gaged in Alaskan investigations for the last six years, during which time he has made many extensive journeys in the territory. He has had administrative control of the geologic work in Alaska for the last two years, and will now combine with this the charge of the topographic work. He leaves Washington about July 20, for an extended tour in Alaska, and will visit a number of the important mining districts in which investigations are being carried on.

The *Deutsche Industrie Zeitung,* as abstracted in the Consular Reports, says that of all the countries producing steel in 1902 the United States led, with an output of 15,000,000 tons. These figures grow in importance when it is remembered that the world's production in 1894 was only 12,851,000 tons. Germany's production in 1902 was 7,780,000 tons, one-half that of the United States; while England's was only 5,000,000 tons, or one-third the production of the United States. The world's total steel output for 1902 was estimated at 35,000,000 tons. This would indicate a growth of 700 per cent. in twenty-two years, or an increase from a little more than 4,000,000 tons in 1880 to 35,000,000 tons in 1902. The great increase is due to the introduction and improvement of the processes, notably the flame furnace. Pennsylvania leads all parts of the world in the use of this furnace, followed by Illinois, New England, Ohio, etc. The steel produced by the Bessemer process during the last fifteen years was used mostly for rails. In England more than half of the steel produced by the Bessemer process went into rails. In Germany and the United States the proportion is not so large. While the United States produced 9,306,471 tons of steel ingots in 1902, it turned out only 2,876,293 tons of steel rails, or about 30 per cent. of the steel-ingot production. In Germany the amount of Bessemer steel put into rails is proportionately smaller. Because of the resisting power of the steel, the wear and tear on the rails is far less; but the manifold uses to which the steel can be put has taken away somewhat from the importance of steel-rail manufacture. The last twenty years has resulted in an age of steel. Three times as much steel is now produced as in 1894. The universal opinion seems to be that the production of steel is to go on increasing. If, during the next twenty years, the same rate of increase is maintained as marked the past, 1923 will see an advance of from 20,000,000 to 25,000,000 tons in the world's total production. In this enormous increase the United States, according to experts, is to play the important part. At the very least, this opinion seems reasonable. The United States now uses in a year 30,000,000 tons of the very best iron ore. In twenty years this would mean a total of 600,000,000 tons—possibly the exhaustion of the sources of supply.

UNIVERSITY AND EDUCATIONAL NEWS.

The grounds of Clark University, Worcester, are to be surrounded by an ornamental wrought iron fence, estimated to cost at least $30,000, to be given by Mrs. Susan W. Clark, widow of the founder of the university.

The London County Council has resolved, subject to certain conditions, to contribute £20,000 a year for the maintenance of the new Institute of Technology which it is proposed to establish in connection with the University of London.

The University of St. Andrews has established a lectureship in geology with a salary of £300, the appointment to which will be made in September.

Dr. Charles S. Howe, professor of mathematics and astronomy in Case School of Applied Science, has been elected president.

Professor Kendrick C. Babcock, assistant professor of history at the University of California, has been offered the presidency of the University of Arizona.

Professor J. A. Ewing has resigned his chair of applied mechanics at Cambridge University which he has held since 1890.

Dr. Sievers has been promoted to a newly-established chair of geography at the University of Giessen.