to the purposes of commerce. Nor must it be overlooked that the speed of transmission by Marconi telegraphy must be extremely limited compared with the possibilities of the cable. It is, therefore, not the territory of the telegraph and cable companies that Mr. Marconi can successfully invade with his wireless telegraphy."

## CLARENCE KING.

A MEETING of all the scientific men engaged in the work of the U.S. Geological Survey was held in Washington on Saturday, December 28, to express their profound sorrow at the death of Mr. Clarence King, first Director of the Survey. Short but appreciative addresses, eulogistic of the life and work of Mr. King were made by Major J. W. Powell, the successor of Mr. King as director of the survey; Hon. Charles D. Walcott, the present director, and Mr. S. F. Emmons. At the request of the director Mr. Arnold Hague read the following tribute to the character and achievements of Mr. King, which was unanimously adopted by those present as an expression of their admiration of his life and their bereavement in his death:

"It is with profound sorrow that we learn of the death of Clarence King, the first director and, in a sense, the founder of the Geological Survey. In him we have lost not only a great scientific leader, but a genial and accomplished gentleman, whose personal qualities endear him to all who knew him, and whose many acts of loving kindness have left a wide circle of friends in all walks of life to mourn his untimely death.

"As organizer and, during ten years, Chief of the United States Geological Exploration of the Fortieth Parallel, he set higher standards for geological work in the United States and laid the foundations of a systematic survey of the country. He gave practical recognition to the fact that a good topographical map is the essential basis for accurate geological work.

"As first director of the present Geological Survey, he laid down the broad general lines upon which its work should be conducted and which, as followed by his able successors, have led to its present development. He established the principle that a geological survey of

the United States should be distinguished among similar organizations by the prominence given to the direct application of scientific results to the development of its mineral wealth.

"In that essential quality of an investigator—scientific imagination—no one surpassed King, and his colleagues have all profited by his suggestiveness. He was never content with the study of science as he found it but always sought to raise the standard of geology as well as to apply known principles to the survey of the country.

"King first introduced microscopical petrography into American geology and, as early as his Fortieth Parallel work, he foreshadowed the application of exact physics to questions of geological dynamics. Early in the history of the present survey he established a physical laboratory. One result of this step was a paper on the 'Age of the Earth' which takes very high rank among modern scientific memoirs. Although in his last years circumstances rendered it necessary for him to devote most of his time to other occupations, he had by no means abandoned plans for geological investigation on a scale worthy of his reputation.

"In Clarence King geological science in America will miss a pioneer and a leader; the Geological Survey loses its broad-minded founder and adviser, and its older members a beloved friend."

## MAP OF THE PHILIPPINES.

The National Geographic Magazine publishes as a supplement to its January number a map of the Philippines—5 feet 2 inches by 3 feet. The map is on the scale of 15 miles to an inch and was prepared by the U. S. Signal Office. Every town or hamlet known by the Jesuits or reported to the War Department by its many officers throughout the islands is indicated on the map. It is a compilation of everything now known about the Philippine Archipelago. Sheet I. gives the Northern Philippines and Sheet II. the Southern Philippines, as officially divided by the United States Government. A glance at the map shows how much exploration is needed