THE NATURE AND VALUE OF STATISTICS.

Third Lecture on Life Insurance at Columbia University.

"The Nature and Value of Statistics" was the subject of the third lecture in the Hyde course on life insurance, delivered by Charlton T. Lewis, at Columbia University, on the 6th inst. Mr. Lewis thought that the history of statistics was of absorbing interest to the inquirer who wished to trace the transformation which the mind of civilized man had undergone within two centuries through the growth of science. The conception of a systematic body of knowledge, to be framed by associated and organized labor in the service of science, first grew up in the German universities. Conring at Helmstadt began in 1660 to lecture on the knowledge of contemporary states in a statistical sense, and was followed by Schmelitzel at Jena and at Halle. Then came the great work of Achenwall at Gottingen, who adopted the name "Statistik" for his province of inquiry. Schlozer, Achenwall's successor at Gottingen, defined statistics as "history at rest." The basis of statistics was in the application to human affairs of the principle of average.

Human mortality in large aggregates was shown by statistics to occur with uniformity as impressive as any other phenomena of life. Given 100,000 persons of a certain age to-day, living under circumstances of climate, race, and civilization approximately similar to those whose records we possess, and we could predict within narrow limits the number who will die in each successive year. So startling has experience shown this conformity of fact with expectation to be, that it has become a commonplace of writers to speak of a law of mortality. Language was used concerning this and other classes of statistical uniformities implying that they were largely analogous to those uniformities in the physical sciences which comprised the workings of definite and measured forces and were called natural laws. Attempts were made to account for the regularity with which the generations of men pass away, by some a priori assumption, susceptible of mathematical expression, from which tables of mortality might be computed independently of observation.

The fruitful study of statistics began about 150 years ago, and it had already become recognized as a valuable guide to truth in countless applications. There was no branch of knowledge to the presentation of which nations had devoted so much effort and expenditure, and, although the results were meagre compared with the possibilities of the work, their money and labor had by no means been wasted. The materials awaiting scientific treatment were of prodigious volume, and the Newton or the Darwin of the science was yet to appear. The branch of statistics in which the most useful results had been obtained, both theoretical and practical, that indeed of which alone scientific method could be said to have obtained complete and acknowledged control, was the collection and use of the general facts of mortality as the foundation of life insurance .- "Evening Post."

THE CANADIAN MINING INSTITUTE.

The first General Meeting of the above Association was held on the 1st, 2nd and 3rd inst., at the Windsor Hotel. Some idea of the great importance and usefulness of this institute, especially in view of the ever-increasing attention being bestowed on the mining interests of the Dominion, may be gathered from the list of papers named by the Secretary, Mr. B. T. A. Bell, as presented for discussion by the members. We extract from the printed list the following subjects:—

On Mine Costs.—By Mr. John E. Hardman, S.B., Montreal.

Swedish Iron Metallurgy and its Application in Canada.—By Dr. James Douglas (President American Institute of Mining Engineers), New York.

On the Sampling of Argentiferous and Auriferous Copper.—By Dr. A. R. Ledoux (Vice-President American Institute of Mining Engineers), New York.

On the West Kootenay Ore Bodies.—By Messrs. R. G. McConnell and R. W. Brock, Ottawa.

Explorations for Iron Ore in Newfoundland and Cape Breton.—By Mr. C. A. Meissner, Londonderry, N.S.

Notes upon the Development of the Iron Ore Industry.—By Mr. John Birkinbine, M.E., Philadelphia.

On Hydraulic Mining.—By Mr. John B. Hobson, M.E., Quesnelle Forks, B.C.

Some Notes on Prospecting for Wolframite or Tungsten in Cape Breton.—By Mr. C. A. Meissner, Londonderry, N.S.

An Improved Method of Feeding Water to the Stamp Mill Mortar.—Mr. Bernard MacDonald, M.E., Montreal.

On Hydraulic Elevators for Gold Gravels.—By Mr. James Champion, C. & M.E., Barkerville, B.C.

On the Gold Measures of Nova Scotia and Deep Mining.—By Mr. E. R. Faribault, Ottawa.

Across the Pitch versus Up the Pitch.—By Mr. O. E. S. Whiteside, Ba. Sc., M.E., Anthracite, N.W.T.

The Designing of Metallurgical Machinery.---By Mr. A. C. McCallum, Peterborough, Ont.

A Review of the Canadian Iron Industry in 1893-By Mr. George E. Drummond, Montreal.

On the Occurrence of Cinnabar in British Columbia.—By Mr. A. J. Colquhoun, M.E., Savonas, B.C.

On the Establishment of Science Classes in Mining Centres.—By Mr. 'A. H. Holdich, Nelson, B.C.

On Metallurgical Standards.—By Mr. F. T. Snyder, Vancouver, B.C.

On the Occurrence of Free Milling Gold Veins in B.C.—By Mr. W. Hamilton Merritt, Toronto.

Electrical Transmission and Electric Drills.-By Mr. F. Hille, M.E., Port Arthur.

Smelting Conditions in British Columbia.—By Mr. R. C. Campbell, Johnstone, M.E., Nelson, B.C.

A New Device for Thawing Dynamite.—By Mr. Daniel Smith, Kingston, Ont.

On Acetylene as a Mine Illuminant.—By Mr. Andrew Holland, Ottawa.

On the Gold Bearing Sands of the Vermillion River.