

steep ones, the difference in elevation determined in the afternoon is on an average greater than that determined in the forenoon.

4. On an average, a running during wind gives a greater difference in elevation than one during calm. The amount of this difference is somewhat greater for the steep than for the low grades.

5. On an average a running when the sky is cloudy gives a larger difference in elevation between two points, on a steep grade, than a running while the sun is shining. For low grades there is practically no difference, on an average, between the runnings under the two conditions.

6. For steep grades (about 10 meters per kilometer) the probability is that the afternoon running gives, on an average, a result closer to the truth than the forenoon running. The afternoon running should be ended sometime before sundown. The running in wind probably gives results on an average closer to the truth than a running in calm.

7. While the data in the tables given above make these conclusions justifiable, yet, owing to the fact that there are so many conditions to be considered, it is impracticable to obtain at present any reliable numerical values for the effect of any given atmospheric condition or set of conditions.

8. It is believed that, other things being equal, the running in the afternoon (if not within about an hour of sunset) gives, on an average, more accurate results than the forenoon running; also that, other things being equal, a running in wind is more accurate, on an average, than one in calm; and, that other things being equal, a running with a cloudy sky will be more accurate, on an average, than one in sunshine. Hence, the ideal condition would be an afternoon with a moderate wind and a cloudy sky.

9. It is believed that the mere fact of running backward or forward has no real effect on the result of a running, as the value of $B-F$ may vary in sign for different lines and even for different parts of a single line.

WILLIAM BOWIE

U. S. COAST AND GEODETIC SURVEY

BESSEY HALL AT THE UNIVERSITY OF NEBRASKA

DR. BESSEY is gone, but he leaves with us an imperishable memory. He was the first professor in the natural science group to remain long with the University of Nebraska and to leave an indelible mark upon it. It is fitting that the permanent home of two fundamental natural sciences in the university should be named in his honor.

The writer believes that he first suggested naming such a building after Dr. Bessey when he penned for the approval page 21 of the biennial report of 1911-12. This report contains the sentence:

The inadequate and dangerous building known as Nebraska Hall should be removed and an adequate building called Bessey Hall in honor of Dr. Bessey erected to house the natural sciences.

Nevertheless when he wrote these words it was then as now the writer's opinion that in general no building built at public expense should be named after the living. Dr. Bessey was great enough so that this exception was planned, but his lamented death prevented the exception being made. Let us now render his memory a special honor by resolving that hereafter no building shall be named for any one until his life's work is complete. This is in harmony with the regents' act in deciding that hereafter the title of head dean shall not be awarded.

Some of the special friends of Dr. Bessey are disappointed that the building is not to be located on a more conspicuous site. To these I would say that Dr. Bessey insisted on only one thing—north light for the use of his microscopes. He was, however, pleased to have the building located away from the noise and dust of heavy traffic. The location as now determined met his critical approval. The building will have north windows along its main side and will be so located that no other university building can by any possibility obstruct the view.

The building will have three stories above ground. The basement, not to be used for class-room purposes, will be utilized for lockers, toilet rooms, store rooms, constant tem-

perature rooms and other features of a modern laboratory of natural science. The entire space of the building will be divided almost equally between the departments of botany and zoology. Commodious offices and a number of special rooms for the use and comfort of the occupants will be provided. The building will be 235 feet long and 75 feet wide in its widest part. The center of the building facing south will open upon the space reserved for greenhouses. The building itself is to be of brick, hard burnt, of a reddish brown color, selected with a certain roughness and bloom on the surface. The mortar joints will be wide and raked. The trimming will be of Bedford stone. This material will also form the facing of the building as high as the base of the windows on the first floor.

The building itself is to be of the steel wall-bearing type and will be thoroughly fireproof. In this type of structure the masonry of the walls carries part of the weight of the frame while the frame itself supports the floors, partitions and roof.

In harmony with all the new buildings of the university the building will be of classic architecture. It will depend for its beauty on graceful lines and symmetry rather than on expensive ornamentation. In harmony with Dr. Bessey's character we shall try to make the building just as permanent as the building skill of the times through the use of brick, steel and concrete will permit. It ought to stand for 500 years at least. Further, in keeping with Dr. Bessey's character it will be attractive without ostentation, built for permanence and usefulness rather than show.

Aside from the sentiment connected with its erection it will be a building much needed by the university. Botany and zoology have never had adequate quarters here. This will house them in a way worthy of a great university. While these departments will have considerably more space than they have at present, we are not building large enough to care for their growth for many years to come. When the number of students of botany becomes too large for the new quarters, we can build a separate building for zoology, leaving the entire space of the Bessey building to botany.

The building will cost approximately \$200,000 when completed and finished. The university considers itself fortunate in the fact that the lowest bid was made by a firm which has not only the reputation of doing excellent work but of doing its work promptly. This firm agrees to complete the general construction in 120 working days. Assuming, then, that there is not too much cold and stormy weather during the spring and summer following, there should be no difficulty in having the building ready for use at the beginning of the next school year. The ground is now ready so that the excavation may begin at any time.

For a few hundred dollars a beautiful memorial tablet could be placed in the principal hall of the new building. Some of the former students of Dr. Bessey have attained wealth. Would not some one of them like to volunteer to place a memorial worthy of his beloved teacher where the thousands of students that will throng this building in the years to come may look upon his features cast in enduring bronze by some skilled workman after the clay model of some great artist? The regents of the university will be pleased to accept and place in a suitable place such a tribute.

S. AVERY

THE COLUMBUS MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE sixty-eighth meeting of the American Association for the Advancement of Science, and the fourteenth of the "Convocation Week" meetings, will be held in Columbus, Ohio, from December 27, 1915, to January 1, 1916. Hotel Chittenden will be the headquarters.

The council will meet on Monday morning, December 27, and each following morning.

The opening general session of the association will be held at 8 o'clock P.M. on Monday, December 27, in the university chapel of university hall. The meeting will be called to order by the retiring president, Dr. Charles William Eliot, who will introduce the president of the meeting, Dr. William Wallace Campbell. Addresses of welcome will be made by President W. O. Thompson, of the Ohio