mined by the faculty board concerned and made from faculty or departmental funds. These funds will consist of (1) fees for lectures, including lectures given by professors and readers, (2) contributions from the chest."

Retiring Age.—The commissioners recommend that the retiring age for all members of the university teaching and administrative staffs shall be 65, but contemplate that the general board would have power to continue a professor in office for a period not exceeding five years—that is, until he attains the age of 70.

Position of Women in Relation to Teaching.—The commissioners contemplate that the statutes will be so framed as to render women eligible for professorships, readerships, university lectureships and examinerships, subject to the reservations made by the Royal Commission. Fellows of women's colleges will be eligible to become members of faculties.

CANADA'S WATER POWER AND MINING INDUSTRIES

A BULLETIN has been issued by the water power branch of the Canadian government on the effect of the plentiful water power on the future developments of the mining industry which states that the theory is often advanced that Canada is likely to become the leading mineral-producing country of the world, and considerable ground for this assumption is found in the fact that the Dominion contains 16 per cent. of the world's known coal resources, has greater asbestos, nickel and cobalt deposits than any other country and ranks third in the production of gold, while the diversity of her mineral endowment is indicated by the fact that the three main divisions—metallic, non-metallic and structural and clay products—include some sixty principal items, seventeen of which had a production value of $1,000,000 or over for each in 1923.

The best conception of the value of the output may be given by stating that the lowest since 1910 was $103,221,000 for 1911, and the highest was in 1920, when the valuation of $227,860,000 was reached, the average value being $194,957,000 for the five-year period. As the commodity prices reached a peak in 1920, and have since receded, production computed in terms of value is not a fair basis for comparison. An index showing the volume of production by weight would undoubtedly mark 1923 as the banner year in Canada's mineral industry, since new output records were established last year for coal, lead, zinc, asbestos and for the value of cobalt produced.

The principal uses of power in mining are for compressed air for drilling, driving motors for hoisting, haulage of ore above and below ground, driving ore crushers and conveyers, pumping water for the water supply and removing it when it accumulates below ground, lighting, heating, ventilating, signaling, for machine shops and for various electrical-metallurgical processes. Even in the comparatively simple method employed in the recovery of coal as much as 10 per cent. of the product may be consumed in generating the necessary power.

The bulletin states that the Dominion Water Power Branch has computed that on January 1 last the hydraulic installation for mining purpose in the Dominion had reached a total of 277,600 horsepower, of which 233,200 horsepower was purchased from central electric stations. It is estimated that the capital investment necessary to develop this power was £74,000,000.

From the point of view of minerals and the development of mining Canada is divided into five main areas, which consist of the Maritime Provinces, Quebec, Ontario, the Prairie Provinces and British Columbia and the Yukon. Each of these possesses large resources for water power, already developed or available. With the exception of some of the coal fields of the central plain there is no area for which ample water power can not be supplied.

The department's latest table of available and developed water power in Canada, dated February 1, shows there is a total available twenty-four-hour power, at 80 per cent. efficiency, of 18,225,316 horsepower at ordinary minimum flow and 32,075,998 horsepower at ordinary six months flow, and a total turbine installation in Canada of 3,227,414 horsepower. The table shows the fortunate distribution of water power throughout the Dominion. The two provinces without native coal, Ontario and Quebec, lead in the possession and utilization of water power, followed closely by Manitoba, where only lignite coal is found.

LOWELL INSTITUTE LECTURES FOR 1924–25

NINE courses of free public lectures treating upon diverse subjects, including politics, history, meteorology, geology and science, are announced by the Lowell Institute of Boston, for the season which will begin about the middle of October and continue through March.

Of the lecturers four are from Harvard, one from Princeton and four from England. The British visitors are to be Rt. Hon. Herbert Fisher, M.P., former minister of education and British delegate to the first three assemblies of the League of Nations, who will speak on "The aftermath of war"; Dr. A. J. Carlysle, of Oxford, on "The medieval political theory and the principles of modern political organization"; General Sir Frederick Maurice on "Robert Lee, the soldier," and Professor William George Stewart Adams, of Oxford University, on "Idealism and realism in politics." Dr. Dana Carleton Munro, pro-

fessor of medieval history at Princeton University, has taken for his subject, "The Latin Kingdom of Jerusalem," and will trace its development and decline in eight lectures. Dr. Alexander McAdie, professor of meteorology at Harvard and director of the Blue Hill Observatory, is to speak on "The weather in peace and in war." Another Harvard man, Dr. Reginald A. Daly, chairman of the department of geology and geography, will follow Dr. McAdie with a course on "Our mobile earth." The other two lecturers from Harvard are Dr. Alfred North Whitehead, professor of philosophy, whose eight lectures will be on "Science of the modern world," and Dr. Walter Fenno Dearborn, professor of education, who will discuss in eight lectures "Intelligence tests, their significance and implications."

The subjects of the lectures by Dr. McAdie, Dr. Daly and Dr. Whitehead are as follows:

Our Mobile Earth

A course of eight lectures by Reginald A. Daly, Ph.D., S.D., chairman of the Department of Geology and Geography, Harvard University, to be given Mondays and Thursdays at eight o'clock in the evening, beginning Monday, January 5.

1.—Great earthquakes of history.
2.—Seismology, the science of earthquakes.
3.—Nature of the earth's interior.
4.—Mechanism of volcanic action.
5.—Distortion of the earth. Warping of the continents. Distribution of land and sea in past time.
6.—Mountain ranges. Location, kinds, ages.
7.—Mountain ranges. Origin of structure and form.
8.—Evolution of the face of the earth.

The Weather in Peace and War

A course of six lectures by Dr. Alexander McAdie, A. Lawrence Rotch professor of meteorology in Harvard University and director of the Blue Hill Observatory, to be given Mondays and Thursdays at eight o'clock in the evening, beginning Monday, December 1.

1.—Present knowledge of the atmosphere, especially results of recent soundings.
2.—Clouds and water vapor in the free air.
3.—Lightning and other manifestations of atmospheric electricity.
4.—Droughts, floods and seasonal forecasts.
5.—The strategy of weather in war.
6.—Aerography in the arts and sciences.

Science and the Modern World

A course of eight lectures by Dr. Alfred North Whitehead, professor of philosophy in Harvard University, to be given on Mondays and Thursdays at five o'clock in the afternoon, beginning Monday, February 2.

1.—Science and modern civilization. Birth of modern science. Classical and medieval antecedents. Evolution of the scientific mentality from medieval law, theology and art.
2.—Science of the seventeenth century. Galileo to Newton. Bacon, Descartes, Leibnitz. Man and nature. The fundamental generalizations.
3.—The eighteenth century and the "victorious analysis." Triumph of Newtonian dynamics. Materialism and empiricism. Prevalence of Greco-Roman influence over that of earlier Greek thought. Rational despots and aristocracies.
4.—Science and literature. Pope, Wadsworth, Shelley, Tolstoy, Ibsen, Bernard Shaw. Science and the Greek conception of fate.
5.—Civilization and technology. Energy, its conservation and utilization. Sociology and speed. Biology and racial development. From picture-writing to broadcasting. Instrumental design. The nineteenth century.
6.—Modern thought. Collapse of the eighteenth century settlement. From matter to electricity. Continuity and atomism. Relativity. Hypotheses.
7.—Science, religion and philosophy. From Locke to Bergson. From Galileo to Darwin. The eternal and the transitory. Tradition and progress.
8.—Science and education. The places of logic, science, literature, art, knowledge, enjoyment, genius, patriotism and world-citizenship.

THE MILTON FUND FOR RESEARCH OF HARVARD UNIVERSITY

PRESIDENT A. LAWRENCE LOWELL, of Harvard University, has made the following statement regarding the bequest left by the late William F. Milton:

The late William F. Milton left the bulk of his estate to his wife for life, and after her death to Harvard University for the purpose, first, of building a library if the university had no suitable library building, and then "If said fund is not used in constructing and erecting such library building, or if a part thereof remains after such construction, I then hereby authorize and empower said President and Fellows of Harvard College to use the *income* of said fund, or such *income* thereof as remain after constructing said library building, from time to time, either in whole or in part, to defray the expenses of any special investigation of a medical, geographical, historical or scientific nature which said Corporation may from time to time desire to make or prosecute in the interests of, or for promoting the physical and material welfare and prosperity of the human race, or to assist in the discovery and perfecting of any special means of alleviating or curing human disease, or to investigate and determine the value or importance of any discovery or invention, or for any other special or temporary object of the nature above stated. . . ." The legacy has now been received by the university, and is expected to yield an income of about $50,000. The provisional arrangement for its use in the immediate future is as follows: