

Pres Office

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## THE SUN.

**A Scientific Address Illustrated with Stereopticon Views by Professor J. W. Gore, January 15th, 1903.**

"The earth, our home, the theatre of our activity, is to us the most important of the family of worlds. In fact, so important does the earth appear that it requires some effort to think of our world other than the center of universe, with the sun, moon, planets and stars as servants, attendants and ornaments.

"The beauty and mystery of the heavenly bodies," continued Prof. Gore, "early fascinate thoughtful man and the Science of Astronomy was well advanced, when Copernicus assigned to the earth its humble place among its sisters and gave to the sun its rightful place, the center of the solar system. \* \* \*

"The once proud earth now meekly follows the leading of the sun and modestly exerts lordship only over its one silver-faced satellite. But let us forget for a short while that our hearts are wedded to this sphere of the third rank and consider the great central body—the sun. \* \* \*

"The moon is distant from the earth sixty times the radius of the earth or 240,000 miles. The radius of the sun is 430,000 miles. If the earth were at the center of a hollow sphere as large as the sun, the moon would be only a little more than half way the distance to the surface of such sphere. \* \* \* It would take 1,300,000 spheres the size of the earth to make a globe the size of the sun; or to girdle the sun would take ten years of continuous travel at the rate of forty miles an hour. The sun contains just 332,000 times the amount of matter possessed by the earth and is equal to 3,600,000 millions of millions of tons. \* \* A person weighing 150 pounds on the earth would weigh a little more than two tons on the sun. Bodies near the earth fall 16 feet per second; near the sun they fall 445 feet per second. A second pendulum there would have to be 82 feet, instead of a fraction over three feet. \* \* \*

"The amount of heat received by the earth from the sun in a year is sufficient to melt a layer of ice over the whole surface of the earth of an average thickness of 136.5 feet; or enough each day to melt a layer of ice 4.5 inches thick. Assuming that the amount of heat radiated is the same in all directions, we receive the 2,000,000,000th part of heat and light emitted by the sun. \* \* \*

"If at a distance of 240,000 miles the temperature is sufficiently high to volatilize the most refractory terrestrial substances, one naturally asks: what is the state or condition of matter of which the sun is composed? Is it simply a sphere of gas or is it made up of such stuff that can endure such temperatures without volatilization? By spectrum analysis it has been shown that a

great many of the terrestrial elements are present in the gaseous state in the atmosphere of the sun. \* \* \* The atmosphere is thought to be a cloud-like mass of partially condensed vapors of very irregular surface. \* \* \*

"When we even partially realize the great prodigality with which the sun is disposing of heat there necessarily arises questionings as to its sources. Is there any danger of a diminishing supply? If so how long will it be before the sun becomes bankrupt and the earth lifeless? \* \* \* If the present order of things continues, there is but one conclusion—explanation of the store of energy, the cooling off of our furnace, and a dead earth. This is no dream of the scientist but the necessary result of the greatest of the laws of nature. \* \* \* Five million years is the lowest estimate for the complete exhaustion of the sun's energy and we should have no fear of being inconvenienced."

Prof. Gore concluded his lecture with an excellent description of spots on the sun and the causes for the same. The spots range from four to 500 milés in diameter for the small ones and 50,000 to 60,000 miles in diameter for the larger ones. He also touched in striking words upon the mysterious and most beautiful phenomenon connected with the sun—the coronation crown or halo of soft pearly light that surrounds the sun and visible only during the total eclipses.

After the address Prof. Gore illustrated the chief points of his subject with especially fine stereopticon views.

## Convocation Week.

The various scientific societies of America met with the American Association for the Advancement of Science in Washington, D. C., during the holidays. Fourteen men from the University of North Carolina were in attendance: President Venable, Professors Holmes, William Cain, R. H. Whitehead, Collier Cobb, Chas. Baskerville, J. E. Duerdon, A. S. Wheeler, Dr. J. E. Mills, Messrs. H. H. Bennet and R. O. E. Davis from the teaching force, and Messrs. Weller and Sibley from the student body.

The following papers were presented by our University men: "Suggested Improvement in Chlorine Determination."—Chas. Baskerville.

"Report of Committee on Atomic Weight of Thorium"—Chas. Baskerville.

These were read before Section C—Chemistry.

Before Section E.—Geology and Geogaphy:

"Recent Changes in the North Carolina Coast With Special Reference to Hatteras Island."—Illustrated by lantern slides, Collier Cobb.

Before the Society for Plant Mor-

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## FOOT-BALL TALK.

**Mr. Lambeth Says Carolina is Entitled to Four Representatives on the All-Southern Team.**

Well, four out of eleven is not bad. According to Mr. Lambeth, of the University of Virginia, this is the number North Carolina is entitled to on the All-Southern Foot Ball team for 1902. The names of these heroes who will go down in history are Foust, Graves, Holt and Cox. Foust, "the level-headed Foust," deserves a place on the team if any man does. He made an admirable captain, always cool and collected and inspiring his men by word and example. He held his place in the line well, is wonderfully fast for a man of his size, and when called back on "tackles back," destruction always ensued in the ranks of the enemy; when the dust of conflict had cleared away after every play, Foust was almost invariably from 3 to 25 yards nearer the goal. We hereby recommend him for Captain of the All-Southern team.

Graves has at last come into his own. Not only was he unsurpassed as a quarter alone but he was also a good long punter. a sure tackler and his goal-from-the-field abilities were little short of marvelous. He was always accurate in passing the ball, kept his head at critical moments and ran the team well. In returning punts and kick-offs, it was often he carried fear into the bosom of the opposing team and caused the heart of the Carolina rooter to be made glad with joy. There is no better quarter in the South.

Holt was a terror to the opposing line, however firm. He hit it with the force of a shell from a cannon and beside the ground he gained with his feet, his long form when measured on the ground always added something over six feet more to his score. As a full-back he was like a steel spring, giving to a blow, but his rebound always dangerous. Time and time again when an opposing back bucked the line for what looked like a sure gain, Holt had him twisted around and his head pointing in the opposite direction before the astonished runner could yell "Down." Holt is also a good hard punter and great on a kick off. He fully deserves his position.

Cox is admirably built for an end: tall, broad, fast and a hard sure tackler. He is unsurpassed in getting down the field on kicks, often flooring the receiver in his tracks. On end plays, he was great; quick in starting, his weight enabled him to break up almost any interference though he repeatedly got behind the interference and tackled the runner from behind for a decided loss. His long, keen nose enabled him to scent out almost any trick play around his end, and the foe, after a few tries, generally marked these "N. G." and tried something else.

As an end, Cox has no superior in the Southern States.

Carolina is well pleased at getting four men on the team but her private opinion is that a pretty good All-Southern eleven could be gotten out of solely her own men. However, we don't want to be hog-gish, and our parting word is, "Congratulations to our representatives on the All-Southern and all honor to the team of 1902."

## Tribute to Dr. Linscott.

I could not feel that I had discharged my obligations unless I had made a simple statement concerning a very dear friend and colleague, Henry Farrar Linscott. I have known him for only sixteen months, but during this short period I have known him most intimately. I have lived with him in the same boarding-house and in his own home. Many a time have I sat with him at the same fireside, smoking, talking, and laughing together, sitting between him and his beloved wife. From our first meeting I was much attached to his very charming personality. I at once felt the presence of a very interesting and kindly being. For sixteen months my attachment to him grew and grew until it became a very strong and abiding love. I never knew him as a teacher, though I would readily think him very interesting, intelligent and stimulating in that capacity. I never knew him as a student in his own field, but others have found him very able, original, accurate and artistic in that particular. It was in his home life and general work that I knew him, and knew him well. It was here that I found him possessed of the rarest personality, the kindest and noblest heart, with a very accurate and sound judgment; it was here that I admired him as being almost above any other man I have ever known. It is sad indeed that such a bright, charming life should come to its close before thirty-two years had passed. But the work which he did and the impression which he made upon many people can never die, they become a permanent possession of those who knew him, to be handed down through the years.

CHARLES LEE RAPER.

Two years ago she showed me her B. A. with an honest pride. Today she has a new degree—M.A. with B. A. by her side.

Tulane was suspended from the S. I. A. A. which held its ninth annual meeting in Atlanta on Dec. 20. Texas was suspended for playing an ineligible man but was reinstated when it was explained that the act was due to an entire misunderstanding of the rules.

Trinity College of Texas and Trinity College of North Carolina applied for membership in the Association and were elected.