreg. Dept. Geology and Mineral Industries Bull.; G. M. I. Short Paper—Oregon Department of Geology and Mineral Industries, Bulletin; G. M. I. Short Paper. Portland.
- Pa. Dept. Internal Affairs Monthly Bull.—Pennsylvania Department of Internal Affairs, Monthly Bulletin. Harrisburg.
- Pa. Geol. Survey Ann. Rept.; Bull.; Rept. Progress—Pennsylvania Geological Survey, Annual Report; Bulletin; Report of Progress. Harrisburg.
- Pa. State Coll. Min. Quart.; Mineral Industries—Pennsylvania State College, Mining Quarterly; Mineral Industries.
- Pa. Topog. and Geol. Survey Bull.—Pennsylvania Topographic and Geologic Survey, Bulletin. Harrisburg.
- Pan Am. Inst. Min. Eng. and Geology Tech. Paper—Pan American Institute of Mining Engineering and Geology, U. S. Sec. Technical Paper. New York.
- Pan Am. Science Cong., 2d, Washington, 1915-16, Proc.—Pan American Science Congress, Washington, 1915-16, Proceedings.
- Pan-Am. Geologist—Pan-American Geologist. Des Moines, Iowa.
- Pan-Pacific Sci. Cong., 3d, Tokyo, 1926, Proc.—Pan-Pacific Science Congress, 3d, Tokyo, 1926, Proceedings.
- Pánstwowy Inst. Geol. Biul.—Pánstwowy Instytut Geologiczny, Biuletyn (Institute géologique de Pologne, Bulletin). Warsaw.
- Peiyang Eng. Coll., Eng. Research Inst. Mem.—Peiyang Engineering College, Engineering Research Institution, Memoirs. Tientsin, China.

- Philippine Geologist—Philippine Geologist. Manila.
 Philippines Bur. Mines Tech. Bull.; Rept. Inv.; Inf. Circ.—Philippines Bureau of Mines, Technical Bulletin; Report of Investigation; Information Circular. Manila.
- Pollichia—Pollichia (Pfälzischer Verein für Naturkunde, Mitteilungen). Dürkheim, Bavaria.
- Precambrian—The Precambrian. Winnipeg, Manitoba.
- Presidency Coll. [Calcutta], Geol. Inst. Jour.—Presidency College, Geological Institute, Journal (Bhu Vidya). Calcutta.
- Preussische Geol. Landesanst. Abh.; Archiv Lagerstättenf.—Preussische Geologische Landesanstalt, Abhandlungen; Archiv für Lagerstättenforschung. Berlin.
- K. Preussische Geol. Landesanst. Jahrb.—Königlich Preussische Geologische Landesanstalt und Bergakademie zu Berlin, Jahrbuch. Berlin.
- Puerto Rico Univ. Bull.; Mon.—Puerto Rico, University, Bulletin; Monograph.
- Quebec Dept. Mines Prelim. Rept.; Geol. Rept.—Quebec Department of Mines, Preliminary Report; Geological Report. Quebec.
- Queensland Geol. Survey Pub.—Queensland Geological Survey, Publication. Brisbane.
- Raw Materials Survey Inf. Circ.; Resource Rept.—Raw Materials Survey, Information Circular; Resource Report. Portland, Ore.
- Reichsstelle Bodenf. [Germany] Archiv Lagerstättenf.; Jahrb.—Reichsstelle für Bodenforschung [Germany], Archiv für Lagerstättenforschung; Jahrbuch. Berlin.
- Reichsstelle Bodenf., Zweigstelle Wien Ber.—Reichsstelle Bodenforschung, Zweigstelle Wien, Bericht.
- Rev. Fomento [Venezuela]—Revista de Fomento. Caracas.
- Rev. Hidrocarburos y Minas [Venezuela]—Revista de Hidrocarburos y Minas. Caracas.
- Rev. industrie minér.—Revue de l'industrie minières. Loire, France.
- Rev. minera [Madrid]—Revista minera. Madrid.
- Rev. Minería [Medellín]—Revista Minería. Medellín.
- Rev. Obras Pub. Puerto Rico—Revista de Obras Publicas de Puerto Rico.
- Rév. univ. mines [Liège]—Révue universelle des mines, de la métallurgie et des travaux publics. Liège.
- R. I. Bur. Indus. Statistics Bull.—Rhode Island Bureau of Industrial Statistics, Bulletin. Providence, R. I.
- Ricerca sci.—Ricerca scientifica. Rome.
- Rocks and Minerals—Rocks and Minerals. Peekskill, N. Y.
- Royal Soc. Canada Proc.; Trans.—Royal Society of Canada Proceedings; Transactions. Ottawa.
- Royal Soc. South Africa Trans.—Royal Society of South Africa, Transactions. Pretoria.
- Royal Soc. Tasmania Proc.—Royal Society of Tasmania, Proceedings. Hobart, Tasmania.
- Ryojun Coll. Eng. Mem.; Rept.—Ryojun College of Engineering, Memoirs; Reports. Ryojun, Manchuria.
- S. C. Geol. Survey Bull.—South Carolina Geological Survey Bulletin. Columbia.
- S. Dak. Geol. Survey Bull.; Rept. Inv.—South Dakota Geological Survey, Bulletin; Report of Investigation. Vermillion, S. Dak.
- S. Dak. School Mines Bull.—South Dakota School of Mines, Bulletin.
- Schweizerische mineralog. petrog. Mitt.—Schweizerische mineralogische und petrographische Mitteilungen. Frauenfeld.
- Sci. Monthly—Scientific Monthly. Washington.
- Science—Science. Washington.
- Science Progress—Science Progress. London.
- Senckenberg. Naturf. Gesell. Abh.—Senckenbergische Naturforschende Gesellschaft, Abhandlungen. Frankfurt-am-Main, Germany.

- Service carte geol. Alsace-Lorraine Bull.; Livr.; Mem. —Service de la Carte géologique de la Alsace et de la Lorraine, Bulletin; Livraison; Mémoire. Strasbourg.
- Service carte géol. Luxembourg—Service de la carte géologique de Luxembourg.
- Service géol. Luxembourg Pub. —Service géologique de Luxembourg, Publications.
- Service mines [French West Africa] Bull. —Service des mines [de l'Afrique Occidentale Française] Bulletin. Dakar.
- Service mines [Katanga] Annales—Comité spécial du Katanga, Service des mines, Annales. Brussels.
- Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos; Relatório—Serviço de Fomento e Mineiro [Portugal], Estudos, notas e trabalhos; Relatório. Lisboa.
- Shanghai Science Inst. Jour. —Shanghai Science Institute, Journal. Shanghai.
- Sierra Leone, Geol. Survey and Mines Dept. Rept. for 1933 and 1934.
- Skillings' Min. Rev. —Skillings' Mining Review. Duluth, Minnesota.
- Státní geol. ústav. Československé Republiky Sborník; Věstník—Státní geologický ústav Československé Republiky Sborník; Věstník. Praha.
- Soc. Arts [London] Jour. —Society of Arts Journal. London.
- Soc. Belge géologie Bull.; Mém.—Société Belge de géologie, de paléontologie, et de hydrologie. Bulletin; Mémoire. Bruxelles.
- Soc. Cient. Antonio Alzate Mem. y Rev.—Sociedad Científica Antonio Alzate, Memorias y Revista. México, D. F.
- Soc. Française mineralogie et cristallographie Bull. —Société Française de minéralogie et de cristallographie, Bulletin. Paris.
- Soc. géol. Belgique Annales; Bull.—Société géologique de Belgique, Annales; Bulletin.
- Soc. géol. mineralog. Bretagne Compte rendu—Société géologique et minéralogique de Bretagne, Compte rendu sommaire des séances. Liege.
- Soc. Geol. Peru Bol.—Sociedad Geológica del Perú, Boletín. Lima.
- Soc. Geol. Portugal Bol.—Sociedade Geologica de Portugal, Boletim.
- Soc. histoire nat. Toulouse Bull.—Société d'histoire naturelle de Toulouse, Bulletin. Toulouse, France.
- Soc. industrie min. [St. Etienne] Bull.—Société de l'industrie minière, Bulletin et comptes rendus mensuels. Saint Etienne, France.
- Soc. Ingenieros Perú Inf. y Mem.—Sociedad de Ingenieros del Perú Informaciones y Memorias. Lima.
- Soc. naturalistes luxembourg. Bull.—Société des naturalistes luxembourgeois, Bulletin.
- Soc. physique et histoire nat. Genève Compte rendu—Société de physique et d'histoire naturelle de Genève, Compte rendu des séances.
- Soc. sci. Bruxelles Annales—Société scientifique de Bruxelles Annales.
- Soil Science—Soil Science. Baltimore.
- South African Jour. Sci.—South African Journal of Science. Johannesburg.
- South African Min. Eng. Jour.—South African Mining and Engineering Journal. Johannesburg.
- Sovetskaya geologiya—Sovetskaya geologiya. Moskva.
- Stahl u. Eisen—Stahl und Eisen. Düsseldorf, Germany.
- Steel—Steel. Cleveland, Ohio.
- Steelways—Steelways. New York.
- Stellenbosch Univ. Annals—Stellenbosch University, Annals. Capetown.
- Sveriges Geol. Unders., Ser. C, Årsbok; Ser. Ca.—Sveriges Geologiska Undersökning, Ser. C., Årsbok; Ser. Ca. Stockholm.
- Swaziland Geol. Survey Dept. Special Rept.—Swaziland, Geological Survey Department, Special Report. Mbabane, Swaziland.
- Taihoku Imp. Univ., Faculty Sci. and Agriculture Mem.—Taihoku Imperial University, Faculty of Science and Agriculture, Memoir. Taihoku, Taiwan.
- Tasmania Sec. Mines Rept.—Tasmania Sec. Mines Report. Hobart.
- Teknisk tidskr.—Teknisk tidskrift. Norrköping, Sweden.

- Tenn. Acad. Sci. Jour.—Tennessee Academy of Science, Journal. Nashville, Tenn.
- Tenn. Dept. Conserv. Markets Circ.—Tennessee Department of Conservation, Markets Circular. Nashville.
- Tenn. Geol. Survey Bull.; Res. Tenn.—Tennessee Geological Survey, Bulletin; Resources of Tennessee. Nashville.
- Tenn. Div. Geology Bull.—Tennessee Division of Geology, Bulletin. Nashville.
- Tex. Geol. Survey Ann. Rept.—Texas Geological Survey Annual Report. Austin.
- Tex. Univ., Bur. Econ. Geology Pub.; Rept. Inv.; Bull.; Min. Res. Circ.—Texas University, Bureau of Economic Geology Publications; Reports of Investigations; Bulletin; Mineral Resources Survey Circular. Austin.
- Toronto Univ. Studies, Geol. ser.—Toronto University Studies, Geological Series.
- Tsentral' nauch.-issled.geol.-razved. inst. Izv.; Trudy—Tsentral'niy nauchno-issledovatel'skiy geologo-razvedochniy institut, Izvestiya; Trudy. Moskva-Leningrad.
- TVA Geology Div. Bull.—Tennessee Valley Authority, Geology Division Bulletin. Knoxville, Tenn.
- U. S. Bur. Foreign and Domestic Commerce Trade Inf. Ser.—U. S. Bureau of Foreign and Domestic Commerce, Trade Information Series. Washington.
- U. S. Bur. Mines Inf. Circ.; Rept. Inv.—U. S. Bureau of Mines Information Circular; Reports of Investigations. Washington.
- U. S. Census, 10th—U. S. 10th Census. Washington.
- U. S. Cong., 32d, Special Sess.—U. S. 32d Congress, Special Session. Washington.
- U. S. Cong., 50th, 1st Sess., H. R. Exec. Doc.—U. S. 50th Congress, 1st Session, House Executive Document. Washington.
- U. S. Cong., 70th, 1st Sess., H. R. Doc.—U. S. 70th Congress, 1st Session, House Document. Washington, D. C.
- U. S. Geol. Survey Bull.; Circ.; Prof. Paper—U. S. Geological Survey Bulletin; Circular; Professional Paper. Washington.
- U. S. Natl. Mus. Proc.—U. S. National Museum Proceedings. Washington.
- K. Ungarische Geol. Anst. Jahrb.; Jahresber.—Jahrbuch des Kaiserischen Ungarischen Geologischen Anstalt; Jahresbericht. Budapest.
- Univ. Szeged. Acta Mineralog. Petrog.—Universitatis Szegediensis, Acta Mineralogica et Petrographica.
- Upsala Univ. Mineralog.-geol. inst. Medd.—Meddelanden från Upsala Universitetets Mineralogisk-geologiska institution. Upsala, Sweden.
- Uspekhi khimii—Uspekhi khimii. Moskva.
- Ustredni ustav geol. [Czechoslovakia] Věstník—Ustredni ustav geologicky [Czechoslovakia], Věstník. Prague.
- Utah Acad. Sci. Proc.—Utah Academy of Sciences, Arts, and Letters, Proceedings. Logan, Utah.
- Utah Geol. Mineralog. Survey Circ.—Utah Geological and Mineralogical Survey, Circular. Salt Lake City.
- Utah Univ. Bull.—Utah University, Bulletin.
- Va. Div. Geology, Min. Res. Circ.—Virginia Division of Geology, Mineral Resources Circular. Charlottesville.
- Va. Geol. Survey Bull.; Circ.—Virginia Geological Survey, Bulletin; Circular. Charlottesville.
- Ver. Erdkunde u. Hess. Geol. Landesanst. Notizblatt—Notizblatt des Vereins für Erdkunde und der Hessischen Geologischen Landesanstalt. Darmstadt, Germany.
- The Virginias—The Virginias, a mining, industrial, and scientific journal devoted to the development of Virginia and West Virginia. Staunton, Va.
- K. Vlaamsche Acad. Wetensch. België, Kl. Wetensch. Verh.—Verhandelingen van de Koninklijke Vlaamsche Academie voor Wetenschappen, Letteren en Schoone Kunsten van België, Klasse der Wetenschappen. Brussels, Belgium.

- Vostochno-sibirsk. geol. trest Trudy—Trudy Vostochno-sibirskogo geologicheskogo tresta. Irkutsk.
- Vseros. mineralog. obshch. Zapiski—Zapiski Vserossiyskogo mineralogicheskogo obshchestva. Moskva-Leningrad.
- Vses. geol. -razved. ob'yedneniya Izv.; Trudy—Izvestiya Vsesoyuznogo geologo-razvedochnogo ob'yedneniya Trudy.
- Vses. nauch. -issled. geol. inst. Trudy—Trudy Vsesoyuznogo nauchno-issledovatel'skogo geologicheskogo instituta.
- Vses. geol. -razved. uprav. Izv. —Izvestiya Vsesoyuznogo geologo-razvedochnogo upravleniya.
- Vt. State Geologist—Vermont State Geologist. Rutland.
- W. Va. Geol. Survey Bull.; Rept. Inv.; State Park Series Bull.; County Repts. — West Virginia Geological Survey Bulletin; Reports of Investigation; State Park Series Bulletin; County Reports. Morgantown.
- Washington Acad. Sci. Jour.—Washington Academy of Science, Journal. Washington, D. C.
- Wash. Div. Mines and Geology Bull.; Inf. Circ.; Rept. Inv.—Washington Division of Mines and Geology, Bulletin; Information Circular; Reports of Investigation. Olympia, Wash.
- Wash. [State] Univ., Bur. Indus. Research Bull.—Washington, University, Bureau of Industrial Research. Bulletin. Seattle. Seattle.
- Western Miner (and Oil Rev.)—Western Miner (and Oil Review). Vancouver, British Columbia.
- Western Rev. Science and Industry—Western Review of Science and Industry. Kansas City, Kans.
- Wis. Acad. Sci. Trans.—Wisconsin Academy of Science, Arts, and Letters, Transactions. Madison, Wis.
- Wis. Engineer—Wisconsin Engineer. Madison, Wis.
- Wis. Geol. and Nat. History Survey, Sci. ser. Bull.—Wisconsin Geological and Natural History Survey, Scientific series Bulletin.
- Wis. Geol. Survey Ann. Rept.; Geology of Wisconsin—Wisconsin Geological Survey, Annual Report; Geology of Wisconsin. Madison, Wis.
- Wis. State Agric. Soc. Trans.—Wisconsin State Agricultural Society, Transactions. Madison, Wis.
- World Eng. Cong., 1st, Tokyo, 1929, Proc.—World Engineering Congress, 1st, Tokyo, 1929, Proceedings.
- Wyo. Geol. Survey Bull.; Rept. Inv.—Wyoming Geological Survey Bulletin; Reports of Investigations. Laramie.
- Yorkshire Geol. Soc. Proc.—Yorkshire Geological Society Proceedings. Leeds, England.
- Zapadno-sibirsk. ot'del. Geol. kom. Izv.—Izvestiya Zapadno-sibirskogo ot'deleniya Geologicheskogo komiteta. Tomsk.
- Zapadno-sibirsk. geol.-razved. trest Izv.—Izvestiya Zapadno-sibirskogo geologo-razvedochnogo tresta. Tomsk.
- Zapadno-sibirsk. geol.-razved. trest Vestnik—Vestnik Zapadno-sibirskogo geologicheskogo tresta. Tomsk.
- Zeitschr. angew. Mineralogie—Zeitschrift für angewandte Mineralogie. Berlin.
- Zeitschr. Berg- Hütten- u. Salinenw. Preussischen Staate—Zeitschrift für das Berg- Hütten- und Salinenwesen im Preussischen Staate. Berlin.
- Zeitschr. Erzbergbau u. Metallhüttenw.—Zeitschrift für Erzbergbau und Metallhüttenwesen. Stuttgart, Germany.
- Zeitschr. prakt. Geologie—Zeitschrift für praktische Geologie. Halle, Germany.
- Zentralbl. Mineralogie—Zentralblatt für Mineralogie. Stuttgart, Germany.

BIBLIOGRAPHY

- 1 Abad, L. F., 1948, Notes and resume of studies on Surigao iron ores: *Philippine Geologist*, v. 2, no. 4, p. 1-18.
- 2 _____ 1950. Iron deposits of Ilocos Norte: *Min. Newsletter [Manila]*, v. 2, no. 1-2, p. 34.
- 3 Abbott, C. E., 1907, The iron-ore deposits of the Ely trough, Vermillion range, Minn.: *Lake Superior Min. Inst. Proc.*, v. 12, p. 116-142; *Eng. Min. Jour.*, v. 83, p. 601-605.
- 4 Adams, F. D., 1901, Notes on the iron ore deposits of Bilbao, northern Spain: *Canadian Min. Inst. Jour.*, v. 4, p. 196-204.
- 5 _____ 1911, The iron-ore resources of the world: *Canadian Min. Inst. Quart. Bull.*, v. 14, p. 101-120; *Jour.*, v. 14, p. 215-235, 1912.
- 6 Adams, F. D., and Barlow, A. E., 1910, Geology of the Haliburton and Bancroft areas, Province of Ontario: *Canada Geol. Survey Mem.* 6, 419 p.
- 7 Adams, F. S., 1911, The iron formation of Cuyuna range, Minn.: *Econ. Geology*, v. 5, p. 729-740, 1910; v. 6, p. 60-70, 156-180, 1911.
- 8 Adams, G. I., 1928, The occurrence and age of certain brown iron ores in Alabama and adjacent States: *Econ. Geology*, v. 23, p. 85-92.
- 9 Adan de Yarza, Ramon, 1912, Note supplementaire sur les gisements de fer de l'Espagne, in *Les ressources mondiales de minerai de fer: Cong. géol. internat.*, 11^e sess., Stockholm, 1910, *Comptes rendus*, pt. 1, p. 265-328.
- 10 Adler, J. L., 1935, Stratigraphic zones in the Negaunee iron formation of Marquette County, Mich.: *Jour. Geology*, v. 43, no. 2, p. 113-132.
- 11 Agard, J., Destombes, J., Van Leckwijck, William, 1952, Géologie des gîtes minéraux marocains (zone française du Maroc): *Cong. géol. internat.*, 19^e sess. Alger, 1952, *Monographies régionales*, 3^e sér., Maroc, no. 1, 416 p.
- 12 Agrawal, S. K., 1948, The geology and economic considerations of the area around Kudada, Singhbhum district, Bihar: *Geol. Min. Metall. Soc. India Quart. Jour.*, v. 20, no. 1, p. 17-28.
- 13 *Agthe, F. T., and Dynan, J. L., 1910, Paint-ore deposits near Lehigh Gap, Pa.: *U. S. Geol. Survey Bull.* 430, p. 440-454.
- 14 Ainberg, L., 1931, (Iron ore deposit in the environs of Sretenka Village, district of Mariupol): *Glav. geol.-razved. uprav. Izv.* 50, vyp. 37, p. 589-600. [Russian, English summary.]
- 15 Akerman, R., 1899, Outlines of the development of the Swedish iron industry: *Iron and Steel Inst. Jour.*, v. 54, p. 7-28.
- 16 Alcock, F. J., 1941, Jacquet River and Tetagouche River map-areas, N. B.: *Canada Geol. Survey Mem.* 227, Pub. 2459, 46 p.

Index
No.

- 17 Aldinger, Hermann, and Frank, Manfred, 1944, Vorkommen und Entstehung, der südwestdeutschen jurassischen Eisenerze: Neues Jahrb., Abh., Abt. B, Band 88, p. 293-336.
- 18 Aldrich, H. R., 1925, Notes on the Clinton group in Alabama: Am. Inst. Min. Metall. Eng. Trans., v. 71, p. 304-307.
- 19 _____ 1929, The geology of the Gogebic iron range of Wisconsin: Wis. Geol. and Nat. History Survey Bull. 71, 279 p.
- 20 Alexeevski, P. J., 1931, [Short descriptions of the iron and manganese deposits of the U.S.S.R.]: [Moscow?] SSSR Geol. -razvedka trest, 192 p. [Russian.]
- 21 Allan, J. A., 1910, Saltspring Island, and east coast of Vancouver Island, B. C.: Canada Geol. Survey Summary Rept. 1909, p. 98-102.
- 22 Allan, J. A., and Cameron, A. E., 1922, An occurrence of iron on Lake Athabaska: Min. Res. Alberta 4th Ann. Rept., pt. 2.
- 23 _____ 1923, An occurrence of iron on Lake Athabaska: Alberta Sci. Indus. Research Council, Rept. 7, 33 p.
- 24 Allen, E. T., 1897, Native iron in the coal measures of Missouri: Am. Jour. Sci., 4th ser., v. 4, p. 99-104.
- 25 _____ 1911, Studies in ore deposition with special reference to the sulphides of iron: Washington Acad. Sci. Jour., v. 1, p. 170-177.
- 26 Allen, R. C., 1909, Iron formation of Woman River area, Ont.: Ontario Bur. Mines Ann. Rept. 18, p. 254-262.
- 27 _____ 1909, The occurrence and origin of the brown iron ores of Spring Valley, Wis.: Mich. Acad. Sci. Rept. 11, p. 95-103.
- 28 _____ 1910, The Iron River iron-bearing district of Michigan: Mich. Geol. Survey Pub. 3 (Geol. ser., 2), 150 p.
- 29 _____ 1912, The iron mining industry of Michigan: Mich. Geol. Survey Pub. 8 (Geol. ser., 6), p. 117-256.
- 30 _____ 1914, The iron ore reserves of Michigan: Mich. Geol. Survey Pub. 16 (Geol. ser., 13), p. 39-77.
- 31 _____ 1934, Lake Superior iron ore: Mining and Metallurgy, v. 15, no. 335, p. 447-448.
- 32 Allen, R. C., and Barrett, L. P., 1915, Contributions to the pre-Cambrian geology of northern Michigan and Wisconsin: Mich. Geol. Survey Pub. 18 (Geol. ser., 15), p. 1-164.
- 33 Allen, R. M., Jr., 1949, A suggested origin for the Shelby County, Ala., limonite ores: Econ. Geology, v. 44, no. 4, p. 278-285.
- 34 Alling, H. L., 1925, Genesis of the Adirondack magnetites: Econ. Geology, v. 20, no. 4, p. 335-363.
- 35 _____ 1939, Metasomatic origin of the Adirondack magnetite deposits: Econ. Geology, v. 34, no. 2, p. 141-172.
- 36 _____ 1942, The Adirondack magnetite deposits, New York, in Newhouse, W. H., ed., Ore deposits as related to structural features: Princeton, N. J., Princeton Univ. Press, p. 143-146.
- 37 _____ 1947, Diagenesis of the Clinton hematite ores of New York: Geol. Soc. America Bull., v. 58, no. 11, p. 991-1017.

Index

No.

- 38 Allison, I. S., 1925, Enrichment of the Mesabi iron ores: *Econ. Geology*, v. 20, p. 693-697.
- 39 Allsman, P. T., 1948, Investigation of iron-ore reserves of Iron County, Utah: U. S. Bur. Mines Rept. Inv. 4388 (supp. to Rept. Inv. 4076), 3 p.
- 40 Almeida Fernandez, J. M. de, and Sousa Campos, Viriato de, 1943, Alguns jazigos do Alentejo; Alvito e Aguas de Peixes; Vale do Vargo; Ferreira do Alentejo (Odivelas); Outros jazigos de ferro do Alentejo: Serviço Fomento Mineiro [Portugal], Relatório 2, 51 p.
- 41 Alvarado, Benjamin, and Sarmiento S., Roberto, 1945, Exploración del yacimiento de hierro de Rovira (Tolima): *Compilación estudios geol. oficiales Colombia*, v. 6, p. 97-104.
- 42 _____ 1945, Exploración del yacimiento de mineral de hierro de La Plata (Huila): *Compilación estudios geol. oficiales Colombia*, v. 6, p. 89-96.
- 43 Alvarado, Benjamin, and Palau, Climaco, and Paba Silva, Fernando, 1941, El yacimiento de hierro de Morro Pelon, municipio de Campamento (Antioquia): *Bol. Minas y Petróleo* [Bogotá], no. 121-144, p. 59-64.
- 44 Alzola, P. de, 1896, The iron and steel industry of Spain: *Iron and Steel Inst. Jour.*, v. 50, p. 5-32.
- 45 American Institute of Mining and Metallurgical Engineers, 1950, Current geologic investigations of the Lake Superior iron ranges; *in its Proc.*, 170th Gen. Mtg., Joint Sess. Geology Subdiv. and Soc. Econ. Geologists: New York, N. Y., Master Reporting Co., 51 p.
- 46 Amsel, H., 1901, Die oolithische Eisenerzformation Deutsch-Lothringens: *Zeitschr. prakt. Geologie*, Jahrg. 10, p. 81-94.
- 47 Ancion, C., 1951, Les problèmes du fer: *Soc. géol. Belgique, Bull.*, tome 74, nos. 7-10, p. B231-B306.
- 48 Ancion, C., Tordeur, J., and Van Leckwijck, William, 1946, La mine de fer de Couthuin (province de Liège): *Rév. univ. mines [Liège] sér. 9*, tome 2, no. 3, p. 118-122.
- 49 Andal, Gregorio, 1953, Iron in the Philippines: *Philippines Bur. Mines Inf. Circ.* 17, 22 p.; *Min. Newsletter* [Manila], v. 5, no. 1, p. 20-30.
- 50 Anderson, A. L., 1930, The geology and mineral resources of the region about Orofino, Idaho: *Idaho Bur. Mines and Geology Pamph.* 34, p. 41-43.
- 51 _____ 1939, Geology and ore deposits of the Atlanta district, Elmore County, Idaho: *Idaho Bur. Mines and Geology Pamph.* 49, 71 p.
- 52 _____ 1946, Epithermal mineralization at the Last Chance and Horn-silver mines, Lava Creek district, Butte County, Idaho: *Geol. Soc. America Bull.*, v. 58, no. 5, p. 451-482.
- 53 Anderson, S. A., and Jones, Augustus, 1945, Iron in the Adirondacks: *Econ. Geography*, v. 21, no. 4, p. 276-285.
- 54 Anderson, W., 1942, Jurassic iron ores, Cleveland district: *Geol. Survey Great Britain War-time Pamph.* 23, 42 p.
- 55 _____ 1951, The constitution and origin of sedimentary iron ores—a symposium: *Yorkshire Geol. Soc. Proc.*, v. 28, pt. 2, p. 61-101. Includes papers by Hallimond, A. F., Dunham, K. C., Hemingway, J. E., Taylor, J. H., Davies, W., Dixie, R. J. M., and Bannister, F. A.

Index
No.

- 56 Andrade, Adalberto de, 1945, Contribuição para o calculo das reservas das "minas de ferro de Montemor-o-Novo": Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 1, p. 95-109. [Portuguese, French summary.]
- 57 ——— 1949, Breve notícia sobre a aplicação do processo magnético de prospecção em alguns dos jazigos de magnetite do Alentejo: Serviço Fomento Mineiro [Portugal], Estudos, notas e trabalhos, v. 5, p. 1-22.
- 58 Andrade, Adalberto de, and Martins da Silva, João; Reis Arruda, Carlos dos; and Silva Gameiro, J. C. da, 1949, Minas de ferro de Montemor-o-Novo: Serviço Fomento Mineiro [Portugal], Relatório 15, 125 p.
- 59 Andreas, B. M., 1954, Mining trends on the Mesabi range—More stripping, truck pits, conveyors: Min. Eng., v. 6, no. 1, p. 39-41.
- 60 Andrews, E. B., 1878, Supplemental report on Perry County, and portions of Hocking and Athens Counties, Ohio: Ohio Geol. Survey Rept. 3, p. 815-882.
- 61 Andrews, T. G., 1947, Iron ore resources of Japan: Allied Powers, GHQ Tokyo, Nat. Res. Sec. Rept. 69, 62 p.; supp., Descriptions of iron ore producing areas and mines, 60 p.
- 62 Angel, Franz, 1939, Lehrfahrt auf den steirischen Erzberg Sonntag: Fortschr. Mineralogie, Band 23, Teil 2, p. 54-76.
- 63 ——— 1939, Unser Erzberg; ein Abriss der Naturgeschichte des steirischen Erzberges: Naturw. Ver. Steiermark Mitt., Band 75, p. 227-321.
- 64 Angelelli, Victorio, 1940, Los yacimientos de minerales de hierro de la republica Argentina: Ingenieria [Buenos Aires], v. 44, no. 6, p. 427-439.
- 65 ——— 1946, La geologia y genesis del yacimiento ferrifero de Zapla, mina "9 de Octubre": Asoc. Geol. Argentina Rev., tomo 1, no. 2, p. 117-147.
- 66 Anikeyev, N., and Zorin, V., 1934, (Angara-Ilim iron ore deposits of eastern Siberia, preliminary results of prospecting): Vostochno-sibirsk. geol. trest Trudy, vypusk 5, 44 p. [Russian, English summary.]
- 67 Anson, C. M., 1951, The Wabana iron ore properties: Canadian Inst. Mining and Metallurgy Trans., v. 54, p. 375-380; Canadian Min. Metall. Bull., v. 44, no. 473, p. 597-302.
- 68 Ansted, D. T., 1874, Coal and iron of Virginia: Eng. Min. Jour., v. 17, no. 8, p. 114-115.
- 69 ——— 1874, Coal and iron of West Virginia: Eng. Min. Jour., v. 17, no. 9, p. 130-131.
- 70 Appleby, W. R., and Newton, Edmund, 1913, Preliminary concentration tests on Mesabi ores (Itasca County, Minn.): Minn. School Mines Expt. Sta. Bull. 2, 126 p.
- 71 ——— 1915, Preliminary concentration tests on Cuyuna ores: Minn. School Mines Expt. Sta. Bull. 3, 66 p.
- 72 Araújo, Carlos de, 1952, Minas de ferro dos arredores de Moura: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 7, p. 294-303.

Index
No.

- 73 Archibald, R. S., and Chabot, L. S., Jr., 1935, Development, equipment and operation of the Blueberry Mine, Marquette iron district: Am. Inst. Min. Metall. Eng. Tech. Pub. 601, 20 p.
- 74 Arend, J. P., 1932, La constitution des minerais oolithiques et ses rapports avec le facies des couches: Acad. sci. [Paris] Comptes rendus, tome 194, p. 990-993.
- 75 _____ 1932, La constitution et le mode de formation des minerais oolithiques en Lorraine et au Luxembourg: Soc. naturalistes luxembourg. Bull. mens. 26, p. 49-56, 71-82, 101-109.
- 76 _____ 1932, La gènese des oolithes: Acad. sci. [Paris] Comptes rendus, tome 194, p. 736-738.
- 77 _____ 1932, Le mélange originel des minerais oolithiques Lorrains-Luxembourgeois: Acad. sci. [Paris] Comptes rendus, tome 195, p. 54-56.
- 78 _____ 1932, Le mode de formation des gisements oolithiques en Lorraine et au Luxembourg: Acad. sci. [Paris] Comptes rendus, tome 194, p. 1172-1175.
- 79 Armes, Ethel, 1910, The story of coal and iron in Alabama: Cambridge, Mass., The University Press, 581 p.
- 80 Armstrong, J. E., 1944, Preliminary map, Smithers Coast district, B. C.: Canada Geol. Survey Paper 44-23, map.
- 81 Armstrong, J. E., and Thurber, J. B., 1945, Manson Creek map area, B. C., report and map: Canada Geol. Survey Paper 45-9, 19 p.
- 82 Asano, Goro, 1941, Iron ore from Mashan, Linkou prefecture, Tungan province: Manchoukuo Geol. Inst. Bull. 104, p. 17-36.
- 83 _____ 1942, The banded iron ore at Yingtaoyuan, Fengtien province, Manchuria, with special reference to its granule structure: Manchoukuo Geol. Inst. Bull. 106, p. 1-22.
- 84 _____ 1942, Study on eulysite or eulysitic iron ore: Manchoukuo Geol. Inst. Mem. 17, p. 1-97.
- 85 _____ 1953, the banded iron ore deposits of An-Shan and the other districts: Compilation Committee of the Geol. and Min. Res. of the Far East, Tokyo. U. S. Geol. Survey Pacific Coast Geol. Surveys, no. 159, 25 p. Translation prepared by Military Geology Branch, U. S. Geol. Survey, for Intelligence Div., Office of the Engineer, Headquarters, U. S. Army Forces, Far East.
- 86 Ashburner, C. A., 1885, Note on iron ore in Cameron County: Pa. Geol. Survey, 2d Ann. Rept., p. 363-368.
- 87 Ashley, G. H., 1910, Outline introduction to the mineral resources of Tennessee: Tenn. Geol. Survey Bull. 2-A, p. 1-65.
- 88 Ashley, G. H., and others, 1944, Pennsylvania's mineral heritage: Pa. Topog. and Geol. Survey, 4th ser., p. 73-200.
- 89 Attaya, J. S., 1952, Lafayette County iron ores: Miss. Geol. Survey Bull. 74, 26 p.
- 90 Attia, M. I., 1950, The geology of iron-ore deposits of Egypt: Geol. Survey Egypt, 34 p.
- 91 _____ 1952, The geology of iron ore deposits of Egypt: Internat. Geol. Cong., 18th sess., London, 1948, Proc., pt. 13, p. 6-13.

Index

No.

- 92 Atwater, G. I., 1935, A summary of the stratigraphy and structure of the Gogebic iron range, Michigan and Wisconsin: Kans. Geol. Soc. Guidebook, 9th Ann. Field Conf., p. 417-420.
- 93 _____ 1938, Correlation of the Tyler and the Copps formations of the Gogebic iron district, Michigan and Wisconsin: Geol. Soc. America Bull., v. 49, no. 2, p. 151-194.
- 94 Aurand, H. A., 1920, Mineral deposits of the western slope: Colo. Geol. Survey Bull. 22, p. 12, 36, 55.
- 95 Averill, C. V., 1942, Mines and mineral resources of Sierra County: Calif. Jour. Mines and Geology, v. 38, chap. 1, p. 48-49.
- 96 Ayres, V. L., 1944, Republic area: Mich. Geol. Survey Progress Rept. 10, p. 31-46.
- 97 Back, A. E., Chindgren, C. J., and Peterson, R. G., 1952, Treatment of titaniferous magnetite ore from Iron Mountain, Wyo.: U. S. Bur. Mines Rept. Inv. 4902, 15 p.
- 98 Backlund, H. G., 1952, Some aspects of ore formation, Precambrian and later: Edinburgh Geol. Soc. Trans., v. 14, pt. 3, p. 302-328.
- 99 Bacon, L. O., and Wyle, D. O., 1951, Gravity investigations in the Iron River-Crystal Falls mining district of Michigan: Am. Inst. Min. Metall. Eng., Prelim. paper on rept. at sec. mtg., May 26, Houghton, Mich., 17 p.
- 100 Bacon, W. R., 1954, Iron ores of the Pacific Northwest: Western Miner (and Oil Rev.), v. 27, no. 8, p. 38-41.
- 101 Baievsky, Boris, 1925, Iron and alloy metals in Siberia: Washington, U. S. Bur. Foreign and Domestic Commerce, 28 p.
- 102 Bain, H. F., 1911, Types of ore deposits: San Francisco, Min. Sci. Press, 378 p.
- 103 Baird, D. M., 1954, The magnetite and gypsum deposits of the Sheep Brook-Lookout Brook area [Newfoundland]: Canada Geol. Survey Bull. 27, p. 20-41.
- 104 Baker, C. L., 1934, Metallic and non-metallic minerals and ores: Tex. Univ., Bur. Econ. Geology Bull. 3401, The Geology of Texas, v. 2, p. 423-482.
- 105 Baker, M. B., 1911, Iron and lignite in the Mattagami basin, Ont.: Ontario Bur. Mines Ann. Rept. 20, p. 214-246.
- 106 _____ 1911, The iron ores of the Mattagami River, Ont.: Canadian Min. Inst. Quart. Bull., v. 14, p. 145-155.
- 107 _____ 1943, Gold and iron prospects in Canada: Royal Soc. Canada Proc. and Trans., 3d ser., v. 37, sec. 4, p. 1-8.
- 108 Ball, L. C., 1904, Report on certain iron-ore, manganese-ore, and limestone deposits in the central and southern districts of Queensland: Queensland Geol. Survey Pub. 194, p. 1-66.
- 109 *Ball, S. H., 1907, The Hartville iron-ore range, Wyoming: U. S. Geol. Survey Bull. 315, p. 190-205.
- 110 * _____ 1907, Titaniferous iron ore of Iron Mountain, Wyo.: U. S. Geol. Survey Bull. 315, p. 206-212.
- 111 Ball, S. H., and Broderick, T. M., 1919, Magmatic iron ore in Arizona: Eng. Min. Jour., v. 107, p. 353-354.

Index
No.

- 112 Ball, S. M., 1909, Review of fossil iron-ore deposits of Georgia: Eng. Min. Jour., v. 88, p. 200-204.
- 113 Ballinger, H. J., and Pesonen, P. E., 1948, Investigation of southeast Missouri secondary limonite deposits, Wayne, Butler, and Ripley Counties, Mo.: U. S. Bur. Mines Rept. Inv. 4314, 46 p.
- 114 *Balsley, J. R., 1944, Vanadium-bearing magnetite-ilmenite deposits near Lake Sanford, Essex County, N. Y.: U. S. Geol. Survey Bull. 940-D, p. 99-123.
- 115 * _____ 1946, Map of part of Iron County, Mich., showing part of an area of aeromagnetic survey and magnetic trend lines: U. S. Geol. Survey Geophys. Inv. Prelim. Rept. 3.
- 116 _____ 1950, Aeromagnetic and geologic map of Cranberry Lake quadrangle, New York: U. S. Geol. Survey open-file map.
- 117 _____ 1950, Aeromagnetic and geologic map of Starke and Childwold quadrangles and part of Russell quadrangle, New York: U. S. Geol. Survey open-file map.
- 118 Balsley, J. R., Hill, M. E., and Meuschke, J. L., 1949, Total intensity aeromagnetic map and accompanying magnetic profiles of Todd County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 119 _____ 1949, Total intensity aeromagnetic map and accompanying magnetic profiles of Wadena County and part of Hubbard County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 120 _____ 1951, Total intensity aeromagnetic map and accompanying magnetic profiles of part of Becker County, Minn.: U. S. Geol. Survey Geophys. Inv. GP 48. 35c.
- 121 _____ 1951, Total intensity aeromagnetic map and accompanying magnetic profiles of parts of Clearwater and Mahnomon Counties, Minn.: U. S. Geol. Survey Geophys. Inv. GP 47. 35c.
- 122 _____ 1951, Total intensity aeromagnetic map and accompanying magnetic profiles of parts of Clearwater, Polk, and Red Lake Counties, Minn.: U. S. Geol. Survey Geophys. Inv. GP 46. 35c.
- 123 _____ 1951, Total intensity aeromagnetic map and accompanying magnetic profiles of parts of Douglas and Grant Counties, Minn.: U. S. Geol. Survey Geophys. Inv. GP 51. 35c.
- 124 _____ 1951, Total intensity aeromagnetic map and accompanying magnetic profiles of the northern part of Otter Tail County, Minn.: U. S. Geol. Survey Geophys. Inv. GP 49. 35c.
- 125 _____ 1951, Total intensity aeromagnetic map and accompanying magnetic profiles of the southern part of Otter Tail County, Minn.: U. S. Geol. Survey Geophys. Inv. GP 50. 35c.
- 126 Balsley, J. R., James, H. L., and Weir, K. L., 1949, Aeromagnetic survey of parts of Baraga, Iron, and Houghton Counties, Mich., with preliminary geologic interpretation: U. S. Geol. Survey Geophys. Inv. map. 30c.
- 127 Balzola, José, 1928, Iron ore mining in Vizcaya, Spain: Iron and Steel Inst. Jour., v. 118, no. 2, p. 15-55.
- 128 Bandel, Werner, 1937, Die alluvialen Eisenerze in SW-Mecklenburg und ihre Entstehung: Geol. Landesanst. [Mecklenburg] Mitt., Heft 46 (neue Folge 11), 13 p.

Index
No.

- 129 Bandy, M. C., 1930, The genesis of lodestone: *Econ. Geology*, v. 25, no. 8, p. 868-870.
- 130 Bannerman, H. M., 1930, Mineral deposits of the eastern part of Rush River map area, Woman River district, Ontario: *Canada Geol. Survey Summary Rept. 1928*, pt. C, p. 17-27.
- 131 _____ 1934, Rush Lake area, Sudbury district, Ontario: *Canada Geol. Survey Summary Rept. 1933*, pt. D, Pub. 2351, p. 38-82.
- 132 *Bardill, J. D., 1947, Magnetic surveys, Dannemora magnetite district, Clinton County, N. Y.: *U. S. Bur. Mines Rept. Inv. 4002*, 7 p.
- 133 * _____ 1947, Magnetic surveys, Redford-Clayburg magnetite district, Saranac and Black Brook, Clinton County, N. Y.: *U. S. Bur. Mines Rept. Inv. 4003*, 6 p.
- 134 _____ 1948, Magnetic surveys, Russian Station magnetite district, Clinton County, N. Y.: *U. S. Bur. Mines Rept. Inv. 4008*, 7 p.
- 135 Barnes, V. E., and Romberg, Frederick, 1943, Gravity and magnetic observations on Iron Mountain magnetite deposit, Llano County, Tex.: *Geophysics*, v. 8, no. 1, p. 32-45.
- 136 Barnes, V. E., Goldich, S. S., and Romberg, Frederick, 1949, Iron ore in the Llano region, central Texas: *Tex. Univ., Bur. Econ. Geology Rept. Inv. no. 5*, 47 p.
- 137 Barrett, E. P., 1949, Gaseous reduction methods for the production of sponge iron: *U. S. Bur. Mines Rept. Inv. 4402*, 45 p.
- 138 Barrett, E. P., and Wood, C. E., 1949, Relative reducibility of some iron oxide materials: *U. S. Bur. Mines Rept. Inv. 4569*, 17 p.
- 139 Bartley, M. W., 1939, Hematite deposits, Steeprock Lake, Ontario: *Canadian Inst. Mining and Metallurgy Trans.*, 1939, v. 42, p. 359-370.
- 140 _____ 1940, Iron deposits of the Steeprock Lake area (Ont.): *Ontario Dept. Mines 48th Ann. Rept.*, 1939, v. 48, pt. 2, p. 35-47; *Canadian Min. Jour.*, v. 61, no. 9, p. 572-586.
- 141 _____ 1946, Exploration and evaluation of iron ore deposits with special reference to northwestern Ontario: *Precambrian*, v. 19, no. 8, p. 7-9, 13.
- 142 _____ 1946, Prospecting for iron ore in northwestern Ontario: *Precambrian*, v. 19, no. 3, p. 7-9.
- 143 Bartling, Richard, 1934, Die Entstehung der Siegerländer Späteisensteingänge: *Deutsche Geol. Gesell. Zeitschr.*, Band 86, Heft 6, p. 344-348.
- 144 Bartz, Joachim, 1940, Die Bohnerzablagerungen in Rheinhessen und ihre Entstehung: *Reichstelle Bodenf. [Germany] Archiv Lagerstättenf.*, Heft 72, 57 p.
- 145 Bassi, H. G. L., 1952, Los depositos de ilmenita y magnetita titanífera de la mina Podesta (ex Romay): *Dir. Nac. Minería y Geología Argentina Bol.* 77, 25 p.
- 146 Bateman, A. M., 1950, *Economic mineral deposits*: 2d ed., New York, John Wiley & Sons, p. 561-578.
- 147 _____ 1951, The formation of late magmatic oxide ores: *Econ. Geology*, v. 46, no. 4, p. 404-426.
- 148 _____ 1951, *The formation of mineral deposits*: New York, John Wiley & Sons, 371 p.

Index
No.

- 149 Bateman, J. D., 1939, Geology of the North Spirit Lake area: Ontario Dept. Mines Ann. Rept. 1938, v. 47, pt. 7, p. 44-78.
- 150 Bath, G. D., 1951, Magnetic base stations in Lake Superior iron districts: U. S. Bur. Mines Rept. Inv. 4804, 16 p.
- 151 Batov, N. A., 1935, (The geology and mineralogy of the iron ore deposits of the Kondoma group): Materialy geologii Zapadno-sibirsk. kraya, vypusk (Rec. Geology West-Siberian Region, no.) 18, 92 p., Tomsk. [Russian, English summary.]
- 152 Baudet, J., 1942, Sur les anciennes mines de fer du Tournaisis: Soc. Belge géologie Bull., tome 50, p. 84-86.
- 153 Bauerman, H., 1898, The iron industry of the Urals: Colliery Guardian, v. 75, p. 882-884.
- 154 _____ 1898, On the iron-ore deposits of the Ural: Iron and Steel Inst. Jour., v. 53, p. 134-143.
- 155 Baumberger, E., 1908, Die Eisenerze im Schweizerjura: Naturf. Gesell. Bern Mitt., 1907, p. 58-67.
- 156 Baumgaertel, B., 1903, Der Erzberg bei Hüttenberg in Kärnten: K.-k. Geol. Reichsanst., Jahrb. Band 52, p. 219-244.
- 157 Bayard, 1899, Notes sur les gisements de minerais de fer des presqu'îles de Kertch et de Taman (Russie): Annales mines [Paris] sér. 9, v. 15, p. 505-522.
- 158 *Bayley, W. S., 1904, The Menominee iron-bearing district of Michigan: U. S. Geol. Survey Mon. 46, 513 p.
- 159 _____ 1910, Iron mines and mining in New Jersey: N. J. Geol. Survey Final Rept. 7, 512 p.
- 160 _____ 1912, A peculiar hematite ore on the tract of the Durham mine, Durham, Pa.: Econ. Geology, v. 7, p. 179-184.
- 161 _____ 1921, The magnetitic ores of North Carolina—their origin: Econ. Geology, v. 16, no. 2, p. 142-152.
- 162 _____ 1922, A magnetite-marble ore at Lansing, N. C.: Elisha Mitchell Sci. Soc. Jour., v. 37, nos. 3-4, p. 138-152.
- 163 * _____ 1923, General features of the brown hematite ores of western North Carolina: U. S. Geol. Survey Bull. 735-F, p. 157-208.
- 164 * _____ 1923, General features of the magnetite ores of western North Carolina and eastern Tennessee: U. S. Geol. Survey Bull. 735-G, p. 209-270.
- 165 _____ 1923, The magnetic iron ores of eastern Tennessee and western North Carolina: N. C. Geol. Survey Bull. 32, 252 p.; Tenn. Div. Geology Bull. 29, 252 p.
- 166 _____ 1923, The occurrence of rutile in the titaniferous magnetites of western North Carolina and eastern Tennessee: Econ. Geology, v. 18, no. 4, p. 382-392.
- 167 _____ 1925, Deposits of brown iron ores (brown hematite) in western North Carolina: N. C. Geol. Survey Bull. 31, 76 p.
- 168 * _____ 1941, Pre-Cambrian geology and mineral resources of the Delaware Water Gap and Easton quadrangles, New Jersey and Pennsylvania: U. S. Geol. Survey Bull. 920, 98 p.
- 169 *Bayley, W. S., Salisbury, R. D., and Kummel, H. B., 1914, Description of the Raritan quadrangle, New Jersey: U. S. Geol. Survey Geol. Atlas, folio 191, 32 p.
- 170 Bazhenov, I. K. 1934, The geological structure of the west part of the west Sayan: Materialy geologii Zapadno-sibirsk. Kraya vypusk (Rec. Geology West-Siberian Region, no.) 3, 55 p. Tomsk. [Russian, English summary.]

Index
No.

- 171 Bazhenov, I. K., and Kus, A. K., 1931, [On the new iron ore deposit at the head of Teja River in Kusnetsk Alatau]: Zapadno-sibirsk. geol.-razved. trest Vestnik 1931, report 3, p. 46-55. [Russian.]
- 172 Beck, A. C., 1947, Iron sands at Waitara, New Plymouth: New Zealand Jour. Sci. and Technology, v. 28, no. 6, p. 307-313.
- 173 Beck, R., and Döring, T., 1908, Über ein merkwürdiges Eisenerz aus dem böhmischen Mittelgebirge: Mineralog. petrog. Mitt., neue Folge, v. 26, p. 481-486.
- 174 Becker, Hans, 1931, Die präkambrische Geschichte des Lake Superior-Gebietes, Nordamerika: Geol. Rundschau, Band 22, no. 6, p. 385-411.
- 175 Beckwith, L. F., 1880, The Arcadia iron property (Botetourt County, Va.): The Virginias, v. 1, p. 110-112, Staunton, Va.
- 176 Beeler, H. C., 1908, Wyoming mines, 1907; a summary of the conditions and progress in the copper, gold, placer, iron, asbestos, sulphur, stone, plastic minerals, gravel, oil, natural gas, and coal industries: Laramie, Wyo., 46 p.
- 177 Behre, C. H., Osborn, E. F., and Rainwater, E. H., 1936, Contact ore deposition at the Calumet iron mine, Colorado: Econ. Geology, v. 31, no. 8, p. 781-804.
- 178 Behrend, Fritz, 1934, Rezenter Vulkanismus und die Bildung von Eisenerzen: Deutsche Geol. Gesell. Zeitschr., Band 86, Heft 6, p. 360-367.
- 179 Bell, I. L., 1875, Notes on a visit to coal and iron mines and iron works in the United States: Newcastle-on-Tyne, 66 p.
- 180 Bell, J. J., 1908, The Moose Mountain iron range: Eng. Min. Jour., v. 85, p. 805.
- 181 Bellinger, J., 1903, Ueber die Entstehung der Mangan-und Eisenerzvorkommen bei Niedertiefenbach in Lahnthal: Zeitschr. prakt. Geologie, Jahrg. 11, p. 231-241.
- 182 Benecke, E. W., 1905, Die Versteinerungen der Eisenerzformation von Deutsch-Lothringen und Luxemburg: Geol. Karte Elsass-Lothringen Abh., neues ser. no. 6, p. 1-598.
- 183 Bengston, R. J., Moore, D. D., Ramsey, R. H., and Lund, R. J., 1950, Survey report on mineral resources of southeast Ohio to the southeast Ohio Regional Council: Ohio Geol. Survey, 108 p.
- 184 Benitez, Alberto Terrones, 1944, Cerro de Mercado, Mexico's iron mountain: Eng. Min. Jour., v. 145, no. 9, p. 88-89.
- 185 Benjovsky, T. D., 1947, Contributions of New Mexico's mineral industry to World War II: N. Mex. Bur. Mines and Min. Res. Bull. 27, 76 p.
- 186 Benton, E. R., 1886, Notes on samples of iron ore collected in northern New England, Maryland, Virginia: U. S. 10th Census, v. 15, p. 79-82, 245-260, 261-288.
- 187 Berg, Georg, 1902, Die Magneteisenerzlager von Schmiedeberg im Riesengebirge: K. Preussische Geol. Landesanst., Jahrb. Band 23, p. 201-266.
- 188 ——— 1936, Die Eisenerzlagerstätte von Schmiedeberg im Riesengebirge: Zeitschr. prakt. Geologie, Jahrg. 44, Heft 12, p. 193-199.
- 189 ——— 1944, Vergleichende Petrographie oolithischer Eisenerze: [Germany] Reichsstelle Bodenf., Archiv Lagerstättenf., Heft 76, 128 p.
- 190 Bergounioux, F. M., 1947, Les terrains siderolithiques du nord du bassin d'Aquitaine: Houille, minerais, pétrole, an 2, no. 2, p. 47-51.

Index
No.

- 191 Berry, L. G., 1941, Geology of the Bigwater Lake area (Ont.): Ontario Dept. Mines 48th Ann. Rept., 1939, v. 48, pt. 12, 11 p.
- 192 Berz, K. C., 1922, Über Magneteisen in marinen Ablagerungen: Zentralbl. Mineralogie, p. 569-577.
- 193 Bétier, G., 1934, Les gisements de fer Nord-Africains, in *Le Fer, le manganèse, le chrome, le nickel, l'étain, le tungstène, le graphite, le glucinium, le molybdène, le cobalt, le titane, le vanadium*, v. 2 of *Les ressources minérales de la France d'outre mer*: Paris, Bur. d'études géol. et minières coloniales, 436 p.
- 194 Bevan, A. C., 1938, Virginia's mineral industries: Va. Geol. Survey Repr. ser. 2, 12 p.
- 195 Beyer, S. W., 1902, Iowa's iron mine, Allamakee County: Eng. Min. Jour., v. 73, p. 275-276.
- 196 Beyschlag, F., 1898, Die Manganeisenerzvorkommen der Lindener Mark bei Giessen in Oberhessen: Zeitschr. prakt. Geologie, Jahrg. 6, p. 94-96.
- 197 _____ 1912, Entwurf einer neuen, wirtschaftlichen Eisenerzinventur, in *Les ressources mondiales de minerai de fer*: Cong. géol. internat. II^e Sess., Stockholm, 1910, Comptes rendus, pt. 1, p. 265-328.
- 198 Bialkowski, A., 1931, Die Eisenerzlagertstätten in dem Gebiet von Radom und im nordlichen Teile der Gegend von Kielce: Ober-schles. Berg- u. Hüttenm. Ver. [Katowice] Zeitschr. 70, p. 19-24, 78-82, 125-131.
- 199 Bichelonne, Jean, and Angot, Pierre, 1938, La formation ferrifère lorraine: Nancy-Strasbourg, Comm. d'études géol. du bassin lorrain, Atlas, 26 maps.
- 200 _____ 1939, Le bassin ferrifère de Lorraine: Nancy-Strasbourg, Comm. d'études géol. du bassin lorrain, 483 p.
- 201 Billings, Elkanah, 1857, On the iron ores of Canada: Canadian Naturalist, v. 2, p. 20-28.
- 202 Billings, M. P., 1935, Geology of the Littleton and Moosilauke quadrangles, New Hampshire: [Concord], N. H. State Plan. Devel. Comm., 51 p.
- 203 Binyon, Eugene, 1949, Conveyor systems in underground iron-ore mines, Lake Superior district: U. S. Bur. Mines Inf. Circ. 7526, 33 p.
- 204 *Birkinbine, John, 1885, American blast-furnace progress: U. S. Geol. Survey Min. Res. U. S., 1883-1884, pt. c, p. 290-311.
- 205 _____ 1885, The Cerro de Mercado (Iron Mountain) at Durango, Mexico: Am. Inst. Min. Metall. Eng. Trans., v. 13, p. 189-209.
- 206 * _____ 1887, The iron ores east of the Mississippi River: U. S. Geol. Survey Min. Res. U. S., 1886, pt. b, p. 39-103.
- 207 _____ 1888, The iron ores of the United States: Franklin Inst. Jour., v. 96, p. 190-208.
- 208 _____ 1890, Crystalline magnetite in the Port Henry, N. Y., mines: Am. Inst. Min. Metall. Eng. Trans., v. 18, p. 747-762.
- 209 _____ 1892, Notes upon American iron ore deposits: Iron and Steel Inst. in America in 1890, Special V. of Proc., p. 361-402.
- 210 * _____ 1893, Iron ores: transportation of iron ores (of Lake Superior region): U. S. Geol. Survey Min. Res. U. S., 1891, pt. a, p. 28-35.
- 211 * _____ 1894, The production of iron ores in various parts of the world: U. S. Geol. Survey Min. Res. U. S., 1894, (Pt. 3 of Sixteenth Ann. Rept.), pt. a, p. 21-218.

Index
No.

- 212 Birkinbine, J. L. W., 1910, Exploration of certain iron-ore and coal deposits in the State of Oaxaca, Mexico: *Am. Inst. Min. Metall. Eng. Bull.*, v. 45, p. 671-693; *Trans.*, v. 41, p. 166-188, 1911.
- 213 Bishop, O. M., 1949, The mineral industry of Missouri in 1946 and 1947 with total production summarized: *Mo. Geol. Survey and Water Res. Inf. Circ.* 4, p. 35-41.
- 214 Bitzer, E. C., 1950, The trend of iron ore concentration in the Lake Superior district: *Colo. School Mines Quart.*, v. 45, no. 3A, p. 1.
- 215 Blaas, J., 1900, Ueber ein Eisenerz-Vorkommen im Stubai thale (Tyrol): *Zeitschr. prakt. Geologie*, Jahrg. 8, p. 369-370.
- 216 Blair, C. S., 1935, Relation of the mining geologist to the mining industry in the Birmingham district, Ala.: *Am. Inst. Min. Metall. Eng. Contr.* 31, 17 p., 1933; *Trans.*, v. 115, Mining geology, p. 290-306.
- 217 Blake, W. P., 1865, Iron regions of Arizona: *Am. Jour. Sci.*, 2d ser., v. 40, p. 388.
- 218 _____ 1866, Note on the abundance of iron ore in northern Arizona: *Calif. Acad. Nat. Sci. Proc.*, v. 3, p. 206-207.
- 219 _____ 1876, Notes on the occurrence of siderite at Gay Head, Mass.: *Am. Inst. Min. Metall. Eng. Trans.*, v. 4, p. 112-113.
- 220 _____ 1886, Iron ore deposits of southern Utah: *Am. Inst. Min. Metall. Eng. Trans.*, v. 14, p. 809-811.
- 221 Blakemore, William, 1902, The iron ore deposits near Kitchener, B. C.: *Canadian Min. Inst. Jour.*, v. 5, p. 76-80.
- 222 Blanchard, Roland, 1944, Chemical and mineralogical composition of twenty typical "limonites": *Am. Mineralogist*, v. 29, nos. 3-4, p. 111-114.
- 223 Blanchot, A., 1951, The iron ore deposit of Fort Gouraud [Mauretania, French West Africa]: *Chronique mines coloniales [Paris]*, v. 19, p. 187-188.
- 224 Bleloch, W. E., 1938, Gold and iron in the far western Transvaal: *South African Min. Eng. Jour.*, v. 49, pt. 2, no. 2390, p. 341-345.
- 225 Blondel, Fernand, 1953, Le symposium sur les mines de fer du monde; in *La genèse des gîtes de fer*: *Cong. géol. internat.*, 19^e sess., Alger, 1952, *Comptes rendus*, fasc. 10, p. 9-13.
- 226 _____ 1955, Iron ore deposits of Europe, Africa, and the Union of Soviet Socialist Republics, in *Survey of world iron ore resources—Occurrence, appraisal and use*: United Nations Pub. 1954. II. D. 5, New York, p. 224-264.
- 227 Blondel, Fernand, and Lasky, S. G., 1955, Concepts of mineral reserves and resources, in *Survey of world iron ore resources—Occurrence, appraisal and use*: United Nations Pub. 1954. II. D. 5, New York, p. 169-174.
- 228 Blondel, Fernand, and Marvier, L., editors, 1952, *Symposium sur les gisements de fer du monde*: Alger, 19^e Cong. géol. internat., tome 1, 638 p.; tome 2, 594 p.; tome 3, atlas.
- 229 Boalich, E. S., 1922, Notes on iron occurrences in California: *Calif. Div. Mines, Min. in Calif.*, v. 18, no. 3, p. 110-113.

Index
No.

- 230 Bodifée, 1907, Ueber die Genesis der Eisen- und Manganerz-vorkommen bei Ober-Rosbach in Taunus: Zeitschr. prakt. Geologie, Jahrg. 15, p. 309-316.
- 231 Boeckh, H., 1905, Die geologischen Verhältnisse des Vashegy, des Hradek und der Umgebung dieser: K. Ungarische Geol. Anst. Jahresber., v. 14, p. 63-89.
- 232 Boericke, W. F., 1940, The mineral resources of the Philippines for the years 1934-1938; part II, Base metals and nonmetallics: Philippines Bur. Mines Tech. Bull. 13, pt. 2, 156 p.
- 233 Boesch, H. H., 1936, Der Bergbau am Ofenpass nordlich der Passhöhe: Naturf. Gesell. Graubündens Jahresber., neue Folge, Band 74, p. 109-122.
- 234 Bondarev, K. N., 1934, The Koikary magnetite deposit in Karelia: Leningrad. Geol.-gidro.-geod. trest Izv. 4-5, p. 70-79. [Russian, English summary.]
- 235 Bonham, W. M., 1948, The hematite of Labrador and New Quebec: Canadian Min. Jour., v. 69, no. 6, p. 67-70.
- 236 _____ 1948, Iron deposits, Labrador and New Quebec: Canadian Min. Jour., v. 69, no. 10, p. 199-204.
- 237 _____ 1948, Iron mines of Ontario: Canadian Min. Jour., v. 69, no. 3, p. 75-78.
- 238 Booth, J. C., 1840, Analysis of a chromic iron ore from Mahobal, near Gibara, Island of Cuba: Am. Jour. Sci., v. 38, p. 243-245.
- 239 Borgström, L. H., 1928, The iron ore of Juvakaisenmaa, Finland: Fennia 50, no. 20, 20 p.
- 240 Born, K. E., 1932, The brown iron ores of the western Highland Rim of Tennessee: Tenn. Acad. Sci. Jour., v. 7, no. 1, p. 5-25.
- 241 Bose, P. N., 1906, Notes on the geology and mineral resources of the Narnaul district (Patiala State): Geol. Survey India Rec., v. 33, p. 55-61.
- 242 Botsford, G. B., and Mosier, McHenry, 1948, West Portal Magnetite mines, Hunterdon County, N. J.: U. S. Bur. Mines Rept. Inv. 4352, 11 p.
- 243 *Bouldovsky, A. K., 1930, The methods of underground mining of iron ore in the district of Krivoi Rog (translated by W. Ayvazoglou from original Russian): U. S. Bur. Mines Inf. Circ. 6254, 48 p.
- 244 Bourret, Weston, 1949, Aeromagnetic survey of the Allard Lake district, Quebec: Econ. Geology, v. 44, no. 8, p. 732-740.
- 245 *Boutwell, J. M., 1904, Iron ores in the Uinta Mountains, Utah: U. S. Geol. Survey Bull. 225, p. 221-228.
- 246 *Bower, A. S., 1883, The Bower-Barff process: U. S. Geol. Survey Min. Res. U. S., 1882, pt. b, p. 164-171.
- 247 Bowles, E. O., 1941, The geology and mineral resources of Cherokee County, Ala.: Ala. Geol. Survey Circ. 15, p. 16-23.
- 248 Bowron, W. M., 1880, The iron ores found at the Shenandoah Iron Works, Page County, Va., and the chemical composition of the iron made there: The Virginias, v. 1, no. 3, p. 39.
- 249 _____ 1886, The geology and mineral resources of Sequachee Valley, Tenn.: Am. Inst. Min. Metall. Eng. Trans, v. 14, p. 172-181.
- 250 _____ 1906, The origin of Clinton red fossil ore in Lookout Mountain, Ala.: Am. Inst. Min. Metall. Eng. Trans., v. 36, p. 587-604.

Index
No.

- 251 Boyd, C. R., 1881, Resources of southwest Virginia showing the mineral deposits of iron, coal, zinc, copper and lead: New York, John Wiley and Sons, 321 p.
- 252 _____ 1884, The ores of Cripple Creek, Va.: Am. Inst. Min. Metall. Eng. Trans., v. 12, p. 9, 27-40.
- 253 _____ 1887, The economic geology of the Bristol and Big Stone Gap section of Tennessee and Virginia: Am. Inst. Min. Metall. Eng. Trans., v. 15, p. 114-121.
- 254 _____ 1890, Middlesboro, Bell County, Ky., coal and iron deposits: Eng. Min. Jour., v. 49, p. 171-173.
- 255 Boyle, R. S., 1936, Virginia's mineral contribution to the Confederacy: Va. Geol. Survey Bull. 46-K, p. 117-123.
- 256 Boyum, B. H., 1954, The geology of the Marquette iron range, in Fourth mining geology symposium: Minneapolis, Minn., Univ. Center for Continuation Study, p. 3-8.
- 257 Bracewell, Smith, 1951, British Guiana; report on the Geological Survey Department for the year 1950: Georgetown, Demerara, 79 p.
- 258 Brainerd, A. F., 1885, Hematite of Franklin County, Vt.: Am. Inst. Min. Metall. Eng. Trans., v. 13, p. 689-691.
- 259 _____ 1888, A new discovery of carbonate iron ore at Enterprise, Miss.: Am. Inst. Min. Metall. Eng. Trans., v. 16, p. 146-148.
- 260 _____ 1889, Notes on the iron ores, fuels, and improved blast-furnace practice of the Birmingham district: Am. Inst. Min. Metall. Eng. Trans., v. 17, p. 151-155.
- 261 Braner, Wilhelm, 1935, Beiträge zur Kenntnis der variszischen Gesteins- und Mineralprovinz im Lahn-Dillgebiet; [pt] 5, Der Magneteisenstein der Grube Königszug bei Oberscheld und seine genetische Stellung: Oberhess. Gesell. Natur- u. Heilkunde Giessen Ber., Neue Folge, Band 16, p. 1-48.
- 262 Branner, G. C., and others, 1940, Mineral resources of Benton, Carroll, Madison, and Washington Counties: Ark. Geol. Survey County Min. Rept. 2, p. 8.
- 263 _____ 1940, Polk County: Ark. Geol. Survey County Min. Rept. 1, 41 p.
- 264 Brant, A. A., 1940, Geophysical work at Steeprock Lake, Ontario, 1938-1939: Ontario Dept. Mines 48th Ann. Rept. 1939, v. 48, pt. 2, p. 48-50; Canadian Inst. Mining and Metallurgy Trans., v. 43, p. 274-284; Canadian Min. Metall. Bull. 338.
- 265 Brauns, R., 1906, Ueber Eisenkiesel von Warstein: Neues Jahrb., Beil.-Band 21, p. 302-467
- 266 Breddin, Hans, 1934, Die Entstehung der Siegerländer Späteisensteingänge und ihrer Störungen im Zusammenhang mit dem Vorgang der Druckschieferung: Deutsche Geol. Gesell. Zeitschr., Band 86, Heft 6, p. 333-344.
- 267 Brewer, W. M., 1893, The brown ore deposit of Baker Hill, Ala.: Eng. Min. Jour., v. 55, p. 77-78.
- 268 _____ 1900, Iron ore deposits of Vancouver and Texada Islands; B. C.: Eng. Min. Jour., v. 69, p. 526.
- 269 _____ 1902, British Columbia iron and coal: Mines and Minerals, v. 23, p. 1-4.

Index

- 270 Brewer, W. M., 1917, Report on the occurrences of iron ore deposits on Vancouver and Texada Islands, B. C.: British Columbia Minister of Mines Ann. Rept., 1916, p. 304-360.
- 271 _____ 1920, Taseko Valley iron ore deposits: British Columbia Minister of Mines Ann. Rept., 1919, p. 241-251.
- 272 Brightman, G. F., 1942, Cuyuna iron range: *Econ. Geography*, v. 18, no. 3, p. 275-286.
- 273 Brinsmade, R. B., 1906, Hematite mining in New York: *Eng. Min. Jour.*, v. 82, p. 493-495, 554-556.
- 274 _____ 1908, 1909, The great iron fields of the Lake Superior district: *Min. Science*, v. 58, p. 425-427, 444-446, 465-467, 484-485, 505-507, 523-530, 1908; v. 59, p. 127-129, 149-151, 304-306, 325-327.
- 275 _____ 1918, Iron in Santo Domingo: *Min. Sci. Press*, v. 117, p. 356-358.
- 276 British Iron and Steel Federation, 1951, The world's iron ore supplies: *British Iron and Steel Federation Monthly Statist. Bull.*, v. 26, no. 9, p. 1-15.
- 277 Britton, J. B., 1881, Analyses of Campbell and Appomattox Counties, Va., iron and manganese ores, and limestones: *The Virginias*, v. 2, p. 170-171.
- 278 Broadhead, G. C., 1878, Missouri iron ores of the Carboniferous age: *Western Rev. Science and Industry*, v. 1, p. 650-654.
- 279 _____ 1880, Geological report upon the mineral lands of Major R. H. Melton (Benton and Hickory Counties, Mo.): *Sedalia, Mo.*, 12 p.
- 280 Brockamp, Bernhard, 1941, Der Nachweis von minetteartigen Erzen im Korallenoolith von Braunschweig: *Zeitschr. prakt. Geologie*, Jahrg. 49, Heft 1, p. 1-3.
- 281 Broderick, T. M., 1917, the relation of the titaniferous magnetites of northeastern Minnesota to the Duluth gabbro: *Econ. Geology*, v. 12, p. 663-696.
- 282 _____ 1918, Some features of magnetic surveys of the magnetite deposits of the Duluth gabbro: *Econ. Geology*, v. 13, p. 35-49.
- 283 _____ 1919, Detail stratigraphy of the Biwabik iron-bearing formation, east Mesabi district, Minn.: *Econ. Geology*, v. 14, p. 441-451.
- 284 _____ 1919, Some of the relations of magnetite and hematite: *Econ. Geology*, v. 14, p. 353-366.
- 285 _____ 1920, Economic geology and stratigraphy of the Gunflint iron district, Minn.: *Econ. Geology*, v. 15, p. 422-452.
- 286 _____ 1933, Application of geology to problems of iron ore concentration: *Am. Inst. Min. Metall. Eng. Contr.* 20, 17 p.
- 287 _____ 1935, Application of geology to problems of iron ore concentration, with discussion: *Am. Inst. Min. Metall. Eng. Trans.*, v. 115, Mining geology, p. 273-289.
- 288 *Brooks, A. H., and LaCroix, M. F., 1920, The iron and associated industries of Lorraine the Sarre district, Luxemburg, and Belgium: *U. S. Geol. Survey Bull.* 703, 131 p.

Index
No.

- 289 Brooks, T. B., 1873, Iron-bearing rocks (economic): Mich. Geol. Survey, Upper Peninsula, v. 1, pt. 1, 320 p.
- 290 _____ 1873, Iron bearing rocks (economic): Mich. Geol. Survey, Upper Peninsula, v. 2, 298 p.
- 291 _____ 1880, The geology of the Menominee iron region, Oconto County, Wis.: Wis. Geol. Survey, Geology of Wisconsin 1873-1879, v. 3, p. 429-599.
- 292 Brough, B. H., Ball, E. J., and Graves, H. G., 1900, Notes on the progress of the home and foreign iron and steel industries: Iron and Steel Inst. Jour., v. 52, p. 265-495.
- 293 Broughton, H. J., Chadwick, L. C., and Deans, T., 1950, Iron and titanium ores from the Bukusu Hill alkaline complex, Uganda: Colonial Geology and Min. Res., v. 1, no. 3, p. 262-266.
- 294 Broughton, W. A., 1942, Inventory of mineral properties in Snohomish County, Wash.: Wash. Div. Mines and Geology Rept. Inv. 6, 64 p.
- 295 _____ 1943, The Blewett iron deposit, Chelan County, Wash., with preliminary tonnage estimates: Wash. Div. Mines and Geology Rept. Inv. 10, 21 p.
- 296 _____ 1943, The Buckhorn iron deposits of Okanogan County, Wash.; Results of a magnetic survey: Wash. Div. Mines and Geology Rept. Inv. 8, 21 p.
- 297 _____ 1944, Economic aspects of the Blewett-Cle Elum iron ore zone, Chelan and Kittitas Counties, Wash.: Wash. Div. Mines and Geology Rept. Inv. 12, 42 p.
- 298 _____ 1945, Some magnetic iron deposits of Stevens and Okanogan Counties, Wash.: Wash. Div. Mines and Geology Rept. Inv. 14, 24 p.
- 299 Brown, Andrew, 1946, Exploration of tailing ponds in the Russellville, Ala., brown-ore district: U. S. Bur. Mines Rept. Inv. 3894, 31 p.
- 300 _____ 1948, North Alabama brown iron ores: U. S. Bur. Mines Rept. Inv. 4229, 82 p.
- 301 Brown, A. P., and Ehrenfeld, Frederick, 1913, Minerals of Pennsylvania: Pa. Topog. and Geol. Survey Rept. 9, p. 71-81.
- 302 Brown, C. W., 1910, Preliminary report on the natural resources survey of Rhode Island: R. I. Bur. Indus. Statistics Bull. 1, pt. 3, Ann. Rept. 1909, p. 57-128.
- 303 Brown, D. I., 1953, Taconite—Mesabi's answer to the iron ore shortage: Iron Age, v. 171, no. 11, p. 127-134.
- 304 Brown, E. L., and Morrison, W. F., 1942, Geology of the Josephine mine, Ontario; Hydrothermal origin of the hematite: Canadian Min. Jour., v. 63, no. 1, p. 5-9.
- 305 *Brown, G. F., Johnston, W. D., Jr., and Taylor, G. C., Jr., 1952, Geologic reconnaissance of the mineral deposits of Thailand: U. S. Geol. Survey Bull. 984, 183 p.
- 306 Brown, J. C., 1928, The iron ore deposits of the northern Shan States: Geol. Survey India Rec., v. 61, no. 2, p. 180-195.
- 307 Brown, W. R., Gates, D. W., Rowlands, C. E., Jr., and Straley, H. W., III, 1953, Magnetic reconnaissance, Dahlonga Special quadrangle, Lumpkin County, Ga.: Ga. Geol. Survey Bull. 60, p. 136-141.

Index

- No.
- 308 Browne, D. H., 1889, The distribution of phosphorus in the Ludington mine, Iron Mountain, Mich.—A study in isochemic lines: *Am. Inst. Min. Metall. Eng. Trans.*, v. 17, p. 616-632.
- 309 Browne, J. R., 1868, Mineral resources of the States and Territories west of the Rocky Mountains: Washington, D. C., U. S. Territory Dept., Gen. Printing Office, p. 219-228.
- 310 Brownell, G. M., 1945, The hematite on Black Island, Lake Winnipeg, Manitoba: *Canadian Inst. Mining and Metallurgy Trans.*, v. 48, p. 284-293.
- 311 Bruce, E. L., 1945, Pre-Cambrian iron formations: *Geol. Soc. America Bull.*, v. 56, no. 6, p. 589-602.
- 312 Bruhns, W., 1906, Die nutzbaren Mineralien und Gebirgsarten im deutschen Reiche. Berlin, p. 1-859.
- 313 Brunton, Stopford, 1913, Some notes on titaniferous magnetite: *Econ. Geology*, v. 8, no. 7, p. 670-680.
- 314 Buck, W. K., 1954, A survey of the iron ore industry in Canada during 1953: *Canada Mines Branch Min. Res. Inf. Circ. MR 2*, 21 p.
- 315 Buddington, A. F., 1934, Geology and mineral resources of the Hammond, Antwerp, and Lowville quadrangles (with a chapter on the Paleozoic rocks of the Lowville quadrangle, by Rudolf Ruedemann): *N. Y. State Mus. Bull.* 296, 251 p.
- 316 _____ 1937, Geology of the Santa Clara quadrangle, New York: *N. Y. State Mus. Bull.* 309, 56 p.
- 317 Buddington, A. F., and Leonard, B. F., 1944, Preliminary report on the geology of parts of the Stark and Cranberry Lake quadrangles, Adirondack magnetite district, St. Lawrence County, N. Y.: *U. S. Geol. Survey Prelim. Rept.*, 7 p., 2 maps.
- 318 _____ 1945, Geology and magnetite deposits of the Dead Creek area, Cranberry Lake quadrangle, N. Y.: *U. S. Geol. Survey Prelim. Rept.*, 9 p., 2 maps.
- 319 _____ 1945, Preliminary report on parts of Cranberry Lake and Tupper Lake quadrangles, northwest Adirondack magnetite district, N. Y.: *U. S. Geol. Survey Prelim. Rept.*, 11 p., 2 maps.
- 320 _____ 1949, Memorandum on the geology of the Crown Point, N. Y., group of magnetite deposits: *U. S. Geol. Survey open-file rept.*, 24 p.
- 321 _____ 1954, Geologic maps of part of St. Lawrence County, N. Y.: *U. S. Geol. Survey open-file rept.*, 9 maps, no text.
- 322 Bugge, J. A. W., 1948, Rana gruber; [Geologic exploration of iron ore deposits in Dunderlandsdalen]: *Norges Geol. Undersøkelse nr. 171*, 149 p. [Norwegian, English summary.]
- 323 _____ 1953, Sydvaranger geology: *Min. World*, v. 15, no. 11, p. 52-53.
- 324 Bulmer, G. H., 1905, The Alquife iron-ore mines in the south of Spain: *Inst. Civil Engineers, Minutes of Proc.*, v. 159, p. 312-314.
- 325 *Burchard, E. F., 1905, Iron ores in the Brookwood quadrangle, Alabama: *U. S. Geol. Survey Bull.* 260, p. 321-334.
- 326 * _____ 1907, The brown ores of the Russellville district, Ala.: *U. S. Geol. Survey Bull.* 315, p. 152-160.

Index
No.

- 327 *Burchard, E. F., 1907, The Clinton or red ores of the Birmingham district, Ala.: U. S. Geol. Survey Bull. 315, p. 130-151.
- 328 * _____ 1907, Southern red hematite as an ingredient of metallic paint: U. S. Geol. Survey Bull. 315, p. 430-434.
- 329 _____ 1908, The Clinton iron-ore deposits in Alabama: Am. Inst. Min. Metall. Eng. Bull., v. 24, p. 997-1055; Trans., v. 40, p. 75-133, 1910.
- 330 * _____ 1908, An estimate of the tonnage of available Clinton iron ore in the Birmingham district, Ala.: U. S. Geol. Survey Bull. 340, p. 308-317.
- 331 * _____ 1909, Tonnage estimates of Clinton iron ore in the Chattanooga region of Tennessee, Georgia, and Alabama: U. S. Geol. Survey Bull. 380, p. 169-187.
- 332 * _____ 1912, Iron ore, pig iron, and steel: Prospecting for iron ore; Electric smelting of iron ore (with bibliography): U. S. Geol. Survey Min. Res. U. S., 1911, pt. Ia, p. 140-165.
- 333 * _____ 1913, Iron ore, pig iron, and steel: Iron ore in the Eagle Mountains, Calif., extract from paper by E. C. Harder; Titaniferous magnetite in northwest Montana; "Clinton" hematite in eastern Wisconsin; Red iron ore in Tennessee, Alabama, and Georgia: U. S. Geol. Survey Min. Res. U. S., 1912, pt. Ia, p. 172-190.
- 334 _____ 1913, The red iron ores of east Tennessee: Tenn. Geol. Survey Bull. 16, 173 p.
- 335 * _____ 1914, Preliminary report on the red iron ores of east Tennessee, northeast Alabama, and northwest Georgia: U. S. Geol. Survey Bull. 540-G, p. 279-328.
- 336 * _____ 1915, Iron-bearing deposits in Bossier, Caddo, and Webster Parishes, La.: U. S. Geol. Survey Bull. 620-G, p. 129-150.
- 337 * _____ 1915, Iron ore in Cass, Marion, Morris, and Cherokee Counties, Tex.: U. S. Geol. Survey Bull. 620-E, p. 69-109.
- 338 * _____ 1916, Iron ore, pig iron, and steel: Beneficiated iron ore; Investigations of iron ore by the United States Geological Survey: U. S. Geol. Survey Min. Res. U. S., 1914, pt. Id, p. 507-525.
- 339 * _____ 1919, Iron: U. S. Geol. Survey Bull. 666-V, 12 p.
- 340 * _____ 1919, Iron ore, pig iron, and steel: Essential features of an iron-ore deposit; Bibliography: U. S. Geol. Survey Min. Res. U. S., 1916, pt. Id, p. 536-541, 559-564.
- 341 * _____ 1923, The brown iron ores of west-middle Tennessee: U. S. Geol. Survey Bull. 795-D, p. 53-112.
- 342 _____ 1924, Iron-ore resources of the South: Manufacturer's Rec., v. 86, no. 24, pt. 2, p. 283-289.
- 343 _____ 1927, Alabama ores equal lake supply: Iron Age, v. 119, no. 12, p. 847-850. Reprint from The iron-ore situation in the South: U. S. Geol. Survey Press Notice, 1927,
- 344 _____ 1927, The western Tennessee Valley iron region: Manufacturer's Rec., v. 92, no. 3, p. 69-73.
- 345 _____ 1928, Certain brown iron ores in Alabama: Econ. Geology, v. 23, no. 4, p. 454-458.
- 346 _____ 1928, Iron-ore reserves and production in Tennessee River basin: U. S. 70th Cong., 1st Sess., H. R. Doc. 185, p. 118-119.

Index
No.

- 347 Burchard, E. F., 1930, The Pao deposits of iron ore in the State of Bolivar, Venezuela: Am. Inst. Min. Metall. Eng. Trans., v. 96, p. 347-375, 1931, Tech. Pub. 295, 27 p.
- 348 * _____ 1931, Iron ore on Canyon Creek, Fort Apache Indian Reservation, Ariz.: U. S. Geol. Survey Bull. 821-C, p. 51-78.
- 349 _____ 1932, The Birmingham district, Ala.: Internat. Geol. Cong., 16th sess., United States, 1933, Guidebook 2, p. 113-125.
- 350 * _____ 1933, Iron ore in the Red Mountain formation in Greasy Cove, Ala.: U. S. Geol. Survey Circ. 1, 49 p.
- 351 _____ 1933, The sources of our iron ores: Jour. Chem. Education, v. 10, no. 4, p. 195-204; no. 5, p. 288-296.
- 352 _____ 1934, The brown iron ores of the western Highland Rim, Tenn.: Tenn. Div. Geology Bull. 39, 227 p.
- 353 _____ 1938, Iron ore available to Alabama blast furnaces: Min. and Metallurgy, v. 19, p. 183-184.
- 354 * _____ 1943, Manganiferous and ferruginous chert in Perry and Lewis Counties, Tenn.: U. S. Geol. Survey Bull. 928-D, p. 223-273.
- 355 _____ 1948, Summary of the iron-ore situation in California: Calif. Div. Mines Bull. 129, pt. N, p. 207-230.
- 356 Burchard, E. F., and Andrews, T. G., 1947, Iron ore outcrop of the Red Mountain formation in northeast Alabama: Ala. Geol. Survey Special Rept. 19, 375 p. (Prepared in cooperation with the U. S. Geological Survey.)
- 357 *Burchard, E. F., and Butts, Charles, 1910, Iron ores, fuels and fluxes of the Birmingham district, Ala.; with chapters on the origin of the ores, by E. C. Eckel: U. S. Geol. Survey Bull. 400, 204 p.
- 358 Burchard, E. F., Johnson, A. C., and Melcher, N. B., 1948, Iron, *in* Investigation of national resources, prepared by combined staffs of Bureau of Mines and Geological Survey, published as part of hearings before National Resources Economic Subcommittee of the Committee on Public Lands of the Senate, p. 251-254. Available from Superintendent of Documents, Government Printing Office, Washington 25, D. C. \$1.75 (unbound). Also available as "Mineral resources of the United States," Public Affairs Press, 2153 Florida Ave., Washington 8, D. C. \$5. (bound). Copies of map showing distribution of United States iron ore reserves available free on request to Director, U. S. Geological Survey, Washington 25, D. C.
- 359 Burgess, R. J., and Sanford, R. S., 1949, Investigation of Cheever limonite deposit, Berkshire County, Mass.: U. S. Bur. Mines Rept. Inv. 4423, 13 p.
- 360 Burrall, William, 1827, Notice of native iron from Canaan [Conn.]: Am. Jour. Sci., ser. 1, v. 12, p. 154.
- 361 Burton, S. E., and Sanford, R. S., 1949, Investigation of Boiling Springs manganese-iron deposits, Cumberland County, Pa.: U. S. Bur. Mines Rept. Inv. 4436, 20 p.
- 362 Butler, A. P., Jr., 1945, Dayton iron deposit, Lyon County, Nev.: U. S. Geol. Survey Prelim. Rept., 9 p., 3 maps, structure sections.
- 363 Butler, G. M., and Mitchell, G. J., 1916, Preliminary report of the geology and mineral resources of Curry County, Oreg.: Oreg. Bur. Mines and Geology, Min. Res. Oregon, v. 2, no. 2, 134 p.

Index

No.

- 364 Butler, J. W., Jr., 1940, Informe sobre el reconocimiento del yacimiento de hierro de "Pericos," Guasca, Cundinamarca: Bol. Minas y Petróleos [Bogotá], nums. 103-120, p. 111-122.
- 365 *Butts, Charles, 1906, Economic geology of the Kittanning and Rural Valley quadrangles, (Pennsylvania): U. S. Geol. Survey Bull. 279, 198 p.
- 366 * _____ 1910, Description of the Birmingham quadrangle, Alabama: U. S. Geol. Survey Geol. Atlas, folio 175, 24 p.
- 367 * _____ 1911, Iron ores in the Montevallo-Columbiana region: U. S. Geol. Survey Bull. 470, p. 215-230.
- 368 * _____ 1927, Description of the Bessemer and Vandiver quadrangles, Alabama: U. S. Geol. Survey Geol. Atlas, folio 221, 22 p.
- 369 _____ 1939, The Appalachian Plateau and Mississippi Valley, in North America, v. 1 of Krenker, Erich, ed., Geologie der Erde: Berlin, Gebrüder Borntraeger, p. 312-462.
- 370 _____ 1940, Description of the Montevallo and Columbiana quadrangles, Alabama: U. S. Geol. Survey Geol. Atlas, folio 226, 20 p. 50c.
- 371 _____ 1945, Description of the Hollidaysburg and Huntingdon quadrangles, Pennsylvania: U. S. Geol. Survey Geol. Atlas, folio 227, 20 p. \$2.
- 372 Butts, Charles, and Gildersleeve, Benjamin, 1948, Geology and mineral resources of the Paleozoic area in northwest Georgia: Ga. Geol. Survey Bull. 54, p. 117-123.
- 373 *Butts, Charles, and Moore, E. S., 1936, Geology and mineral resources of the Bellefonte quadrangle, Pennsylvania: U. S. Geol. Survey Bull. 855, 111 p.
- 374 Butts, Charles, Swartz, F. M., and Willard, Bradford, 1939, Geology and mineral resources, Tyrone quadrangle, Pennsylvania: Pa. Geol. Survey, 4th ser., Topog. and Geol. Atlas, no. 96, 118 p.
- 375 Cadman, John, 1901, The occurrence, mode of working, and treatment of the ironstones found in the North Staffordshire coal-field; Pt. 1—Blackband ironstones: Inst. Min. Engineers [London] Trans., v. 22, p. 89-111.
- 376 _____ 1903, The occurrence, mode of working, and treatment of the ironstones found in the North Staffordshire coal-field; Pt. 2—Clayband ironstones: Inst. Min. Engineers [London] Trans., v. 26, p. 106-119.
- 377 Cahen, Lucien, 1948, Étude d'échantillons "d'itabirite" du socle ancien de l'Entre-Luembe-Lubilash: Service mines [Katanga] Annales, tome 12-13, p. 93-119.
- 378 Caillère, Simonne, and Kraut, François, 1946, Contribution a l'étude minéralogique des minerais de fer oolithiques de Lorraine (bassin de Briey); Soc. Française minéralogie et cristallographie Bull., tome 69, no. 1-12, p. 83-98.
- 379 _____ 1947, Caractères essentiels des quatre horizons minéralisés du bassin de Longwy: Houille, minerais, pétrole, an. 2, no. 1, p. 10-17.
- 380 _____ 1952, Sur la genèse des minerais oolithiques de Lorraine en rapport avec l'état du fer et sur l'unité chronologique et spatiale de leur évolution: Acad. sci. [Paris] Comptes rendus, tome 235, no. 9, p. 510-511.
- 381 _____ 1953, Considérations sur la genèse des minerais de fer oolithiques lorrains, in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 101-117.

Index
No.

- 382 Caldwell, W. B., 1878, Notes on the coal and iron ore of western Kentucky: Ky. Geol. Survey, 17 p.
- 383 _____ 1880, Report on the limonite ores of Trigg, Lyon, and Caldwell Counties, known as the "Cumberland River ores": Ky. Geol. Survey Rept. Progress 5, new ser., p. 251-263.
- 384 Caley, J. F., 1936, Geology of Woodstock area, Carleton and York Counties, N. B.: Canada Dept. Mines Mem. 198, 21 p.
- 385 Calhoun, W. A., 1950, Titanium and iron minerals from black sands in bauxite: U. S. Bur. Mines Rept. Inv. 4621, 16 p.
- 386 California Division of Mines, 1934, Iron: Calif. Jour. Mines and Geology, v. 30, p. 62-65, 73, 370.
- 387 _____ 1938, Iron: Calif. Jour. Mines and Geology, v. 34, p. 17, 424-425, 474.
- 388 _____ 1939, Iron: Calif. Jour. Mines and Geology, v. 35, p. 29, 159-162, 183.
- 389 California State Mineralogist, 1880, Iron: Min. in Calif., v. 1, p. 15-16, 27-30, 32.
- 390 _____ 1882, Iron ores and iron industries of California: Min. in Calif., v. 2, p. 193-201.
- 391 _____ 1884, Iron: Min. in Calif., v. 4, p. 235-244.
- 392 _____ 1885, Iron: Min. in Calif., v. 5, p. 98-101.
- 393 _____ 1889, Iron: Min. in Calif., v. 9, p. 144, 235-236.
- 394 _____ 1894, Iron: Min. in Calif., v. 12, p. 325-327.
- 395 _____ 1896, Iron: Min. in Calif., v. 13, p. 504.
- 396 _____ 1916, Iron: Min. in Calif., v. 14, p. 52, 128, 271, 322, 408, 516, 554-558, 668, 732, 805-806, 865, 920.
- 397 _____ 1919, Iron: Min. in Calif., v. 15, p. 87, 390, 478, 544-545, 639-640, 688-689, 817-821, 917-918.
- 398 _____ 1921, Iron: Min. in Calif., v. 17, p. 84, 237, 259, 312, 327, 352, 498.
- 399 _____ 1923, Iron: Min. in Calif., v. 18, p. 110-113, 187-190, 218, 527, 732.
- 400 _____ 1924, Iron: Min. in Calif., v. 20, p. 196, 374.
- 401 _____ 1925, Iron: Min. in Calif., v. 21, p. 162, 191, 293, 317-318, 349-350, 491, 515-522.
- 402 _____ 1926, Iron: Min. in Calif., v. 22, p. 82-84, 236, 262, 335, 441, 474-475.
- 403 _____ 1927, Iron: Min. in Calif., v. 23, p. 199, 281, 295-313.
- 404 _____ 1928, Iron: Min. in Calif., v. 24, p. 123, 133, 207, 336, 341-343.
- 405 _____ 1929, Iron: Min. in Calif., v. 25, p. 56-57, 211-212, 218, 489-491.
- 406 _____ 1930, Iron: Min. in Calif., v. 26, p. 260-264, 407.
- 407 _____ 1931, Iron: Min. in Calif., v. 27, p. 333-337.

Index

- 408 Callahan, W. H., and Newhouse, W. H., 1929, A study of the magnetite ore body at Cornwall, Pa.: *Econ. Geology*, v. 24, no. 4, p. 403-411.
- 409 Calvin, Samuel, 1900, Report on iron ore, in administrative reports: *Iowa Geol. Survey*, v. 10, p. 23-25.
- 410 Cameron, J. M., 1911, The Cranberry iron-ore mine; large deposit of high grade magnetite (Iron Mountain, Mitchell County, N. C.): *Mines and Minerals*, v. 32, p. 42-44.
- 411 Campbell, D. F., 1906, The iron ore of Shasta County, Calif.: *Min. Sci. Press*, v. 93, p. 603.
- 412 Campbell, J. L., 1880, Geological features of the Arcadia iron property (Botetourt County, Va.): *The Virginias*, v. 1, p. 104-105.
- 413 _____ 1880, The geology of the Rich Patch, Va., iron region: *The Virginias*, v. 1, p. 185, 188-189, 192-193.
- 414 _____ 1880, The mineral resources and advantages of the country adjacent to the James River and Kanawha Canal and the Buchanan and Clifton Forge Railway: *The Virginias*, v. 1, p. 2-9.
- 415 _____ 1880, The Purgatory iron property, Botetourt County, Va.: *The Virginias*, v. 1, p. 156-158.
- 416 _____ 1882, The Clinton and Oriskany iron ores near Richmond and Allegheny R. R.: *The Virginias*, v. 3, p. 126-129.
- 417 Campbell, Tom, 1948, Quebec-Labrador, Canada's iron ore jackpot: *Iron Age*, v. 162, no. 19, p. 151-161.
- 418 Camsell, Charles, 1910, The mineral resources of a part of the Yale district, B. C.: *Canadian Min. Inst. Quart. Bull.* 12, p. 119-134.
- 419 Canadian Institute of Mining and Metallurgy, 1948, Structural geology of Canadian ore deposits, a symposium: Montreal, 948 p.
- 420 Canaval, R., 1904, Das Eisensteinvorkommen zu Köhlbach an der Stubalpe: *Berg- u. hüttenm. Jahrb.*, v. 52, p. 145-158.
- 421 Canavan, F., and Edwards, A. B., 1938, The iron ores of Yampi sound, Western Australia: *Australasian Inst. Min. and Metallurgy Proc.* 110, p. 59-101.
- 422 Cândido de Medeiros, Artur, 1950, *Geologica do jazigo de ferro de Guadramil: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos*, v. 6, p. 82-106.
- 423 Cantley, Thomas, 1911, The Wabana iron mines of the Nova Scotia Steel and Coal Company, Ltd.: *Canadian Min. Inst. Quart. Bull.*, v. 15, p. 31-56.
- 424 Capacci, Celso, 1911, The iron mines of the Island of Elba: *Iron and Steel Inst. Jour.*, v. 84, no. 2, p. 412-450.
- 425 Capistrano, P. M., 1952, Preliminary report on the geology and ore possibilities of the Camalaniugan iron prospect in Cagayan Province: *Philippines Bur. Mines Rept. Inv.* 4, 8 p.; *Philippine Geologist*, v. 6, no. 3, p. 52-59.
- 426 Carithers, L. W., and Guard, A. K., 1945, Geology and ore deposits of the Sultan Basin, Snohomish County, Wash.: *Wash. Div. Mines and Geology Bull.* 36, 90 p.
- 427 Carlson, Lucile, 1952, The mining district of Kiruna Stad, Sweden: *Sci. Monthly*, v. 74, no. 2, p. 76-83.

Index

- 428 Carlyle, E. J., 1905, The Pioneer iron mine, Ely, Minn.: Canadian Min. Inst. Jour., v. 7, p. 335-367.
- 429 Carman, J. S., and Delaitre, P. C., 1953, Iron ore for the future at Mutun, Bolivia: Eng. Min. Jour., v. 154, no. 5, p. 136-138.
- 430 Carney, Frank, 1910, The economic mineral products of Ohio: Denison Univ. Sci. Labs. Bull. 16, p. 137-181.
- 431 Carpenter, J. A., 1929, The mineral resources of southern Nevada: Nev. Bur. Mines Bull. 1, no. 1, p. 17-18.
- 432 Carr, M. S., and Dutton, C. E., Iron-ore resources of the United States: U. S. Geol. Survey Bull. (In press.)
- 433 Carr, M. S., and Pesonen, P. E., 1952, Iron ore—A test for technology, in Materials Policy Commission, The outlook for key commodities, v. 2 of Resources for freedom: Washington, U. S. Govt. Print. Off., p. 146-148.
- 434 Carstens, C. W., 1933, Eisen und Manganwiesenerze in Tarmfjorddal: Zeitschr. prakt. Geologie, Jahrg. 41, Heft 7, p. 113-117.
- 435 Carvajal y Acuna, E., 1944, Iron deposits of Seville: Inst. Geol. Min. España Mem. 6, p. 237-454.
- 436 Case, E. C., 1925, The valley of east Tennessee—the adjustment of industry to natural environment: Tenn. Dept. Education, Div. Geol. Bull. 36, p. 55-65.
- 437 Castano, J. R., and Garrels, R. M., 1950, Experiments on the deposition of iron with special reference to the Clinton iron ore deposits: Econ. Geology, v. 45, no. 8, p. 755-770.
- 438 Castleman, J. W., 1899, The brown iron ore mines near Leeds, in Jefferson County, Ala.: Ala. Indus. Sci. Soc. Proc., v. 9, p. 13-18.
- 439 Castro Leandro, G. de, 1947, Breve noticia sobre o jazigo de ferro-titânio da praia de S. Torpes (Sines): Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 3, p. 212-216.
- 440 Catlett, Charles, 1900, The Donald iron ore mine, Va.: Eng. Min. Jour., v. 70, p. 485.
- 441 _____ 1900, Iron ores of the Potsdam formation in the Valley of Virginia: Am. Inst. Min. Metall. Eng. Trans., v. 29, p. 308-317.
- 442 _____ 1908, Barite associated with iron ore in the Pinar del Río Province, Cuba: Am. Inst. Min. Metall. Eng. Trans., v. 38, p. 358-359.
- 443 Cavallier, C., and Daubine, F., 1900, Fonçage par congélation du Puits no. 1 de la mine de fer d'Aubone de la Société anonyme des Hautes-Fourneaux de Pont-a-Mousson (Meurthe-et-Moselle): Annales mines [Paris], ser. 9, v. 18, p. 379-496.
- 444 Cayeux, L., 1931, Les minerais de fer de l'ouest de la France: Rév. univ. mines [Liège], ser. 8, v. 4, no. 11, p. 297-306.
- 445 Chace, F. M., Cater, Fred, Byers, Virginia, and others, 1947, Map showing metallic mineral deposits of Montana: U. S. Geol. Survey Missouri Basin Studies, no. 16. 30c.
- 446 Chamberlin, T. C., 1880, Clinton iron ore deposits: Wis. Geol. Survey, Geology of Wisconsin 1873-1879, v. 2, p. 327-335.
- 447 Chambers, R. E., 1896, A Newfoundland iron deposit: Canadian Min. Inst. Jour., v. 1, p. 41-52.

Index

No.

- 448 **Chance, H. M.**, 1900, The Rich Patch iron tract, Va.: *Am. Inst. Min. Metall. Eng. Trans.*, v. 29, p. 210-223.
- 449 _____ 1901, The iron mines of Hartville, Wyo.: *Am. Inst. Min. Metall. Eng. Trans.*, v. 30, p. 987-1003.
- 450 _____ 1908, A new theory of the genesis of brown hematite ores; and a new source of sulfur supply: *Am. Inst. Min. Metall. Eng. Bull.*, v. 23, p. 791-808; *Trans.*, v. 39, p. 522-539, 1909.
- 451 _____ 1908, The pyritic origin of iron ore deposits; Discussion, by G. L. Cabot: *Eng. Min. Jour.*, v. 86, p. 408-410, 630.
- 452 **Chapman, E. J.**, 1885, On some deposits of titaniferous iron ore in the Counties of Haliburton and Hastings, Ont.: *Royal Soc. Canada Proc. and Trans.*, v. 2, p. 159-160.
- 453 _____ 1885, On some iron ores of central Ontario: *Royal Soc. Canada Proc. and Trans.*, v. 3, sec. 3, p. 9-14.
- 454 **Chapman, H. H., Adamson, W. M., Bonham, H. D., Pallister, H. D., and Wright, E. C.**, 1953, The iron and steel industries of the South: University, Ala., University of Alabama Press, 427 p.
- 455 **Charrin, Victor**, 1941, Le gisement de limonite de Biriadou (Basses-Pyrénées): *Génie civil*, tome 117, no. 21-22, p. 217.
- 456 _____ 1941, Les minerais de fer oolithiques de la vallée du Rhône: *Génie civil*, tome 117, no. 1-2, p. 14-15.
- 457 _____ 1948, Les minerais de fer et les argiles du sidérolithique du Périgord: *Génie civil*, tome 125, no. 8, p. 153-154.
- 458 **Chase, H. S.**, 1896, Southern magnetites and magnetic separation: *Am. Inst. Min. Metall. Eng. Trans.*, v. 25, p. 551-557.
- 459 **Chauvenet, Regis**, 1886, Preliminary notes on the iron resources of Colorado: *Colo. School Mines Ann. Rept.* 1885, p. 5-16.
- 460 _____ 1887, Notes on iron prospects in northern Colorado: *Colo. School Mines Bienn. Rept.* 1886, p. 13-21.
- 461 _____ 1888, Iron resources of Gunnison County, Colo.: *Colo. School Mines Ann. Rept.* 1887, p. 7-26.
- 462 _____ 1890, The iron resources of Colorado: *Am. Inst. Min. Metall. Eng. Trans.*, v. 18, p. 266-273.
- 463 **Chelarescu, Alex.**, 1938, Affleurement Huian; [Pt.] 7 of Gisements métallifères de Tulghes: *Annales sci. Univ. Jassy*, tome 24, no. 2, p. 346-372.
- 464 **Cheney, C. A., Jr.**, 1915, Structure of the Cuyuna iron ore district of Minnesota: *Eng. Min. Jour.*, v. 99, p. 1113-1115.
- 465 **Cheng, H. H., and Tang, K. C.**, 1936, Genesis of the iron ore at Hsishan and Leishan, Ocheng, Hupeh: *Geol. Soc. China Bull.*, v. 15, no. 4, p. 555-566.
- 466 _____ 1937, Paragenesis of the iron deposit at Tayeh, Hupeh: *Geol. Soc. China Bull.*, v. 17, no. 1, p. 1-21.
- 467 **Cheng, Y. C.**, 1942, Hsiaochetsing iron ore deposit near Maokupa, Huili district, Sikang: *Geol. Survey China Geol. Bull.* 35, p. 15-23. [Chinese, English summary.]
- 468 _____ 1942, The Luku magnetite deposit, Mienning, Sikang: *Geol. Survey China Geol. Bull.* 35, p. 1-14. [Chinese, English Summary.]

Index

- 469 Cheng, Y. C., Tsui, K. S., and Chow, T. C., 1942, Iron ore deposit of Tsaitsukou, Taofu, Sikang: Geol. Survey China Geol. Bull. 35, p. 29-44. [Chinese, English summary.]
- 470 Chermette, A., 1938, Le fer dans le cercle de Kandi (Haut-Dahomey): Service Mines [French West Africa] Bull. 2, p. 13-16.
- 471 Chester, A. H., 1881, The iron region of central New York: Utica, 20 p.
- 472 _____ 1884, The iron region of northern Minnesota: Minn. Geol. Survey Ann. Rept. 11, p. 155-167.
- 473 Chisolm, F. F., 1891, Iron ore beds at the Province of Santiago, Cuba: Colo. Sci. Soc. Proc., v. 3, p. 259-263.
- 474 Chukhrov, F. V., 1940, [The ore deposits of the Djezkazgan-Ulutau ore region in Kazakhstan]: Moskva-Leningrad, Inst. geol. nauk Akad. nauk, 120 p. (Russian, English summary.)
- 475 Chute, N. E., 1945, The brown iron-ore district of Berkshire County, Mass.: U. S. Geol. Survey open-file rept., 39 p.
- 476 Cirkel, Fritz, 1907, Preliminary report on the examination of the iron ore deposits in the Ottawa Valley: Canada Dept. Interior Supt. Mines Rept. 1907, p. 11-13.
- 477 _____ 1909, Report on the chrome iron ore deposits in the eastern townships, Province of Quebec: Canada Dept. Mines, 141 p.
- 478 _____ 1909, Report on the iron-ore deposits along the Ottawa (Quebec side) and Gatineau Rivers: Canada Dept. Mines, 147 p.
- 479 Clapp, C. H., 1910, Southern Vancouver Island, B. C.: Canada Geol. Survey Summary Rept. 1909, p. 84-97.
- 480 _____ 1912, Southern Vancouver Island, B. C.: Canada Geol. Survey Mem. 13, 208 p.
- 481 Clar, Eberhard, 1953, Geologisches Gefüge und Formentwicklung von metasomatischen Karbonatlagerstätten (Siderit und Magnesit) der Ostalpen, in *La genèse des gîtes de fer: Cong. géol. internat.*, 19^e sess., Algér, 1952, Comptes rendus, fasc. 10, p. 83-95.
- 482 Clark, E. L., and Mullenburg, G. A., 1954, The brown iron ore resources of Missouri: Min. Eng., v. 6, no. 1, p. 63-66.
- 483 Clark, L. D., 1953, Pre-Cambrian geology of the Norway Lake area, Dickinson County, Mich.: U. S. Geol. Survey open-file rept., 62 p.
- 484 Clarke, J. W., 1952, Geology and mineral resources of the Thomaston quadrangle, Ga.: Ga. Geol. Survey Bull. 59, 99 p.
- 485 Claudet, H., 1931, Iron mines and iron deposits of Ontario: Canadian Min. Metall. Bull., no. 323, p. 910-914.
- 486 Clayton, A. B., and Montgomery, W. B., Jr., 1948, Diamond drilling at the Big Ore Bank magnetite deposits, Lincoln County, N. C.: U. S. Bur. Mines Rept. Inv. 4347, 6 p.
- 487 *Clements, J. M., 1903, The Vermilion iron-bearing district of Minnesota: U. S. Geol. Survey Mon. 45, 463 p.
- 488 *Clements, J. M., and Smyth, H. L., 1898, The Crystal Falls iron-bearing district of Michigan, with a chapter on the Sturgeon River tongue, by W. S. Bayley, and an introduction, by C. R. Van Hise: U. S. Geol. Survey 19th Ann. Rept., 1897-98, pt. 3a, p. 1-151.
- 489 _____ 1899, The Crystal Falls iron-bearing district of Michigan, with a chapter on the Sturgeon River tongue, by W. S. Bayley, and an introduction by C. R. Van Hise: U. S. Geol. Survey Mon. 36, 512 p.

Index

No.

- 490 Clemson, T. G., 1835, Notice of native iron from Penn Yan, Yates County, N. Y.: Geol. Soc. Pa. Trans., v. 1, p. 358-359.
- 491 Clerf, F., 1936, Iron ores of France: Min. and Metallurgy, v. 17, no. 360, p. 567-568.
- 492 Cobb, J. C. H., 1887, The Hanging Rock iron district: Ohio Min. Jour., v. 5, p. 112-116.
- 493 Cocco, Giovanne, 1950, Il giacimento di magnetite di Sierra Leone: Facoltà sci. Univ. Cagliari Rend., Nota 1, fasc. 3-4, v. 20, 24 p.
- 494 Cockfield, W. E., 1947, Mineral localities, Nicola, Kamloops, and Yale districts, B. C., 1939-41; list of localities [indicating principal contained metals or minerals]: Canada Geol. Survey Map 887-A.
- 495 _____ 1948, Geology and mineral deposits of Nicola map-area, B. C.: Canada Geol. Survey Mem. 249, 164 p.
- 496 Coghill, W. H., and Coe, G. D., 1946, Mineral-dressing characteristics of the red iron ores of Birmingham, Ala.: U. S. Bur. Mines Bull. 464, 99 p. 35c.
- 497 Cole, G. E., 1948, The Steep Rock iron mine: Western Miner (and Oil Rev.), v. 21, no. 12, p. 98, 100, 102, 104.
- 498 Coleman, A. P., 1900, Copper and iron regions of Ontario: Ontario Bur. Mines Ann. Rept. 9, p. 143-191.
- 499 _____ 1901, Iron ranges of the lower Huronian: Ontario Bur. Mines Ann. Rept. 10, p. 181-212.
- 500 _____ 1902, Iron ranges of northwestern Ontario: Ontario Bur. Mines Ann. Rept. 11, p. 128-151.
- 501 _____ 1906, The Helen iron mine, Michipicoten: Econ. Geology, v. 1, p. 521-529.
- 502 _____ 1906, Iron ranges of eastern Michipicoten: Ontario Bur. Mines Ann. Rept. 15, p. 173-199.
- 503 _____ 1907, Iron ranges east of Lake Nipigon: Ontario Bur. Mines Ann. Rept. 16, p. 105-135.
- 504 _____ 1909, Black Sturgeon iron region, Ont.: Ontario Bur. Mines Ann. Rept. 18, p. 163-179.
- 505 _____ 1909, Iron ranges of Nipigon district, Ont.: Ontario Bur. Mines Ann. Rept. 18, p. 141-153.
- 506 Coleman, A. P., and Willmott, A. B., 1899, Michipicoten iron range: Ontario Bur. Mines Ann. Rept. 8, p. 254-258.
- 507 _____ 1902, The Michipicoten iron ranges, Ont.: Toronto Univ. Studies, Geol. Ser. no. 2, 47 p.
- 508 _____ 1902, The Michipicoten iron region: Ontario Bur. Mines Ann. Rept. 8, p. 152-185.
- 509 Collins, W. H., 1919, The ore deposits of Goudreau and Magpie-Hawk areas in Michipicoten district, Ont.: Canada Geol. Survey Summary Rept., 1918, pt. E, p. 4-30.
- 510 _____ 1920, The Michipicoten iron ranges: Canadian Inst. Min. Metallurgy Monthly Bull. 104, p. 930-939; Canadian Min. Inst. Trans., v. 23, p. 426-436, 1921.
- 511 _____ 1922, The geology of Ontario's iron ores: Canadian Min. Jour., v. 43, no. 37, p. 625-626.
- 512 Collins, W. H., Quirke, T. T., and Thomson, Ellis, 1926, Michipicoten iron ranges: Canada Geol. Survey Mem. 147, 175 p.

Index

- No.
- 513 Colony, R. J., 1923, The magnetite iron deposits of southeastern New York: N. Y. State Mus. Bull. 249-250, 161 p.
- 514 Colony, R. J., and Meyerhoff, H. A., 1935, The magnetite deposit near Humacao, Puerto Rico: Am. Inst. Min. Metall. Eng. Trans., v. 115, p. 247-272; Tech. Pub. 587, 28 p.
- 515 Comstock, T. B., 1890, A preliminary report on the geology of the central mining region of Texas: Tex. Geol. Survey 1st Ann. Rept., p. 237-391.
- 516 _____ 1891, Report on the geology and mineral resources of the central mining region of Texas: Tex. Geol. Survey 2d Ann. Rept., p. 553-664.
- 517 Congrès Géologique International, 1910, The iron ore resources of the world: Stockholm, Cong. géol. internat., 2 v., 1068 p.
- 518 Connolly, J. P., and O'Harra, C. S., 1929, The mineral wealth of the Black Hills: S. Dak. School Mines Bull. 16, p. 212-213.
- 519 Cook, K. L., 1950, Magnetic surveys in the Iron Springs district, Iron County, Utah: U. S. Bur. Mines Rept. Inv. 4586, 78 p.
- 520 *Cooke, S. R. B., 1936, Microscopic structure and concentratability of the more important iron ores of the United States: U. S. Bur. Mines Bull. 391, 121 p.
- 521 Cooledge, C. W., 1909, The iron deposits of the Black Hills, S. Dak.: Min. Science, v. 60, p. 319-321.
- 522 Cooper, B. N., 1939, Geology of the Draper Mountain area, Va.: Va. Geol. Survey Bull. 55, 98 p.
- 523 Corbin, J. R., 1921, Pennsylvania iron ores: Pa. Geol. Survey Bull. 20, 3 p.
- 524 _____ 1922, Bog-iron ore: Pa. Geol. Survey Bull. 59, 5 p.
- 525 _____ 1923, Brown iron ores in Pennsylvania: Pa. Geol. Survey Bull., 4th ser., no. 63, 7 p.
- 526 _____ 1923, Magnetite in Pennsylvania: Pa. Geol. Survey Bull., 4th ser., no. 61, 6 p.
- 527 Corkill, E. T., 1906, Mines of Ontario: Ontario Bur. Mines Ann. Rept. 15, pt. 1, p. 47-107.
- 528 Cornet, J., 1903, Les gisements métallifères du Katanga: Soc. géol. Belgique Annales, v. 30, p. 3-47.
- 529 Cornwall, H. R., 1951, Ilmenite, magnetite, hematite, and copper in lavas of the Keweenaw series: Econ. Geology, v. 46, no. 1; p. 51-67.
- 530 Cossio, L. P., 1932, Criaderos de hierro de Setiles y Tordesilbos, Provincia de Guadalajara: Bol. oficial minas [Madrid], v. 16, no. 185, 20 p.
- 531 Costa Almeida, J. M. da, and Mendes Pereira, Guilherme, 1947, Plano de reconhecimento da mina de ferro e manganés da Serra do Rosalgar: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 3, p. 69-87.
- 532 Costa Almeida, J. M. da, and Oliveira Barros, J. J. de, 1950, Jazigos de ferro e manganés de Odemira e Cercal, mina de serra das Tulhas: Serviço Fomento Mineiro [Portugal] Relatório 13, 33 p.

Index
No.

- 533 Costa Almeida, J. M. da, Martins da Silva, João, Nascimento Sancho, Joaquim, Mendes Pereira, Guilherme, and Oliveira Barros, J. J. de, 1946, Jazigos de ferro e manganés de Alentejo: Serviço Fomento Mineiro [Portugal] Relatorio 12, 53 p.
- 534 Costa Moura, J. E. da, and Silva Carvalho, J. L. da, 1948, Catálogo das minas de ferro do continente, tomo 1: Serviço Fomento Mineiro [Portugal] Relatorio 16, 478 p.
- 535 _____ 1952, Catálogo das minas de ferro do continente, tomo 2: Serviço Fomento Mineiro [Portugal] Relatorio 19, 465 p.
- 536 Coste, Eugene, 1888, The iron ores and phosphate deposits in the Archean rocks of Canada: Canada Geol. Survey Ann. Rept. 3, p. 62-64.
- 537 Coteló Neiva, J. M., 1946, Características e génese do minério magnético de Vila Cova (Serra do Marão): Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 2, p. 151-174.
- 538 _____ 1949, Geologia dos minérios de ferro portugueses—Seu interesse para a siderurgia: Mus. Mineralóg. Geol. Univ. Coimbra Mem. e notícias, no. 26, 60 p.
- 539 _____ 1952, Las minerales de fer portugueses: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 7, p. 281-293. (French, English summary.)
- 540 _____ 1953, Genèse des principaux gisements portugais de minerais de fer, *in* La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 121-131.
- 541 Coteló Neiva, J. M., and Cunha Gouveia, J. A. da, 1950, Características dos minérios do jazigo de ferro de Guadramil: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 6, p. 107-114.
- 542 Cox, E. T., 1884, West Virginia, Barbour County, iron and coal lands; geological report: Mechanicsburg, Pa., 10 p.
- 543 Cox, J. S., 1911, The iron-ore deposits of the Moa district, Oriente Province, Island of Cuba: Am. Inst. Min. Metall. Eng. Bull., v. 51, p. 199-216; Trans., v. 42, p. 73-90, 1912.
- 544 Cozzens, Issachar, 1825, Examination of iron ores from the northern part of the State of New York: Lyceum Nat. History New York Annals, v. 1, p. 378-383.
- 545 Crane, G. W., 1912, The iron ores of Missouri: Mo. Bur. Geology and Mines Bull. 10, 2d ser., 434 p.
- 546 Crane, W. R., 1924, Red iron ore mining methods in the Birmingham district, Ala.: Am. Inst. Min. Metall. Eng. Trans., preprint 1368, 33 p.
- 547 * _____ 1926, Iron-ore (hematite) mining practice in the Birmingham district, Ala.: U. S. Bur. Mines Bull. 239, 143 p.
- 548 _____ 1926, Red iron ores and ferruginous sandstones of the Clinton formation in the Birmingham district, Ala.: U. S. Bur. Mines Tech. Paper 377, 41 p. 10c.
- 549 Crawford, A. L., 1942, Strategic minerals of Utah: Utah Univ. Bull. 18, v. 33, no. 2, 19 p.
- 550 Crawford, A. L., and Buranek, A. M., 1941-43, The martite iron deposits at Twin Peaks, Millard County, Utah: Utah Acad. Sci. Proc., v. 19-20, p. 139-141.

Index
No.

- 551 Crawford, A. L., and Buranek, A. M., 1943, Utah iron deposits other than those of Iron and Washington Counties, Utah: Utah Geol. and Mineralog. Survey, Circ. 24, 17 p.
- 552 Crawford, A. L., and Chorney, Raymond, 1941-43, Iron ore from Iron Peak, east of Paragonah, Utah: Utah Acad. Sci. Proc., v. 19-20, p. 129-133.
- 553 Crawford, R. D., 1913, Geology and ore deposits of the Monarch and Tomichi districts, Colo.: Colo. Geol. Survey Bull. 4, p. 309.
- 554 Crawford, R. D., and Gibson, Russell, 1925, Geology and ore deposits of the Red Cliff district, Colo.: Colo. Geol. Survey Bull. 30, p. 48-49.
- 555 Crook, T., and Thomas, T. C., 1907, Iron-ore from Parapara, N. Z.: Imp. Inst. Bull., v. 5, p. 254-255.
- 556 Crookshank, H., 1938, The iron ores of the Bailadila range, Bastar State: Min. Geol. Metall. Inst. India Trans., v. 34, pt. 3, p. 253-281.
- 557 Crosby, I. B., 1932, Report on the mineral resources of Massachusetts: Mass. Indus. and Devel. Comm., 35 p.
- 558 Crosby, W. O., 1901, Geological history of the hematite iron ores of the Antwerp and Fowler belt in New York: Mass. Inst. Technology, Quart., v. 14, p. 162-170; Am. Geologist, v. 29, p. 233-242, 1902.
- 559 Crouse, C. S., and Wyatt, J. L., 1948, A preliminary report on the iron ore resources of Kentucky: Ky. Univ. Eng. Expt. Sta. Bull., v. 3, no. 1, p. 5-31.
- 560 Crowell and Murray, Inc., 1930, the iron ores of Lake Superior: 7th ed., Cleveland, Ohio, The Penton Publishing Co., 7th ed., 333 p.
- 561 Cumings, W. L., 1933, The Cornwall iron mines near Lebanon, Pa., in Mineral deposits of New Jersey and eastern Pennsylvania: Internat. Geol. Cong., 16th sess., United States, 1933, Guidebook 8, Excursion A-8, p. 43-54.
- 562 Cumings, W. L., and Miller, B. L., 1911, Characteristics and origin of the brown iron ores of Camagüey and Moa, Cuba: Am. Inst. Min. Metall. Eng. Bull., v. 51, p. 247-268; Trans., v. 42, p. 116-137, 1912.
- 563 *Cummings, A. M., 1928, Method and cost of mining magnetite in the Mineville district, N. Y.: U. S. Bur. Mines Inf. Circ. 6092, 12 p.
- 564 *Cummings, J. B., 1946, Exploration of New Planet iron deposit, Yuma County, Ariz.: U. S. Bur. Mines Rept. Inv. 3982, 37 p.
- 565 Cunha Gouveia, J. A. da, and Morais Ferreira, Francisco de, 1950, Notícia sobre o valor económico do jazigo de Guadramil (Trabalhos de reconhecimento): Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 6, p. 116-131.
- 566 Currey, R. C., 1880, The copper and iron region of the Floyd-Carroll-Grayson plateau of the Blue Ridge in Virginia: The Virginias, v. 1, p. 62-64, 69-71, 74-77, 80-81, 95.
- 567 Cushing, H. P., 1901, Geology of Rand Hill and vicinity, Clinton County: N. Y. State Mus. 53d Ann. Rept., p. 37-82.
- 568 Daddow, S. H., and Bannan, B., 1866, Coal, iron, and oil: Pottsville, Pa., 808 p.

- 569 Dake, C. L., 1915, The formation and distribution of bog iron ore deposits: *Am. Inst. Min. Metall. Eng. Bull.*, v. 103, p. 1429-1436; v. 108, p. 2475-2476; *Trans.*, v. 53, p. 106-115, 1916.
- 570 _____ 1915, The formation and distribution of residual iron ores: *Am. Inst. Min. Metall. Eng. Bull.*, v. 101, p. 937-946; *Trans.*, v. 53, p. 116-124, 1916.
- 571 Dale, N. C., 1935, Geology of Oswegatchie quadrangle, New York: *N. Y. State Mus. Bull.* 302, 101 p.
- 572 _____ 1953, Geology and mineral resources of the Oriskany quadrangle: *N. Y. State Mus. Bull.* 345, 197 p.
- 573 Dale, Phyllis, and Beach, J. O., 1951, Mineral production of Oklahoma 1885-1949: *Okla. Geol. Survey Circ.* 29, p. 23.
- 574 Dana, J. D., 1884, Note on the making of limonite ore beds: *Am. Jour. Sci.*, 3d ser., v. 28, p. 398-400.
- 575 Daniels, Edward, 1858, Iron ores of Wisconsin: *Mineralog. Mag.*, v. 10, p. 13-27.
- 576 *Darton, N. H., 1896, Description of the Franklin quadrangle, West Virginia-Virginia: *U. S. Geol. Survey Geol. Atlas*, folio 32, 7 p.
- 577 *Darton, N. H., Bayley, W. S., Salisbury, R. D., and Kummel, H. B., 1908, Description of the Passaic quadrangle, New Jersey-New York: *U. S. Geol. Survey Geol. Atlas*, folio 157, 27 p.
- 578 Dauncey, W. G., 1898, The iron deposits of Tasmania: *Royal Soc. Tasmania Proc.*, 1897, p. 49-53.
- 579 Davis, E. W., 1920, The future of the Lake Superior district as an iron ore producer: *Minn. School Mines, Expt. Sta. Bull.* 7, 18 p.
- 580 _____ 1920, Magnetic concentration of iron ore: *Minn. School Mines, Expt. Sta. Bull.* 9, 138 p.
- 581 _____ 1944, When will we mine taconite?: *Eng. Min. Jour.*, v. 145, no. 4, p. 82-85.
- 582 _____ 1947, Iron-ore reserves of the Lake Superior district, U. S.: *Min. and Metallurgy*, v. 28, no. 481, p. 15-18.
- 583 _____ 1950, Iron ore (mining, beneficiation, and reserves), in Reebel, D., ed., *The ABC of iron and steel*: Cleveland, Ohio, The Penton Publishing Co., 6th ed., p. 1-15.
- 584 _____ 1950, A report on taconite: *Eng. Min. Jour.*, v. 151, no. 11, p. 84-85.
- 585 Davis, V. C., 1953, Taconite fragmentation: *U. S. Bur. Mines Rept. Inv.* 4918, 34 p.
- 586 Dawson, J. W., 1874, On the geological relations of the iron ores of Nova Scotia: *Am. Assoc. Adv. Sci. Proc.*, v. 22, p. 138-146.
- 587 *Day, D. T., and Richards, R. H., 1906, Useful minerals in the black sands of the Pacific slope: *U. S. Geol. Survey Min. Res. U. S.*, 1905, pt. c, p. 1180-1228.
- 588 *Day, D. T., Wilson, C. E., and Clevenger, G. H., 1906, Electric smelting of magnetite from black sands: *U. S. Geol. Survey Min. Res. U. S.*, 1905, pt. c, p. 1247-1258.
- 589 De Adaro, L., and Junquera, G., 1916, Criaderos de hierro de Asturias: *Inst. Geol. Min. España Mem.*, tomo 2, 676 p.
- 590 De Jorge, Emilio, 1935, Origen y constitucion actual del criadero de hierro de Vizcaya: *Rev. minera [Madrid]* año 86, nos. 3463, 3464, p. 305-308, 317-319.

Index
No.

- 591 De Kalb, Courtenay, 1930, Moroccan iron reserves of El Rif: Pan-Am. Geologist, v. 54, no. 5, p. 322-334.
- 592 _____ 1931, Geology of Moroccan El Rif iron deposits: Pan-Am. Geologist, v. 55, no. 1, p. 15-32.
- 593 De la Bouglise, R., 1936, Le gisement de fer de Conakry; son histoire, sa nature, son extension, son utilization: Chronique mines coloniales, v. 5, no. 49, p. 116-120.
- 594 Delafond, Frédéric, and Déperet, C., 1893, Études des gîtes minéraux de la France. Les terrains tertiaires de la Bresse et leurs gîtes de lignites et de minerais de fer: Paris, Ministère des travaux publics, 332 p., atlas.
- 595 De Launay, L., 1912, Les reserves mondiales en minerais de fer, in Les ressources mondiales en minerai de fer: Cong. géol. internat., 11^e sess., Stockholm, 1910, Comptes rendus, pt. 1, p. 265-328.
- 596 del Solar B., Carlos, 1944, informe preliminar sobre los yacimientos de fierro de Yaurilla: Cuerpo Ingenieros Minas Perú Bol. 130, p. 27-31.
- 597 _____ 1944, Segundo informe preliminar sobre los yacimientos de fierro de Yaurilla: Cuerpo Ingenieros Minas Perú Bol. 130, p. 33-35.
- 598 del Valle de Lersundi, A., 1942, Preliminary studies necessary for making a depth survey of the iron ore beds of Vizcaya: Inst. Geol. Min. España, Notas y Comun. num. 10, p. 3-10.
- 599 DeMille, J. B., 1949, Canada's future brightens as producer of iron ore: Eng. Min. Jour., v. 150, no. 4, p. 90.
- 600 de Moraes, L. J., Dorr, J. V. N., 2d; Guild, P. W.; de Miranda Barbosa, A. L.; Iglesias, Dolores; and Meneghezzi, M. L.; 1953, Jazigos de ferro do Brasil: Brasil, Div. Geologia e Mineralogia Bol. 144, 66 p.
- 601 Dempsey, W. J., 1951, Preliminary aeromagnetic map of the Iron Springs district, Utah: U. S. Geol. Survey open-file map.
- 602 _____ 1951, Preliminary total-intensity aeromagnetic maps of three Arkansas quadrangles—Bald Knob, Pleasant Plains, and Cave City: U. S. Geol. Survey open-file maps.
- 603 _____ 1951, Preliminary total-intensity aeromagnetic maps of three Arkansas quadrangles—Newport, Augusta, and Strawberry: U. S. Geol. Survey open-file maps.
- 604 Derbikov, I. B., 1935, (Teoysko-Tuzukhsinsky iron ore district of Kuznetsk Alatau): Materialy geologii Zapadno-sibirsk. kraja, vyp. (Rec. Geology West-Siberian Region, no.) 26, p. 3-111, Tomsk. [Russian, English summary.]
- 605 Derviz, V. M., 1936, Sur la g n se du gisement de magn tite de Gora-Blagodat dans l'Oural du nord: Akad. nauk SSSR Doklady, nov. ser., tom 2, vyp. 7, p. 279-282.
- 606 _____ 1938, The deposits of magnetite on the Blagodat mountain (Urals): Akad. nauk SSSR, Petrog. inst. Trudy, vyp. 12, p. 5-44. [Russian, English summary.]
- 607 DeSollar, T. C., 1943, Iron mining in the Birmingham district, Ala: Mines Mag., v. 33, no. 11, p. 603-605, 610, 628-629.
- 608 DeVaney, F. D., and Cooke, S. R. B., 1930, Laboratory concentration of the Missouri iron ores of Iron Mountain and Pilot Knob: Mo. Univ. School Mines and Metallurgy Bull., Tech. ser., v. 11, no. 3, 38 p.

Index
No.

- 609 Devereux, W. B., 1884, Notes on iron ore deposits in Pitkin County, Colo.: Am. Inst. Min. Metall. Eng. Trans., v. 12, p. 638-641.
- 610 Deverin, Louis, 1945, Étude petrographique des mineraux de fer oolithiques du dogger des Alpes suisses: Beitr. Geologie Schweiz, Geotech. Ser., Lief. 13, Band 2, 115 p.
- 611 _____ 1948, Oolithes ferrugineuses des Alpes et du Jura: Schweizerische mineralog. petrog. Mitt., Band 28, Heft 1, p. 95-101. [French, German summary.]
- 612 DeVilliers, J. E., 1945, The origin of the iron and manganese deposits in the Postmasburg and Thabazimbi areas, Cape Colony: Geol. Soc. South Africa Trans., v. 47, p. 123-135.
- 613 Dewees, J. H., 1878, Report of progress in the Juniata district on the fossil iron ore beds of middle Pennsylvania, with a report on the Anglewick Valley and East Broad Top district, by C. A. Ashburner: Pa. Geol. Survey, 2d Rept. of Progress, F, 305 p.
- 614 Dewey, F. P., 1882, The Rich Hill iron ores, Va.: Am. Inst. Min. Metall. Eng. Trans., v. 10, p. 77-80.
- 615 _____ 1884, Some Canadian iron ores: Am. Inst. Min. Metall. Eng. Trans., v. 12, p. 192-204.
- 616 De Wijkerslooth, P., 1930, The mineralization of the Tuscan Mountains in connection with their tectonic evolution: K. Akad. Wetensch. Amsterdam Proc. 33, no. 5, p. 557-564.
- 617 _____ 1941, Einige neue Daten über die Genese und das Alter der Eisenerzvorkommen von Divrik (Vilayet Sivas, Türkei): Maden Tetkik Arama [Ankara], sene 6, sayı 3/24, p. 301-319. [Turkish and German.]
- 618 De Ysassi, Victor, 1916, The iron mines of the Sierra Menera district of Spain: Am. Inst. Min. Metall. Eng. Trans., v. 53, p. 238-242.
- 619 Dickey, R. M., 1938, Present trends in studies of Michigan Huronian: Mich. Acad. Science Papers 1937, v. 23, p. 419-426.
- 620 Diegnan, C. F., 1942, Iron in New Jersey: Rocks and Minerals, no. 17, p. 316-325.
- 621 Diemer, R. A., 1941, Titaniferous magnetite deposits of the Laramie Range, Wyo.: Wyo. Geol. Survey Bull. 31, 23 p.
- 622 Dietz, C. S., 1929, Developed and undeveloped mineral resources of Wyoming: Wyo. Geol. Survey Bull. 21, p. 11-14.
- 623 *Diller, J. S., 1903, Iron ores of the Redding quadrangle, California: U. S. Geol. Survey Bull. 213, p. 219-220.
- 624 * _____ 1905, So-called iron ore near Portland, Oreg.: U. S. Geol. Survey Bull. 260, p. 343-347.
- 625 * _____ 1916, Chromic iron ore: Chromic iron ore in North America: U. S. Geol. Survey Min. Res. U. S., 1914, pt. 1a, p. 5-15.
- 626 D'Inwilliers, E. V., 1883, The geology of the South Mountain belt of Berks County: Pa. Geol. Survey, 2d, Rept. of Progress D³, v. 2, pt. 1, 441 p.
- 627 _____ 1884, The brown hematite (limonite) ores of the Siluro-Cambrian limestone, No. II, of Centre County, Pa.: Eng. Club Philadelphia Proc., v. 4, p. 209-222.
- 628 _____ 1884, The geology of Centre County: Pa. Geol. Survey, 2d, Rept. of Progress T⁴, 464 p.
- 629 _____ 1885, Nittany valley ores (Huntingdon County): Pa. Geol. Survey, 2d, Rept. of Progress T³, p. 443-450

Index
No.

- 630 D'Inwilliers, E. V., 1886, The Cornwall iron ore mines, Lebanon County, Pa.: Am. Inst. Min. Metall. Eng. Trans., v. 14, p. 873-904.
- 631 _____ 1887, Report on the iron ore mines and limestone quarries of the Cumberland-Lebanon Valley: Pa. Geol. Survey Ann. Rept. 1886, pt. 4, p. 1409-1567.
- 632 _____ 1891, Report on the geology of the four Counties, Union, Snyder, Mifflin, and Juniata: Pa. Geol. Survey, 2d, Rept. of Progress F³, 420 p.
- 633 _____ 1892, Geological and chemical report on a portion of the Virginia and Tennessee Coal and Iron Company's property, Wise County, Va.: 67 p.
- 634 Dixon, E. E. L., and Smith, Bernard, 1928, The origin of Cumberland hematite: Great Britain Geol. Survey Summary Progress 1927, pt. 2, p. 23-36.
- 635 Doak, S. E., 1921, The Oriskany iron ores of Virginia: Eng. Min. Jour., v. 111, no. 9, p. 386-387.
- 636 Dobrokhotov, M. N., 1932, The Kukhtur limonite deposits in south Ural: Vses. geol.-razved. uprav. Izv. 51, vyp. 85, p. 1301-1323. [Russian, English summary.]
- 637 _____ 1936, The Malyy-Khingon iron ore district, U. S. S. R.: Tsentral'nauch. -issled. geol.-razved. inst. Trudy, vyp. 84, 44 p. [Russian, English summary.]
- 638 Doctorovitch-Grebniński, S. A., 1931, Description of the iron deposits of Nikolaevski works, government of Irkutsk: Glav. geol.-razved. uprav. Trudy, vyp. 33, 114 p. [Russian, English summary.]
- 639 *Dorr, J. V. N., 2d, 1945, Manganese and iron deposits of Morro do Urucum, Mato Grosso, Brazil: U. S. Geol. Survey Bull. 946-A, 47 p.
- 640 _____ 1950, How much iron ore in Brazil?: Iron Age, v. 166, no. 7, p. 81-84; no. 8, p. 79-82.
- 641 _____ 1954, Comments on the iron deposits of the Congonhas district, Minas Gerais, Brazil: Econ. Geology, v. 49, no. 6, p. 659-662.
- 642 Dougherty, E. Y., 1927, Magnetite deposits of Madera County, Calif.: Eng. Min. Jour., v. 123, no. 19, p. 765-770; v. 124, no. 8, p. 301.
- 643 Douglas, G. V., 1944, Iron deposit, Manchester: Nova Scotia Dept. Mines Ann. Rept., 1943, p. 125-126.
- 644 _____ 1944, Mineral deposits in Gabarus area: Nova Scotia Dept. Mines Ann. Rept. Mines, 1943, p. 133-139.
- 645 Dow, D. H., Larrabee, D. M., and Clabaugh, S. E., 1945, Mineral resources of the Missouri Valley region: U. S. Geol. Survey Missouri Basin Studies, no. 1, pt. 1, Metallic mineral resources. 40c.
- 646 Drake, N. F., 1914, Economic geology of the Waynesboro quadrangle: Tenn. Geol. Survey Res. Tenn., v. 4, p. 99-120.
- 647 Dreyer, R. M., 1947, Magnetic survey of southeastern Crawford County, Kans.: Kans. State Geol. Survey Bull. 70, pt. 5, p. 107-115.
- 648 Drolet, Jean-Paul, 1954, Mining development and engineering in Quebec: Eng. Jour., v. 37, no. 7, p. 809-819.

Index
No.

- 649 Dubey, V. S., and Karunakaran, C., 1943, The iron ore deposits of Kanjamalai Hill, Salem district, Madras, India: Geol. Min. Metall. Soc. India Quart. Jour., v. 15, no. 1, p. 3-19.
- 650 Duffell, S., and McTaggart, K. C., 1947, Second preliminary map, Ashcroft, B. C. (map and descriptive notes): Canada Geol. Survey Paper 47-10, 8 p.
- 651 Dulieux, Emile, 1912, The magnetic sands of the north shore of the Gulf of St. Lawrence: Quebec Mines Branch, Rept. Min. Operations 1911, p. 135-159.
- 652 _____ 1912, Preliminary report on some iron deposits on the north shore of the River and Gulf of St. Lawrence: Quebec Mines Branch, Rept. Min. Operations 1911, p. 71-134.
- 653 _____ 1913, The iron resources of the Province of Quebec: Canadian Min. Inst. Trans., v. 16, p. 351-370.
- 654 _____ 1913, Preliminary report on some iron ore deposits in the Province of Quebec: Quebec Mines Branch, Rept. Min. Operations 1912, p. 65-130.
- 655 Dumble, E. T., 1888, Notes on the iron ore deposits of eastern Texas: Geol. and Sci. Bull., v. 1, no. 5, p. 1.
- 656 _____ 1891, A general description of the iron ore district of east Texas: Tex. Geol. Survey Ann. Rept. 2, p. 7-31.
- 657 _____ 1891, The iron ore district of east Texas; Anderson County; Houston County: Tex. Geol. Survey Ann. Rept. 2, p. 303-326.
- 658 Dunham, K. C., and Rose, W. C. C., 1941, Iron ore field of South Cumberland and Furness: Geol. Survey Great Britain War-time Pamph. 16.
- 659 Dunn, J. A., 1935, The origin of iron ores in Singhbhum, India: Econ. Geology, v. 30, no. 6, p. 643-654.
- 660 _____ 1937, The mineral deposits of eastern Singhbhum and surrounding areas: Geol. Survey India Mem. 69, pt. 1, 279 p.
- 661 _____ 1941, The origin of banded hematite ores in India: Econ. Geology, v. 36, no. 4, p. 355-370.
- 662 _____ 1942, Banded hematite ores: Econ. Geology, v. 37, no. 5, p. 426-430.
- 663 _____ 1953, Banded hematite quartzites: Econ. Geology, v. 48, no. 1, p. 58-62.
- 664 Du Preez, J. W., 1945, The structural geology of the area east of Thabazimbi and the genesis of the associated iron ores: Stellenbosch Univ. Annals, v. 22, sec. A, p. 263-360.
- 665 Dupuy, L. W., and Ballinger, H. J., 1949, Filled-sink iron deposits in Crawford, Dent, Franklin, and Texas Counties, Mo.: U. S. Bur. Mines Rept. Inv. 4452, 23 p.
- 666 Durrell, Cordell, and Proctor, P. D., 1948, Iron-ore deposits near Lake Hawley and Spencer Lakes, Sierra County, Calif.: Calif. Div. Mines Bull. 129, pt. L, p. 165-192.
- 667 Durrell, W. H., 1954, Development of Quebec-Labrador iron ore deposits; transportation is major factor: Min. Eng., v. 6, no. 4, p. 387-390.
- 668 Dutton, C. E., 1942, Economic geology of a part of the Menominee range: Mich. Geol. Survey Progress Rept. 9, 27 p.
- 669 _____ 1949, Geology of the central part of the Iron River district, Iron County, Mich.: U. S. Geol. Survey Circ. 43, 9 p.

Index
No.

- 670 Dutton, C. E., 1950, Progress of geologic work in Iron and Dickinson Counties, Mich.: U. S. Geol. Survey Circ. 84, 7 p.
- 671 _____ 1951, Geology of the northern part of the Iron River district, Iron County, Mich.: U. S. Geol. Survey Circ. 120, 12 p.
- 672 _____ 1952, Memorandum on iron deposits in the United States of America *in* Blondel, F. M., and Marvier, L., eds., Symposium sur les gisements de fer du monde: Cong. Géol. internat., 19^e sess., Alger, 1952, Tome 1, p. 371-411.
- 673 _____ 1955, Iron ore deposits of North America and the West Indies, *in* Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954. II. D. 5, New York, p. 179-208.
- 674 Dutton, C. E., and Carr, M. S., 1947, Iron-ore deposits of western United States: U. S. Geol. Survey Strategic Minerals Inv. Prelim. Rept. 3-212. 35c.
- 675 *Dutton, C. E., Park, C. F., Jr., and Balsley, J. R., 1945, General character and succession of tentative divisions in the stratigraphy of the Mineral Hills district, Iron River, Iron County, Mich.: U. S. Geol. Survey Strategic Minerals Inv. Prelim. Rept. 3-171, 4 p., 15 maps.
- 676 Duval, A., 1904, Los yacimientos de fierro de Tambo Grande: Cuerpo Ingenieros Minas Perú Bol., no. 8, p. 33-37.
- 677 Dyer, W. S., 1934, Geology of the Pashkokogan-Misehkw area: Ontario Dept. Mines 42d Ann. Rept., v. 42, pt. 6, 1933, p. 1-20.
- 678 *Eakin, H. M., 1915, Iron-ore deposits near Nome: U. S. Geol. Survey Bull. 622-I, p. 361-365.
- 679 Earle, R. B., 1914, The genesis of certain Paleozoic interbedded iron ore deposits: N. Y. Acad. Sci. Annals, v. 24, p. 115-170.
- 680 Eaton, Lucien, 1928, Notes on some iron mines of Russia: Lake Superior Min. Inst. Proc., v. 26, p. 271-278.
- 681 _____ 1929, Mining soft hematite at Mine no. 2 of the Marquette range, Mich.: U. S. Bur. Mines Inf. Circ. 6179, 15 p.
- 682 * _____ 1929, Mining soft hematite by open stopes at Mine no. 1, Menominee range, Mich: U. S. Bur. Mines Inf. Circ. 6180, 10 p.
- 683 Eaton, Lucien, 1931, Iron mining in Cumberland, England: Eng. Min. Jour., v. 132, no. 10, p. 455-458.
- 684 _____ 1941, The iron ore deposits at Marcona and their development and transport; the iron ore deposit at Yaurilla, *in* The establishment of an iron and steel industry in Peru: New York, H. A. Brassert and Co., App. A, 91 p.
- 685 _____ 1943, The brown ores of Cherokee County, *in* Report on iron ore and olivine deposits of the State of North Carolina suitable for industrial development and the possibilities of establishing industries within the State using these raw materials: New York, H. A. Brassert and Co., App. E, 13 p.
- 686 _____ 1943, Magnetite in Ashe County, *in* Report on iron ore and olivine deposits of the State of North Carolina suitable for industrial development and the possibilities of establishing industries within the State using these raw materials: New York, H. A. Brassert and Co., App. C, 66 p.
- 687 Eberzin, A. G., 1933, Geological studies of the Kertch iron ore deposits: Vses. geol.-razved. ob'yedeneniya Trudy, vyp. 325, p. 129-167. [Russian, English summary.]

Index
No.

- 688 Eby, J. B., 1923, The geology and mineral resources of Wise County and the coal-bearing portion of Scott County, Va.: Va. Geol. Survey Bull. 24, 617 p.
- 689 *Eckel, E. B., 1938, The brown iron ores of eastern Texas: U. S. Geol. Survey Bull. 902, 157 p.
- 690 Eckel, E. B., and Purcell, P. E. M., 1935, The iron ores of east Texas: Tex. Univ. Bull. 3401, p. 482-503.
- 691 Eckel, E. C., 1904, Brown hematite deposits of eastern New York and western New England: Eng. Min. Jour., v. 78, p. 432-434.
- 692 _____ 1905, The Clinton hematite: Eng. Min. Jour., v. 79, p. 897-898.
- 693 * _____ 1905, Iron and manganese ores of the United States: U. S. Geol. Survey Bull. 260, p. 317-320.
- 694 * _____ 1905, Iron ores of northeastern Texas: U. S. Geol. Survey Bull. 260, p. 348-354.
- 695 * _____ 1905, Limonite deposits of eastern New York and western New England: U. S. Geol. Survey Bull. 260, p. 335-342.
- 696 * _____ 1906, The Clinton or red ores of northern Alabama: U. S. Geol. Survey Bull. 285, p. 172-179.
- 697 * _____ 1906, The Oriskany and Clinton iron ores of Virginia: U. S. Geol. Survey Bull. 285, p. 183-189.
- 698 * _____ 1907, Mineral paint ores of Lehigh Gap, Pa.: U. S. Geol. Survey Bull. 315, p. 435-437.
- 699 _____ 1912, Iron ore reserves: Eng. Mag., v. 43, p. 665-674, 825-836; v. 44, p. 7-15.
- 700 _____ 1913, Brown iron ores as cavity fillings: Eng. Min. Jour., v. 96, p. 1-2.
- 701 _____ 1914, Iron ores; their occurrence, valuation and control: New York, McGraw-Hill Book Co., 430 p.
- 702 _____ 1920, Coal, iron, and war: New York, Henry Holt and Co., 375 p.
- 703 _____ 1929, Iron ores of northwestern France: Eng. Min. Jour., v. 127, no. 10, p. 392-393.
- 704 Eckel, E. C., Hunter, C. E., and Mattocks, P. W., 1938, Iron, chromite, and nickel resources of the Tennessee Valley region: TVA Geology Div. Bull. 10, 26 p.
- 705 Economic Commission for Asia and the Far East Secretariat, 1952, Coal and iron resources of Asia and the Far East: Bangkok, U. N. Doc. ST/ECAFE/5, 155 p., maps, tables.
- 706 Eddy, E. B., 1884, Porphyritic iron ore, Cumberland, R. I.: Random Notes on Natural History, v. 1, no. 4, p. 11-12.
- 707 Edwards, A. B., 1936, The iron ores of the Middleback ranges, South Australia: Australasian Inst. Mining and Metallurgy Proc. 102, p. 155-207.
- 708 Edwards, T., 1938, The mineral deposits of the U. S. S. R.: Min. Mag., v. 58, no. 5, p. 265-279; no. 6, p. 335-343.
- 709 Efremov, N. E., 1938, (On the genesis of the iron ore deposits of the Kertch and the Taman peninsula): Sovetskaya geologiya, tom 8, vyp. 5, p. 74-91. [Russian, English summary.]
- 710 Egenhoff, E. L., 1948, Bibliography of the iron-ore resources of California: Calif. Div. Mines Bull. 129, p. 269-300.
- 711 Egleston, Thomas, 1880, The iron ores and coals on the line of Chesapeake and Ohio Railway: The Virginias, v. 1, no. 2, p. 24-25.

Index
No.

- 712 Ehrmann, F., 1953, Du rôle actif et passif du Trias gypso-salin et minéralisé dans la genèse des gîtes métallifères des terrains secondaires et tertiaires de la Kabylie des Babor (Algérie), in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 97-99.
- 713 Einecke, Gustav, 1950, Die Eisenerzvorräte der Welt: Düsseldorf, Verlag Stahl Eisen, 418 p.
- 714 Ellis, David, 1919, Iron bacteria: London, Methuen & Co., Ltd., 179 p.
- 715 Ellis, R. W., 1908, The geology and mineral resources of New Brunswick: Ottawa, Canada Geol. Survey, 135 p.
- 716 Elter, E. H., 1949, The iron ore industry of Luxembourg: Mine and Quarry Eng., v. 15, no. 8, p. 237-243.
- 717 Emmens, N. W., 1906, The Jones iron fields of New Mexico: Min. Mag., v. 13, p. 109-116.
- 718 Emmons, Ebenezer, 1842, Geology of New York, Part 2, comprising the survey of the second geological district: Albany, N. Y., 437 p.
- 719 Emmons, R. C., and Thomson, Ellis, 1929, Preliminary report on Woman River and Ridout map areas, Sudbury district, Ontario: Canada Geol. Survey Mem. 157, 30 p.
- 720 *Emmons, W. H., 1910, Some ore deposits in Maine and the Milan mine, N. H.: U. S. Geol. Survey Bull. 432, 62 p.
- 721 * _____ 1917, The enrichment of ore deposits: U. S. Geol. Survey Bull. 625, 530 p.
- 722 _____ 1933, Recent progress in studies of supergene enrichment, in Ore Deposits of the Western United States (Lindgren Volume): New York, Am. Inst. Min. Metall. Eng., p. 386-392.
- 723 Emmons, W. H., and Grout, F. F., 1943, Mineral resources of Minnesota: Minn. Geol. Survey Bull. 30, p. 29-30.
- 724 Englebach, H., 1913, Les minerais de fer du Lac Supérieur: Soc. industrie min. [St. Étienne] Bull., 5th ser., v. 4, p. 329-370.
- 725 Entwistle, L. P., 1944, Manganiferous iron-ore deposits near Silver City, N. Mex.: N. Mex. Bur. Mines and Min. Res. Bull. 19, 72 p.
- 726 _____ 1948, Geology of the manganiferous iron ore deposits at Boston Hill, N. Mex.: Am. Inst. Min. Metall. Eng. Trans., v. 148, p. 346-355; Tech. Pub. 1712, 10 p.
- 727 Epprecht, W., 1946, Die Eisen- und Manganerze des Gonzen: Beitr. Geologie Schweiz, Geotech. Ser., Lief. 24, 128 p.
- 728 Erb, Ludwig, 1941, Die Eisenoolithischen Horizonte (ohne das Kella-way) im Jura des Oberrheintalgrabens und der angrenzenden Gebiete: Reichsstelle Bodenf., Zweigstelle Wien Ber., Heft 3-4, p. 49-61.
- 729 Erickson, A. W., 1948, Investigation of Tolstoi Mountain iron deposits, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: U. S. Bur. Mines Rept. Inv. 4373, 5 p.
- 730 Erselçuk, Muzaffer, 1946, Iron and steel industries of Manchuria: Ind. Acad. Sci. Proc., v. 55, p. 78-82.
- 731 _____ 1947, Iron and steel industry in Japan: Econ. Geography, v. 23, no. 2, p. 105-129.
- 732 Espenshade, G. H., 1952, Manganese, iron, and barite deposits of the James River-Roanoke River district, Virginia: U. S. Geol. Survey Mineral Inv. map MF 5, scale 1:96,000. 75c.

Index
No.

- 733 Eszto, P., 1938, Metal mining in Hungary: Magyar kir. József Nádor műszaki és gazdaságtudományi egyetem, A bányá- és kohómérnöki osztály Közleményei 10, pt. 3, p. 347-358. [German, English summary.]
- 734 Evans, A. M., 1947, Central Texas (Llano) iron deposits, Llano and Mason Counties, Tex.: U. S. Bur. Mines Rept. Inv. 4045, 16 p.
- 735 Evans, A. M., and Soule, J. H., 1947, Rusks iron deposits, Cherokee County, Tex.: U. S. Bur. Mines Rept. Inv. 4115, 15 p.
- 736 Evans, J. W., 1901, Preliminary report on the iron-ores of the neighborhood of Malvalli (Mysore): Mysore Geol. Dept. Rec., v. 1, p. 11-14.
- 737 Evans, W. D., 1946, The geology and opencast mining of the Jurassic ironstones of Great Britain: Inst. Mining and Metallurgy Bull. 480, 29 p.
- 738 _____ 1950, The geology and opencast mining of the Jurassic ironstones of Great Britain: Inst. Mining and Metallurgy Trans., v. 56, p. 291-339.
- 739 Evrard, Pierre, 1947, Statistical relation between TiO_2 , Fe_2O_3 , and FeO in rocks and ores during differentiation of a titaniferous magma (Adirondack Mountains, New York): Geol. Soc. America Bull., v. 58, no. 3, p. 127-210.
- 740 Eyssautier, L., 1952, L'Industrie minière du Maroc (zone française): Cong. géol. internat., 19^e sess., Alger, 1952, Monographies régionales, 3^e sér., Maroc no. 2, 184 p.
- 741 Fabian, Rudolf, 1940, Beobachtungen und Erzen der Magneteisenlagerstätte Schmiedeberg im Riesengebirge: Zeitschr. prakt. Geologie, Jahrg. 48, Heft 1, p. 7-11.
- 742 Fabrega, P., 1907, A study of the iron-ore deposits of Almeria: Min. Jour. [London], v. 82, p. 5, 44-45, 78-79, 114-115.
- 743 Faessler, Carl, 1945, Moisie area, Saguenay County (Que.): Quebec Dept. Mines Geol. Rept. 21, 15 p.
- 744 _____ 1950, The Labrador peninsula in time and space: Canadian Min. Jour., v. 71, no. 6, p. 47-50.
- 745 Faessler, Carl, and Schwartz, G. M., 1941, Titaniferous magnetite deposits of Sept-Iles, Quebec: Econ. Geology, v. 36, no. 7, p. 712-728.
- 746 Fairburn, H. W., 1938, Geology of the northern Long Lake area: Ontario Dept. Mines 46th Ann. Rept., 1939, v. 46, pt. 3, p. 1-22.
- 747 Farrington, O. C., 1904, Observations on the geology and geography of western Mexico, including an account of the Cerro Mercado: Field Columbian Mus. Pub. Geology Ser., v. 2, p. 197-228.
- 748 Federal Trade Commission, 1952, Report on the control of iron ore, for the Antitrust Subcommittee of the Committee on the Judiciary: U. S. Govt. Printing Office, 157 p.
- 749 Feeley, J. C., Jr., 1949, Reopening and developing a small red-iron-ore mine, Gadsden, Ala.: U. S. Bur. Mines Inf. Circ. 7499, 28 p.
- 750 Fehlmann, H., 1932, Die schweizerische Eisenerzeugung, ihre Geschichte und wirtschaftliche Bedeutung; Die Eisen- und Manganerze der Schweiz: Beitr. Geologie Schweiz, Geotech. Ser., Lief. 13, Band 3, 255 p., Bern.
- 751 Feld, I. L., Coe, G. D., and Coghill, W. H., 1946, Rapid specific-gravity method for estimating the iron content of Birmingham, Ala., red ores: U. S. Bur. Mines Rept. Inv. 3838, 6 p.

Index
No.

- 752 Fernandez Concha, Jaime, 1952, Sobre el origen de algunos depósitos de fierro en el Perú: *Minería* [Lima], año 1, no. 1, p. 20-23.
- 753 Fernandez Concha, Jaime, Peterson, Ulrich, and Bellido, J. E., 1950, Yacimiento de fierro de la Marcona: *Soc. Ingenieros Perú Inf. y Mem.*, v. 51, no. 11, p. 654-661.
- 754 Fettke, C. R., 1912, Limonite deposits of Staten Island, N. Y.: *Columbia Univ. School Mines Quart.*, v. 33, p. 382-391.
- 755 ——— 1924, The geology of the Humacao district, Porto Rico, in: *N. Y. Acad. Sci., Scientific Survey of Porto Rico and the Virgin Islands*: v. 2, pt. 2, p. 117-197.
- 756 ——— 1924, Magnetite deposits of eastern Porto Rico: *Am. Inst. Min. Metall. Eng. Trans.*, v. 70, p. 1024-1042.
- 757 Fettke, C. R., and Hubbard, Bela, 1918, The limonite deposits of Mayaguez Mesa, Porto Rico: *Am. Inst. Min. Metall. Eng. Bull.*, v. 135, p. 661-676; *Trans.*, v. 61, p. 97-112, 1920.
- 758 Fiege, Kurt, 1950, Die Raseneisenerze Schleswig-Holsteins: *Neues Jahrb. Mineralogie, Monatsh.*, Heft 9-10, p. 219-237.
- 759 Filatov, K. S., 1931, [The Telbess iron ore-bearing area; the small deposits]: *Zapadno-sibirsk. ot'del. Geol. kom. Izv.* 11, vyp. 1, p. 114-188, Tomsk. [Russian, English summary.]
- 760 ——— 1932, [Iron ores of the Chakassk-Minusinsk region]: *Zapadno-sibirsk. geol.-razved. trest Vestnik* 1932, vyp. 2, p. 14-25. [Russian.]
- 761 Finucane, K. J., 1939, The iron deposits of Yampi Sound, Western Australia: *Aerial Geol. Geophys. Survey Northern Australia Rept. Western Australia*, no. 50, 16 p.
- 762 Finucane, K. J., and Telford, R. J., 1939, The Ellarine Hills and Andover iron deposits, Pilbara goldfield: *Aerial Geol. Geophys. Survey Northern Australia Rept. Western Australia*, no. 56, 4 p.
- 763 Fircks, F., 1906, Ueber einige Erzlagerstätten der Provinz Almeria in Spanien: *Zeitschr. prakt. Geologie*, Jahrg. 14, p. 142-150, 233-236.
- 764 Fischer, Georg, 1929, Ueber Genese und zukünftige Abbaumöglichkeit der mitteldevonischen Roteisenerze der Gegend von Brilon: *Preussische Geol. Landesanst., Archiv Lagerstättenf.*, Heft 43, 29 p.
- 765 Fischer, R. P., 1947, Map showing metallic mineral deposits of South Dakota: *U. S. Geol. Survey Missouri Basin Studies*, no. 13, 25c.
- 766 Fischer, R. P., Burbank, Wilbur, Cannon, H. L., and others, 1946, Map showing mineral deposits of Colorado: *U. S. Geol. Survey Missouri Basin Studies*, no. 8, 30c.
- 767 Fischer, R. P., and others, 1947, Map showing metallic mineral deposits of Wyoming: *U. S. Geol. Survey Missouri Basin Studies*, no. 17, 20c.
- 768 Fitzhugh, E. F., Jr., 1952, Bomi Hill—Liberia Mining Company's new high grade iron ore mine: *Skillings' Min. Rev.*, v. 41, no. 2, p. 1, 4.
- 769 Fix, G. F., 1938, Mineral resources of Indiana; Series 1, Iron: *Ind. Geol. Conserv.*, Div. Geology, 3 p.
- 770 Fleming, C. A., 1946, Magnetic ironsand-ores west of Wanganui: *New Zealand Jour. Sci. and Technology*, v. 27, no. 5, p. 347-365.

Index
No.

- 771 Fleming, C. A., 1953, The geology of the Wanganui subdivision: New Zealand Geol. Survey Bull. 52, p. 306-310.
- 772 Fleming, H. S., 1887, General description of the ores used in the Chattanooga district: Am. Inst. Min. Metall. Eng. Trans., v. 15, p. 757-761.
- 773 Flint, N. K., 1951, Geology of Perry County, Ohio: Ohio Geol. Survey, 4th ser., Bull. 48, p. 128-129.
- 774 Flores, Teodoro, 1933, Yacimientos minerales de la Republica Mexicana: Inst. Geología México Fol. Divulgación, no. 38, 87 p.
- 775 _____ 1950, Geologic and structural environment of the iron ore deposits of Mexico: Econ. Geology, v. 45, no. 2, p. 105-126.
- 776 _____ 1951, Geología, genesis y condiciones estructurales de los yacimientos de fierro de México: Inst. Nac. Inv. Recursos Min. [México] Bol. 29, 30 p.
- 777 Fluhr, R., 1908, Die Eisenerzlagerstätten Würtembergs und ihre volkswirtschaftliche Bedeutung: Zeitschr. prakt. Geologie, Jahrg. 16, p. 1-23.
- 778 Flynn, A. E., 1943, Iron deposit at Nictaux South (N. S.): Nova Scotia Dept. Mines Ann. Rept., 1942, p. 94-96.
- 779 Foerste, A. F., 1891, On the Clinton oolitic iron ores: Am. Jour. Sci., 3d ser., v. 41, p. 28-29.
- 780 Foldvari, Aladar, 1948, Montangeologische Aufnahme des Vasberges von Kassa und der Kassaer Havas: Magyar állami Földt. Intézet Évi Jelentése 1939-40, pt. 2, p. 843-859. [Hungarian and German.]
- 781 Foose, R. M., 1942, Geological history of mineral resources of Lancaster County, Pa.: Pa. Dept. Internal Affairs Monthly Bull., v. 10, no. 6, p. 3-10.
- 782 _____ 1944, Geology and mineral resources in war: Pa. Dept. Internal Affairs Monthly Bull., v. 12, no. 7, p. 12-15; pt. 2, no. 8, p. 20-24.
- 783 _____ 1945, Iron-manganese ore deposit at White Rocks, Cumberland County, Pa.: Pa. Geol. Survey, 4th ser., Bull. M-26, 35 p.
- 784 _____ 1945, Iron ores of the Cumberland Valley and their future: Pa. Dept. Internal Affairs Monthly Bull., v. 13, no. 5, p. 3-13.
- 785 _____ 1953, Origine des gisements de minerai de fer le long de la partie la plus ancienne des Monts Apalaches en Pennsylvanie, in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 65-77.
- 786 Fordham, W. H., 1928, A magnetic resurvey of part of the Northampshire iron field: Min. Mag., v. 39, no. 1, p. 18-25.
- 787 Foshag, W. F., 1929, Mineralogy and geology of Cerro Mercado, Durango, Mexico: U. S. Natl. Mus. Proc., v. 74, no. 23, 27 p.
- 788 Foslie, Steinar, 1949, The Hafjell syncline in Ofoten and its sedimentary iron-manganese ores: Norges Geol. Undersøkelse, nr. 174, 129 p. [Norwegian, English summary.]
- 789 Foster, J. W., and Kimball, J. P., 1865, Geology and metallurgy of the iron ores of Lake Superior: New York, Iron Cliffs Company, 98 p.
- 790 Foster, J. W., and Whitney, J. D., 1851, Report on the geology of the Lake Superior land district; Part 2, The iron region, together with the general geology: U. S. 32d Cong., Special sess., Senate Exec. Doc. 4, 406 p.

Index

No.

- 791 Fotheringham, M. S., 1952, Steep Rock's huge reserves an ace for Canada's future: *Eng. Min. Jour.*, v. 153, no. 4, p. 82-86.
- 792 Fowler-Lunn, Katherine, 1933, Hematite iron ores of Sierra Leone, West Africa: *Econ. Geology*, v. 28, no. 1, p. 59-67; reprinted in *Min. Jour.* [London], v. 184, no. 5135, p. 52-53, 1934.
- 793 Frankel, J. J., and Grainger, G. W., 1941, Notes on Bushveld titaniferous iron ore: *South African Jour. Sci.*, v. 37, p. 101-110.
- 794 Frasché, D. F., 1941, Origin of the Surigao iron ores: *Econ. Geology*, v. 36, no. 2, p. 280-305.
- 795 Fraser, H. J., and Newberry, A. W., 1946, Current iron and steel situation in Brazil: *Pan. Am. Inst. Min. Eng. and Geology, U. S. Sec., Tech. Paper 3*, 19 p.
- 796 Frazer, Persifor, Jr., 1875, Origin of the Lower Silurian limonites of York and Adams Counties, Pa.: *Am. Philos. Soc. Proc.*, v. 14, p. 364-370.
- 797 _____ 1877, A study of the specular and magnetic iron ores of the new red sandstone in York County, Pa.: *Am. Inst. Min. Metall. Eng. Trans.*, v. 5, p. 132-143.
- 798 _____ 1878, Missing ores of iron: *Am. Inst. Min. Metall. Eng. Trans.*, v. 6, p. 531-541.
- 799 _____ 1883, The iron ores of the middle James River, Va.: *Am. Inst. Min. Metall. Eng. Trans.*, v. 11, p. 201-216.
- 800 _____ 1884, Certain silver and iron mines in the States of Nuevo Leon and Coahuila, Mex.: *Am. Inst. Min. Metall. Eng. Trans.*, v. 12, p. 537-569.
- 801 Fréchette, Howells, 1911, Investigation of iron ore deposits at Torbrook, Annapolis County, N. S.: *Canada Mines Branch Summary Rept.*, 1910, p. 87-92.
- 802 _____ 1912, Western portion of Torbrook iron ore deposits, Annapolis County, N. S.: *Canada Mines Branch Bull.* 7, 13 p.
- 803 Freise, F., 1907, Zur Entwicklungsgeschichte des Erzbergbaues in den deutschen Rheinlanden, von der Wiederaufnahme des Bergbaues nach der Völkerwanderung bis zum Dreissigjährigen Kriege: *Zeitschr. prakt. Geologie*, Jahrg. 15, p. 1-19.
- 804 Frey, Eugene, 1946, Exploration of Iron Mountain titaniferous magnetite deposits, Albany County, Wyo.: *U. S. Bur. Mines Rept. Inv.* 3968, 37 p.
- 805 * _____ 1946, Exploration of the Shanton iron ore property, Albany County, Wyo.: *U. S. Bur. Mines Rept. Inv.* 3918, 5 p.
- 806 _____ 1947, Good Fortune iron mine, Platte County, Wyo.: *U. S. Bur. Mines Rept. Inv.* 4089, 7 p.
- 807 _____ 1947, Hartville iron district, Platte County, Wyo.: *U. S. Bur. Mines Rept. Inv.* 4086, 3 p.
- 808 Freyberg, Bruno, 1940, Der Werdegang der Kreide-Erzbecken von Auerbach/Oberpfalz: *Deutsche Geol. Gesell. Zeitschr.*, Band 92, Heft 7-8, p. 400-416.
- 809 _____ 1951, Zur Stratigraphie und Fazieskunde des Doggersandsteins und seiner Floze: *Geologica Bavarica*, no. 9, 108 p.
- 810 Friedensburg, Ferdinand, 1939, Kohle, Eisen und Bauxit in Jugoslawien: *Glückauf*, Jahrg. 75, Hefte 46, 47, p. 897-903, 913-919.

Index
No.

- 811 Friz, W., 1905, Die nutzbaren Lagerstätten im Gebiete der mittleren sibirischen Eisenbahnlinie: Zeitschr. prakt. Geologie, v. 13, p. 55-65.
- 812 Froehling, Henry, 1884, Analysis of James River iron ores: The Virginias, v. 5, no. 3, p. 52.
- 813 *Fuller, M. L., 1914, The geology of Long Island, N. Y.: U. S. Geol. Survey Prof. Paper 82, 231 p.
- 814 Fulton, John, 1888, Mode of deposition of the iron ores of the Menominee range, Mich.; Am. Inst. Min. Metall. Eng. Trans., v. 16, p. 525-535.
- 815 Furcron, A. S., 1935, James River iron and marble belt, Va.: Va. Geol. Survey Bull. 39, 124 p.
- 816 Gage, J. R., 1873, On the occurrence of iron ores in Missouri: Acad. Sci. St. Louis Trans., v. 3, p. 181-192.
- 817 Gage, M., 1940, The geology of the iron ores of the Collingwood district, northwest Nelson: New Zealand Jour. Sci. and Technology, v. 21, no. 6B, p. 304B-313B.
- 818 Galbreath, F. W., 1937, A microscopic study of goethite and hematite in the brown iron ores of east Texas: Am. Mineralogist, v. 22, no. 10, p. 1007-1015.
- 819 Gallagher, David, 1937, Origin of the magnetite deposits at Lyon Mountain, N. Y.: N. Y. State Mus. Bull. 311, 85 p.
- 820 Ganguly, Hirenda Nath, 1937, Iron ores of India: Presidency Coll. [Calcutta] Geol. Inst. Jour., v. 1, no. 1, p. 23-31.
- 821 Gardner, D. L., 1940, Geology of the Newberry and Ord Mountains, San Bernardino County, Calif.: Calif. Jour. Mines and Geology, v. 36, Chap. 3, p. 257-292.
- 822 Gardner, J. H., 1912, Preliminary report on the economic geology of the Hartford quadrangle: Ky. Geol. Survey Bull. 20, p. 1-25.
- 823 Gardner, J. T., 1875, Report upon the southern coal and iron fields of Colorado Territory: Colorado Springs, Colo., 23 p.
- 824 Garkovetz, V. G., 1946, On the genesis of the Abail iron-ore deposit: Akad. nauk SSSR, Doklady, tom 54, vyp. 4, p. 337-338.
- 825 Garrison, F. L., 1904, The genesis of limonite ores in the Appalachians: Eng. Min. Jour., v. 78, p. 470-471.
- 826 _____ 1904, The iron ores of Shady Valley, Tenn.: Eng. Min. Jour., v. 78, p. 590-592.
- 827 Gavala, J., 1952, Nota sobre los criaderos de hierro del Sahara español: Inst. Geol. Min. España Notas y comun., no. 27, p. 3-59.
- 828 Geehan, R. W., 1949, Investigation of the Dayton iron deposit, Lyon and Storey Counties, Nev.: U. S. Bur. Mines Rept. Inv. 4561, 34 p.
- 829 Geijer, Per, 1915, Some problems in iron-ore geology in Sweden and in America: Econ. Geology, v. 10, p. 299-329.
- 830 _____ 1925, Eulysitic iron ores in northern Sweden: Sveriges Geol. Unders., Ser. C, nr. 324; Årsbok 17, nr. 5, p. 1-15.
- 831 _____ 1929, Geology of the iron ore fields at Masugnsbyn: Sveriges Geol. Unders., Ser. C, nr. 351; Årsbok 22, nr. 1, p. 1-39. [Swedish, English summary.]
- 832 _____ 1930, Geology of the Gällivare, Sweden, iron ore field: Sveriges Geol. Unders., Ser. Ca, nr. 22, 115 p. [Swedish, English summary.]

Index
No.

- 833 Geijer, Per, 1931, Iron ores of the Kiruna type, geographical distribution, geological characters, and origin: Sveriges Geol. Unders., Ser. C, nr. 367; Årsbok 24, nr. 4, 39 p.
- 834 _____ 1931, Pre-Cambrian geology of the iron-bearing region Kiruna: Sveriges Geol. Unders., Ser. C, nr. 366; Årsbok 24, nr. 3, p. 1-225. [Swedish, English summary.]
- 835 _____ 1931, Supergene martite, editorial: Econ. Geology, v. 26, p. 437-439.
- 836 _____ 1936, Geology and ore deposits of Norberg, Sweden: Sveriges Geol. Unders., Ser. Ca, nr. 24, 162 p. [Swedish, English summary.]
- 837 _____ 1938, Geology of Stripa iron ores: Sveriges Geol. Unders., Ser. Ca, nr. 23, 43 p. [Swedish, English summary.]
- 838 _____ 1943, Swedish geological investigations—the search for ore (iron) in Västerbotten, Sweden: Teknisk tidskr. [Norköpping], 73, p. B73-B78.
- 839 Geijer, Per, and Magnusson, N. H., 1926, The occurrence of "soft ores" in Swedish iron mines: Sveriges Geol. Unders., Ser. C, nr. 338; Årsbok 19, nr. 5, p. 1-53. [Swedish, English summary.]
- 840 _____ 1944, A survey of the iron ore resources of central Sweden: Jernkontorets annaler, v. 128, p. 379-403 [Swedish]; abs., Iron and Steel Inst. [London] Jour., v. 151, p. 39A, 1945 [English].
- 841 _____ 1952, Geological history of the iron ores of central Sweden: Internat. Geol. Cong., 18th sess., London, 1948, Proc., pt. 13, p. 84-89.
- 842 Gella, Norbert, and Bateman, H. B., 1929, Note on an electrical and magnetic investigation for magnetite ores, north Sweden: Inst. Mining and Metallurgy Bull. 295, 7 p.
- 843 Gesner, William, 1876, On the coal and iron resources of Alabama: Acad. Nat. Sci. Philadelphia Proc., 1876, p. 163-165.
- 844 Getz, A. J., 1941, Descriptions of individual limonite iron mines: Pa. Geol. Survey, 4th ser., Bull. C 39, p. 272-313.
- 845 Gibson, A. M., 1893, Report on the geological structure of Murphrees Valley and its mineral and other materials of economic value: Ala. Geol. Survey, 132 p.
- 846 Gignac, A., 1934, Le bassin ferrifère de l'est de la France: Mines, carrières, année 13, no. 143, p. 5-8.
- 847 Gilbert, Geoffrey, 1925, some magnetite-hematite relations: Econ. Geology, v. 20, no. 6, p. 587-596.
- 848 _____ 1926, The significance of hematite in certain ore deposits: Econ. Geology, v. 21, no. 6, p. 560-577.
- 849 Gilbert, J. E., 1953, Northern Quebec, a new mining area. A study of the territory between Eastmain River and Ungava Bay: Quebec Dept. Mines., Geol. Rept. 56, 29 p.
- 850 Gill, J. E., 1926, Gunflint iron-bearing formation, Ont.: Canada Geol. Survey Summary Rept. 1924, pt. C, p. 28-88.
- 851 _____ 1927, Origin of the Gunflint iron-bearing formation: Econ. Geology, v. 22, no. 7, p. 687-728.
- 852 Gill, W., 1897, The present position of the iron-ore industries of Biscay and Santander: Iron and Steel Inst. Jour., v. 50, p. 36-100.
- 853 Gillette, Tracy, 1940, Geology of the Clyde and Sodus Bay quadrangles, N. Y.: N. Y. State Mus. Bull. 320, 179 p.

Index
No.

- 354 Gillette, Tracy, 1947, The Clinton of western and central New York: N. Y. State Mus. Bull. 341, 191 p.
- 855 Gillies, D. B., 1950, Adirondack iron ore field still offers many challenges: Eng. Min. Jour., v. 151, no. 6, p. 84-87.
- 856 Gillson, J. L., 1932, Genesis of the ilmenite deposits of St. Urbain, County Charlevoix, Quebec: Econ. Geology, v. 27, no. 6, p. 554-577.
- 857 Gilpin, Edwin, 1877, The iron ores of Nova Scotia: New England Inst. Min. Eng. Trans., v. 26, p. 71-88.
- 858 _____ 1886, The iron ores of Pictou County, N. S.: Am. Inst. Min. Metal. Eng. Trans., v. 14, p. 54-63.
- 859 _____ 1893, Notes on Nova Scotia iron ores: Min. Soc. Nova Scotia Jour., v. 1, pt. 2, p. 8-14.
- 860 _____ 1896, The iron ores of Nictaux, N. S.: Nova Scotian Inst. (Nat.) Sci. Proc. and Trans., v. 9, p. 10-20.
- 861 Gisolf, W. F., 1928, On the origin of some iron ores and serpentine in the Dutch East Indies: Pan-Pacific Sci. Cong., 3d, Tokyo, 1926, Proc., p. 1729-1732.
- 862 *Glenn, William, 1896, Chromic iron, with reference to its occurrence in Canada: U. S. Geol. Survey Min. Res. U. S., 1895 (Ann. Rept. 17th, pt. 3), pt. d, p. 261-273.
- 863 Glover, S. L., 1942, Mineral resources of the Wenatchee-Ellensburg-Yakima region, Wash.: Wash. Div. Mines and Geology Rept. Inv. 3, 13 p.
- 864 _____ 1942, Washington iron ores, a summary report: Wash. Div. Mines and Geology Rept. Inv. 2, 23 p.
- 865 Goar, I., and Lamare, P., 1935, Existence de mineraux de feroolithique dans le Devonien des Pyrénées navarraises: Cong. internat. mines, 7^e sess., Paris, 1935, Comptes rendus, v. 1, p. 305-311.
- 866 Goddard, E. N., 1936, The geology and ore deposits of the Tincup mining district, Gunnison County, Colo.: Colo. Sci. Soc. Proc., v. 13, no. 10, p. 551-595.
- 867 Goddard, E. N., and Warner, L. A., 1944, Copper-bearing iron deposits of the Mt. Andrew-Mamie area, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: U. S. Geol. Survey Prelim. Rept., 29 p.
- 868 *Goldich, S. S., and Bergquist, H. R., 1947, Aluminous lateritic soil of the Sierra de Bahoruco area, Dominican Republic, West Indies: U. S. Geol. Survey Bull. 953-C, p. 53-84.
- 869 * _____ 1948, Aluminous lateritic soil of the Republic of Haiti, West Indies: U. S. Geol. Survey Bull. 954-C, p. 63-111.
- 870 Goldich, S. S., and Wedow, Helmuth, 1943, Preliminary report on the magnetic iron ores of western North Carolina and eastern Tennessee: U. S. Geol. Survey open-file rept., 47 p.
- 871 González Reyna, Jenaro, 1946, Criaderos minerales típicos de México: Com. Directivo Inv. Rec. Min. México, Guía del Explor. Minero, chap. 6, p. 143-167.
- 872 _____ 1946, La industria minera en el Estado de Chihuahua: Com. Directivo Inv. Rec. Min. México, Bol. 7, 152 p.
- 873 Gooch, E. O., 1954, Iron in Virginia: Va. Div. Geology, Min. Res. Circ. 1, 17 p.

Index
No.

- 874 Good, S. E., and Pettijohn, F. J., 1949, Magnetic survey and geology of the Stager area, Iron County, Mich.: U. S. Geol. Survey Circ. 55, 4 p.
- 875 Goodchild, J. G., 1903, The Scottish ores of iron: Edinburgh Geol. Soc. Trans., v. 8, p. 200-219.
- 876 Goodchild, J. H., 1939, Iron ore on the Mediterranean seaboard: Min. Mag., v. 61, no. 6, p. 333-343.
- 877 _____ 1940, The growth of Jacutinga: Min. Mag., v. 63, no. 4, p. 184-193.
- 878 _____ 1953, Banded iron formations, dynamical significance in tropical surroundings, in *La genese des gîtes de fer*: Cong. géol. internat., 19^e sess., Alger 1952, Comptes rendus, fasc. 10, p. 35-37.
- 879 Goodman, R. J., 1949, The future of iron mining on the Marquette Range, Marquette County, Mich.: Mich. Acad. Science Papers, v. 35, p. 189-195.
- 880 Goodspeed, G. E., 1946, Preliminary report on iron-ore deposits adjacent to Belt Creek, Meagher County, Mont.: U. S. Geol. Survey open-file rept., 8 p.
- 881 Goodspeed, G. E., and Fitzsimmons, P. J., 1946, Preliminary report on iron deposits of Running Wolf district, Judith Basin County, Mont.: U. S. Geol. Survey open-file rept., 26 p.
- 882 _____ 1946, Preliminary report on iron-ore deposits adjacent to Yogo Peak, Judith Basin County, Mont.: U. S. Geol. Survey open-file rept., 11 p.
- 883 _____ 1946, Preliminary report on iron-ore deposits near White Sulfur Springs, Meagher County, Mont.: U. S. Geol. Survey open-file rept., 15 p.
- 884 Goodwin, W. L., 1920, Titaniferous iron ores in Canada: Canadian Min. Inst. Trans., v. 22, p. 86-99.
- 885 Goodwin, W. M., 1932, Hematite at Steep Rock Lake: Canadian Min. Jour., v. 53, no. 2, p. 68-69.
- 886 _____ 1949, Labrador iron ore: Western Miner (and Oil Rev.), v. 22, no. 5, p. 54-57.
- 887 Gordon, C. H., 1913, Types of iron-ore deposits in Tennessee: Tenn. Geol. Survey, Res. Tenn., v. 3, p. 84-95.
- 888 Gordon, C. H., and Jarvis, R. P., 1912, Iron deposits in the Tuckahoe district, east Tennessee: Tenn. Geol. Survey, Res. Tenn., v. 2, p. 458-478.
- 889 Gottis, Ch., and Sainfeld, P., 1952, Les gîtes métallifères tunisiens: Cong. géol. internat., 19^e sess., Alger, 1952, Mon. régionales, sér. 2, Tunisie, no. 2, 104 p.
- 890 Gould, C. N., 1910, Brief chapters on Oklahoma's minerals: Okla. Geol. Survey Bull. 6, p. 33-95.
- 891 Gould, C. N., Hutchison, L. L., and Nelson, Gaylord, 1908, Preliminary report on the mineral resources of Oklahoma: Okla. Geol. Survey Bull. 1, 84 p.
- 892 Graeber, C. K., and Foose, R. M., 1942, Iron ore; geology and mineral resources of the Brookville quadrangle: Pa. Geol. Survey, 4th ser., Topog. and Geol. Atlas, no. 54, p. 123.
- 893 *Graff, W. W., 1930, Mining practices, methods, and costs at Mine no. 5 of the Marquette range, Mich.: U. S. Bur. Mines Inf. Circ. 6380, 10 p.

Index

No.

- 894 Granbery, J. H., 1906, Magnetite deposits and mining at Mineville, N. Y.: Eng. Min. Jour., v. 81, p. 890-893, 986-989, 1035-1038, 1082-1084, 1130-1132, 1178-1179.
- 895 Granigg, Bartel, 1937, Die Grundlagen der türkischen Eisenindustrie: Stahl u. Eisen, v. 57, no. 30, p. 833-838.
- 896 Grant, U. S., 1898, Sketch of the geology of the eastern end of the Mesabi iron range in Minnesota: Minn. Univ. Engineers' Year Book, v. 6, p. 49-62.
- 897 _____ 1902, Lake Superior iron-ore deposits: Am. Geologist, v. 29, p. 47-51.
- 898 _____ 1904, Investigations on the Lake Superior iron-ore deposits: Min. Mag., v. 10, p. 175-183.
- 899 *Grant, U. S., and Higgins, D. F., Jr., 1910, Reconnaissance of the geology and mineral resources of Prince William Sound, Alaska: U. S. Geol. Survey Bull. 443, 89 p.
- 900 * _____ 1909, Notes on geology and mineral prospects in the vicinity of Seward, Kenai Peninsula: U. S. Geol. Survey Bull. 379, p. 98-107.
- 901 *Grantham, R. M., and Soule, J. H., 1947, Jones iron deposit, Socorro County, N. Mex.: U. S. Bur. Mines Rept. Inv. 4010, 4 p.
- 902 Gratacap, L. P., 1899, Notes on the limonite beds on Ocean Terrace, Staten Island, N. Y.: Nat. Science Assoc. Staten Island Proc., v. 7, p. 28-29.
- 903 Grawe, O. R., 1945, Pyrite deposits of Missouri: Mo. Geol. Survey and Water Res. 2d ser., v. 30, 482 p.
- 904 Great Britain Board of Trade, 1905, Iron ore deposits in foreign countries: Darling and Son, 293 p.
- 905 Great Britain Ordnance Survey Office, 1935, Map of the iron ores of England and Wales: Southampton.
- 906 Greene, J. D., 1948, There is plenty of iron: Steelways, no. 14, p. 1-5.
- 907 Gregory, J. W., 1907, Iron-ore deposits near Nirboo North, southern Gippsland: Geol. Survey Victoria Rec., v. 2, p. 14-16.
- 908 _____ 1911, The iron ore supplies of the world: Science Progress, v. 5, no. 19, p. 371-382.
- 909 Gregory, Winifred, 1915, Bibliography of Minnesota mining and geology: Minn. School Mines Expt. Sta. Bull. 4, 157 p.
- 910 _____ 1920, Bibliography of Minnesota mining and geology: Minn. School Mines Expt. Sta. Bull. 8, 43 p.
- 911 Grimsley, G. P., 1909, Iron ores, salt, and sandstones: W. Va. Geol. Survey, v. 4, 603 p.
- 912 _____ 1916, Detailed county report on Jefferson, Berkeley, and Morgan Counties: W. Va. Geol. Survey, 644 p.
- 913 Grondijs, H. F., and Schouten, C., 1937, A study of the Mount Isa ores (Queensland, Australia): Econ. Geology, v. 32, no. 4, p. 407-450.
- 914 Grosh, W. A., Pennington, J. W., and Wasson, P. A., 1953, Investigation of the Scallon-Todd Lease, Aitkin County, Minn.: U. S. Bur. Mines Rept. Inv. 4979, 24 p.
- 915 Grout, F. F., 1919, The nature and origin of the Biwabik iron-bearing formation of the Mesabi range, Minn.: Econ. Geology, v. 14, no. 6, p. 452-464.

Index
No.

- 916 Grout, F. F., 1922, Origin of east Mesabi magnetic ores: *Pan-Am. Geologist*, v. 37, no. 4, p. 337-339.
- 917 _____ 1923, Magnetite pegmatites of northern Minnesota: *Econ. Geology*, v. 18, no. 3, p. 253-269.
- 918 _____ 1925, A magnetite segregation in banded syenite in Minnesota: *Econ. Geology*, v. 20, no. 5, p. 424-430.
- 919 _____ 1926, The geology and magnetite deposits of northern St. Louis County, Minn.: *Minn. Geol. Survey Bull.* 21, 220 p.
- 920 _____ 1949-50, The titaniferous magnetites of Minnesota: Office of the Commissioner of the Iron Range Resources and Rehabilitation, 117 p.
- 921 Grout, F. F., and Broderick, T. M., 1919, The magnetite deposits of the eastern Mesabi range, Minn.: *Minn. Geol. Survey Bull.* 17, 58 p.
- 922 _____ 1919, Organic structures in the Biwabik iron-bearing formation of the Huronian in Minnesota: *Am. Jour. Sci.*, 4th ser., v. 48, p. 199-205.
- 923 Gruner, J. W., 1922, Organic matter and the origin of the Biwabik iron-bearing formation of the Mesabi range: *Econ. Geology*, v. 17, no. 6, p. 407-460.
- 924 _____ 1922, Paragenesis of the martite ore bodies and magnetites of the Mesabi range, Minn.: *Econ. Geology*, v. 17, no. 1, p. 1-14.
- 925 _____ 1924, Contributions to the geology of the Mesabi range, with special reference to the magnetites of the iron-bearing formation west of Mesabi: *Minn. Geol. Survey Bull.* 19, 71 p.
- 926 _____ 1926, Magnetite-martite-hematite: *Econ. Geology*, v. 21, no. 4, p. 375-393.
- 927 _____ 1926, The Soudan formation and a new suggestion as to the origin of the Vermilion iron ores: *Econ. Geology*, v. 21, no. 7, p. 629-644.
- 928 _____ 1929, The identity and genesis of lodestone magnetite: *Econ. Geology*, v. 24, no. 7, p. 771-775; discussion by M. C. Brandy, v. 25, no. 8, p. 871-875, 1930.
- 929 _____ 1930, Hydrothermal oxidation and leaching experiments; their bearing on the origin of Lake Superior hematite-limonite ores: *Econ. Geology*, v. 25, p. 697-719; discussions by G. Tunell and Eugen Posnjak, v. 26, p. 337-343; J. W. Gruner, p. 442-445; and L. E. Dick, p. 783-786, 1931.
- 930 _____ 1932, Additional notes on secondary concentration of Lake Superior iron ores: *Econ. Geology*, v. 27, no. 2, p. 189-205; discussion by Stephen Royce, no. 5, p. 487-491; v. 28, no. 3, p. 293, 1933.
- 931 _____ 1934, Magnetite cementing certain ore conglomerates of the Mesabi range: *Econ. Geology*, v. 29, no. 8, p. 757-760.
- 932 _____ 1937, Hydrothermal leaching of iron ores of the Lake Superior type; a modified theory: *Econ. Geology*, v. 32, no. 2, p. 121-130; discussions by Stephen Royce, no. 3, p. 389; C. O. Swanson, no. 6, p. 855-857; and J. A. Dunn, no. 7, p. 976-977.
- 933 _____ 1941, Structural geology of the Knife Lake area of northeastern Minnesota: *Geol. Soc. America Bull.*, v. 52, no. 10, p. 1577-1642.

Index
No.

- 934 Gruner, J. W., 1946, The mineralogy and geology of the taconites and iron ores of the Mesabi range, Minnesota: St. Paul, Minn., Iron Range Res. and Rehabilitation Comm. and Minn. Geol. Survey, 127 p.
- 935 _____ 1950, An appraisal of the iron-ore resources of the world--an American estimate: Am. Inst. Min. Metall. Eng., Blast Furnace, Coke Ovens, and Raw Materials Conf., April 10-12, Cincinnati, Ohio, 12 p.; Minn. Univ. Dept. Geol., 16 p.
- 936 _____ 1954, A realistic look at taconite estimates: Min. Eng., v. 6, no. 3, p. 287-288.
- 937 Guardiola, Ricardo, and De Sierra, Alfonso, 1925-28, Hierros de Almeria y Granada: Inst. Geol. Min. España Mem., tomo 5, pt. 1, 343 p., 1925; pt. 2, 438 p., 1926; pt. 3, 657 p., 1928.
- 938 Guild, F. N., 1934, Microscopic relations of magnetite, hematite, pyrite, and chalcopyrite: Econ. Geology, v. 29, no. 2, p. 107-120.
- 939 Guild, P. W., 1953, Iron deposits of the Congonhas district, Minas Gerais, Brazil: Econ. Geology, v. 48, no. 8, p. 639-676.
- 940 Guimarães dos Santos, J. L., 1946, Sobre o interesse técnico-industrial do jazigo de ferro de Vila Cova do Marão: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 2, p. 175-224.
- 941 _____ 1953, Le gisement de fer de Guadramil: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 8, p. 287-296.
- 942 _____ 1953, Gisement de fer de Guadramil, in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 133-141.
- 943 Guimarães dos Santos, J. L., and Coteló Neiva, J. M., 1947, Vila Cova (Serra do Marão)-importante jazigo de magnetite do Norte de Portugal: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 3, p. 193-206.
- 944 Gunning, H. C., 1943, Geology and mineral resources of British Columbia: Miner, v. 16, no. 6, p. 35-39; no. 7, p. 33-37.
- 945 Gutsell, B. V., 1949, An introduction to the geography of Newfoundland: Canada Dept. Mines and Res. Inf. Ser. 1, The Bell Island Mines, p. 51-52.
- 946 Gysin, Marcel, 1944, Les roches éruptives et les gisements métallifères des environs d'Esbiye (Anatolie); les gisements de fer et de plomb: Soc. physique et histoire nat. Genève Compte rendu, v. 61, no. 3, p. 277-282.
- 947 Haberfelner, Erich, 1937, Die Geologie der Osterreichischen Eisenerzlagerstätten: Zeitschr. Berg-Hütten- u. Salinenwesen Preussischen Staate, Band 85, Heft 6, p. 226-240.
- 948 Hadding, Assar, 1933, Iron ore bearing sediments in Skania: Sveriges Geol. Unders., Ser. C, nr. 376, Arsbok 27, nr. 1, 31 p. [Swedish, English summary.]
- 949 Hadley, J. B., 1948, Iron-ore deposits in the eastern part of the Eagle Mountains, Riverside County, Calif.: Calif. Div. Mines Bull. 129, pt. A, p. 1-24.
- 950 Hage, C. O., 1944, Geology adjacent to the Alaska Highway between Fort St. John and Fort Nelson, British Columbia: Canada Geol. Survey Paper 44-30, 22 p.
- 951 Hale, P. M., 1883, In the coal and iron counties of North Carolina; a compilation from the geological reports of Drs. Emmons and Kerr: Raleigh, N. C., 425 p.

- Index
No.
- 952 Hall, C. E., 1879, Laurentian magnetic iron ore deposits in northern New York: N. Y. State Mus. Ann. Rept. 32, p. 133-140.
- 953 _____ 1885, Laurentian magnetic iron ore deposits of northern New York, accompanied by a geological map of Essex County: N. Y. State Geologist Ann. Rept. 4, p. 23-34.
- 954 Hall, James, 1837, Ores of iron of the second geological district of New York: N. Y. Geol. Survey Ann. Rept. 1, p. 127-149.
- 955 _____ 1843, Geology of New York—Part 4, comprising the survey of the fourth geological district: Albany, N. Y., Carroll and Cook, 683 p.
- 956 Hallimond, A. F., 1925, Iron ores, in *Bedded ores of England and Wales—Petrography and chemistry*: Geol. Survey Great Britain Special Repts. Min. Res. Great Britain, v. 29, 139 p.
- 957 Hallimond, A. F., and Whetton, J. T., 1939, Magnetic survey of hematite ore in South Cumberland and Furness: Geol. Survey Great Britain Bull. 2, p. 1-17.
- 958 _____ 1940, Magnetic survey of hematite ore in south Cumberland and Furness: *Mine and Quarry Eng.*, v. 5, no. 8, p. 227-234.
- 959 Hamilton, J., 1951, Preliminary report on the investigation of an iron ore deposit in the Putareng area: Geol. Survey British Guiana Rept. 1950, p. 29-30.
- 960 Harbort, E., 1903, Zur Frage nach der Entstehung gewisser devonischer Rotheisenerzlagerstätten: *Neues Jahrb.*, 1903, Band 1, p. 179-192.
- 961 Harcourt, G. A., 1939, The southwestern part of the Schreiber area: Ontario Dept. Mines Ann. Rept., 1938, v. 47, pt. 9, p. 1-28.
- 962 Harden, J. W., 1871, The brown hematite ore-deposits of South Mountain, between Carlisle, Waynesborough, and the southeastern edge of Cumberland Valley: *Am. Inst. Min. Metall. Eng. Trans.*, v. 1, p. 136-143.
- 963 *Harder, E. C., 1909, Chromic iron ore: U. S. Geol. Survey Min. Res. U. S., 1908, pt. 1c, p. 751-770.
- 964 * _____ 1909, The iron ores of the Appalachian region in Virginia: U. S. Geol. Survey Bull. 380, p. 215-254.
- 965 * _____ 1909, Iron ores, pig iron, and steel: Occurrence of iron ores in the United States; Iron ore reserves of the United States; Bibliography; Map showing deposits of iron ore in the United States: U. S. Geol. Survey Min. Res. U. S., 1908, pt. 1a, p. 81-134.
- 966 * _____ 1909, The Taylor Peak and Whitepine iron-ore deposits, Colo.: U. S. Geol. Survey Bull. 380, p. 188-198.
- 967 * _____ 1910, Deposits of brown iron ore near Dillsburg, York County, Pa.: U. S. Geol. Survey Bull. 430, p. 250-255.
- 968 * _____ 1910, Iron ores near Dayton, Nev.: U. S. Geol. Survey Bull. 430, p. 240-246.
- 969 * _____ 1910, Some iron ores of western and central California: U. S. Geol. Survey Bull. 430, p. 219-227.
- 970 _____ 1910, Structure and origin of the magnetite deposits near Dillsburg, York County, Pa.: *Econ. Geology*, v. 5, p. 599-622.
- 971 * _____ 1912, Iron-ore deposits of the Eagle Mountains, Calif.: U. S. Geol. Survey Bull. 503, 81 p.
- 972 _____ 1914, The "itabirite" iron ores of Brazil: *Econ. Geology*, v. 9, no. 2, p. 101-111.

Index
No.

- 973 Harder, E. C., 1915, Iron bacteria: Science, new ser., v. 42, p. 310-311.
- 974 _____ 1917, Manganiferous iron ores of the Cuyuna district, Minn.: Am. Inst. Min. Metall. Eng. Bull., v. 129, p. 1313-1344; Trans., v. 58, p. 453-486, 1918.
- 975 * _____ 1919, Iron-depositing bacteria and their geologic relations: U. S. Geol. Survey Prof. Paper 113, 89 p.
- 976 * _____ 1919, Manganiferous iron ores: U. S. Geol. Survey Bull. 666-EE, 13 p.
- 977 Harder, E. C., and Eddingfield, F. T., 1920, The iron ores of the world: Eng. Min. Jour., v. 109, p. 1060-1064.
- 978 *Harder, E. C., and Johnston, A. W., 1918, Notes on the geology and iron ores of the Cuyuna district, Minn.: U. S. Geol. Survey Bull. 660-A, p. 1-26.
- 979 _____ 1918, Preliminary report on the geology of east central Minnesota, including the Cuyuna iron-ore district: Minn. Geol. Survey Bull. 15, 178 p.
- 980 *Harder, E. C., and Rich, J. L., 1910, The Iron Age iron-ore deposit, near Dale, San Bernardino County, Calif.: U. S. Geol. Survey Bull. 430, p. 228-239.
- 981 Harder, Hermann, 1951, Über den Mineralbestand und die Entstehung einiger sedimentärer Eisenerze des Lias-V: Heidelberg. Beitr. Mineralogie Petrographie, Band 2, Heft 5, p. 455-476.
- 982 Harding, W. D., 1938, Geology of the Horwood Lake area: Ontario Dept. Mines Ann. Rept. 1937, v. 46, pt. 2, p. 1-34.
- 983 _____ 1941, Geology of the Flack Lake area (Ont.): Ontario Dept. Mines Ann. Rept. 1939, v. 48, pt. 11, 12 p.
- 984 Hardman, J. E., 1908, A new iron-ore field in the Province of New Brunswick: Canadian Min. Inst. Jour., v. 11, p. 156-164.
- 985 Harper, R. M., 1942, Natural resources of the Tennessee Valley region in Alabama: Ala. Geol. Survey Special Rept. 17, 93 p.
- 986 Harrington, B. J., 1873, Notes on samples of iron from the Acadia mines, N. S.: Canada Geol. Survey Rept. Progress 1872-3, p. 28-31.
- 987 _____ 1874, Notes on the iron ores of Canada and their development: Canada Geol. Survey Rept. Progress 1873-74, p. 192-195.
- 988 Harrington, Horace, 1939, Report on the mineral resources of Houston County, Tex.: Tex. Univ., Bur. Econ. Geology Min. Res. Survey Circ. 25, 2 p.
- 989 Harrington, J. F., and Page, B. M., 1952, Sources of iron ore in Asia: Allied Powers, GHQ Tokyo, Nat. Res. Sec. rept. 154, 176 p.
- 990 Harris, C. M., 1948, Iron and asbestos in the north of western Australia: Min. Mag., v. 78, no. 4, p. 201-208.
- 991 Harris, H. G., and Willbourn, E. S., 1940, Mining in Malaya; 2d edition, revised by A. G. MacDonald and E. S. Willbourn: London, The Malayan Information Agency, 108 p.
- 992 Harrison, Clark, 1942, Missouri iron, Pilot Knob: Rocks and Minerals, v. 17, no. 2, p. 46-51.
- 993 Harrison, H. S., 1953, Iron ore supply—A new appraisal of the outlook: Eng. Min. Jour., v. 154, no. 6, p. 80-83.

Index
No.

- 994 Harrison, J. M., 1952, The Quebec-Labrador iron belt, Quebec and Newfoundland: Canada Geol. Survey Paper 52-20, 21 p.
- 995 _____ 1953, Iron formations of Ungava Peninsula, Canada, in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 19-33.
- 996 Hart, Charles, 1929, Foreign iron ores: Am. Inst. Min. Metall. Eng. Trans., v. 84, p. 7-38.
- 997 _____ 1939, Known iron-ore reserves of the world and their significance: Iron and Steel Engineer, v. 16, no. 5, p. 42-61.
- 998 Harte, C. R., 1944, Connecticut's iron and copper: Conn. Soc. Civil Engineers, 60th Ann. Rept., p. 131-166.
- 999 Hartley, Edward, 1870, Report on the coals and iron ores of Pictou County, N. S.: Canada Geol. Survey Rept. Progress 1866-9, p. 55-107.
- 1000 Hartley, W. N., and Ramage, H., 1898, A spectrographic analysis of iron-ores and associated minerals: Iron and Steel Inst. Jour., v. 52, p. 182-192.
- 1001 Hartmann, Eduard, 1938, Geologie der frankischen Dogger-Erze: Geol. Landesunters. bayer. Oberbergamtes Abh., Heft 33, p. 31-44.
- 1002 Hartnagel, C. A., and Broughton, J. G., 1951, The mining and quarry industries of New York State, 1937 to 1948: N. Y. State Mus. Bull. 343, p. 46-59.
- 1003 Hasebrink, A., 1926, Das eisenerzvorkommen von Wabana, Neufundland: Glückauf, v. 62, no. 18, p. 553-561.
- 1004 Haseltine, R. H., 1924, Iron ore deposits of Georgia: Ga. Geol. Survey Bull. 41, 222 p.
- 1005 Hatcher, Harlan, 1950, A century of iron and men: New York, Bobbs-Merrill, 295 p.
- 1006 Hatzfeld, C., 1906, Die Rotheisensteinlager bei Fachingen a. d. Lahn: Zeitschr. prakt. Geologie, Jahrg. 14, p. 351-365.
- 1007 Haughton, S. H., 1946, Minerals and mining in South Africa: Mining and Metallurgy, v. 27, no. 475, p. 437-439.
- 1008 Haven, W. A., 1938, Lean ores: Steel, v. 102, no. 9, p. 48-53, 74; no. 10, p. 72-77.
- 1009 Hawkes, H. E., 1945, Magnetic anomaly near Bechtelsville, Pa.: U. S. Geol. Survey Prelim. Rept., 2 p., 2 maps.
- 1010 *Hawkes, H. E., and Balsley, J. R., 1946, Magnetic exploration for iron ore in northern New York: U. S. Geol. Survey Strategic Minerals Inv. Prelim. Map 3-194, 9 p., 8 maps.
- 1011 Hawkes, H. E., Balsley, J. R., and others, 1946, Aeromagnetic map of the Oswegatchie quadrangle, N. Y.: U. S. Geol. Survey Geophys. Inv. 1. 40c.
- 1012 _____ 1946, Aeromagnetic survey at three levels over Benson mines, St. Lawrence County, N. Y.: U. S. Geol. Survey Geophys. Inv. 2. 35c.
- 1013 *Hawkes, H. E., and Hotz, P. E., 1947, Drill hole correlation as an aid in exploration of magnetite deposits of the Jersey Highlands, N. Y.-N. J.: U. S. Geol. Survey Bull. 955-A, 17 p.
- 1014 Hawkes, H. E., Wedow, Helmuth, and Balsley, J. R., 1953 (1954), Geologic investigation of the Boyertown magnetite deposits in Pennsylvania: U. S. Geol. Survey Bull. 995-D, p. 135-149. 50c.

- Index
No.
- 1015 Hawley, J. E., 1930, Geology of the Sapawe Lake area, with notes on some iron and gold deposits of Rainy River district: Ontario Dept. Mines Ann. Rept., v. 38, pt. 6, p. 1-58.
- 1016 _____ 1942, Origin of some siderite, pyrite, chert deposits, Michipicoten district, Ont.: Royal Soc. Canada Trans., 3d ser., v. 36, no. 4, p. 79-87.
- 1017 Hawley, J. E., and Beavan, A. P., 1934, Mineralogy and genesis of the Mayville iron ore of Wisconsin: Am. Mineralogist, v. 19, no. 11, p. 493-514.
- 1018 Hayes, A. O., 1915, Wabana iron ore of Newfoundland: Canada Geol. Survey Mem. 78, 163 p.
- 1019 _____ 1916, Origin of the Wabana iron ore: Canadian Min. Inst. Trans., v. 18, p. 225-246.
- 1020 _____ 1920, Nova Scotian oolitic iron deposits of sedimentary origin: Canadian Min. Inst. Trans., v. 22, p. 112-122.
- 1021 _____ 1928, Wabana iron mines and deposits, Newfoundland: Mining and Metallurgy, v. 9, no. 260, p. 361-366.
- 1022 _____ 1929, Further studies of the origin of the Wabana iron ore of Newfoundland: Econ. Geology, v. 24, no. 7, p. 687-690.
- 1023 _____ 1931, Structural geology of the Conception Bay region and of the Wabana iron ore deposits of Newfoundland: Econ. Geology, v. 26, no. 1, p. 44-64.
- 1024 *Hayes, C. W., 1894, Description of the Sewanee quadrangle, Tennessee: U. S. Geol. Survey Geol. Atlas, folio 8, 5 p.
- 1025 * _____ 1896, Description of the Gadsden quadrangle, Alabama: U. S. Geol. Survey Geol. Atlas, folio 35, 5 p.
- 1026 _____ 1901, Geological relations of the iron ores in the Cartersville district, Ga.: Am. Inst. Min. Metall. Eng. Trans., v. 30, p. 403-419.
- 1027 * _____ 1902, Description of the Rome quadrangle, Georgia-Alabama: U. S. Geol. Survey Geol. Atlas, folio 78, 3 p.
- 1028 * _____ 1909, Iron ores of the United States: U. S. Geol. Survey Bull. 394, p. 70-113.
- 1029 _____ 1909, The iron-ore supply of the United States: Am. Inst. Min. Metall. Eng. Bull., v. 29, p. 373-379.
- 1030 _____ 1910, Iron and manganese in the South, in The South in the building of the nation: Richmond, Va., v. 6, p. 223-232.
- 1031 _____ 1911-12, The Mayari and Moa iron-ore deposits in Cuba: Am. Inst. Min. Metall. Eng. Bull., v. 51, p. 239-245; Trans., v. 42, p. 109-115, 1912.
- 1032 *Hayes, C. W., and Eckel, E. C., 1903, Iron ores of the Cartersville district, Georgia: U. S. Geol. Survey Bull. 213, p. 233-242.
- 1033 Hayes, J. J., 1947, Iron from under the sea, Newfoundland miners work hematite deposits one hundred fathoms beneath Atlantic: Earth Science Digest, v. 2, no. 4, p. 11-14.
- 1034 Head, A. P., 1902, The south Russian iron-industry: Soc. Arts [London] Jour., v. 51, p. 73-89.
- 1035 Head, R. E., 1925, The mineral resources of Utah: Mining and Metallurgy, v. 6, no. 224, p. 389-391.
- 1036 Hedley, Edward, 1865, On iron mines and iron manufacture of Nova Scotia: New England Inst. Min. Eng. Trans., v. 14, p. 15-25.

Index
No.

- 1037 Heim, Arnold, 1934, The iron ores of Minas del Rif, Spanish Morocco: *Econ. Geology*, v. 29, no. 3, p. 294-300; discussion, by Per Geijer, v. 30, no. 1, p. 92-94, 1935.
- 1038 Henderson, J. R., 1951, Aeromagnetic map of New Jersey Highland area, covering Hamburg-Newton East-Franklin Furnace quadrangles: U. S. Geol. Survey open-file map.
- 1039 _____ 1951, Aeromagnetic map of New Jersey Highland area, covering Stanhope-Dover-Chester-Mendham quadrangles: U. S. Geol. Survey open-file map.
- 1040 _____ 1951, Preliminary aeromagnetic maps of Dearborn, Franklin, Jennings, Ohio, Randolph, Switzerland, Union, and Wayne Counties, Ind.: U. S. Geol. Survey open-file map.
- 1041 _____ 1952, Preliminary total-intensity aeromagnetic map of parts of Grays Harbor, Pacific, and Lewis Counties, Wash.: U. S. Geol. Survey open-file map.
- 1042 _____ 1952, Preliminary total-intensity aeromagnetic map of parts of Thurston, Lewis, and Grays Harbor Counties, Wash.: U. S. Geol. Survey open-file map.
- 1043 _____ 1953, Preliminary total-intensity aeromagnetic map of Morristown quadrangle, New Jersey: U. S. Geol. Survey open-file map.
- 1044 _____ 1953, Preliminary total-intensity aeromagnetic profile from Baker Bay to Goodman Creek, Wash.: U. S. Geol. Survey open-file map.
- 1045 Henderson, J. R., and Meuschke, J. L., 1953, Aeromagnetic and geologic map of east-central Itasca County, Minn.: U. S. Geol. Survey Geophys. Inv. GP 98. 70c.
- 1046 _____ 1953, Aeromagnetic and geologic map of northeastern Itasca and southeastern Koochiching Counties, Minn.: U. S. Geol. Survey Geophys. Inv. GP 97. 70c.
- 1047 _____ 1953, Aeromagnetic and geologic map of northern Aitkin County, Minn.: U. S. Geol. Survey Geophys. Inv. GP 100. 70c.
- 1048 _____ 1953, Aeromagnetic and geologic map of parts of Kanabec, Mille Lacs, and Pine Counties, Minn.: U. S. Geol. Survey Geophys. Inv. GP 102. 70c.
- 1049 _____ 1953, Aeromagnetic and geologic map of southeastern Itasca County, Minn.: U. S. Geol. Survey Geophys. Inv. GP 99. 70c.
- 1050 Henderson, J. R., Hill, M. E., and Meuschke, J. L., 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of part of Hubbard County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1051 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the central part of Cass County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1052 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the eastern part of Morrison County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1053 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the northern part of Cass County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1054 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the northern part of Crow Wing County and part of Cass County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.

Index
No.

- 1055 Henderson, J. R., Hill, M. E., and Meuschke, J. L., 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the southern part of Beltrami County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1056 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the southern part of Cass County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1057 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the southern part of Crow Wing County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1058 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the western part of Itasca County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1059 _____ 1949, Total-intensity aeromagnetic map and accompanying magnetic profiles of the western part of Morrison County, Minn.: U. S. Geol. Survey Geophys. Inv. map. 35c.
- 1060 Henke, W., 1934, Bericht über die Lehrausflüge anschliessend an die Eisenerz-Tagung in Dillenburg: Deutsche Geol. Gesell. Zeitschr., Band 86, Heft 6, p. 367-378.
- 1061 _____ 1934, Der gegenwärtige Stand der geologischen Erforschung des Siegerländer-Wieder Späteisensteinbezirkes: Deutsche Geol. Gesell. Zeitschr., Band 78, Heft 6, p. 291-306.
- 1062 _____ 1935, Die Lagerstätten der Eisen- und Metallerze des rheinischen Schiefergebirges und ihre Bedeutung für die deutsche Wirtschaft: Metall u. Erz, Jahrg. 32, Heft 21, p. 505-511.
- 1063 Henriotin, L., 1941, Note sur les gisements de fer de Gelrode: Rév. univ. mines [Liège], sér. 8, tome 17, no. 2, p. 88-89.
- 1064 Henry, E. C., 1922, Mining methods in the Mineville, N. Y., district: Am. Inst. Min. Metall. Eng. Trans., preprint no. 1192, 7 p.
- 1065 Herkenhoff, E. C., 1954, Modern plant will treat Mesabi lean ores: Eng. Min. Jour., v. 155, no. 3, p. 78-83.
- 1066 Herman, Felix, 1941, Iron ore, manganese ores and coal in the former Yugoslavia: Zeitschr. prakt. Geologie, Jahrg. 49, p. 53-57.
- 1067 Herndon, J. H., 1891, The iron ore district of east Texas; Smith County: Tex. Geol. Survey Ann. Rept. 2, p. 204-224.
- 1068 Hersam, E. A., 1917, Outlook for iron and steel on the Pacific Coast: Min. Sci. Press, v. 115, no. 4, p. 117-122.
- 1069 Hershey, H. G., and others, 1947, Mineral resources of Iowa [index map, no text]: Iowa City, Iowa Geol. Survey.
- 1070 Hershey, O. H., 1908, Amarilla iron and phosphate deposits [Eureka County, Nev.]: Min. Sci. Press, v. 97, p. 535-536.
- 1071 _____ 1915, The geology of Iron Mountain [Shasta County, Calif.]: Min. Sci. Press, v. 111, p. 633-638.
- 1072 Heurteau, C. E., 1907, Note sur le minerai de fer Silurien de Basse-Normandie: Annales mines [Paris], sér. 10, v. 11, p. 613-668.
- 1073 *Hewett, D. F., 1932, Geology and ore deposits of the Goodsprings quadrangle, Nevada: U. S. Geol. Survey Prof. Paper 162, 172 p.
- 1074 _____ 1948, Iron deposits of the Kingston Range, San Bernardino County, Calif.: Calif. Div. Mines Bull. 129, pt. M, p. 193-206.
- 1075 Hewett, G. C., 1902, Notes on southwestern Utah and its iron ores: Colo. Sci. Soc. Proc., v. 7, p. 55-66.

Index
No.

- 1076 Hewitt, D. F., 1954, Geology of the Brudenell-Raglan area: Ontario Dept. Mines 62d Ann. Rept., v. 62, pt. 5, 1953, 123 p.
- 1077 Hewitt, G. W., 1946, Lake Superior iron ore reserves for the future operation of the United States iron and steel industry: Blast Furnace and Steel Plant, v. 34, no. 11, p. 1383-1392, 1407.
- 1078 Heyl, A. V., and Ronan, J. J., 1954, The iron deposits of Indian Head area [Newfoundland]: Canada Geol. Survey Bull. 27, p. 42-62.
- 1079 Hickok, W. O., 1932, Iron ores, present and future: Pa. Topog. and Geol. Survey Bull. 104, 6 p.
- 1080 _____ 1933, The iron ore deposits at Cornwall, Pa.: Econ. Geology, v. 28, no. 3, p. 193-255.
- 1081 _____ 1939, Iron ores of Pennsylvania: Pa. Geol. Survey, 4th ser., Bull. M 18-B, p. 1-21.
- 1082 Hickok, W. O., and Moyer, F. T., 1940, Geology and mineral resources of Fayette County, Pa.: Pa. Geol. Survey, 4th ser., Bull. C-26, p. 511-516.
- 1083 Hicks, H. S., 1950, Geology of the iron deposits of Steep Rock Iron Mines, Ltd.: Precambrian, v. 23, no. 5, p. 8-10.
- 1084 Higasinaka, Hideo, 1940, Investigation of the magnetic anomalies relating to the geological structures of the Chin-lin-chen iron ore field, [north] China: Shanghai Science Inst. Jour., sec. 1, v. 2, no. 2, p. 7-38.
- 1085 Higgins, Edwin, 1909, Iron operations in the Chattanooga district: Eng. Min. Jour., v. 87, p. 1-5.
- 1086 Hild, J. H., 1953, Diamond drilling on the Shanton magnetite-ilmenite deposits, Albany County, Wyo.: U. S. Bur. Mines Rept. Inv. 5012, 7 p.
- 1087 *Hill, J. M., 1912, The mining districts of the western United States, with a geologic introduction by Waldemar Lindgren: U. S. Geol. Survey Bull. 507, 309 p.
- 1088 Hill, R. T., 1893, Mexico as an iron-producing country: Eng. Mag., v. 4, p. 744-753.
- 1089 _____ 1893, The occurrence of hematite and martite iron ores in Mexico: Am. Jour. Sci., 3d ser., v. 45, p. 111-119.
- 1090 Hille, F., 1902, The iron ore deposits of western Ontario and their genesis: Canadian Min. Inst. Jour., v. 5, p. 49-61.
- 1091 _____ 1904, The Baraboo iron ore, Wis.: Eng. Min. Jour., v. 77, p. 875.
- 1092 _____ 1904, Genesis of the Animikie iron range: Canadian Min. Inst. Jour., v. 6, p. 245-287.
- 1093 _____ 1908, Report on the examination of some iron ore deposits in the districts of Thunder Bay and Rainy River, Province of Ontario: Canada Mines Branch, 65 p.
- 1094 Hind, H. Y., 1873, Report on a topographical survey of part of the Cumberland coal field, with notices of the coal seams and their relation to the iron deposits of the Cobequids: Halifax, N. S., 68 p.
- 1095 Hinsdale, W. R., 1911, Report on Roaring Run ore property, Botetourt and Allegheny Counties, Va.: New York, 51 p.
- 1096 Hitchcock, C. H., 1861, Preliminary report upon the natural history and geology of Maine: Augusta, Maine Board Agriculture, 6th Ann. Rept., p. 295-298.

Index
No.

- 1097 Hitchcock, Edward, 1853, Description of a brown coal deposit in Brandon, Vermont, with an attempt to determine the age of the principal hematite ore beds in the United States: *Am. Jour. Sci.*, 2d ser., v. 15, p. 95-104.
- 1098 Hjelmqvist, Sven, 1950, The titaniferous iron-ore deposits of Taberg in the south of Sweden: *Sveriges Geol. Unders.*, Ser. C, nr. 512; *Årsbok* 43, nr. 10, 55 p.
- 1099 Hobbs, W. H., 1907, The iron ores of the Salisbury district of Connecticut, New York, and Massachusetts: *Econ. Geology*, v. 2, p. 153-181.
- 1100 Hockey, F. R., 1930, A description of the iron ore industry conducted by the Broken Hill Proprietary Company at Iron Knob, South Australia: *Australasian Inst. Min. and Metallurgy Proc.*, new ser., no. 79, p. 163-213.
- 1101 Hodge, E. T., 1935, 1938, Report on available raw materials for a Pacific coast iron industry: 4 v., 1935; v. 5, 1938, Portland, Oreg., U. S. Army, Office Div. Engineer.
- 1102 Hoenes, D., and Troger, E., 1945, Lagerstätten oolithischer Eisenerze in Nordwestfrankreich: *Neues Jahrb.*, Abh. A, Band 79, Heft 2, p. 192-255.
- 1103 Hofer, H., 1895, L'origine des gisements de minerais de plomb, de zinc, et de fer de la Haute-Silésie: *Rév. univ. mines* [Liège], sér. 3, v. 30, p. 207.
- 1104 Hoffet, J. H., 1939, Géologie et gisements de fer sur la rive droite du fleuve Rouge: *Bull. écon. Indochine*, année 42, f. 5, p. 931-938.
- 1105 _____ 1939, Note sur la géologie du gisement de fer de Lang-Phat: *Conseil recherches sci. Indochine Comptes rendus*, années 1938-39, p. 41-45.
- 1106 _____ 1939, Sur la genèse des gisements de fer de la rive droite du Fleuve Rouge (Tonkin): *Acad. sci. [Paris] Comptes rendus*, v. 208, no. 2, p. 112-114.
- 1107 Hoffmann, L., 1898, Das Vorkommen der oolithischen Eisenerze (Minette) in Luxemburg und Lothringen: *Naturh. Ver. Preuss. Rheinlande Verh.*, v. 55, p. 109-133.
- 1108 Hogg, Nelson, 1948, Geological report on portion of Fenton township, district of Cochrane (Ont.): *Ontario Dept. Mines Press Release* 1948-1, 7 p.
- 1109 *Holden, R. J., 1906, The brown ores of the New River-Cripple Creek district, Va.: *U. S. Geol. Survey Bull.* 285, p. 190-193.
- 1110 _____ 1925, Origin of Clinton hematite ores: *Econ. Geology*, v. 20, no. 1, p. 101-103.
- 1111 _____ 1934, Virginia iron ores: *Am. Chem. Soc., Va. Sec., Bull.* 9, no. 6, p. 79-83.
- 1112 _____ 1936, Origin of the Oriskany iron and manganese ores: *Va. Geol. Survey Bull.* 46-D, p. 29-34.
- 1113 Holland, T. H., 1900, Geology of the neighborhood of Salem [Madras Presidency]: *Geol. Survey India Mem.*, v. 30, p. 103-147.
- 1114 Holley, A. L., 1877, Notes on the iron ore and anthracite coal of Rhode Island and Massachusetts: *Eng. Min. Jour.*, v. 24, no. 22, p. 399.
- 1115 _____ 1878, Notes on the iron ore and anthracite coal of Rhode Island and Massachusetts: *Am. Inst. Min. Eng. Trans.*, v. 6, p. 224-227.

Index
No.

- 1116 Holley, A. L., 1878, Notes on the Salisbury (Conn.) iron mines and works: *Am. Inst. Min. Eng. Trans.*, v. 6, p. 220-223.
- 1117 Hollingworth, S. E., and Taylor, J. H., 1946, An outline of the geology of the Kettering district: *Geologists' Assoc. London Proc.*, v. 57, pt. 3, p. 204-233.
- 1118 _____ 1951, The Mesozoic ironstones of England; the Northampton Sand ironstone; stratigraphy, structure, and reserves: *Geol. Survey Great Britain Mem.*, 211 p.
- 1119 Hollingworth, S. E., Taylor, J. H., and Kellaway, G. A., 1943, Large scale superficial structures in the Northampton ironstone field: *Geol. Soc. London Abs. Proc.* 1397, p. 85-96.
- 1120 _____ 1944, Large-scale superficial structures in the Northampton ironstone field, England: *Geol. Soc. London Quart. Jour.*, v. 100, no. 1-2, p. 1-44.
- 1121 Holmberg, C. J., 1945, Los yacimientos de mineral de hierro de Marcona: *Soc. Ingenieros Perú Inf. y Mem.*, v. 46, no. 2, p. 107-141.
- 1122 Holmström, Leonard, 1896, Studier öfver de lösa jordlagren vid egendomen Klågerup i Skåne: *Geol. fören. Stockholm Förh.* band 18, p. 300-316.
- 1123 *Holt, S. P., and Sanford, R. S., 1946, Exploration of Poor Man iron deposit, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: *U. S. Bur. Mines Rept. Inv.* 3956, 8 p.
- 1124 Honeyman, David, 1867, On the geological features of the Londonderry iron mines: *Nova Scotian Inst. Nat. Sci. Proc. and Trans.*, v. 2, p. 112-118.
- 1125 _____ 1870, Notes on iron deposits on East River in the County of Pictou, N. S.: *Nova Scotian Inst. Nat. Sci. Proc. and Trans.*, v. 2, p. 67-73.
- 1126 _____ 1878, Pre-Carboniferous formations of Annapolis and Kings Counties, N. S.: *Nova Scotian Inst. Nat. Sci. Proc. and Trans.*, v. 4, p. 337-362.
- 1127 Hopkins, T. C., 1900, Cambro-Silurian limonite ores of Pennsylvania: *Geol. Soc. America Bull.*, v. 11, p. 475-502.
- 1128 _____ 1900, Limonite ores of Pennsylvania: *Mines and Minerals*, v. 21, p. 97-100.
- 1129 Hornor, A. P., Jr., 1939, Magnetite and hematite veins in Triassic lavas of Nova Scotia: *Econ. Geology*, v. 24, no. 8, p. 921-930.
- 1130 Hotchkiss, Jedekiah, 1878, The Shenandoah Iron, Lumber, Mining, and Manufacturing Company, of Virginia—a report: Staunton, Va., "Spectator" Steam-Printing House, 56 p.
- 1131 _____ 1881, Craig Creek basin—its iron ores; Big Hill iron ores: *The Virginias*, v. 2, no. 7, p. 108-109.
- 1132 _____ 1884, Grouped analyses of the Virginia iron ores: *The Virginias*, v. 5, no. 12, p. 198-199.
- 1133 Hotchkiss, W. O., 1915, Mineral land classification, showing indications of iron formations in parts of Ashland, Bayfield, Washburn, Sawyer, Price, Oneida, Forest, Rusk, Barron, and Chippewa Counties: *Wis. Geol. and Nat. History Survey Bull.* 44, 378 p.
- 1134 _____ 1919, Geology of the Gogebic range and its relation to recent mining developments: *Eng. Min. Jour.*, v. 108, p. 443-452, 501-507, 537-541, 577-582.

Index
No.

- 1135 Hotchkiss, W. O., 1923, Recent developments in the geology of the Gogebic range: Lake Superior Min. Inst., 23d Ann. Mtg. Proc., v. 23, p. 47-55.
- 1136 _____ 1947, Iron ore supply for the future (U. S.): Econ. Geology, v. 42, no. 3, p. 205-210.
- 1137 Hotchkiss, W. O., and Bean, E. F., 1929, Mineral lands of part of northern Wisconsin: Wis. Geol. and Nat. History Survey Bull. 46, 212 p.
- 1138 Hotchkiss, W. O., and others, 1933, Lake Superior region: Internat. Geol. Cong., 16th sess., United States, 1933, Guidebook 27, Excursion C-4, 101 p.
- 1139 Hotz, P. E., 1945, Preliminary report on the geology of the Sterling-Ringwood magnetite district, New York and New Jersey: U. S. Geol. Survey prelim. rept., 6 p., 2 maps.
- 1140 _____ 1949, Petrology and habit of some diabase sheets in southwestern Pennsylvania: U. S. Geol. Survey open-file rept., 99 p.
- 1141 _____ 1950, Diamond-drill exploration of the Dillsburg magnetite deposits, York County, Pa.: U. S. Geol. Survey Bull. 969-A, p. 1-27. 70c.
- 1142 _____ 1953, Limonite deposits near Scappoose, Columbia Co., Oreg.: U. S. Geol. Survey Bull. 982-C, p. 75-93. 65c.
- 1143 _____ 1953, Magnetite deposits of the Sterling Lake, N. Y. - Ringwood, N. J. area: U. S. Geol. Survey Bull. 982-F, p. 153-244. \$1.25.
- 1144 _____ 1954, Some magnetite deposits in New Jersey: U. S. Geol. Survey Bull. 995-F, p. 201-253.
- 1145 Howell, J. V., 1916, The iron ore deposits near Waukon, Iowa: Iowa Geol. Survey, v. 25, p. 33-101.
- 1146 Hsieh, C. Y., 1931, The iron deposits of southern Anhui: Geol. Soc. China Bull., v. 10, p. 317-347.
- 1147 _____ 1935, Geology of the iron deposits in the lower Yangtze region: Geol. Survey China Geol. Mem., ser. A, no. 13, 191 p.
- 1148 _____ 1935, Les types de gisements de fer chinois: Cong. internat. mines, 7^e sess., Paris, 1935, Comptes rendus, v. 1, p. 217-229.
- 1149 _____ 1936, Geology and mineral deposits of Anchi, Yungchun, and Yungtai districts, Fukien province: Geol. Survey China Geol. Bull. 27, p. 1-31.
- 1150 _____ 1942, The iron deposits in Shuicheng, Weining, and Heichang districts, western Kueichou: Geol. Soc. China Bull., v. 22, no. 3-4, p. 263-276.
- 1151 Huang, Y., 1940, Geology of the iron ore deposits of Imen, Yunnan: Geol. Survey China Geol. Bull. 33, p. 25-26.
- 1152 Hubbard, G. D., and Croneis, C. G., 1924, Notes on the geology of Giles Co., Va.: Denison Univ. Sci. Labs. Jour., v. 20, art. 13, p. 368-370.
- 1153 Hubbard, H. G., 1943, Mines and mineral resources of Santa Cruz County, Calif.: Calif. Jour. Mines and Geology, v. 39, chap. 1, p. 11-52.
- 1154 Hubbell, A. H., 1949, The problem of ironore . . . and how it will be solved; Iron from Mesabi taconite; Labrador iron ore nearest outside source; Venezuela's iron ore coming soon; New ore for Republic: Eng. Min. Jour., v. 50, no. 7, p. 84-91.

Index
No.

- 1155 Hubscher, Jakob, 1948, Untersuchungsergebnisse über die Doggererze und die Olschiefer im Kanton Schaffhausen: Naturf. Gesell. Schaffhausens Mitt., Band. 22, p. 153-160.
- 1156 Huddle, J. W., 1941, Brown iron ore of the Chulafinnee district: Ala. Geol. Survey Circ. 17, 15 p.
- 1157 Hugli, Emil, and others, 1948, Die Eisen- und Manganerze der Schweiz; Die Magnetitlagerstätten: Beitr. Geologie Schweiz, Geotech. Ser., Lief. 13, Band 4, 116 p.
- 1158 Hugues, J. B., 1944, The iron deposits of Marcona: Escuela Nac. Ingenieros [Lima] Bol. 3, no. 7, p. 45-97.
- 1159 Hulsen, F. C., 1934, Mittelschwedischer Eisenerzbergbau: Metall u. Erz, v. 31, no. 15, p. 329-336.
- 1160 Hulst, N. P., 1893, The geology of that portion of the Menominee range east of the Menominee River: Lake Superior Min. Inst. Proc. 1893, p. 19-29.
- 1161 _____ 1905, Titanium and titaniferous iron ores: Lake Superior Min. Inst. Proc., v. 10, p. 31-47.
- 1162 Hummel, K., 1922, Die Entstehung eisenreicher Gesteine durch Halmyrolyse: Geol. Rundschau, Band 13, p. 40-81, 97-136.
- 1163 Hundt, Rudolf, 1940, Eisenerzvorkommen im oberen Zechstein Ostthuringens: Zeitschr. prakt. Geologie, Jahrg. 48, Heft 6, p. 61-68.
- 1164 Hunt, T. S., 1869, The magnetic iron sands of Canada: Canadian Naturalist, new ser., v. 4, p. 467-469.
- 1165 _____ 1874, The coal and iron of southern Ohio considered with relation to the Hocking Valley coal field and its iron ores: Salem, Mass., 78 p.
- 1166 _____ 1876, The Cornwall iron mine and some related deposits in Pennsylvania: Am. Inst. Min. Metall. Eng. Trans., v. 4, p. 319-325.
- 1167 _____ 1879, The coal and iron of the Hocking Valley, Ohio: Am. Inst. Min. Metall. Eng. Trans., v. 7, p. 313-315.
- 1168 _____ 1880, On the iron-bearing and associated rocks of the Marquette region, and comparisons with the Archean of Canada and of the eastern United States, in Geology of Wisconsin, 1873-1879: Wis. Geol. Survey, v. 3, p. 657-660.
- 1169 _____ 1881, Coal and iron in southern Ohio; the mineral resources of Hocking Valley: Boston, Mass., S. E. Cassino, 152 p.
- 1170 _____ 1883, Coal and iron in Alabama: Am. Inst. Min. Metall. Eng. Trans., v. 11, p. 236-248; Eng. Min. Jour., v. 35, p. 113-115.
- 1171 _____ 1890, The iron ores of the United States: Eng. Min. Jour., v. 50, p. 601-602, 622-624; Am. Inst. Min. Metall. Eng. Trans., v. 19, p. 3-17, 1891.
- 1172 Huntington, J. H., 1880, On the iron ore of Bartlett, N. H.: Boston Soc. Nat. History Proc., v. 20, p. 288-292.
- 1173 Hurd, Rukard, 1911, Hurd's iron-ore manual; a general reference, guide, handbook of the Lake Superior district: St. Paul, Minn., 162 p.
- 1174 Hurst, M. E., 1932, A deposit of titaniferous magnetite in Angus Township, District of Nipissing: Ontario Dept. Mines Ann. Rept., v. 40, pt. 4, p. 105-110.
- 1175 _____ 1933, Geology of the Sioux Lookout area: Ontario Dept. Mines Ann. Rept., v. 41, pt. 6, p. 1-33.

Index
No.

- 1176 Hurst, M. E., 1950, Iron in Ontario: *Canadian Min. Jour.*, v. 71, no. 11, p. 144-151.
- 1177 Huseman, G. W., 1953, Kaiser stepping up production at Eagle Mountain iron mine: *Eng. Min. Jour.*, v. 154, no. 5, p. 80-86.
- 1178 Huttenlocher, H. F., 1934, Die Erzlagerstättenzonen der Westalpen: *Schweizerische mineralog. petrog. Mitt.* Band 14, Heft 1, p. 22-149.
- 1179 Huttli, J. B., 1949, Eagle Mountain, new source of iron ore for Fontana: *Eng. Min. Jour.*, v. 150, no. 5, p. 92.
- 1180 Hutton, C. O., 1940, The titaniferous ironsands of Patea, with an account of the heavy residues in the underlying sedimentary series: *New Zealand Jour. Sci. and Technology*, v. 21, no. 4B, p. 190B-205B.
- 1181 _____ 1945, The ironsands of Fitzroy, New Plymouth: *New Zealand Jour. Sci. and Technology*, v. 26, no. 6, p. 291-302.
- 1182 Ichimura, Takeshi, 1931, Notes on the titaniferous magnetite deposits of Shônpé-tô, Chôsen, Korea: *Taihoku Imp. Univ., Faculty Sci. and Agriculture Mem.*, v. 3, no. 3, p. 249-265.
- 1183 _____ 1933, Bedded hematite deposits of the Rigen mine, S. Kankyo-do, Chôsen (Korea): *Taihoku Imp. Univ., Faculty Sci. and Agriculture Mem.*, v. 6, no. 3, p. 45-63.
- 1184 _____ 1933, Geological notes on the Mozan iron-bearing district, N. Kankyo-do, Chôsen (Korea): *Taihoku Imp. Univ., Faculty Sci. and Agriculture Mem.*, v. 6, no. 5, p. 71-103.
- 1185 _____ 1936, Geological investigations on some characteristic hematite and limonite deposits in S. Heian-do and Kokai-do, Chôsen (Korea): *Taihoku Imp. Univ., Faculty Sci. and Agriculture Mem.*, v. 13, no. 6 [Geology no. 13], p. 75-206.
- 1186 Illés, Wilhelm, 1904, Montangeologische Verhältnisse in der westlichen Umgebung von Dobsina: *K. Ungarische Geol. Anst. Jahresber.* 1902, p. 134-144.
- 1187 Imperial Mineral Resources Bureau, 1922, Iron ore—Summary of information as to the present and prospective iron-ore supplies of the world: Pt. 1, United Kingdom, 237 p.; Pt. 2, British Africa, 76 p.; Pt. 3, British America, 115 p.; Pt. 4, British Asia, 65 p.; Pt. 5, Australia and New Zealand, 106 p.; Pt. 6, Europe and Africa (foreign), 275 p.; Pt. 7, Foreign America, 136 p.; and Pt. 8, Foreign Asia, 79 p. London.
- 1188 Ingall, E. D., 1896, Report on iron-ore deposits in eastern Ontario: *Canada Geol. Survey Summary Rept.* 1895, p. 49-61.
- 1189 _____ 1898, Iron ores of Nova Scotia: *Canada Geol. Survey Ann. Rept.* 10, p. 97S-113S.
- 1190 _____ 1901, Report on the iron-ore deposits along the Kingston and Pembroke railway in eastern Ontario: *Canada Geol. Survey Ann. Rept.* 12, p. 1-80.
- 1191 Inouye, Kinosuke, 1912, The iron ores of southern Manchuria, in *Les ressources mondiales de minerai de fer: Cong. géol. internat. 11^e sess.*, Stockholm, 1910, *Comptes rendus*, pt. 1, p. 265-328.
- 1192 _____ 1912, On some iron ores of China, in *Les ressources mondiales de minerai de fer: Cong. géol. internat. 11^e sess.*, Stockholm, 1910, *Comptes rendus*, pt. 1, p. 265-328.
- 1193 _____ 1940, The iron ores of Indo-China and the Malay Peninsula and Archipelago: *Jour. Geography [Tokyo]*, v. 52, no. 617, p. 9-14, 291-310. [Japanese, English summary.]

Index
No.

- 1194 Ireland, H. A., 1944, Petroliferous iron ore of Pennsylvanian age in eastern Ohio: *Am. Assoc. Petroleum Geologists Bull.*, v. 28, no. 7, p. 1051-1056.
- 1195 Iron and Steel Institute, 1892, *The Iron and Steel Institute in America in 1890: Iron and Steel Inst. Proc., Special Volume*, London, E. and F. N. Spon, 508 p.
- 1196 Irving, E. M., 1950, Iron in southern Samar: *Philippine Geologist*, v. 4, no. 4, p. 1-6.
- 1197 _____ 1950, Notes on the geology of the Gold Star iron mines, Mogpog, Marinduque: *Philippine Geologist*, v. 5, no. 1, p. 25-36.
- 1198 Irving, R. D., 1878, Report on the Penokee iron range: *Wis. Geol. Survey Ann. Rept. 1877*, p. 17-25.
- 1199 _____ 1883, Iron ores: *Wis. Geol. Survey, Geology of Wisconsin 1873-1879*, v. 1, p. 613-636.
- 1200 *Irving, R. D., and Van Hise, C. R., 1889, The Penokee iron-bearing series of Michigan and Wisconsin: *U. S. Geol. Survey 10th Ann. Rept.*, 1888-89, pt. 1c, p. 341-507.
- 1201 * _____ 1892, The Penokee iron-bearing series of Michigan and Wisconsin: *U. S. Geol. Survey Mon. 19*, 534 p.
- 1202 Iverson, H. G., 1949, Flotation of gray iron ores from the Talladega area, Ala.; Laboratory studies: *U. S. Bur. Mines Rept. Inv. 4570*, 18 p.
- 1203 Ives, J. T. B., 1888, Iron and the other ores of Ontario: *Canadian Inst. Proc.*, 3d ser., v. 5, p. 185-192.
- 1204 Ives, L. E., 1915, Finding the Judson ore body (iron deposits near Crystal Falls, Mich.): *Eng. Min. Jour.*, v. 99, p. 443-445.
- 1205 Jackson, C. T., 1857, Maryland marbles and iron ores: *Boston Soc. Nat. History Proc.*, v. 6, p. 243-245.
- 1206 _____ 1859, Specular iron ore from Phillipsburg, N. J.: *Boston Soc. Nat. History Proc.*, v. 7, p. 136.
- 1207 Jacobs, E. C., 1944, Twenty-fourth report of the State Geologist on the mineral industries and geology of Vermont, 1943-44, 41 p.
- 1208 _____ 1946, Twenty-fifth report of the State Geologist on the mineral industries and geology of Vermont, 1945-46, 98 p.
- 1209 James, H. L., 1951, Iron formation and associated rocks in the Iron River district, Mich.: *Geol. Soc. America Bull.*, v. 62, no. 3, p. 251-266.
- 1210 _____ 1954, Geology of the Menominee and Iron River-Crystal Falls districts, Michigan, in *Fourth mining geology symposium: Minneapolis, Minn. Univ., Center for Continuation Study*, p. 9-13.
- 1211 _____ 1954, Sedimentary facies of iron formation [Lake Superior]: *Econ. Geology*, v. 49, no. 3, p. 235-281.
- 1212 James, H. L., and Dutton, C. E., 1951, Geology of the northern part of the Iron River district, Iron County, Mich.: *U. S. Geol. Survey Circ. 120*, 12 p.
- 1213 *James, H. L., and Weir, K. L., 1948, Magnetic survey and geology of the eastern and southeastern parts of the Iron River district, Iron County, Mich.: *U. S. Geol. Survey Circ. 26*, 18 p., 4 maps.
- 1214 James, H. L., Clark, L. D., and Smith, L. E., 1947, Magnetic survey and geology of the Ice Lake-Chicagon Creek area, Iron County, Mich.: *U. S. Geol. Survey Strategic Minerals Inv. Prelim. Rept. 3-213*, 6 maps. \$1.10.

Index
No.

- 1215 Jamotte, A., 1950, L'importance des gisements de fer du Haut-Lualaba et leur signification métalogénique: Cong. sci., Elisabethville [Belgian Congo], 1950, Comptes rendus, tome 3, p. 119-128.
- 1216 Japan Bureau of Mines, Resources Agency, 1950, The recent trends of metal mining industry in Japan: Tokyo, p. 1-20, 53-54.
- 1217 Jaquet, J. B., 1901, The iron deposits of New South Wales: New South Wales Geol. Survey Mem., Geol. ser., no. 2, p. 1-186.
- 1218 _____ 1901, Progress report for 1900, with reports on the Tinpot gold-field; iron ore at Coombing Park, near Carcoar; and the iron-ore near Cadia: New South Wales Dept. Mines Ann. Rept. 1900, p. 185-191.
- 1219 Jarvis, R. P., 1912, The valley and mountain iron ores of east Tennessee: Tenn. Geol. Survey, Res. Tenn., v. 2, p. 326-366; also published as Bull. 2-C:
- 1220 Jeannet, A., 1951, Die Eisen- und Manganerze der Schweiz; Stratigraphie und Palaeontologie des oolithischen Eisenerzlagers von Herznach und seiner Umgebung, 1 Teil: Beitr. Geologie Schweiz, Geotech. Ser., Lief. 13, Band 5, 240 p.
- 1221 Jenkins, G. E., 1892, Notes on the active iron mines of New Jersey: N. J. Geol. Survey Ann. Rept. 1891, p. 235-253.
- 1222 _____ 1897, Report on the iron mining industry; with notes on the active mines: N. J. Geol. Survey Ann. Rept. 1896, p. 319-336.
- 1223 _____ 1900, Review of the mining industry: N. J. Geol. Survey Ann. Rept. 1899, p. 151-170.
- 1224 Jenkins, O. P., and Cooper, H. H., 1922, A study of the iron ores of Washington: Wash. Div. Mines and Geology Bull. 27, p. 11-115.
- 1225 Jennings, E. P., 1905, Origin of the magnetic iron ores of Iron County, Utah: Am. Inst. Min. Metall. Eng. Trans., v. 35, p. 338-342.
- 1226 _____ 1912, Atitaniferous iron-ore deposit in Boulder County, Colo.: Am. Inst. Min. Metall. Eng. Bull., v. 70, p. 1045-1056; Trans., v. 44, p. 14-25, 1913.
- 1227 Jensen, Homer, 1951, Aeromagnetic survey helps find new Pennsylvania iron orebody: Eng. Min. Jour., v. 152, no. 8, p. 56-59.
- 1228 Jewell, W. B., 1931, Geology and mineral resources of Hardin County: Tenn. Div. Geology Bull. 37, 117 p. (iron ore, p. 53-60).
- 1229 Joesting, H. R., Bacon, L. O., and Getz, J. H., 1948, Geophysical investigation of manganese iron deposits, Boston Hill, Grant County, N. Mex: U. S. Bur. Mines Rept. Inv. 4175, 12 p.
- 1230 Johansson, H., 1907, Till frågen om de mellansvenska järnmalmernas bildningssätt: Geol. fören. Stockholm Förh., band 28, p. 516-538; (1906); band 29, p. 143-186, 285-300.
- 1231 Johnson, A. C., and Ricker, Spangler, 1948, Summary of investigations of iron-ore deposits of California: Calif. Div. Mines Bull. 129, pt. 0, p. 231-242.
- 1232 Johnson, B. L., 1908, Contributions to the geology of Rhode Island; notes on the history and geology of Iron Mine Hill, Cumberland: Am. Jour. Sci., 4th ser., v. 25, p. 1-12.
- 1233 Johnson, J. A., Anderson, F. G., and Stott, R. G., 1950, Drilling and blasting, open-cut iron-ore mines, Lake Superior district: U. S. Bur. Mines Inf. Circ. 7552, 37 p.
- 1234 Johnson, J. E., Jr., 1903, Origin of the Oriskany limonites: Eng. Min. Jour., v. 76, p. 231-232.

Index
No.

- 1235 Johnson, L. C., 1888, The iron regions of northern Louisiana and eastern Texas: U. S. 50th Cong., 1st sess., House Ex. Doc. 195, 54 p.
- 1236 Johnson, W. R., 1839, Analysis of some of the anthracites and iron ores found on the headwaters of Beaver Creek, in the Counties of Luzerne, Northampton, and Schuylkill, Pa.: Franklin Inst. Jour., new ser., v. 24, p. 289-298.
- 1237 _____ 1841, Report of a survey and exploration of the coal and ore lands, belonging to the Alleghany Coal Company in Somerset County, Pa.: Philadelphia, J. and W. Kite, p. 1-14, 27-38.
- 1238 Johnston, W. D., Jr., 1954, A foreign geologist looks at Brazil's mineral future: Rio de Janeiro, Acad. Brasileira Cienc., 100 p.
- 1239 Johnstone, S. J., 1908, Iron-ore of Natal: Imp. Inst. Bull., v. 6., p. 27-28.
- 1240 Jolliffe, F. J., 1934, Block Creek map area, Thunder Bay district, Ontario: Canada Geol. Survey Summary Rept. 1933, pt. D., Pub. 2351, p. 7-15.
- 1241 Jonas, A. I., and Stose, G. W., 1930, Geology and mineral resources of the Lancaster quadrangle, Pennsylvania: Pa. Geol. Survey, 4th ser., Topog. and Geol. Atlas, no. 168, 106 p.; iron ore, p. 89-94.
- 1242 Jones, C. C., 1909, An iron deposit in the California desert region: Eng. Min. Jour., v. 87, p. 785-788.
- 1243 _____ 1910, Iron ores of the southwest: Am. Min. Cong., 13th Sess., Los Angeles, 1910, Proc., p. 265-273.
- 1244 _____ 1916, The Pacific Coast iron situation—The iron ores of California and possibilities of smelting: Am. Inst. Min. Metall. Eng. Trans., v. 53, p. 306-323.
- 1245 Jones, D., 1898, An extensive iron formation, west coast of Tasmania: Australasian Inst. Min. and Metallurgy Trans., p. 117-123.
- 1246 Jones, H. C., 1929, Note on a visit to the iron ore area of Lake Superior, United States of America: Min. Geol. Metall. Inst. India Trans. 24, no. 2, p. 175-201.
- 1247 _____ 1934, The iron ore deposits of Bihar and Orissa: Geol. Survey India Mem., v. 63, pt. 2, p. 167-302.
- 1248 Jones, J. A., 1899, The Devonian iron-ores of Asturias, Spain: Midland Inst. Min. Engineers Trans., v. 15, p. 347-360; Inst. Min. Engineers [London] Trans., v. 18, p. 279-292.
- 1249 Jones, J. C., 1913, The Barth iron deposit [Nevada]: Econ. Geology, v. 8, p. 247-263.
- 1250 Jones, R. H. B., 1946, Geologic interpretation of magnetic exploration on the Mesabi range, Minnesota: Min. Technology, v. 10, no. 4; Am. Inst. Min. Metall. Eng. Tech. Pub. 2038, 13 p.
- 1251 Jones, W. B., 1926, Index to mineral resources of Alabama: Ala. Geol. Survey Bull. 28, 255 p.
- 1252 _____ 1938, Brown iron ore deposits of the Greenville district of Alabama: Min. and Metallurgy, v. 19, no. 378, p. 280-281.
- 1253 Jones, W. M., 1939, Magnetic observations in the Onekaka-Parapara district, with some remarks on the geology of the iron ore deposits: New Zealand Jour. Sci. and Technology, sec. B, v. 21, no. 1, p. 16-30.
- 1254 Jopling, J. E., 1898, The Marquette range—its discovery, development, and resources: Am. Inst. Min. Metall. Eng. Trans., p. 27, p. 541-555.

Index
No.

- 1255 Jorré, Georges, 1950, The Soviet Union—the land and its people: London, Longmans, Green and Co., 353 p.
- 1256 Joseph, P. E., 1916, Iron: Ariz. Univ. Bur. Mines Bull. 43, 13 p.
- 1257 Joseph, T. L., and Kinney, S. P., 1927, Minnesota manganiferous iron ore in relation to the iron and steel industry: Minn. School Mines Expt. Sta. Bull. 12, 101 p.
- 1258 Judd, E. K., 1907, Soft iron ore in Tennessee: Eng. Min. Jour., v. 83, p. 567.
- 1259 Julien, A. A., 1884, The genesis of the crystalline iron ores: Acad. Nat. Sci. Philadelphia Proc. 1882, p. 335-346, [1883]; Eng. Min. Jour., v. 37, p. 81-83.
- 1260 Julihn, C. E., and Moon, L. B., 1945, Summary of Bureau of Mines exploration projects on deposits of raw material resources for steel production: U. S. Bur. Mines Rept. Inv. 3801, 35 p.
- 1261 Jung, Hermann, 1938, Der deutsche Boden und seine Gesteins- und Mineralerschätze: Jena, Gustav Fischer, 192 p.
- 1262 Junner, N. R., and James, W. T., 1947, Chemical analyses of Gold Coast rocks, ores, and minerals: Gold Coast Geol. Survey Bull. 15, 66 p.
- 1263 Kachinsky, V., 1935, Sur les itabirites de la Vallée de la Schinga (Togo): Chronique mines coloniales v. 4, no. 36, p. 76-80.
- 1264 Kamenski, G., 1898, The iron industry of the Urals: Colliery Guardian, v. 76, p. 28-29.
- 1265 Kao, P., and Hsu, K. C., 1940, Geology of western Kiangsi: Geol. Survey China Geol. Mem., ser. A, no. 16, 72 p. [Chinese, English summary.]
- 1266 Karakasch, N., 1900, Sur quelques gisements de minerais de fer dans le district de Jisdra (Gouv. de Kalouga): Geol. kom. Izv., tom 18, p. 483-504.
- 1267 Karrenberg, H., 1953, Probenahme bei Erzen in der Lagerstätten, in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 173-185.
- 1268 Kasatkin, P. J., and Smirnov, S. S., 1931, On the Mysovski iron ore deposit in the Buriat-Mongolian Aut. S.S.R.: Glav. geol.-razved. uprav. Izv. 50, vypusk 29, p. 457-489. [Russian, English summary.]
- 1269 Kato, Takeo, 1939, On the origin of the Mozan iron ore deposits, north Korea: Japanese Jour. Geology and Geography, v. 16, no. 3-4, p. 233-238.
- 1270 Katzer, F., 1900, Das Eisenerzgebiet von Vares in Bosnien: Berg-u. hüttenm. Jahrb., v. 48, p. 90-189.
- 1271 Kaye, C. A., 1951, Some paleosols of Puerto Rico: Soil Science, v. 71, no. 5, p. 329-336.
- 1272 Kegel, Wilhelm, 1934, Die geologischen Grundlagen des Roteisensteinbergbaus im Dillgebiet: Deutsche Geol. Gesell. Zeitschr., Band 86, Heft 6, p. 314-324.
- 1273 *Keith, Arthur, 1903, Description of the Cranberry quadrangle, North Carolina-Tennessee: U. S. Geol. Survey Geol. Atlas, folio 90, 9 p.
- 1274 *_____ 1903, Iron-ore deposits of the Cranberry district, North Carolina-Tennessee: U. S. Geol. Survey Bull. 213, p. 243-246.
- 1275 *_____ 1907, Description of the Roan Mountain quadrangle, Tennessee-North Carolina: U. S. Geol. Survey Geol. Atlas, folio 151, 12 p.

Index
No.

- 1276 Kelley, V. C., 1945, Tertiary iron ore in Triassic collapsed breccia [abs.]: Geol. Soc. America Bull., v. 56, p. 1172-1173.
- 1277 _____ 1949, Geology and economics of New Mexico iron-ore deposits: N. Mex. Univ. Pubs. Geology, no. 2, 246 p.
- 1278 _____ 1951, Oolitic iron deposits of New Mexico: Am. Assoc. Petroleum Geologists Bull., v. 35, no. 10, p. 2199-2228.
- 1279 _____ 1952, Origin and pyrometasmatic zoning of the Capitan iron deposit, Lincoln County, N. Mex.: Econ. Geology, v. 47, no. 1, p. 64-83.
- 1280 Kelley, V. C., Rothrock, H. E., and Smalley, R. G., 1947, Geology and mineral deposits of the Gallinas district, Lincoln County, N. Mex.: U. S. Geol. Survey Strategic Minerals Inv. Prelim. Map 3-211. 30c.
- 1281 Kellogg, L. O., 1913, Notes on the Cuyuna range: Eng. Min. Jour., v. 96, p. 1199-1203.
- 1282 Kelly, J. E., 1948, Canada's new Mesabi: Min. World, v. 10, no. 7, p. 19-20, 75.
- 1283 _____ 1950, More iron ore in Venezuela: Eng. Min. Jour., v. 151, no. 11, p. 36-37.
- 1284 *Kelly, J. V., 1947, Columbia River magnetite sands, Clatsop County, Oreg., and Pacific County, Wash., Hammond and McGowan deposits: U. S. Bur. Mines Rept. Inv. 4011, 7 p.
- 1285 Kemp, J. F., 1898, The geology of the magnetites near Port Henry, N. Y., and especially those of Mineville: Am. Inst. Min. Metall. Eng. Trans., v. 27, p. 146-203.
- 1286 * _____ 1898, The titaniferous iron ores of the Adirondacks (New York): U. S. Geol. Survey 19th Ann. Rept., 1897-98, pt. 3d, p. 377-422.
- 1287 _____ 1899, A brief review of the titaniferous magnetites: Columbia Univ., School Mines Quart., v. 20, p. 323-356; v. 21, p. 56-65.
- 1288 _____ 1911, Comparative sketch of the precambrian geology of Sweden and New York: N. Y. State Mus. Bull. 149, p. 93-106.
- 1289 _____ 1912, The future of the iron industry, especially in North America, in Les ressources mondiales de minerai de fer: Cong. géol. internat., 11^e sess., Stockholm, 1910, Comptes rendus, pt. 1, p. 265-328.
- 1290 _____ 1915, The Mayari iron ore deposits, Cuba: Am. Inst. Min. Metall. Eng. Bull., no. 98, p. 129-154; Bull., no. 103, p. 1461-1462; Trans., v. 51, p. 3-30, 1916.
- 1291 _____ 1915, The geology of the iron ore deposits in and near Daiquiri, Cuba: Am. Inst. Min. Metall. Eng. Bull., no. 105, p. 1801-1836; Trans., v. 53, p. 3-39, 1916.
- 1292 _____ 1916, The outlook for iron: Internat. Eng. Cong., San Francisco, 1915, Trans., v. 5, p. 365-389.
- 1293 Kemp, J. F., and Alling, H. L., 1925, Geology of the Ausable quadrangle: N. Y. State Mus. Bull. 261, 126 p.
- 1294 Kemp, J. F., and Billingsley, Paul, 1921, Sweet Grass Hills, Montana: Geol. Soc. America Bull., v. 32, no. 4, p. 461-462.
- 1295 Kemp, J. F., and Ruedemann, Rudolf, 1910, Geology of the Elizabethtown and Port Henry quadrangles: N. Y. State Mus. Bull. 138, 173 p.
- 1296 Kendall, J. D., 1893, The iron ores of Great Britain and Ireland: London, Crosby Lockwood and Son, 430 p.

Index
No.

- 1297 Kendall, J. D., 1929, The origin of Cumberland hematite: *Min. Mag.*, v. 40, no. 3, p. 141-147.
- 1298 *Kennedy, G. C., 1944, Iron deposits, Jumbo Basin, Prince of Wales Island, southeastern Alaska: *U. S. Geol. Survey Prelim. Rept.*, 2 p.
- 1299 _____ 1953, Geology and mineral deposits of Jumbo Basin, southeast Alaska: *U. S. Geol. Survey Prof. Paper* 251, 46 p. \$1.
- 1300 Kennedy, William, 1894, The age of the iron ores of east Texas: *Science*, v. 23, p. 22-25.
- 1301 _____ 1895, Iron ores of east Texas: *Am. Inst. Min. Metall. Eng. Trans.*, v. 24, p. 258-288, 862-863.
- 1302 Kennedy, William, and others, 1891, Iron ore district of east Texas, a description of counties: *Tex. Geol. Survey 2d Ann. Rept.*, p. 65-203.
- 1303 Kent, William, 1877, The new iron district in southern Ohio: *Eng. Min. Jour.*, v. 23, p. 377, 396-397.
- 1304 Kenworthy, H., 1949, Metallurgical investigations of the recovery of zinc and iron sulfides from the Gray zinc-iron deposit, Galena, Ill.: *U. S. Bur. Mines Rept. Inv.* 4442, 12 p.
- 1305 Keppen, N. M., 1937, Beitrage zur Erforschung der Eisenerzlagertstätten von Chailowo: *Leningrad. gornyy inst. Zapiski*, tom 10, vyp. 2, p. 223-256.
- 1306 Kerforne, F., 1908, Sur l'âge des minerais de fer de la Forêt de Lorges (Côtes-du-Nord): *Acad. sci. [Paris] Comptes rendus*, v. 147, p. 1007-1008.
- 1307 _____ 1908, Sur le minerai de fer de Coatquidan (Morbihan): *Acad. sci. [Paris] Comptes rendus*, v. 146, p. 1226-1227.
- 1308 Kerr, W. C., and Hanna, G. B., 1893, Ores of North Carolina: *N. C. Geol. Survey Rept.*, v. 2, 2d ed., p. 123-359.
- 1309 Kesler, T. L., 1940, Structure and ore deposition at Cartersville, Ga.: *Am. Inst. Min. Metall. Eng. Tech. Pub.* 1226, 18 p.; *Trans.*, v. 144, p. 276-293. 1941.
- 1310 _____ 1950, Geology and mineral deposits of the Cartersville district, Ga.: *U. S. Geol. Survey Prof. Paper* 224, 97 p. \$1.75.
- 1311 Kester, Frank, 1953, Shasta iron ore to supply Yolo Steel's California Sacramento Plant: *Calif. Min. Jour.*, v. 23, no. 1, p. 7.
- 1312 Keyes, C. R., 1922, Antiquity of Chupadera Mesa iron deposits: *Pan-Am. Geologist*, v. 38, no. 1, p. 89-92.
- 1313 _____ 1923, Black Mesa iron deposits of Plumosa district of Arizona: *Pan-Am. Geologist*, v. 40, no. 5, p. 383-384.
- 1314 _____ 1937, Age and origin of magnetitic iron-ores of Chupadera Mesa, N. Mex.: *Pan-Am. Geologist*, v. 68, no. 3, p. 230-234.
- 1315 Keys, D. A., 1936, A magnetic survey of the Ivory, Quebec, ilmenite deposits: *Am. Inst. Min. Metall. Eng. Contr.* 102, 7 p.
- 1316 Kidder, S. K., and McCartney, G. C., 1946, Mining and geology at the Helen mine, Ont.: *Am. Inst. Min. Metall. Eng. Tech. Pub.* 1971, 24 p.
- 1317 Kihlstedt, F. H., 1937, Iron ore of Luzon shipped to Japan: *Eng. Min. Jour.*, v. 138, no. 8, p. 422-424.
- 1318 _____ 1946, The iron deposits of Larap, Philippine Islands: *Min. Technology*, v. 10, no. 3; *Am. inst. Min. Metall. Eng. Tech. Pub.* 2001, 22 p.

Index
No.

- 1319 Killebrew, J. B., 1877, Tennessee—Its agricultural and mineral wealth, with an appendix showing the extent, value and accessibility of its ores, with analyses of the same: Nashville, Tavel, Eastman and Howell, p. 119-143, 163-184.
- 1320 _____ 1881, Iron and coal in Tennessee: Tenn. Eur. Agriculture, Statistics, and Mines, 220 p.
- 1321 _____ 1888, The western iron belt of Tennessee: Eng. Min. Jour., v. 45, p. 18-19.
- 1322 _____ 1891, The western iron belt of Tennessee: Eng. Min. Jour., v. 51, p. 695-696.
- 1323 Killeen, P. L., Carr, M. S., and Flint, D. E., 1952, Iron deposits in the territories and overseas possessions of the United States and on certain islands under its jurisdiction, in Blondel, F., and Marvier, J. P., eds., Symposium sur les gisements de fer du monde: Cong. géol. internat., 19^e sess., Alger, 1952, Mon. région., no. 1, p. 413-427, sketch map under separate cover.
- 1324 Kimball, J. P., 1865, On the iron ores of Marquette, Mich.: Am. Jour. Sci., 2d ser., v. 39, p. 290-303.
- 1325 _____ 1881, The Greenway iron ore belt of the James River, Va.: The Virginias, v. 2, p. 2-5.
- 1326 _____ 1884, Geological relations and genesis of the specular iron ores of Santiago de Cuba: Am. Jour. Sci., 3d ser., v. 28, p. 416-429; Eng. Min. Jour., v. 38, p. 409-411.
- 1327 _____ 1884, The iron ore range of the Santiago district of Cuba: Am. Inst. Min. Metall. Eng. Trans., v. 13, p. 613-634, 1885; Eng. Min. Jour., v. 38, p. 423-427.
- 1328 _____ 1884, Iron ores of the Juragua Hills near Santiago de Cuba. A geological report to the Juragua Iron Co. Ltd.: 45 p.
- 1329 _____ 1890, Siderite basins of the Hudson River epoch, Columbia County, N. Y.: Am. Jour. Sci., 3d ser., v. 40, p. 155-160.
- 1330 _____ 1891, Genesis of iron ores by isomorphous and pseudomorphous replacement of limestone: Am. Jour. Sci., 3d ser., v. 42, p. 231-241.
- 1331 _____ 1897, On the magnetite belt at Cranberry, N. C., and notes on the genesis of this iron ore in general in crystalline schists: Am. Geologist, v. 20, p. 299-312.
- 1332 _____ 1897, Secondary occurrences of magnetite on islands of British Columbia by replacement of limestone and by weathering of eruptives: Am. Geologist, v. 20, p. 13-27.
- 1333 _____ 1898, Residual concentration by weathering as a mode of genesis of iron ore: Am. Geologist, v. 21, p. 155-163.
- 1334 _____ 1919, Relaciones geológicas y genesis de las minas de hierro especular de Santiago de Cuba: Cuba, Dirección Montes y Minas Bol. minas, no. 5, p. 83-95.
- 1335 Kinahan, G. H., 1904, Notes on mining in Ireland: Inst. Min. Eng. Trans., v. 54, p. 105-123.
- 1336 Kindelan, Vincente, and Ranz, Manuel, 1918, Criaderos de hierro de Guadalajara y Teruel: Inst. Geol. Min. España Mem., tomo 3, 230 p.
- 1337 *Kindle, E. M., 1906, The iron ores of Bath County, Ky.: U. S. Geol. Survey Bull. 285, p. 180-182.
- 1338 _____ 1920, Notes on the iron ores of Mackenzie River valley: Canada Geol. Survey Summary Rept. 1919, pt. C, p. 1-2.
- 1339 Kindle, L. F., 1933, Moose Mountain-Wanapitei area: Ontario Dept. Mines 41st Ann. Rept., 1932, v. 41, pt. 4, p. 29-49.

- Index
No.
- 1340 King, P. B., 1950 [1954], Geology of the Elkton area, Virginia: U. S. Geol. Survey Prof. Paper 230, 82 p. \$1.75.
- 1341 King, P. B., Ferguson, H. W., Craig, L. C., and Rodgers, John, 1945, Geology and manganese deposits of northwestern Tennessee: Tenn. Div. Geology Bull. 52, 283 p.
- 1342 King, Shirley, 1910, The Wilbur iron mine, Lanark County, Ont.: Canadian Min. Inst. Jour., v. 12, p. 582-591.
- 1343 Kinney, D. M., 1949, The Magnet Cove Rutile Co. mine, Hot Spring County, Ark.: U. S. Geol. Survey open-file rept.
- 1343 Kirshman, M. S., 1955, Iron ore deposits of the Middle East and of Asia and the Far East, *in* Survey of world iron ore resources—occurrence, appraisal and use: United Nations Pub. 1954.II.D.5, New York, p. 265-334.
- 1345 Kitchell, William, 1857, Iron ores of New Jersey; geological occurrences, properties, metallurgy, etc.: Mineralog. Mag., v. 3, p. 332-348, 434-438.
- 1346 Klemm, G., 1933, Ueber die Basalte und die Eisenvorkommen des ostlichen Odenwaldes: Ver. Erdkunde u. Hess. Geol. Landesanst. Notizblatt, Folge 5, Heft 14, p. 8-19.
- 1347 Kline, M. H., and Ballard, T. J., 1948, Cranberry magnetite deposits, Avery County, N. C., and Carter County, Tenn.: U. S. Bur. Mines Rept. Inv. 4274, 85 p.
- 1348 _____ 1949, Investigation of the Great Gossan Lead, Carroll County, Va.: U. S. Bur. Mines Rept. Inv. 4532, 39 p.
- 1349 Knaff, A., 1928, Die Eisenoolithen der Luxemburgisch-lothringischen Minette: Soc. naturalistes luxembourg. Bull. mens. nouv. ser., v. 22, p. 33-37.
- 1350 Knappen, R. S., 1926, Geology and mineral resources of the Dixon quadrangle: Ill. Geol. Survey Bull. 49, p. 134.
- 1351 Knight, C. W., 1922, The geology of Ontario's iron ores: Canadian Min. Jour., v. 43, no. 37, p. 625; Iron and Steel of Canada, v. 5, no. 9, p. 158-159.
- 1352 Knoerr, A. W., 1953, Bethlehem Steel new Grace mine: Eng. Min. Jour., v. 154, no. 1, p. 88-90.
- 1353 *Knopf, Adolph, 1910, The occurrence of iron ore near Haines [Alaska]: U. S. Geol. Survey Bull. 442, p. 144-146.
- 1354 _____ 1933, Pyrometamorphic deposits, *in* Ore Deposits of the Western United States (Lindgren Volume): New York, Am. Inst. Min. Metall. Eng., p. 540-543.
- 1355 _____ 1942, Ore deposition in the pyrometamorphic deposits, *in* Ore deposits as related to structural features: Princeton Univ. Press, p. 63-72.
- 1356 Kobrich, Carl, 1934, Geologisches und Bergwirtschaftliches von den oberhessischen Eisenerzen: Deutsche Geol. Gesell. Zeitschr., Band 86, Heft 6, p. 329-333.
- 1357 Koch, Sandor, Grasselly, Gyula, and Donath, Eva, 1950, The minerals of the Hungarian iron ore deposits: Univ. Szeged. Acta Mineralog. Petrog. tome 4, p. 7-41. [Hungarian, English summary.]
- 1358 Koeberlin, F. R., 1909, The Brewster iron-bearing district of New York: Econ. Geology, v. 4, p. 713-754.
- 1359 Kohl, E., 1934, Die Eisenerzvorräte des Deutschen Reiches: Preussische Geol. Landesanst. Archiv Lagerstättenf., Heft 58, 184 p.

Index
No.

- 1360 Kolbe, H., 1953, Aperçu stratigraphique des gisements de fer sédimentaire en Allemagne et en Lorraine, in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 119.
- 1361 Kondracki, Jerzy, 1947, Maty atlas Polski: Warsaw, Główny Urzgd Pomiarów Kraju, 28 p. [Polish, Russian, French, English.]
- 1362 Kondratev, V., 1934, (Preliminary results of magnetometric surveying of the magnetite deposits of Ena region in the Kola Peninsula): Leningrad. geol.- gidro.- geod. trest Izv. 1, p. 15-16. [Russian, English summary.]
- 1363 Konioushevski, L., 1901, Recherches géologiques dans la région minière de Bakal: Geol. kom. Izv., tom 20, p. 397-410.
- 1364 ——— 1906, Recherches géologiques sur les gisements de fer de Zigaza et de Komarovo (Oural méridional): Geol. kom. Zapiski, nov. ser., vyp. 21, p. 1-86.
- 1365 Konioushevski, L., and Kovalev, P., 1903, Les gisements de fer de la région minière de Bakal: Geol. kom. Zapiski, nov. ser., vyp. 6, p. 1-126.
- 1366 Konstantov, S. V., Keчек, G. A., Belorusov, V. V., and Krasilnikov, L. K., 1933, (The Kerch iron ore deposits): Vses. geol.-razved. ob'yedeneniya Trudy, vyp. 325, p. 1-128. [Russian, English summary.]
- 1367 Kopchenova, E., 1934, (Lacustrine and bog ores of the Konch Lake and Sego Lake regions of the Karelian Autonomous Socialistic Soviet Republic): Nauch.-issled. inst. geologii i mineralologii Trudy, vyp. 3, 28 p. [Russian, English summary.]
- 1368 Koschmann, A. H., and Gordon, Mackenzie, Jr., 1950, Geology and mineral resources of the Maimon-Hatillo district, Dominican Republic: U. S. Geol. Survey Bull. 964-D, p. 342-347. 75c.
- 1369 Kostov, Ivan, 1941, A Bulgarian iron deposit: Min. Mag., v. 64, no. 5, p. 229-235; v. 65, no. 2, p. 79-80.
- 1370 Koutek, Jaromír, 1938, Über die Eisenerzlagerstätten in der Umgebung von Irsava in der Karpathischen Ukraina: Štátní. geol. ústav Československé Republiky Věstník, ročník 14, číslo 5-6, p. 148-161. [Czech, German summary.]
- 1371 Kovalev, P., 1901, Recherches géologiques dans la région minière de Bakal, gisements de Mont Irkouskan: Geol. kom. Izv., tom 20, p. 411-434.
- 1372 Kovenko, V., 1940, Les gîtes de fer de la région de Hasancelebi: Maden Tetkik Arama [Ankara], sene 5, p. 75-93. [Turkish, French summary.]
- 1373 ——— 1941, Nouvelles données sur la gîte de magnetite de Divrik: Maden Tetkik Arama [Ankara] sene 6, sayi 2/23, p. 159-191. [Turkish and French.]
- 1374 ——— 1946, Province metallogénique de plomb et de fer des Taurides (Turquie): Maden Tetkik Arama [Ankara], sene 11, sayi 1/35; p. 53-94. [Turkish and French.]
- 1375 Krajewski, Roman, 1947, Clay iron ores in the eastern part of the district Kouskie (central Poland): Pánstwowy Inst. Geol. Biul. 26, 134 p. [Polish, English summary.]
- 1376 Kral, V. E., 1947, Buena Vista iron deposit, Churchill County, Nev.: U. S. Bur. Mines Rept. Inv. 4094, 5 p.
- 1377 * ——— 1947, McCoy iron deposit, Lander County, Nev.: U. S. Bur. Mines Rept. Inv. 3990, 5 p.
- 1378 * ——— 1947, Modarelli iron deposit, Eureka County, Nev.: U. S. Bur. Mines Rept. Inv. 4005, 7 p.

Index
No.

- 1379 *Kral, V. E., 1947, Phelps Stokes iron deposit, Nye County, Nev.: U. S. Bur. Mines Rept. Inv. 4000, 6 p.
- 1380 * _____ 1947, Segerstrom-Heizer iron property, Pershing County, Nev.: U. S. Bur. Mines Rept. Inv. 4025, 8 p.
- 1381 Krasheninnikov, G. F., 1935, (Geology of the Angara-Ilim iron ore region): Vostochno-sibirsk. geol. trest Trudy, vyp. 12, 122 p. [Russian, English summary.]
- 1382 Krasnopolski, A., 1901, Gisements de minerai de fer de Bakal, d'Inser, de Beloretzk, d'Avzian, et de Zigaza (Ural méridional): Geol. kom. Izv., tom 20, p. 1-89.
- 1383 _____ 1902, Évaluation de la richesse minerale de la mine Bakalsky (Propriété de la Couronne) dans l'Ourel Méridional: Geol. kom. Izv., tom 21, p. 169-184.
- 1384 _____ 1904, Recherches géologiques dans les alentours de l'Usine Lemesinski (arrondissement minier d'Oufa): Geol. kom. Zapiski, nov. ser., vyp. 17, p. 1-61.
- 1385 Kreamalmyer, K. L., 1945, Exploration of Silver Hollow, Newbauer, and Coleman iron deposits, Franklin and Crawford Counties, Mo.: U. S. Bur. Mines Rept. Inv. 3870, 10 p.
- 1386 Krejci-Graf, Karl, 1939, Kohle und Eisen in China: Natur und Volk, Band 69, Hefte 4-5, p. 163-169, 249-258.
- 1387 Krekeler, F., 1930, Tektonik und Lagerausbildung der Roteisensteingrube Eppstein-Schiefer: Zeitschr. prakt. Geologie, Jahrg. 38, no. 3, p. 33-41.
- 1388 Krenkel, Erich, 1941, Grossdeutschlands Bodenschätze, Band 47 of Verständliche Wissenschaft: Berlin, Springer-Verlag, 148 p.
- 1389 Kretschmer, F., 1899, Die Eisenerzlagerstätten des mährischen Devon: K.-k. Geol. Reichsanst. Jahrb., v. 49, p. 29-124.
- 1390 _____ 1903, Die nutzbaren Minerallagerstätten der archaischen und devonischen Inseln Westmährens: K.-k. Geol. Reichsanst. Jahrb., v. 52, p. 353-494.
- 1391 Krishnan, M. S., 1950, American quest for iron ore: Jour. Sci. Indus. Research [Delhi]; v. 9A, no. 11, p. 395-405.
- 1392 _____ 1952, The iron-ores of India: Indian Minerals, v. 6, no. 3, p. 113-130; no. 4, p. 167-174; no. 5, p.
- 1393 _____ 1952, On some iron ore deposits of Madras, southern India: Internat. Geol. Cong., 18th sess., Great Britain, 1948, Proc., Pt. 13, p. 283.
- 1394 _____ 1954, The iron ore resources of Asia: Indian Min. Jour, v. 2, no. 2, p. 1-9.
- 1395 Krotov, B. P., 1931, (Report on the exploration works in the Alapaevsk iron ore deposit in 1927-28): Glav. geol. - razved. uprav. Trudy, vyp. 34, 42 p. [Russian, English summary.]
- 1396 _____ 1931, (Report on the exploration of the Alapaevsk iron ore deposits in 1929): Glav. geol. - razved. uprav. Trudy, vyp. 70, 53 p. [Russian, English summary.]
- 1397 _____ 1937, (A. P. Karpinsky's works concerning the study of iron ores in the U.S.S.R.): Akad. nauk SSSR Izv., ser. geol. 4, p. 655-679. [Russian, English summary.]
- 1398 _____ 1938, (On The Khalilovsk iron ore deposit, Ural Mountains, Russia): Akad. nauk SSSR, Lomonosov inst. Trudy 9, p. 125-148. [Russian, English summary.]

- Index
No.
- 1399 Krotov, B. P., 1938, (On the time of formation of the iron deposits in the Urals): Akad. nauk SSSR Izv., ser. geol. 4, p. 615-649. [Russian, English summary.]
- 1400 _____ 1943, (Geological evidence favoring the search for iron-nickel ores of the Anatol type in the middle Urals): Akad. nauk SSSR, Doklady, tom 40, vyp. 6, p. 239-241.
- 1401 _____ 1945, (The laws governing the distribution of complex deposits of iron, nickel, and cobalt residual ores in the Urals): Akad. nauk SSSR Izv., Ser. geol. 2, p. 26-36. [Russian, English summary.]
- 1402 Krotov, B. P., and others, 1936, (Iron ore deposits of the Alapaievsk type on the eastern slope of the middle Ural and their genesis): Akad. nauk, SSSR, Sovet po izuchenyu pro izvoditel'nykhsil. i Lomonosovskiy inst., Ural'skiy ser., vyp. 3, 286 p.; vyp. 4, 403 p., Moskva; Leningrad. [Russian, English summary.]
- 1403 Krusch, P., 1936, Deutschlands Vor- und Nachkriegsversorgung mit einheimischen Eisenerzen und die Bedeutung des Salzgitterer Erzlagere: Zeitschr. prakt. Geologie, Jahrg. 44, Hefte 5, 6, p. 67-81, 89-98.
- 1404 Kuhn, O. R., 1925, Australian iron ore: Eng. Min. Jour., v. 120, p. 931-938.
- 1405 _____ 1926, Iron ore deposits of Cuba: Eng. Min. Jour.-Press, v. 121, no. 15, p. 607-610.
- 1406 _____ 1926, Spain's iron ore: Eng. Min. Jour.-Press, v. 121, no. 9, p. 367-372.
- 1407 _____ 1926, World's iron ore resources: Eng. Min. Jour., v. 122, no. 3, p. 84.
- 1408 Kumke, C. A., and Mills, H. F., 1950, Mining methods and practices at the Iron King mine, Shattuck-Denn Mining Corp., Yavapai County, Ariz.: U. S. Bur. Mines Inf. Circ. 7539, 17 p.
- 1409 Kummel, H. B., 1903, The iron and zinc mines: N. J. Geol. Survey Ann. Rept. 1902, p. 115-123.
- 1410 _____ 1908, Iron ore in New Jersey: Eng. Min. Jour., v. 85, p. 1193.
- 1411 Kurita, A., 1898, The coal and iron deposits of eastern China: Colliery Guardian, v. 75, p. 804.
- 1412 Kutscher, Fritz, 1939, Magnetische Versuchsmessungen auf silikatische Eisenerze in Thuringen: Beitr. angew. Geophysik, Band 7, Heft 4, p. 350-356. [German, English summary.]
- 1413 _____ 1941, Erdmagnetische Messungen auf Magnetitlagerstätten im südlichen Riesengebirge: Zeitschr. prakt. Geologie, Jahrg. 49, Heft 4, p. 39-45.
- 1415 Kuznetsov, J. A., 1929, (Geological sketch of the iron ore deposit of Kamyschtsa): Zapadno-sibirsk. otdel. Geol. kom. Izv. 9, vyp 4, 22 p., Tomsk. [Russian, English summary.]
- 1416 _____ 1929, (Geological structure of the Abakan iron ore deposit, central Siberia): Zapadno-sibirsk. ot' del. Geol. kom. Izv. 8, vyp. 3, 84 p., Tomsk. [Russian, English summary.]
- 1414 Kuznetzov, S., 1906, Recherches géologiques faites en 1901-1902 dans la Russie Méridionale [Dnieper Valley]: Geol. kom. Izv., tom 25, p. 183-299.
- 1417 Lafeunte, Pierre, 1933, Les mines dans la région de Philippeville: Office Algérien d'action écon. et touristique, Bull. écon., v. 2, no. 11, p. 841-849.

Index
No.

- 1418 Lahiri, A., 1941, Geology of Buxa Duars: Geol. Soc. India Quart. Jour. 13, p. 1-62.
- 1419 Lake, M. C., 1932, The iron ore deposits of Iron Mountain, Mo., Mining districts of the eastern United States: Internat. Geol. Cong. 16th sess., United States, 1933, Guidebook 2, p. 56-67.
- 1420 _____ 1950, Cerro Bolivar—U. S. Steel's new iron ore bonanza: Eng. Min. Jour., v. 151, no. 8, p. 72-83.
- 1421 Lake Superior Iron Ore Association, 1938, Lake Superior iron ores: Cleveland, Ohio, 364 p.
- 1422 _____ 1949, Flow map: Cleveland, Ohio, The Lake Superior Iron Ore Assoc.
- 1423 _____ 1952, Lake Superior iron ores: Cleveland, Ohio, 326 p.
- 1424 _____ 1953, Average analysis—Lake Superior iron ores: Cleveland, Ohio, 64 p.
- 1425 Lamar, J. E., 1927, Geology and economic resources of the St. Peter sandstone of Illinois: Ill. Geol. Survey Bull. 53, p. 54-99.
- 1426 *Lamb, F. D., and Woodward, D. A., 1946, Pilot-plant production of high-grade magnetite concentrates, Cranberry, N. C.: U. S. Bur. Mines Rept. Inv. 3980, 7 p.
- 1427 Lamcke, K., 1940, Natürliche Anreicherungen von Schwermineralien in Küstengebieten: Geologie Meere und Binnengewässer, Band 4, Heft 1, p. 77-92.
- 1428 Lamey, C. A., 1946, Geology of an area southwest of Randville, Dickinson County, Mich.: U. S. Geol. Survey open-file rept., 18 p.
- 1429 _____ 1947, Geology of an area near Randville, Mich.: U. S. Geol. Survey open-file rept., 17 p.
- 1430 _____ 1948, Cave Canyon iron-ore deposits, San Bernardino County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. E, p. 69-84.
- 1431 _____ 1948, Hirz Mountain iron-ore deposits, Shasta County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. J, p. 129-136.
- 1432 _____ 1948, Iron Hat (Ironclad) iron-ore deposits, San Bernardino County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. G, p. 97-109.
- 1433 _____ 1948, Iron Mountain and Iron King iron-ore deposits, Silver Lake district, San Bernardino County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. C, p. 39-58.
- 1434 _____ 1948, Iron Mountain iron-ore deposits, Lava Bed district, San Bernardino County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. B, p. 25-38.
- 1435 _____ 1948, Old Dad Mountain iron-ore deposit, San Bernardino County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. D, p. 59-68.
- 1436 _____ 1948, Shasta and California iron-ore deposits, Shasta County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. K, p. 137-164.
- 1437 _____ 1948, Ship Mountains iron-ore deposit, San Bernardino County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. H, p. 110-116.
- 1438 _____ 1948, Vulcan iron-ore deposit, San Bernardino County, Calif.: Calif. Dept. Nat. Res., Div. Mines Bull. 129, pt. F, p. 85-96.

Index
No.

- 1439 Lamey, C. A., 1949, Geology of a part of the Felch Mountain iron range, Mich.: U. S. Geol. Survey open-file rept., 19 p.
- 1440 _____ 1950, The Blewett iron-nickel deposit, Chelan County, Wash.: U. S. Geol. Survey Bull. 969-D, p. 87-103. 65c.
- 1441 Lamey, C. A., and Dutton, C. E., 1939, Geology of the Menominee range, Dickinson County: Mich. Geol. Survey Progress Rept. 5, 10 p.
- 1442 _____ 1941, A preliminary geologic survey of part of the Menominee range in the vicinity of Iron Mountain, Mich.: Mich. Geol. Survey Progress Rept. 6, 14 p.
- 1443 _____ 1942, Geology of the Menominee range, Norway to Waucedah: Mich. Geol. Survey Progress Rept. 8, 20 p.
- 1444 Lamey, C. A., and Hotz, P. E., 1952, Cle Elum River nickeliferous iron deposits, Kittitas County, Wash.: U. S. Geol. Survey Bull. 978-B, p. 27-67. \$1.
- 1445 Lance, A. E., 1947, The iron ores of Germany: Iron and Steel Inst. Jour., v. 156, pt. 4, p. 449-476.
- 1446 Landergren, Sture, 1940, Preliminary investigation on the distribution of elements in some Swedish iron ores: Jernkontorets annaler 1936, Stockholm, p. 711-737. [Swedish, English summary.]
- 1447 _____ 1943, Geochemical investigations on the iron ores of the Grängesberg field, Sweden: Ingeniörsvetenskaps akad. Handl. 172, 71 p., Stockholm. [Swedish, English summary.]
- 1448 _____ 1948, On the geochemistry of Swedish iron ores and associated rocks; a study on iron ore formation: Sveriges Geol. Unders. ser. C, nr. 496, Årsbok 42, nr. 5, 182 p.
- 1449 Landis, E. K., 1900, The Tilly Foster mine, Putnam County, N. Y.: Franklin Inst. Jour., v. 150, p. 223-226.
- 1450 Lane, A. C., 1909, Michigan iron mines and their mine waters: Min. World, v. 31, p. 413-416; Canadian Min. Inst. Jour., v. 12, p. 114-129, 1910.
- 1451 Lang, A. H., Armstrong, J. E., and Thurber, J. B., 1946, Manson Creek Cassiar district, British Columbia: Canada Geol. Survey Map 876-A.
- 1452 Lapham, I. A., 1860, The Penokee iron range, Wis.: Wis. State Agric. Soc. Trans., v. 5, p. 391-400.
- 1453 Larsson, Per, 1888, The Chapin iron mine, Lake Superior: Am. Inst. Min. Metall. Eng. Trans., v. 16, p. 119-128.
- 1454 Lasky, S. G., 1947, Geology and ore deposits of the Little Hatchet Mountains, Hidalgo and Grant Counties, N. Mex.: U. S. Geol. Survey Prof. Paper 208, 101 p. \$2.50.
- 1455 Lasky, S. G., and Wootton, T. P., 1933, The metal resources of New Mexico and their economic features: N. Mex. Bur. Mines and Min. Res. Bull. 7, 178 p.
- 1456 Launay, L. de, 1903, L'origine et les caractères des gisements de fer scandinaves: Annales mines [Paris] Mém., sér. 10, tome 4, p. 49-211.
- 1457 Lautenois, H., Counillon, Zeller, R., and Laurent, L., 1907, Résultats de la mission géologique et minière du Yunnan méridional: Annales mines [Paris] Mém., sér. 10, v. 11, p. 300-384, 385-503.
- 1458 Leach, H. J., 1944, The Evergreen mine, Cuyuna iron range, Crosby, Minn.: Min. Cong. Jour., v. 30, no. 10, p. 28-33.

Index
No.

- 1459 Leach, N. L., 1908, The Moose Mountain iron range, with special reference to the properties of Moose Mountain, Limited: Canadian Min. Inst. Jour., v. 11, p. 147-150.
- 1460 Leach, W. W., 1912, Geology of Blairmore map area, Alberta: Canada Geol. Survey Summary Rept. 1911, p. 192-200.
- 1461 Leckie, R. G. E., 1893, Iron deposits of Torbrook: Min. Soc. Nova Scotia Jour., v. 1, pt. 3, p. 53-57.
- 1462 Ledyard, T. D., 1891, Some Ontario magnetites: Am. Inst. Min. Metall. Eng. Trans., v. 19, p. 28-37.
- 1463 Lee, F. W., and Vanderberg, W. O., 1935, Survey of the possible application of geophysical methods to mineral occurrences in the Boulder Dam area, and notes on the mineral deposits visited: Washington, D. C., 13 p.
- 1464 Lee, Oscar, 1944, Birmingham's future depends on concentration (Alabama): Eng. Min. Jour., v. 145, no. 10, p. 104-106.
- 1465 Legoux, Pierre, 1939, Esquisse géologique de l'Afrique Occidentale Française: Afrique Occidentale Française, Service mines Bull. 4, 134 p.
- 1466 Legraye, M., 1939-40, Fers titanés de Mozambique: Soc. géol. Belgique Annales, tome 63, p. 167-174.
- 1467 Lehmann, E., 1934, Die magmatische Mineral- und Gesteinsprovinz im Mitteldevon des Lahn-Dillgebietes: Deutsche Geol. Gesell. Zeitschr., Band 86, Heft 6, p. 348-359.
- 1468 _____ 1941, Eruptivgesteine und Eisenerze im Mittel- und Oberdevon der Lahnmulde: Wetzlar, Tech.-Pädagog. Verlag Scharfes Druckereien, 391 p.
- 1469 _____ 1949, Über die Genesis der Eisenerzlagertstätten vom Lahntypus: Zeitschr. Erzbergbau u. Metallhüttenw., Stuttgart, Band 2, Heft 8, p. 239-246.
- 1470 Leinz, Viktor, 1938, Eisenerz-Vorkommen in Paraná, Brasilien: Zeitschr. prakt. Geologie, Jahrg. 46, Heft 1, p. 1-5.
- 1471 Leith, C. K., 1903, A comparison of the origin and development of the iron ores of the Mesabi and Gogebic iron ranges: Lake Superior Min. Inst. Proc., v. 8, p. 75-81.
- 1472 * _____ 1903, Geologic work in the Lake Superior district during 1902: U. S. Geol. Survey Bull. 213, p. 247-250.
- 1473 _____ 1903, The Mesabi iron-bearing district of Minnesota: U. S. Geol. Survey Mon. 43, 316 p. \$1.50.
- 1474 _____ 1903, Moose Mountain iron range: Ontario Bur. Mines Ann. Rept. 12, p. 318-321.
- 1475 * _____ 1904, Iron ores in southern Utah: U. S. Geol. Survey Bull. 225, p. 229-237.
- 1476 * _____ 1904, The Lake Superior iron region during 1903: U. S. Geol. Survey Bull. 225, p. 215-220.
- 1477 _____ 1905, Genesis of Lake Superior iron ores: Econ. Geology, v. 1, p. 47-66.
- 1478 _____ 1905, A summary of Lake Superior geology with special reference to recent studies of the iron-bearing series: Am. Inst. Min. Metall. Eng. Bull., v. 3, p. 453-507; Trans., v. 36, p. 101-153, 1907.
- 1479 _____ 1906, Iron ore reserves: Econ. Geology, v. 1, p. 360-368.

Index
No.

- 1480 *Leith, C. K., 1906, Ironores of the western United States and British Columbia: U. S. Geol. Survey Bull. 285, p. 194-200.
- 1481 _____ 1907, The geology of the Cuyuna iron range, Minn.: Econ. Geology, v. 2, p. 145-152.
- 1482 _____ 1908, The iron ores of Canada: Canadian Min. Inst. Jour., v. 11, p. 91-105; Econ. Geology, v. 3, p. 276-291; Canadian Min. Jour., v. 29, p. 370-374.
- 1483 * _____ 1912, Iron-ore reserves of Michigan: U. S. Geol. Survey Min. Res. U. S., 1911, pt. Ia, p. 175-190,
- 1484 _____ 1912, Use of geology in iron ore exploration: Econ. Geology, v. 7, p. 662-675; Canadian Min. Inst. Trans. 15, p. 552-566.
- 1485 _____ 1914, Notes on conservation of Lake Superior iron ores: Am. Inst. Min. Metall. Eng. Bull., v. 86, p. 247-250; Trans., v. 50, p. 231-235, 1915.
- 1486 _____ 1917, Iron ores of the Americas: Pan Am. Science Cong., 2d, Washington 1915-16, Proc., sec. 7, v. 8, p. 954-959.
- 1487 _____ 1921, The economic aspects of geology: New York, Henry Holt and Co., p. 154-173.
- 1488 _____ 1924, A sedimentary problem [formation of iron deposits]: Econ. Geology, v. 19, no. 4, p. 382-385. Discussion by A. M. Macgregor, v. 20, no. 2, p. 195-197, 1925.
- 1489 _____ 1929, The world's iron ore supply: World Eng. Cong., 1st, Tokyo, 1929, 37 p.
- 1490 _____ 1931, Secondary concentration of Lake Superior iron ores: Econ. Geology, v. 26, no. 3, p. 274-288.
- 1491 *Leith, C. K., and Harder, E. C., 1908, The iron ores of the Iron Springs district, southern Utah: U. S. Geol. Survey Bull. 338, 102 p.
- 1492 _____ 1911, Hematite ores of Brazil and a comparison with hematite ores of Lake Superior: Econ. Geology, v. 6, p. 670-686.
- 1493 Leith, C. K., and Liddell, D. M., 1936, Mineral reserves of the United States, and its capacity for production: Washington, D. C., Planning Committee for Mineral Policy, Natl. Res. Comm., p. 97-123.
- 1494 Leith, C. K., and Mead, W. J., 1911, Origin of the iron ores of central and northeastern Cuba: Am. Inst. Min. Metall. Eng. Bull., v. 51, p. 217-229; Trans., v. 42, p. 90-102, 1912.
- 1495 _____ 1915, Additional data on origin of lateritic iron ores of eastern Cuba: Am. Inst. Min. Metall. Eng. Bull., v. 103, p. 1377-1380; Trans., v. 53, p. 75-78, 1916.
- 1496 *Leith, C. K., Lund, R. J., and Leith, Andrew, 1935, Pre-Cambrian rocks of the Lake Superior region, a review of newly discovered geologic features, with a revised geologic map: U. S. Geol. Survey Prof. Paper 184, 34 p.
- 1497 Leonard, B. F., 1951, Magnetite deposits of the St. Lawrence County district, New York: U. S. Geol. Survey open-file rept., 226 p.
- 1498 _____ 1952, Magnetite deposits and magnetic anomalies of the Brandy Brook and Silver Pond belts, St. Lawrence County, N. Y.: U. S. Geol. Survey Mineral Inv. map MF 6. 35c.
- 1499 _____ 1953, Magnetite deposits and magnetic anomalies of the Spruce Mountain tract, St. Lawrence County, N. Y.: U. S. Geol. Survey Mineral Inv. map MF 10, scale, 1:6,000. 50c.

Index,
No.

- 1500 LeRoy, O. E., 1908, Preliminary report on a portion of the main coast of British Columbia and adjacent islands included in New Westminster and Nanaimo districts: Canada Geol. Survey, 56 p.
- 1501 Lesley, J. P., 1871, Note on the titaniferous iron ore belt, near Greensboro, N. C.: Am. Philos. Soc. Proc., v. 12, p. 139-158.
- 1502 _____ 1873, Dunning's Creek fossil iron ore (Bedford County, Pa.): Am. Philos. Soc. Proc., v. 13, p. 156-168.
- 1503 _____ 1873, The iron ores of the South Mountain, Cumberland County, Pa.: Am. Philos. Soc. Proc., v. 13, p. 3-21.
- 1504 _____ 1874, The brown hematite ore banks of Spruce Creek, Warrior's Mark Run, and Half Moon Run, in Huntingdon and Centre Counties, Pa.: Am. Philos. Soc. Proc., v. 14, p. 19-83, 102-107.
- 1505 _____ 1874, The brown hematite ore banks of that part of Nittany Valley called Warrior's Mark Valley, Half Moon Valley, and Spruce Creek Valley in Huntingdon and Centre Counties, Pa., owned by Lyon, Shorb, & Co.: Pittsburgh, McCalla and Stavelly, 99 p.
- 1506 _____ 1874, A collection of occasional surveys of iron, coal, and oil districts in the United States: Philadelphia.
- 1507 _____ 1882, The early iron-works of the Virginias: The Virginias, v. 3, p. 41, 62, 87-88, 105, 118-119.
- 1508 Lesley, J. P., and D'Inwilliers, E. V., 1886, Report on the Cornwall iron ore mines, Lebanon County: Pa. Geol. Survey Ann. Rept. 1885, p. 491-570.
- 1509 Levine, N. M., 1952, Taconites beyond taconites (Lake Superior): Min. Eng., v. 4, no. 4, p. 361-363.
- 1510 Lewiecki, W. T., 1948, Georgia iron deposits, Cherokee, Bartow, Floyd, and Polk Counties, Part I: U. S. Bur. Mines Rept. Inv. 4178, 28 p.
- 1511 Lewis, D. E., 1954, The iron deposits of Larap and Mati: Min. Newsletter, v. 5, no. 3, p. 13-14.
- 1512 Lewis, Essington, 1929, Iron ore deposits of Australia: Chem. Eng. and Min. Rev. [Melbourne], v. 21, no. 247, p. 257-260.
- 1513 Lewis, H. C., 1880, The iron ores and lignite of the Montgomery County valley: Acad. Nat. Sci. Philadelphia Proc. 1880, p. 282-291.
- 1514 Lewis, J. F., 1877, The hematite ore mines and blast furnaces east of the Hudson River: Am. Inst. Min. Metall. Eng. Trans., v. 5, p. 216-235.
- 1515 Lewis, J. V., and Kummel, H. B., 1940, The geology of New Jersey, revised by H. B. Kummel: N. J. Dept. Conserv. Geol. Ser. Bull. 50, 203 p.
- 1516 Lewis, W. E., 1951, Relationship of the Cuyuna manganiferous resources to others in the United States, in Geology of the Cuyuna range: Minn. Univ., 12th Ann. Min. Symposium, p. 30-43.
- 1517 Li, C. Y., 1952, Geological activities in Asia: Econ. Geology, v. 47, no. 2, p. 193-201.
- 1518 Libbey, F. W., 1943, Some mineral deposits in the area surrounding the junction of the Snake and Imnaha Rivers in Oregon: Oreg. Dept. Geology and Mineral Industries, G. M. I. Short Paper 11, 17 p.
- 1519 Libbey, F. W., Lowry, W. D., and Mason, R. S., 1944, Preliminary report on high alumina iron ores in Washington County, Oreg.: Oreg. Dept. Geology and Mineral Industries, G. M. I. Short Paper 12, 23 p.

Index
No.

- 1520 Libbey, F. W., Lowry, W. D., and Mason, R. S., 1945, Ferruginous bauxite deposits in northwestern Oregon: *Oreg. Dept. Geology and Mineral Industries Bull.* 29, 97 p.; *Econ.* v. 41, no. 3, p. 246-265, 1946.
- 1521 Libert, J., 1906, Les gisements ferro-manganesifères de la Liègne: *Soc. géol. Belgique Annales*, v. 32, p. 144-154.
- 1522 Lindeman, Einar, 1907, Report on iron ore deposits: *Canada Dept. Interior Supt. Mines Rept.* 1907, p. 32-37.
- 1523 _____ 1908, Preliminary report on the iron-ore deposits of Vancouver and Texada Islands: *Canada Mines Branch Summary Rept.* 1907-8, p. 35-43.
- 1524 _____ 1910, Iron-ore deposits of Vancouver and Texada Islands, British Columbia: *Canada Mines Branch*, 29 p.
- 1525 _____ 1910, Magnetite deposits of Texada and Vancouver Islands: *Canadian Min. Inst. Bull.* 11, p. 203-216.
- 1526 _____ 1910, On the iron-ore deposits of the Bristol mine, Pontiac County, Que.: *Canada Mines Branch Bull.* 2, 15 p.
- 1527 _____ 1911, The Austin Brook iron-bearing district, N. B.: *Canada Mines Branch Summary Rept.* 1910, p. 76-86.
- 1528 _____ 1912, Calabogie iron-bearing district, Renfrew County, Ont.: *Canada Mines Branch Summary Rept.* 1911, p. 101-103.
- 1529 _____ 1912, The iron-ore deposits along the Central Ontario railway: *Canada Mines Branch Summary Rept.* 1911, p. 95-100.
- 1530 _____ 1913, Austin Brook iron-bearing district, N. B.: *Canada Mines Branch*, 15 p.
- 1531 _____ 1913, Magnetite occurrences along the Central Ontario railway: *Canada Mines Branch*, 23 p.
- 1532 _____ 1914, Iron ore occurrences in Cape Breton: *Canada Mines Branch Summary Rept.* 1913, p. 31-36.
- 1533 _____ 1914, Magnetite occurrences near Calabogie, Renfrew County, Ont.: *Canada Mines Branch*, 16 p.
- 1534 _____ 1914, Moose Mountain iron-bearing district, Ont.: *Canada Mines Branch*, 23 p.
- 1535 Lindeman, Einar, and Bolton, L. L., 1917, Iron ore occurrences in Canada: *Canada Mines Branch*, v. 1, Descriptions of principal iron ore mines, 71 p.; v. 2, Descriptions of iron ore occurrences, 222 p.
- 1536 Lindgren, Waldemar, 1933, *Mineral deposits*: New York, McGraw-Hill, 4th ed., 930 p.
- 1537 Lindgren, Waldemar, and Ross, C. P., 1915, The iron deposits of Daiquiri, Cuba (with discussion by Max Roesler, B. B. Lawrence, L. C. Graton, Harrison Souder, C. P. Berkey, A. C. Lane, and J. D. Irving): *Am. Inst. Min. Metall. Eng. Bull.*, v. 106, p. 2171-2190; *Trans.*, v. 53, p. 40-66, 1916.
- 1538 Lindman, A., 1912, State control of iron mining in Sweden, in *Les ressources mondiales de minerai de fer*: *Cong. géol. internat.*, 11^e sess., Stockholm, 1910, *Comptes rendus*, pt. 1, p. 265-328.
- 1539 Linney, J. R., 1943, A century and a half of development behind the Adirondack iron mining industry: *Min. and Metallurgy*, v. 24, no. 443, p. 480-487.
- 1540 _____ 1946, Eastern magnetite: *Min. and Metallurgy*, v. 27, no. 470, p. 85.

Index
No.

- 1541 Linney, W. M., 1886, Report on the geology of Bath and Fleming Counties: Ky. Geol. Survey, 85 p.
- 1542 Linton, Robert, 1913, Texas iron ore deposits: Eng. Min. Jour., v. 96, p. 1153-1156.
- 1543 Lippert, Hansjoachim, 1951, Zur Gesteins- und Lagerstättenbildung in Roteisenstein-Gruben des ostlichen Dill-Gebietes: Senckenberg. Naturf. Gesell. Abh. 485, p. 1-29.
- 1544 Lippert, T. W., 1950, Cerro Bolivar—Saga of iron ore crisis averted [Venezuela]: Min. Eng., v. 187, no. 2, p. 184, 190.
- 1545 Lisboa, M. A. R., 1944, Preliminary report on the manganese and iron mines of Urucum, State of Mato Grosso: Brasil, Div. Fomento Produção Min. Bol. 62, p. 1-81.
- 1546 Little, J. E., 1917, Cuban iron mines and methods: Pan Am. Science Cong., 2d, Washington 1915-16, Proc., sec. 7, v. 8, p. 270-281.
- 1547 Little, O. H., and Attia, M. I., 1943, The development of Aswân district, with notes on the minerals of southeastern Egypt: Giza, Survey of Egypt, 107 p.
- 1548 *Littleton, R. T., 1950, Reconnaissance of the geology and ground-water hydrology of the Laramie Basin, Wyo., with special reference to the Laramie and Little Laramie River valleys: U. S. Geol. Survey Circ. 80, 37 p.
- 1549 Lleras Codazzi, Ricardo, 1929, Las minas de hierro en Colombia: Bol. Minas y Petróleo [Bogotá], v. 1, no. 6, p. 447-456.
- 1550 _____ 1941, Regiones geológicas de Colombia: Acad. Colombiana Cienc. Rev., v. 4, no. 14, p. 199-217.
- 1551 Lloyd, W. A., 1949, Iron ore: Iron Age, v. 163, no. 1, p. 229-239.
- 1552 Logan, W. N., 1922, Economic geology of Indiana, in Handbook of Indiana geology: Ind. Dept. Conserv. Pub., no. 21, p. 571-1058.
- 1553 Longyear, E. J., 1951, Mesabi Pioneer: Minn. Hist. Soc., 116 p.
- 1554 Looström, Ragnar, 1939, Lönnfallet, southernmost part of the Export Field at Grängesberg, Sweden: Sveriges Geol. Unders., ser. C, nr. 428, Årsbok 33, nr. 8, 30 p.
- 1555 Lord, C. S., 1951, Mineral industry of district of Mackenzie, Northwest Territories: Canada Geol. Survey Mem. 261, 336 p.
- 1556 Loughlin, G. F., and Koschmann, A. H., 1942, Geology and ore deposits of the Magdalena mining district, N. Mex.: U. S. Geol. Survey Prof. Paper 200, 168 p. \$2.
- 1557 Louis, D. A., 1898, On the iron-industry of Hungary: Iron and Steel Inst. Jour., v. 52, p. 193-225.
- 1558 _____ 1899, The iron-industry of Sweden: Eng. Mag., v. 17, p. 426-443.
- 1559 _____ 1899, Mining the iron ores of arctic Europe: Eng. Mag., v. 16, p. 610-623.
- 1560 Louis, H., 1898, Notes on the iron industry of the Urals: Federated Inst. Min. Engineers Trans., v. 14, p. 368-387; North England Inst. Min. Mech. Engineers Trans., v. 47, p. 86-107.
- 1561 Lovering, T. S., 1923, The leaching of iron protores; solution and precipitation of silica in cold water: Econ. Geology, v. 18, no. 6, p. 523-540.
- 1562 * _____ 1929, The Rawlins, Shirley, and Seminoe iron-ore deposits, Carbon County, Wyo.: U. S. Geol. Survey Bull. 811-D, p. 203-235.

Index
No.

- 1563 Lovering, T. S., 1933, Pre-Cambrian ore deposits of Colorado and southern Wyoming, *in* Ore deposits of the Western United States (Lindgren volume): New York, Am. Inst. Min. Metall. Eng., p. 275-277.
- 1564 * _____ 1935, Geology and ore deposits of the Montezuma quadrangle, Colo.: U. S. Geol. Survey Prof. Paper 178, 119 p.
- 1565 _____ 1943, Minerals in world affairs: New York, Prentice-Hall, Inc., 394 p.
- 1566 Low, A. P., 1902, Report on the geology and physical character of the Nastapoka Islands, Hudson Bay: Canada Geol. Survey Ann. Rept. 13, 84 p.
- 1567 Low, Bela, 1929, The mineral deposits of Porto Rico: Eng. Min. Jour., v. 128, p. 5-7.
- 1568 Lowe, E. N., 1912, Ironores of Marshall and Benton Counties: Miss. Geol. Survey, 23 p.
- 1569 _____ 1914, Preliminary report on iron ores of Mississippi: Miss. Geol. Survey Bull. 10, 70 p.
- 1570 _____ 1915, Mississippi—Its geology, geography, soils, and mineral resources: Miss. Geol. Survey Bull. 12, p. 136-140.
- 1571 Lu, C. H., and Pai, C. C., 1945, Geology of the iron ore deposits in the vicinity of Pehya, Hoching, Yunnan: Geol. Survey China, Geol. Bull. 36, p. 23-24, 85-92. [Chinese, English summary.]
- 1572 _____ 1945, Geology of the iron ore deposits of Lochiutsun, Menghua, Yunnan: Geol. Survey China, Geol. Bull. 36, p. 21-22, 77-84. [Chinese, English summary.]
- 1573 Lucius, Michel, 1931, La genèse des gisements de minerais de fer de la Turquie: Soc. naturalistes luxembourg. Bull. mens., nouv. sér. 25, p. 78-84, 86-96.
- 1574 _____ 1945, Die Luxemburger Minetteformation und die jüngern Eisenerzbildungen unsers Landes: Service carte géol. Luxembourg Pub., Band 4, 347 p.
- 1575 _____ 1948, Erläuterungen zu der geologischen Spezialkarte Luxemburgs; Geologie Luxemburgs; das Gutland: Service carte géol. Luxembourg Pub., Band 5, 405 p.
- 1576 Luper, R. L., 1944, Stratigraphic aspects of the Blewett-Cle Elum iron ore zone, Chelan and Kittitas Counties, Wash.: Wash. Div. Mines and Geology Rept. Inv. 11, 63 p.
- 1577 Lyman, B. S., 1873, The Staley's Creek and Nick's Creek iron region near Marion, Smyth County, Va.: Am. Philos. Soc. Trans., new ser., v. 15, p. 33-47.
- 1578 _____ 1881, The Lower Silurian brown hematite beds of southwest Virginia: The Virginias, v. 2, p. 190.
- 1579 _____ 1886, Geology of the Lowmoor, Va., iron ores: Am. Inst. Min. Metall. Eng. Trans., v. 14, p. 801-809.
- 1580 Lynch, V. J., 1947, Andover-Sulphur Hill iron mines, Sussex County, N. J.: U. S. Bur. Mines Rept. Inv. 4152, 12 p.
- 1581 McCalley, Henry, 1896, The limonites of Alabama geologically considered: Eng. Min. Jour., v. 62, p. 583-584.
- 1582 _____ 1897, The hematites of Alabama geologically considered: Eng. Min. Jour., v. 63, p. 43-44.
- 1583 McCallie, S. W., 1900, Notes on the fossil iron ores of Georgia: Eng. Min. Jour., v. 70, p. 757-758.

Index
No.

- 1584 McCallie, S. W., 1900, A preliminary report on a part of the iron ores of Georgia; Polk, Bartow, and Floyd Counties: Ga. Geol. Survey Bull. 10-A, 190 p.
- 1585 _____ 1900, Some notes on the brown iron ores of Georgia: Eng. Min. Jour., v. 69, p. 255-256.
- 1586 _____ 1908, Fossil iron ore deposits of Georgia: Ga. Geol. Survey Bull. 17, 199 p.
- 1587 McClelland, W. R., 1954, The Saugus [Mass.] Iron Works restoration: Canadian Min. Jour., v. 75, no. 6, p. 68-70.
- 1588 Macco, A., 1903, Die Nutzbaren Bodenschätze des deutschen Schutzgebiete [Cameroons, Adamawa, West Africa]: Zeitschr. prakt. Geologie, Jahrg. 11, p. 28-33, 193-202.
- 1589 McCreath, A. S., 1879-80, Analysis of iron ores of Pennsylvania, in Third report of progress in the laboratory of the Survey at Harrisburg: Pa. Geol. Survey, 2d Rept. Progress M³, p. 1-55.
- 1590 _____ 1882, Analyses of iron ores from Cripple Creek extension of the Norfolk and Western Railroad: The Virginias, v. 3, no. 7, p. 110.
- 1591 _____ 1883, The iron ores of the Valley of Virginia: Am. Inst. Min. Metall. Eng. Trans., v. 12, p. 17-26; Eng. Min. Jour., v. 35, p. 334-335; The Virginias, v. 4, p. 94-96.
- 1592 _____ 1883, The mineral wealth of Virginia tributary to the lines of the Shenandoah Valley and Norfolk and Western Railroad Companies: Harrisburg, Pa., L. S. Hart, 105 p.
- 1593 McCreath, A. S., and D'Inwilliers, E. V., 1887, Comparison of some southern cokes and iron ores: Am. Inst. Min. Metall. Eng. Trans., v. 15, p. 734-753.
- 1594 _____ 1888, Mineral resources of the upper Cumberland Valley of south-eastern Kentucky and southwestern Virginia: Louisville, Ky., Courier Journal Job Printing Co., 152 p.
- 1595 McDonald, Marshall, 1880, Report of a geological and mineral examination of a portion of the James River iron belt: The Virginias, v. 1, p. 10-13.
- 1596 McDonald, P. B., 1912, History of the Cascade iron range of Michigan: Min. World, v. 37, p. 902-905.
- 1597 _____ 1915, Newfoundland's iron mines: Canadian Min. Jour., v. 36, p. 554-555.
- 1598 McDowell, F. H., 1889, The reopening of the Tilly Foster iron mine: Am. Inst. Min. Metall. Eng. Trans., v. 17, p. 758-766.
- 1599 McGerrigle, H. W., 1943, Special report on the iron deposits of the province of Quebec: Quebec Dept. Mines Prelim. Rept. 173, 61 p.
- 1600 McGerrigle, H. W., and Girard, H., 1950, Special report on the iron deposits of the Province of Quebec: Quebec Dept. Mines Prelim. Rept. 262, 45 p.
- 1601 McGill, W. M., 1936, Outline of the mineral resources of Virginia: Va. Geol. Survey Bull. 47, 81 p.
- 1602 McGrath, J. W., 1916, The iron mines of Wabana, Newfoundland: Canadian Min. Jour., v. 37, p. 315-317.
- 1603 Macinerny, A. J., 1904, Notes on an iron-property near Tunis: Inst. Mining and Metallurgy Trans., v. 12, p. 224-227.
- 1604 Mackenzie, G. C., 1908, The iron and steel industry of Ontario: Ontario Bur. Mines Ann. Rept. 17, p. 190-342.
- 1605 _____ 1912, The magnetic iron sands of Natashkwan, County of Saguenay, Province of Quebec: Ottawa, Canada Mines Branch, 49 p.

Index
No.

- 1606 Mackin, J. H., 1947, Iron ore deposits in the Clearwater district, Idaho County, Idaho: U. S. Geol. Survey open-file rept., 20 p.
- 1607 _____ 1947, Some structural features of the intrusions in the Iron Springs district: Guidebook to the Iron Springs district, Utah, 76 p. (Published by the Utah Geological Society, in cooperation with the U. S. Geological Survey, for use on a field trip in south-western Utah.)
- 1608 _____ 1953, Iron deposits of the Iron Mountain district, Washington Co., Idaho: U. S. Geol. Survey Bull. 982-E, p. 121-151. 75c.
- 1609 _____ 1954, Geology and iron ore deposits of the Granite Mountain area, Iron County, Utah: U. S. Geol. Survey Min. Inv. Map MF 14.
- 1610 McLellan, J., 1910, The mineral resources of the Queen Charlotte Islands, B. C.: Canadian Min. Inst. Quart. Bull. 10, p. 167-175.
- 1611 McMaster, P. D., 1946, Exploration of Chamberlain-Barnardville iron deposits, Roane County, Tenn.: U. S. Bur. Mines Rept. Inv. 3957, 19 p.
- 1612 *McMillan, W. D., 1946, Exploration of the Bourbon magnetic anomaly, Crawford County, Mo.: U. S. Bur. Mines Rept. Inv. 3961, 9 p.
- 1613 MacMillen, R. T., Heindl, R. A., and Conley, J. E., 1952, Soda sinter process for treating low-grade titaniferous ores: U. S. Bur. Mines Rept. Inv. 4912, 62 p.
- 1614 McMurchy, R. C., 1944, Geology of the Island Lake area, Manitoba: Precambrian, v. 17, no. 9, p. 4-9.
- 1615 McNaughton, D. A., 1945, Greenwood-Phoenix area, B. C.: Canada Geol. Survey Paper 45-20, 24 p.
- 1616 MacVichie, Duncan, 1926, Iron fields of the Iron Springs and Pinto mining districts, Iron County, Utah: Am. Inst. Min. Metall. Eng. Trans., v. 74, p. 163-173.
- 1617 Magnusson, N. H., 1929, The iron and manganese ores of the Nordmark district: Sveriges Geol. Unders., ser. Ca, nr. 13, 98 p. [Swedish, English summary.]
- 1618 _____ 1930, The iron and manganese ores of the Långban district: Sveriges Geol. Unders., ser. Ca, nr. 23, 111 p. [Swedish, English summary.]
- 1619 _____ 1936, The evolution of the Lower Archean rocks in central Sweden and their iron, manganese, and sulphide ores: Geol. Soc. London, Quart. Jour. 92, pt. 3, p. 332-359.
- 1620 _____ 1940, Geology and ore deposits of Ljusnarsberg: Sveriges Geol. Unders., ser. Ca, nr. 30, 188 p. [Swedish, English summary.]
- 1621 _____ 1940, The Herrang field and its iron ores: Sveriges Geol. Unders., Ser. C, nr. 431, Årsbok 34, 78 p. [Swedish, English summary.]
- 1622 Mallada, L., 1902, Datos geologico-mineros de varios criaderos de hierro de España: Com. Mapa Geol. España Bol., tomo 26, p. 153-203.
- 1623 Malozemoff, A., 1943, The United Nations' newest source of iron; Geology, reserves, and plan for exploitation of Brazil's huge Itabira hematite deposits: Eng. Min. Jour., v. 144, no. 1, p. 56-59.
- 1624 Markov, V., 1937, Mineral resources of the U. S. S. R.: Min. Jour. [London], v. 197, p. 537-539.

Index
No.

- 1625 Marks, J. E., 1925, The iron ranges of northwestern Ontario: Lake Superior Min. Inst. Proc., v. 24, p. 200-208.
- 1626 Marple, M. F., 1954, The geology of Lake Hope State Park: Ohio Geol. Survey Inf. Circ. 13, 30 p.
- 1627 Marsh, A., 1950, The Grängesberg iron mines: Mine and Quarry Eng., v. 16, no. 8, p. 249-256.
- 1628 Marshall, H. I., 1947, Geology of Midlothian Township: Ontario Dept. Mines Ann. Rept., v. 56, pt. 5, 24 p.
- 1629 *Martin, G. C., and Katz, F. J., 1912, A geologic reconnaissance of the Iliamna region, Alaska: U. S. Geol. Survey Bull. 485, p. 117, 120, 121, 122.
- 1630 Martins da Silva, João, 1945, Notas sôbre o jazigo de ferro de Odivelas: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 1, p. 286-292. [Portuguese, English summary.]
- 1631 _____ 1945, Tipos de minério das minas de ferro de Montemor-o-Novo: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 1, p. 62-70. [Portuguese, English summary.]
- 1632 _____ 1947, Estudo sobre a gênese do jazigo de ferro de Montemor-o-Novo: Serviço Fomento Mineiro [Portugal], Estudos, notas e trabalhos, v. 3, p. 26-45.
- 1633 _____ 1948 Gisements de minerais de fer du sud du Portugal: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 4, p. 31-42. [French, English summary.]
- 1634 Martins da Silva, João, and Dias de Carvalho, Adalberto, 1946, Jazigo de ferro de Odivelas: Serviço Fomento Mineiro [Portugal] Relatório 11, 31 p.
- 1635 Mather, W. W., 1834, Sketch of the geology and mineralogy of New London and Windham Counties, in Connecticut: Norwich, W. Lester, Jr., 36 p.
- 1636 Matheson, A. F., 1933, Michipicoten River area, Ontario: Canada Geol. Survey Summary Rept. 1932, pt. D, Pub. 2330, p. 1-21.
- 1637 Mathews, E. B., and Watson, E. H., 1929, The mineral resources of Baltimore County: Md. Geol. Survey, Baltimore County Rept., p. 219-304.
- 1638 Mathias, M., 1940, The occurrence of barite in an iron-ore deposit in Namaqualand: Royal Soc. South Africa Trans. 28, p. 207-217.
- 1639 Matsuzawa, Isao, 1953, The Sinian system in the district of Pang-chiapu, southern Chahar, North China, and consideration of the origin of its contained Hsuanlung type iron ore deposits: Min. Geology, v. 3, no. 10, p. 220-235. [Japanese, English summary.]
- 1640 Matthews, A. F., 1950, Mineral resources of the free: Freedom & Union, Rept. 2, 4 p.
- 1641 Mattiolo, E., and Aichino, G., 1897, Relazione sopra alcuni saggi industriali di minerali di ferro dell'Isola d'Elba: R. Com. geol. Italia Boll., v. 28, p. 237-246.
- 1642 Maubeuge, P. L., 1948, Note préliminaire sur l'extension du gisement ferrifère lorrain vers le détroit de Langres (aalenien ferrugineux): Rev. industrie minér., no. 536, p. 591-604.
- 1643 _____ 1949, Données géologiques sommaires sur l'"aalenien ferrugineux" dans la région frontrière franco-belge: Soc. Belge géologie Bull. 58, p. 60-74.
- 1644 _____ 1949, Le gisement de mineral de fer oolithique supraliasique de la Haute-Saône et de la Haute-Marne: Rev. industrie minér., no. 543, p. 171-188.

Index
No.

- 1645 Mayer, L. W., 1909, The Isle de Hutte iron mines at Peine, Germany: *Am. Inst. Min. Metall. Eng. Trans.*, v. 39, p. 351-356.
- 1646 Medina M., Alía, and Moreno A., Arribas, 1953, Formaciones ferruginosas en el Sahara meridional Español, in *La genèse des gîtes de fer: Cong. geol. internat.*, 19^e sess., Alger, 1952, *Comptes rendus*, fasc. 10, p. 39-45.
- 1647 Meen, V. B., 1941, Preliminary report on the geology of the Garnet-Cunningham area: Ontario Dept. Mines Press Release, 2 p.
- 1648 Mehliss, A. T. M., 1946, The haematite deposits, mineral concession no. 41, northwestern Swaziland: Swaziland Geol. Survey Dept. Special Rept. 1, 21 p.
- 1649 Melcher, N. B., 1948, Quebec-Labrador as a future supply of iron ore for the United States: U. S. Bur. Mines Mineral Trade Notes Spec. Supp. 29, 11 p., Oct.
- 1650 Melchiori, G., 1943, Erdmagnetische Untersuchungen sedimentärer Eisenerzvorkommen von Nurra, Sardinien: *Beitr. angew. Geophysik*, Band 10, Hefte 3-4, p. 312-331. [German, English summary.]
- 1651 *Mendenhall, W. C., and Schrader, F. C., 1903, Mineral resources of the Mount Wrangell district, Alaska: U. S. Geol. Survey Prof. Paper 15, p. 65-66.
- 1652 Meng, H. M., 1933, Magnetite deposits of the Tungkuang-Shan, Tungling, Anhui: *Natl. Research Inst. Geology [China], Contr.*, no. 4, p. 1-30.
- 1653 Merle, A., 1905, Les gîtes minéraux et métallifères et les eaux minérales du Département du Doubs: Besançon, 217 p.
- 1654 Merrill, J. A., 1936, The wonderland of Lake Superior: Minneapolis, Minn., Burgess Pub. Co., 67 p.
- 1655 Merritt, C. A., 1938, The magnetite deposits of the Wichita Mountains, Okla.: *Okla. Acad. Sci. Proc.*, v. 18, p. 51-55.
- 1656 ——— 1939, The iron ores of the Wichita Mountains, Okla.: *Econ. Geology*, v. 34, no. 3, p. 268-286.
- 1657 ——— 1940, Iron ores: *Okla. Geol. Survey Mineral Rept.* 4, 34 p.
- 1658 Merritt, W. H., 1882, The magnetic iron ores of Victoria County, Ont.: *Canadian Inst. Proc.*, new ser., v. 1, p. 261-267.
- 1659 ——— 1892, Notes on the possibilities of iron and steel production in Ontario: *Canadian Inst. Trans.*, v. 2, p. 299-314.
- 1660 *Mertie, J. B., Jr., 1933, The Tatouduk-Nation district: U. S. Geol. Survey Bull. 836, p. 375-378.
- 1661 Messervey, J. P., 1944, Iron ore occurrences, Bridgeville area: Nova Scotia Dept. Mines Ann. Rept. Mines, 1943, p. 71-81.
- 1662 Mesyaninov, A. A., 1935, (The chief body of the Teoysk iron ore deposit): *Material'y geologiya Zapadno-sibirsk. kray, vyp. (Rec. Geology West-Siberian Region, no.)* 26, p. 113-145, Tomsk. [Russian, English summary.]
- 1663 Metz, Karl, 1948, Eisen- und Magnesitlagerstätten in den Ostalpen: *Geol. fören. Stockholm Förh.*, band 70, häfte 2, no. 453, p. 363-370.
- 1664 Meuschke, J. L., 1952, Preliminary aeromagnetic map showing by contours the results of an aeromagnetic survey of the potential nickel area of Lake County, Minn.: U. S. Geol. Survey open-file map.

Index
No.

- 1665 Meuschke, J. L., and Henderson, J. R., 1952, Aeromagnetic and geologic map of part of east-central St. Louis County, Minn.: U. S. Geol. Survey Geophysical Inv. GP 92. 70c.
- 1666 _____ 1952, Aeromagnetic and geologic map of part of northeastern St. Louis County, Minn.: U. S. Geol. Survey Geophysical Inv. GP 93. 70c.
- 1667 _____ 1952, Aeromagnetic and geologic map of part of northwestern St. Louis County, Minn.: U. S. Geol. Survey Geophysical Inv. GP 96. 70c.
- 1668 _____ 1952, Aeromagnetic and geologic map of part of southeastern St. Louis County, Minn.: U. S. Geol. Survey Geophysical Inv. GP 91. 70c.
- 1669 _____ 1952, Aeromagnetic and geologic map of part of southwestern St. Louis County, Minn.: U. S. Geol. Survey Geophysical Inv. GP 94. 70c.
- 1670 _____ 1952, Aeromagnetic and geologic map of part of west-central St. Louis County, Minn.: U. S. Geol. Survey Geophysical Inv. GP 95. 70c.
- 1671 Meyer, Abraham, 1882, On the fossil ores of Lycoming County, Pa.: Acad. Nat. Sci. Philadelphia Proc. 1882, p. 52.
- 1672 Meyer, G., 1933, Investigaciones magnéticas preliminares en los yacimientos de hierro de las pampas de San Nicolas y Marcona: Soc. Geol. Perú Bol., v. 5, p. 65-66.
- 1673 Meyerhoff, H. A., 1933, Geology of Puerto Rico: Puerto Rico Univ. Mon., ser. B, no. 1, 281 p.
- 1674 _____ 1934, Iron in Puerto Rico: Rev. Obras Púb. Puerto Rico, no. 3, p. 595-597; no. 5, p. 635-636; no. 8, p. 704-710.
- 1675 _____ 1941, Mineral resources of the Greater Antilles: Min. and Metallurgy, v. 22, no. 413, p. 265-269.
- 1676 Meyerhoff, H. A., and Smith, I. F., 1931, The geology of the Fajardo district, Porto Rico: N. Y. Acad. Sci., Scientific Survey of Porto Rico and the Virgin Islands, v. 2, p. 201-360.
- 1677 Michigan Academy of Science, Arts, and Letters, Section of geology and mineralogy, 1939, Ninth annual field excursion, Marquette and Menominee districts, 20 p.
- 1678 Mickle, G. R., 1902, the iron-bearing rocks of the Nastapokan Islands: Canadian Min. Inst. Jour., v. 5, p. 256-264.
- 1679 Mikami, H. M., 1944, World iron-ore map: Econ. Geology, v. 39, no. 1, p. 1-24.
- 1680 Mikhailovsky, V., 1898, Exploration des gisements de minerais de fer dans le district du Livny, Gouvernement d'Orel, faite en 1898: Geol. kom. Izv., tom. 17, p. 451-479.
- 1681 Mikkola, Aimo, 1947, The Vahajoki iron ore in Tervola, northern Finland: Comm. géol. Finlande Bull. 140, p. 261-280.
- 1682 Miles, K. R., 1941, Magnetite-hematite relations in the banded iron formations of Western Australia: Australasian Inst. Min. and Metallurgy Proc. 124, p. 193-201.
- 1683 *Millar, W. T., 1947, Investigation of magnetite deposits at Star Lake, St. Lawrence County, N. Y. (to November 1945): U. S. Bur. Mines Rept. Inv. 4127, 14 p.
- 1684 Millar, W. T., Hammond, H. O., and Sanford, R. S., 1949, Investigation of Red-Back magnetite mine, Sterling Lake, Orange County, N. Y.: U. S. Bur. Mines Rept. Inv. 4469, 4 p.

Index
No.

- 1685 Miller, A. H., 1934, Gravitational and magnetometric surveys of the Onakawana lignite and Grand Rapids siderite deposits: Canadian Jour. Research, v. 10, no. 4, p. 463-478.
- 1686 Miller, A. M., 1919, The geology of Kentucky (with introduction by August F. Foerste): Ky. Dept. Geology and Forestry, ser. 5, Bull. 2, 392 p.
- 1687 Miller, B. L., 1911, The mineral resources of Prince George's County: Md. Geol. Survey Rept., Prince George's County, p. 142-144.
- 1688 _____ 1925, Mineral resources of the Allentown quadrangle: Pa. Geol. Survey, 4th ser., Topog. and Geol. Atlas, no. 206, p. 29, 33-70.
- 1689 _____ 1939, Northampton County, Pa., geology and geography: Pa. Geol. Survey, 4th ser., Bull. C-48, p. 311-346.
- 1690 _____ 1941, Lehigh County, Pa., geology and geography: Pa. Geol. Survey, 4th ser., Bull. C-39, mineral resources, p. 252-326.
- 1691 Miller, B. L., and Myers, P. B., 1941, Hardyston formation: Pa. Geol. Survey, 4th ser., Bull. C 39, Lehigh County, p. 165-180.
- 1692 Miller, R. L., 1945, Geology of the Katahdin pyrrhotite deposit and vicinity, Piscataquis County, Maine: Maine Geol. Survey Bull. 2, 21 p.
- 1693 Miller, R. M., 1940, An investigation of the feasibility of a steel plant in the lower Columbia River area: rev. ed., Oreg. Dept. Geology and Mineral Industries Bull. 8, 55 p.
- 1694 Miller, W. G., 1895, The Glendower iron deposit, Frontenac County, Ont.: Canadian Min. Rev., v. 14, p. 40-41.
- 1695 _____ 1901, The iron ore fields of Ontario: Canadian Min. Inst. Jour., v. 4, p. 265-283.
- 1696 _____ 1901, Iron ores of Nipissing district: Ontario Bur. Mines Ann. Rept. 10, p. 160-180.
- 1697 _____ 1903, Iron ranges of northern Ontario: Ontario Bur. Mines Ann. Rept. 12, p. 304-317.
- 1698 _____ 1917, Lateritic ore deposits; with comments on the nature of laterites in general: Ontario Bur. Mines Ann. Rept. 26, p. 318-334.
- 1699 Miller, W. J., 1919, Magnetic iron ores of Clinton County, N. Y.: Econ. Geology, v. 14, no. 7, p. 509-535.
- 1700 _____ 1921, Origin of Adirondack magnetite deposits: Econ. Geology, v. 16, no. 3, p. 227-233.
- 1701 _____ 1926, Geology of the Lyon Mountain quadrangle: N. Y. State Mus. Bull. 271, 101 p.
- 1702 _____ 1944, Geology of Palm Springs-Blythe Strip, Riverside County, Calif.: Calif. Jour. Mines and Geology, v. 40, no. 1, p. 11-72.
- 1703 Mills, S. D., 1905, Occurrence of hematite north of Little Current, Georgian Bay, Ont.: Canadian Min. Rev., v. 25, p. 119-122.
- 1704 Minn. Historical Records Survey Project, 1940, The Cuyuna range; A history of a Minnesota iron mining district, Minn.: St. Paul, Minn. Historical Records Survey Project, 168 p.
- 1705 Miropoľskiy, L. M., 1933, Bakal iron deposit of the southern Urals: Kazan'. gosudar. univ. Uchenyye zapiski, tom 93, kniga 1, geologiya vyp. 2, 131 p. [Russian, English summary.]
- 1706 _____ 1934, The origin and history of the sedimentary carbonate iron ore of the Alapaev type on the eastern slope of the Urals: Kazan'. gosudar. univ. Trudy 53, vyp. 4, p. 21-128. [Russian, English summary.]

Index
No.

- 1707 Miropoĭskiy, L. M., 1936, The origin and history of the iron ores of the eastern slope of the Urals: *Kazan' gosudar. univ. Trudy* 54, vyp. 2, p. 42-69. [Russian, English summary.]
- 1708 Miropoĭskiy, L. M., and Polyaniin, V. A., 1937, (To the study of the iron ores in the deposits of Zlatoust and Kuseni district in the southern Ural): *Kazan' gosudar. univ. Uchenyye zapiski, tom 97, kniga 3-4, geologiya vyp. 8-9*, p. 147-188. [Russian, English summary.]
- 1709 Mirza, Khurshid, 1940, A preliminary note on the iron ore resources of the Hyderabad state: *Hyderabad Geol. Service Bull.* 4, 16 p.
- 1710 Miser, H. D., 1921, Mineral resources of the Waynesboro quadrangle, Tenn.: *Tenn. Geol. Survey Bull.* 26, p. 42-120.
- 1711 Missouri Geological Survey, 1873, Preliminary report on the iron ores and coal fields from the field work of 1872: Pt. 1, p. 3-213.
- 1712 Mitchell, D. R., 1943, The need for research on Pennsylvania's brown iron ore deposits: *Pa. State Coll. Mineral industries*, v. 12, no. 6 p. 1, 4.
- 1713 *Moffitt, F. H., 1924, The metalliferous deposits of Chitina Valley, Alaska: *U. S. Geol. Survey Bull.* 755, p. 60-65.
- 1714 *Moffitt, F. H., and Mertie, J. B., Jr., 1923, The Kotsina-Kuskulana district, Alaska: *U. S. Geol. Survey Bull.* 745, p. 71, 94-95, 138-141.
- 1715 Mok, Chee-sun, and Tu, H. L., 1943, Mineral resources of Lienhsien, Kwangtung: *Kwangtung and Kwangsi Geol. Survey, Geol. Bull.* 1, p. 51-62. [Chinese, English summary.]
- 1716 Monkowski, T., 1897, *Zur Geologie von Kriwoi Rog: Zeitschr. prakt. Geologie, Jahrg.* 1897, p. 374-378.
- 1717 Monture, G. C., 1949, Changes in Canada's iron resources during the past ten years: *Empire Min. Metall. Congress*, 4th, no. AB-3.
- 1718 _____ 1955, Techniques for the exploration and discovery of iron ore deposits, in *Survey of World iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954.II.D.5*, New York, p. 77-105.
- 1719 Moore, E. S., 1906, Additional notes on the iron ranges of eastern Michipicoten: *Ontario Bur. Mines Ann. Rept.*, v. 15, p. 200-206.
- 1720 _____ 1907, Iron ranges east of Lake Nipigon; the ranges around Lake Windegokan: *Ontario Bur. Mines Ann. Rept.*, v. 16, p. 136-143.
- 1721 _____ 1908, Iron ranges east of Lake Nipigon; the Onaman iron ranges: *Ontario Bur. Mines Ann. Rept.*, v. 17, p. 170-189.
- 1722 _____ 1909, Bog iron on English River, Ont.: *Ontario Bur. Mines Ann. Rept.*, v. 18, p. 180-195.
- 1723 _____ 1909, Geology of Onaman iron range area: *Ontario Bur. Mines Ann. Rept.*, v. 18, p. 196-253.
- 1724 _____ 1909, Iron range north of Round Lake, Ont.: *Ontario Bur. Mines Ann. Rept.*, v. 18, p. 154-162.
- 1725 _____ 1910, Lake Savant iron range area, Ont.: *Ontario Bur. Mines Ann. Rept.*, v. 19, p. 173-193.
- 1726 _____ 1910, The occurrence and origin of some bog iron deposits in the district of Thunder Bay, Ont.: *Econ. Geology*, v. 5, p. 528-537.
- 1727 _____ 1918, The iron formation on Belcher Islands, Hudson Bay, with special reference to its origin and its associated algal limestones: *Jour. Geology*, v. 26, p. 412-438.

- Index
No.
- 1728 Moore, E. S., 1919, Iron deposits on the Belcher Islands, Hudson Bay: Canadian Min. Inst. Bull. 82, p. 196-206; Trans., v. 22, p. 100-111, 1920.
- 1729 _____ 1925, Some geological conditions controlling the formation of iron deposits in Canada: Canadian Inst. Mining and Metallurgy Bull. 155, p. 209-219; Trans., v. 28, p. 132-140, 1926.
- 1730 _____ 1926, Mississagi Reserve and Guolais River iron ranges, District of Algoma: Ontario Dept. Mines Ann. Rept., v. 34, pt. 4, p. 1-33.
- 1731 _____ 1927, Sahkatawich (Rush) Lake section, Woman River iron range, District of Sudbury: Ontario Dept. Mines Ann. Rept., v. 35, pt. 2, p. 86-96.
- 1732 _____ 1938, Deep oxidation in the Canadian Shield: Canadian Inst. Mining and Metallurgy Trans., v. 41, p. 172-182.
- 1733 _____ 1938, Some problems of the pre-Cambrian: Royal Soc. Canada Trans., 3d ser., v. 32, sec. 4, p. 1-10.
- 1734 _____ 1940, Geology and ore deposits of the Atikokan area (Ont.): Ontario Dept. Mines Ann. Rept. 1939, v. 48, pt. 2, p. 1-34.
- 1735 _____ 1946, Origin of iron deposits of the "Lake Superior" type: N. Y. Acad. Sci. Trans., ser. 2, v. 9, no. 2, p. 43-51.
- 1736 Moore, E. S., and Armstrong, H. S., 1948, Iron deposits in the district of Algoma: Ontario Dept. Mines Ann. Rept. 1946, v. 55, pt. 4, p. 1-118.
- 1737 Moore, E. S., and Coleman, A. P., 1908, Iron ranges east of Lake Nipigon: Ontario Bur. Mines Ann. Rept., v. 17, p. 136-169.
- 1738 Moore, E. S., and Maynard, J. E., 1929, Solution, transportation, and precipitation of iron and silica: Econ. Geology, v. 24, no. 3, p. 272-303; no. 4, p. 365-402; no. 5, p. 506-527.
- 1739 Moore, P. N., 1874, The iron ores of southeastern Missouri: Mo. Geol. Survey Rept., 1873-74, p. 638-671.
- 1740 _____ 1876, Report on the iron ores of Greenup, Boyd, and Carter Counties, the Kentucky division of the Hanging Rock iron region: Ky. Geol. Survey Rept. Progress, new ser., v. 1, p. 59-136.
- 1741 _____ 1878, Report on the iron ores and the iron manufacture of the Kentucky Red River iron region: Ky. Geol. Survey Rept. Progress, new ser., v. 4, pt. 3, p. 183-216.
- 1742 _____ 1878, Report on the iron ores in the vicinity of Cumberland Gap: Ky. Geol. Survey Rept. Progress, new ser., v. 4, pt. 5, p. 241-254.
- 1743 _____ 1880, The iron ores near Cumberland Gap, Va.: The Virginias, v. 1, p. 78-80.
- 1744 _____ 1884, Iron ores of the Red River, Cumberland, and Hanging Rock regions, Ky.: Ky. Geol. Survey, Eastern Coal Field C, 123 p.
- 1745 Moorhouse, W. W., 1938, Some titaniferous magnetites of the San Gabriel Mountains, Los Angeles County, Calif.: Econ. Geology, v. 33, no. 7, p. 737-748.
- 1746 _____ 1939, Geology of the Eagle Lake area: Ontario Dept. Mines Ann. Rept. 1939, v. 48, no. 4, 27 p.
- 1747 _____ 1941, Preliminary report on the Timagami map area: Ontario Dept. Mines Press Release, 5 p.
- 1748 _____ 1944, Geology of the Bryce-Robillard area (Ont.): Ontario Dept. Mines Ann. Rept. 1941, v. 50, pt. 4, 50 p.

Index
No.

- 1749 Moorhouse, W. W., 1946, The northeastern portion of the Timagami Lake area (Ont.): Ontario Dept. Mines Ann. Rept. 1942, v. 51, pt. 6, 46 p.
- 1750 Morgan, G. B., 1920, Summary of the mineral resources of Wyoming: Wyo. Geol. Survey Press Bull. 10, p. 6-7.
- 1751 Morozevich, I., 1901, Le mont Magnitnaia et ses alentours: Geol. kom. Zapiski, tom 18, no. 1, p. 1-104.
- 1752 _____ 1904, Die Eisenerzlagerstätten des Magnetberges im Südlichen Ural und ihrer Genesis: Mineralog. petrog. Mitt., neue Folge, v. 23, p. 113-152, 225-262.
- 1753 Morrison, G. A., and Grosh, W. A., 1950, Investigation of Oriskany iron-ore deposits, Alleghany, Bath, Botetourt, and Craig Counties, Va.: U. S. Bur. Mines Rept. Inv. 4668, 59 p.
- 1754 Moxham, E. C., 1893, The "great gossan lead" of Virginia: Am. Inst. Min. Metall. Eng. Trans., v. 21, p. 133-138.
- 1755 Mueller, F. T., 1905, Die Eisenerzlagerstätten von Rothan und Frumont im Breuschthal (Vogesen): Geol. Landesanst. Elsass-Lothringen Mitt., v. 5, p. 417-471.
- 1756 Muenster, H., 1905, Die Brauneisenerzlagerstätten des Seen-Ohmthals am Nordrand des Vogelsgebirges: Zeitschr. prakt. Geologie, Jahrg. 13, p. 242-258.
- 1757 Muir, N. M., 1950, Investigation of the Rose Run iron area, Bath County, Ky.: U. S. Bur. Mines Rept. Inv. 4650, 43 p.
- 1758 Munger, H. P., 1955, Cost factors in selecting processes for producing iron and steel, in Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954.II.D.5, New York, p. 146-165.
- 1759 Murashov, D. F., 1946, Genetic types of the iron ore deposits on the Kola peninsula and in Karelia-Finnish SSR: Vseros. mineralog. obshch. Zapiski, tom 75, vyp. 2, p. 135-144. [Russian, English summary.]
- 1760 Murashov, D. F., and Shifrin, D. V., 1937, The iron deposit of Imandra region: Leningrad. geol. trest SSSR Izv. 4, p. 24-34. [Russian, English summary.]
- 1761 Murayama, Kazuturo, 1941, Report on the geology and ore deposit of the Ma lu kou mine, Manchuria: Ryojun Coll. Eng., Mem. 14, no. 2, p. 40-52. [Japanese, English summary.]
- 1762 Murdock, T. G., N.d., The mining industry in North Carolina from 1937 to 1945: N.C. Dept. Conserv., Div. Min. Res., Econ. Paper 65, p. 10-12.
- 1763 Murray-Hughes, R., 1941, A Bulgarian iron deposit: Min. Mag., v. 64, no. 6, p. 298-300.
- 1764 Mutis J., Vincente, 1945, Yacimiento de hierro del Espiritu Santo, en Sevilla, departamento del Magdalena: Compilación estudios geol. oficiales Colombia, v. 6, p. 415-432.
- 1765 Nascimento Sancho, Joaquim, 1948, Reconhecimento das minas de ferro e manganés Cerro da Figueira, Nascedios, Serra Comprida, Penedo Amarelo, Cerro da Serpe e Cabeço do Coelho: Serviço Fomento Mineiro [Portugal] Estudos, notas e trabalhos, v. 4, p. 210-222.
- 1766 Nason, F. L., 1891, Eruptive iron ores: Eng. Min. Jour., v. 51, p. 693.
- 1767 _____ 1891, Notes on the active iron mines of New Jersey: N. J. Geol. Survey Ann. Rept. 1890, p. 51-127.

Index
No.

- 1768 Nason, F. L., 1892, A report on the iron ores of Missouri: Mo. Geol. Survey Rept., v. 2, 366 p.
- 1769 _____ 1895, The geological structure of the Ringwood iron mines, N. J.: Am. Inst. Min. Metall. Eng. Trans., v. 24, p. 505-521.
- 1770 _____ 1912, The bearing of the theories of the origin of magnetic iron ores on their possible extent: Am. Inst. Min. Metall. Eng. Bull., v. 67, p. 695-708; Trans., v. 43, p. 291-304, 1913.
- 1771 _____ 1922, Sedimentary phases of the Adirondack magnetic iron ores: Econ. Geology, v. 17, no. 8, p. 633-654; discussion, by W. J. Miller: Econ. Geology, v. 17, no. 8, p. 709-713.
- 1772 _____ 1924, Sedimentary phases of Adirondack magnetites: Econ. Geology, v. 19, no. 3, p. 288-295.
- 1773 Nassim, G. L., 1950, The oolitic hematite deposits of Egypt: Econ. Geology, v. 45, no. 6, p. 578-581.
- 1774 Nelson, A. E., Wiesnet, D. R., and Postel, A. W., 1954, Pre-Cambrian geology of the Chateaugay quadrangle, Franklin County, N. Y.: U. S. Geol. Survey open-file map.
- 1775 Nelson, V. E., and Wood, E. B., 1949, Preliminary reports on iron resources of western Kentucky: Ky. Geol. Survey Rept. Inv. 1, 7 p.
- 1776 Nelson, W. A., 1911, The Fernvale iron ore of Davidson County: Tenn. Geol. Survey, Res. Tenn., v. 1, p. 44-57.
- 1777 Neumann, G. L., 1947, Investigations of the Dillsburg magnetite deposits, York County, Pa.: U. S. Bur. Mines Rept. Inv. 4145, 13 p.
- 1778 Neumann, G. L., and Mosier, McHenry, 1948, Certain magnetite deposits in New Jersey: U. S. Bur. Mines Rept. Inv. 4225, 34 p.
- 1779 Neuschel, V. S., and McKnight, E. T., 1948, Map showing metallic mineral deposits of Missouri: U. S. Geol. Survey Missouri Basin Studies, no. 18.
- 1780 Newberry, J. S., 1874, The iron resources of the United States: Internat. Rev., v. 1, p. 754-780.
- 1781 _____ 1880, The genesis of our iron ores: Columbia Univ. School Mines Quart., v. 2, p. 1-17.
- 1782 _____ 1881, The genesis of our iron ores: Eng. Min. Jour., v. 31, p. 286-287, 298-300.
- 1783 _____ 1881, The iron ores of southern Utah: Am. Naturalist, v. 15, p. 410-412.
- 1784 Newhigin, H. T., 1898, The siliceous iron ores of northern Norway: Federated Inst. Min. Engineers Trans., v. 15, p. 154-168; North England Inst. Min. Mech. Engineers Trans., v. 47, p. 254-270.
- 1785 Newhouse, W. H., 1929, The identity and genesis of lodestone magnetite: Econ. Geology, v. 24, no. 1, p. 62-67; discussion by M. C. Brandy, v. 25, no. 8, p. 871-875, 1930.
- 1786 Newhouse, W. H., and Callahan, W. H., 1927, Two kinds of magnetite?: Econ. Geology, v. 22, no. 6, p. 629-632.
- 1787 Newhouse, W. H., and Hagner, A. F., 1951, Preliminary report on the titaniferous iron deposits of the Laramie Range, Wyo.: U. S. Geol. Survey open-file rept., 45 p.
- 1788 Newhouse, W. H., Thayer, T. P., and Butler, A. P., Jr., 1945, Iron ore reserves at Bomi Hills, Liberia: U. S. Geol. Survey open-file rept., 22 p.

Index
No.

- 1789 Newland, D. H., 1906, Magnetite mines at Lyon Mountain, N. Y.: Eng. Min. Jour., v. 82, p. 863-865, 916-918.
- 1790 _____ 1907, On the associations and origin of the nontitaniferous magnetites in the Adirondack region: Econ. Geology, v. 2, p. 763-773.
- 1791 _____ 1909, The Clinton ore deposits in New York State: Am. Inst. Min. Metall. Eng. Bull., v. 27, p. 265-283; Trans., v. 40, p. 165-183, 1910.
- 1792 _____ 1911, Notes on the geology of the Swedish magnetites: N. Y. State Mus. Bull. 149, p. 107-119.
- 1793 _____ 1920, Magnetic iron ores of Clinton County, N. Y.: Econ. Geology, v. 15, no. 2, p. 177-180.
- 1794 _____ 1921, The mineral resources of the State of New York: N. Y. State Mus. Bull. 223-224, p. 101-140.
- 1795 _____ 1922, Paragenesis of the martite ore-bodies and magnetite of the Mesabi range (Minnesota): Econ. Geology, v. 17, no. 4, p. 229-302.
- 1796 _____ 1923, Sedimentary phases of Adirondack magnetites: Econ. Geology, v. 18, no. 3, p. 291-296.
- 1797 _____ 1928, Magnetic iron ores of Clinton County, New York: Econ. Geology, v. 15, no. 2, p. 177-180.
- 1798 _____ 1936, Mineralogy and origin of the Taconic limonites: Econ. Geology, v. 31, no. 2, p. 133-155.
- 1799 _____ 1942, The economic geology of the Catskill quadrangle, in Geology of the Catskill and Kaaterskill quadrangles: N. Y. State Mus. Bull. 331, p. 239-242.
- 1800 Newland, D. H., and Hansell, N. V., 1906, Magnetite mines at Lyon Mountain, New York: Eng. Min. Jour., v. 82, no. 19, p. 863-865; no. 20, p. 916-918.
- 1801 Newland, D. H., and Hartnagel, C. A., 1908, Iron ores of the Clinton formation in New York State: N. Y. State Mus. Bull. 123, 76 p.
- 1802 Newland, D. H., and Kemp, J. F., 1908, Geology of the Adirondack magnetic iron ores; with a report on the Mineville-Port Henry mine group: N. Y. State Mus. Bull. 119, 182 p.
- 1803 Newton, Edmund, 1918, Manganiferous iron ores of the Cuyuna district, Minn.: Minn. School Mines Expt. Sta. Bull. 5, 126 p.
- 1804 *Newton, Edmund, and Bradt, H. H., 1917, Beneficiation of Lake Superior iron ores; bibliography: U. S. Geol. Survey Min. Res. U. S., 1915, pt. 1e, p. 303-314, 337-341.
- 1805 Newton, Henry, 1875, The ores of iron; their geographical distribution and relation to the great centers of the world's iron industries: Am. Inst. Min. Metall. Eng. Trans., v. 3, p. 360-391.
- 1806 Newton, Joseph, 1944, Iron ores: Idaho Bur. Mines and Geology Inf. Leaflet 6, 5 p.
- 1807 Nichols, Edward, 1882, Some drift hematite deposits in east Tennessee: Am. Inst. Min. Metall. Eng. Trans., v. 10, p. 480-482.
- 1808 Nichols, H. W., and Farrington, O. C., 1899, The ores of Colombia, from mines in operation in 1892: Field Columbian Mus., Rept. 33, Geol. Ser., v. 1, no. 3, p. 125-177.
- 1809 Nicolau, T., 1901, Untersuchung an den eisenführenden Gesteinen der Insel Disco: Meddel. om Grønland, Bind 24, p. 215-248.
- 1810 Nikolaev, D., 1902, Recherches géologiques dans le Domaine minier de Kychtym: Geol. kom. Zapiski, nov. ser. 19, vyp. 2, p. 1-130.

Index
No.

- 1811 Nikolaev, D., 1903, Recherches géologiques faites dans l'Oural du sud en 1901 et 1902: Geol. kom. Izv., vyp. 22, p. 645-670.
- 1812 Nishio, Keijiro, 1931, Genesis of the iron ore deposits in the Lake Superior region, U. S. A.: World Eng. Cong., 1st, Tokyo, 1929, Proc. 37, p. 431-497.
- 1813 Nitikin, S., 1896, Source minerale ferrugineuse de Batowo, Gouv. de St. Petersbourg: Geol. kom. Izv., 1895, tom 14, p. 259.
- 1814 ——— 1898, Sur les mineraux de fer du district de Livny, Gouvernement d'Orel, et les regions avoisinantes: Geol. kom. Izv., tom 17, p. 439-450.
- 1815 Nitze, H. B. C., 1892, Magnetic iron ore in Granville County, N. C.: Eng. Min. Jour., v. 53, p. 447.
- 1816 ——— 1892, The magnetic iron ores of Ashe County, N. C.: Elisha Mitchell Sci. Soc. Jour., v. 8, p. 78-95; Am. Inst. Min. Metall. Eng. Trans., v. 21, p. 260-280, 1893.
- 1817 ——— 1892, Notes on some of the magnetites of southwestern Virginia and the contiguous territory of North Carolina: Am. Inst. Min. Metall. Eng. Trans., v. 20, p. 174-188.
- 1818 ——— 1893, Iron ores of North Carolina: N. C. Geol. Survey Bienn. Rept. 1, p. 25-56.
- 1819 ——— 1897, The limonite ores of Cherokee County, N. C.: Eng. Min. Jour., v. 63, p. 330-331.
- 1820 Nixon, L. K., 1943, Notes on program and suggested techniques for North Carolina iron ore explorations, in Report on iron ore and olivine deposits of the State of North Carolina suitable for industrial development and the possibilities of establishing industries within the State using these raw materials: New York, H. A. Brassert and Co., App. F, 29 p.
- 1821 Nolan, T. B., Dorr, J. V. N., 2d, Shelton, J. S., and Osterstock, R. W., 1951, Geologic and total-intensity aeromagnetic map in the vicinity of Eureka, Nev.: U. S. Geol. Survey open-file map.
- 1822 Nordenström, G., 1899, The most prominent and characteristic features of Swedish iron-ore mining: Iron and Steel Inst. Jour., v. 54, p. 35-74.
- 1823 Norman, G. H. W., 1947, Vauquelin, Pershing, and Haig Townships, Abitibi County, Que. (summary account): Canada Geol. Survey Paper 47-12, 16 p.
- 1824 Norman, G. H. W., and Norman, H. S., 1947, Preliminary map, Vauquelin, Abitibi County, Que.: Canada Geol. Survey Paper 47-6, no text.
- 1825 North, Loyd, and Bridenstine, I. J., 1922, Some notes on iron-depositing bacteria: Econ. Geology, v. 17, no. 5, p. 392-394.
- 1826 Northrup, S. A., 1942, Minerals of New Mexico: N. Mex. Univ. Bull., whole no. 379, Geol. ser., v. 6, no. 1, 387 p.
- 1827 Norton, S., 1910, The iron ores of New York State: Iron Age, v. 85, p. 382-387.
- 1828 Noszky, Jenő, 1943, Beiträge zum geologischen Aufbau der Umgebung von Ajfalucska, Jászó und Debrod: Magyar állami Földt. Intezet. Evi Jelentése 1939-40, Band 1, p. 245-261. [Hungarian and German.]
- 1829 Oakeshott, G. B., 1948, Titaniferous iron-ore deposits of the western San Gabriel Mountains, Los Angeles County, Calif.: Calif. Div. Mines Bull. 129, pt. P, p. 243-266.

Index
No.

- 1830 Obermüller, Alphonse, 1941, Description petrographique et étude géologique de la région forestière de la Guinée Française: Service mines Afrique Occidentale Française, Bull. no. 5, 207 p.
- 1831 Oberrascher, Erich, 1939, Die Raseneisenerze Pommerns: Geol.-palaeont. Inst. Univ. Greifswald Abh., Heft 20, p. 7-51.
- 1832 Oberste-Brink, K., 1937, Der Eisenerzbergbau im Ruhrbezirk: Glückauf, v. 73, no. 5, p. 101-110.
- 1833 Oca, G. R., 1952, Preliminary report on the economic mineral deposits of Marinduque Province: Philippines Bur. Mines Rept. Inv. 7, 23 p.
- 1834 O'Connor, J. J., 1919, The latent iron-ore resources in Canada lying north of Lake Superior: Canadian Min. Jour., v. 40, no. 50, p. 925-953.
- 1835 Ohle, W., 1934, See-Erz, Rostrohren und verwandte Konkretionen: Geol. Rundschau, v. 25, no. 4, p. 281-295.
- 1836 Oliveira, J. M. de, 1943, jazigos de Montemor-o-Novo: Serviço Fomento Mineiro [Portugal] Relatorio 3, 102 p.
- 1837 Oliver, F. J., 1945, Large scale working of Adirondack magnetites: Iron Age, v. 155, no. 4, p. 50-55; no. 5, p. 52-56.
- 1838 Ordonez, Ezequiel, 1910, Iron resources of the Republic of Mexico: Eng. Min. Jour., v. 90, p. 665-667.
- 1839 Orr, Ellison, 1888, Brownhematite in Allamakee County, Iowa: Am. Geologist, v. 1, p. 129-130.
- 1840 Ortenberg, D., 1930, To the characteristic of the Dashkesan iron ore deposit based on data obtained from a magnetometric survey performed in 1923 and 1924: Glav. geol.-razved. uprav. Trudy, vyp. 11, 38 p. [Russian, English summary.]
- 1841 Orton, Edward, 1878, Supplemental report on the geology of the Hanging Rock district: Ohio Geol. Survey Rept. 3, p. 883-941.
- 1842 _____ 1884, The iron ores of Ohio: Ohio Min. Jour., v. 2, p. 105-113.
- 1843 _____ 1884, The iron ores of Ohio considered with reference to their geological order and geographical distribution: Ohio Geol. Survey Rept. 5, p. 371-435.
- 1844 Osborne, F. F., 1928, Certain magmatic titaniferous iron ores and their origin: Econ. Geology, v. 23, no. 7, p. 724-761; no. 8, p. 895-922.
- 1845 _____ 1928, Technique of the investigation of iron ores: Econ. Geology, v. 23, no. 4, p. 442-450.
- 1846 _____ 1934, Adirondack magnetite deposits: Econ. Geology, v. 29, no. 5, p. 500-501.
- 1847 Ostrea, Enrique, 1946, The Surigao iron ore and its metallurgical treatment: Philippine Geologist, v. 1, no. 1, p. 5-19.
- 1848 Othmar, Friedrich, 1929, Die Siderit-Eisenglimmer-Lagerstätte von Walderstein in Ostkärnten: Berg- u. hüttenm. Jahrb., v. 77, no. 4, p. 131-145.
- 1849 _____ 1930, Die Roteisenlagerstätte im Heuberggraben bei Mixnitz: Geol. Bundesanstalt [Austria] Verh., no. 9, p. 203-212.
- 1850 Otte, H. F., 1944, The expanding mineral industry of the Adirondacks: N. Y. Dept. Commerce Pub., no. 10, 50 p.
- 1851 Page, W. N., 1889, The Glenmore iron estate, Greenbrier County, W. Va.: Am. Inst. Min. Metall. Eng. Trans., v. 17, p. 115-124.
- 1852 *Paige, Sidney, 1909, The Hanover iron-ore deposits, N. Mex.: U. S. Geol. Survey Bull. 380, p. 199-214.

Index
No.

- 1853 *Paige, Sidney, 1910, Preliminary report on pre-Cambrian geology and iron ores of Llano County, Tex.: U. S. Geol. Survey Bull. 430, p. 256-268.
- 1854 * _____ 1911, Mineral resources of the Llano-Burnet region, Texas, with an account of the pre-Cambrian geology: U. S. Geol. Survey Bull. 450, 103 p.
- 1855 * _____ 1912, Description of the Llano-Burnet quadrangle, Texas: U. S. Geol. Survey Geol. Atlas, folio 183, 16 p.
- 1856 _____ 1933, The region around Santa Rita and Hanover, New Mexico, in Ore deposits of the southwest: Internat. Geol. Cong., 16th sess., United States, 1933, Guidebook 14, Excursion C-1, p. 32-33.
- 1857 *Palache, Charles, 1935, The minerals of Franklin and Sterling Hill, Sussex County, N. J.: U. S. Geol. Survey Prof. Paper 180, 135 p. [1948].
- 1858 Palmqvist, S., 1935, Geochemical studies on the iron-bearing Liassic series in southern Sweden: Lunds Geol.-mineralog. inst. Medd., ser. 2, nr. 60, 204 p.
- 1859 Papp, Ferenc, 1950, Die geologische Ambulation der Umgebung von Dolha, Zarnya und Gyilalja: Magyar állami Foldt. Intézet Évi Jelentése, 1939-40, pt. 3, p. 247-260. [Hungarian and German.]
- 1860 Paradisi, Carlos, 1949, Consideraciones acerca de los yacimientos de hierro venezolanos: Asoc. Venezolana Geología, Minería y Petróleo Bol., tome 1, no. 1, p. 65-73.
- 1861 _____ 1950, Depósitos de mineral de hierro existentes en Venezuela y perspectivas que ofrecen: Rev. Hidrocarburos y Minas [Venezuela], año 1, no. 1, p. 111-129.
- 1862 Pardee, F. G., 1943, Outlook for iron from Brazil: Eng. Min. Jour., v. 144, no. 10, p. 75-77.
- 1863 _____ 1948, Iron ore reserves in Michigan: Min. and Metallurgy, v. 29, no. 503, p. 613-614; Mich. Conserv., v. 17, no. 9, p. 10-11.
- 1864 Pardee, F. G., and Kennedy, B. E., 1948, Low grade ore occurrences in Michigan, in Ann. Min. Symposium, 9th: Minneapolis, Univ. Minnesota, p. 16-24.
- 1865 Pardee, F. G., Bean, E. F., and Aldrich, H. R., 1929, Recent work of the State Geological Survey in Huronian and Keweenaw areas—Pt. A, Michigan Geological Survey [by Pardee]; Pt. B, Wisconsin Geological Survey [by Bean and Aldrich]: Lake Superior Min. Inst. Proc., v. 27, p. 166-178.
- 1866 *Pardee, J. T., 1929, Platinum and black sand in Washington: U. S. Geol. Survey Bull. 805-A, p. 1-15.
- 1867 * _____ 1934, Beach placers of the Oregon coast: U. S. Geol. Survey Circ. 8, 41 p.
- 1868 Paredes, Trinidad, 1919, Algunos criaderos de fierro en el Estado de Hidalgo: Bol. Minero [México], v. 8, no. 3-4, p. 338-351.
- 1869 _____ 1925, Algunos criaderos de fierro en los estados de Guanajuato, Jalisco, y Michoacan: Bol. Minero [México], v. 20, no. 1, p. 9-27.
- 1870 _____ 1926, "La Ferreria" de valle de Bravo, Estado de México: Bol. Minero [México], v. 22, no. 1, p. 29-40.
- 1871 Park, C. F., Jr., 1947, What to do about our iron ore reserves [U. S.]: Min. and Metallurgy, v. 28, p. 192-196.
- 1872 Parker, R. A., 1893, The iron ore region of Lake Superior: Eng. Mag., v. 6, p. 152-175, 285-303.
- 1873 Parsons, A. B., 1924, Operations of the Mesabi Iron Co.: Eng. Min. Jour.-Press, v. 117, no. 4, p. 157-167.

Index
No.

- 1874 Parsons, A. L., 1915, The productive area of the Michipicoten iron ranges, Ont.: Ontario Bur. Mines Ann. Rept. 24, p. 185-213.
- 1875 _____ 1916, Iron deposits of Hunter Island with notes on the Gunflint Lake area: Ontario Bur. Mines Ann. Rept. 25, p. 163-191.
- 1876 Parsons, W. F. C., 1906, Prospecting for iron ore in the Torbrook iron district, Annapolis County, N. S.: Canadian Min. Inst. Jour., v. 9, p. 31-34.
- 1877 Patton, H. B., 1910, Geology of the Grayback mining district, Costilla County, Colo.: Colo. Geol. Survey Bull. 2, 111 p.
- 1878 Pavlov, N. N., 1931, (The Balega magnetite ore deposit Baleginsk in Transbaikalia): Glav. geol.-razved. uprav., Vostochno filial filial, [Vladivostock] Trudy 1, vyp. 58, 112 p.
- 1879 Peach, P. A., 1948, Preliminary report on the geology of Darling township and part of Lavant township, Lanark County (Ont.): Ontario Dept. Mines Press Release 1948-12, 3 p.
- 1880 Pearse, S. W., 1903, Luxemburg and its iron-ore deposits: Inst. Min. Engineers Trans., v. 25, p. 580-589.
- 1881 Peattie, Roderick, 1923, Geography of Ohio: Ohio Geol. Survey, 4th ser., Bull. 27, 127 p.
- 1882 Pechin, E. C., 1875, The minerals of southwestern Pennsylvania: Am. Inst. Min. Metall. Eng. Trans., v. 3, p. 399-408.
- 1883 _____ 1889, The iron ores of Buena Vista, Rockbridge County, Va.: Eng. Min. Jour., v. 48, p. 92-93.
- 1884 _____ 1891, The iron ores of Virginia and their development: Iron and Steel Inst. Jour. 1890, no. 2, p. 318-339; Am. Inst. Min. Metall. Eng. Trans., v. 19, p. 1016-1035.
- 1885 _____ 1892, Magnetite ore samples in Rocky Mount section, Virginia, and their chemical analyses: Am. Inst. Min. Metall. Eng. Trans., v. 20, p. 185-188.
- 1886 _____ 1892, Virginia Oriskany iron ores: Eng. Min. Jour., v. 54, p. 150.
- 1887 _____ 1896, The Oriskany iron ores at Rich Patch mines, Va.: Eng. Min. Jour., v. 61, p. 113, 134, 159-160.
- 1888 Peile, W., 1894, Notes and analyses of iron ore and bauxite from Crommelin mines, County Antrim: Manchester Geol. Survey Trans., v. 22, p. 522.
- 1889 Pelikan, A., 1897, Der Eisenglanz von Dognacska im Banat: Mineralog. petrog. Mitt., neue Folge, v. 16, p. 519-522.
- 1890 Peña, Julian, and Benito, Fernando, 1933, Estudios para el descubrimiento de nuevos criaderos de mineral de hierro en la zona de Albarracin y Bronchales, Provincia de Teruel: Bol. Oficial minas [Madrid], año 17, no. 193, 23 p.
- 1891 Peña i Lillo, Oscar, 1928, Monografia sobre el mineral de fierro de "El Algarrobo" ubicado en el departamento de Vallenar y de propiedad de la sociedad Minera Chilena-Alemana-Holandesa: Bol. Minero [Santiago], año 44, v. 40, no. 351, p. 377-385.
- 1892 _____ 1928, Monografia sobre el mineral de fierro de "El Tofo" que explota La Bethlehem Chile Iron Mines Company en la provincia de Coquimbo: Bol. Minero [Santiago], año 44, v. 40, no. 347, p. 121-138.
- 1893 _____ 1941, Monografia sobre el mineral de fierro de El Tofo: Bol. Minero [Santiago], año 57, v. 53, no. 500, p. 1273-1285.
- 1894 Peng, C. J., 1942, Genesis of the Maku hematite deposit, Weining, Kueichow: Geol. Soc. China Bull., v. 22, no. 1-2, p. 165-169.

Index
No.

- 1895 Pennington, J. W., and Davis, V. C., 1953, Investigation of iron sulfide deposits in south-central Aitkin County and Carlton County, Minn.: U. S. Bur. Mines Rept. Inv. 4937, 33 p.
- 1896 Penrose, R. A. F., Jr., 1890, A preliminary report on the geology of the Gulf Tertiary of Texas from Red River to the Rio Grande: Tex. Geol. Survey 1st Ann. Rept., p. 3-101.
- 1897 _____ 1892, The iron deposits of Arkansas: Ark. Geol. Survey Ann. Rept., v. 1, 153 p.
- 1898 _____ 1892, The Tertiary iron ores of Arkansas and Texas: Geol. Soc. America Bull., v. 3, p. 44-50.
- 1899 _____ 1893, The chemical relation of iron and manganese in sedimentary rocks: Jour. Geology, v. 1, p. 356-370.
- 1900 Percival, F. G., 1931, The iron ores of Noamundi, Singhbhum, India: Min. Geol. Metall. Inst. India Trans., v. 26, no. 3, p. 167-271.
- 1901 _____ 1934, The iron ores of Singhbhum and Orissa, a review of India's position in the iron and steel trade of the British Empire and the world, presidential address: Min. Geol. Metall. Inst. India Trans., v. 29, no. 1, p. 15-34.
- 1902 _____ 1940, Sulaipat iron mine: Min. Geol. Metall. Inst. India Trans., v. 36, no. 1, p. 26-32.
- 1903 _____ 1947, Iron ores: Jour. Sci. Indus. Research [Delhi], v. 6, no. 2, p. 61-69.
- 1904 _____ 1955, Iron ore deposits of Australia, New Zealand and New Caledonia, in Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954.II.D.5, New York, p. 335-345.
- 1905 _____ 1955, Nature and occurrence of iron ore deposits, in Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954.II.D.5, New York, p. 45-76.
- 1906 Percival, F. G., and Spencer, E., 1940, Conglomerates and lavas in the Singhbhum-Orissa iron-ore series: Min. Geol. Metall. Inst. India Trans., v. 35, no. 4, p. 346-363.
- 1907 Percival, J. G., 1855, Report on the iron of Dodge and Washington Counties, State of Wisconsin: Milwaukee, Starrs' Book and Job Printing Office, 13 p.
- 1908 Percy, R. F., 1901, The Belvoir iron ores [England]: Inst. Min. Engineers Trans., v. 22, p. 30-34.
- 1909 Peretti, Luigi, 1942, The iron-bearing sands of Lago di Bracciano, Rome: Accad. sci. Torino, Cl. sci. Atti 77, p. 505-515.
- 1910 Perry, E. L., 1934, The Hawley mineral belt: Rocks and Minerals, v. 9, no. 7, p. 93-99.
- 1911 Pesonen, P. E., 1949, Investigation of the Waukon iron deposit, Allamakee County, Iowa: U. S. Bur. Mines Rept. Inv. 4479, 22 p.
- 1912 Petersen, E., 1931, Die norwegischen Eisenerze, ihre wirtschaftsgeographische Bedeutung: Düsseldorf, Verlag Stahleisen, 80 p.
- 1913 Pettijohn, F. J., 1943, Archean sedimentation, southern Canadian Shield: Geol. Soc. America Bull., v. 54, no. 7, p. 925-972.
- 1914 _____ 1947, Geology of the Crystal Falls-Alpha iron-bearing district, Iron County, Mich.: U. S. Geol. Survey Strategic Minerals Inv. Prelim. Map 3-181, revised, 50c.
- 1915 _____ 1948, Magnetic and geologic data of parts of the Crystal Falls-Alpha iron district, Iron County, Mich.: Mich. Geol. Survey, 3 sheets.

Index
No.

- 1916 Pettijohn, F. J., 1951, Geology and magnetic anomalies of T. 42 N., R. 30 W., Dickinson County, Mich.: U. S. Geol. Survey open-file rept., 30 p.
- 1917 _____ 1952, Geology of the northern Crystal Falls area, Iron County, Mich.: U. S. Geol. Survey Circ. 153, 17 p.
- 1918 Pfeiffer, John, 1953, The iron sea [Lake Superior region]: Steelways, v. 9, no. 6, p. 1-5.
- 1919 Pfluecker, L., 1906, Yacimientos de fierro de Aija y Calleycancha: Cuerpo Ingenieros Minas Perú Bol., no. 36, p. 1-33.
- 1920 Phalen, W. C., 1906, Origin and occurrence of certain iron ores of northeastern Kentucky: Econ. Geology, v. 1, p. 660-673.
- 1921 * _____ 1908, Economic geology of the Kenova quadrangle, Ky., Ohio, and W. Va.: U. S. Geol. Survey Bull. 349, 158 p.
- 1922 * _____ 1908, Iron ores near Ellijay, Ga.: U. S. Geol. Survey Bull. 340, p. 330-334.
- 1923 * _____ 1910, Description of the Johnstown quadrangle, Pennsylvania: U. S. Geol. Survey Geol. Atlas, folio 174, 16 p.
- 1924 * _____ 1912, Description of the Kenova quadrangle, Kentucky-West Virginia-Ohio: U. S. Geol. Survey Geol. Atlas, folio 184, 16 p.
- 1925 Phillips, W. B., 1898, The brown-ore deposits near Leeds, Ala.: Eng. Min. Jour., v. 65, p. 489-490.
- 1926 _____ 1909, Iron ores of Llano County, Tex.: Manufacturer's Record, v. 56, p. 49.
- 1927 _____ 1912, Iron making in Alabama: Ala. Geol. Survey Rept., 3d ed., 254 p.
- 1928 Pichamuthu, C. S., 1935, The iron formations and associated rocks of the eastern Bababudans, Kadur district, Mysore: Mysore Univ. Jour., v. 8, no. 1, p. 1-45.
- 1929 Pico, Rafael, 1937, Studies in the economic geography of Puerto Rico: Puerto Rico Univ. Bull., ser. 8, no. 1, 84 p.
- 1930 Pinnell, D. B., and Marsh, J. A., 1954, Summary geological report on the titaniferous iron deposits of the Laramie Range, Albany County, Wyo.: Los Angeles, Union Pacific Railroad Company, 13 p.; Mines Mag., 1954, v. 44, no. 5, p. 31-33, 53, 56.
- 1931 Pinzas, E. J., 1903, La minería en la Provincia Dos de Mayo: Ministerio Fomento Perú Bol., v. 1, p. 32-44.
- 1932 Platt, W. G., 1880, Report of progress in Armstrong County: Pa. Geol. Survey, 2d, Rept. Progress H⁵, 338 p.
- 1933 Pollard, Melvin, 1951, Japanese mineral resources: Allied Powers, GHQ, Tokyo, Nat. Res. Sec. Rept. 141, 107 p.
- 1934 Pollett, J. D., 1935, Report of the Geological Section for the years 1933 and 1934 [Tonkolili hematite deposits]: Sierra Leone, Geol. Survey and Mines Dept. Rept., 1933-34, p. 1-5; cf. Colonial Geology and Min. Res., v. 2, no. 1, p. 16-18, repr. London, Geol. Survey Sierra Leone, 1952.
- 1935 Polyani, V. A., 1934, (Oolitic iron ores of the Ivanov deposit of the Alapaev district of the Urals): Kazan. gosudar. univ. Trudy 53, vyp. 4, p. 129-146. [Russian, English summary.]
- 1936 _____ 1936, Geology of the iron ore deposits of the Poletaev district, eastern slope of the southern Urals: Kazan. gosudar. univ. Trudy 54, vyp. 2, p. 79-120. [Russian, English summary.]
- 1937 Pope, F. J., 1900, Investigation of magnetic iron ores from eastern Ontario: Am. Inst. Min. Metall. Eng. Trans., v. 29, p. 372-405.

Index
No.

- 1938 Porter, J. B., 1887, The iron ores and coals of Alabama, Georgia, and Tennessee: *Am. Inst. Min. Metall. Eng. Trans.*, v. 15, p. 170-218.
- 1939 Portevin, Albert, 1952, Etudes entreprises sur l'analyse physico-chimique des mineraux de fer: *Soc. Française minéralogie et cristallographie Bull.*, tome 75, no. 1-3, p. 46-56.
- 1940 Posnjak, Eugen, and Merwin, H. E., 1919, The hydrated ferric oxides: *Am. Jour. Sci.*, 4th ser., v. 47, no. 281, p. 311-348.
- 1941 Postel, A. W., 1943, The mineral resources of Africa: *African Handbooks*, no. 2, Univ. Pennsylvania Press, p. 16-19.
- 1942 _____ 1951, Geology of the Dannemora quadrangle, N. Y.: U. S. Geol. Survey Geol. Quadrangle map GQ 14. 50c.
- 1943 _____ 1952, Geology of the Clinton County magnetite district, N. Y.: U. S. Geol. Survey Prof. Paper 237, 88 p. \$1.25.
- 1944 Postel, A. W., Dodson, C. L., and Carswell, L. C., 1954, Geologic map of the Loon Lake quadrangle, Franklin County, N. Y.: U. S. Geol. Survey open-file map.
- 1945 Powell, K. B., 1953, Eagle Mountain helps Kaiser meet growing western steel needs: *Min. Eng.*, v. 5, no. 5, p. 479-483.
- 1946 Prager, C., 1935, Die Eisenerzlagertstätten und Mineralvorkommen auf der Insel Serifos: *Fortschr. Mineralogie*, Band 19, Teil 1, p. 53-56.
- 1947 Pralon, L., 1901, Note sur le mineral de fer carbonate de Normandie et sur la calcination des carbonates de fer au Four à Cuve: *Annales mines [Paris]*, sér. 9, v. 19, p. 125-148.
- 1948 Pratt, J. H., 1915, Certain magnetic iron ores of Ashe County, N. C.: *Elisha Mitchell Sci. Soc. Jour.*, v. 30, p. 179-187.
- 1949 Preobrazhenski, I. A., 1944, Native iron in the Komi ASSR: *Akad. nauk SSSR Doklady*, tom 43, p. 26-29.
- 1950 Prescott, Basil, 1908, The occurrence and genesis of the magnetite ores of Shasta County, Calif.: *Econ. Geology*, v. 3, p. 465-480.
- 1951 The President's Materials Policy Commission, 1952, Resources for freedom: 5 v. \$8.25 from the Government Printing Office, Washington 25, D. C.
- 1952 Price, P. H., 1929, Pocahontas County: *W. Va. Geol. Survey County Repts.*, p. 313-319.
- 1953 Price, P. H., and Heck, E. T., 1939, Detailed county report on Greenbrier County: *W. Va. Geol. Survey*, 870 p.
- 1954 Prime, Frederick, Jr., 1875, On the occurrence of the brown hematite deposits of the Great Valley: *Am. Inst. Min. Metall. Eng. Trans.*, v. 3, p. 410-417; *Am. Jour. Sci.*, 3d ser., v. 9, p. 433-440.
- 1955 _____ 1875, Report of progress on the brown hematite ore ranges of Lehigh County, with a description of the mines lying between Emaus, Alburdis, and Fogelsville: *Pa. Geol. Survey*, 2d, ser. D, 73 p.
- 1956 _____ 1878, The brown hematite deposits of the Siluro-Cambrian limestones of Lehigh County: *Pa. Geol. Survey*, 2d, ser. DD, 99 p.
- 1957 _____ 1880, The mineral resources of the Page Valley: *The Virginias*, v. 1, p. 34-36.
- 1958 Primrose, A., 1903, Report on economic mineral products of the Bangalore, Kolar, Tumkar, and Mysore districts: *Mysore Geol. Dept. Rec.*, v. 3, p. 204-239.

- Index
No.
- 1959 Primrose, A., 1904, Final notes on economic mineral products, after visiting the Kadur and Hassan districts: Mysore Geol. Dept. Rec., v. 4, p. 162-179.
- 1960 Procter, J. R., 1880, Resources of the North Cumberland Valley, comprising parts of Whitley, Knox, Bell, Harlan, and Letcher Counties: Ky. Geol. Survey 1873-1891, Rept. Progress, newser., pt. 4, v. 6, p. 302-309.
- 1961 Prost, A., 1899, Note sur les mineraux de fer des territoires des Meknas et des Neftas (Tunisie): Annales mines [Paris], sér. 9, v. 15, p. 533-554.
- 1962 Prouty, W. F., 1923, Geology and mineral resources of Clay County: Ala. Geol. Survey County Rept. 1, p. 66-68.
- 1963 Puerto Rico Bureau of Mines, 1941, Report of the Bureau of Mines on the mineral resources of Puerto Rico, app. to Ann. Rept. Bur. Mines 1939-1941 to Commissioner of the Interior of Puerto Rico: San Juan, p. 27-28.
- 1964 Puerto Rico, Committee on Mineral Resources of Puerto Rico, 1933, Report: Rev. Obras Pub., San Juan, Puerto Rico, 16 p.
- 1965 _____ 1934, Report to the Honorable Governor and Legislature of Puerto Rico: San Juan, Puerto Rico, 34 p.
- 1966 Pulfrey, William, 1933, The iron ore oolites and pisolites of North Wales: Geol. Soc. London Quart. Jour., v. 89, pt. 4, no. 356, p. 401-430.
- 1967 Pullman, J. W., 1886, The product of the Hibernia iron mine, N. J.: Am. Inst. Min. Metall. Eng. Trans., v. 14, p. 904-912.
- 1968 Pumpelly, Raphael, 1886, Geographical and geological distribution of the iron ores of the United States: U. S. Census, 10th, v. 15, p. 3-36.
- 1969 Pumpelly, Raphael, and Schmidt, Adolf, 1873, Iron ores and coal fields of Missouri: Mo. Geol. Survey Rept., 1872, 441 p.
- 1970 Purdue, A. H., 1912, The iron industry of Lawrence and Wayne Counties: Tenn. Geol. Survey, Res. Tenn., v. 2, p. 370-388.
- 1971 Purser, E., 1896, Iron from the titaniferous sand of New Zealand: New Zealand Inst. Trans., v. 28, p. 689-694.
- 1972 Pustovalov, L. V., 1932, New data on the origin of Lipetsk and Tula iron ores: Vses. geol.-razved. ob'yedneniya Trudy, vyp. 202, 69 p. [Russian, English summary.]
- 1973 _____ 1934, Occurrences of iron ores and phosphates near Syntul: Moskov. geol.-gidro.-geod. trest Trudy, vyp. 5, 77 p. [Russian, English summary.]
- 1974 Putnam, B. T., 1886, Notes on the samples of iron ore collected in Connecticut and Massachusetts, New York, New Jersey, Michigan and northern Wisconsin; west of the one-hundredth meridian: U. S. Census, 10th, v. 15, p. 83-87, 89-144, 145-177, 179-221, 421-455, 469-505.
- 1975 Putzer, Hannfrit, 1943, Beobachtungen im Erzhorizont von Krivoj Rog: Zeitschr. angew. Mineralogie, Band 4, p. 77-93.
- 1976 _____ 1943, Die oolithischen Brauneisenerz-Lagerstätten der Kertsch-Halbinsel: Zeitschr. angew. Mineralogie, Band 4, p. 363-378.
- 1977 Puzenat, Leon, 1939, La siderurgie armoricaine: Soc. géol. minéralog. Bretagne Mem. 4, 399 p.
- 1978 Pynchon, W. H. C., 1899, Iron mining in Connecticut; Pt. 1, Ores and ore beds: Connecticut Mag., v. 5, p. 20-26.

Index
No.

- 1979 Quinn, A. W., 1945, Geology of the Plainfield-Hawley area, Franklin and Hampshire Counties, Mass., with special reference to deposits of manganese and iron minerals: U. S. Geol. Survey open-file rept., 38 p.
- 1980 Quiring, Heinrich, 1929, Gänge, Sprünge und flache Ueberschiebungen im Späteisensteinbezirk von Bilbao: Zeitschr. Berg- Hütten- u. Salinenwesen Preussischen Staate, Band 77, Heft 1, p. B52-63.
- 1981 _____ 1931, Stratigraphische und tektonische Stellung der Eisenstein- und Erzgänge zwischen Betzdorf, Altenkirchen und Hachenburg im Westerwald: Glückauf 67, no. 29, p. 953-958.
- 1982 _____ 1931, Verbreitung und Entstehungszeit der Eisenglanzgänge im Rheinische Schiefergebirge: Zeitschr. Berg- Hütten- u. Salinenwesen Preussischen Staate, v. 79, Abh. 3, p. 176-184.
- 1983 _____ 1933, Die Erzgrundlagen der ältesten Eisenerzeugung: Zeitschr. prakt. Geologie, Jahrg. 41, Heft 8, p. 128-131.
- 1984 _____ 1938, Die Magneteisensteinlager und Kupfererzgänge von Cala bei Sevilla: Zeitschr. prakt. Geologie, Jahrg. 46, Heft 4, p. 59-70.
- 1985 Radhakrishna, B. P., 1951, The iron-ore resources of Mysore: Mysore Geologists' Assoc. Bull. 2, 38 p.
- 1986 Raguin, E., and Zvereff, R., 1941, Le gisement de fer de Roquelaure (Ariège): Soc. histoire nat. Toulouse Bull., tome 76, p. 43-48.
- 1987 Rama Rao, B., 1935, The 16th International Geological Congress and two of its organized excursions: Mysore Geol. Dept. Rec., v. 33, 1934, p. 44-79.
- 1988 Ramberg, Hans, 1948, Titanic iron ore formed by dissociation of silicates in granulite facies, Greenland: Econ. Geology, v. 43, no. 7, p. 533-570.
- 1989 Ramdohr, P., and Ehrenberg, H., 1929, Eisen-Vorkommen, in Gmelins Handb. anorg. Chemie: Berlin, Verlag Chemie, 8. Aufl., System-Nr. 59, Teil A, Lief. 1, p. 60-184.
- 1990 Rangel, M. F., 1902, Criadero de fierro del Cerro de Mercado, Durango: Inst. Geología México Bol. 16, p. 3-14.
- 1991 Ransome, F. L., and others, 1932, Ore deposits of the Southwest: Internat. Geol. Cong., 16th sess., United States, 1933, Guidebook 14, Excursion C-1, 67 p.
- 1992 Rao, B. Balaji, 1928, Field notes on work done in parts of Hosdurga and Holalkere taluks, 1924-1925: Mysore Geol. Dept. Rec., v. 25, 1928; pt. 2, p. 83-101, Bangalore.
- 1993 Rao, S. Lakshmana, 1943, A note on the titaniferous iron ores at Devarnarsipur, near Bhadravati: Mysore Geol. Dept. Rec., v. 41, p. 46-53.
- 1994 Rastall, R. H., 1923, Geology of the metalliferous deposits: Cambridge Univ. Press, p. 312-361.
- 1995 Rastall, R. H., and Hemingway, J. E., 1940, The Yorkshire Dogger: Geol. Mag., no. 77, p. 157-175.
- 1996 Raver, P. J., 1939, Report of the feasibility of iron and steel production in the Northwest using Columbia River hydroelectric power: U. S. Dept. Interior, Bonneville Project Market Devel. Sec., 50 p.
- 1997 Ray, H. C., 1941, Minerals of Puerto Rico: Rocks and Minerals, v. 16, no. 10, p. 355-359.
- 1998 Ray, R. G., 1944, Iron-copper deposits of the Rich Hill area, Prince of Wales Island, southeastern Alaska: U. S. Geol. Survey Prelim. Rept., 6 p.

Index
No.

- 1999 Raymond, R. W., 1876, The spathic iron ores of the Hudson River: *Am. Inst. Min. Metall. Eng. Trans.*, v. 4, p. 339-343.
- 2000 Redlich, K. A., 1903, Ueber das Alter und die Entstehung einiger erz- und Magnesialagerstätten der steirischen Alpen: *K.-k. Geol. Reichsanst. Jahrb.*, v. 53, p. 285-294.
- 2001 _____ 1907, Der Eisensteinbergbau der Umgebung von Payerbach-Reichenau (Niederösterreich): *Berg- u. hüttenm. Jahrb.*, v. 55, p. 267-294.
- 2002 _____ 1931, Die Geologie der innerösterreichischen Eisenerzlagerstätten, in *Beiträge zur Geschichte des österreichischen Eisenwesens*: Wien-Berlin, Julius Springer, Abt. 1, Heft 1, 165 p.
- 2003 Reebel, Dan, ed., 1950, *ABC of iron and steel*: 6th ed., Cleveland, Ohio, The Penton Publishing Co., 423 p.
- 2004 Reed, A. H., Jr., 1953, Investigation of red iron ore, Woodstock and Bucksville areas, Alabama: *U. S. Bur. Mines Rept. Inv. 4981*, 34 p.
- 2005 Reed, D. F., 1949, Investigation of Talladega gray iron ores, Talladega County, Ala.: *U. S. Bur. Mines Rept. Inv. 4426*, 29 p.
- 2006 Reed, D. F., and Cohen, C. J., 1947, Star Lake magnetite deposits, St. Lawrence County, N. Y. (November 1945 to November 1946): *U. S. Bur. Mines Rept. Inv. 4131*, 34 p.
- 2007 _____ 1949, Further investigations of the Redford-Clayburg magnetite district, Clinton County, N. Y.: *U. S. Bur. Mines Rept. Inv. 4447*, 14 p.
- 2008 Reed, G. C., 1949, Investigation of the Sheep Creek iron deposits, Meagher County, Mont.: *U. S. Bur. Mines Rept. Inv. 4400*, 9 p.
- 2009 Reed, J. C., 1939, Geology and ore deposits of the Florence mining district, Idaho County, Idaho: *Idaho Bur. Mines and Geology Pamph. 46*, 44 p.
- 2010 Reed, J. C., and Gates, G. O., 1941, Iron ores of Kasaan Peninsula: *U. S. Geol. Survey Prelim. Rept.*, 2 p.
- 2011 Reeves, Frank, 1942, Summary of recent prospecting for manganese and iron ores in southeastern West Virginia: *W. Va. Geol. Survey Bull. 6*, 50 p.
- 2012 Reeves, R. G., and Kral, V. E., —, Geology and iron ore deposits of the Buena Vista Hills, Churchill and Pershing Counties, Nev.: *Nev. Univ. Bull., Geology and Mining Ser.*, no. 53 [in press].
- 2013 Reger, D. B., 1924, Detailed county report on Mineral and Grant Counties: *W. Va. Geol. Survey*, 866 p.
- 2014 _____ 1925, Detailed report on Mercer, Monroe, and Summers Counties: *W. Va. Geol. Survey*, 963 p.
- 2015 Reid, W. A., 1926, Iron in the Americas: *Baltimore, The Sun*, 18 p.
- 2016 Restrepo T., J. I., 1945, Apuntamientos sobre el hierro en Colombia: *Rev. Minería [Medellín]*, v. 23, no. 133, p. 10346-10351.
- 2017 Retty, J. A., 1944, Lower Romaine River area, Saguenay County (Que.): *Quebec Dept. Mines Geol. Rept. 19*, 31 p. Also in French edition.
- 2018 _____ 1945, Surface work indicates possibility of a major iron ore field in central Labrador: *Min. and Metallurgy*, v. 26, no. 461, p. 255-256.
- 2019 _____ 1948, Labrador, North America's newest great iron ore field: *Min. and Metallurgy*, v. 29, no. 501, p. 480-483.
- 2020 _____ 1951, Iron ore galore in New Quebec-Labrador: *Canadian Geog. Jour.*, v. 42, no. 1, p. 2-21.

Index
No.

- 2021 Reymond, Edouard, 1942, Informe sobre una mision geológica en los departamentos del Magdalena y Atlantico: Compilación estudios geol. oficiales Colombia, v. 5, p. 417-460.
- 2022 Rice, W. N., and Gregory, H. E., 1906, Manual of the geology of Connecticut: Conn. Geol. Nat. History Survey Bull. 6, p. 89, 127, 183.
- 2023 Richardson, G. B., 1935, Description of the Somerset and Windber quadrangles, Pennsylvania: U. S. Geol. Survey Geol. Atlas, folio 224, 14 p. 50c.
- 2024 Richarz, Stephen, 1927, Grunerite rocks of the Lake Superior region and their origin: Jour. Geology, v. 35, no. 8, p. 690-707.
- 2025 _____ 1930, The metamorphic iron formation of the eastern Mesabi range, Minn., and its relation to the Embarrass granite: Jour. Geology, v. 38, no. 7, p. 600-618.
- 2026 Rickaby, H. C., 1943, Steep Rock Lake, Canada's first big iron mine: Min. and Metallurgy, v. 24, p. 436-439.
- 2027 Ricketts, L. D., 1890, Annual report of the Territorial geologist to the Governor of Wyoming, January 1890, 80 p.
- 2028 Rickman, A. F., 1939, Swedish iron ore: London, Faber and Faber, 170 p.
- 2029 Riddle, A. M., Rupp, G. H., Hair, R. L., and Sisson, M. L., 1953, Colorado Fuel and Iron Corp., now a nation-wide network of 14 modern industrial plants: Min. Eng., v. 5, no. 11, p. 1084-1098.
- 2030 Ries, Heinrich, 1903, Magnetite deposits at Mineville, N. Y.: Mines and Minerals, v. 24, p. 49-51.
- 2031 _____ 1904, Notes on recent mineral developments at Mineville, Essex County, N. Y.: N. Y. State Mus. 56th Ann. Rept., p. 125-126.
- 2032 _____ 1925, Economic Geology: New York, John Wiley and Sons, Inc., p. 502-567.
- 2033 Rigal, Remigio, 1942, El yacimiento de magnetita de Hierro Indio y otros menores del departamento San Rafael, Provincia de Mendoza: Dir. Nac. Minería y Geología Argentina Bol. 52, 27 p.
- 2034 Riggi, A. E., and Croce, R., 1937, Los yacimientos de hierro de la Republica Argentina, sus correlaciones geologicas, genetica e importancia: Mus. Argentino Cienc. Nat. Pub. extra, no. 74, 40 p.
- 2035 Rittenhouse, G., 1936, Geology of a portion of the Savant Lake area, Ont.: Jour. Geology, v. 44, no. 4, p. 451-478.
- 2036 Roberts, H. M., and Bartley, M. W., 1943, Hydrothermal replacement in deep-seated iron ore deposits of the Lake Superior region: Econ. Geology, v. 38, no. 1, p. 1-24; discussion by T. T. Quirke, v. 38, no. 8, p. 662-667.
- 2037 _____ 1943, Replacement hematite deposits, Steep Rock Lake, Ontario: Am. Inst. Min. Metall. Eng. Tech. Pub. 1543, 26 p.; Trans., v. 178, p. 357-395, 1948.
- 2038 Roberts, H. M., and Crago, W. H., 1948, Reserves and competitive position of Lake Superior iron ores, in Ninth Ann. Min. Symposium: Minneapolis, Univ. Minnesota, p. 1-15.
- 2039 *Robertson, A. F., 1946, Exploration of the Cherokee iron deposits, Cherokee County, N. C.: U. S. Bur. Mines Rept. Inv. 3974, 31 p.
- 2040 _____ 1948, Georgia iron deposits, Cherokee, Bartow, Floyd, and Polk Counties, Part 2: U. S. Bur. Mines Rept. Inv. 4179, 42 p.

Index

No.

- 2041 Robinson, A. H. A., 1917, Investigation of iron ores: Canada Mines Branch Summary Rept. 1916, p. 15-20.
- 2042 Robinson, B. L., 1954, The St. Lawrence Seaway project: Mil. Engineer, v. 46, no. 312, p. 245-248.
- 2043 Roby, R. N., 1949, Investigation of Running Wolf iron deposits, Judith Basin County, Mont.: U. S. Bur. Mines Rept. Inv. 4454, 7 p.
- 2044 Roche, H. M., 1937, The iron ores of New Jersey: Iron Age, v. 139, no. 5, p. 76-80; no. 7, p. 39-43.
- 2045 Roche, H. M., and Crockett, R. E., 1933, Iron-ore mining and milling at Scrub Oak: Eng. Min. Jour., v. 134, no. 4, p. 161-164.
- 2046 Rodgers, Allan, 1948, The Manchurian iron and steel industry and its resource base: Geog. Rev., v. 38, no. 1, p. 41-54.
- 2047 Rodgers, John, 1948, Geology and mineral deposits of Bumpass Cove, Unicoi and Washington Counties: Tenn. Div. Geology Bull. 55, 47 p.
- 2048 Rodionov, S. P., 1940, Geological structure of Kremenchug iron ore deposits: Akad. nauk URSS., Inst. geol. Geol. zhurnal., tom 6, vyp. 4, p. 205-241. [Russian, English summary.]
- 2049 Rodriguez D., Marin, 1931, Antecedentes para el conocimiento de los minerales de fierro y cal del país: Bol. Minero, Santiago, año 47, v. 43, no. 389, p. 758-762.
- 2050 Roesler, Max, 1916, Geology of the iron-ore deposits of the Firmeza district, Oriente Province, Cuba (with discussion by W. L. Cummings, William Kelly, J. T. Singewald, Jr., J. D. Irving, L. C. Graton, C. P. Berkeley, and the author): Am. Inst. Min. Metall. Eng. Bull., v. 118, p. 1789-1839; Trans., v. 56, p. 77-141, 1917.
- 2051 * _____ 1921, The iron-ore resources of Europe: U. S. Geol. Survey Bull. 706, 152 p.
- 2052 Rogers, R. F., 1915, The iron ore deposits of Lewis County: Tenn. Geol. Survey, Res. Tenn., v. 5, p. 91-146.
- 2053 Rogers, W. B., 1880, The iron ores of Virginia and West Virginia: The Virginias, v. 1, p. 128-130, 138-140, 152-153, 160-161, 170-171, 174-175, 182-183, 186-188.
- 2054 _____ 1884, Geology of the Virginias: New York, D. Appleton and Co., 832 p.
- 2055 Rohlfing, D. P., 1923, Iron-ore deposits of southern Utah: Eng. Min. Jour.-Press, v. 115, no. 16, p. 716-719.
- 2056 Rohn, Oscar, 1903, The Baraboo iron range, Sauk County, Wis.: Eng. Min. Jour., v. 76, p. 615-617.
- 2057 Rolker, C. M., 1886, Notes on certain iron-ore deposits in Colorado: Am. Inst. Min. Metall. Eng. Trans., v. 14, p. 266-273.
- 2058 Rominger, C. L., 1881, Marquette iron region, *in* Upper Peninsula, 1878-80: Mich. Geol. Survey [Pub.], v. 4, p. 1-154.
- 2059 _____ 1881, Menominee iron region, *in* Upper Peninsula, 1878-80: Mich. Geol. Survey [Pub.], v. 4, p. 155-241.
- 2060 _____ 1895, Iron and copper regions, *in* Geological report on the Upper Peninsula of Michigan, 1881-84: Mich. Geol. Survey [Pub.], v. 5, pt. 1, 179 p.
- 2061 Rose, E. R., 1942, In the Steeprock area, Ontario, a résumé of the geological work and iron ore exploration: Canadian Min. Jour., v. 63, no. 5, p. 292-295.
- 2062 Rose, R. S., 1905, The geology of some of the lands in the Upper Peninsula, Mich.: Lake Superior Min. Inst. Proc., v. 10, p. 88-102.

Index
No.

- 2063 Ross, C. P., and Carr, M. S., 1941, The metal and coal mining districts of Idaho, with notes on the non-metallic mineral resources of the State: Idaho Bur. Mines and Geology Pamph. 57, 263 p.
- 2064 Roth, Zdeněk, 1948, Le gisement de minerai de fer de Vráť près de Zelezný Brod: Státní geol. ústav Československé Republiky Sborník, sv. 15, p. 209-257. [Czech, French summary.]
- 2065 Rothrock, E. P., 1944, Mineral resources, pt. 3, of A geology of South Dakota: S. Dak. Geol. Survey Bull. 15, 255 p.
- 2066 Rove, O. N., 1952, Mining geology: Min. Eng., v. 4, no. 2, p. 140-143.
- 2067 Roy, S. K., and Mukherjee, A. N., 1939, Geology and petrology of the iron ore deposits of Mandi State, Punjab: Geol. Min. Metall. Soc. India, Quart. Jour., v. 11, no. 2, p. 49-77.
- 2068 Royce, Stephen, 1925, Certain advances in geological information relative to the Lake Superior iron deposits: Lake Superior Min. Inst. Proc., v. 24, p. 149-181.
- 2069 _____ 1936, Geology of the Lake Superior iron deposits: Lake Superior Min. Inst. Proc., v. 29, p. 68-107; Min. Cong. Jour., v. 22, no. 3, p. 16-30, 41.
- 2070 _____ 1936, Some applications of magnetic surveying to exploration: Min. Cong. Jour., v. 22, no. 12, p. 24-26, 48.
- 2071 _____ 1937, Hydrothermal leaching of iron ores: Econ. Geology, v. 32, no. 3, p. 389-392.
- 2072 _____ 1942, Iron ranges of the Lake Superior district, in Newhouse, W. H., ed., Ore deposits as related to structural features: Princeton Univ. Press, p. 54-63.
- 2073 _____ 1945, Geological description of the Mesabi range taconites: Skillings' Min. Rev., v. 34, no. 31, p. 1-4, 13; no. 32, p. 1-4, 6, 13; Minn. Univ., Inst. Technology, Mines Expt. Sta. Inf. Circ. 5, p. 2-12.
- 2074 Ruedemann, Rudolf, 1931, Age and origin of the siderite and limonite of the Burden iron mines near Hudson, N. Y.: N. Y. State Mus. Bull. 286, p. 135-149.
- 2075 Ruffner, W. H., 1889, Report on the landed property of the Buena Vista Company, Rockbridge County, Va.: Philadelphia, Dandon Printing and Publishing Co., p. 7-76.
- 2076 Ruiz, Carlos, 1943, Los yacimientos de hierro de la region noroccidental de Copiapo, un tipo no descrito de yacimientos de contacto metamórfico: Bol. Minero [Santiago], año 59, v. 55, nos. 522, 523, p. 820-827, 906-915.
- 2077 Rusakov, M. P., 1929, The Ken-Tiube, Togai, and other iron ore deposits in the East Karkaralinsk region of the Kirghize Steppe, Siberia: Geol. kom., Materialy obshchey priklad. geologii, vyp. 109, 29 p. [Russian, English summary.]
- 2078 Rutledge, J. J., 1908, The Clinton iron-ore deposits in Stone Valley, Huntingdon County, Pa.: Am. Inst. Min. Metall. Eng. Bull., v. 24, p. 1057-1087; Trans., v. 40, p. 134-164, 1910.
- 2079 Ruttman, F. S., 1887, Notes on the geology of the Tilly Foster ore body, Putnam County, N. Y.: Am. Inst. Min. Metall. Eng. Trans., v. 15, p. 79-91.
- 2080 St. Clair, Stuart, 1914, Titaniferous iron-ore deposits: Pa. State Min. Quart., v. 1, no. 3, p. 112-118.
- 2081 Saito, Masatsugu, 1949, The jarosite-limonite deposit of the Gumma iron mine: Geol. Survey Japan Rept. 129, 30 p. [Japanese, English summary.]

Index
No.

- 2082 Sakamoto, Takao, 1950, The origin of the pre-Cambrian banded iron ores: *Am. Jour. Sci.*, v. 248, no. 7, p. 449-474.
- 2083 _____ 1953, Alternate deposition of iron oxide and silicates in a bed of Permian aluminous shale in Manchuria, in *La genèse des gîtes de fer: Cong. géol. internat.*, 19^e sess., Alger, 1952, *Comptes rendus*, fasc. 10, p. 153-171.
- 2084 Sakamoto, Takao, and Matsuda, Kamezo, 1936 (1953), [First] Survey report on the iron deposits at Pan-Tien in An-Hsi Hsien, Fukien, South China: *Geol. Inst. South Manchuria Railway Co.*, 28 p. Translation prepared by Military Geology Branch, U. S. Geol. Survey for Intelligence Div., Office of the Engineer, Headquarters, U. S. Army Forces, Far East, Tokyo, Japan.
- 2085 Saksela, Martti, 1936, Die erzvorkommen Finnlands: *Zeitschr. prakt. Geologie*, Jahrg. 44, p. 156-163.
- 2086 _____ 1939, Ueber einige Eisenerze im Jussaarigebiet, SW Finnland: *Comm. géol. Finlande*, Bull. 125, p. 9-38.
- 2087 Salinas, L. S., 1924, Algunas observaciones sobre el origen del criadero de hierro de Durango, llamado Cerro de Mercado: *Soc. Cient. Antonio Alzate, Mem. y Rev.*, tomo 43, no. 9-12, p. 621-638.
- 2088 Sambasiva-Iyer, V. S., 1903, Notes on economic mineral products of Chitaldrug and Shimoga districts: *Mysore Geol. Dept. Rec.*, v. 3, p. 240-266.
- 2089 Sampelayo, P. H., 1929, Criadero de mineral de hierro de Moncorvo (Portugal): *Inst. Geol. Min. España Notas y comun.*, año 2, no. 2, p. 3-86.
- 2090 _____ 1935, Hierros de Galicia: *Inst. Geol. Min. España Mem.*, tomo 4, 373 p.
- 2091 _____ 1952, Condiciones más generales de los criaderos de hierro paleozoico: *Inst. Hierro y Acero [Madrid]*, año 5, no. 1, p. 241-244.
- 2092 Sanders, B. H., 1933, Iron ores at Itabira, Brazil: *Inst. Mining and Metallurgy Bull.* 346, p. 1-23; *Bull.* 349, p. 1-8; *Bull.* 351, p. 29-32.
- 2093 Sanford, R. S., and Stone, L. H., 1949, Investigation of Broughton and Ring magnetite deposits, Essex County, N. Y.: *U. S. Bur. Mines Rept. Inv.* 4404, 4 p.
- 2094 Santos-Yñigo, Luis, 1953, Geologic reconnaissance of southern Zamboanga Province: *Philippines Bur. Mines Rept. Inv.* 9, p. 18.
- 2095 _____ 1953, The geology of iron ore deposits of the Philippines: *Philippine Geologist*, v. 7, no. 4, p. 122-165.
- 2096 Satterly, Jack, 1943, Geology of the Dryden-Wabigoon area (Ont.): *Ontario Dept. Mines Ann. Rept.* 1941, v. 50, pt. 2, 67 p.
- 2097 _____ 1943, Mineral occurrences in Parry Sound district (Ont.): *Ontario Dept. Mines Ann. Rept.* 1942, v. 51, pt. 2, 86 p.
- 2098 _____ 1943, Mineral occurrences in the Haliburton area (Ont.): *Ontario Dept. Mines Ann. Rept.* 1942, v. 52, pt. 2, 106 p.
- 2099 _____ 1945, Mineral occurrences in the Renfrew area (Ont.): *Ontario Dept. Mines Ann. Rept.* 1944, v. 53, pt. 3, 139 p.
- 2100 Savage, T. E., and Ross, C. S., 1916, The age of the iron ore in eastern Wisconsin: *Am. Jour. Sci.*, 4th ser., v. 41, p. 187-193.
- 2101 Sawamura, Takeo, and Yoshinaga, Mayumi, 1953, Iron-manganese deposits of Kunimiyama mine, Kochi Prefecture: *Min. Geology, Tokyo*, v. 3, no. 10, p. 207-219. [Japanese, English summary.]

Index
No.

- 2102 Sawyer, A. H., 1914, Russellville brown iron ore district, Ala.: Eng. Min. Jour., v. 98, p. 49-50.
- 2103 Schairer, J. F., 1931, The minerals of Connecticut: Conn. Geol. Nat. History Survey Bull. 51, p. 102-103.
- 2104 *Schaus, O. M., 1930, Method and cost of mining hematite at the Eureka-Asteroid mine on the Gogebic range, Gogebic County, Mich.: U. S. Bur. Mines Inf. Circ. 6348, 13 p.
- 2105 * _____ 1930, Mining methods and costs at the Montreal mine, Montreal, Wis.: U. S. Bur. Mines Inf. Circ. 6369, 29 p.
- 2106 Scheibe, E. A., 1931, Umstrittene Bedingungen für Entstehung und Ausbildung des Salzgitterer Eisenerzhorizontes: Deutsche Geol. Gesell. Zeitschr. 83, no. 7, p. 462-471.
- 2107 _____ 1932, Ueber die Entstehung brasilianischer Itabirite: Deutsche Geol. Gesell. Zeitschr., Band 84, Heft 1, p. 36-47.
- 2108 Schiltz, P., 1935, Wo kommt das Eisen unserer Minetteformation her?: Soc. naturalistes luxembourg. Bull., sér. nouv., ann. 29, no. 4, p. 72-85.
- 2109 _____ 1937, Die Wege des Eisens durch Trias und Lias bis zum Niederschlag im untern Dogger: Soc. naturalistes luxembourg. Bull. mens., sér. nouv., ann. 31, p. 97-162.
- 2110 _____ 1939, Le dogger des environs de Differdange: Soc. naturalistes luxembourg. Bull. mens., sér. nouv., ann. 33, p. 109-123.
- 2111 Schlegel, K., 1902, Das Magnetisenerzlager vom Schwarzen Krux bei Schmiedefeld im Thüringer Wald: Deutsche Geol. Gesell. Zeitschr., Band 54, p. 24-55.
- 2112 Schmeisser, C., 1906, Bodenschätze und Bergbau Kleinasien: Zeitschr. prakt. Geologie, Jahrg. 1906, Heft 14, p. 186-196.
- 2113 Schmidt, Adolf, 1874, Practical rules for judging of and for developing deposits of iron ore in Missouri: Mo. Geol. Survey Rept., 1873-4, p. 578-586.
- 2114 Schmidt, E. R., 1942, Das Raseneisenerz von Bagamér: K. Ungarische Geol. Anst. Jahresber. 1936-38, Band 3, p. 1309-1319. [Hungarian and German.]
- 2115 Schmidt, K. G., 1938, Bohnerze im westlichen Kraichgau: Badische geol. Abh. Jahrg. 9, Heft 1, p. 127-150.
- 2116 Schmidt, R. G., and Dutton, C. E., 1952, Progress report on geologic study of the Crosby and Ironton area of the Cuyuna range, Crow Wing County, Minn.: U. S. Geol. Survey open-file rept., 7 p.
- 2117 Schmidtil, Ernst, 1935, Zur Stratigraphie und Palaeogeographie der Eisenerze im Doggersandstein der Frankenalb: Deutsche Geol. Gesell. Zeitschr., Band 87, Heft 8, p. 541-582.
- 2118 _____ 1936, Sekundäre Eisenanreicherungen im Doggersandstein der Frankenalb: Oberrhein. Geol. Ver. Jahresber. u. Mitt., neue Folge, Band 25, p. 34-52.
- 2119 Schmitt, H. A., 1939, The Pewabic mine, N. Mex.: Geol. Soc. America Bull., v. 50, no. 5, p. 777-818.
- 2120 Schnarrenberger, C., 1941, Die Kellaway-Oxford-Erze südlich des Schwarzwaldes: Reichsstelle Bodenf., Zweigstelle Wien Ber., Heft 3-4, p. 41-48.
- 2121 Schneider, R., 1934, Der Bergbau im Siegerland: Deutsche Geol. Gesell. Zeitschr., Band 86, Heft 6, p. 307-314.
- 2122 Schneider, Robert, 1949, A hypothesis on the origin of a limonitic layer in beds of Eocene age in Fayette County, Tenn.: Econ. Geology, v. 44, no. 7, p. 621-623.

Index
No.

- 2123 Schneiderhöhn, Hans, 1931, Die Eisenerzlagerstätten Südafricas: Archiv Eisenhüttenw. 4, no. 6, p. 269-276.
- 2124 Schnellmann, G. A., 1947, The west coast hematite bodies: Min. Mag., v. 76, no. 3, p. 137-151.
- 2125 Schrader, F. C., 1931, The Buena Vista iron deposits in Pershing and Churchill Counties, Nev.: U. S. Geol. Survey open-file rept., 65 p.
- 2126 *Schrader, F. C., Stone, R. W., and Sanford, Samuel, 1916, Useful minerals of the United States: U. S. Geol. Survey Bull. 624, 412 p.
- 2127 Schröder, Eckart, 1936, Die Erzvorkommen des Saarlandes: Preussische Geol. Landesanst. Abh., neue Folge, Heft 171, p. 105-115.
- 2128 Schuster, Mattheus, 1936, Die nutzbaren Mineralien, Gesteine und Erden Bayerns; 2e Band, Franken, Oberpfalz und Schwaben nördlich der Donau: München, Oldenbourg, Piloty and Loehle, 512 p.
- 2129 Schwantke, A., 1901, Ueber ein Vorkommen von gediegenem Eisen in einem Auswurfing aus dem basaltischen Tuff bei Ofleiden: Zentralbl. Mineralogie, 1901, p. 65-71.
- 2130 Schwartz, G. M., 1923, New ore of the east Mesabi range: Eng. Min. Jour.-Press, v. 116, no. 10, p. 409-412.
- 2131 _____ 1930, The relations of magnetite and ilmenite in the magnetite deposits of the Duluth gabbro: Am. Mineralogist, v. 15, no. 7, p. 243-252.
- 2132 _____ 1951, Regional setting of the Cuyuna range, in Mining symposium—Geology of the Cuyuna range: Minneapolis, Minn. Univ., Gen. Extension Div., p. 1-3.
- 2133 _____ 1954, Mining geology of the Lake Superior district, in Fourth mining geology symposium: Minneapolis, Minn. Univ., Center for Continuation Study, p. 1-2.
- 2134 Scott, D. W., and Wesner, A. L., 1954, Properties of nonmagnetic taconites affecting concentration: Min. Eng., v. 6, no. 6, p. 635-641.
- 2135 Scrivenor, J. B., 1930, Laterite: Geol. Mag., v. 67, p. 24-28.
- 2136 Seaman, W. A., 1944, Lake Michigan area: Mich. Geol. Survey Progress Rept. 10, p. 18-30.
- 2137 _____ 1944, Summary of the geology of the Marquette iron range: Mich. Geol. Survey Progress Rept. 10, p. 11-17.
- 2138 _____ 1945, Geology of the Spruce River area and Peshekee River area, Marquette and Baraga Counties: Mich. Geol. Survey Progress Rept. 11, 12 p.
- 2139 Seelye, R. W., 1910, The Helen mine, Michipicoten, Ont.: Canadian Min. Inst. Quart. Bull., v. 11, p. 189-202; Jour., v. 13, p. 121-134, 1911.
- 2140 Seeman, Reinhold, 1935, Zur Entstehung der Amberger Eisenerz-lagerstätten: Zeitschr. prakt. Geologie, Jahrg. 43, Heft 7, p. 107-109.
- 2141 Sehmer, Th., 1911, Die Eisenerzversorgung Europas, [Pt.] 2 of Probleme der Weltwirtschaft: Jena, Gustav Fischer, 356 p.
- 2142 Seitz, Otto, 1944, Über Stratigraphie und Paläogeographie des Salzgitterer Eisenerzes im Gebiete von Hornburg: Reichsstelle Bodenf. [Germany] Jahrb., Band 63, p. 350-412.
- 2143 _____ 1950, Das Eisenerz im Korallenoolith der Gifhorner Mulde bei Braunschweig und Bemerkungen über den oberen Dogger und die Heersumer Schichten: Geol. Landesanst.[Germany], Geol. Jahrb., Band 64, p. 1-73.

Index
No.

- 2144 Sellner, F., 1931, Die Magnetitlagerstätten der Tschecho-Slowakischen Republik: Zeitschr. prakt. Geologie, Jahrg. 39, Heft 12, p. 181-187.
- 2145 Selwyn, A. R. C., 1873, Report upon the Acadia iron ore deposits of Londonderry, Colchester County, N. S.: Canada Geol. Survey Rept. Progress 1872-3, p. 19-31.
- 2146 Sen Gupta, K. K., 1943, On some iron ores in south India; with a note on smelting of Salem and Cuddapah: Geol. Min. Metall. Soc. India, Quart. Jour., v. 15, no. 1, p. 45-63.
- 2147 Sen Gupta, K. K., and Sen Gupta, J., 1939, Magnetite deposits near Daltonganj, Palamau district, with a note on electric smelting: Geol. Min. Metall. Soc. India, Quart. Jour., v. 11, no. 4, p. 143-147.
- 2148 Serdjutschenko, D., 1931, Chemisch-mineralogische und morphologische Untersuchungen der Eisenerze aus dem Revier Sulin im Donez-Steinkohlenbecken: Mineralog. petrog. Mitt., neue Folge, Band 42, Heft 1, p. 27-47.
- 2149 Serra, Aurelio, 1942, Bemerkungen über Minerallagerstätten und Gesteine der Provinzen Sassari und Nuoro in Sardinien: Zentralbl. Mineralogie, Abt. A, no. 1, p. 9-11.
- 2150 *Severy, C. L., 1946, Exploration of the Minarets iron deposit, Madera County, Calif.: U. S. Bur. Mines Rept. Inv. 3985, 12 p.
- 2151 _____ 1948, Mining methods at the Vulcan iron mine, San Bernardino County, Calif.: U. S. Bur. Mines Inv. Circ. 7437, 11 p.
- 2152 Shabad, Theodore, 1951, Geography of the USSR—a regional survey: New York, Columbia Univ. Press, 584 p.
- 2153 Shaffner, M. N., 1946, Geology and mineral resources of the Smicksburg quadrangle: Pa. Geol. Survey, 4th ser., Topog. and Geol. Atlas, no. 55, 252 p.
- 2154 Shakhov, F. N., 1930, [The association of minerals in the iron deposit in the region of Tel'bess]: Zapadno-sibirsk. ot'del. Geol. kom. Izv. 10, vyp. 4, p. 1-36, Tomsk. [Russian, English summary.]
- 2155 _____ 1933, Geological researches on the southeastern Altai, in the region of the middle course of the river Argut: Material'y geologiya Zapadno-sibirsk. kraya, vyp. 5, 52 p., Tomsk. [Russian, English summary.]
- 2156 Shale, S. J., 1953, After two centuries of mining, Cornwall keeps its methods up-to-date: Min. Eng., v. 5, no. 7, p. 670-675.
- 2157 Shaler, N. S., 1881, Great Kanawha, W. Va., iron ores and coals: The Virginias, v. 2, p. 154-155.
- 2158 Shand, S. J., 1947, The genesis of intrusive magnetite and related ores: Econ. Geology, v. 42, no. 7, p. 634-636.
- 2159 Shannon, C. W., 1907, The iron-ore deposits of Indiana: Ind. Dept. Geology Ann. Rept. 31, p. 299-428.
- 2160 Sharples, S. P., 1882, Note on black band iron ore in West Virginia: Am. Inst. Min. Metall. Eng. Trans., v. 10, p. 80-81.
- 2161 Shattuck, J. R., and Ricker, Spangler, 1948, Shasta and California iron-ore deposits, Shasta County, Calif.: U. S. Bur. Mines Rept. Inv. 4272, 11 p.
- 2162 Shedd, Solon, 1902, The iron ores of Washington: Wash. Geol. Survey, v. 1, p. 217-256.
- 2163 Shedd, Solon, Jenkins, O. P., and Cooper, H. H., 1922, Iron ores, fuels and fluxes of Washington: Wash. Div. Mines and Geology Bull. 27, p. 16-115.

Index
No.

- 2164 *Sheridan, M. J., 1947, Lincoln County iron deposits, New Mexico: U. S. Bur. Mines Rept. Inv. 3988, 19 p.
- 2165 Shifrin, D. V., 1934, General geological characteristics of iron-ore deposits in the Imandra region: Leningrad. geol.-gidrogeol. trest, Izv. 2, p. 30-34. [Russian, English summary.]
- 2166 Shimkin, D. B., 1949, Mineral self-sufficiency of the U. S. S. R.: Russian Research Center, Harvard University, p. 184-185.
- 2167 _____ 1951, Is mineral self-sufficiency a weak spot in Russia's economy?: Min. World, v. 13, no. 10, p. 34-39; no. 12, p. 23-32.
- 2168 Shook, A. M., 1950, Blackburn heavy-density plant opens new brown iron ore reserves: Eng. Min. Jour., v. 151, no. 9, p. 79-81.
- 2169 Shtreis, N. A., 1938, On the origin of iron-manganese ores in Uspensky-Spasky region of central Kazakhstan: Akad. nauk SSSR Izv., Ser. geol. vyp. 4, p. 603-613. [Russian, English summary.]
- 2170 Shumway, W. A., 1881-1882, The Marquette iron region, Mich.: Columbia Univ., School Mines Quart., v. 3, p. 35-48, 103-117, 197-207, 243-253.
- 2171 Silliman, Benjamin, 1872, On the fossil iron ore and its associates in southern Pennsylvania: Iron and Steel Inst. Jour., v. 2, p. 334-341.
- 2172 _____ 1873, Remarks on the magnetites of Clifton, in St. Lawrence County, N. Y.: Am. Inst. Min. Metall. Eng. Trans., v. 1, p. 364-371.
- 2173 _____ 1882, Martite of the Cerro de Mercado, or Iron Mountain, of Durango, Mex., and certain iron ores of Sinaloa: Am. Jour. Sci., 3d ser., v. 24, p. 375-379.
- 2174 Silva Freire, J. L., 1946, O jazigo de magnetite de Vila Cova do Marão (nota preliminar sobre sua estrutura, origem e evolução): Serviço Fomento Mineiro [Portugal], Estudos, notas e trabalhos, v. 2, p. 140-150.
- 2175 Silva Neto, A. da, and Soares Carneiro, F., 1945, O jazigo de ferro de Guadramil (nota prévia): Serviço Fomento Mineiro [Portugal], Estudos, notas e trabalhos, v. 1, p. 110-118.
- 2176 Silver, L. P., 1906, The Animikie iron range: Ontario Bur. Mines Ann. Rept. 15, p. 156-172.
- 2177 Simpson, E. S., and Gibson, C. G., 1907, The distribution and occurrence of the baser metals in western Australia: Geol. Survey Western Australia Bull., no. 30, p. 1-129.
- 2178 Sims, P. K., 1953 (1954), Geology of the Dover magnetite district, Morris County, N. J.: U. S. Geol. Survey Bull. 982-G, p. 245-305. \$2.50.
- 2179 Sims, P. K., and Leonard, B. F., 1952, Geology of the Andover mining district, Sussex County, N. J.: N. J. Dept. Conserv. Geol. Ser. Bull. 62, 46 p.
- 2180 Singewald, J. T., Jr., 1909, The iron ores of Maryland: Econ. Geology, v. 4, p. 530-543.
- 2181 _____ 1911, Report on the iron ores of Maryland, with an account of the iron industry: Md. Geol. Survey, v. 9, p. 121-327.
- 2182 _____ 1912, The iron ore deposits of the Cebolla district, Gunnison County, Colo.: Econ. Geology, v. 7, p. 560-573.
- 2183 _____ 1912, Origin of iron ores: Econ. Geology, v. 7, p. 191-195.
- 2184 _____ 1913, The microstructure of titaniferous magnetites: Econ. Geology, v. 8, no. 3, p. 207-214.

Index
No.

- 2185 *Singewald, J. T., Jr., 1913, The titaniferous iron ores in the United States; their composition and economic value: U. S. Bur. Mines Bull. 64, 145 p.
- 2186 _____ 1916, The genesis and relations of the Daiquiri and Firmeza iron-ore deposits, Cuba: Am. Inst. Min. Metall. Eng. Bull., no. 111, p. 671-678; Trans., v. 53, p. 67-74.
- 2187 _____ 1933, Magmatic segregations, in Ore deposits of the western States (Lindgren Volume): New York, Am. Inst. Min. Metall. Eng., p. 507-512.
- 2188 _____ 1946, Mineral resources of Carroll and Frederick Counties: Md. Dept. Geology, Mines, and Water Res., Carroll and Frederick Counties Rept., p. 132-162.
- 2189 Singewald, J. T., Jr., and Milton, Charles, 1929, Origin of iron ores of Iron Mountain and Pilot Knob, Mo.: Am. Inst. Min. Metall. Eng. Trans., v. 85, p. 330-340.
- 2190 *Singewald, Q. D., 1942, Stratigraphy, structure, and mineralization in the Beaver-Tarryall area, Park County, Colo., a reconnaissance report: U. S. Geol. Survey Bull. 928-A, p. 1-44.
- 2191 _____ 1950, Mineral resources of Colombia: U. S. Geol. Survey Bull. 964-B, p. 53-204. \$1.
- 2192 Sjogren, Hjalmar, 1894, [The iron-ore deposits of Dunderland (Norway)]: Upsala Univ. Mineral.-geol. inst. Medd. 11, p. 34-40.
- 2193 _____ 1908, Till frågen om bildningen af det äldre Urbergets järnmalm: Geol. fören. Stockholm Förh., band 30, p. 115-155.
- 2194 _____ 1908, Om järnmalmerna i granit på Lofoten och om parallellstrukturen hos de randiga Torrstenarna: Geol. fören. Stockholm Förh., band 30, p. 352-385.
- 2195 _____ 1908, Geological relations of the Scandinavian iron ores: Am. Inst. Min. Metall. Eng. Trans., v. 38, p. 766-835.
- 2196 _____ 1912, Principal results of the inquiry on "The iron ore resources of the world," in Les ressources mondiales de mineral de fer: Cong. géol. internat., 11^e sess., Stockholm, 1910, Comptes rendus, pt. 1, p. 265-328.
- 2197 Skillings, D. N., 1951, Iron ore mined amid king corn near Spring Valley, Minn.: Skillings' Min. Rev., v. 40, no. 25, p. 1, 4.
- 2198 Sloan, Earle, 1908, Catalogue of the mineral localities of South Carolina: S. C. Geol. Survey Bull. 2, 505 p.
- 2199 Smirnov, S. S., 1932, [The iron ore deposits of the east Siberian region]: Irkutsk, Vostochno-sibirsk. geol.-razved. uprav., 79 p. [Russian.]
- 2200 _____ 1934, The polymetallic deposits of eastern Transbaikalia: Vses. geol.-razved. ob'yedneniya Trudy, vyp. 327, 491 p., [Russian, English summary.]
- 2201 Smith, A. F., 1928, Investigation of possibilities of pig-iron production in east Tennessee, in Chief of Engineers, U.S. Army, Tennessee River and tributaries, N. C., Tenn., Ala., and Ky.: U.S. 70th Cong., 1st sess., H. R. Doc. 185, p. 183-187.
- 2202 Smith, E. A., 1879, The iron ores of Alabama, with special reference to their geological relations: Am. Assoc. Adv. Sci. Proc., v. 27, p. 246-258.
- 2203 * _____ 1883, The iron ores of Alabama in their geological relations: U. S. Geol. Survey Min. Res. U. S., 1882, pt. b, p. 149-161.
- 2204 Smith, F. G., 1942, Notes on the iron ores of Steeprock Lake, Ontario: Toronto Univ. Studies, Geol. ser. 47, p. 71-75.
- 2205 Smith, G. O., and Willis, Bailey, 1901, The Clealum iron ores, Washington: Am. Inst. Min. Metall. Eng. Trans., v. 30, p. 356-366.

Index
No.

- 2206 **Smith, L. L.**, 1931, Magnetite deposits of French Creek, Pa.: Pa. Geol. Survey, 4th ser., Bull. M-14, 52 p.
- 2207 _____ 1933, Magnetite ores of northern New Jersey: *Econ. Geology*, v. 28, no. 7, p. 658-677.
- 2208 ***Smith, P. S.**, 1907, The gray iron ores of Talladega County, Ala.: U. S. Geol. Survey Bull. 315, p. 161-184.
- 2209 ***Smith, P. S.**, and **Mertie, J. B., Jr.**, 1930, Geology and mineral resources of northwestern Alaska: U. S. Geol. Survey Bull. 815, 351 p.
- 2210 **Smith, Wilfred**, 1926, A geographical study of coal and iron in China: Univ. Press of Liverpool, 83 p.
- 2211 **Smith, W. D.**, 1924, Geology and mineral resources of the Philippine Islands: Manila, Bur. Print., p. 446-464.
- 2212 **Smith, W. N.**, 1905, Loon Lake iron-bearing district: Ontario Bur. Mines Ann. Rept. 14, p. 254-260.
- 2213 **Smock, J. C.**, 1874, The magnetic iron ores of New Jersey—their geographical distribution and geological occurrence: *Am. Inst. Min. Metall. Eng. Trans.*, v. 2, p. 314-323; *Eng. Min. Jour.*, v. 17, p. 293-294, 306-307, 326-327.
- 2214 _____ 1876, The use of the magnetic needle in searching for magnetic iron ore: *Am. Inst. Min. Metall. Eng. Trans.*, v. 4, p. 353-362.
- 2215 _____ 1884, Geologico-geographical distribution of the iron ores of the eastern United States: *Am. Inst. Min. Metall. Eng. Trans.*, v. 12, p. 130-144; *Eng. Min. Jour.*, v. 37, p. 217-218, 230-232.
- 2216 _____ 1889, First report on the iron mines and iron-ore districts in the State of New York: *N. Y. State Mus. Bull.* 7, 70 p.
- 2217 _____ 1889, A review of the iron mining industry of New York for the past decade: *Am. Inst. Min. Metall. Eng. Trans.*, v. 17, p. 745-750.
- 2218 **Smock, J. C.**, and **Cook, G. H.**, 1874, Map of northern New Jersey showing the iron ore and limestone districts: *N. J. Geol. Survey*, scale 1 in. to 2 mi.
- 2219 **Smyth, C. H., Jr.**, 1892, On the Clinton iron ore: *Am. Jour. Sci.*, 3d ser., v. 43, p. 487-496.
- 2220 _____ 1894, Report on a preliminary examination of the general and economic geology of four townships in St. Lawrence and Jefferson Counties: *N. Y. State Mus.* 47th Ann. Rept., p. 685-709.
- 2221 _____ 1912, On the genesis of the pyrite deposits of St. Lawrence County: *N. Y. State Mus. Bull.* 158, p. 143-182.
- 2222 _____ 1919, On the genetic significance of ferrous silicate associated with the Clinton iron ores: *N. Y. State Mus. Bull.* 207-209, p. 175-198.
- 2223 **Smythe, D. D.**, 1921, A contact-metamorphic iron-ore deposit near Fairview, N. Mex.: *Econ. Geology*, v. 16, no. 6, p. 410-418.
- 2224 **Snelgrove, A. K.**, 1938, Mines and mineral resources of Newfoundland: Newfoundland Geol. Survey Inf. Circ. 4, 162 p.
- 2225 _____ 1953, Mines and mineral resources of Newfoundland: Newfoundland Geol. Survey Inf. Circ. no. 4, revised and rewritten by D. M. Baird, 149 p.
- 2226 **Snelgrove, A. K.**, **Seaman, W. A.**, and **Ayres, V. L.**, 1944, Strategic minerals investigations in Marquette and Baraga Counties, 1943: *Mich. Geol. Survey Progress Rept.* 10, p. 9-17, 28, 45, 56-59.
- 2227 **Snow, E. P.**, 1895, The Hartville iron ore deposits in Wyoming: *Eng. Min. Jour.*, v. 60, p. 320-321.
- 2228 **Sobolev, Vladimir**, 1935, The iron ore deposits of the Ilmpeia River, eastern Siberia: *Econ. Geology*, v. 30, no. 7, p. 783-791.

- Index
No.
- 2229 Sobotha, Ernst, 1934, Die Eisenerze an Sieg, Lahn-Dill und in Oberhessen: Geog. Wochenschr. [Halle], Jahrg. 2, Heft 28, p. 728-730.
- 2230 Socolescu, M., 1941, Les gisements de fer et de manganèse dans la partie supérieure du bassin de l'Aries: Inst. géol. Roumanie, Comptes rendus, tome 26, p. 105-114.
- 2231 Sokolov, N., 1900, Sur les gisements de minerai de fer dans le Domaine Pokrovskaia, Propriété de S. A. I. M. le grand-duc Michel Nikolaievitch: Geol. kom. Izv, tom 19, p. 407-421.
- 2232 Solovyev, S. P., 1936, Geologic structure and mineral resources of the region of the Tyzyl, Urdu and Gizhgiz Rivers (North Caucasus): Tsentr nauch.-issled. geol.-razved. inst. Trudy, vyp. 89, 51 p. [Russian, English summary.]
- 2233 Soper, E. K., 1910, Iron mining in Minnesota: Min. Sci. Press, v. 101, p. 767-769.
- 2234 _____ 1911, The iron ranges of Minnesota: Eng. Min. Jour., v. 91, p. 766-770.
- 2235 Sosman, R. B., 1917, Some problems of the oxides of iron: Wash. Acad. Sci. Jour., v. 7, p. 55-72.
- 2236 Sosman, R. B., and Hostetter, J. C., 1917, Zonal growth in hematite and its bearing on the origin of certain iron ores: Am. Inst. Min. Metall. Eng. Bull., v. 126, p. 933-943; Trans., v. 58, p. 434-444, 1918.
- 2237 *Soule, J. H., 1947, Capitan iron deposits, Lincoln County, N. Mex.: U. S. Bur. Mines Rept. Inv. 4022, 8 p.
- 2238 _____ 1948, Silver Spot manganese-iron-zinc deposits, Grant County, N. Mex.: U. S. Bur. Mines Rept. Inv. 4217, 5 p.
- 2239 _____ 1949, Investigation of Capitan iron deposits, Lincoln County, N. Mex.: U. S. Bur. Mines Rept. Inv. 4514, 5 p.
- 2240 Spencer, A. C., 1901, The iron ores of Santiago, Cuba: Eng. Min. Jour., v. 72, p. 633-634.
- 2241 _____ 1904, Genesis of the magnetite deposits in Sussex County, N. J.: Min. Mag., v. 10, p. 377-381.
- 2242 * _____ 1907, Magnetite deposits of the Cornwall type in Berks and Lebanon Counties, Pa.: U. S. Geol. Survey Bull. 315, p. 185-189.
- 2243 * _____ 1908, Magnetite deposits of the Cornwall type in Pennsylvania: U. S. Geol. Survey Bull. 359, 102 p.
- 2244 * _____ 1908, Three deposits of iron ore in Cuba: U. S. Geol. Survey Bull. 340, p. 318-329.
- 2245 * _____ 1910, The Jauss iron mine, Dillsburg, Pa.: U. S. Geol. Survey Bull. 430, p. 247-249.
- 2246 _____ 1911, Occurrence, origin, and character of the surficial iron ores of Camagüey and Oriente provinces, Cuba: Am. Inst. Min. Metall. Eng. Bull., v. 51, p. 230-237; Trans., v. 42, p. 103-109, 1912.
- 2247 *Spencer, A. C., and Paige, Sidney, 1935, Geology of the Santa Rita mining area, N. Mex.: U. S. Geol. Survey Bull. 859, 78 p.
- 2248 *Spencer, A. C., Kummel, H. B., Wolff, J. E., Salisbury, R. D., and Palache, Charles, 1908, Description of the Franklin Furnace quadrangle, New Jersey: U. S. Geol. Survey Geol. Atlas, folio 161, 27 p.
- 2249 Spencer, E., and Percival, F. G., 1952, The structure and origin of the banded hematite jaspers of Singhbhum, India: Econ. Geology, v. 47, no. 4, p. 365-383.
- 2250 Sperber, Hans, 1952, Geologische Beobachtungen in Bereiche der Salzbacher Gruben: Geol. Blätter Nordost-Bayern, Band 2, Heft 2, p. 72-74.

Index
No.

- 2251 Spiroff, Kiril, 1938, Magnetite crystals from meteoric solutions: *Econ. Geology*, v. 33, no. 8, p. 818-828.
- 2252 Spuhler, Ludwig, 1940, Bergbau zu Imsbach am Donnersberg: *Poll-ichia, Neue Folge*, Band 8, p. 125-161.
- 2253 Spurr, J. E., 1894, The iron-bearing rocks of the Mesabi range in Minnesota: *Minn. Geol. Survey Bull.* 10, 268 p.
- 2254 _____ 1894, The iron ores of the Mesabi range, Minnesota: *Am. Geologist*, v. 13, p. 335-345.
- 2255 _____ 1902, The original source of the Lake Superior iron ores: *Am. Geologist*, v. 29, p. 335-349.
- 2256 _____ 1927, Iron ores of Iron Mountain and Pilot Knob: *Eng. Min. Jour.*, v. 123, no. 9, p. 363-366.
- 2257 Staatz, M. H., 1948, Iron sand resources of Japan: Allied Powers, GHQ, Tokyo, *Nat. Res. Sec. Rept.* 98, 30 p., 1947; *supp.*, Descriptions of iron sand mines, 1948.
- 2258 Stahl, Alfred, 1930, Eisenerze im nordlichen Südwestafrika: *Neues Jahrb.*, Beil.-Band 64, Abt. B, no. 2, p. 165-200.
- 2259 Stainer, X., 1936, Les gisements de carbonate de fer du houiller de Belgique: *Soc. sci. Bruxelles Annales* 56, no. 3, p. 404-422.
- 2260 Staley, W. W., 1948, Distribution of heavy alluvial minerals in Idaho: *Idaho Bur. Mines and Geology, Min. Res. Rept.* 5, 12 p.
- 2261 Stampe, J. A., Mosier, McHenry, and others, 1949, Magnetic surveys of certain magnetite deposits in New Jersey, Part 2, Morris, Passaic, Sussex, and Warren Counties: *U. S. Bur. Mines. Rept. Inv.* 4432, 8 p.
- 2262 Standerline, G. V., 1944, British iron ore and ironstone: *Mine and Quarry Eng.*, v. 9, nos. 5, 6, 8, p. 119-123, 143-146, 197-201.
- 2263 Stappenbeck, R., 1937, Eindrücke von einer geologisch-bergmannischen Studienreise durch den Staat Minas Geraes, Brasilien: *Freiberg. Geol. Gesell. Ber.* 16, p. 13-21.
- 2264 Stark, J. T., 1929, Agawa iron formation of northeastern Minnesota: *Econ. Geology*, v. 24, no. 5, p. 528-541.
- 2265 Stauffer, C. R., and Thiel, G. A., 1944, The iron ores of southeastern Minnesota: *Econ. Geology*, v. 39, no. 5, p. 327-339.
- 2266 _____ 1949, The iron ores of southeastern Minnesota: *Minn. Geol. Survey Summary Rept.* no. 3, 6 p.
- 2267 *Stebinger, Eugene, 1914, Titaniferous magnetite beds on the Blackfeet Indian Reservation, Mont.: *U. S. Geol. Survey Bull.* 540-H, p. 329-337.
- 2268 Steelways, 1953, Report on taconite [Late Superior]: *Its* v. 9, no. 5, p. 1-5.
- 2269 Steidtmann, Edward, 1932, The iron ore deposits of Pilot Knob, Mo., Mining districts of the eastern United States: *Internat. Geol. Cong.*, 16th sess., United States, 1933, *Guidebook* 2, p. 68-73.
- 2270 Stella, Augusto, 1921, Le miniere di ferro dell'Italia: *Torino-Genova, Primo Congresso minerario nazionale*, 426 p.
- 2271 Stenzel, H. B., Fountain, H. C., and Kinney, D. M., 1948, Iron, in *Geological resources of the Trinity River tributary area in Oklahoma and Texas*: *Tex. Univ., Bur. Econ. Geology Pub.* 4824, p. 185-193.
- 2272 Stephens, W. W., and Morning, J. L., 1949, Pilot-plant production of steel from sponge iron: *U. S. Bur. Mines Rept. Inv.* 4498, 21 p.
- 2273 Stephenson, R. C., 1945, Titaniferous magnetite deposits of the Lake Sanford area, N. Y.: *Am. Inst. Min. Metall. Eng. Tech. Pub.* 1789, 25 p.; *Trans.*, v. 178, p. 397-420, 1948.

Index
No.

- 2274 Stephenson, R. C., 1945, Titaniferous magnetite deposits of the Lake Sanford area, N. Y.: N. Y. State Mus. Bull. 340, 95 p.
- 2275 Stevenson, J. J., 1877, Report of progress in the Fayette and Westmoreland district of the bituminous coal fields of western Pennsylvania: Pa. Geol. Survey, 2d, Rept. Progress K², 437 p.
- 2276 Stewart, C. A., 1908, The magnetic belts of Putnam County, N. Y.: Columbia Univ. School Mines Quart., v. 29, p. 283-294.
- 2277 Stewart, L. A., 1947, Apache iron deposit, Navajo County, Ariz.: U. S. Bur. Mines Rept. Inv. 4093, 87 p.
- 2278 Stockley, G. M., 1945, The Liganga (titaniferous) magnetite deposits: Min. Mag., v. 73, no. 5, p. 265-274.
- 2279 *Stoddard, J. C., and Callen, A. C., 1910, Ocher deposits of eastern Pennsylvania: U. S. Geol. Survey Bull. 430, p. 424-439.
- 2280 Stoek, H. H., 1892, Notes on the iron ores of Danville, Pa.: Am. Inst. Min. Metall. Eng. Trans., v. 20, p. 369-385.
- 2281 Stoltz, G. C., 1908, The Forest of Dean iron mine: Eng. Min. Jour., v. 85, p. 1091-1093.
- 2282 Stone, J. B., 1934, Limonite deposits at the Orient mine, Colo.: Econ. Geology, v. 29, no. 4, p. 317-329.
- 2283 Stone, R. W., 1932, Geology and mineral resources of Green County, Pa.: Pa. Geol. Survey, 4th ser., Bull. C-2, 175 p.
- 2284 _____ 1939, Geology and mineral resources of Greene County, Pa.: Pa. Geol. Survey, 4th ser., Bull. C-2, p. 183-186.
- 2285 Stose, A. J., and Stose, G. W., 1944, Geology of the Hanover-York district, Pa.: U. S. Geol. Survey Prof. Paper 204, 84 p. \$1.75.
- 2286 *Stose, G. W., 1909, Description of the Mercersburg-Chambersburg quadrangle, Pennsylvania: U. S. Geol. Survey Geol. Atlas, folio 170, 20 p.
- 2287 _____ 1924, Notes on the origin of Clinton hematite ores: Econ. Geology, v. 19, no. 5, p. 405-411.
- 2288 _____ 1932, Geology and mineral resources of Adams County, Pa.: Pa. Geol. Survey, 4th ser., Bull. C-1, 153 p.
- 2289 *Stose, G. W., and Jonas, A. I., 1933, Geology and mineral resources of the Middletown quadrangle, Pa.: U. S. Geol. Survey Bull. 840, 86 p.
- 2290 _____ 1939, Geology and mineral resources of York County, Pa.: Pa. Geol. Survey, 4th ser., Bull. C-67, p. 183-186.
- 2291 Stout, Wilber, 1916, Geology of southern Ohio, including Jackson and Lawrence Counties and parts of Pike, Scioto, and Gallia: Ohio Geol. Survey, 4th ser., Bull. 20, 723 p.
- 2282 _____ 1918, Geology of Muskingum County: Ohio Geol. Survey, 4th ser., Bull. 21, 351 p.
- 2293 _____ 1927, Geology of Vinton County: Ohio Geol. Survey, 4th ser., Bull. 31, 402 p.
- 2294 _____ 1940, Marl, tufa rock, travertine, and bog ore in Ohio: Ohio Geol. Survey, 4th ser., Bull. 41, 56 p.
- 2295 _____ 1944, The iron ore bearing formations of Ohio: Ohio Geol. Survey, 4th ser., Bull. 45, 230 p.
- 2296 _____ 1946, Mineral resources of Ohio: Ohio Geol. Survey Inf. Circ. no. 1, 33 p.
- 2297 Strakhov, N. M., 1940, (On some regularities of the formation of hypergeneous deposits of iron ores): Akad. nauk SSSR Izv., Ser. Geol. 3, p. 3-37. [Russian, English summary.]

Index
No.

- 2298 *Stratton, E. F., and Joyce, J. W., 1932, A magnetic study of some iron deposits: U. S. Bur. Mines Tech. Paper 528, 32 p.
- 2299 Strauss, C. A., 1947, Notes on the microscopic features of the magnetic iron ores of the Bushveld complex, with discussion: Geol. Soc. South Africa Trans., v. 49, p. 35-49.
- 2300 Strong, Moses, 1882, Geology of the Mississippi region north of the Wisconsin region: Wis. Geol. Survey, Geology of Wisconsin 1873-1879, v. 4, p. 49-56.
- 2301 Strong, Phil, 1950, Minnesota's iron giant: Holiday, July 1950, p. 90-97, 112-116.
- 2302 Stutzel, Helmut, 1933, Die Erze der Grube Theodor bei Aumenau und ihr Verhältnis zum Nebengestein: Neues Jahrb., Beil.-Band 67, Abt. A, Heft 2, p. 155-195.
- 2303 Stutzer, O., 1906, Die Eisenerzlagerstätten bei Kiruna (Kirunavaara, Luossavaara, und Tuollavaara): Zeitschr. prakt. Geologie, Band 14, p. 65-71.
- 2304 _____ 1906, Die Eisenerzlagerstätten bei Kirunavaara: Zeitschr. prakt. Geologie, Band 14, p. 104-142.
- 2305 _____ 1906, Die Eisenerzlagerstätten "Gellivare" in Nordschweden: Zeitschr. prakt. Geologie, Band 14, p. 137-140.
- 2306 _____ 1906, Ueber die Entstehung und Eintheilung der Eisenerzlagerstätten: Zeitschr. Berg- Hutten- u. Salinenw. Preussischen Staate, Band 54, p. 301-304.
- 2307 _____ 1907, The geology and origin of the Lapland iron ores: Iron and Steel Inst. Jour., v. 74, p. 106-206.
- 2308 _____ 1908, Review of the geology and origin of the Lapland iron ores: Econ. Geology, v. 3, p. 545-553.
- 2309 Sudo, Tosio, 1939, Studies on the iron ore deposits in Manchoukuo: Obshch. izucheniya Manchzhursk. kraya Trudy 3, no. 8, p. 317-372.
- 2310 _____ 1940, On the ores from Rorei iron ore deposits, Tohendo, Manchoukuo, part 2: Geol. Soc. Japan Jour., v. 47, no. 557, p. 66-77. [Japanese, English summary.]
- 2311 _____ 1940, On the ores from the Dairisiko and Hatidoko iron ore deposits, Tohendo, Manchoukuo: Geol. Soc. Japan Jour., v. 47, no. 559, p. 135-142. [Japanese, English summary.]
- 2312 _____ 1942, Geology and mineralogy of the Tertiary iron-sand deposits in Japan: Geol. Soc. Japan Jour., v. 49, no. 588, p. 335-355.
- 2313 _____ 1944, Iron ores from the Sinko mine, Rensenmen, Huneigun, Kankyohokudo: Geol. Soc. Japan Jour., v. 51, no. 606, p. 91-96.
- 2314 Sullivan, J. D., 1955, Beneficiating iron ore (North American practices), in Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954.II.D.5, New York, p. 106-121.
- 2315 Sullivan, J. W., 1942, The geology of the Sand-Lookout Mountain area, northwest Georgia: Ga. Geol. Survey Inf. Circ. 15, 68 p.
- 2316 Summersbach, B., 1905, Die nutzbaren mineralischen Bodenschätze in der kleinasiatischen Türkei: Zeitschr. Berg- Hutten- u. Salinenw. Preussischen Staate, Band 52, Abh., p. 515-557.
- 2317 Sun, C. C., 1938, Iron deposit of Lingsiang, O-Cheng, Hupei: Geol. Survey China. Geol. Bull. 31, p. 7-9. [Chinese, English summary.]
- 2318 _____ 1938, Iron deposit of Tayeh district, Hupei: Geol. Survey China Geol. Bull. 31, p. 1-5. [Chinese, English summary.]

Index
No.

- 2319 Supreme Commander for the Allied Powers, Natural Resources Section, 1948, A report on Japanese natural resources: Allied Powers, GHQ, Tokyo, 559 p.
- 2320 Svitalskiy, N. I., 1932, The iron ore deposits of Krivoi Rog: Vses. geol.-razved. ob'yedneniya Trudy, vyp. 153, 273 p. [Russian, English summary.]
- 2321 Svoboda, J., and Prantl, F., 1951, [From a new investigation of the Ordovician iron ores of Bohemia]: Ústřední ústav geol. Věstník, ročník 26, p. 274-284. [Czech and English.]
- 2322 *Swank, J. M., 1883, Utilization of blast-furnace slag: U. S. Geol. Survey Min. Res. U. S., 1882, pt. b, p. 161-164.
- 2323 * _____ 1885, The manufacture of iron and steel in the United States: (history): U. S. Geol. Survey Min. Res. U. S., 1883-1884, pt. c, p. 246-248.
- 2324 * _____ 1886, Iron, twenty-one years of progress in the manufacture of iron and steel in the United States: U. S. Geol. Survey Min. Res. U. S., 1885, pt. b, p. 180-195.
- 2325 * _____ 1887, The American iron industry from its beginning in 1619 to 1886: U. S. Geol. Survey Min. Res. U. S., 1886, pt. a, p. 23-38.
- 2326 _____ 1892, History of the manufacture of iron in all ages: 2d ed., Philadelphia, The American Iron and Steel Assoc., 554 p.
- 2327 * _____ 1893, Twenty years of progress in the manufacture of iron and steel in the United States: U. S. Geol. Survey Min. Res. U. S., 1891, pt. a, p. 47-73.
- 2328 * _____ 1894, Iron and steel and allied industries in all countries: U. S. Geol. Survey Min. Res. U. S., 1894 (Pt. 3 of 16th Ann. Rept.), pt. b, p. 219-250.
- 2329 * _____ 1901, Iron and steel at the close of the nineteenth century (including a chronological record): U. S. Geol. Survey Min. Res. U. S., 1900, pt. a, p. 69-90.
- 2330 Swanson, C. O., 1925, The genesis of the Texada Island magnetite deposits: Canada Geol. Survey Summary Rept. 1924, pt. A, p. 106-144.
- 2331 _____ 1930, Report on the portion of the Marquette range covered by the Michigan Geological Survey in 1929: Mich. Geol. Survey, 15 p.
- 2332 _____ 1934, Use of magnetic data in Michigan iron ranges: Am. Inst. Min. Metall. Eng. Trans., v. 110, Geophys. Prosp., p. 290-312.
- 2333 Sweeting, G. S., 1944, Wealden iron ore (England) and the history of its industry: Geologists' Assoc. London Proc., v. 55, pt. 1, p. 1-20.
- 2334 Swineford, A. P., 1871, Swineford's history of the Lake Superior iron district—its mines and furnaces: Marquette, Min. Jour. Office, 2d ed., 98 p.
- 2335 _____ 1876, History and review of the copper, iron, silver, slate, and other material interests of the south shore of Lake Superior: Marquette, Mich., 280 p.
- 2336 Syed Ali Bilgrami [Bilgrami, S. A.], 1899, Iron industry in the territory of His Highness the Nizam of Hyderabad Deccan: Iron and Steel Inst. Jour., v. 56, p. 65-82.
- 2337 Sztrokay, Kalman, 1941, Über das Vorkommen des Magnetits im Mecsek-Gebirge (Ungarn): Földtani Közlöny, kötet 71, f. 4-6, p. 95-106. [Hungarian, German summary.]
- 2338 Taffanel, J., 1903, Le gisement de fer spathique de l'Erzberg, près Eisenerz, en Styrie: Annales mines [Paris] Mém., sér. 10, tome 4, p. 24-48.

Index
No.

- 2339 Tan, H. C., 1935, The iron ore deposits in the Yunfu and Tzuchin districts, Kwangtung province: Peiyang Eng. Coll., Eng. Research Inst., Mem. 1, 38 p. [Chinese, English summary.]
- 2340 Tan, H. C., and Kao, P., 1936, The iron ore deposits in the Yunfu district, Kwangtung: Geol. Survey China Bull. 27, p. 39-43.
- 2341 _____ 1936, The Paoshanchang iron ore deposits in the Tsuchin district, Kwangtung: Geol. Survey China Bull. 27, p. 31-35.
- 2342 Tanton, T. L., 1924, Iron formation at Gravel Lake, Thunder Bay district, Ont.: Canada Geol. Survey Summary Rept. 1923, pt. C1, p. 1-5.
- 2343 _____ 1931, The Matawin iron range: Canadian Min. Jour., v. 52, no. 21, p. 522-524.
- 2344 _____ 1941, Areas in the vicinity of Steeprock Lake, Rainy River district, Ont. (summary account): Canada Geol. Survey Paper 41-13, 6 p.
- 2345 _____ 1941, Origin of the hematite deposits at Steeprock Lake, Ontario: Royal Soc. Canada Trans., ser. 3, v. 35, sec. 4, p. 131-141.
- 2346 _____ 1944, Hematite deposit, Hincks Township, Gatineau County, Que.: Canada Geol. Survey Paper 44-21, 9 p.
- 2347 _____ 1946, The iron ore at Steeprock Lake (Ont.): Royal Soc. Canada Trans. 3d ser., v. 40, sec. 4, p. 103-111.
- 2348 Tarr, W. A., 1930, Introductory economic geology: New York, McGraw-Hill Book Co., p. 85-115.
- 2349 Taylor, C. F., and Booth, W. M., 1912, The Ontario iron mine, N. Y.: Eng. Min. Jour., v. 94, p. 893-895.
- 2350 Taylor, J. H., 1949, The Mesozoic ironstones of England; petrology of the Northampton Sand ironstone formation: Geol. Survey Great Britain Mem., 111 p.
- 2351 Taylor, W. L., 1929, The Mesabi iron range: Min. Cong. Jour., v. 15, no. 10, p. 788-792.
- 2352 Tebenkov, V. P., 1937, Limonite in post-Pliocene deposits of Soviet Far East, problems and methods of their investigation: Akad. nauk SSSR, Dal'nevostochnoye otdel. filial Izv. 25, p. 19-39. [Russian, English summary.]
- 2353 Tebenkov, V. P., and Nikiforov, A. N., 1939, Iron deposits in the Far Eastern region of the Soviet Union: Akad. nauk SSSR, Dal'nevostochnoye otdel. filial Izv. 30, p. 5-17.
- 2354 Tegengren, F. R., 1924, Iron ores and industry of China: Geol. Survey China Mem., ser. A., no. 2, 457 p.
- 2355 Tello B., Manuel, and Zuloaga, Guillermo, 1942, Geologia de los yacimientos metalíferos y recursos minerales de Venezuela: Am. Sci. Cong., 8th, Washington, 1940, Proc., v. 4, p. 681-691.
- 2356 Teodorovich, G. I., 1939, On the genesis of iron ores of Novo-Troitsky deposits belonging to the Khalilov type: Moskov. obshch. ispytateley Prirody Izv. nov. ser., tom 47, p. 144-157. [Russian, English summary.]
- 2357 Teixeira, E., 1927, Iron ore resources of Brazil: Eng. Min. Jour., v. 124, no. 19, p. 730-735.
- 2358 Thadeu, Décio, 1953, Le gisement de fer de Moncorvo (Concession de Fragas da Carvalhosa): Soc. Geol. Portugal Bol., v. 10, fasc. 1, 2, 3, p. 59-76.
- 2359 Theobald, N., 1948, Developpement des mineraux de fer dans les étages de l'aalénien et du bajocien de la vallée du Rhin moyen (Alsace, Bade): Service carte géol. Alsace-Lorraine Mem. 8, 55 p.

Index
No.

- 2360 Thiel, G. A., 1924, Commercial possibilities of the magnetite slates of the Cuyuna range (Minnesota): Eng. Min. Jour. -Press, v. 118, no. 19, p. 735-738.
- 2361 _____ 1924, Iron sulfides in magnetic belts near the Cuyuna range: Econ. Geology, v. 19, no. 5, p. 466-472.
- 2362 _____ 1926, Phosphorus iron ores in the Cuyuna range, Minn.: Eng. Min. Jour. -Press, v. 121, no. 17, p. 687-690.
- 2363 _____ 1927, Geology of the Cuyuna range: Geol. Soc. America Bull., v. 38, no. 4, p. 783-793.
- 2364 _____ 1953, The iron ores of southern Minnesota: Earth Science Digest, v. 7, no. 2, p. 13-15.
- 2365 Thirion, Charles, 1936, Étude géologique sommaire des gîtes de man-ganèse et de fer de Saphoz (Haute-Saône): Cong. internat. mines, 7^e sess., Paris, 1935, p. 165-171.
- 2366 Thoenen, J. R., and Warne, J. D., 1948, Alabama red iron ores, Greasy Cove and Shinbone Ridge, St. Clair and Etowah Counties: U. S. Bur. Mines Rept. Inv. 4243, 35 p.
- 2367 Thoenen, J. R., Reed, A. H., Jr., and Clemmons, B. H., 1953, The future of Birmingham red iron ore, Jefferson County, Ala., Pt. 1, History and ore reserves; Pt. 2, Concentration: U. S. Bur. Mines Rept. Inv. 4988, 71 p.
- 2368 *Thom, W. T., 1909, Map showing location of blast furnaces in the United States in 1908: U. S. Geol. Survey Min. Res. U. S., 1908, pt. 1-a map.
- 2369 Thomas, G. G., 1952, Newfoundland explores its mineral wealth: Min. Eng., v. 4, no. 7, p. 672-273.
- 2370 Thomas, Kirby, 1904, Notes on the geology of a new iron district in Minnesota (Aitkin County): Mines and Minerals, v. 25, p. 27.
- 2371 Thomas, L. O., 1943, Mineral possibilities of areas adjacent to the Alaska Highway, pt. 1, Yukon section: Canadian Inst. Mining and Metallurgy Trans., v. 46, p. 375-401.
- 2372 _____ 1944, Mineral possibilities of areas adjacent to the Alaska Highway, pt. 2, British Columbia section: Canadian Inst. Mining and Metallurgy Trans., v. 47, p. 203-243.
- 2373 Thompson, N. E., 1938, Red ore from Raimund (Ala.): Eng. Min. Jour., v. 139, no. 3, p. 29-32.
- 2374 Thompson, R. O., 1874, The iron deposits, in Campbell, R. A., Gazetteer of Missouri: St. Louis, p. 745-754.
- 2375 Tomson, J. E., 1935, Mineralization of the Little Long Lac and Sturgeon River areas: Toronto Univ. Studies, Geol. ser. 38, p. 37-45.
- 2376 Thunmark, Sven, 1943, Ueber rezente Eisenocker und ihre Mikroorganismengemeinschaft: Geol. Inst. Upsala Bull. 29, p. 1-285.
- 2377 *Thwaites, F. T., 1914, Recent discoveries of "Clinton" iron ore in eastern Wisconsin: U. S. Geol. Survey Bull. 540-H, p. 338-342.
- 2378 Tiemann, H. P., 1910, Iron and steel (a pocket encyclopedia): New York, McGraw-Hill Book Co., 354 p.
- 2379 Tien, C. C., Wang, H. C., and Liu, T. Y., 1934, The iron ores of Hunan: Hunan Geol. Survey Mem. ser. A, v. 1, 116p. [Japanese, English summary.]
- 2380 Tigerstedt, A. F., 1899, Magnetiska undersökningar i trakten af Jus-sarö: Fennia 14, no. 8, p. 1-19.
- 2381 Tillinghast, E. S., 1948, New York's Benson mines: Min. World, v. 10, no. 12, p. 27.

Index
No.

- 2382 Tilton, J. L., Prouty, W. F., Tucker, R. C., and Price, P. H., 1927, Detailed report on Hampshire and Hardy Counties: W. Va. Geol. Survey, 624 p.
- 2383 Ting, T. H., 1933, On the iron ore deposit of Beiyan Obo, Suiyuan: Geol. Survey China Bull. 23, p. 39-42. [Chinese, English summary.]
- 2384 Tipper, G. H., 1936, Vanadium-bearing magnetite deposits of Dahlbun and Mayurbhanj, Bihar, India: Imp. Inst. Bull., v. 34, no. 4, p. 449-452.
- 2385 Toron Villegas, Luis, and Esteve Torres, Adrian, 1946, Estudio de los yacimientos ferríferos de Mexico; Fasc. 2, Yacimientos del grupo del norte, Estados de Chihuahua, Coahuila, Durango, Nuevo León, y Zacatecas: Investigaciones Industriales del Banco de Mexico, 147 p.
- 2386 _____ 1947, Estudio de los yacimientos ferríferos de Mexico; Fasc. 3, Yacimientos del grupo del Pacífico Norte, Territorio Norte de Baja California, Estados de Sonora y Sinaloa: Investigaciones Industriales del Banco de Mexico, 309 p.
- 2387 Torrico-y-Mesa, J., 1901, Memoria acerca de las riquezas minerales de la Provincia de Cajatambo y especial de los Cerros de Chauca: Escuela Ingenieros Minas Lima Anales, ser. 2, v. 1, p. 1-70.
- 2388 Trasenster, P., 1896, The ore deposits of southern Russia: Colliery Guardian, v. 72, p. 353.
- 2389 Trask, P. D., and Simons, F. S., 1948, Minarets magnetite deposits of Iron Mountain, Madera County, Calif.: Calif. Div. Mines Bull. 129, pt. I, p. 117-128.
- 2390 Trauerman, C. J., and Reyner, M. J., 1950, Directory of Montana mining properties, 1949: Mont. Bur. Mines and Geology Mem. 31, 125 p.
- 2391 Trego, C. R., 1873, Observations of the iron ore deposits of Buckingham Mountain, Bucks County, Pa.: Am. Philos. Soc. Proc., v. 13, p. 264.
- 2392 Trillo-Figueroa, A. C., 1944, Iron deposits of Córdoba: Inst. Geol. Min. España Mem., tomo 6, p. 3-176.
- 2393 _____ 1944, Iron deposits of Jaen: Inst. Geol. Min. España Mem., tomo 6, p. 179-264.
- 2394 Trost, A. H., 1948, Adirondacks mining, its past and its future: Canadian Min. Jour., v. 69, no. 5, p. 75-80.
- 2395 Trotter, F. M., 1945, The origin of the west Cumbrian haematites: Geol. Mag., v. 82, no. 2, p. 67-80.
- 2396 Trotter, F. M., and Rose, W. C. C., 1942, Geology of the Forest of Dean coal and iron-ore field: Geol. Survey Great Britain Mem., 95 p.
- 2397 Troxell, J. R., 1948, Ahles iron mine, Warren County, N. J.: U. S. Bur. Mines Rept. Inv. 4240, 8 p.
- 2398 Trusheim, F., 1935, Ueber die Entstehung der Amberger Eisenerz-lagerstätten: Zeitschr. prakt. Geologie, Jahrg. 43, Heft 3, p. 45-48.
- 2399 Trüstedt, Otto, 1907, Die Erzlagerstätten von Pitkäranta am Ladoga-See: Comm. géol. Finlande Bull., no. 19, p. 1-333.
- 2400 Truter, F. C., and others, 1938, The geology and mineral resources of the Oliphants Hoek area, Cape Province; an explanation of sheet no. 173, Oliphants Hoek: Geol. Survey South Africa, 144 p.

Index
No.

- 2401 Tsentral'nyi nauchno-issledovatel'skiy geologo-razvedochniy institut, 1934, [The most important iron ore deposits of U. S. S. R., V. 1, European part; V. 2, Asiatic part]: Moskva, ONTI NKTL SSSR. [Russian, English summary.]
- 2402 Tsuru, Kazuo, 1931, Geology and ore deposits of the Miao Erh Kou iron mine district, South Manchuria: Ryojun Coll. Eng., Rept. 1 (3), p. 143-198. [Japanese, English summary.]
- 2403 _____ 1934, On a titano-magnetite deposit near Cheng te, Je ho province, Manchuria: Ryojun Coll. Eng., Inouye Commemoration Volume, p. 315-320.
- 2404 Tucker, W. B., 1946, Millspaugh iron deposit, Inyo County; Tiefert Mountains iron deposit, San Bernardino County: Calif. Jour. Mines and Geology, v. 42, Chap. 4, p. 319.
- 2405 Tucker, W. B., and Sampson, R. J., 1945, Mineral resources of Riverside County, Calif.: Calif. Jour. Mines and Geology, v. 41, Chap. 5, p. 121-182.
- 2406 Tullis, E. L., 1939, Black Hills ores: Black Hills Engineer, v. 25, no. 1, p. 48-56.
- 2407 Twelvetrees, W. H., 1901, Report on the Blythe River iron-ore deposit: Tasmania Sec. Mines Rept. 1900-1901, p. 171-183.
- 2408 _____ 1903, Report on mineral fields between Waratah and Long Plains: Hobart, Tasmania Sec. Mines, 38 p.
- 2409 _____ 1903, Report on the mineral resources of the districts of Beaconsfield and Salisbury: Hobart, Tasmania Sec. Mines, 62 p.
- 2410 Twenhofel, L. H., 1927, Changes in the oxidation of iron in magnetite: Econ. Geology, v. 22, no. 2, p. 180-188.
- 2411 Twenhofel, W. H., 1943, Origin of the black sands of the coast of southwest Oregon: Oreg. Dept. Geology and Mineral Industries Bull. 24, 25 p.
- 2412 Twenhofel, W. S., 1953, Potential Alaskan mineral resources for proposed electrochemical and electrometallurgical industries in the Upper Lynn Canal area, Alaska: U. S. Geol. Survey Circ. 252, 14 p.
- 2413 Tyler, S. A., 1949, Development of Lake Superior soft iron ores from metamorphosed iron formation: Geol. Soc. America Bull., v. 60, no. 7, p. 1101-1124.
- 2414 Tyler, S. A., and Twenhofel, W. H., 1952, Sedimentation and stratigraphy of the Huronian of upper Michigan: Am. Jour. Sci., v. 250, no. 1, p. 1-27.
- 2415 Umpleby, J. B., 1917, Manganiferous iron ore occurrences at Red Cliff, Colo.: Eng. Min. Jour., v. 104, p. 1140-1141.
- 2416 United Nations, 1955, Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954. II. D. 5, New York, 345 p.
- 2417 United Nations Department of Economic Affairs, 1950, World iron ore resources and their utilization: Lake Success, N. Y., 74 p.
- 2418 United Nations Economic Commission for Europe, Steel Section, 1951, European steel trends in the setting of the world market—Prospects for the European iron ore situation in 1953 and following years: Geneva, U. N. Dept. Econ. Affairs, 37 p.
- 2419 _____ 1951, Supplement to the study on prospects of the European iron ore situation in 1953 and following years: Geneva, U. N. Dept. Econ. Affairs.

Index
No.

- 2420 United States Bureau of Mines, Region V, 1954, Black Hills Mineral Atlas, South Dakota, Part 1: U. S. Bur. Mines Inv. Circ. 7688, p. 98-100.
- 2421 United States Department of Commerce, 1950, The mineral industries of New York State: Washington, 108 p.
- 2422 United States Department of State, 1947, Iron ore reserves of the world: U. S. State Dept., Office of Intelligence Research Rept. 4260, 29 p.
- 2423 _____ 1949, Energy resources of the world: U. S. Dept. State Pub. 3428.
- 2424 *United States Geological Survey, 1921, World Atlas of Commercial Geology; Pt. 1—Distribution of mineral production, 1921: U. S. Geol. Survey, 72 p.
- 2425 _____ 1933, Mineral resources map of the Tennessee River basin and adjoining areas: U. S. Geol. Survey. \$1.
- 2426 _____ 1944, Map showing distribution of past production and reserves of iron ore in the United States as of 1944, by districts, from Mineral Position of the United States, by the staffs of the U. S. Bureau of Mines and U. S. Geological Survey.
- 2427 _____ 1950, Aeromagnetic map of east-central Itasca County, Minn.: U. S. Geol. Survey open-file map.
- 2428 _____ 1950, Aeromagnetic map of northeastern Itasca and southeastern Koochiching Counties, Minn.: U. S. Geol. Survey open-file map.
- 2429 _____ 1950, Aeromagnetic map of northern Aitkin County, Minn.: U. S. Geol. Survey open-file map.
- 2430 _____ 1950, Aeromagnetic map of parts of Kanabec, Mille Lacs, and Pine Counties, Minn.: U. S. Geol. Survey open-file map.
- 2431 _____ 1950, Aeromagnetic map of southeastern Itasca County, Minn.: U. S. Geol. Survey open-file map.
- 2432 _____ 1950, Aeromagnetic map of southern Aitkin and northern Mille Lacs Counties, Minn.: U. S. Geol. Survey open-file map.
- 2433 _____ 1950, Mississippi iron ores may be commercially valuable, report finds: U. S. Geol. Survey Press Release, 2 p.
- 2434 _____ 1951, Aeromagnetic map of northeastern Koochiching County, Minn.: U. S. Geol. Survey open-file map.
- 2435 _____ 1951, Aeromagnetic map of northwestern Koochiching County, Minn.: U. S. Geol. Survey open-file map.
- 2436 _____ 1951, Aeromagnetic map of part of southeastern Koochiching County, Minn.: U. S. Geol. Survey open-file map.
- 2437 _____ 1951, Aeromagnetic map of parts of Beltrami and Clearwater Counties, Minn.: U. S. Geol. Survey open-file map.
- 2438 _____ 1951, Aeromagnetic map of parts of Lake of the Woods and Beltrami Counties, Minn.: U. S. Geol. Survey open-file map.
- 2439 _____ 1951, Aeromagnetic map of parts of Roseau and Lake of the Woods Counties, Minn.: U. S. Geol. Survey open-file map.
- 2440 _____ 1951, Aeromagnetic map of southwestern Koochiching County, Minn.: U. S. Geol. Survey open-file map.
- 2441 _____ 1952, Aeromagnetic map of the Wichita Mountain area, southwestern Oklahoma: U. S. Geol. Survey open-file map.
- 2442 _____ 1952, Preliminary aeromagnetic map of Lake County, Minn.: U. S. Geol. Survey open-file map.

Index
No.

- 2443 United States Geological Survey, 1952, Preliminary total-intensity aeromagnetic map of Greenwood Lake quadrangle, New Jersey: U. S. Geol. Survey open-file map.
- 2444 _____ 1952, Preliminary total-intensity aeromagnetic map of part of the Somerville quadrangle, N. J.: U. S. Geol. Survey open-file map.
- 2445 _____ 1952, Preliminary total-intensity aeromagnetic map of Plain-field quadrangle, New Jersey: U. S. Geol. Survey open-file map.
- 2446 _____ 1952, Preliminary total-intensity aeromagnetic map of Warwick and Pine Island quadrangles, New Jersey: U. S. Geol. Survey open-file map.
- 2447 _____ 1953, Preliminary total-intensity aeromagnetic map of Morristown quadrangle, New Jersey: U. S. Geol. Survey open-file map.
- 2448 _____ 1954, Beach sands of Puerto Rico found rich in iron: U. S. Geol. Survey Prelim. Rept., 2 p.
- 2449 United States Tariff Commission, 1938, Iron and steel: Rept. 128, 2d ser., 527 p.
- 2450 Upham, W. E., 1911, Specular hematite deposits, Planet, Ariz.: Min. Sci. Press, v. 102, p. 521-523.
- 2451 Uspensky, N. A., 1940, On the origin of the Alapaievsk iron ore deposits: Vseros. mineralog. obshch. Zapiski, tom 69, vyp. 1, p. 97-120. [Russian, English summary.]
- 2452 Vacquier, V., Steenland, N. C., Henderson, R. G., and Zietz, Isidore, 1951, Interpretation of aeromagnetic maps: Geol. Soc. America Mem., v. 47, 151 p.
- 2453 Vadasz, Elemer, 1933, Oolithische Roteisenerzlagerstätten in Aegypten: Zentralbl. Mineralogie 1933, Abt. A, no. 5, p. 161-175.
- 2454 Valdes, B. L., 1955, Iron ore deposits of South America, in Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954.II.D.5, New York, p. 209-223.
- 2455 Vallat, B. W., 1907, The iron mines and system of mining at Sunrise mine, Wyo.: Colo. Sci. Soc. Proc., v. 8, p. 315-322.
- 2456 _____ 1908, Methods of mining iron ore at Sunrise, Wyo.: Eng. Min. Jour., v. 85, p. 399-403.
- 2457 _____ 1911, The Newport iron mine (Ironwood, Mich.): Am. Inst. Min. Metall. Eng. Bull., v. 59, p. 903-921; Trans., v. 42, p. 676-694.
- 2458 Van Alstine, R. E., and Black, R. F., 1944, Mineral deposits of Orange Hill, Alaska: U. S. Geol. Survey Prelim. Rept., p. 1, 8.
- 2459 Van Barneveld, C. E., 1912, Iron mining in Minnesota: Minn. School Mines Expt. Sta. Bull. 1, 214 p.
- 2460 Vanderwilt, J. W., 1947, Mineral resources of Colorado: Colo. Min. Res. Board, 547 p.
- 2461 Van Hise, C. R., 1889, The chemical origin of the Vermilion Lake iron ores: Am. Geologist, v. 4, p. 382-383.
- 2462 _____ 1889, The iron ores of the Penokee-Gogebic series of Michigan and Wisconsin: Am. Jour. Sci., 3d ser., v. 37, p. 32-48.
- 2463 _____ 1892, The iron ores of the Lake Superior region: Wis. Acad. Sci. Trans., v. 8, p. 219-227.
- 2464 _____ 1892, The iron ores of the Marquette district of Michigan: Am. Jour. Sci., 3d ser., v. 43, p. 116-132.
- 2465 _____ 1901, The iron-ore deposits of the Lake Superior region: U. S. Geol. Survey 21st Ann. Rept., 1899-1900, pt. 3c, p. 305-434.

Index
No.

- 2466 *Van Hise, C. R., and Bayley, W. S., 1895, Preliminary report on the Marquette iron-bearing district of Michigan, with a chapter on the Republic trough, by H. L. Smyth: U. S. Geol. Survey 15th Ann. Rept., 1893-94, pt. e, p. 477-650.
- 2467 * _____ 1897, The Marquette iron-bearing district of Michigan, with atlas, including a chapter on the Republic trough, by H. L. Smyth: U. S. Geol. Survey Mon. 28, 608 p.
- 2468 * _____ 1900, Description of the Menominee quadrangle, Michigan: U. S. Geol. Survey Geol. Atlas, folio 62, 13 p.
- 2469 *Van Hise, C. R., and Leith, C. K., 1911, The geology of the Lake Superior region: U. S. Geol. Survey Mon. 52, 641 p.
- 2470 Van Houten, F. B., 1948, Origin of red-banded early Cenozoic deposits in Rocky Mountain region: Am. Assoc. Petroleum Geologists Bull., v. 32, no. 11, p. 2083-2126.
- 2471 Van Leckwijck, William, 1951, On the age and nature of the iron ores of the region between Christian and the Phosphates plateau, central Morocco: Acad. sci. [Paris] Comptes rendus, v. 232, p. 2241-2243.
- 2472 Van Royen, William, and Bowles, Oliver, 1952, The mineral resources of the world, V. 2 of Atlas of the world's resources: New York, Prentice-Hall, 181 p.
- 2473 Van Werveke, L., 1903, Bemerkungen über die Zusammensetzung und die Entstehung der lothringisch-luxemburgischen oolithischen Eisenerze (Minetten): Geol. Landesanst. Elsass-Lothringen Mitt., v. 1, p. 275-310.
- 2474 Vardabasso, Silvio, 1953, Sull'origine paleoclimatica dei giacimenti di ferro dell'Ogliastra (Sardegna orientale), in La genèse des gîtes de fer: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 145-151.
- 2475 Varsanofeva, V. A., 1944, About the problem of the age and origin of the Ust-Berdysh deposit of limonite on the Unya River: Akad. nauk. SSSR Izv., Ser. geol., vyp. 2, p. 80-86. [Russian, English summary.]
- 2476 Vasil'yev, A. A. (Vasiljew), and Kisely, I. A. (Kissilev), 1932, The Emyr iron deposit, the Enissey river basin: Zapadno-sibirsk. geol.-razved. trest Izv. 12, vyp. 1, p. 17-24, Tomsk. [Russian, English summary.]
- 2477 Venturo, P. C., 1904, Los yacimientos de fierro de Tambo Grande: Cuercpc Ingenieros Minas Peru Bol. no. 8, p. 7-25.
- 2478 Vernon, J. W., 1950, Iron, in Mineral commodities of California: Calif. Div. Mines Bull. 156, p. 315-319.
- 2479 Verrow, H. J., 1942, Franconia iron mine, Lisbon, N. H.: Rocks and Minerals, v. 17, no. 4, p. 136-139.
- 2480 Vestal, F. E., 1943, Choctaw County mineral resources; geology by F. E. Vestal; tests by T. E. McCutcheon: Miss. Geol. Survey Bull. 52, p. 96-97.
- 2481 _____ 1951, Webster County iron ores: Miss. Geol. Survey Bull. 73, 48 p.
- 2482 _____ 1952, Webster County geology: Miss. Geol. Survey Bull. 75, 141 p.
- 2483 _____ 1954, Marshall County geology: Miss. Geol. Survey Bull. 78, 193 p.
- 2484 Vie, Georges, 1934, Les gisements de fer pyreneens: Mines, carrieres, année 13, no. 144, p. 1-8.
- 2485 Vigh, Gyula, 1950, Eisenerzvorkommen der Gegend Nagyleta, Kokad, Almosd und Bagamer: Magyar állami Földt. Intézet. Evi Jelentése 1939-40, pt. 3, p. 139-245. [Hungarian, German summary.]

Index
No.

- 2486 Villain, François, 1902, Le gisement de minerai de fer oolithique de la Lorraine: Annales mines [Paris] Mém., sér. 10, tome 1, p. 113-322.
- 2487 Villain, P., 1899, Note sur le gisement de minerai de fer du département de Meurthe-et-Moselle: Soc. Belge géologie Mém., v. 13, p. 116-127.
- 2488 ——— 1899, Sur la genèse des minerais de fer de la région Lorraine: Acad. sci. [Paris] Comptes rendus 128, p. 1291-1293.
- 2489 Villarello, J. de D., and Boese, E., 1902, Criaderos de fierro de la hacienda de Vaquerias, en el Estado de Hidalgo: Inst. Geología México Bol. 16, p. 15-44.
- 2490 Vincienne, Henri, 1949, Sur le gisement de fer de Chaillac (Indre): Acad. sci. [Paris] Comptes rendus, tome 229, no. 8, p. 473-475.
- 2491 Vlassenko, A., 1930, Genesis der Eisenerze der Abakan'schen Eisenhütte: Internat. Geol. Cong. 15th sess., South Africa, 1929, Compte rendu 2, p. 18-27.
- 2492 Vogt, J. H. L., 1903, Die regional-metamorphosierten Eisenerzlager im nordlichen Norwegen: Zeitschr. prakt. Geologie, Band 11, p. 24-28, 59-65.
- 2493 Vologdin, A. G., 1947, A new iron-ore deposit in the region of the lower Angara: Akad. nauk SSSR Doklady, tom 56, vyp. 1, p. 65-68.
- 2494 von Bülow, Kurd, 1949, Entstehung der alluvialen Eisenerzlagerstätten Mecklenburgs: Geol. Landesanst. [Germany] Archiv Lagerstättenf., Heft 79, 17 p.
- 2495 von der Weid, Frederic, 1940, Minéralisations de la région des Guedmioua: Soc. physique et histoire nat. Genève Compte rendu, v. 57, no. 2, p. 133-136.
- 2496 Voskuil, W. H., 1930, Minerals in modern industry: New York, John Wiley and Sons, p. 170-197.
- 2497 Wade, Bruce, 1914, The geology of Perry County and vicinity: Tenn. Geol. Survey, Res. Tenn., v. 4, p. 150-181.
- 2498 Wade, H. H., and Alm, M. R., 1954, Mining directory of Minnesota: Minn. Univ., School Mines Expt. Sta. Bull., v. 57, no. 9, 274 p.
- 2499 Wadsworth, M. E., 1880, Notes on the geology of the iron and copper districts of Lake Superior: Harvard Coll. Mus. Comp. Zoology Bull., v. 7, p. 1-157.
- 2500 ——— 1880, On the origin of the iron ores of the Marquette district, Lake Superior: Boston Soc. Nat. History Proc., v. 20, p. 470-479.
- 2501 ——— 1881, A microscopical study of the iron ore or peridotite of Iron Mine Hill, Cumberland, R. I.: Harvard Coll. Mus. Comp. Zoology Bull., v. 7, p. 183-187.
- 2502 ——— 1893, A sketch of the geology of the iron, gold, and copper districts of Michigan: Mich. Geol. Survey Rept. 1891-2, p. 75-174.
- 2503 Wagner, P. A., 1928, The iron deposits of the Union of South Africa: Geol. Survey South Africa Mem. 26, 268 p.
- 2504 Wahl, W. G., 1953, Temiscamie River area, Mistassini Territory: Quebec Dept. Mines Geol. Rept. 54, 32 p.
- 2505 Walford, E. A., 1896, On the making of the middle Lias ironstone of the Midlands: Iron and Steel Inst. Jour., v. 49, p. 74-78.
- 2506 Walker, A. E., 1943, Geology of the Clifton and Parish (New York) ore deposits: Min. and Metallurgy, v. 24, no. 443, p. 519-520.

Index
No.

- 2507 Walker, Frederick, 1952, Late magmatic ores and the Palisade diabase sheet: *Econ. Geology*, v. 47, no. 3, p. 349-351.
- 2508 Walker, T. L., 1930, Lodestone from Bon Accord, Transvaal: *Toronto Univ. Studies, Geol. ser. no. 29*, p. 17-20.
- 2509 _____ 1931, Polarity in magnetite: *Toronto Univ. Studies, Geol. ser. no. 30*, p. 15-20.
- 2510 Wang, C. C., and Hsiung, Y. H., 1941, Geology and iron deposits of Kuangshan in Fulinghsien and Kuangtungyai and Chichiaoshan in Pengshuihsien, Szechuan: *Geol. Survey China Geol. Bull. 34*, p. 1-6. [Chinese, English summary.]
- 2511 Wang, C. S., 1946, The origin of the Luipo iron ore in western Szechuan: *Geol. Soc. China Bull. 24*, p. 263-268.
- 2512 Wang, C. T., 1930, A study of general and economic geology along the Cheng-T'ai (Shansi) Railway: *Geol. Survey China Geol. Bull. 15*, p. 53-118.
- 2513 Wang, Y. L., 1940, Iron ore deposits of Kunyang, Oshan, Yuichi, Hosi, Chuchi, and Lungwu districts, Yunnan: *Geol. Survey China Geol. Bull. 38*, p. 27-29.
- 2514 Wang, Y. L., Liu, T. Y., and Cheng, Y. C., 1938, Geology of the iron ore deposit of Ninghsiang, Hunan: *Geol. Survey China Geol. Bull. 32*, p. 1-32. [Chinese, English summary.]
- 2515 Ward, L. K., 1949, The genesis of the iron ores of the Middleback range, South Australia: *Australasian Inst. Min. and Metallurgy Proc.*, no. 152-153, p. 229-240.
- 2516 Warde, J. M., 1952, Satellite Europe's mineral position: *Eng. Min. Jour.*, v. 153, no. 8, p. 85.
- 2517 Warner, A. H., and Morrison, G. A., 1946, Exploration of the brown iron ores, Churchwell and Robinette tracts, Western Highland Rim district, Wayne County, Tenn.: *U. S. Bur. Mines Rept. Inv. 3955*, 18 p.
- 2518 Warner, L. A., 1945, Iron deposits of the Mt. Andrew-Mamie area, southeastern Alaska: *U. S. Geol. Survey Prelim. Rept.*, 2 p.
- 2519 Warner, L. A., and Ray, R. G., 1944, Iron and copper deposits at the Haida mine and Copper Center prospect, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: *U. S. Geol. Survey Prelim. Rept.*, 6 p.
- 2520 Warner, L. A., and Stefansson, K., 1945, Copper-bearing iron deposits of Tolstoi Mountain, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: *U. S. Geol. Survey Prelim. Rept.*, 2 p.
- 2521 *Warner, L. A., and Walton, M. S., Jr., 1944, The Iron King No. 1 copper prospect, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: *U. S. Geol. Survey Prelim. Rept.*, 3 p., 3 maps.
- 2522 * _____ 1944, The Poor Man iron deposit, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: *U. S. Geol. Survey Prelim. Rept.*, 7 p., 10 illus.
- 2523 Warner, L. A., Ray, R. G., and Flint, G. N., Jr., 1946, Copper deposits at the Rush and Brown mine and Venus prospect, Prince Of Wales Island, southeastern Alaska: *U. S. Geol. Survey Prelim. Rept.*, p. 1, 3, 7.
- 2524 Warren, C. H., 1918, On the microstructure of certain titanite iron ores: *Econ. Geology*, v. 13, p. 419-446.

Index
No.

- 2525 Warren, C. H., and Powers, Sidney, 1914, Geology of Diamond Hill-Cumberland district in Rhode Island-Massachusetts: Geol. Soc. America Bull., v. 25, p. 435-476.
- 2526 Warren, H. V., Delavault, R. E., and Irish, R. I., 1952, Preliminary studies on the biochemistry of iron and manganese: Econ. Geology, v. 47, no. 2, p. 131-145.
- 2527 Washington Department of Conservation and Development, 1940, Summary of information on iron ore deposits of Washington: Wash. Div. Mines and Geology Inf. Circ. 3, 11 p.
- 2528 Watanabe, Manjiro, and Sato, Kozo, 1944, Iron placer on the shore of Lake Inawasiro: Japanese Assoc. Mineralogists Jour., v. 32, no. 1, p. 11-21.
- 2529 Watanabe, Manjiro, and Takeuti, Tunehiko, 1944, Iron placer deposits of Tenmabayashi district, Aomori prefecture, Japan: Japanese Assoc. Mineralogists Jour., v. 31, nos. 4, 5, p. 155-188, 197-206.
- 2530 Watanabe, Takeo, 1953, Genesis of the contact metasomatic iron ore deposits in Japan, with special reference to those of the Kamaishi iron mine, in *La genèse des gîtes de fer*: Cong. géol. internat., 19^e sess., Alger, 1952, Comptes rendus, fasc. 10, p. 51-61.
- 2531 Waters, K. H., 1937, A magnetometric survey in the Lincolnshire iron field: Min. Mag., v. 56, no. 6, p. 341-345.
- 2532 Watson, T. L., 1906, A preliminary report on the ochre deposits of Georgia: Ga. Geol. Survey Bull. 13, 81 p.
- 2533 _____ 1907, Mineral resources of Virginia (Iron, by R. J. Holden, p. 402-491): The Virginia Jamestown Exposition Commission, Lynchburg, J. P. Bell.
- 2534 Weatherbe, D'Arcy, 1902, Nictaux iron field: Nova Scotian Inst. Sci. Proc. and Trans., v. 10, p. 350-360.
- 2535 Weber, Eugen, 1941, Eisenerzvorkommen im Verrucano westlich St. Martin bei Mels: Eclogae Geol. Helvetiae, v. 33, no. 2, p. 185-188.
- 2536 Weeks, L. J., 1944, The Londonderry iron deposits, Colchester County, N. S.: Canada Geol. Survey Paper 44-10, 32 p.
- 2537 _____ 1945, Preliminary map, Bass River, Colchester and Hants Counties, Nova Scotia: Canada Geol. Survey Paper 45-26, no text.
- 2538 _____ 1945, Preliminary map, Londonderry, Colchester and Hants Counties, Nova Scotia: Canada Geol. Survey Paper 45-25, no text.
- 2539 Weidman, Samuel, 1904, The Baraboo iron-bearing district of Wisconsin: Wis. Geol. and Nat. History Survey Bull. 13, 190 p.
- 2540 _____ 1904, Iron ores of Wisconsin with special reference to the Baraboo district: Wis. Engineer, v. 9, p. 31-45.
- 2541 Weigelt, J., and Voigt, E., 1931, Tektonische Grundlagen der Bildung von Trummer-Eisenerzlagerstätten in Nordwesten des Harzes: Deutsche Geol. Gesell. Zeitschr. 83, no. 8, p. 541-569.
- 2542 Weir, K. L., and Kennedy, B. E., 1951, Geologic and magnetic data of the Sholdeis-Doane and Red Rock explorations, Iron County, Mich.: U. S. Geol. Survey open-file rept., 19 p.
- 2543 Weir, K. L., Balsley, J. R., and Pratt, W. P., 1953, Aeromagnetic survey of parts of Dickinson County, Mich., with preliminary geologic interpretation: U. S. Geol. Survey Geophys. Inv. GP 115. 70c.
- 2544 Welch, F. B. A., 1935, British regional geology; Bristol and Gloucester district: Great Britain Geol. Survey and Mus., 86 p.

Index
No.

- 2545 Weld, C. M., 1909, The residual brown iron ores of Cuba: *Am. Inst. Min. Metall. Eng. Bull.*, v. 32, p. 749-762; *Trans.*, v. 40, p. 299-312, 1910.
- 2546 _____ 1915, The Oriskany iron ores of Virginia: *Econ. Geology*, v. 10, p. 399-421.
- 2547 _____ 1918, Notes on certain iron-ore resources of the world; Cuba: *Am. Inst. Min. Metall. Eng. Bull.*, v. 141, p. 1479-1485.
- 2548 Wells, F. G., 1937, The origin of the Bull Valley, Utah, iron ore deposits: *Econ. Geology*, v. 32, no. 2, p. 192-193.
- 2549 _____ 1938, The origin of the iron ore deposits in the Bull Valley and Iron Springs districts, Utah: *Econ. Geology*, v. 33, no. 5, p. 477-507.
- 2550 _____ 1941, Iron ore deposits of the Bull Valley district, Washington County, Utah: *U. S. Geol. Survey Prelim. Rept.*, 4 p., 1 map.
- 2551 Wells, R. R., and Thorne, R. L., 1953, Concentration of Klukwan, Alaska, magnetite ore: *U. S. Bur. Mines Rept. Inv.* 4984, 15 p.
- 2552 Wendt, A. F., 1885, The iron mines of Putnam County, N. Y.: *Am. Inst. Min. Metall. Eng. Trans.*, v. 13, p. 478-488.
- 2553 Werner, Sture, 1945, Determinations of the magnetic susceptibility of ores and rocks from Swedish iron ore deposits: *Sveriges Geol. Unders.*, Ser. C, no. 472, Årsbok 39, no. 5, 79 p.
- 2554 Wernicke, F., 1939, Die Erzlagerstätten des Südetengaus: *Metall. u. Erz, Jahrg.* 36, Hefte 6-8, p. 147-157, 175-185, 208-216.
- 2555 *Westgate, L. G., 1920, Deposits of iron ore near Stanford, Mont.: *U. S. Geol. Survey Bull.* 715-F, p. 85-92.
- 2556 *Westgate, L. G., and Knopf, Adolph, 1932, Geology and ore deposits of the Pioche district, Nev.: *U. S. Geol. Survey Prof. Paper* 171, 79 p.
- 2557 West Virginia Geological Survey, 1921, Coal, oil, gas, iron ore, and limestone map of West Virginia.
- 2558 Whetton, J. T., and Myers, J. O., 1951, Geophysical survey of a magnetite deposit in the island of Tiree: *Geol. Soc. Glasgow Trans.*, v. 21, pt. 2, p. 237-262.
- 2559 _____ 1951, Geophysical survey of magnetite deposits in Strath, Isle of Skye: *Geol. Soc. Glasgow Trans.*, v. 21, pt. 2, p. 263-277.
- 2560 Whinery, S., 1912, Clinton iron-ore deposits in Kentucky and Tennessee: *Am. Inst. Min. Metall. Eng. Bull.*, v. 70, p. 1057-1058.
- 2561 White, C. H., 1948, The genesis of intrusive magnetite and related ores: *Econ. Geology*, v. 43, no. 3, p. 232-233.
- 2562 White, C. M., 1947, Iron ore and the steel industry: Address before American Institute of Mining and Metallurgical Engineers, 37 p.
- 2563 White, D. A., 1954, The stratigraphy and structure of the Mesabi range, Minn.: *Minn. Geol. Survey Bull.* 38, 92 p.
- 2564 White, G. W., 1940, New Hampshire mineral resources: *N. H. Acad. Sci. Proc.*, v. 1, no. 2, p. 13-20.
- 2565 White, Peter, 1886, The iron region of Lake Superior: *Michigan Pioneer Collections*, v. 8, p. 145-161.
- 2566 Whitehead, T. H., Anderson, W., Wilson, Vernon, and Wray, D. A., 1952, The Mesozoic ironstones of England; the Liassic ironstones: *Geol. Survey Great Britain Mem.*, 211 p.
- 2567 Whitlatch, G. I., 1941, Preliminary directory of mineral and chemical industries in Tennessee: *Tenn. Dept. Conserv. Markets Circ.* no. 11, 31 p. ¶

Index
No.

- 2568 Whitney, J. D., 1856, The iron deposits of New York State: Mineralog. Mag., v. 7, p. 255-258.
- 2569 _____ 1856, On the occurrence of the ores of iron in the Azoic system: Am. Assoc. Adv. Sci. Proc., v. 9, p. 209-216; Am. Jour. Sci., 2d ser., v. 22, p. 38-44.
- 2570 _____ 1863, On meteoric iron ore from Arizona: Calif. Acad. Nat. Sci. Proc., v. 3, p. 48-50.
- 2571 Whitney, R. W., 1954, New developments in iron ore: Min. Cong. Jour., v. 40, no. 2, p. 82-84.
- 2572 Whittier, W. H., 1917, An investigation of the iron ore resources of the Northwest: Wash. [State] Univ., Bur. Indus. Research Bull. 2, 128 p.
- 2573 Wiberg, Martin, 1955, Relation of type of ore to smelting processes, in Survey of world iron ore resources—Occurrence, appraisal and use: United Nations Pub. 1954.II.D.5, New York, p. 122-145.
- 2574 Wiebelt, F. J., 1947, Bessemer iron project, San Bernardino County, Calif.: U. S. Bur. Mines Rept. Inv. 4066, 13 p.
- 2575 Wiebelt, F. J., and Ricker, Spangler, 1948, Iron Mountain deposits, San Bernardino County, Calif.: U. S. Bur. Mines Rept. Inv. 4236, 11 p.
- 2576 Wienert, F., 1933, Formation of martite and other iron oxides in sideritic ore of the Marquette district, Michigan: Econ. Geology, v. 28, no. 1, p. 68-74.
- 2577 Wiese, T., 1903, Die nützlichen Eisenstein-Lagerstätten, insbesondere das Vorkommen von oolithischen Rotheisenstein, im Wesergebirge bei Minden: Zeitschr. prakt. Geologie, Band 11, p. 217-231.
- 2578 Wild, Helmut, 1951, Zur Bildungsgeschichte der Braunjura- β -Floze und ihrer Begleitgesteine in Nordost-Württemberg: Geol. Jahrb. Band 65, p. 271-298.
- 2579 Willems, Alph., 1928, Die Entstehung der Eisenerze unseres Landes: Soc. Naturalistes luxembourg. Bull. mens. nouv. sér., v. 22, p. 106-111.
- 2580 Willett, R. W., 1943, The occurrence of iron ore in the Catlins district, South Otago: New Zealand Jour. Sci. and Technology, v. 23, no. 6, p. 227-230.
- 2581 Willey, D. A., 1913, The world's greatest iron-ore deposits: Eng. Mag., v. 44, p. 867-883.
- 2582 Williams, A. J., 1935, Hematite in the Reagan sandstone along the northeastern edge of the Wichita Mountains and in the Arbuckle Mountains: Okla. Acad. Sci. Proc. 1934, v. 15, p. 81-82.
- 2583 Williams, C. C., 1872, Contribution to a knowledge of the iron ores of Missouri: Rolla, Mo., 15 p.
- 2584 Williams, C. P., 1877, Industrial report on lead, zinc, and iron, together with notes on Shannon County and its copper deposits: Mo. Geol. Survey, 183 p.
- 2585 *Williams, G. H., 1890, The greenstone schist areas of the Menominee and Marquette regions of Michigan, a contribution to the subject of dynamic metamorphism in eruptive rocks: U. S. Geol. Survey Bull. 62, 241 p.
- 2586 Williams, I. A., and Parks, H. M., 1923, The limonite ores of Columbia County, Oreg.: Oreg. Bur. Mines and Geology, Min. Res. Oreg., v. 3, no. 3, 44 p.
- 2587 Willis, Bailey, 1886, Notes on the samples of iron ore collected in Ohio, North Carolina, east Tennessee, Georgia, Alabama: U. S. Census, 10th, v. 15, p. 235-243, 301-329, 331-350, 367-378, 400-401.

Index
No.

- 2588 Willmott, A. B., 1905, The exploration of the Ontario iron ranges: Canadian Min. Inst. Jour., v. 7, p. 257-269.
- 2589 _____ 1907, The origin of deposits of pyrites: Canadian Min. Jour., v. 28, p. 500-503.
- 2590 _____ 1908, The iron ores of Ontario: Canadian Min. Inst. Jour., v. 11, p. 106-124.
- 2591 _____ 1911, The undeveloped iron resources of Canada: Canadian Min. Inst. Quart. Bull., v. 14, p. 121-143.
- 2592 Wilson, E. B., 1910, Iron ores of Santiago, Cuba: Mines and Minerals, v. 31, p. 245-249.
- 2593 _____ 1911, The Cornwall, Pa., magnetite deposits: Lake Superior Min. Inst. Proc., v. 16, p. 227-238.
- 2594 *Wilson, Hewitt, 1933, Iron oxide mineral pigments of the United States: U. S. Bur. Mines Bull. 370, 198 p.
- 2595 Wilson, M. E., 1910, Larder Lake and eastward, Ont.: Canada Geol. Survey Summary Rept. 1909, p. 173-179.
- 2596 _____ 1924, Arnprior-Quyon and Maniwaki areas, Ontario and Quebec: Canada Geol. Survey Mem. 136, 152 p.
- 2597 Wilson, V. M., 1952, Bibliography of Minnesota mining: Minn. School Mines, Expt. Sta. Bull. 14, p. 1-114.
- 2598 Wimmier, N. L., 1946, Exploration of Choteau titaniferous magnetite deposit, Teton County, Mont.: U. S. Bur. Mines Rept. Inv. 3981, 12 p.
- 2599 * _____ 1946, Exploration of Southern Cross iron deposits, Deer Lodge County, Mont.: U. S. Bur. Mines Rept. Inv. 3979, 14 p.
- 2600 Winchell, H. V., 1889, Report of field observations made during the season of 1888 in the iron regions of Minnesota: Minn. Geol. Survey Ann. Rept. 17, p. 77-145.
- 2601 _____ 1892, Classification of the theories of the origin of iron ores: Am. Geologist, v. 10, p. 277-278.
- 2602 _____ 1893, The Mesabi iron range: Am. Inst. Min. Metall. Eng. Trans., v. 21, p. 644-686.
- 2603 _____ 1893, The Mesabi iron range: Minn. Geol. Survey Ann. Rept. 20, p. 111-180.
- 2604 _____ 1894, A bit of iron range history: Am. Geologist, v. 13, p. 164-170.
- 2605 _____ 1894, Historical sketch of the discovery of mineral deposits in the Lake Superior region: Lake Superior Min. Inst. Proc., v. 2, p. 33-78; Minn. Geol. Survey Ann. Rept. 23, p. 116-155, 1895.
- 2606 _____ 1895, The iron ranges of Minnesota: Lake Superior Min. Inst. Proc., v. 3, p. 15-32.
- 2607 _____ 1898, The Lake Superior iron-ore region: Federated Inst. Min. Engineers Trans., v. 13, p. 493-562.
- 2608 _____ 1903, The Mesabi iron range, Minnesota: Eng. Min. Jour., v. 76, p. 343-344.
- 2609 Winchell, N. H., 1885, The Vermilion iron ores: Minn. Geol. Survey Ann. Rept. 13, p. 25-35.
- 2610 _____ 1887, Geological report, iron ores, Vermilion range: Minn. Geol. Survey Ann. Rept. 15, p. 211-399.
- 2611 _____ 1891, The eastern equivalents of the Minnesota iron ore: Minn. Geol. Survey Bull. 6, p. 411-419
- 2612 _____ 1892, The geology of the iron ores of Minnesota: Geol. Soc. Australasia Trans., v. 1, p. 171-180.

Index
No.

- 2613 Winchell, N. H., 1892, Some problems of the Mesabi iron ore: *Am. Geologist*, v. 10, p. 169-179.
- 2614 _____ 1898, The discovery and development of the iron ores of Minnesota: *Minn. Hist. Soc.*, v. 8, p. 25-40.
- 2615 _____ 1898, A new iron-bearing horizon in the Keewatin in Minnesota: *Lake Superior Min. Inst. Proc.*, v. 5, p. 46-48.
- 2616 _____ 1902, Sketch of the iron ores of Minnesota: *Internat. Min. Cong.*, 4th, Boise 1901, *Proc.*, p. 154-162.
- 2617 _____ 1904, The Baraboo iron ore: *Am. Geologist*, v. 34, p. 242-253.
- 2618 _____ 1907, The Cuyuna iron range: *Econ. Geology*, v. 2, p. 565-571.
- 2619 _____ 1908, Structures of the Mesabi iron ore: *Lake Superior Min. Inst. Proc.*, v. 13, p. 189-204.
- 2620 _____ 1911, The iron-ore ranges of Minnesota and their differences: *Minn. Acad. Sci. Bull.*, v. 5, p. 43-68.
- 2621 _____ 1912, Progress of opinion as to the origin of the Lake Superior iron ores: *Geol. Soc. America Bull.*, v. 23, p. 317-323.
- 2622 Winchell, N. H., and Winchell, H. V., 1891, The iron ores of Minnesota, their geology, discovery, development, qualities and origin, and comparison with those of other iron districts: *Minn. Geol. Survey Bull.* 6, 430 p.
- 2623 _____ 1891, On a possible chemical origin of the iron ores of the Keewatin in Minnesota: *Am. Geologist*, v. 4, p. 291-300, 383-386, 1889; *Minn. Geol. Survey Bull.* 6, p. 391-399.
- 2624 _____ 1891, The Taconic iron ores of Minnesota and of western New England: *Minn. Geol. Survey Bull.* 6, p. 391-399.
- 2625 Winslow, Arthur, Haworth, Erasmus, and Nason, F. L., 1894, A report on the Iron Mountain Sheet, including portions of Iron, St. Francois, and Madison Counties: *Mo. Geol. Survey*, v. 9, Sheet Rept. 3, 85 p.
- 2626 Wirth, F. P., 1937, The discovery and exploitation of the Minnesota iron lands: Cedar Rapids, Iowa, Torch Press, 247 p.
- 2627 Witte, W., 1934, *Der Bergbau an Lahn und Dill*: *Deutsche Geol. Gesell. Zeitschr.*, Band 86, Heft 6, p. 325-328.
- 2628 Wittich, L. L., 1912, Iron mining in Missouri: *Mines and Minerals*, v. 33, p. 227-228.
- 2629 Woldrich, Joseph, 1928, Notices sur la stratigraphie du palaeozoique et les gisements de fer et de cuivre dans les montagnes métallifères des Carpathes de la Slovaquie: *Internat. Geol. Cong.*, 14th sess., Madrid, 1926, *Compte rendu* 3, p. 1267-1276.
- 2630 Wolf, Martha, 1930, Alter und Entstehung des Wald-Erbacher Roteisensteins (Grube Braut im Hunsrück) mit einer stratigraphischen Untersuchung der Umgebung: *Preussische Geol. Landesanst. Abh.*, neue Folge, Heft 123, 105 p.
- 2631 Wolff, J. F., 1915, Ore bodies of the Mesabi range (Minnesota): *Eng. Min. Jour.*, v. 100, no. 3, p. 89-94; no. 4, p. 135-139; no. 5, p. 178-185; no. 6, p. 219-224.
- 2632 _____ 1917, 1920, Recent geologic developments on the Mesabi iron range (Minnesota): *Am. Inst. Min. Metall. Eng. Trans.*, v. 56, p. 142-169; v. 61, p. 113-115.
- 2633 _____ 1951, The geologic stratigraphy and correlation of the Cuyuna iron district of Minnesota, in *Ann. Mining Symposium*, 12th, Geology of the Cuyuna range: Minneapolis, Univ. Minn., Gen. Extension Div., p. 4-29.

Index

No.

- 2634 Woodbridge, D. E., 1905, The Mesabi iron-ore range: Eng. Min. Jour., v. 79, p. 698-700.
- 2635 _____ 1907, Iron ore in Crow Wing County, Minn.: Eng. Min. Jour., v. 84, p. 775-776.
- 2636 _____ 1911, Cuban iron-ore deposits: Canadian Min. Jour., v. 32, p. 738-741.
- 2637 _____ 1911, Exploration of Cuban iron-ore deposits: Am. Inst. Min. Metall. Eng. Bull., v. 51, p. 269-282; Trans., v. 42, p. 138-152, 1912.
- 2638 Woodman, J. E., 1907, Preliminary report on iron ore deposits of parts of Nova Scotia: Canada Dept. Interior, Supt. Mines Rept. 1907, p. 18-32.
- 2639 _____ 1909, Report on the iron ore deposits of Nova Scotia: Canada Dept. Mines, 226 p.
- 2640 Woodward, H. P., 1941, Silurian system of West Virginia: W. Va. Geol. Survey, v. 14, 326 p.
- 2641 _____ 1943, Devonian system of West Virginia: W. Va. Geol. Survey, v. 15, 665 p.
- 2642 _____ 1951, Ordovician system of West Virginia: W. Va. Geol. Survey, v. 21, p. 484-485.
- 2643 Woolnough, W. G., 1941, Origin of banded iron deposits; a suggestion: Econ. Geology, v. 36, no. 5, p. 465-489.
- 2644 Workman, L. E., 1950, The Neda formation in northeastern Illinois: Ill. State Acad. Sci. Trans., v. 43, p. 176-182.
- 2645 Wright, C. E., 1876, Geology of the Lake Superior iron region, in Swineford, A. P., History and review of the copper, iron, silver, slate, and other material interests of the south shore of Lake Superior: Marquette, Mich., p. 132-150.
- 2646 _____ 1878, Report on iron deposits in Oconto County: Wis. Geol. Survey Ann. Rept. 1877, p. 33-36.
- 2647 _____ 1880, Geology of the Menominee iron range: Wis. Geol. Survey, Geology of Wisconsin 1873-1879, v. 3, p. 665-734.
- 2648 Wright, C. W., 1939, The iron and steel industries of Europe: U. S. Bur. Mines Econ. Paper 19, 98 p. 20c.
- 2649 Wright, J. C., 1952, A magnetic anomaly near Bear Lake, Houghton County, Mich.: U. S. Geol. Survey open-file rept., 8 p.
- 2650 Wright, L. A., Stewart, R. M., Gay, T. E., Jr., and Hazenbush, G. C., 1953, Mines and mineral deposits of San Bernardino County, Calif.: Calif. Jour. Mines and Geology, v. 49, nos. 1 and 2, p. 49-192.
- 2651 Wright, R. J., and Raman, N. D., 1948, The Gossan Lead, Carroll County, Va.: U. S. Geol. Survey open-file rept., 21 p.
- 2652 *Wright, W. S., and Fosse, E. L., 1946, Exploration of the Jumbo Basin iron deposit, Prince of Wales Island, southeastern Alaska: U. S. Bur. Mines Rept. Inv. 3952, 9 p.
- 2653 Wright, W. S., and Tolonen, A. W., 1947, Mount Andrew iron deposit, Kasaan Peninsula, Prince of Wales Island, southeastern Alaska: U. S. Bur. Mines Rept. Inv. 4129, 27 p.
- 2654 Wylie, A. W., 1937, The iron sands of New Zealand: New Zealand Jour. Sci. and Technology, v. 19, no. 4, p. 227-244.
- 2655 Wyman, C. L., 1942, Types of [Lake Superior] ores expected fifteen years hence: Am. Inst. Min. Metall. Eng., Blast. Furnace and Raw Materials Conf., April 1942, Proc. 2.
- 2656 Wytic, A. W., 1938, New Zealand iron sand in relation to overseas deposits of titaniferous magnetite: New Zealand Jour. Sci. and Technology, v. 19, no. 9, p. 572-584.

Index
No.

- 2657 Yaklish, J. P., 1938, The iron ore deposit of Cornwall, Pa.: Explosives Engineer, v. 16, no. 11, p. 327-333.
- 2658 Yih, L. F., and Chao, K. P., 1928, The Ling Hsiang iron deposits of Hupeh: Natl. Research Inst. Geology [China], Mem. 5, 9 p. [Chinese, English summary.]
- 2659 Young, G. A., 1909, A descriptive sketch of the geology and economic minerals of Canada: Canada Geol. Survey, 151 p.
- 2660 _____ 1922, Iron-bearing rocks of Belcher Islands, Hudson Bay: Canada Geol. Survey Summary Rept. 1920, pt. E, 61 p.
- 2661 Young, G. A., and Uglow, W. L., 1926, The iron ores of Canada; v. 1, British Columbia and Yukon: Canada Geol. Survey Econ. Geology ser., no. 3, 253 p.
- 2662 Young, W. E., 1947, Iron deposits, Iron County, Utah: U. S. Bur. Mines Rept. Inv. 4076, 102 p.
- 2663 *Youngman, E. P., 1930, Deposits of titanium-bearing ores: U. S. Bur. Mines Inf. Circ. 6386, 41 p.
- 2664 Yunge, G., 1905, Estadística minera de Chile en 1903, tomo 1: Santiago de Chile, p. 1-321.
- 2665 Zabelli, A., 1941, Geophysical investigations on the exploration of iron-bearing sands, particularly on the sea bottom: Ricerca sci. [Rome], v. 12, no. 7-9, p. 908-910.
- 2666 Zachos, K., 1951, The mineral wealth of Greece, v. 1: Athens, Inst. geologias kai ereunon hypedaphous, 193 p. [Greek, English summary.]
- 2667 Zans, V. A., 1951, Economic geology and mineral resources of Jamaica: Jamaica Geol. Survey Dept. Bull. 1, p. 14-17.
- 2668 Zapffe, Carl, 1911, Geology of the Cuyuna iron ore district, Minn.: Min. World, v. 34, p. 585-588.
- 2669 _____ 1912, The effects of a basic igneous intrusion on a Lake Superior iron-bearing formation: Econ. Geology, v. 7, p. 145-178.
- 2670 _____ 1925, Stratigraphy and correlation of the Cuyuna iron ore district, Minnesota: Lake Superior Min. Inst. Proc., v. 24, p. 89-105.
- 2671 _____ 1926, Further data on the correlation of the Cuyuna iron-bearing member (Minnesota): Lake Superior Min. Inst. Proc., v. 25, p. 219-227.
- 2672 _____ 1927, Reserves of Lake Superior manganiferous iron ores: Am. Inst. Min. Metall. Eng. Trans., v. 75, p. 346-371.
- 2673 _____ 1928, Geologic structure of the Cuyuna iron district, Minn.: Econ. Geology, v. 23, no. 6, p. 612-646.
- 2674 _____ 1930, Cuyuna stratigraphy: Lake Superior Min. Inst., Proc. 28, p. 99-106.
- 2675 _____ 1933, Catalysis and its bearing on the origin of Lake Superior iron-bearing formations: Econ. Geology, v. 28, no. 8, p. 751-772.
- 2676 _____ 1944, Iron ores of the Pacific Northwest: Steel, v. 114, no. 15, p. 116, 118, 136-141.
- 2677 _____ 1944, Memorandum report on iron ores of the Cle Elum district, Wash.: Wash. Div. Mines and Geology Rept. Inv. 5, 27 p.
- 2678 _____ 1945, Hamilton iron-bearing lenses on Iron Mountain, Skagit County, Wash.: Min. World, v. 7, no. 11, p. 25-29.
- 2679 _____ 1949, A review of iron-bearing deposits in Washington, Oregon, and Idaho: Raw Materials Survey, Resource Rept. 5, 89 p.

Index
No.

- 2680 Zavaritsky, A. N., 1939, The question of the origin of iron ores of Bakal: Akad. nauk SSSR, Inst. geol. nauk Trudy, vyp. 13. [Russian, English summary.]
- 2681 Zeijlmans van Emmichoven, C. P. A., 1940, The Schwaner Mountains, western Borneo: Ingenieur Nederlandsch-Indië, v. 7, nos. 7, 8, p. 79-122. [Dutch, English summary.]
- 2682 Zetterstrom, J. D., 1950, Oxidation of magnetite concentrates: U. S. Bur. Mines Rept. Inv. 4728, 8 p.
- 2683 Zimanyi, K., 1908, Eisenglanz vom Kakuk-Berge in Ungarn: Zentralbl. Mineralogie: 1908, p. 3-5.
- 2684 Zinn, Justin, [n. d.], Report on the portion of the Marquette range between Humboldt and Lake Michigamme covered by the Michigan Geol. Survey in 1930: Mich. Geol. Survey, 18 p.
- 2685 Zinner, Paul, and Holmberg, C. L., 1947, Investigation of the iron-bearing formation of the western Gogebic range, Iron County, Wis.: U. S. Bur. Mines Rept. Inv. 4155, 48 p.
- 2686 Zinner, Paul, Holmberg, C. L., and Terry, O. W., 1949, Investigation of the iron-bearing formation of Iron County, Mich., utilizing geophysical and other methods: U. S. Bur. Mines Rept. Inv. 4583, 40 p.
- 2687 Zoldok, S. W., 1948, Cle Elum iron-nickel deposits, Kittitas County, Wash.: U. S. Bur. Mines Rept. Inv. 4189, 8 p.
- 2688 Zoldok, S. W., and Wilson, S. R., 1953, Bull Valley iron-ore deposits, Washington County, Utah: U. S. Bur. Mines Rept. Inv. 4948, 17 p.
- 2689 Zoldok, S. W., Cole, J. W., and Dougherty, E. Y., 1947, Iron deposits of Buckhorn Mountain, Meyers Creek mining district, Okanogan County, Wash.: U. S. Bur. Mines Rept. Inv. 4051, 22 p.
- 2690 Zuloaga, Guillermo, 1930, Iron deposits of the Sierra de Imataca, Venezuela: Econ. Geology, v. 25, no. 1, p. 99-101; discussion by E. F. Burchard, no. 5, p. 549-550.
- 2691 _____ 1933, The geology of the iron deposits of the Sierra de Imataca, Venezuela: Am. Inst. Min. Metall. Eng. Tech. Pub. 516, 36 p.
- 2692 _____ 1934, Geologia de los depositos de hierro de la Sierra de Imataca (Venezuela): Col. Ingenieros Venezuela Rev. an. 12, nos. 104-105, p. 1181-1189, 1217-1227.
- 2693 _____ 1935, The geology of the iron deposits of the Sierra de Imataca, Venezuela: Am. Inst. Min. Metall. Eng. Trans., v. 115, p. 307-345.
- 2694 Zuloaga, Guillermo, and Tello B., Manuel, 1939, Exploracion preliminar de la Sierra de Imataca: Rev. Fomento [Venezuela], año 3, no. 19, p. 397-430.
- 2695 Zvereff, R., 1940, Le gisement de fer de Rabat (Ariège); phénomènes de métamorphisme de contact en rapport avec l'ophite: Soc. Française minéralogie et cristallographie Bull., tome 63, p. 65-71.
- 2696 Anonymous, 1841, Analysis of various ores of lead, silver, copper, zinc, iron, etc., from King's mine, Davidson County, N. C.: Am. Jour. Sci., v. 41, p. 348-352.
- 2697 _____ 1878, Magnetic iron ores of the Unaka Mountains, North Carolina and Tennessee: Eng. Min. Jour., v. 25, no. 16, p. 272-274; no. 17, p. 293-294.
- 2698 _____ 1907, The Mayari iron ore district of Cuba: Iron Age, v. 80, p. 421-426.

Index
No.

- 2699 Anonymou, 1908, Iron mining in Cuba: Iron age, v. 81, p. 1149-1157.
- 2700 _____ 1908, Iron ore deposits in Shasta County, Calif.: Min. Sci. Press, v. 97, no. 20, p. 667.
- 2701 _____ 1934, Sur un gisement de fer situé dans la presqu'île de Crozon (Finistère): Mines, carrières, année 13, no. 145, p. 7-8.
- 2702 _____ 1940, German Dogger ore: Mine and Quarry Eng., v. 5, no. 5, p. 141-145; no. 6, p. 163-166, 172.
- 2703 _____ 1941, Iron resources of Soviet Russia: Iron and Coal Trades Rev., v. 142, p. 415-416.
- 2704 _____ 1943, Adirondack iron mining issue: Min. and Metallurgy, v. 24, no. 443, p. 475-525.
- 2705 _____ 1943, Marampa—an ore mountain, Sierra Leone: Iron and Steel, v. 16, no. 10, p. 347-351.
- 2706 _____ 1943, New York State's iron ores draw new attention: Eng. Min. Jour., v. 144, no. 5, p. 67-69.
- 2707 _____ 1943, Soudan, Minn., iron mine: Rocks and Minerals, v. 18, no. 10, p. 302-303.
- 2708 _____ 1944, Magnetite disclosed by drilling at Bourbon, Missouri: Eng. Min. Jour., v. 145, no. 9, p. 100.
- 2709 _____ 1945, Canadian eastern Arctic: Precambrian, v. 18, no. 2, p. 25, 28.
- 2710 _____ 1945, Iron ore discoveries give Labrador new importance: Eng. Min. Jour., v. 146, no. 6, p. 88-89.
- 2711 _____ 1948, The Labrador iron ore: Eng. Min. Jour., v. 149, no. 11, p. 88-92.
- 2712 _____ 1949, A great new ore supply—Steep Rock mine in Canada reaches big-scale production: Life Mag., p. 89-94, Nov.
- 2713 _____ 1950, Adirondack mining has promising outlook: Eng. Min. Jour., v. 151, no. 11, p. 75-77.
- 2714 _____ 1950, Minas del Rif iron ore mine: Min. World, v. 12, no. 8, p. 32-33, 37.
- 2715 _____ 1950, Today's iron ore sources and our future supply: Eng. Min. Jour., v. 151, no. 3, p. 70-71.
- 2716 _____ 1951, After 15 years—El Pao iron: Min. World, v. 13, no. 6, p. 36-39.
- 2717 _____ 1951, Foreign sources of iron ore: Min. World, v. 13, no. 11, p. 36-41.
- 2718 _____ 1951, Outlook for steel: Focus, v. 1, no. 7, 4 p.
- 2719 _____ 1951, Taconite is steel industry's ace-in-the-hole (Lake Superior): Iron Age, v. 167, no. 6, p. 105-106.
- 2720 _____ 1951, West Indies ships first iron ore to U. S.: Eng. Min. Jour., v. 152, no. 11, p. 105.
- 2721 _____ 1952, The Bomi Hills development: Min. Eng., v. 4, no. 7, p. 674-675.
- 2722 _____ 1952, Iron ores in Camalaniugan, Cagayan: Min. Newsletter [Manila], v. 3, no. 4, p. 40-41.
- 2723 _____ 1952, Krupp-Renn process and Union's iron ores: South African Min. Eng. Jour., v. 63, p. 7-11.
- 2724 _____ 1952, Reserve Mining Co. starts taconite plant at Babbitt: Eng. Min. Jour., v. 153, no. 11, p. 72-79.

Index
No.

- 2725 **Anonymous**, 1953, Colorado Fuel & Iron Corp.—Now a nationwide network of 14 modern industrial plants: *Min. Eng.*, v. 5, no. 11, p. 1084-1098.
- 2726 _____ 1953, Eagle Mt. iron mine expansion: *Min. World*, v. 15, no. 6, p. 53-54.
- 2727 _____ 1953, Metallurgy is a mine maker: *Min. World*, v. 15, no. 7, p. 38-42.
- 2728 _____ 1953, The Sydvaranger story—World's first commercial taconite operation [Norway] is proving ground for future Mesabi developments [Minnesota]: *Min. World*, v. 15, no. 11, p. 49-76.
- 2729 _____ 1954, First Quebec-Labrador iron ore in '54—Fitting climax to \$250,000,000 project: *Min. World*, v. 16, no. 10, p. 66-67.
- 2730 _____ 1954, Iron ore from Cerro Bolivar: *Min. World*, v. 16, no. 3, p. 51-52.
- 2731 _____ 1954, Marcona equips Peru iron mine and ships first ore in 90 days: *Min. World*, v. 16, no. 2, p. 35-37.
- 2732 _____ 1954, Marcona [Peru]—Four months from plan to production: *Eng. Min. Jour.*, v. 155, no. 1, p. 84-88.

SUBJECT INDEX

A	Index no.
Adamawa, West Africa	1588
Aeromagnetic surveys	115-
126, 244, 601-603, 1011, 1012, 1039-1060,	
1227, 1664 - 1670, 1821, 2427 - 2447, 2452,	
2543.	
Afghanistan	713
Africa, general	226, 701, 996, 997, 1941
Alabama, general	8,
79, 343, 353, 701, 713, 843, 996, 1195, 1251,	
1507, 1581, 1582, 1679, 1927, 1938, 2202,	
2203, 2587.	
Alabama	
Analyses of iron ore	1938
Baker Hill	267
Bessemer quadrangle	368
Birmingham district	216,
260, 327, 330, 349, 357, 366, 496, 546-548,	
607, 751, 1464, 1565, 1593, 2367.	
Brookwood quadrangle	325
brown iron ores	8,
33, 267, 300, 326, 345, 438, 1156, 1252, 1581,	
1925, 1938, 2102.	
Bucksville area	2004
Chattanooga region	331, 772, 1593
Chattooga County	1583
Cherokee County	247
Chulafinnee district	1156
Clay County	1962
Clinton red hematite ore	18,
250, 327-331, 333, 335, 496, 546-548, 696, 749,	
751, 1170, 1583, 1938, 2004, 2366, 2367, 2373	
Dade County	1583
Etowah County	350, 2366
ferruginous sandstone	548
Gadsden mine	749
Gadsden quadrangle	1025
Greasy Cove, St. Clair, and Etowah	
Counties	350, 2366
Greenville district	1252
hematite ore	1582
Jefferson County	438, 1925
Leeds, Jefferson County	438, 1925
Long Valley	1170
Lookout Mountain	250
Montevallo-Columbiana region	367, 370
Murphrees Valley	845
northeastern	335, 356
northern	300, 696
Pratt's Ferry near Cahaba	1170
Raimund	2373
Red Mountain formation	350, 356
Rome quadrangle	1027
Russellville	299, 326, 2102, 2168
St. Clair County	350, 2366
Shelby County	33
Shinbone Ridge, St. Clair, and Etowah	
Counties	2366
Talladega County gray iron ores	1202,
2005, 2208	
Tennessee Valley	344, 346, 704, 985
Vandiver quadrangle	368
Walker County	1583
Woodstock area	2004
Alaska, general	713, 1187, 1323, 2572
Chitna Valley, Copper River	1713
Copper River	1713, 1714
Haida mine, Kasaan Peninsula, Prince	
of Wales Island	2519
Haines	1353
Iliamna region	1629

Alaska—Continued	Index no.
Iron King no. 1 prospect, Kasaan Penin-	
sula, Prince of Wales Island	2521
Jumbo Basin, Prince of Wales Island	1298,
1299, 2652	
Kasaan Peninsula, Prince of Wales Is-	
land	729, 867
1123, 2010, 2518-2522, 2653	
Kenai Peninsula	900
Klukwan magnetite	2551
Kotsina-Kuskulana district, Copper Riv-	
er	1714
Mt. Andrew-Mamie area, Kasaan Penin-	
sula, Prince of Wales Island	867,
2518, 2653	
Mt. Wrangell district	1651
Nome	878
northwestern	2209
Orange Hill	2458
Poor Man deposit, Kasaan Peninsula,	
Prince of Wales Island	1123, 2522
Prince of Wales Island	729, 867,
1123, 1298, 1299, 1998, 2518-2523, 2652,	
2653.	
Prince William Sound	899
Real Thing claims near Seward, Kenai	
Peninsula	900
Rich Hill area, Prince of Wales Island	1998
Rush and Brown mine, Prince of Wales	2523
Tatonduk-Nation district	1660
Tolstoi Mountain deposits, Kasaan Penin-	
sula, Prince of Wales Island	729, 2520
Upper Lynn Canal area	2412
Venus prospect, Prince of Wales Island	2523
Albania	713, 1678, 2516
Algeria, general	193, 228,
517, 1187, 1679, 1805, 2417, 2717	
Kabylie des Babors	712
Philippeville	1417
Aluminous lateritic soil	868, 869
Americas	1486, 2015
Analyses of iron ore. <i>See Ores. See indi-</i>	
<i>vidual countries.</i>	
Anglo-Egyptian Sudan	228, 517, 1187
Angola	228, 713, 1187
Appalachian region. <i>See also individual</i>	
<i>states</i>	369, 825, 865, 1028, 1029
Arctic Europe	1559
Argentina, general	64, 228,
517, 713, 904, 1187, 1679, 2034, 2417	
Hierro Indio, Depto. de San Rafael, Pro-	
vincia de Mendoza	2033
"9 de Octubre" mine, Zapla	65
Podestá mine (ex Romay), Provincia de	
Catamarca	145
Arizona, general	111, 218, 701, 1266
Apache deposit, Navajo County	2277
Black Mesa, Plumosa district	1313
Boulder Dam area	1463
Canyon Creek, Fort Apache Indian Res-	
ervation	348
Eureka district, Yavapai County	2187
Iron King mine, Yavapai County	1408
meteoric iron ore	2570
Navajo County	2277
New Planet deposit, Yuma County	564
Planet specular hematite deposit	2450
Williams Fork of Colorado River	217
Yavapai County	1408, 2187
Yuma County	564
Arkansas, general	713, 1028, 1897, 1898

Arkansas—Continued	Index no.	Belgium—Continued	Index no.
Augusta quadrangle.....	603	manganiferous iron ore.....	1521
Bald Knob quadrangle.....	602	Meurthe-et-Moselle.....	2487
Benton County.....	262	Tournaisis.....	152
Carroll County.....	262	Beneficiation of iron. <i>See</i> Ores.	
Cave City quadrangle.....	602	Bibliography.....	174, 332, 340, 909, 910, 965
Hot Spring County.....	1343	Biochemistry of iron.....	2526
Madison County.....	262	Black sands.....	385, 390,
Magnet Cove mine, Hot Spring County.....	1343	391, 588, 1180, 1181, 1866, 1867	
Newport quadrangle.....	603	<i>See also individual countries and areas.</i>	
Pleasant Plains quadrangle.....	602	Black Sea.....	1427
Polk County.....	263	Blast furnace practice.....	204, 260, 2322, 2368
Strawberry quadrangle.....	603	Dog iron ore, general.....	524, 569,
Tertiary iron ores.....	1898	1367, 1628, 1722, 1726	
Washington County.....	262	genesis.....	569
Armenia.....	1427	<i>See also individual countries and areas.</i>	
Asia.....	705, 996, 1344, 1394, 1517	Bolivia, general.....	517, 713, 904, 1187
Asia Minor.....	2112	Mutum.....	429
Australia, general.....	517, 701,	Borneo, general.....	517, 1187
713, 996, 997, 1404, 1512, 1879, 1904, 2417		Schwane Mountains.....	2681
Andover deposit, Pilbara goldfield.....	762	Bower-Barff process.....	246
Beaconsfield district, Tasmania.....	2409	Brazil, general.....	228, 311,
Blythe River deposit, Tasmania.....	2407	517, 600, 640, 701, 713, 904, 935, 996, 1187,	
Cadia, New South Wales.....	1218	1238, 1287, 1679, 1862, 2357, 2417, 2419,	
central Queensland.....	108	2717.	
Coombing Park, Carcoar, New South Wales.....	1218	Amapa.....	600
Ellarine Hills deposit, Pilbara gold- field.....	762	Bahia.....	600
Iron Knob, South Australia.....	1100	Ceara.....	600
magnetite-hematite relations in banded formations.....	1682	Congonhas district, Minas Geraes.....	641, 939
Middleback ranges, South Australia.....	707, 2515	Goiás.....	600
Mt. Isa, Queensland.....	913	hematite ores.....	1492, 1623
New South Wales.....	517, 1187, 1217, 1218	iron and steel situation.....	795
Nirboo North, southern Gippsland, Vic- toria.....	907	Itabira.....	1623, 2092
Pilbara goldfield.....	762	itabirite iron ores.....	972, 1623, 2107
Queensland.....	108, 517, 913, 1187	Jacutinga.....	877
Salisbury district, Tasmania.....	2409	Mato Grosso.....	600, 639, 1545
South Australia.....	707, 1100, 1187, 2515	Minas Geraes.....	600, 641,
southern Queensland.....	108	878, 939, 972, 1565, 2263	
Tasmania.....	517, 578,	Paraná.....	600, 1470
1187, 1245, 2407-2409		Santa Catarina.....	600
Victoria.....	517, 907, 1187	São Paulo.....	600
Waratah and Long Plains, Tasmania.....	2408	titaniferous magnetite.....	1287
Western Australia.....	421, 761,	Urucum, Mato Grosso.....	600, 639, 1545
990, 1187, 1682, 2177		British Guiana, general.....	257, 517,
Yampi Sound, Western Australia.....	421, 761, 990	701, 713, 1187	
Austria, general.....	228, 517,	Putareng area.....	959
701, 713, 904, 935, 947, 1187, 1261, 1679		Brown hematite iron ore. <i>See</i> Limonite.	
1805, 2002.		Brunei.....	1187
Erzberg, Styria.....	2338	Bulgaria.....	517, 713, 904, 1187, 1369, 1763, 2516
Heuberggraben bei Mixnitz.....	1849	Burma.....	713, 989, 1187
Kärnten (Carinthia).....	156, 1848		
Payerbach-Reichenau (Niederösterreich).....	2001	C	
Steiermark.....	62, 63, 420, 2000, 2338	California, general.....	229, 355,
Stubaitale, Tyrol.....	215	392, 395, 701, 710, 713, 969, 1231, 1244, 1679,	
Azoic system iron ores.....	2569	2478, 2572.	
B		Amador County.....	394, 396, 403
Balkans.....	713	Argus Ranch, Inyo County.....	394
Baltic area.....	1427	Baughman lodestone, Los Angeles County.....	403
Banded hematite ore.....	661, 662, 878, 2249	Bessemer iron project, San Bernardino County.....	2574
<i>See also individual countries and areas.</i>		bibliography.....	710
Banded hematite quartzites.....	863	Big Trees, Calaveras County.....	401
Banded iron ore, genesis.....	661, 878, 2249, 2643	Bonanza, Calaveras County.....	401
pre-Cambrian.....	2082	Burdick, Los Angeles County.....	403
Bauxite, ferruginous.....	1520	Butte County.....	399, 404, 406
<i>See also individual countries.</i>		Calaveras County.....	396, 399, 401
Belgian Congo, general.....	228, 517, 713, 1187	California deposit, Shasta County.....	1436, 2161
Haut-Lualaba.....	1215	Carbondale, Amador County.....	394
Belgium, general.....	228, 288,	Cave Canyon group, San Bernardino County.....	397, 406, 407, 1430
517, 701, 713, 1187, 1643, 1805, 2259		Centerville, Humboldt County.....	394, 401
Couthuin, Liège.....	48	Chaix property, El Dorado County.....	402
Gelrode.....	1063	Clay iron ore.....	394
Lienne.....	1521	Clipper Gap, Placer County.....	389, 397, 403
		Companion I mine, San Diego County.....	388
		Coso deposit, Inyo County.....	387, 402
		Del Norte County.....	401
		Detert deposit, Calaveras County.....	401

California—Continued	Index no.	California—Continued	Index no.
Douglas mine, Mariposa County.....	404	Palen Mountain deposits, Riverside County.....	2405
Downieville, Sierra County.....	390, 391	Palm Springs—Blythe Strip, Riverside County.....	1702
Duke mine, Mariposa County.....	404	Pitt, Shasta County.....	396
Eagle Mountains, Riverside County.....	333, 397, 398, 400, 722, 949, 971, 1177, 1179, 1354, 1945, 2726.	Placer County.....	389, 397, 399, 403
El Dorado County.....	399, 402	Plumas County.....	399
Fisk's Mill, Sonoma County.....	394, 396	Potter's mine, Shasta County.....	389, 394
Fort Ross, Sonoma County.....	394, 396	Prefumo Canyon, San Luis Obispo County.....	397
Franklin Canyon, Tulare County.....	397	Preston mine, Humboldt County.....	394, 401
Hart deposit, Madera County.....	404	Quilty mine, San Benito County.....	397
Heroult, Shasta County.....	722, 1354	Redding quadrangle.....	623
Hirz Mountain, Shasta County.....	1431	Reliance mine, El Dorado County.....	402
Hogum, Madera County.....	396	Riverside County.....	333, 397-400, 405, 722, 949, 971, 1177, 1179, 1354, 1702, 1945, 2405, 2726.
Hoot Owl deposit, Inyo County.....	387	Roper deposit, Inyo County.....	387, 402
Humboldt County.....	394, 396, 401	San Benito County.....	397, 399, 402
Imperial County.....	396, 402	San Bernardino County.....	393, 394, 397-399, 406, 407, 821, 980, 1074, 1242, 1430, 1432-1435, 1437, 1438, 2151, 2404, 2574, 2575, 2650.
Inyo County.....	387, 394, 397, 402, 2404	San Diego County.....	386, 388, 393, 396, 399, 400, 401
Ione, Amador County.....	396	San Emidio, Kern County.....	396, 405
Iron Age mine, San Bernardino County.....	397, 406, 407, 980	San Gabriel Mountains, Los Angeles County.....	1745, 1829, 2187
Iron Blossom mine, Los Angeles County.....	403	San Joaquin County.....	401
Iron Chief mine, Riverside County.....	400, 405, 2405	San Luis Obispo County.....	397, 399, 401
Iron Hat group, San Bernardino County.....	406, 407, 1432	Santa Cruz County.....	398, 402, 1153
Iron King deposit, Silver Lake district, San Bernardino County.....	1433	Shasta County.....	388-391, 394, 396, 399, 411, 722, 1071, 1311, 1354, 1431, 1436, 1950, 2161, 2700.
Iron Master group, San Diego County.....	388, 400, 401	Shasta mine, Shasta County.....	396, 399, 1436, 2161
Iron mine, Napa County.....	394	Shepard's Canyon, Inyo County.....	394
Iron Mountain, Kern County.....	396, 405	Ship Mountains mine, San Bernardino County.....	406, 407, 1437
Iron Mountain, San Diego County.....	386	Sierra County.....	95, 390, 391, 399, 405, 666, 1910
Iron Mountain deposit, Lava Bed district, San Bernardino County.....	1434, 2575	Sierra Iron Company, Sierra County.....	405
Iron Mountain deposit, Silver Lake district, San Bernardino County.....	397, 406, 407, 1433, 2575	Silver Lake district, San Bernardino County.....	397, 406, 407, 1433, 2575
Iron Mountain mine, Shasta County.....	388, 390, 391, 1071	Siskiyou County.....	396, 399, 401
Kern County.....	396, 398, 405	Sonoma County.....	394, 396, 399, 402
Kingston Mountains deposit, San Bernardino County.....	406, 407, 1074	Spencer Lake, Sierra County.....	95, 666
Lady Emma mine, Tulare County.....	397	Tehama County.....	399
Lake Hawley, Sierra County.....	95, 666, 1910	Tiefert Mountains deposit, San Bernardino County.....	2404
Lakeview group, San Diego County.....	388, 400, 401	Trinity County.....	396
Lava Bed Mountains, San Bernardino County.....	393, 394, 397, 1434, 2575	Triumph Steel Co., Santa Cruz County.....	402, 1153
Le Cyr deposit, Inyo County.....	387	Tulare County.....	397, 398
Los Angeles County.....	394, 397, 399, 403, 1745, 1829, 2187	Two To One mine, Kern County.....	396
Lost Confidence mine, Shasta County.....	394	Woody mine, Kern County.....	396, 405
McKinney mine, San Luis Obispo County.....	401	Cameroons.....	517, 1588
Madera County.....	386, 396, 398, 399, 404, 642, 2150, 2389	Canada, general.....	107, 228, 419, 511, 517, 536, 599, 701, 713, 862, 935, 987, 996, 997, 1028, 1482, 1522, 1535, 1717, 1729, 1834, 2041, 2417, 2717.
Maria Mountains deposit, Riverside County.....	2405	Alberta, general.....	1187, 1535, 2591
Mariposa County.....	404	Blairmore area.....	1460
Mask mine, Shasta County.....	388	Lake Athabaska.....	22, 23
Maxwell mine, Shasta County.....	394	Archean rocks.....	536, 1163, 1913
Millspaugh deposit, Inyo County.....	2404	British Columbia, general.....	269, 701, 1187, 1480, 1482, 1500, 1535, 2572, 2591, 2659, 2661.
Minarets deposit, Madera County.....	386, 396, 2150, 2389	Alaska Highway.....	2372
Mountain Spring Canyon, Inyo County.....	394	Alaska Highway between Fort St. John and Fort Nelson.....	950
Mt. Breckenridge, Kern County.....	396, 405	Ashcroft.....	650
Mt. Gleason, Los Angeles County.....	394	Cassiar district.....	1451
Mt. Raymond, Madera County.....	396	Glen mine, Kamloops district.....	1535
Napa County.....	394, 396, 405	Greenwood-Phoenix area.....	1615
Nevada County.....	399	Kamloops district.....	494, 1535
Newberry Mountains, San Bernardino County.....	821	Kitchener.....	221
Nobles, Sonoma County.....	394, 396	Lake mine.....	1535
Old Dad Mountains, San Bernardino County.....	1435	Manson Creek area.....	81, 1451
Ord Mountains, San Bernardino County.....	821		

Canada—Continued	Index no.	Canada—Continued	Index no.
British Columbia—Continued		British Columbia—Continued	
Nanaimo district	1500	Torbrook basin, Annapolis County	801, 802, 1461, 1876, 2639
New Westminster district	1500	Triassic lavas	1129, 2639
Nicola district	494, 495	Wheelock mine	1535
Paxton mine	1535	Whycocomagh and Middle River, Cape Breton	2639
Prescott mine	1535	Ontario, general	237, 419, 453, 485, 701, 1090, 1176, 1187, 1188, 1203, 1351, 1482, 1535, 1604, 1679, 1695, 2588, 2590, 2591, 2659.
Queen Charlotte Islands	1610	Algoma district	1695, 1730, 1736
Saltspring Island	21	Angus Township, Nipissing district	1174
secondary magnetite on islands	1332	Animikie range	1092, 2176
Smithers Coast district	80	Arnprior-Quyon area	2596
Taseko Valley	271	Atikokan area	1535, 1734
Texada Island	268, 270, 944, 1523-1525, 1535, 2330	Bancroft area	6
Vancouver Island	21, 268, 270, 479, 480, 1523, 1524, 1525	Bartlett mine	237
Yale district	418, 494	Batchawana Bay	498, 499
Zeballos, Texada Island	944	Belmont mine	1535
Canadian Shield	419, 1813	Bessemer mine	1535
chromic iron ore	862	Bigwater Lake area	191
iron ore industry	314	Black Sturgeon region	504
Labrador, general	235, 236, 417, 419, 687, 744, 849, 886, 994, 1154, 1649, 2018-2020, 2419, 2710, 2711, 2715, 2729.	Blairton mine	1535
area between Eastman River and Ungava Bay	849	Block Creek map area, Thunder Bay	1240
Baffin Bay	235	Bog iron ore	1722, 1726
Ungava Peninsula	995	Breitung mine	527
Laurentian Mountains	1782	Brudenell-Raglan area, Raglan and Lyndoch Townships	1076
Magnetic iron sands	1164	Bryce-Robillard area	1748
Manitoba, general	1187, 1535, 2591	Calabogie district, Renfrew County	615, 1528, 1533
Black Island, Lake Winnipeg	310	Caldwell mine	615
Island Lake area	1614	Central Ontario Railway	1529, 1531
New Brunswick, general	710, 715, 1187, 1535, 2591	Childs mine	1535
Austin Brook district	1527, 1530	Clear Lake	499
Bathurst	1535	Cochrane district, Fenton Township	1108
Bay of Chaleur	984	Coehill mine	1535
Jacquet River area	16	Darling Township	1879
Tagouche River area	16	Dog River	498
Woodstock area, Carleton and York Counties	384	Dryden-Wabigoon area	2096
Northwest Territories, Iron Islands deposit	1555	Eagle Lake area	1746
Mackenzie River Valley	1338	English River	1722
Nova Scotia, general	87, 423, 588, 701, 857, 859, 1020, 1036, 1187, 1188, 1482, 1535, 2591, 2638, 2659.	Fenton Township	1108
Acadia mine, Londonderry, Colchester County	986, 2145	Flack Lake area	983
Annapolis County	801, 802, 1126, 1461, 1876	Frontenac County	1694, 1937
Arisaig and Malignant	2639	Garnet-Cunningham area	1647
Barachois, Cape Breton	2639	Georgian Bay	1703
Bass River, Colchester and Hants Counties	2537	Glendower deposit, Frontenac County	615, 1694
Bridgeville area	1661	Goudreau area, Michipicoten	419, 509
Cabarus area	644	Grand Rapids siderite	1685
Cape Breton	1532, 2639	Gravel Lake, Thunder Bay district	2342
Clementsport basin	2639	Gunflint formation	850, 851
Cobequid Mountains	1094, 1124, 2536, 2538, 2639	Gunflint Lake area	1875
Colchester County	1124, 2536, 2537, 2538, 2639	Guolais River ranges, Algoma district	1730
Cumberland coal fields	1094	Haliburton County area	6, 452, 1462, 2098
East River, Pictou County	1125	Hastings County	452, 1937
Hants County	2536-2538, 2639	Haycock mine	615
Kings County	1126	Helen mine, Michipicoten	419, 498, 499, 501, 512, 527, 1316, 1535, 1732, 2139
Londonderry mines, Colchester and Hants Counties	1124, 2536, 2538	hematite	139, 140, 304, 885, 1703, 2037, 2345
magnetite and hematite veins in Triassic lavas	1129, 2639	Horwood Lake area	982
Manchester	643	Hunter Island	1875
Martin mine	1535	iron and steel production	1659
Nictaux field	778, 2534, 2639	Josephine mine	304, 419, 1732
oolitic iron deposits	1020	Kingston and Pembroke Railway	1190
Pictou County	858, 860, 999, 1125	Lacy mine	237
		Lake Nipigon ranges	503, 505, 1720, 1721, 1737
		Lake Windegokan	1720, 1737
		Lanark County	1342, 1937

Canada—Continued	Index no.	Canada—Continued	Index no.
Ontario—Continued		Ontario—Continued	
Larder Lake	2595	Woman River range	26, 719, 1731
Lavant Township	1879	Pre-Cambrian iron ore	311, 1733
Leeds County	1937	Quebec, general	648, 653,
Little Current, Georgian Bay	1703	654, 701, 1187, 1535, 1599, 1600, 2591	
Little Long Lac	311, 2375	Abitibi-East County	1600, 1823, 1824
Loon Lake district	2212	Allard Lake district	244
Lower Huronian	499	Argenteuil County	1600
Lyndoch Township	1076	Arnprior-Quyon area	2596
magnetite	1462, 1531, 1533, 1658	Bay of Seven Islands	1600
Magpie mine	1535	Belcher Island, Hudson Bay	311,
Magpie-Hawk area, Michipicoten	509	1600, 1727, 1728, 2660	
Maniwaki area	2596	bog iron ore	1600
Marmora	2066	Bristol mine, Pontiac County	615,
Matawin range	2343	1526, 1535	
Mattagami basin	105, 106, 499	Charlevoix County	856
Mesabi range	498, 1282	chromic iron ore	477
Michipicoten range	311, 419,	East coast Hudson Bay	1600
498, 499, 501, 502, 506-510, 512, 527, 1016,		eastern townships	477, 1600
1316, 1535, 1636, 1719, 1732, 1874, 2139.		Gaspé	1600
Midlothian Township	1628	Gatineau County	2346
Missinaibi area, Michipicoten	512	Gatineau River	478
Mississagi Reserve, Algoma district	1730	Gulf of St. Lawrence	651, 652
Moose Mountain range	180, 1459,	Haig Township, Abitibi County	1823
1474, 1534, 1535		Hincks Township, Gatineau County	2346
Moose Mountain-Wanapitei area, Hutton		Hudson Bay	311, 1566,
Township	1339	1600, 1727, 1728, 2660	
New Helen mine	237, 419, 498, 499	Hull mine	615
Nipissing district, Angus Township	1174,	Hull-Gatineau area	1600
1695, 1696		Ivry ilmenite deposit	1315
northern	1697	Lower Romaine River area, Saque-	
Northern Long Lake area	746	nay County	2017
North Spirit Lake	149	Magnetic sands	651, 652, 1600, 1605
northwestern	141, 142, 500, 1625	Maniwaki area	2596
Old Helen mine	237	Mistassini area	1600, 2504
Onaman ranges	1721, 1723, 1737	Moisie area, Saguenay County	743
Ottawa	201, 476, 615	Montcalm County	1600
Parry Sound district	2097	Nastapoka Islands, Hudson Bay	1566,
Pashkokogan-Misehkov area	677	1600, 1678	
Peterboro County	1462, 1937	Natashkwan, Saguenay County	1805
Pyrite	1016	New Quebec	235, 236,
Raglan Township	1076	417, 419, 667, 849, 994, 1649, 2020, 2419,	
Rainy River district	139, 140,	2710, 2715, 2729.	
237, 264, 419, 497, 791, 885, 1015, 1083, 1093,		northern	1600
1685, 2026, 2037, 2061, 2204, 2344, 2345,		North shore, St. Lawrence River	1600
2347, 2712.		Ottawa River	478
Renfrew County	1528, 1533, 1937, 2099	Pershing Township, Abitibi County	1823
Ridout area, Sudbury district	719	Pontiac County	615, 1526, 1535
Roberts mine	615	Saguenay County	743, 1605, 2017
Round Lake	615, 1724	Saguenay River area	1600
Rush Lake area, Sudbury district	131,	St. Urbain, County Charlevoix	856, 1600
1731		Ste. Marguerite River	1600
Rush River area, Sudbury district	130	Sept-Iles	745
Ruth mine	237	Shawinigan area	1600
Sapawe Lake	1015	Temiscamie River area	2504
Sault Ste. Marie	499	Temiscamingue County	1600
Sahkatawich (Rush) Lake section,		Terrebonne County	1600
Woman River range	1731	Vauquelin Township, Abitibi County	1823,
Savant Lake area	1725, 2035	1824	
Schreiber area	961	Saskatchewan	1187, 1535, 2591
Shining Tree Lake	499	Titaniferous iron ore	884, 1287
siderite	1016, 1685	Yukon	1535, 2661
Sioux Lookout area	1175	Alaskan Highway	2371
Steepprock Lake, Rainy River district	139,	Carbonate iron ores	259, 481, 1016, 1329
140, 237, 264, 419, 497, 791, 885, 1083, 2026,		Carbonate ores, genesis	481
2037, 2061, 2204, 2344, 2345, 2347, 2712.		Caroline Islands, Ponape	1323
Sturgeon River area	2375	Yap	1323
Sudbury district	26, 130, 131, 719, 1731	Central America	517, 701, 713, 935
Thunder Bay	1093, 1240,	Ceylon	517, 713, 1187
1695, 1726, 2342		Chalcopyrite	938
Timagami map area	1747, 1749	Chemical relation of iron and manganese in	
titaniferous iron ore	452, 1174, 1937	sedimentary rocks	1899
Vermilion range	498	Chemistry of iron	798
Victoria County	1658, 1937	Chert, ferruginous	354
Wilbur mine	499	Chile, general	228, 517,
Wilbur mine, Lanark County	1342	701, 713, 904, 935, 996, 997, 1187, 1679,	
Williams mine	527	2049, 2417, 2664, 2717.	

Chile—Continued	Index no.	Colorado, general	Index no.
Copiapó deposits	2076		710, 713,
"El Algarrobo," Departamento de Vallepar	1891		766, 823, 1563, 2460
"El Tofo," Provincia de Coquimbo	1892, 1893	Beaver-Tarryall area, Park County	2190
China, general	517, 701,	Boulder County	460, 462, 1226, 2187
713, 904, 988, 996, 997, 1148, 1187, 1192,		Breece Hill, Leadville district, Lake	462, 1354, 2057
1386, 1411, 1565, 1679, 2210, 2354, 2417.		County	462, 1354, 2057
Anchi district, Fukien Province	1149	Calumet mine, Chaffee County	177, 459
Anhui	1148, 1652	Caribou district, Boulder County	460,
Beiyin Obo, Suiyuan	2383		462, 2187
Cheng-Tai Railway, Shansi	2512	Cebolla Creek district, Gunnison County	461,
Chiachiaoshan, Pengshuihsien, Szechuan	2510		2182, 2187
Chin-lin-chen iron field, north China	1084	Chaffee County	177, 459, 462, 553, 2057
Chuchi district, Yunnan	2513	Colorado Fuel and Iron Corp.	2725
Fukien Province	1149, 2084	Costilla County	1877, 2057
Heichang, western Kweichow	1150	Crested Butte, Chaffee County	459
Hosi district, Yunnan	2513	Cumberland prospect, Gold Hill, Gunni-	
Hsiaoheltsing deposit, Hulli district,		son County	461
Sikang	487	Eagle County	554, 2415
Hsishan, Ocheng, Hupeh	465	Elkhorn Mountain, Gunnison County	461
Hsuanlung type iron deposit	1639	El Paso County	460
Hunan Province	2379, 2514	Fremont County	462, 2057, 2187
Hupeh Province	465, 466, 2317, 2318, 2658	Grayback district, Costilla County	1877
Imen, Yunnan	1151	Gunnison County	461, 462,
Kiangsi	1265		553, 866, 966, 2182, 2187
Kuangshan, Fulingsien, Szechuan	2510	Halls Valley, Park County	460, 462
Kuangtungyai, Pengshuihsien, Szechuan	2510	Handcart Gulch, Park County	460, 462
Kunyang district, Yunnan	2513	Hawkins, Chaffee County	459
Kwangtung Province	1715, 2339-2341	Hot Springs mine, Saguache County	459,
Kweichow Province	1150, 1894		462, 2057
Leishan, Ocheng, Hupeh	465	Iron Hills, Park County	460
Lienhsien, Kwangtung	1715	Iron King mine, White Pine district, Gunni-	
Lingsiang, Ocheng, Hupeh	2317, 2658	son County	461, 462
Lochutsun, Menghua, Yunnan	1572	Iron Mountain, Fremont County	2187
Lower Yangtze region	1147	Jefferson County	460
Luipo deposit, western Szechuan	2511	Lake County	462, 1354, 2057
Luku deposit, Mienning, Sikang	468	Monarch district, Chaffee County	553
Lungwu district, Yunnan	2513	Montezuma quadrangle	1564
Maku hematite deposit, Weining, Hweichow	1894	Morrison, Jefferson County	460
Ningsiang, Hunan	2514	Orient mine	2282
Ocheng, Hupeh	465, 2317, 2658	Park County	460, 462, 2190
Oshan district, Yunnan	2513	Pitkin County	609
Pangchiapu, southern Chahar, north China	1639	Red Cliff district, Eagle County	554, 2415
Pan-Tien, An-Hsi Hsien, Fukien	2084	Saguache County	459, 462, 2057
Paoshanchang deposits, Tzuchin district,		Taylor Peak, Gunnison County	966
Kwangtung	2341	Tincup district, Gunnison County	866
Pehya, Hoching, Yunnan	1571	titaniferous ore	1226, 1287
Pengshuihsien, Szechuan	2510	Tomichi (White Pine) district, Gunnison	
Shuicheng, western Kweichow	1150	County	461, 462, 553, 966
Sikang Province	467-469	Western Slope	94
Szechuan Province	2510, 2511	White Pine district, Gunnison County.	
Tsayeh deposit, Hupeh	466, 2318	See Tomichi district.	
Tsaisukou deposit, Taofu, Sikang	469	Concentration of iron ore. See Ores.	
Tungkuang-Shan, Tungling, Anhui	1652	Concepts of reserves and resources	227
Tzuchin district, Kwangtung	2339, 2341	Connecticut, general	998, 1974,
Weining, western Kweichow	1150, 1894		1978, 2022, 2103
Yuichi district, Yunnan	2513	Canaan	360
Yunfu district, Kwangtung	2339, 2340	Litchfield County	691, 1099, 1116, 1514
Yungchun district, Fukien	1149	New London County	1635
Yungtai district, Fukien	1149	Salisbury district, Litchfield County	1099,
Yunnan Province	1151, 1457,		1116
	1571, 1572, 2513	Windham County	1635
Chromic iron ore	389, 625, 862, 963	Control of iron ore	748
See also individual areas.		Costa Rica	713, 904
Clinton red (hematite) ore	779, 1028,	Crystalline iron ores	1259, 1331
	1110, 1782, 2287	Cuba, general	873, 701,
See also individual areas.		713, 722, 904, 996, 1028, 1187, 1546, 1565,	
Colombia, general	228, 517,	1679, 2417, 2547, 2581, 2636, 2699.	
701, 713, 904, 1187, 1549, 1550, 1679, 1803,		brown iron ores	562, 2545
2016, 2191.		Camaguey	562, 1405, 1494, 2246
Departamento de Atlantico	2021	Chromic iron ore	238
Departamento de Magdalena	1764, 2021	Daiquiri	1291, 1537, 2186
Espirito Santo deposit, Sevilla, Magdalena	1764	Firmeza district, Oriente Province	2050,
La Plata, Huila	42		2186
Morro Pelon deposit, Campamento, Antio-		Juragua Hills near Santiago	1328
quia	43	Lateritic iron ores	1495
Pericos deposit, Guasca, Cundinamarca	364	Levisa	1405
Rovira, Tolima	41	Mahobal	238
Columbia River	1996		

- | Cuba—Continued | Index no. | France—Continued | Index no. |
|--|---|--|---|
| Mayari deposit..... | 1031, 1290,
1405, 1494, 2698 | bassin de Longwy..... | 379 |
| Moa district, Oriente Province..... | 543, 562,
1031, 1405, 1494, 2637 | Birlatou, Basses Pyrenees..... | 455 |
| Oriente Province..... | 543, 562,
1031, 1405, 1494, 2050, 2186, 2246, 2637 | Bresse..... | 594 |
| Pinar del Río Province..... | 442, 1405 | Brittany..... | 1306, 1307 |
| Santiago Province..... | 473, 1326-
1328, 1334, 1405, 2240, 2592 | Chaillac..... | 2490 |
| Specular iron ores of Santiago de Cuba..... | 1326,
1334 | Coatquidan (Morbihan), Brittany..... | 1307 |
| Czechoslovakia, general..... | 1187, 1389,
1390, 1413, 1679, 2516 | Crozon, Finistère..... | 2701 |
| Bohemia..... | 2321, 2554 | Département du Doubs..... | 1653 |
| Carpathian Mountains..... | 1370, 2629 | Devonian iron ore in Pyrenees..... | 865 |
| Irsava, Carpathian Mountains..... | 1370 | East France iron basin..... | 846 |
| magnetites..... | 2144 | Forêt de Lorges, Côtes du Nord, Brittany..... | 1306 |
| Moravia..... | 1389, 1390, 2554 | Four à Cuve, Normandy..... | 1947 |
| Vrát, Zelezný Brod..... | 2064 | Guedmoua..... | 2495 |
| D | | Haute-Marne..... | 1844 |
| Denmark..... | 713, 904 | Haute-Saône..... | 1644, 2365 |
| Dogger ore..... | 610, 809,
1001, 1155, 1995, 2109, 2110, 2117, 2118,
2143, 2702. | iron carbonate ore..... | 1947 |
| <i>See also individual countries.</i> | | Langres..... | 1642 |
| Dominican Republic, general..... | 228, 275,
713, 904, 1187 | limonite..... | 455 |
| Aluminous lateritic soil..... | 868 | Lorraine..... | 75, 77,
78, 182, 199, 200, 288, 378, 380, 381, 1107,
1349, 1360, 1565, 1642, 1644, 2473, 2486, 2488 |
| Maimon-Hatillo district..... | 1368 | Meurthe-et-Moselle..... | 443 |
| Sierra de Baboruco area..... | 868 | Normandy..... | 703, 1072, 1947 |
| Dutch East Indies..... | 861, 1187, 1679 | northwestern..... | 703, 1102, 1977 |
| Dutch Guiana, general..... | 710, 713, 1187 | oolitic iron ores..... | 75, 77,
78, 378, 380, 381, 456, 865, 1102, 1107, 1349 |
| Suriname..... | 228 | 1644, 2473, 2486. | |
| E | | Périgord..... | 457 |
| Ecuador..... | 228, 701, 713, 904 | Pyrenées..... | 455, 865, 2484 |
| Egypt, general..... | 90, 91, 517, 1187 | Rabat, Ariège..... | 2695 |
| Aswán district..... | 1547 | Rhône valley..... | 456 |
| oolitic hematite ores..... | 1773, 2453 | Roquelaire, Ariège..... | 1986 |
| Encyclopedia of iron and steel..... | 2378 | Silurian iron ore in Basse-Normandie..... | 1072 |
| Enrichment of ore deposits. <i>See</i> Ore deposits. | | western..... | 444 |
| Eritrea..... | 228 | French Equatorial Africa..... | 228, 517, 1187 |
| Eruptive iron ores..... | 1766 | French Guiana, general..... | 228, 701, 713 |
| Ethiopia..... | 228, 713, 904, 1187 | French Indo China, general..... | 713, 989,
1187, 1193, 1679 |
| Eulysitic iron ore..... | 84 | Cambodia..... | 228 |
| <i>See also individual countries.</i> | | Lang-Phat..... | 1105 |
| Europe..... | 228, 2051,
2141, 2418, 2419, 2648 | Laos..... | 228 |
| Exploration for iron ore..... | 264, 1229,
1463, 1494, 1718, 1845, 2070, 2214, 2558,
2559, 2686. | Red River, Tonkin..... | 1104, 1106 |
| F | | Vietnam..... | 228 |
| Far East..... | 705 | French Morocco, general..... | 11, 193,
228, 740, 904, 1187, 1679 |
| Features of iron ore deposits. | | Agadir ou Anzizen..... | 740 |
| <i>See</i> Ore deposits. | | Ait Amar..... | 740 |
| Finland, general..... | 228, 517,
701, 713, 1187, 1287, 1679, 2085 | Boulhaut..... | 740 |
| Jussaarigeblot, southwest Finland..... | 2086, 2380 | Christian-Phosphates plateau area..... | 2471 |
| Juvakaisemmaa..... | 239 | Kettara..... | 740 |
| Pitkäranta am Ladoga..... | 2399 | Khenifra..... | 740 |
| titaniferous magnetite..... | 1287 | Ouarzemine-Tachilla..... | 740 |
| Vahajoki ore, Tervola..... | 1681 | Ougnat..... | 740 |
| Flotation of iron ores. <i>See</i> Ores. | | Oulad Said..... | 740 |
| Formosa..... | 1187 | Tidsi..... | 740 |
| Fossil iron ore..... | 112, 613, 1502, 1586, 1671 | French West Africa, general..... | 228, 713,
1187, 1465 |
| <i>See also individual countries.</i> | | Conakry, French Guinea..... | 593 |
| France, general..... | 228, 491,
517, 593, 701, 713, 904, 935, 996, 997, 1187,
1679, 1805, 2417, 2419. | Fort Gouraud, Mauretania..... | 223 |
| Alsace, Bade..... | 2359 | French Guinea..... | 593, 1679, 1830 |
| Anjou..... | 703 | Kandi, Haut-Dahomey..... | 470 |
| Ariège..... | 1986, 2695 | G | |
| Armorica..... | 1977 | Gambia..... | 517, 1187 |
| bassin d'Aquitaine..... | 190 | General..... | 47, 102,
146, 148, 289, 290, 339, 340, 351, 358, 701,
702, 1005, 1467, 1536, 1565, 1983, 1994, 2032,
2126, 2293, 2348, 2496. |
| bassin de Brley, Lorraine..... | 378 | Genesis of iron deposits. <i>See</i> Ore deposits. | |
| G | | Geochemistry..... | 1447, 1448, 1858 |
| Geology of iron ore deposits. <i>See</i> Ore deposits. | | Geophysical methods of exploration..... | 264, 1229,
1463, 2070, 2214, 2558, 2559, 2686 |
| Geology of iron ore deposits. <i>See</i> Ore deposits. | | Georgia, general..... | 713, 1004,
1585, 1586, 1938, 2587 |
| Geology of iron ore deposits. <i>See</i> Ore deposits. | | analyses of iron ore..... | 1938 |
| Geology of iron ore deposits. <i>See</i> Ore deposits. | | Bartow County..... | 1510, 1584, 2040 |
| Geology of iron ore deposits. <i>See</i> Ore deposits. | | brown iron ores..... | 1585, 1938 |

- | Hungary—Continued | Index no. | India—Continued | Index no. |
|---|--|--|--|
| Jaszo | 1828 | Noamundi, Singhbhum, Bihar | 1900 |
| Kakuk-Berge | 2683 | Northern | 1565 |
| Kassaer Havas | 780 | Northern Shan States | 306 |
| Kokad | 2485 | Orissa | 1187, 1247, 1392, 1901, 1906 |
| Mecsek | 2337 | Oudh | 1187 |
| Nagyleta | 2485 | Punjab | 1187, 2067 |
| Vasberges von Kassa | 780 | Rajputana | 1187 |
| Vashegy | 231 | Ratnagiri district, Bombay | 1187, 1392 |
| Zarnya | 1859 | Salem district, Madras | 649, 1113, 2146 |
| Hydrated ferric oxides | 1940 | Shimoga district, Mysore | 2088 |
| Hydrothermal oxidation and leaching of ores | 929, 932, 2071 | Singhbhum district, Bihar | 12, 659, 660, 1392, 1900, 1901, 1906, 2249 |
| I | | Singhbhum-Orissa iron ore series | 1906 |
| Idaho, general | 1679, 1806, 2063, 2679 | southern | 2146 |
| Atlanta district, Elmore County | 51 | Sullapat mine | 1902 |
| Clearwater district, Idaho County | 1606 | Hyderabad, Deccan | 2336 |
| Florence district, Idaho County | 2009 | Tumkar district | 1958 |
| heavy alluvial minerals | 2260 | Indiana, general | 769, 1552 |
| Hornsilver mine, Lava Creek district, Butte County | 52 | Dearborn County | 1040 |
| Idaho County | 1606, 2009 | Franklin County | 1040 |
| Iron Mountain district, Washington County | 1608 | Jennings County | 1040 |
| Last Chance mine, Lava Creek district, Butte County | 52 | Martin County | 2159 |
| Lava Creek district, Butte County | 52 | Ohio County | 1040 |
| Orofino | 50 | Randolph County | 1040 |
| Illinois, Dixon quadrangle | 1350 | Switzerland County | 1040 |
| Gray deposit, Galena district | 1304 | Union County | 1040 |
| Neda formation, northeastern Illinois | 2644 | Wayne County | 1040 |
| northern | 1805 | Indonesia | 713, 989, 2417 |
| St. Peter sandstone | 1425 | Iowa, general | 409, 1069 |
| India, general | 228, 311, 517, 661, 701, 713, 820, 889, 997, 1679, 1903, 2417. | Allamakee County | 195, 1839 |
| Aden | 1187 | brown hematite | 195, 1839, 1911 |
| Agra | 1187 | map | 1069 |
| Assam | 1187, 1392 | Waukon | 1145, 1911 |
| Balladila range, Bastar State | 556 | Iran (Persia) | 228, 517, 713, 904, 1187 |
| banded hematite ores | 661, 2249 | Iraq (Mesopotamia) | 1187 |
| Bangalore district | 1958 | Ireland, general | 713, 1325 |
| Bastar district | 1392 | Crommellin mines, County Antrim | 1888 |
| Bengal | 1187, 1392 | County Antrim | 1296, 1888 |
| Bihar | 12, 659, 660, 1187, 1247, 1392, 1900, 1901, 1906, 2249, 2384. | Iron and steel industry | 15, 44, 153, 292, 454, 730, 731, 759, 1257, 1289, 1659, 1758, 1996, 2003, 2046, 2201, 2272, 2323-2329, 2449, 2562, 2648. |
| Bombay | 1187, 1392 | Iron bacteria | 714, 973, 975, 1825, 2376 |
| Buxa Duars | 1418 | Iron in coal | 24, 1782 |
| Chanda district | 1392 | Iron manufacture, history | 2326 |
| Chitaldrug district, Mysore | 2088 | Iron oxide mineral pigments. <i>See</i> Paint ore. | |
| Cuddapah, south India | 2146 | Iron sands | 385, 390, 391, 588, 1180, 1181, 1866, 1867 |
| Dahlbhum, Bihar | 2384 | <i>See also individual countries and areas.</i> | |
| Daltonganj, Palamau district | 2147 | Iron sands on sea bottom | 2665 |
| Devarnarsipur titaniferous iron, Mysore | 1995 | Itabirite | 972 |
| Drug district | 1392 | <i>See also individual countries and areas.</i> | |
| Eastern Bababudans, Kadur district, Mysore | 1928 | Italian Somaliland | 228, 1517 |
| Goa district | 1187, 1392 | Italy, general | 228, 517, 701, 713, 904, 1187, 1427, 1679, 2270 |
| Hassan district | 1959 | Alps | 2270 |
| Holalkere taluk, Mysore | 1992 | Elba Island | 424, 1641, 2270 |
| Hosdurga taluk, Mysore | 1992 | iron sands | 1909 |
| Hyderabad State | 1187, 1392, 1709 | Lago di Bracciano, Rome | 1909 |
| Jubbulpore district | 1392 | Nuoro Province, Sardinia | 2149 |
| Kadur district, Mysore | 1928, 1959 | Ogliastra, Sardinia | 2474 |
| Kanjamalal Hill, Salem district, Madras | 649 | Sardinia | 713, 1650, 2149, 2474 |
| Kashmir | 1392 | Sassari Province, Sardinia | 2149 |
| Kolar district | 1958 | Tuscan Mountains | 616 |
| Kudada, Singhbhum, Bihar | 12 | J | |
| Madras | 649, 1113, 1187, 1393, 2146 | Jamaica | 713, 2667 |
| Malvalli, Mysore | 736 | Japan, general | 61, 228, 517, 701, 713, 731, 904, 989, 996, 997, 1187, 1216, 1287, 1679, 1933, 2257, 2319, 2417. |
| Mandi State, Punjab | 2067 | contact metamorphic iron deposits | 2530 |
| Mayurbhanj, Bihar | 2384 | descriptions of iron mines | 61 |
| Mysore | 736, 1187, 1928, 1958, 1959, 1985, 1987, 1992, 1993, 2088. | Gumma mine, jarosite-limonite deposit | 2081 |
| Narnaul district, Patiala State | 241. | iron and steel industry | 731 |
| | | iron sands | 2312, 2529 |
| | | Kamaishi mine | 2530 |
| | | Kunimiyama mine, Kochi Prefecture | 2101 |

- | | Index no. | | Index no. |
|--|---|--|---|
| Manchuria—Continued | | Michigan—Continued | |
| southern | 1191, 2210 | Eureka-Asteroid mine, Gogebic range | 2104 |
| titiferous magnetite | 2403 | Felch Mountain range | 1439 |
| Tohendo | 2310, 2311 | Gogebic range | 92, 93,
209, 1471, 2072, 2104 |
| Yingtaoyuan, Fengtien Province | 83 | Houghton County | 126, 2649 |
| Manganiferous iron ore | 976 | Humboldt and Lake Michigan, Mar-
quette range | 2684 |
| <i>See also individual countries and areas.</i> | | Huronian | 619, 1865, 2414 |
| Maps | 358, 645, 905, 965, 1679 | Ice Lake-Chicagon Creek area, Iron County | 1214 |
| Martite | 835, 926 | Iron Cliffs mine, Marquette range | 209 |
| <i>See also individual countries and areas.</i> | | Iron County | 28, 99,
115, 126, 488, 489, 669-671, 675, 874, 1204,
1209, 1210, 1212-1214, 1914, 1915, 1917,
2542, 2686. |
| Maryland, general | 186, 568, 1805, 2181 | Iron Mountain, Menominee range | 1442 |
| Baltimore County | 1637 | Iron River district, Iron County | 28, 99,
669, 671, 1209, 1210, 1212, 1213 |
| Carroll County | 2180, 2188 | Judson orebody, near Crystal Falls | 1204 |
| Frederick County | 2180, 2188 | Keweenaw | 1865 |
| Prince George's County | 1687 | Keweenaw lavas, hematite, ilmenite,
magnetite | 529 |
| Washington County | 2180 | Lake Michigan area | 2136, 2684 |
| Whitehall Station | 1205 | Lake Superior region. <i>see</i> Lake Superior. | |
| Massachusetts, general | 557, 695, 1975 | Ludington mine, Iron Mountain | 308 |
| Berkshire County | 359, 475, 691, 1514 | magnetic surveys | 874, 2332 |
| brown iron ore | 259, 475 | Marquette County | 10, 879, 2138, 2226 |
| Cheever limonite, Berkshire County | 359 | Marquette range, general | 73, 209,
256, 681, 879, 893, 1254, 1324, 1677, 2058,
2072, 2137, 2170, 2331, 2414, 2464, 2466,
2467, 2500, 2576, 2585, 2684. |
| Cumberland | 1114, 1115 | formation of martite in siderite | 2576 |
| Diamond Hill-Cumberland district | 2525 | greenstone schist | 2585 |
| Gay Head, Martha's Vineyard | 219 | Mine no. 2 | 681 |
| Plainfield-Hawley area, Franklin and
Hampshire Counties | 1979 | Mine no. 5 | 893 |
| Salisbury district | 1099 | Menominee quadrangle | 2468 |
| Saugus works | 1587 | Menominee range, general | 158, 209,
668, 682, 814, 1210, 1441-1443, 1677, 2059,
2072, 2585. |
| siderite | 219 | greenstone schist | 2585 |
| Metallurgy. <i>see</i> Ores. | | Mine no. 1 | 682 |
| Mexico, general | 228, 517,
701, 713, 775, 776, 871, 904, 996, 997, 1028,
1088, 1089, 1187, 1679, 1838, 2417. | Michigan mine, Marquette range | 209 |
| Baja California | 2386 | Mineral Hills district, Iron River, Iron
County | 675 |
| Cerro de Mercado, Durango | 184, 205,
747, 775, 787, 1089, 1990, 2087, 2173 | mining industry | 29 |
| Chihuahua, Estado de | 872, 2385 | Negaunee iron formation | 10 |
| Coahuila, Estado de | 774, 800, 1089, 2385 | Newport mine, Ironwood | 2457 |
| Colima, Estado de | 774 | northern Michigan pre-Cambrian geology | 32 |
| Durango, Estado de | 184, 205,
747, 774, 775, 787, 1089, 1990, 2087, 2173,
2385. | Norway Lake, Dickinson County | 483 |
| Guadalajara, Estado de | 1336, 1869 | Norway-Waucedah, Menominee range | 1443 |
| Guerrera, Estado de | 1089 | Penokee series | 1200, 1201 |
| Hacienda de Vaquerias, Hidalgo | 2489 | Penokee-Gogebic series | 2462 |
| Hidalgo, Estado de | 775, 1868, 2489 | Peshekee River area, Marquette and
Baraga Counties | 2138 |
| Jalisco, Estado de | 1089, 1869 | Randville, Dickinson County | 1428, 1429 |
| Las Truchas, Michoacán | 774, 1869 | Republic area | 96 |
| martite and hematite ores | 1089 | Republic mine, Marquette range | 209 |
| Michoacán, Estado de | 774, 800, 2385 | Republic trough | 2466, 2467 |
| northeastern | 775 | reserves | 30, 1483, 1863 |
| Nuevo León, Estado de | 774, 800, 2385 | Sholdeis-Doane and Red Rock explora-
tions, Iron County | 2542 |
| Oaxaca, Estado de | 212, 774, 775 | Spruce River area, Marquette and Baraga
Counties | 2138 |
| Pacific Coast | 775 | Stager area, Iron County | 874 |
| Sinaloa, Estado de | 2173, 2386 | Sturgeon River tongue | 488, 489 |
| Sonora, Estado de | 775, 2386 | Tyler and Cops formations, Gogebic
range | 93 |
| southwestern | 775 | Upper Peninsula | 2060, 2062 |
| Teruel | 1336 | Microscopic structure of United States iron
ores | 520 |
| Valle de Bravo, Estado de Mexico | 1870 | Middle East | 1344 |
| Zacatecas, Estado de | 2385 | Mineral dressing. <i>see</i> Ores. | |
| Michigan, general | 29, 289,
290, 701, 713, 1195, 1450, 1679, 1864, 1974,
2502. | Mining methods | 59, 203,
243, 375, 376, 546, 547, 563, 583, 681, 682,
737, 738, 893, 894, 1065, 1233, 1408, 2104,
2105, 2156, 2456. |
| Aeromagnetic maps | 115, 126, 2543 | | |
| Agawa iron formation, northeast Michigan | 2264 | | |
| Baraga County | 126, 2138, 2226 | | |
| Bear Lake, Houghton County | 2649 | | |
| Blueberry mine, Marquette range | 73 | | |
| Cascade range | 1596 | | |
| Champion mine, Marquette district | 209 | | |
| Cleveland mine, Marquette district | 209 | | |
| Crystal Falls district, Iron County | 99, 488,
489, 1204, 1210, 1917 | | |
| Crystal Falls-Alpha district, Iron County | 1914,
1915 | | |
| Dickinson County | 483, 668,
670, 1428, 1429, 1453, 1916, 2543 | | |

	Index no.		Index no.
Minnesota, general	209, 282,	Minnesota—Continued	
701, 713, 723, 917, 918, 920, 926, 1195, 1257,		Mille Lacs County	1048, 2430, 2432
1679, 2233, 2234, 2301, 2459, 2498, 2600,		Morrison County	1052, 1059
2606, 2611, 2612, 2614, 2616, 2620, 2622,		northeastern	281, 933
2626.		northern	472, 917
aeromagnetic maps	118-125, 1664-1670	Otter Tail County	124, 125
Aitkin County	914, 1046,	Pine County	1048, 2430
	1895, 2370, 2429, 2432	Pioneer mine, Ely	428
Babbitt, Beaver Bay	2724	Polk County	122
Becker County	120	Red Lake County	122
Beltrami County	1055, 2437, 2438	Roseau County	2439
bibliography	909, 910, 2597	St. Louis County	919, 1665-1670
Biwabic formation, Mesabi range	915,	Scallon-Todd lease, Aitkin County	914
	922, 923	Soudan formation	927
Carlton County	1895	Soudan mine	2707
Cass County	1051, 1053, 1054, 1056	southeastern	2265, 2266
Clearwater County	121, 122, 2437	southern	2364
Crosby and Ironton area, Cuyuna range,		Spring Valley, Fillmore County	2197, 2265
Crow Wing County	2116	Taconic iron ores	2624
Crow Wing County	1054, 1057, 2116, 2635	titaniferous magnetite	281, 290, 1287
Cuyuna range, general	7, 71, 272,	Todd County	118
464, 974, 978, 979, 1281, 1458, 1481, 1516,		Vermilion range	3, 487,
1704, 1803, 2072, 2116, 2132, 2360-2363,		927, 2072, 2461, 2609, 2610	
2442, 2618, 2633, 2668, 2670, 2671, 2673,		Wadena County	119
2674.		Mississippi, general	1569, 1570, 2433
concentration tests	71	Benton County	1568
history	1704	Bethlehem area, Marshall County	2483
iron sulfides	2361	central	2066
magnetite slates	2360	Choctaw County	2480
manganiferous iron ores	974,	Enterprise, carbonate ore	259
	1516, 1803	Lafayette County	89
phosphorous iron ores	2362	Marshall County	1568, 2483
Douglas County	123	Potts Camp area, Marshall County	2483
Duluth gabbro	281, 282, 2131	Webster County	2481, 2482
Ely trough	3	Mississippi Valley region	369
Evergreen mine, Cuyuna range	1458	Missouri, general	213, 278,
Grant County	123	482, 543, 713, 1195, 1679, 1711, 1768, 1969,	
Gunflint district	285	2113, 2374, 2563, 2584, 2626.	
Hubbard County	119, 1050	Benton County	279
iron sulfide deposits	1895, 2361	Bourbon magnetite, Crawford County	1612,
Itasca County	70, 1045,	2708	
	1046, 1049, 1058, 2427, 2428, 2431	brown iron ore	482
Kanabec County	1048, 2430	Buford Mountain	816
Keewatin iron	2615, 2623	Butler County	113
Knife Lake area	933	Cameron, Clinton County	74
Koochiching County	1046, 2428,	Carboniferous ores	2, 8
	2434-2436, 2440	Cedar Mountain	516
Lake County	1664, 2442	Crawford County	665, 1385, 1612, 2708
Lake County nickel area	1664	Dent County	665
Lake of the Woods County	2438, 2439	filled-sink iron deposits	665
Lake Superior region. <i>see</i> Lake Superior.		Franklin County	665, 1385
Mahnomen County	121	Hickory, Johnson County	24
magnetite	282, 916,	Hickory County	279
919, 921, 924, 925, 931, 1795, 2123, 2251		Iron County	2625
magnetite cementing ore conglomerates	931	Iron in coal measures	24
Magnetite pegmatites	917	Iron Mountain	568, 608,
magnetite segregation in banded syenite	918	816, 1419, 1805, 2189, 2256, 2625	
manganiferous iron ores	1257, 1803	laboratory concentration of ores	608
Marquette range	256, 1168,	Madison County	2625
	1254, 2072, 2500	map	1779
martite	924, 926, 1795	Pilot Knob	568, 608,
Mesabi range, general	38, 59, 70,	816, 992, 1805, 1969, 2189, 2256, 2269	
283, 303, 896, 915, 916, 921-925, 931, 934,		production	213
1065, 1154, 1250, 1471, 1473, 1553, 1795,		pyrite deposits	903
1873, 2025, 2072, 2073, 2130, 2251, 2253,		Ripley County	113
2254, 2351, 2563, 2602-2604, 2608, 2613,		St. Francois County	2625
2619, 2631, 2632, 2634, 2715, 2728.		secondary limonite	113
concentration tests	70	Shepherd Mountain	816
history	1553	southeastern	1739
magnetite	916, 921, 925	Texas County	665
magnetite cementing ore conglomerate	931	Wayne County	113
magnetite crystals from meteoric solutions	2251	Missouri Valley region	645
metamorphic iron in relation to Embarras granite	2025	Montana, general	445, 2390
paragenesis of martite-magnetite	924, 1795	Belt Creek, Meagher County	880
taconite	303, 934, 1154, 2073	Blackfeet Indian Reservation	2267
		Choteau deposit, Teton County	2598
		Judith Basin County	881, 882, 2043
		Meagher County	880, 883, 2008
		northwestern	333

Montana—Continued	Index no.	New Jersey—Continued	Index no.
Running Wolf district, Judith Basin County.....	881, 2043	Delaware Water Gap	168
Sheep Creek deposits, Meagher County.....	2008	Dover district, Morris County.....	2029, 2178
Southern Cross deposits, Deer Lodge County.....	2599	Dover quadrangle	1039
Stanford	2555	Easton quadrangle	168
Sweet Grass Hills	1294	Franklin Furnace quadrangle.....	1038, 2248
titaniferous magnetite.....	333, 2267, 2598	Franklin and Sterling Hill, Sussex County.....	1857
White Sulfur Springs, Meagher County.....	883	Greenwood Lake quadrangle.....	2443
Yogo Peak, Judith Basin County.....	882	Hamburg quadrangle	1038
Mozambique (Portuguese East Africa).....	1187, 1466	Henry tunnel area, Pequest district, Warren County.....	1144
titaniferous iron ore	1466	Hibernia mine, Morris County.....	1967
N		Highland Mountains	2213
Netherlands	517, 904, 1187, 1403	Hoit mine, Pequest district, Warren County	1144
Nevada, general	713, 1679	Hunterdon County	242, 1144
aeromagnetic map	1821	Jersey Highlands	1013, 1038, 1039
Amarilla iron deposit, Eureka County.....	1070	magnetite	242, 1003, 1139, 1143, 1144, 1778, 2207, 2213, 2214, 2241, 2261.
Barth iron deposit	1249	Mendham quadrangle	1039
Boulder Dam area	1463	mines.....	1221, 1222
Buena Vista deposit, Churchill County.....	1376, 2012	mining industry	1223
Buena Vista Hills, Churchill and Persh- ing Counties	2012, 2125	Morris County	1144, 1410, 1967, 2029, 2178, 2261
Churchill County.....	1376, 2012, 2125	Morristown quadrangle	1043, 2447
Dayton deposit, Lyon and Storey Counties.....	362, 828, 968	Mt. Olive district, Morris County	1144
Eureka, Eureka County	1821	Newton East quadrangle	1038
Eureka County	1070, 1378, 1821	northern	2207, 2261
Goodsprings quadrangle	1073	Passaic County	2261
McCoy deposit, Lander County	1377	Passaic quadrangle	577
McDarell deposit, Eureka County	1378	Pequest district, Warren County.....	1144
Pershing County	1380, 2012, 2125	Phillipsburg, specular iron ore	1206
Phelps Stokes deposit, Nye County.....	1379	Pine Island quadrangle	2446
Ploche district	2556	Plainfield quadrangle	2445
Segerstrom - Helzer deposit, Pershing County	138C	Raritan quadrangle	169
southern	431	Richard mine	2044
New Caledonia.....	228, 1187, 1679, 1904	Ringwood district	1769
New England	186, 691, 695, 2624	Scrub Oak mine	2044, 2045
limonite ores	691, 695	Somerville quadrangle	2444
Newfoundland, general.....	517, 701, 713, 945, 994, 996, 997, 1028, 1187, 1482, 1597, 1679, 2224, 2225, 2369, 2419.	Stanhope quadrangle	1039
Bay de Verde.....	2224	Sterling-Ringwood district.....	1138, 1143
Bell Island, Conception Bay	447	Sussex County	1144, 1580, 1805, 1857, 2179, 2241, 2261
Conception Bay	447, 1023	Swayze mine, West Portal district, Hunt- erdon County	1144
Fortune Harbor	2224	titaniferous magnetite	1287
Hickey's Pond	2224	Turkey Hill mine, West Portal district, Hunterdon County	1144
Indian Head area	1078, 2224	Warren County	1144, 2261, 2397
magnetite	103	Warwick quadrangle	2446
St. Lawrence.....	2224	Wellington-Wright deposit, Sussex County ..	1144
Sheep Brook-Lookout Brook area.....	103	West Portal district, Hunterdon County	242, 1144
Steel Mountain	2224	New Mexico, general	185, 701, 713, 1277, 1679, 1826
Tilt Cove	2224	Black Range (Pierce Canyon), Sierra County.....	1278
undersea iron deposits	1033	Boston Hill, Grant County	726, 1229
Wabana	67, 423, 1003, 1018, 1019, 1021 - 1023, 1187, 1535, 1565, 1602, 2224.	Caballo Mountains, Sierra County.....	1278
New Guinea (Papua).....	1187	Capitan deposit, Lincoln County	1279, 2237, 2239
New Hampshire, general.....	186, 2564	Chupadera Mesa, Torrance County.....	1312, 1314
Bartlett.....	1172	Fairview deposit	2223
Franconia mine, Lisbon	2479	Gallinas Mountains, Lincoln County.....	1276, 1280
Littleton quadrangle	202	Glorietta, Santa Fe County	1455
Moosilauke quadrangle	202	Grant County	722, 725, 726, 1229, 1278, 1354, 1454, 1455, 1852, 1856, 1991, 2238, 2247.
New Jersey, general	159, 568, 620, 701, 713, 1195, 1221 - 1223, 1345, 1409, 1410, 1515, 1679, 1767, 1778, 1805, 1974, 2044, 2214.	Hanover (Fierro), Grant County	722, 1354, 1455, 1852, 1856, 1991
Ahles mine, Warren County.....	1144, 2397	Iron Mountain, Socorro County.....	1455
Anderson district, Sussex County	2179	Jones field, Socorro County	717, 901
Andover - Sulphur Hill mines, Sussex County	1580	Lincoln County	1276, 1279, 1280, 2164, 2237, 2239
Ayres mine, Cummins district, Warren County.....	1144	Little Hatchet Mountains, Hidalgo and Grant Counties	1454
Chester quadrangle.....	1039	Magdalena district, Socorro County.....	1556
Cummins district, Warren County	1144		

New Mexico—Continued	Index no.	New York—Continued	Index no.
manganiferous iron ore.....	725, 726, 1229, 2238	Lake Sanford, Essex County.....	36, 114, 2273, 2274
oolitic iron ore.....	1278	Laurentian magnetic iron.....	952, 953
Orogrande, Otero County.....	1455	limonite.....	691, 695, 754, 902, 1798, 2074, 2706
Pewabic mine.....	2119	Little Caledonia mine, St. Lawrence County.....	273
Pinos Altos, Grant County.....	1278	Long Island Sound, magnetic sands.....	813
San Andres.....	1278	Loon Lake quadrangle, Franklin County.....	1944
Santa Rita, Grant County.....	1856, 2247	Lowville quadrangle.....	315
Silver City, Grant County.....	725, 1278	Lyon Mountain mines, Clinton County.....	36, 53, 819
Silver Spot, Grant County.....	2238	Lyon Mountain quadrangle.....	1701, 1789, 1800
Socorro County.....	717, 901, 1455, 1556	MacIntyre.....	53
New York, general.....	701, 713, 718, 954, 955, 1002, 1195, 1288, 1679, 1791, 1794, 1805, 1827, 1974, 2216, 2421, 2568.	magnetite.....	114, 132-134, 208, 317-320, 513, 563, 819, 894, 952, 953, 1013, 1139, 1143, 1285, 1497-1499, 1683, 1684, 1699, 1700, 1789, 1790, 1793, 1796, 1797, 1800, 1802, 1837, 1846, 1943, 2030, 2093, 2276, 2706.
Adirondack magnetite region.....	34, 35, 36, 53, 116, 147, 317-319, 739, 855, 1029, 1155, 1286, 1287, 1539, 1700, 1771, 1772, 1790, 1796, 1802, 1837, 1846, 1850, 2080, 2217, 2394, 2704, 2706, 2713.	magnetite-ilmenite.....	114
aeromagnetic maps.....	116, 117	martite.....	2727
Allard Lake.....	147	Mineville district, Essex County.....	36, 53, 209, 563, 894, 1064, 1285, 1802, 2030, 2031
Antwerp and Fowler Belt.....	558	Moriah, Essex County.....	544
Antwerp quadrangle.....	315, 558	northern.....	1010
Arnold-Palmer Hill group, Clinton County.....	36	Oakhill - on - Hudson, spathic iron ore, Columbia County.....	1999
Ausable quadrangle.....	1293	Ocean Terrace, Staten Island.....	902
Barton Hill Mines, Mineville district, Essex County.....	36	Oneida County.....	692
Benson mines, St. Lawrence County.....	36, 53, 1012, 2381	Ontario iron mine.....	2349
Black Brook, Clinton County.....	133	Oriskany quadrangle.....	572
Brandy Brook belt, St. Lawrence County.....	1498	Oswegatchie quadrangle.....	571, 1011
Brewster district.....	1358	Palisade diabase.....	2507
Broughton deposit, Essex County.....	2093	Parish deposit.....	2506
Burden mines near Hudson.....	2074	Passaic quadrangle.....	577
Caledonia mine, St. Lawrence County.....	273	Penn Yan, Yates County.....	490
Carney mine, St. Lawrence County.....	273	Peru, Clinton County.....	544
Catskill quadrangle.....	1799	Port Henry district, Essex County.....	36, 53, 208, 209, 1285, 1802
central.....	471, 854	Port Henry quadrangle.....	1295
Chateaugay, Clinton County.....	53	pre-Cambrian geology.....	1288
Chateaugay quadrangle, Franklin County.....	1774	Putnam County.....	209, 1449, 1598, 2078, 2276, 2552
Cheever mine, Port Henry district, Essex County.....	36	Rand Hill, Clinton County.....	587
Childwold quadrangle.....	117	Red-Back mine, Sterling Lake, Orange County.....	1684
Clark mine, St. Lawrence County.....	273	Redford-Clayburg district, Clinton County.....	133, 2007
Clifton deposit, St. Lawrence County.....	53, 2173, 2506	Ring deposit, Essex County.....	2093
Clinton County.....	36, 53, 132-134, 544, 567, 568, 819, 1029, 1139, 1143, 1699, 1701, 1793, 1797, 1805, 1942, 1943, 2007, 2217.	Russell quadrangle.....	117
Clinton hematite ore.....	37, 102, 692, 854, 1791, 1801, 2219, 2222	Russian Station district, Clinton County.....	134
Clyde quadrangle.....	853	St. Lawrence County.....	36, 53, 116, 117, 273, 317, 319, 321, 1012, 1497, 1498, 1499, 1683, 2006, 2217, 2220, 2221, 2381, 2727.
Columbia County.....	691, 1329, 1514, 1999, 2217	Salisbury district.....	1099
Cranberry Lake quadrangle, St. Lawrence County.....	116, 317, 318, 319	Santa Clara quadrangle.....	316
Crown Point, Essex County.....	36, 320, 544	Saranac, Clinton County.....	133
Dannemora district, Clinton County.....	132	siderite.....	1329, 2074
Dannemora quadrangle.....	1942	siderite basins of Hudson River epoch, Columbia County.....	1329
Dead Creek area, Cranberry Lake quad- rangle.....	318	Silver Pond belt, St. Lawrence County.....	1498
Dixon mine, St. Lawrence County.....	273	Sodus Bay quadrangle.....	853
Dutchess County.....	691, 1514, 2217	southeastern.....	513
eastern.....	691, 695	Spruce Mountain tract, St. Lawrence County.....	1499
Elizabethtown quadrangle.....	1295	Star Lake, St. Lawrence County.....	1683, 2006, 2727
Essex County.....	36, 53, 114, 208, 209, 320, 544, 563, 568, 894, 953, 1064, 1139, 1143, 1285, 1802, 2030, 2031, 2093, 2273, 2274.	Stark quadrangle, St. Lawrence County.....	117, 319
Hammond quadrangle.....	315	Staten Island.....	754, 902, 2217
Hammondville mines.....	36	Statistical relation between TiO_2 , Fe_2O_3 , FeO in ores during differentiation, Adirondack Mountains.....	739
hematite.....	273, 558, 692, 1514, 2706	Sterling Lake, Clinton and Essex Counties.....	568, 1139, 1143
Hudson River.....	2217	Sterling mine, St. Lawrence County.....	273
Jefferson County.....	2217, 2220		
Jersey Highlands.....	1013		
Keene mine, St. Lawrence County.....	273		
Lake Champlain.....	2217		

New York—Continued	Index no.	North Carolina—Continued	Index no.
Sterling-Ringwood district, Clinton and Essex Counties.....	1139, 1143	Randolph County.....	951
Taconic limonites.....	1798	Roan Mountain quadrangle.....	1275
Tilly Foster mine, Putnam County.....	209, 1449, 1598, 2079	Rockingham County.....	164, 1506
titaniferous magnetite.....	1286, 1287, 2080, 2273, 2274, 2706	Stokes County.....	951, 1308, 1817
Tupper Lake quadrangle.....	319	Surry County.....	1308
Wayne County.....	2217	titaniferous magnetite.....	166, 1287, 1501
western.....	854	Tuscarora iron belt, Rockingham and Guilford Counties.....	1506
New Zealand, general.....	228, 517, 713, 997, 1187, 1287, 1904	Unaka Mountains.....	2697
Catlins district, South Otago.....	2580	western.....	163-167
Collingwood district, northwest Nelson.....	817	Yadkin County.....	458, 1308
Fitzroy, New Plymouth.....	1181	Northern Rhodesia.....	228, 517, 713, 1679
Hawera series, Wanganui subdivision.....	771	Norway, general.....	228, 517, 701, 713, 904, 1187, 1287, 1679, 1912, 2195, 2419.
iron sands.....	172, 770, 1180, 1181, 2654, 2656	Dunderland.....	322, 2192
New Plymouth.....	172, 1181	Hafjell syncline, Ofoten.....	788
Onekaka district.....	1253	northern.....	1784, 2492
Parapara.....	555, 1187, 1253	siliceous iron ore.....	1784
Patea.....	1180	Sydvaranger.....	323, 2728
Recent series, Wanganui subdivision.....	771	Tarmfjorddal.....	434
titaniferous iron sands.....	1180, 1971, 2656	titaniferous magnetite.....	1287
titaniferous magnetite.....	1287	Torrstenarna.....	2194
Waitara ironsands.....	172	Nyasaland.....	517, 713, 1187
Wanganui magnetic ironsand.....	770		
Nicaragua.....	713, 904, 1187		
Nigeria.....	228, 517, 713, 1187		
North America.....	625		
North Carolina, general.....	161, 568, 701, 1679, 1762, 1819, 1820, 2587		
Allegheny County.....	164	Ohio, general.....	430, 701, 1842, 1843, 1881, 2296, 2587
Ashe County.....	164, 458, 686, 870, 1308, 1816, 1948	Athens County.....	60, 183, 1303
Avery County.....	164, 870, 1347	bog ore.....	2294
Big Ore Bank deposit, Lincoln County.....	486	eastern.....	1194
brown iron ore.....	163, 167, 685, 1819	Gallia County.....	183, 2291
Burke County.....	1308	Hanging Rock district.....	492, 1841
Cabarrus County.....	1308	Hocking County.....	60, 183, 1303
Caldwell County.....	164, 458, 1308	Hocking Valley.....	1165, 1167, 1169
Catawba County.....	163, 164, 458, 1308	iron ore bearing formations.....	2295
Chatham County.....	951, 1308	Jackson County.....	183, 2291
Chatanooga district.....	772	Kenova quadrangle.....	1921, 1924
Cherokee County.....	163, 685, 1308, 1819, 2039	Lake Hope State Park, Vinton County.....	1626
Cherokee deposits, Cherokee County.....	2039	Lawrence County.....	183, 2291
Cranberry deposit, Avery County.....	1347	Meigs County.....	183
Cranberry mine, Iron Mountain, Mitchell County.....	410, 1331, 1426	Muskingum County.....	2292
Cranberry quadrangle.....	164, 1273, 1274	Ohilco region.....	183
Danbury County.....	1817	Pennsylvanian age petroliferous iron ores.....	1194
Davidson County.....	164, 2696	Perry County.....	50, 773, 1303
Davie County.....	951	Pike County.....	183, 2291
French Broad region.....	1308	Scioto County.....	2291
Gaston County.....	163, 164, 951, 1308	Vinton County.....	183, 1626, 2293
Granville County.....	1308, 1815	Oklahoma, general.....	573, 890, 891, 1657
Greensboro titaniferous iron.....	1501	Arbuckle Mountains.....	2582
Guilford County.....	164, 458, 951, 1308, 1506	Raggedy Mountains, titaniferous magnetite.....	2441
Halifax County.....	1308	Reagan sandstone, hematite.....	2582
Johnston County.....	1308	Trinity River Tributary area.....	2271
King's mine, Davidson County.....	2696	Wichita Mountains.....	1655, 1656, 2441, 2582
King's Mountain, Gaston County.....	951	Oolitic iron ore.....	74, 76, 779, 865, 1020, 1102, 1107, 1278, 1644, 1773
Lansing.....	162	genesis.....	75-78, 381, 779
Lincoln County.....	163, 164, 486, 951, 1308	<i>See also individual countries and areas.</i>	
McDowell County.....	163	Oregon, general.....	2679
Madison County.....	163, 870	beach placers.....	1867
magnetite.....	161, 162, 164, 165, 410, 458, 486, 686, 870, 1331, 1347, 1815-1817, 1948.	black sands, southwest coast.....	2411
Mecklenburg County.....	1308	Columbia County, limonite.....	1142, 2586, 2676
Mitchell County.....	164, 410, 458, 870, 1308, 1331, 1426	Columbia River magnetite sands, Clatsop County.....	1284
Montgomery County.....	951	Curry County.....	363
Orange County.....	458, 1308	ferruginous bauxite, northwestern Oregon.....	1520
		Lower Columbia River area.....	1393
		Portland.....	624
		Scappoose limonite, Columbia County.....	1142, 2676
		Snake and Imnaha Rivers.....	1518
		Washington County, high-alumina iron ores.....	1519
		Ore deposits.....	
		enrichment.....	721
		features.....	340

Ore deposits—Continued	Index no.	Pennsylvania—Continued	Index no.
genesis	34, 35,	Cumberland County	361, 783,
55, 75-78, 304, 357, 381, 450, 451, 481, 540,		1503, 1506, 1954	
569, 570, 574, 605, 617, 661, 664, 679, 709,		Cumberland-Lebanon Valley	631, 784,
722, 764, 776, 779, 785, 794, 814, 824, 825,		962, 1054	
856, 878, 956, 1022, 1090, 1128, 1259, 1267,		Danville	2280
1326, 1330-1334, 1402, 1448, 1469, 1477,		Delaware Water Gap	168
1488, 1561, 1573, 1700, 1735, 1766, 1770,		diabase sheets, southwest Pennsylvania	1140
1781, 1782, 1785, 1786, 1790, 1795, 1812,		Dillsburg, York County	967, 970,
1844, 2108, 2158, 2183, 2236, 2249, 2345,		1141, 1777, 2245	
2395, 2488, 2515, 2530, 2561, 2589, 2601,		Dunbar County	1882
2621, 2643.		Dunning's Creek, Bedford County	1502
nature and occurrence	1905, 1989	Durham mine	160
secondary concentration	1490	East Broad Top district	613
supergene enrichment	722	Easton quadrangle	168
undersea iron deposits	1033, 2665	Emaus mine, Lehigh County	1955
Ores, general	351, 1551	Fayette County	1083, 1882
analyses	277, 307, 956, 1939	Fayette and Westmoreland districts, west-	
beneficiation	336, 563, 1804, 2314	ern Pa	2275
concentration	70, 71,	Fogelsville mine, Lehigh County	1955
214, 286, 287, 520, 580, 608, 1464, 2134, 2367,		fossil iron ore	613, 1502,
2551.		1671, 2171	
flotation	1202	French Creek	2206
laboratory concentration	608	Grace mine, Reading	1352, 2066
magnetic concentration	580	Great Valley	1954
magnetic separation	458	Green County	2283, 2284
metallurgy	137, 138,	Half Moon Run, Huntingdon and Centre	
789, 1202, 1304, 1345, 1847, 1426, 1613, 2727		Counties	1504, 1505, 1506
mineral dressing	496	Hanover-York district	2285
smelting	204, 260,	Hardyston formation	1691
332, 588, 1244, 2146, 2147, 2573		hematite	160
transportation	210	Holidaysburg quadrangle	371
treatment	97, 375,	Huntingdon County	629, 1504,
376, 1065, 1613, 2682		1505, 1506, 2078	
Outlook for iron	1292	Huntingdon quadrangle	371
Oxides of iron	2235	Jauss mine, Dillsburg, York County	2245
		Johnstown quadrangle	1923
		Juniata County	623
		Juniata district	613
		Kittanning quadrangle	365
		Lancaster County	781
		Lancaster quadrangle	1241
		Lebanon County	209, 408,
		561, 568, 630, 631, 1080, 1166, 1355, 1508,	
		2156, 2242, 2293, 2657.	
		Lehigh County	844, 1690, 1954-1956
		Lehigh Gap	13, 698
		Lower Silurian limonite, York and Adams	
		Counties	796
		Luzerne County	1236
		Lycoming County	1671
		magnetite	408, 526,
		797, 970, 1014, 1142, 1777, 2206, 2242, 2243	
		manganiferous iron ore	361, 783
		Mercersburg-Chambersburg quadrangle	2286
		Middletown quadrangle	2289
		Mifflin County	632
		Montgomery County	1513
		New red sandstone ore, York County	797
		Nittany Valley, Huntingdon County	629, 1505
		Northampton County	1236, 1689
		Ochre, eastern Pennsylvania	2279
		Paint ore, Lehigh Gap	13, 698
		Rural Valley quadrangle	365
		Schuylkill County	1236
		Siluro-Cambrian limestone ore	627, 796,
		1127, 1128, 1956	
		Smicksburg quadrangle	2153
		Snyder County	632
		Somerset County	1237
		Somerset quadrangle	2023
		South Mountain, Berks County	568, 626,
		785, 962	
		South Mountain, Cumberland County	1503,
		1506, 1954	
		Spruce Creek, Huntingdon and Centre	
		Counties	1504, 1505, 1506
		Stone Valley, Huntingdon County	2078
		Tyrone quadrangle	374

P

Pacific Coast	1068, 1101
Pacific Northwest	100, 587
Pacific Slope, black sands	587
Paint ore	13, 328, 698, 2594
<i>See also individual countries.</i>	
Pakistan	228, 989
Paleozoic interbedded iron ore	679
Palestine	713, 1187
Panama	713, 904
Paraguay	713, 904, 1187
Pennsylvania, general	88, 301,
523, 568, 701, 713, 1079, 1081, 1166, 1195,	
1227, 1589, 1679, 1805.	
Adams County	796, 2288
Alburtis mine, Lehigh County	1955
Allentown quadrangle	1688
analyses	1589
Anglewick Valley	613
Appalachian Mountains	785, 825
Armstrong County	1932
Bechtelsville	1009
Bellefonte quadrangle	373
Berks County	568, 626, 785, 962, 2242
bog iron ore	524
Boiling Springs deposits, Cumberland	
County	361
Boyertown magnetite deposits	1014
Brookville quadrangle	892
brown iron ores (limonite)	525, 627,
796, 844, 962, 967, 1128, 1129, 1504, 1505,	
1690, 1712, 1954, 1955, 1956.	
Buckingham Mountain, Bucks County	2391
Cambro-Silurian limonites	1127
Cameron County	86
Centre County	627, 628,
1504, 1505, 1506	
Cornwall, Lebanon County	209, 408,
561, 568, 630, 1028, 1080, 1166, 1355, 1508,	
2156, 2593, 2657.	
Cornwall-type iron deposits	2242, 2243

Pennsylvania--Continued	Index no.	Portugal--Continued	Index no.
Union County	632	Serra das Tulhas	532
Warrrior's Mark Run, Huntingdon and Centre Counties	1504, 1505, 1506	Serra do Marão	537, 940, 943, 2174
White Rocks, Cumberland County	783	Serra do Rosalgar	531
Windber quadrangle	2023	Setubal district	535
York County	796, 797, 967, 970, 1141, 1777, 2290	S. Portugal	1633
Peru, general	228, 517, 701, 713, 752, 904, 997, 1187, 1679, 2491	S. Torpes (Sines)	439
Aiga deposit	1919	Viana do Castelo district	535
Calleycancha	1919	Vila Cova, Serra do Marão	537, 940, 943, 2174
Cerros de Chanca, Provincia de Cajatambo	2387	Vila Real district	535
Dos de Mayo, Provincia de	1931	Portuguese possessions	1187
Marcona	684, 753, 1121, 1158, 1672, 2731, 2732	Pre-Cambrian iron formations	311
San Nicolas	1672	Prospecting for iron ore	332, 1718
Tambo Grande	676, 2477	Puerto Rico, general	672, 701, 713, 1187, 1323, 1567, 1673, 1674, 1679, 1929, 1963-1965, 1997, 2717.
Yaurilla	596, 597, 684	eastern magnetites	756
Philippines, general	228, 232, 517, 713, 989, 997, 1187, 1679, 2095, 2211	Fajardo district	1676
Bulacan	49	Humacao	514, 755
Cagayan Province	49, 425, 2722	iron sands	2448
Camalaniugan deposit, Cagayan Province	49, 425, 2722	Mayaguez Mesa	757
Camcueves deposit, southwest Samar	1196	Paleosols	1271
Gold Star mines, Mogpog, Marinduque	1197	Pyrometasmatic deposits	1354, 1355
Homonhon deposit	49	Pyrite	512, 903, 938, 1016, 2589
Ilocos Norte, Piddig	2, 49	Pyritic origin of iron ores	451, 2589
Larap Peninsula, Luzon	1317, 1318, 1511	R	
Manicani deposit	49	Reserves	358, 583, 595, 699, 701, 965, 1479, 1493, 1640, 1679, 1871, 2417, 2422, 2426, 2503, 2562.
Marinduque Province	49, 1197, 1833	Residual iron ores	570
Mati district, Davao	49, 1511	Residual iron ores, genesis	570, 722, 1333
Samar	49, 1196	Rhode Island, general	302
Sibuguey district, southern Zamboanga Province	2094	Cumberland, porphyritic iron ore	708, 1114, 1115
Surigao	1, 49, 794, 1847	Diamond Hill-Cumberland district	2525
Tomikob	49	Iron Hill, Cumberland	1115, 1232, 2501
Upper Sibuguey district, southern Zam- boanga Province	49	titaniferous magnetite	1287
Zamboanga Province	49, 2094	Rocky Mountains	1029, 2470
Poland, general	713, 1187, 1361, 1679, 2417, 2516	Rumania, general	713, 904, 1187, 1679, 2516
atlas	1361	Banat region	1889
Kielce	198	bassin de l'Aries	2230
Kouskie district	1375	Tulghes	463
Polarity in magnetite. See Magnetite.		S	
Porphyritic iron ore	706	Saint Helena	517
Portugal, general	228, 517, 538-540, 701, 713, 904, 1187, 1679	Saint Lawrence Seaway	2042
Alentejo	40, 57, 533, 1630, 1634	Saint Pierre and Miquelon	228
Aveiro district	534	Sandstones, ferruginous	548
Beja district	534	San Salvador	904
Braga district	535	Sarawak	517, 1187
Braganca district	534	Saudi Arabia	904, 1187
Cabeça de Coelho	1765	Scandinavian iron ores	1456
Castelo Branca district	535	Scotland, general	875, 1296, 1805
Cercal, Serra das Tulhas	532	Island of Tiree	2558
Cerro da Figueira	1765	Strath, Isle of Skye	2559
Cerro da Serpe	1765	Sea ore	192, 1835
Coimbra district	535	Secondary concentration of iron deposits. See Ore deposits.	
Evora district	535	Sedimentary iron ores, genesis	55, 1488
Faro district	535	Siderite	259, 481, 1016, 1329
Guadramil	422, 541, 565, 941, 942, 2175	genesis	481
Leiria district	535	Sierra Leone, general	228, 493, 517, 713, 792, 1187, 1679, 2419
Lisboa district	535	hematite ores	792, 1934
Moncorvo	2089, 2358	magnetite	493
Montemor-o-Novo	56, 58, 1631, 1632, 1836	Marampa	2705
Moura	72	Tonkolili hematite	1934
Nascedios	1765	Smelting. See Ores.	
Odemira, Serra das Tulhas	532	Soda sinter process	1613
Odivelas, Alentejo	40, 1630, 1634	Solution, transportation, and precipitation of iron and silica	1738
Penedo Amarelo	1765	South America	2454
Porto district	535	South Carolina	2198
Serra Comprida	1765	South Dakota, general	713, 765, 2065

Tennessee—Continued	Index no.	Index no.
Roan Mountain quadrangle.....	1275	Undersea iron deposits. <i>See</i> Ore deposits.
Roane County.....	1085, 1611	Union of South Africa, general.....
Rockwood area, Roane County.....	1085	228, 311, 713, 935, 1007, 1679, 2123, 2417, 2503, 2723
Sequachee Valley.....	249	Bon Accord lodestone, Transvaal.....
Sewannee quadrangle.....	1024	2508
Shady Valley.....	826	Bushveld.....
soft iron ore.....	1258	793, 2299
Stewart County.....	341, 1322	Cape Colony (Cape of Good Hope).....
Tennessee River basin.....	346	517, 612, 1187, 2400
Tennessee Valley.....	344, 704, 2425	Natal.....
titaniferous magnetite.....	186	1187, 1239
Tuckahoe district.....	888	Oliphants Hoek, Cape Colony (of Good Hope).....
Unaka Mountains.....	2697	2400
Wayne County.....	240, 341, 352, 1321, 1322, 1970, 2517	Postmasburg, Cape Colony (of Good Hope).....
Waynesboro quadrangle.....	646, 1710	612
Western Highland Rim, Wayne County.....	240, 352, 1321, 1322, 2517	Thabazimbi, Cape Colony (of Good Hope).....
west-middle Tennessee.....	341	664
Tennessee Valley.....	344, 346, 704, 2425	titaniferous iron ore.....
Texas, general.....	104, 515, 516, 701, 713, 1029, 1542, 1679	2299
Anderson County.....	657	Transvaal.....
Brown iron ore.....	689, 818	224, 517, 1187, 2508
Cass County.....	337	United States, general.....
Cherokee County.....	337, 735	228, 338, 339, 351, 358, 432, 517, 520, 672, 673, 693, 701, 713, 721, 782, 829, 904, 935, 965, 1028, 1171, 1260, 1391, 1780, 1951, 1968, 2417, 2571.
eastern.....	655-657, 689, 690, 818, 1028, 1067, 1235, 1300, 1301, 1302, 1898.	eastern.....
Goethite and hematite.....	818	206, 1168, 2215
Houston County.....	657, 988	northeastern.....
Iron Mountain deposit, Llano County.....	135	1187
Llano County.....	135, 136, 734, 1853, 1926	northwestern.....
Llano region.....	136, 734	1996
Llano-Burnet region.....	1854, 1855	production.....
magnetite.....	135	2426
Marion County.....	337	reserves.....
Mason County.....	734	358, 583, 699, 701, 965, 1493, 1871, 2426
Morris County.....	337	southern.....
northeastern.....	694	8, 328, 342, 454, 1030, 1187
Red River to Rio Grande.....	1896	southwestern.....
Rusk deposits, Cherokee County.....	735	1243, 1991
Smith County.....	1067	titaniferous ores.....
Tertiary iron ores.....	1896, 1898	2185
Trinity River Tributary area.....	2271	western.....
western.....	1028	309, 674, 1087, 1187, 1480
Thailand.....	228, 305, 904, 989, 1187	Uruguay.....
Tibet.....	1187	713, 1187
Timor.....	1187	U. S. S. R., general.....
Titaniferous iron ore.....	313, 333, 403, 439, 452, 453, 739, 884, 920, 1098, 1161, 1174, 1182, 1226, 1287, 1466, 1501, 1745, 1787, 1844, 2184, 2185, 2524, 2663.	20, 226, 311, 517, 680, 708, 713, 904, 935, 997, 1034, 1187, 1255, 1397, 1624, 1679, 2152, 2166, 2167, 2401, 2417, 2703.
genesis.....	1844	Abail deposit.....
<i>See also individual countries and areas.</i>		824
Titaniferous iron sands.....	1180, 1971	Abakan deposit, Siberia.....
<i>See also individual countries and areas.</i>		1415
Togo, Vallée de la Schinga, itabirite.....	1263	Alapaevsk district, Urals.....
Transportation of ores. <i>See</i> Ores.		1395, 1396, 1402, 1935, 2451
Treatment of ores. <i>See</i> Ores.		Alapaev type carbonate ore.....
Trinidad.....	713, 1187	1706
Tunisia, general.....	193, 228, 517, 889, 904, 1187, 1603, 1679	Altai Mountains, Siberia.....
Meknas.....	1961	1805, 2155
Nefzas.....	1961	Anatol type ore, Urals.....
Turkey, general.....	228, 517, 713, 895, 904, 1187, 1573, 1679	1400
Asia Minor section.....	2316	Angara-Ilim region, Siberia.....
Divrik (Vilayet Sivas).....	617, 1373	66, 1381, 2493
Esbiye, Anatolia.....	946	Avzian, Urals.....
Hasancelebi region.....	1372	1382
Taurides Province.....	1374	Bakal, Urals.....
		154, 1363, 1365, 1371, 1382, 1383, 1705, 2680
		Baleia deposit, Transbaikalia.....
		1878
		Bashkir A. S. S. R.....
		2401
		Batowo, Gov. de St. Petersburg.....
		1813
		Beloretzk, Urals.....
		1382
		Blagodot, Urals.....
		154, 605, 606
		central Russia.....
		1805
		Chakassk-Minusinsk region, Siberia.....
		760
		Chailowo.....
		1305
		Dashkesan deposit.....
		1840
		Djezkazgan-Ulutau region, Kazakhstan.....
		474
		Dnieper Valley.....
		1416
		Domain Pokrovskaia.....
		2231
		Donetz Basin.....
		2148
		eastern Siberia.....
		2199, 2228, 2401
		eastern Transbaikalia.....
		2200
		Emyr deposit, Enissey River basin, Siberia.....
		2476
		Ena region, Kola Peninsula.....
		1300
		far eastern Siberia.....
		2401
		Gizhgut River, North Caucasus.....
		2232
		Gora-Blagodot, Urals.....
		605
		hypergeneous iron ores.....
		2297
		Ilimpeia River.....
		2228
		Imandra region.....
		1760, 2165
		Inser, Urals.....
		1382
		Irkutsk, eastern Siberia.....
		638, 2199
		iron industry.....
		153
		Ivanov deposit, Alapaevsk, Urals.....
		1935
		Jisdra, Kalouga.....
		1266

Virginia—Continued	Index no.	Washington—Continued	Index no.
Grayson County.....	1754	Sultan Basin, Snohomish County.....	426
Great Gossan Lead, Carroll County.....	1348,	Thurston County.....	1042
1754, 2651		Wenatchee-Ellensburg-Yakima region.....	863
Greenway iron belt, James River.....	1325	West Indies.....	517, 701, 713, 868, 869, 2720
Henry County.....	1817	Greater Antilles.....	1875
James River iron belt.....	414, 732,	West Virginia, general.....	69, 911,
799, 812, 815, 984, 1325, 1595		1679, 1805, 2053, 2054	
Kanawha Canal.....	414	Barbour County.....	542
Lowmoor.....	1579	Berkeley County.....	912
magnetite.....	1817	black band iron ore.....	2160
Massanutten Mountains.....	1957	Charleston, near David's Creek.....	2160
Nelson County.....	799	Devonian system.....	2641
New Castle, Craig County.....	1886	Franklin quadrangle.....	576
New River.....	568, 1109	Glenmore iron estate, Greenbrier County.....	1851
Nick's Creek region, Smyth County.....	1577	Grant County.....	2013
Norfolk and Western Railroad Company.....	1590,	Great Kanawha.....	2157
1592		Greenbrier County.....	1851, 1953
Oriskany ores.....	416, 635,	Hampshire County.....	2382
697, 964, 1028, 1112, 1234, 1753, 1886, 1887,		Hardy County.....	2382
2546.		iron map.....	2557
Page Valley.....	1957	Jefferson County.....	912
Potsdam formation.....	441	Kenova quadrangle.....	1921, 1924
Purgatory property, Botetourt County.....	415	Mercer County.....	2014
Rich Hill, near Martin's Station.....	614	Mineral County.....	2013
Richmond and Allegheny Railroad.....	416	Monroe County.....	2014
Rich Patch.....	413, 448, 1887	Morgan County.....	912
Roanoke River district.....	732	Ordovician system.....	2642
Roaring Run property, Botetourt and Alle-		Pocahontas County.....	1952
gheny Counties.....	1095	Silurian system.....	2640
Rockbridge County.....	1591, 1883, 2075	southwestern.....	2011
Rocky Mount section, Franklin County.....	1817,	Summers County.....	2014
1885		Wisconsin, general.....	32, 575,
Scott County.....	688	701, 713, 1195, 1199, 1679	
Shenandoah Iron, Lumber, Mining & Manu-		Ashland County.....	1133
facturing Company.....	1130	Ashland mine, Gogebic range.....	209
Shenandoah Iron Works, Page County.....	248	Aurora mine, Gogebic range.....	209
Shenandoah Valley Railroad Company.....	1592	Baraboo range, Sauk County.....	1091, 2056,
Silurian brown hematite.....	1578	2539, 2540, 2617	
Smyth County.....	1577, 1578	Barron County.....	1133
southwestern.....	251, 1594	Bayfield County.....	1133
Staley's Creek, Smyth County.....	1577	brown iron ore.....	27
Stewart's Knob, Patrick County.....	1817	Chippewa County.....	1133
titaniferous magnetite.....	1287	Clinton iron ore.....	333, 446, 2377
Upper Cumberland Valley.....	1594	Colley mine, Gogebic range.....	209
Valley of Virginia.....	441	Dodge County.....	1907
Virginia and Tennessee Coal and Iron		eastern.....	333, 2100
Company property, Wise County.....	633	Forest County.....	1133
Wise County.....	633, 688	Gogebic range.....	19, 92, 93,
		209, 1134, 1135, 1471, 2072, 2685	
		Huronian.....	1865
		Keweenaw.....	1865
		Keweenaw lavas, magnetite, hematite,	
		ilmeneite.....	529
		Lake Superior region. See Lake Superior.	
		Marquette region.....	1168, 1677, 2072
		Mayville iron ore.....	1017
		Menominee region, Oconto County.....	291, 1161,
		1677, 2072, 2647	
		Mississippi region.....	2300
		Montreal mine.....	2105
		Norris mine, Gogebic range.....	209
		northern.....	32, 1137, 1974
		Oconto County.....	291, 1161,
		1677, 2072, 2646, 2647	
		Oneida County.....	1133
		Penokee-Gogebic series.....	2462
		Penokee range.....	1198, 1200, 1201, 1452
		Price County.....	1133
		Rusk County.....	1133
		Sawyer County.....	1133
		Spring Valley.....	27
		Tyler and Copps formations, Gogebic	
		range.....	93
		Washburn County.....	1133
		Washington County.....	1907
		World reserves.....	595, 701,
		1479, 1640, 1679, 2417, 2422, 2503, 2562	

W

Washington, general.....	701, 864,
1224, 2162, 2163, 2527, 2679	
Baker Bay.....	1044
black sands.....	1866
Blewett deposit, Chelan County.....	295, 297,
1440, 1576	
Buckhorn deposits, Myers Creek district,	
Okanogan County.....	296, 2689
Chelan County.....	295, 297,
1440, 1444, 1576, 2205, 2676, 2677, 2687	
Cle Elum, Chelan and Kittitas Counties.....	297,
1444, 1576, 2205, 2676, 2677, 2687	
Columbia River magnetite sands, Pacific	
County.....	1284
Goodman Creek.....	1044
Grays Harbor County.....	1041, 1042
Hamilton, Skagit County.....	2676, 2678
Kittitas County.....	297, 1444,
1576, 2205, 2676, 2677, 2687	
Lewis County.....	1041, 1042
magnetite.....	298, 2184
nickel-iron deposits.....	1440, 1444
Okanogan County.....	296, 298, 2676, 2689
Pacific County.....	1041, 1284
Snohomish County.....	294, 426
Squaw Creek district.....	2187
Stevens County.....	298

	Index no.	Wyoming—Continued	Index no.
World resources.....	5, 197,	Rawlins deposit, Carbon County.....	1562
211, 225, 226, 228, 276, 517, 701, 713, 904,		Seminole deposit, Carbon County.....	722,
906, 908, 977, 983, 1407, 1489, 1679, 2416,		1562, 1563	
2417, 2423, 2424, 2472, 2718.		Shanton deposit, Albany County.....	805,
Wyoming, general.....	176, 701,	1086, 2187	
	713, 787, 1679, 1750, 2027	Shirley deposit, Carbon County.....	1562
Albany County.....	97, 110,	Sunrise Mountain.....	2029, 2455, 2456
621, 722, 804, 805, 1086, 1548, 1787, 1930,		titaniferous magnetite.....	97, 110,
2187		621, 622, 804, 805, 1086, 1287, 1787, 1930,	
Carbon County.....	722, 1562, 1563	2187.	
Good Fortune mine, Platte County.....	806	Y	
Hartville range, Platte County.....	109, 449,	Yugoslavia, general.....	228, 713,
807, 1563, 2227		810, 1066, 1187, 1679, 2417	
Iron Mountain deposits, Albany County.....	97,	Banat region.....	1889
110, 722, 804, 2187		Bosnia.....	517, 1270
Laramie range, Albany County.....	621, 1548,	Herzegowina.....	517
1787, 1930		Serbia.....	517, 904
Platte County.....	109, 449,		
806, 807, 1563, 2227			

AUTHOR INDEX

	Index no.		Index no.
A			
Abad, L. F	1, 2	Bacon, L. O	99, 1229
Abbott, C. E	3	Bacon, W. R	100
Adams, F. D	4-6	Baievsky, Boris	101
Adams, F. S	7	Bain, H. F	102
Adams, G. I	8	Baird, D. M	103, 2225
Adamson, W. M	454	Baker, C. L	104
Adan de Yarza, Ramon	9	Baker, M. B	105-107
Adler, J. L	10	Ball, E. J	292
Agard, J	11	Ball, L. C	108
Agrawal, S. K	12	Ball, S. H	109-111
Aqthe, F. T	13	Ball, S. M	112
Aichino, G	1641	Ballard, T. J	1347-1348
Ainberg, L	14	Ballinger, H. J	113-665
Akerman, R	15	Balsley, J. R	114-126, 675, 1010-1012, 1014, 2543
Alcock, F. J	16	Balzola, José	127
Aldinger, Hermann	17	Bandel, Werner	128
Aldrich, H. R	18, 19, 1865	Bandy, M. C	129
Alexeyski, P. J	20	Bannan, B	568
Allan, J. A	21-23	Bannerman, H. M	130, 131
Allen, E. T	24-25	Bannister, F. A	55
Allen, R. C	26-32	Bardill, J. D	132-134
Allen, R. M., Jr	33	Barlow, A. E	6
Alling, H. L	34-37, 1293	Barnes, V. E	135, 136
Allison, I. S	38	Barrett, E. P	137, 138
Allsman, P. T	39	Barrett, L. P	32
Alm, M. R	2498	Bartley, M. W	139-142, 2036, 2037
Almeida Fernandez, J. M. de	40	Bartling, Richard	143
Alvarado, Benjamin	41-43	Bartz, Joachim	144
Alzola, P. de	44	Bassi, H. G. L	145
American Institute of Mining and Metal- lurgical Engineers	45	Bateman, A. M	146-148
Amsel, H	46	Bateman, H. B	842
Anacion, C	47, 48	Bateman, J. D	149
Andal, Gregorio	49	Bath, G. D	150
Anderson, A. L	50-52	Batov, N. A	151
Anderson, F. G	1233	Baudet, J	152
Anderson, S. A	53	Bauerman, H	153, 154
Anderson, W	54, 55, 2566	Baumberger, E	155
Andrade, Adalberto de	56-58	Baumgaertel, B	156
Andreas, B. M	59	Bayard	157
Andrews, E. B	60	Bayley, W. S	158-169, 488, 489, 577, 2466-2468
Andrews, T. G	61, 356	Bazhenov, I. K	170, 171
Angel, Franz	62, 63	Beach, J. O	573
Angelelli, Victorio	64, 65	Bean, E. F	1865
Angot, Pierre	199, 200	Beavan, A. P	1017
Anikeev, N	66	Beck, A. C	172
Anson, C. M	67	Beck, R	173
Ansted, D. T	68, 69	Becker, Hans	174
Appleby, W. R	70, 71	Beckwith, L. F	175
Araújo, Carlos de	72	Beeler, H. C	176
Archibald, R. S	73	Behre, C. H	177
Arend, J. P	74-78	Behrend, Fritz	178
Armes, Ethel	79	Bell, I. L	179
Armstrong, H. S	1736	Bell, J. J	180
Armstrong, J. F	80, 81, 1451	Bellido, J. E	753
Asano, Goro	82-85	Bellinger, J	181
Ashburner, C. A	86, 613	Belorusov, V. V	1366
Ashley, G. H	87, 88	Benecke, E. W	182
Attaya, J. S	89	Bengston, R. J	183
Attia, M. I	90, 91, 1547	Benitez, Alberto Terrones	184
Atwater, G. I	92, 93	Benito, Fernando	1890
Aurand, H. A	94	Benjovsky, T. D	185
Averill, C. V	95	Benton, E. R	186
Ayres, V. L	96, 2226	Berg, Georg	187-189
		Bergounious, F. M	190
		Bergquist, H. R	868, 869
		Berkey, C. P	1537
		Berry, L. G	191
		Berz, K. C	192
B			
Back, A. E	97		
Backlund, H. G	98		

	Index no.		Index no.
Bétier, G	193	Brown, D. I	303
Bevan, A. C	194	Brown, E. L	304
Beyer, S. W	195	Brown, G. F	305
Beyschlag, F	196, 197	Brown, J. C	306
Bialkowski, A	198	Brown, W. R	307
Bichelonne, Jean	199, 200	Browne, D. H	308
Bilgrami, S. A	2336	Browne, J. R	309
Billings, Elkanah	201	Brownell, G. M	310
Billings, M. P	202	Bruce, E. L	311
Billingsley, Paul	1294	Bruhns, W	312
Binyon, Eugene	203	Brunton, Stopford	313
Birkinbine, John	204-211	Buck, W. K	314
Birkinbine, J. L. W	212	Buddington, A. F	315-321
Bishop, O. M	213	Bugge, J. A. W	322, 323
Bitzer, E. C	214	Bulmer, G. H	324
Blass, J	215	Buraneck, A. M	550, 551
Black, R. F	2458	Burbank, Wilbur	766
Blair, C. S	216	Burchard, E. F	325-358, 2690
Blake, W. P	217-220	Burgess, R. J	359
Blakemore, William	221	Burrall, William	360
Blanchard, Roland	222	Burton, S. E	361
Blanchot, A	223	Butler, A. P., Jr	362, 1788
Bléloch, W. E	224	Butler, G. M	363
Blondel, Fernand	225-228	Butler, J. W., Jr	364
Boalich, E. S	229	Butts, Charles	357, 365-374
Bodifee	230	Byers, Virginia	445
Boeckh, H	231		
Boericke, W. F	232	C	
Boesch, H. H	233	Cadman, J.	375, 376
Boese, E	2489	Cahen, Lucien	377
Bolton, L. L	1535	Caillère, Simonne	378-381
Bondarev, K. N	234	Caldwell, W. B	382, 383
Bonham, H. D	454	Caley, J. F	384
Bonham, W. M	235-237	Calhoun, W. A	385
Booth, J. C	238	California Division of Mines	386-388
Booth, W. M	2349	California State Mineralogist	389-407
Borgström, L. H	239	Callahan, W. H	408, 1786
Born, K. E	240	Callen, A. C	2279
Boss, P. N	241	Calvin, Samuel	409
Botsford, G. B	242	Cameron, A. E	22, 23
Bouldovsky, A. K	243	Cameron, J. M	410
Bourret, Weston	244	Campbell, D. F	411
Boutwell, J. M	245	Campbell, J. L	412-416
Bower, A. S	246	Campbell, Tom	417
Bowles, E. O	247	Camsell, Charles	418
Bowles, Oliver	2472	Canadian Institute of Mining and Metal- lurgy	419
Bowron, W. M	248-250	Canaval, R	420
Boyd, C. R	251-254	Canavan, F	421
Boyle, R. S	255	Cândido de Medeiros, Artur	422
Boyum, B. H	256	Cannon, H. L	766
Bracewell, Smith	257	Cantley, Thomas	423
Bradt, H. H	1804	Capacchi, Celso	424
Brainerd, A. F	258-260	Capistrano, P. M	425
Brandy, M. C	928	Carithers, L. W	426
Braner, Wilhelm	261	Carlson, Lucile	427
Branner, G. C	262, 263	Carlyle, E. J	428
Brant, A. A	264	Carman, J. S	429
Brauns, R	265	Carney, Frank	430
Bredden, Hans	266	Carpenter, J. A	431
Brewer, W. M	267-271	Carr, M. S	432, 433, 674, 1323, 2063
Bridenstine, I. J	1825	Carstens, C. W	434
Brightman, G. F	272	Carvajal y Acuna, E	435
Brinsmade, R. B	273-275	Case, E. C	436
British Iron and Steel Federation	276	Castano, J. R	437
Britton, J. B	277	Castleman, J. W	438
Broadhead, G. C	278, 279	Castro Leandro, G. de	439
Brockamp, Bernhard	280	Cater, Fred	445
Broderick, T. M	111, 281-287, 921, 922	Cattlett, Charles	440-442
Brooks, A. H	288	Cavallier, C	443
Brooks, T. B	289-291	Cayeux, L	444
Brough, B. H	292	Chabot, L. S., Jr	73
Broughton, H. J	293	Chace, F. M	445
Broughton, J. G	1002	Chadwick, L. C	293
Broughton, W. A	294-298	Chamberlin, T. C	446
Brown, Andrew	299, 300	Chambers, R. E	447
Brown, A. P	301		
Brown, C. W	302		

	Index no.		Index no.
Chance, H. M	448-451	Crosby, I. B	557
Chao, K. P	2658	Crosby, W. O	558
Chapman, E. J	452, 453	Crouse, C. S	559
Chapman, H. H	454	Crowell and Murray, Inc	560
Charrin, Victor	455-457	Cummings, W. L	561, 562
Chase, H. S	458	Cummings, A. M	563
Chauvenet, Regis	459-462	Cummings, J. B	564
Chelarescu, Alex	463	Cunha Gouveia, J. A. da	541, 565
Cheney, C. A., Jr	464	Currey, R. O	566
Cheng, H. H	465, 466	Cushing, H. P	567
Cheng, Y. C	467-469, 2514		
Chermette, A	470	D	
Chester, A. H	471, 472	Daddow, S. H	568
Chindgren, C. J	97	Dake, C. L	569, 570
Chisolm, F. F	473	Dale, N. C	571, 572
Chorney, Raymond	552	Dale, Phyllis	573
Chow, T. C	469	Dana, J. D	574
Chukhrov, F. V	474	Daniels, Edward	575
Chute, N. E	475	Darton, N. H	576, 577
Cirkel, Fritz	476-478	Daubine, F.	443
Clabaugh, S. E	645	Dauncey, W. G	578
Clapp, C. H	479, 480	Davies, W	53
Clar, Eberhard	481	Davis, E. W	579-584
Clark, E. L	482	Davis, V. C	585, 1895
Clark, L. D	483, 1214	Dawson, J. W	586
Clarke, J. W	484	Day, D. T	587, 588
Claudet, H	485	De Adaro, L	589
Clayton, A. B	486	Deans, T	293
Clements, J. M	487-489	De Jorge, Emilio	590
Clemmons, B. H	2367	De Kalb, Courtenay	591, 592
Clemson, T. G	490	De la Bouglise, R	593
Clerf, F	491	Delafond, Frédéric	594
Clevenger, G. H	588	Delaitre, P. C	429
Cobb, J. C. H	492	De Launay, L	595, 1456
Cocco, Giovanna	493	Delavault, R. E	2526
Cockfield, W. E	494, 495	del Solar B., Carlos	596, 597
Coe, G. D	496, 751	del Valle de Lersundi, A	598
Coghill, W. H	496, 751	DeMille, J. B	599
Cohen, C. J	2006, 2007	De Miranda Barbosa, A. L	600
Cole, G. E	497	de Moraes, L. J	600
Cole, J. W	2889	Dempsey, W. J	601-603
Coleman, A. P	498-508, 1737	Déperet, C	594
Collins, W. H	509-512	Derbikov, I. B	604
Colony, R. J	513, 514	Derviz, V. M	605, 606
Comstock, T. B	515, 516	De Sierra, Alfonso	937
Congrès Géologique International	517	DeSollar, T. C	607
Conley, J. E	1613	Destombes, J	11
Connolly, J. P	518	DeVaney, F. D	608
Cook, G. H	2218	Devereux, W. B	609
Cook, K. L	519	Deverin, Louis	610, 611
Cooke, S. R. B	520, 608	DeVilliers, J. E	612
Coolidge, C. W	521	Deweese, J. H	613
Cooper, B. N	522	Dewey, F. P	614, 615
Cooper, H. H	1224, 2163	De Wijkerslooth, P	616, 617
Corbin, J. R	523-526	De Ysassi, Victor	618
Corkill, E. T	527	Dias de Carvalho, Adalberto	1634
Cornet, J	528	Dick, L. E	929
Cornwall, H. R	529	Dickey, R. M	619
Cossio, L. P	530	Diegman, C. F	620
Costa Almeida, J. M. da	531-533	Diemer, R. A	621
Costa Moura, J. E. da	534, 535	Dietz, C. S	622
Coste, Eugene	536	Diller, J. S	623-625
Cotelo Neiva, J. M	537-541, 943	D'Invilleirs, E. V	626-633,
Counillon, —	1457		1508, 1593, 1594
Cox, E. T	542	Dixie, R. J. M	53
Cox, J. S	543	Dixon, E. E. L	634
Cozzens, Issachar	544	Doak, S. E	635
Crago, W. H	2038	Dobrokhotov, M. N	636, 637
Craig, L. C	1341	Doctorovitch-Grebniński, S. A	638
Crane, G. W	545	Dønath, Eva	1357
Crane, W. R	546-548	Döring, T	173
Crawford, A. L	549-552	Dorr, J. V. N., 2d	600-641, 1821
Crawford, R. D	553, 554	Dougherty, E. Y	642, 2689
Croce, R	2034	Douglas, G. V	643, 644
Crockett, R. E	2045	Dow, D. H	645
Cronels, C. G	1153	Drake, N. F	646
Crook, T	555	Dreyer, R. M	647
Crookshank, H	556	Drolet, Jean-Paul	648

	Index no.		Index no.
Dubey, V. S	649	Fischer, Georg	764
Duffell, S	650	Fischer, R. P	765-767
Dulieux, Emile	651-654	Fitzhugh, E. F., Jr	768
Dumble, E. T	655-657	Fitzsimmons, P. J	880-882
Dunham, K. C	53, 858	Fix, G. F	769
Dunn, J. A	659-663, 932	Fleming, C. A	770, 771
Du Preez, J. W	664	Fleming, H. S	772
Dupuy, L. W	665	Flint, D. E	1323
Durrell, Cordell	666	Flint, G. M., Jr	2523
Durrell, W. H	667	Flint, N. K	773
Dutton, C. E	432, 668-675, 1212, 1441-1443, 2116	Flores, Teodoro	774-776
Duval, A	676	Fluhr, R	777
Dyer, W. S	677	Flynn, A. E	778
Dynan, J. L	13	Foerste, A. F	779
		Foldvari, Aladar	780
E		Foose, R. M	781-785, 892
Eakin, H. M	678	Fordham, W. H	786
Earle, R. B	679	Foshag, W. F	787
Eaton, Lucien	680-686	Foslie, Steinar	788
Eberzin, A. G	687	Fosse, E. L	2652
Eby, J. B	688	Poster, J. W	789, 790
Eckel, E. B	689, 690	Fotheringham, M. S	791
Eckel, E. C	357, 691-704, 1033	Fountain, H. C	2271
Economic Commission for Asia and the Far East	705	Fowler-Lunn, Katherine	792
Edgingfield, F. T	977	Frank, Manfred	17
Eddy, E. B	706	Frankel, J. J	793
Edwards, A. B	421, 707	Frasché, D. F	794
Edwards, T	708	Fraser, H. J	795
Efremov, N. E	709	Frazer, Persifor, Jr	796-800
Egenhoff, E. L	710	Fréchette, Howells	801, 802
Egleston, Thomas	711	Freise, F	803
Ehrenberg, H	1989	Frey, Eugene	804-807
Ehrenfeld, Frederick	301	Freyberg, Bruno	808, 809
Ehrmann, F	712	Friedensburg, Ferdinand	810
Einecke, Gustav	713	Friz, W	811
Ellis, David	714	Froehling, Henry	812
Ells, R. W	715	Fuller, M. L	713
Elter, E. H	716	Fulton, John	814
Emmens, N. W	717	Furcron, A. S	815
Emmons, Ebenezer	718		
Emmons, R. C	719	G	
Emmons, W. H	720-723	Gage, J. R	816
Englebach, H	724	Gage, M	817
Entwistle, L. P	725, 726	Galbreath, F. W	818
Epprecht, W	727	Gallagher, David	819
Erb, Ludwig	728	Ganguly, Hirenda Nath	820
Erickson, A. W	729	Gardner, D. L	821
Erselçuk, Muzaffer	730, 731	Gardner, J. H	822
Espenshade, G. H	732	Gardner, J. T	823
Esteve Torres, Adrian	2385, 2386	Garkovetz, V. G	824
Eszto, P	733	Garrels, R. M	437
Evans, A. M	734, 735	Garrison, F. L	825, 826
Evans, J. W	736	Gates, D. W	307
Evans, W. D	737, 738	Gavala, J	827
Evrard, Pierre	739	Gay, T. E., Jr	2650
Eyssautier, L	740	Geehan, R. W	828
		Geijer, Per	829-841
F		Gella, Norbert	842
Fabian, Rudolf	741	Gesner, William	843
Fabrega, P	742	Getz, A. J	844
Faessler, Carl	743-745	Getz, J. H	1229
Fairburn, H. W	746	Gibson, A. M	845
Farrington, O. C	747, 1808	Gibson, C. G	2177
Federal Trade Commission	748	Gibson, Russell	554
Feeley, J. C., Jr	749	Gigniac, A	846
Fehlmann, H	750	Gilbert, Geoffrey	847, 848
Feld, I. L	751	Gilbert, J. E	849
Ferguson, H. W	1341	Gildersleeve, Benjamin	372
Fernandez Concha, Jaime	752, 753	Gill, J. E	850, 851
Fettker, C. R	754-757	Gill, W	852
Fiege, Kurt	758	Gillette, Tracy	853, 854
Filatov, K. S	759, 760	Gillies, D. B	855
Finucane, K. J	761, 762	Gillson, J. L	856
Fircks, F	763	Gilpin, Edwin	857-890
		Girard, H	1600
		Gisolf, W. F	861
		Glenn, William	862

	Index no.		Index no.
Glover, S. L	863, 864	Harrison, Clark	992
Goar, I	865	Harrison, H. S	993
Goddard, E. N	866, 867	Harrison, J. M	994, 995
Goldich, S. S	136, 868-870	Hart, Charles	996, 997
González Reyna, Jemaro	871, 872	Harte, C. R	998
Gooch, E. O	873	Hartley, Edward	999
Good, S. E	874	Hartley, W. N	1000
Goodchild, J. G	875	Hartmann, Eduard	1001
Goodchild, J. H	876-878	Hartnagel, C. A	1002, 1801
Goodman, R. J	879	Hasebrink, A	1003
Goodspeed, G. E	880-883	Haseltine, R. H	1004
Goodwin, W. L	884	Hatcher, Harlan	1005
Goodwin, W. M	885, 886	Hatzfeld, C	1006
Gordon, C. H	887, 888	Haughton, S. H	1007
Gordon, Mackenzie, Jr	1368	Haven, W. A	1008
Gottis, Ch	889	Hawkes, H. E	1009-1014
Gould, C. N	890, 891	Hawley, J. E	1015-1017
Graeber, C. K	892	Haworth, Erasmus	2625
Graff, W. W	893	Hayes, A. O	1018-1023
Grainger, G. W	793	Hayes, C. W	1024-1032
Granbery, J. H	894	Hayes, J. J	1033
Granigg, Bartel	895	Hazenbush, G. C	2650
Grant, U. S	896-900	Head, A. P	1034
Grantham, R. M	901	Head, R. E	1035
Grasselly, Gyula	1357	Heck, E. T	1953
Gratacap, L. P	902	Hedley, Edward	1036
Graton, L. C	1537	Heim, Arnold	1037
Graves, H. G	292	Heindl, R. A	1613
Grawe, O. R	903	Hemingway, J. E	53, 1995
Great Britain Board of Trade	904	Henderson, J. R	1038-1059, 1665-1670
Great Britain Ordnance Survey Office	905	Henderson, R. G	2452
Greene, J. D	906	Henke, W	1060-1062
Gregory, H. E	2022	Henrotin, L	1063
Gregory, J. W	907, 908	Henry, E. C	1064
Gregory, Winifred	909, 910	Herkenhoff, E. C	1065
Grimsley, G. P	911, 912	Herman, Felix	1066
Grondijs, H. F	913	Herndon, J. H	1067
Grosh, W. A	914, 1736	Hersam, E. A	1068
Grout, F. F	723, 915-922	Hershey, H. G	1069
Gruner, J. W	923-936	Hershey, O. H	1070, 1071
Guard, A. K	426	Heurteau, C. E	1072
Guardiola, Ricardo	937	Hewett, D. F	1073, 1074
Guild, F. N	938	Hewett, G. C	1075
Guild, P. W	600, 939	Hewitt, D. F	1076
Guimarães dos Santos, J. L	940-943	Hewitt, G. W	1077
Gunning, H. C	944	Heyl, A. V	1078
Gutsell, B. V	945	Hickok, W. C	1079-1082
Gysin, Marcel	946	Hicks, H. S	1083
H			
Haberfelner, Erich	947	Higasinaka, Hideo	1084
Hadding, Assar	948	Higgins, Edwin	1085
Hadley, J. B	949	Hild, J. H	1086
Hage, C. O	950	Hill, J. M	1087
Hagner, A. F	1787	Hill, M. E	118-125, 1051, 1060
Hair, R. L	2029	Hill, R. T	1088, 1089
Hale, P. M	951	Hille, F	1090-1093
Hall, C. E	952, 953	Hind, H. Y	1094
Hall, James	954, 955	Hinsdale, W. R	1095
Hallimond, A. F	53, 956-958	Hitchcock, C. H	1096
Hamilton, J	959	Hitchcock, Edward	1097
Hammond, H. O	1684	Hjelmqvist, Sven	1098
Hanna, G. B	1308	Hobbs, W. H	1099
Hansell, N. V	1800	Hockey, F. R	1100
Harbort, E	960	Hodge, E. T	1101
Harcourt, G. A	961	Hoenes, D	1102
Harden, J. W	962	Hofer, H	1103
Harder, E. C	333, 963-980, 1491, 1492	Hoffet, J. H	1104-1106
Harder, Hermann	981	Hoffmann, L	1107
Harding, W. D	982, 983	Hogg, Nelson	1108
Hardman, J. E	984	Holden, R. J	1109-1112, 2533
Harper, R. M	985	Holland, T. H	1113
Harrington, B. J	986, 987	Holley, A. L	1114-1116
Harrington, Horace	988	Hollingworth, S. F	1117-1120
Harrington, J. F	989	Holmberg, C. J	1121
Harris, C. M	990	Holmberg, C. L	2685, 2686
Harris, H. G	991	Holmström, Leonard	1122
		Holt, S. P	1123
		Honeyman, David	1124-1126
		Hopkins, T. C	1127, 1128

	Index no.		Index no.
Malozemoff, A	1623	Moore, P. N	1739-1744
Markov, V	1624	Moorhouse, W. W	1745-1749
Marks, J. E	1625	Morais Ferreira, Francisco de	565
Marple, M. F	1626	Moreno A., Arribas	1646
Marsh, A	1627	Morgan, G. B	1750
Marsh, J. A	1930	Morning, J. L	2272
Marshall, H. I	1628	Morozevich, I	1751, 1752
Martins da Silva, João	58, 533, 1630-1634	Morrison, G. A	1753, 2517
Marvler, L	228	Morrison, W. F	304
Mason, R. S	1519, 1520	Mosier, McHenry	242, 1778, 2261
Mather, W. W	1635	Moxham, E. C	1754
Matheson, A. F	1636	Moyer, F. T	1083
Mathews, E. B	1637	Mueller, F. T	1755
Mathias, M	1638	Muenster, H	1756
Matsuda, Kamezo	2084	Mullenburg, G. A	482
Matsuzawa, Isao	1639	Muir, N. M	1757
Matthews, A. F	1640	Mukherjee, A. N	2067
Mattirolo, E	1641	Munger, H. P	1758
Mattocks, P. W	704	Murashov, D. F	1759, 1760
Maubeuge, P. L	1642-1644	Murayama, Kazutara	1761
Mayer, L. W	1645	Murdock, T. G	1762
Maynard, J. E	1738	Murray-Hughes, R	1763
Mead, W. J	1494, 1495	Mutis, J., Vincente	1764
Medina M., Alía	1646	Myers, J. O	2558, 2559
Meen, V. B	1647	Myers, P. B	1691
Mehliss, A. T. M	1648		
Melcher, N. B	358, 1649	N	
Melchiori, G	1650	Nascimento Sancho, Joaquim	533, 1765
Mendes Pereira, Guilherme	531, 533	Nason, F. L	1766-1772, 2625
Meneghezzi, M. L	600	Nassim, G. L	1773
Meng, H. M	1652	Nelson, Gaylord	891
Merle, A.	1653	Nelson, V. E	1775
Merrill, J. A	1654	Nelson, W. A	1776
Merritt, C. A	1655-1657	Neumann, G. L	1777, 1778
Merritt, W. H	1658, 1659	Neuschel, V. S	1779
Mertie, J. B., Jr	2209	Newberry, A. W	795
Merwin, H. E	1940	Newberry, J. S	1780-1783
Messervey, J. P	1661	Newhigin, H. T	1784
Mesyaniinov, A. A	1662	Newhouse, W. H	408, 1785-1788
Metz, Karl	1663	Newland, D. H	1789-1802
Meuschke, J. L	118-125, 1046-1060, 1664-1670	Newton, Edmund	70, 71, 1803, 1804
Meyer, Abraham	1671	Newton, Henry	1805
Meyer, G	1672	Newton, Joseph	1806
Meyerhoff, H. A	514, 1673-1676	Nichols, Edward	1807
Michigan Academy of Science, Arts, and Letters, Section of geology and mineralogy	1677	Nichols, H. W	1808
Mickle, G. R	1678	Nicolau, T	1809
Mikami, H. M	1679	Nikiforov, A. N	2353
Mikhailovsky, V	1680	Nikolaev, D	1810, 1811
Mikkola, Almo	1681	Nishio, Keijiro	1812
Miles, K. R	1682	Nitikin, S	1813, 1814
Millar, W. T	1683, 1684	Nitze, H. B. C	1815-1819
Miller, A. H	1685	Nixon, L. K	1820
Miller, A. M	1686	Nolan, T. B	1821
Miller, B. L	562, 1687-1691	Nordenström, G	1822
Miller, R. L	1692	Norman, G. H. W	1823, 1824
Miller, R. M	1693	Norman, H. S	1824
Miller, W. G	1694-1698	North, Loyd	1825
Miller, W. J	1699-1702, 1771	Northrup, S. A	1826
Mills, H. F	1408	Norton, S	1827
Mills, S. D	1703	Noszky, Jenö	1828
Milton, Charles	2189		
Minnesota Historical Records Survey Project	1704	O	
Miropol'skiy, L. M	1705-1708	Oakeshott, G. B	1829
Mirza, Khurshid	1709	Obermüller, Alphonse	1830
Miser, H. D.	1710	Oberrascher, Erich	1831
Missouri Geological Survey	1711	Oberste-Brink, K	1832
Mitchell, D. R	1712	Oca, G. R	1833
Mitchell, G. J	363	O'Connor, J. J	1834
Mok, Chee-sun	1715	O'Harra, C. S	518
Monkowski, T	1716	Ohle, W	1835
Montgomery, W. B., Jr	486	Oliveira, J. M. de	1836
Monture, G. C	1717, 1718	Oliveira Barros, J. J. de	532, 533
Moon, L. B	1260	Oliver, F. J	1837
Moore, D. D	183	Ordóñez, Ezequiel	1838
Moore, E. S	373, 1719-1738	Orr, Ellison	1839
		Ortenberg, D	1840

- | | Index no. | | Index no. |
|------------------------|------------------|--|------------------|
| Orton, Edward | 1841-1843 | Prescott, Basil | 1950 |
| Osborn, E. F. | 177 | President's Materials Policy Commission | 1951 |
| Osborne, F. F. | 1844-1846 | Price, P. H. | 1952, 1953, 2382 |
| Osterstock, R. W. | 1821 | Prime, Frederick, Jr. | 1954-1957 |
| Ostrea, Enrique | 1847 | Primrose, A. | 1958, 1959 |
| Othmar, Friedrich | 1848, 1849 | Procter, J. R. | 1960 |
| Otte, H. F. | 1850 | Proctor, P. D. | 666 |
| | | Prost, A. | 1961 |
| | | Prouty, W. F. | 1962, 2382 |
| P | | Puerto Rico Bureau of Mines | 1963 |
| Paba Silva, Fernando | 43 | Puerto Rico, Committee on Mineral Resources of Puerto Rico | 1964, 1965 |
| Page, B. M. | 989 | Pulfrey, William | 1966 |
| Page, W. N. | 1851 | Pullman, J. W. | 1967 |
| Pai, C. C. | 1571, 1572 | Pumpelly, Raphael | 1968, 1969 |
| Paige, Sidney | 1852-1856, 2247 | Purcell, P. E. M. | 690 |
| Palache, Charles | 1857, 2248 | Purdue, A. H. | 1970 |
| Palau, Climaco | 43 | Purser, E. | 1971 |
| Pallister, H. D. | 454 | Pustovalov, L. V. | 1972, 1973 |
| Palmqvist, S. | 1858 | Putnam, B. T. | 1974 |
| Papp, Ferenc | 1859 | Putzer, Hannfrit | 1975, 1976 |
| Paradisi, Carlos | 1880, 1861 | Puzenat, Leon | 1977 |
| Pardee, F. G. | 1862-1865 | Pynchon, W. H. C. | 1978 |
| Pardee, J. T. | 1866, 1867 | | |
| Paredes, Trinidad | 1868-1870 | Q | |
| Park, C. F., Jr. | 675, 1871 | Quinn, A. W. | 1979 |
| Parker, R. A. | 1872 | Quiring, Heinrich | 1980-1984 |
| Parks, H. M. | 2586 | Quirke, T. T. | 512 |
| Parsons, A. B. | 1873 | | |
| Parsons, A. L. | 1874, 1875 | R | |
| Parsons, W. F. C. | 1876 | Radhakrishna, B. P. | 1985 |
| Patton, H. B. | 1877 | Raguin, E. | 1986 |
| Pavlov, N. H. | 1878 | Rainwater, E. H. | 177 |
| Peach, P. A. | 1879 | Ramage, H. | 1000 |
| Pearse, S. W. | 1880 | Raman, N. D. | 2651 |
| Peattie, Roderick | 1881 | Rama Rao, B. | 1987 |
| Pechin, E. C. | 1882-1887 | Ramberg, Hans | 1988 |
| Peile, W. | 1888 | Ramdohr, P. | 1989 |
| Pelikan, A. | 1889 | Ramsay, R. H. | 183 |
| Peña, Julian | 1890 | Rangel, M. E. | 1990 |
| Peña i Lillo, Oscar | 1891-1893 | Ransome, F. L. | 1991 |
| Peng, C. J. | 1894 | Ranz, Manuel | 1336 |
| Pennington, J. W. | 914, 1895 | Rao, B. Balaji | 1992 |
| Penrose, R. A. F., Jr. | 1896-1899 | Rao, S. Lakshmana | 1993 |
| Percival, F. G. | 1900-1906, 2249 | Rastall, R. H. | 1994, 1995 |
| Percival, J. G. | 1907 | Raver, P. J. | 1996 |
| Percy, R. F. | 1908 | Ray, H. C. | 1997 |
| Peretti, Luigi | 1909 | Ray, R. G. | 2519, 2523 |
| Perry, E. L. | 1910 | Raymond, R. W. | 1999 |
| Pesonen, P. E. | 113, 433, 1911 | Redlich, K. A. | 2000-2002 |
| Petersen, E. | 1912 | Reebel, Dan | 2003 |
| Peterson, R. G. | 97 | Reed, A. H., Jr. | 2004, 2387 |
| Peterson, Ulrich | 753 | Reed, D. F. | 2005-2007 |
| Pettijohn, F. J. | 874, 1913-1917 | Reed, G. C. | 2008 |
| Pfeiffer, John | 1918 | Reed, J. C. | 2009, 2010 |
| Pfluecker, L. | 1919 | Reeves, Frank | 2011 |
| Phalen, W. C. | 1920-1924 | Reeves, R. G. | 2012 |
| Phillips, W. B. | 1925-1927 | Reger, D. B. | 2013, 2014 |
| Pichamuthu, C. S. | 1928 | Reid, W. A. | 2015 |
| Pico, Rafael | 1929 | Reis Arruda, Carlos dos | 58 |
| Pinnell, D. B. | 1930 | Restrepo T., J. I. | 2016 |
| Pinzas, E. J. | 1931 | Retty, J. A. | 2017-2020 |
| Platt, W. G. | 1932 | Reymond, Edouard | 2021 |
| Pollard, Melvin | 1933 | Reyner, M. J. | 2390 |
| Pollett, J. D. | 1934 | Rice, W. N. | 2022 |
| Polyanin, V. A. | 1693, 1935, 1936 | Rich, J. L. | 980 |
| Pope, F. J. | 1937 | Richards, R. H. | 587 |
| Porter, J. B. | 1938 | Richardson, G. B. | 2023 |
| Portevin, Albert | 1939 | Richarz, Stephen | 2024, 2025 |
| Posnjak, Eugen | 929, 1940 | Rickaby, H. C. | 2026 |
| Postel, A. W. | 1774, 1941-1944 | Ricker, Spangler | 1231, 2161, 2575 |
| Powell, K. B. | 1945 | Ricketts, L. D. | 2027 |
| Powers, Sidney | 2525 | Rickman, A. F. | 2028 |
| Prager, C. | 1946 | Riddle, A. M. | 2029 |
| Pralon, L. | 1947 | Ries, Heinrich | 2030-2032 |
| Pranti, F. | 2321 | Rigal, Remigio | 2033 |
| Pratt, J. H. | 1948 | | |
| Pratt, W. P. | 2543 | | |
| Preobrazhenski, I. A. | 1949 | | |

	Index no.		Index no.
Riggi, A. E	2034	Schneiderhöhn, Hans	2123
Rittenhouse, G	2035	Schnellmann, G. A	2124
Roberts, H. M	2036-2038	Schouten, C	913
Robertson, A. F	2039, 2040	Schrader, F. C	2125, 2126
Robinson, A. H. A	2041	Schröder, Eckart	2127
Robinson, B. L	2042	Schuster, Mattheus	2128
Roby, R. N	2043	Schwantke, A	2129
Roche, H. M	2044, 2045	Schwartz, G. M	745, 2130-2133
Rodgers, Allan	2046	Scott, D. W	2134
Rodgers, John	1341, 2047	Scrivenor, J. B	2135
Rodionov, S. P	2048	Seaman, W. A	2136-2138, 2226
Rodriguez D., Marin	2049	Seelye, R. W	2139
Roesler, Max	1537, 2050, 2051	Seeman, Reinhold	2140
Rogers, R. F	2052	Sehmer, Th	2141
Rogers, W. B	2053, 2054	Seitz, Otto	2142, 2143
Rohlfing, D. P	2055	Sellner, F	2144
Rohn, Oscar	2056	Selwyn, A. R. C	2145
Rolker, C. M	2057	Sen Gupta, J	2147
Romberg, Frederick	135, 136	Sen Gupta, K. K	2146, 2147
Rominger, C. L	2058-2060	Serdjutschenko, D	2148
Ronan, J. J	1079	Serra, Aurelio	2149
Rose, E. R	2061	Severy, C. L	2150, 2151
Rose, R. S	2062	Shabad, Theodore	2152
Rose, W. C. C	658, 2398	Shaffner, M. N	2153
Ross, C. P	1537, 2063	Shakhov, F. N	2154, 2155
Ross, C. S	2100	Shale, S. J	2156
Roth, Zdeněk	2064	Shaler, N. S	2157
Rothrock, E. P	2065	Shand, S. J	2158
Rothrock, H. E	1280	Shannon, C. W	2159
Rove, O. N	2066	Sharples, S. P	2160
Rowlands, C. E., Jr	307	Shattuck, J. R	2161
Roy, S. K	2067	Shedd, Solon	2162, 2163
Royce, Stephen	930, 932, 2068-2073	Shelton, J. S	1821
Ruedemann, Rudolf	315, 1295, 2074	Sheridan, M. J	2164
Ruffner, W. H	2075	Shifrin, D. V	1760, 2165
Ruiz, Carlos	2076	Shimkin, D. B	2166, 2167
Rupp, G. H	2029	Shook, A. M	2168
Rusakov, M. P	2077	Shtreis, N. A	2169
Rutledge, J. J	2078	Shunway, W. A	2170
Ruttman, F. S	2079	Silliman, Benjamin	2171-2173
S			
Sainfeld, P	889	Silva Carvalho, J. L. da	534, 535
St. Clair, Stuart	2080	Silva Freire, J. L	2174
Saito, Masatsugu	2081	Silva Gameiro, J. C. da	58
Sakamoto, Takao	2082-2084	Silva Neto, A. da	2175
Saksela, Martti	2085, 2086	Silver, L. P	2176
Salinas, L. S	2087	Simons, F. S	2389
Salisbury, R. D	169, 577, 2248	Simpson, E. S	2177
Sambasiva-Iyer, V. S	2088	Sims, P. K	2178, 2179
Sampelayo, P. H	2089-2091	Singewald, J. T., Jr	2180-2189
Sampson, R. J	2405	Singewald, Q. D	2190, 2191
Sanders, B. H	2092	Sisson, M. L	2029
Sanford, R. S	359, 361, 1124, 1684, 2093	Sjögren, Hjalmar	2192-2196
Sanford, Samuel	2126	Skillings, D. N	2197
Santos-Yñigo, Luis	2094, 2095	Sloan, Earle	2198
Sarmiento S., Roberto	41, 42	Smalley, R. G	1280
Sato, Kozo	2528	Smirnov, S. S	1268, 2199, 2200
Satterly, Jack	2096-2099	Smith, A. F	2201
Savage, T. E	2100	Smith, Bernard	634
Sawamura, Takeo	2101	Smith, E. A	2202, 2203
Sawyer, A. H	2102	Smith, F. G	2204
Schairer, J. F	2103	Smith, G. O	2205
Schaus, O. M	2104, 2105	Smith, I. F	1676
Scheibe, E. A	2106, 2107	Smith, L. E	1214
Schiltz, P	2108-2110	Smith, L. L	2206, 2207
Schlegel, K	2111	Smith, P. S	2208, 2209
Schmeisser, C	2112	Smith, Wilfred	2210
Schmidt, Adolf	1969, 2113	Smith, W. D	2211
Schmidt, E. R	2114	Smith, W. N	2212
Schmidt, K. G	2115	Smock, J. C	2213-2218
Schmidt, R. G	2116	Smyth, C. H., Jr	2219-2222
Schmidtill, Ernst	2117, 2118	Smyth, H. L	468, 469, 2466, 2467
Schmitt, H. A	2119	Smythe, D. D	2223
Schnarrenberger, C	2120	Snelgrove, A. K	2224-2226
Schneider, R	2121	Snow, E. P	2227
Schneider, Robert	2122	Soares Carneiro, F	2175
		Sobolev, Vladimir	2228
		Sobotha, Ernst	2229
		Socolescu, M	2230

- | | Index no. | | Index no. |
|---|------------------------|---|-----------------------|
| Sokolov, N | 2231 | Tarr, W. A | 2348 |
| Solovyev, S. F | 2232 | Taylor, C. F | 2349 |
| Soper, E. K | 2233, 2234 | Taylor, G. C., Jr | 305 |
| Sosman, R. B | 2235, 2236 | Taylor, J. H | 53, 1118-1121, 2350 |
| Souder, Harrison | 1537 | Taylor, W. L | 2351 |
| Soule, J. H | 735, 901, 2237-2239 | Tebenkov, V. P | 2352, 2353 |
| Sousa Campos, Viriato de | 40 | Tegengren, F. R | 2354 |
| Spencer, A. C | 2240-2248 | Telford, R. J | 782 |
| Spencer, E | 1906, 2249 | Tello B., Manuel | 2355 |
| Sperber, Hans | 2250 | Teodorovich, G. I | 2356 |
| Spiroff, Kiril | 2251 | Terry, O. W | 2686 |
| Spuhler, Ludwig | 2252 | Teixeira, E | 2357 |
| Spurr, J. E | 2253-2256 | Thadeu, Décio | 2358 |
| Staatz, M. H | 2257 | Thayer, T. P | 1788 |
| Stahl, Alfred | 2258 | Thobald, N | 2359 |
| Stainer, X | 2259 | Thiel, G. A | 2265, 2266, 2360-2364 |
| Staley, W. W | 2260 | Thirion, Charles | 2365 |
| Stampe, J. A | 2261 | Thoenen, J. R | 2366, 2367 |
| Standerline, G. V | 2262 | Thom, W. T | 2368 |
| Stappenbeck, R | 2263 | Thomas, G. G | 2369 |
| Stark, J. T | 2264 | Thomas, Kirby | 2370 |
| Stauffer, C. R | 2265, 2266 | Thomas, L. O | 2371, 2372 |
| Stebinger, Eugene | 2267 | Thomas, T. C | 555 |
| Steelways | 2268 | Thompson, N. E | 2373 |
| Steenland, N. C | 2452 | Thompson, R. O | 2374 |
| Stefansson, K | 2520 | Thomson, Ellis | 512, 719 |
| Steidtmann, Edward | 2289 | Thomson, J. E | 2375 |
| Stella, Augusto | 2270 | Thorne, R. L | 2551 |
| Stenzel, H. B | 2271 | Thunmark, Sven | 2376 |
| Stephens, W. W | 2272 | Thurber, J. B | 81, 1451 |
| Stephenson, R. C | 2273, 2274 | Thwaites, F. T | 2377 |
| Stevenson, J. J | 2275 | Tiemann, H. P | 2378 |
| Stewart, C. A | 2276 | Tien, C. C | 2379 |
| Stewart, L. A | 2277 | Tigerstedt, A. F | 2380 |
| Stewart, R. M | 2650 | Tillinghast, E. S | 2381 |
| Stockley, G. M | 2278 | Tilton, J. L | 2382 |
| Stoddard, J. C | 2279 | Ting, T. H | 2383 |
| Stoek, H. H | 2280 | Tipper, G. H | 2384 |
| Stoltz, G. C | 2281 | Tolonen, A. W | 2653 |
| Stone, J. B | 2282 | Tordeur, J | 48 |
| Stone, L. H | 2093 | Toron Villegas, Luis | 2385, 2386 |
| Stone, R. W | 2126, 2283, 2284 | Torrico-y-Mesa, J | 2387 |
| Stose, A. J. See also Jonas, A. I | 1241, 2285, 2289, 2290 | Trasenster, P | 2388 |
| Stose, G. W | 1241, 2285-2290 | Trask, P. D | 2389 |
| Stott, R. G | 1233 | Trauerman, C. J | 2390 |
| Stout, Wilber | 2291-2296 | Trego, C. R | 2391 |
| Strakhov, N. M | 2297 | Trillo-Figueroa, A. C | 2392, 2393 |
| Straley, H. W., III | 307 | Troger, E | 1103 |
| Stratton, E. F | 2298 | Trost, A. H | 2394 |
| Strauss, C. A | 2299 | Trotter, F. M | 2395, 2396 |
| Strong, Moses | 2300 | Troxell, J. R | 2397 |
| Strong, Phil | 2301 | Trusheim, F | 2398 |
| Strutzel, Helmut | 2302 | Trüstedt, Otto | 2399 |
| Stutzer, O | 2303-2308 | Truter, F. C | 2400 |
| Sudo, Tosio | 2309-2313 | Tsentral'niy nauchno-issledovatel'skiy geol-
ogo-razvedochnyi institut | 2401 |
| Sullivan, J. D | 2314 | Tsui, K. S | 469 |
| Sullivan, J. W | 2315 | Tsuru, Kazuo | 2402, 2403 |
| Summersbach, B | 2316 | Tu, H. L | 1715 |
| Sun, C. C | 2317, 2318 | Tucker, R. C | 2382 |
| Supreme Commander for the Allied Powers,
Natural Resources Section | 2319 | Tucker, W. B | 2404, 2405 |
| Svitalskiy, N. I | 2320 | Tullis, E. L | 2406 |
| Svoboda, J | 2321 | Tunell, G | 929 |
| Swank, J. M | 2322-2329 | Twelvetrees, W. H | 2407-2409 |
| Swanson, C. O | 932, 2330-2332 | Twenhofel, L. H | 2410 |
| Swartz, F. M | 374 | Twenhofel, W. H | 2411, 2414 |
| Sweeting, G. S | 2333 | Twenhofel, W. S | 2412 |
| Swineford, A. P | 2334, 2335 | Tyler, S. A | 2413, 2414 |
| Sztrokay, Kalman | 2337 | | |
| | | U | |
| | | Uglov, W. L | 2661 |
| | | Umpleby, J. B | 2415 |
| | | United Nations | 2416-2419 |
| | | United States Bureau of Mines | 2420 |
| | | United States Department of Commerce | 2421 |
| | | United States Department of State | 2422, 2423 |
| | | United States Geological Survey | 2424-2448 |
| | | | |
| T | | | |
| Taffanel, J | 2338 | | |
| Takeuti, Tamehiko | 2529 | | |
| Tan, H. C | 2339-2341 | | |
| Tang, K. C | 465, 466 | | |
| Tanton, T. L | 2342-2347 | | |

	Index no.		Index no.
United States Tariff Commission.....	2449	Weigelt, J	2541
Upham, W. E	2450	Weir, K. L	126, 1213, 2542, 2543
Uspensky, N. A	2451	Welch, F. B. A	2544
V			
Vacquier, V	2452	Weld, C. M	2545-2547
Vadasz, Elemer	2453	Wells, F. G	2548-2550
Valdes, B. L	2454	Wells, R. R	2551
Vallat, B. W	2455-2457	Wendt, A. F	2552
Van Alstine, R. E	2458	Werner, Sture	2553
Van Barneveld, C. E	2459	Wernicke, F	2554
Vanderberg, W. O	1463	Wesner, A. L	2134
Vanderwilt, J. W	2460	Westgate, L. G	2555, 2556
Van Hise, C. R	488, 489, 1200, 1201, 2461-2469	West Virginia Geological Survey	2557
Van Houten, F. B	2470	Whetton, J. T	957, 958, 2558, 2559
Van Leckwijck, William	11, 48, 2471	Whinery, S	2560
Van Royen, William	2472	White, C. H	2561
Van Werveke, L	2473	White, C. M	2562
Vardabasso, Silvio	2474	White, D. A	2563
Varsanofeva, V. A	2475	White, G. W	2564
Vasil'yev, A. A	2476	White, Peter	2565
Venturo, P. C	2477	Whitehead, T. H	2566
Vernon, J. W	2478	Whitlatch, G. I	2567
Verrow, H. J	2479	Whitney, J. D	790, 2568-2570
Vestal, F. E	2480-2483	Whitney, R. W	2571
Vie, Georges	2484	Whittier, W. H	2572
Vigh, Gyula	2485	Wiberg, Martin	2573
Villain, François	2486	Wiebelt, F. J	2574, 2575
Villain, P	2487, 2488	Wienert, F	2576
Villarello, J. de D	2489	Wiese, T	2577
Vincienne, Henri	2490	Wild, Helmut	2578
Vlassenko, A	2491	Willard, Bradford	374
Vogt, J. H. L	2492	Willbourn, E. S	991
Voigt, E	2541	Willems, Alph	2579
Vologdin, A. G	2493	Willett, R. W	2580
von Bülow, Kurd	2494	Willey, D. A	2581
von der Weid, Frederic	2495	Williams, A. J	2582
Voskuil, W. H	2496	Williams, C. C	2583
W			
Wade, Bruce	2497	Williams, C. P	2584
Wade, H. H	2498	Williams, G. H	2585
Wadsworth, M. E	2499, 2500-2502	Williams, I. A	2586
Wagner, P. A	2503	Willis, Bailey	2205, 2587
Wahl, W. G	2504	Willmott, A. B	506-508, 2588-2591
Walford, E. A	2505	Wilson, C. E	588
Walker, A. E	2506	Wilson, E. B	2592, 2593
Walker, Frederick	2507	Wilson, Hewitt	2594
Walker, T. L	2508, 2509	Wilson, M. E	2595, 2596
Walton, M. S., Jr	2521, 2522	Wilson, S. R	2688
Wang, C. C	2510	Wilson, Vernon	2566
Wang, C. S	2511	Wilson, V. M	2597
Wang, C. T	2512	Wimmler, N. L	2598, 2599
Wang, H. C	2379	Winchell, H. V	2600-2608, 2622-2624
Wang, Y. L	2513, 2514	Winchell, N. H	2609-2624
Ward, L. K	2515	Winslow, Arthur	2625
Warde, J. M	2516	Wirth, F. P	2626
Warne, J. D	2366	Witte, W	2627
Warner, A. H	2517	Wittich, L. L	2628
Warner, L. A	867, 2518-2523	Woldrich, Joseph	2629
Warren, C. H	2524, 2525	Wolf, Martha	2630
Warren, H. V	2526	Wolff, J. F	2248
Washington Department of Conservation and Development	2527	Wolff, J. F	2631-2633
Wasson, P. A	914	Wood, E. B	1775
Watanabe, Manjiro	2528, 2529	Wood, C. E	138
Watanabe, Takeo	2530	Woodbridge, D. E	2634-2637
Waters, K. H	2531	Woodman, J. E	2638, 2639
Watson, E. H	1637	Woodward, D. A	1426
Watson, T. L	2532, 2533	Woodward, H. P	2640-2642
Weatherbe, D'Arcy	2534	Woolnough, W. G	2643
Weber, Eugen	2535	Wootton, T. P	1455
Wedow, Helmuth	870, 1014	Workman, L. E	2644
Weeks, L. J	2536-2538	Wray, D. A	2566
Weidman, Samuel	2539, 2540	Wright, C. E	2645-2647
		Wright, C. W	2648
		Wright, E. C	454
		Wright, J. C	2649
		Wright, L. A	2650
		Wright, R. J	2651
		Wright, W. S	2652, 2653
		Wyatt, J. L	559
		Wyble, D. O	99

	Index no.		Index no.
Wylie, A. W	2654	Zans, V. A	2667
Wyman, C. L	2655	Zapfe, Carl	2668-2679
Wytlc, A. W	2656	Zavaritsky, A. N	2680
		Zeijlmans van Emmichoven, C. P. A	2681
		Zeiler, R	1457
		Zeitz, Isidore	2452
		Zetterstrom, J. D	2682
		Zimanyi, K	2683
		Zinn, Justin	2684
		Zinner, Paul	2685, 2686
		Zoldok, S. W	2687-2689
		Zorin, V	66
		Zuloaga, Guillermo	2355, 2690-2694
		Zvereff, R	1986, 2695
		Anonymous	2696-2732