

whose mouth can be closed by a screw when the instrument is being carried.

R. DEC. WARD.

A COLORADO SCHOOL OF FORESTRY.

THROUGH the generosity of Gen. William J. Palmer and Dr. Wm. A. Bell, of Colorado Springs, Colorado College is to have a School of Forestry. These two gentlemen, who take great interest in forestry, have given to the college the beautiful tract of land known as Manitou Park, with its 15,000 acres of forest, haylands and lakes. A conservative estimate places the value of this gift at \$150,000.

The park is twenty-five miles northwest of Colorado Springs on a plateau, 7,550 feet above sea level. The climate and soil are typical of the mountains. Many years ago the whole tract was deforested, but at present there is a fine new growth of conifers. In every respect it offers excellent opportunity for field work and the practical study of silviculture and forest botany. The theoretical and lecture courses in this new department will be given at Colorado College. The new science building completed in 1903, with its modern and well-equipped laboratories makes possible the study and research which this new movement entails.

No better location could be found for such a school than Colorado College. Situated at the foot of Pikes Peak, where the Rocky Mountains touch the arid plains, it affords fine opportunities for the study of irrigation, as well as of forestry problems. The whole irrigation problem must, in the last analysis, be determined by the forest coverings of the mountains, for the mountains are the natural sources of water supply for the plains. Where they are denuded of forest, they can not hold water; rain and the snow water rush off in torrents that can not be utilized. The forest covering equalizes the water supply of the plains by restraining the water, allowing it to flow down slowly and gradually so that it can be properly distributed. The Pikes Peak forest reserve is also near; here the central government has established three nurseries to provide trees for the reforestation of denuded slopes. On Pikes Peak and other near-by

mountains are found a great variety of climates, from the arctic-alpine down to the more temperate.

The establishment of this School of Forestry means much for the Rocky Mountain region. It is said that the first settlers in the state of Colorado found 36,000 square miles of forest area covered with various kinds of valuable pines and spruces. Since that time 30,000 square miles of the virgin forests of the state have been destroyed. Evidence introduced in the Kansas-Colorado water suit showed that the cutting away of the forests on the mountain sides has greatly decreased the amount of water available for irrigation. The influence of the school will do much toward checking this waste and establishing better economic conditions.

Professor Gifford Pinchot, forester, U. S. Department of Agriculture, has agreed to nominate a man to act as head of this new department of Colorado College, which will be opened next September.

THE GEOLOGICAL SURVEY OF ILLINOIS.

THE State Geological Commission, at its meeting at Springfield last week, completed the corps and arranged for the season's work. The following appointments were made to the regular force, and in addition the director was authorized to make such temporary appointments as might be necessary, subject to confirmation at a succeeding meeting of the commission.

Professor C. W. Rolfe, of the State University, consulting geologist in clay work.

Professor R. D. Salisbury, of the University of Chicago, consulting geologist, in charge of educational work.

Dr. U. S. Grant, of Northwestern University, consulting geologist in lead and zinc work.

Professor S. W. Parr, of the State University, consulting chemist in coal work.

Dr. Edward Bartow, director of the State Water Survey, consulting chemist in water work.

Mr. F. B. Van Horn, recently of the Missouri Geological Survey, assistant geologist.

Mr. F. F. Grout, recently of the West Virginia Geological Survey, assistant chemist.

Mr. H. B. Fox, of the State University, assistant geologist.

J. A. Udden, professor in Augustana College, geologist.

W. W. Atwood, of the University of Chicago, geologist.

Dr. Stuart Weller, of the University of Chicago, geologist.

Mr. Ross C. Purdy, of the State School of Ceramics, ceramist.

Not all of the men appointed will be able to devote their full time to the survey work, but assurances have been received that all will give some time to it. Professor Rolfe and Mr. Purdy, assisted by Mr. Fox, will devote particular attention to the clay resources of the state beginning their work probably with a study of paving brick and the clays used in its manufacture.

Professor Parr, Mr. Grout, Mr. Van Horn and the director of survey, Mr. Bain, will devote their time largely to a study of the coal fields. It is proposed to take samples of the various seams and to study their qualities as well as their distribution in the field. In the latter work Dr. Weller and Mr. Atwood will assist.

Professor Udden will devote his time to a study of the underground waters of the state with a view to the determination of the limits of the various artesian basins and the depth to which it is necessary to go to obtain good water for municipal and other purposes. In this work he will be assisted by Dr. Bartow and the State Water Survey, which will make the necessary analyses and laboratory tests.

Dr. Grant, with such assistance as may be necessary, will take up the study of the lead and zinc fields found near Galena continuing the work done by the state of Wisconsin.

Professor Salisbury, assisted by various others yet to be appointed, will prepare a series of bulletins for use in the schools, descriptive of the geography and the geology of important type localities within the state. So far arrangements have been made for such bulletins covering the lake shore from Evanston north, the Illinois Valley near Peoria, and the Mississippi Valley between Savanna and Rock Island, and at East St. Louis. The first of these bulletins is now being prepared by Mr. Goldthwaite, of Northwestern University, and Mr. Atwood, of Chicago.

THE MEMORIAL OF MAJOR WALTER REED, U. S. A.

THE executive committee of the Walter Reed Memorial Association, consisting of Daniel C. Gilman, George M. Sternberg, Chas. J. Bell, A. F. A. King, J. R. Kean, W. D. McCaw and Calvin DeWitt, has issued, under date of February 1, the following letter:

You are doubtless aware that to Major Walter Reed, surgeon U. S. Army, is due, in a very large degree, the demonstration that yellow fever is propagated by a mosquito. By this demonstration the spread of the pestilence has been averted, and, when proper precautions are taken, the danger is almost annihilated. The immense benefits which have come to humanity from this discovery can hardly be estimated.

Under these circumstances, a general desire has been shown to honor this great benefactor, and likewise give to his widow some recognition of his service to mankind. An incorporation has been formed in Washington which is endeavoring to raise a fund of \$25,000, the income to be paid to his widow and the principal to be reserved for a permanent memorial in the city of Washington. The amount now subscribed is somewhat over \$16,000; by far the largest number of contributors are of the medical profession. There is one subscription of \$2,000, two of \$1,000, two of \$250, several of \$100, and many of less amount. The association in charge of this movement considers that the time has now come to appeal to a wider circle than has yet been reached and to ask their subscriptions.

Your support is respectfully solicited, and any amount that you may be disposed to contribute may be sent to the American Security and Trust Company of Washington, D. C., the president of which, Mr. Charles J. Bell, is treasurer of the fund. To complete the fund and cover incidental expenses, including a marble bust of Major Reed, \$10,000 is needed. The desire of the committee is to close the subscription before the end of this month. Communications should be addressed to the secretary at No. 1707 21st Street, N. W., Washington, D. C.

SCIENTIFIC NOTES AND NEWS.

At a meeting of the Royal Astronomical Society at Burlington House, London, on February 9, Ambassador Reid received the gold medal for 1905 conferred by the society