

this year's output of ore is expected to surpass the large production of last year.

The lead and zinc mines are producing ore at a rate even exceeding that of last year and the prevailing prices have made possible the working of large quantities of low-grade ore.

Most precious-metal mines are operating at full capacity. The gold production will probably fall below the high yield of last year, but silver, the one metal last to benefit by the general domestic prosperity, is expected this year to break all previous records.

In quicksilver the outlook is for a continuance of the output of 1915, which was the largest for several years. Thus far in 1916 the average price has greatly exceeded the 1915 prices; and although the reaction in prices has come, conditions are favorable for steady and profitable operation of the quicksilver mines, some of which are newly opened.

The reports from the survey's western offices are all optimistic. In Arizona mines and smelters are working at high pressure, and the production of metals already shows an increase that promises to make the value of the output nearly double that of last year. Arizona will maintain first place as a copper producer. New Mexico is continuing its rapid progress as a metal-mining state, with increases in its output of lead, copper, zinc, gold and silver. The mines of Colorado in the six months just past have shown some changes in output as compared with last year; an increase of 30 per cent. in copper is indicated, together with small gains in lead and zinc, a 15 per cent. decrease in gold, and little change in silver. This output, however, represents a large gain in value of mine production. Mining has also been stimulated in Montana, and the forecast indicates an increase of 60 per cent. in the value of the mine product over that of last year. Here also record outputs may be expected for 1916. Idaho mines are increasing their shipments in all the metals, with higher wages and larger dividends as the result of better prices.

Utah is experiencing an ore production in excess of smelter capacity. The value of the 1916 output of copper is expected to be double

that of last year. Throughout Nevada the old term "boom" best expresses the present mining revival. Old mines are being reopened and regular producers are working at full capacity. The chief gains in production will be in copper, lead and zinc. The increased activity in the mining industry of California is finding expression largely in the reopening of mines that have been long idle and the opening of new mines for chrome, tungsten, manganese, antimony and magnesite, rail shipments of these ores to the east being made possible by prevailing high prices. Washington is another state which shows increased production, the mining industry there being in better condition than for several years past. Alaska also is benefiting by the increased activity of its mines. Copper mining is showing great advances, and the output of both copper and gold promises to exceed that of last year.

THE OPTICAL SOCIETY OF AMERICA

At the recent regular election of the newly organized optical society, the name Optical Society of America was chosen. The officers chosen for the year are: President, P. G. Nutting; Vice-president, G. E. Hale; Treasurer, Adolph Lomb; Secretary, F. E. Ross. The Executive Council consists of the above officers and F. E. Wright, C. E. K. Mées, Norman Macbeth and J. P. C. Southall. The charter members of the society are:

Mr. Adelbert Ames, Jr., research, Clark University; Mr. Edward Bausch, member Bausch & Lomb Optical Co.; Dr. E. J. Bissell, research ophthalmologist; Dr. Wm. Churchill, Corning Glass Co.; Professor Louis Derr, professor of physics, M. I. T.; Dr. Marshall D. Ewell, consulting optical engineer; Professor C. W. Frederick, chief, lens designing and testing, E. K. Co.; Dr. H. P. Gage, optical research and design, Corning Glass Co.; Dr. G. E. Hale, director, Solar Observatory, Mt. Wilson; Dr. E. P. Hyde, director, Nela Research Laboratory; Dr. H. E. Ives, optical research, U. G. I. Co.; Mr. L. A. Jones, optical research, E. K. Co.; Dr. H. Kellner, chief, scientific bureau, B. & L. Co.; Mr. C. H. Kerr, director, research laboratory, P. P. Glass Co.; Dr. Walter B. Lancaster, research ophthalmologist; Mr. Adolph Lomb, member Bausch & Lomb Optical Co.; Mr. Norman Macbeth, editor and

proprietor, *The Lighting Journal*; Dr. C. E. K. Mees, director, research laboratory, E. K. Co.; Professor H. D. Minchin, professor optics, U. of R.; Dr. P. G. Nutting, optical engineer, E. K. Co.; Dr. C. F. Prentice, professor of optometry, Columbia; Mr. I. G. Priest, associate physicist, optics division, Bureau of Standards; Mr. W. B. Rayton, optical design and testing, B. & L. Co.; Professor F. K. Richtmyer, professor of physics, Cornell University; Dr. F. E. Ross, astronomer and optical designer, E. K. Co.; Mr. F. B. Saegmuller, superintendent, precision optics, B. & L. Co.; Professor J. P. C. Southall, professor in charge of optometry courses, Columbia University; Mr. E. D. Tillyer, research laboratory, Am. Optical Co.; Professor E. J. Wall, professor of photography, Syracuse University; Dr. F. E. Wright, optical research, geophysical laboratory (30).

The constitution provides that only those who have contributed materially to the advancement of optics shall be eligible to regular membership in the society and hence to vote or hold office. Any one interested in optics is eligible to associate membership. The affairs of the society are in the hands of the executive council. It is planned to hold one or more annual meetings and publish a journal commencing with the year 1917. Blank application for membership may be obtained from the secretary, 1447 St. Paul St., Rochester, N. Y. Material intended for publication in the journal should be addressed to the president until the editorial staff has been selected by the council.

SCIENTIFIC NOTES AND NEWS

DR. HAVEN EMERSON, health commissioner of New York, has invited a number of distinguished pathologists to meet some pathologists and medical authorities of New York City for discussion of problems connected with the prevailing epidemic of infantile paralysis. For the conference, which will begin on August 5, the Board of Estimate has appropriated \$2,000. Those from a distance who are expected to be present are: Dr. William H. Welch, professor of pathology, The Johns Hopkins University; Dr. Victor C. Vaughan, dean of the medical school of the University of Michigan; Dr. Milton J. Rosenau, professor of preventive

medicine and hygiene, Harvard University; Dr. J. W. Jobling, professor of pathology, Vanderbilt University; Dr. Paul A. Lewis, Henry Phipps Institute, and professor of pathology, University of Pennsylvania; Dr. C. C. Bass, professor of pathology, Tulane University; Professor Theobald Smith, Rockefeller Institute; Professor John F. Anderson, New Brunswick, N. J., former head of the hygienic laboratories of the U. S. Public Health Service; Dr. Richard M. Pearce, professor of experimental medicine, University of Pennsylvania; Dr. Francis W. Peabody, Peter Brent Brigham Hospital, Boston; Dr. Ludwig Hektoen, professor of pathology, University of Chicago, and director of the Memorial Institute for Infectious Diseases; and Dr. John G. Adami, professor of pathology, McGill Medical College.

At the meeting of the Royal Society of Edinburgh held on July 3 the following British Honorary Fellows were elected: Sir Francis Darwin, Cambridge; Dr. J. W. L. Glaisher, Trinity College, Cambridge; Professor J. N. Langley, professor of physiology, Cambridge; Professor C. Lapworth, emeritus professor of geology, University of Birmingham; Professor A. Macalister, professor of anatomy, Cambridge; Professor A. Schuster, emeritus professor of physics, University of Manchester.

THE HON. BERTRAND RUSSELL, F.R.S., one of the most distinguished English students of philosophy, was, according to a cablegram from London, recently fined for issuing pamphlets to conscientious objectors to military service, and deprived of his lectureship at Trinity College, Cambridge; now it is said he has been refused a passport to visit America to keep his engagement to lecture at Harvard University.

DR. FRANKLIN C. McLEAN, assistant resident physician in the hospital of the Rockefeller Institute, New York, has accepted an appointment by the trustees of the Union Medical College, Pekin, to the professorship of internal medicine. The appointment carries with it the headship of the Union Medical School. This is one of the institutions of the China Medical Board of the Rockefeller Foun-