



# PHOTOGRAPH OF CORONA

BY

HARRISON W. SMITH

'Ten Seconds' Exposure. Enlarged to twice the diameter

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## THE M. I. T. ECLIPSE EXPEDITION TO WASHINGTON, GA.

In the fall of 1899 the Corporation of the Massachusetts Institute of Technology made an appropriation from the Austin Fund to send a small party to observe the total solar eclipse of May 28, 1900.

The equipment of the Geodetic Observatory of the Civil Engineering Department was quite sufficient for the observations of local time, latitude, and longitude. By adding to this equipment two equatorially mounted telescopes, the party was furnished with all necessary instruments for the determination of the times of the four contacts; and nothing beyond this was originally contemplated.

During the fall term of 1899 a careful study was made of the track of the moon's shadow plotted on the best maps, searching on the central line for the town of highest altitude and of easiest approach. The little city of Washington, Ga., seemed to fulfil the conditions. On consulting the pamphlet and diagram prepared by Professor Frank H. Bigelow, from meteorological observations taken during the past three years along the path of the eclipse, it was found that, although the place itself was not mentioned, the region was one most favorably situated with reference to probable cloudiness. Immediately correspond-

ence was begun with the local postmaster. Fortunately for our party, the postmaster, Mr. J. E. Poché, proved to be a man among a thousand,—one who appreciated our work and heartily assisted us from the beginning to the end of our undertaking. It was from him that we learned that the little city was supplied with good modern hotels, and was “a centre of culture and refinement.” We were sceptics, however, and did not believe until by actual experience we found the promises more than fulfilled by the reality.

The party was placed in charge of the writer, and at first Professor Arthur G. Robbins and Mr. George L. Hosmer were the only other members. Later our number was increased by the addition of three volunteer observers,—Professor Dana P. Bartlett, Mr. Walter Humphreys, and Mr. Harrison W. Smith, all from the Institute. These new men made it possible to extend the programme of work, and to make it include magnetic observations and the sketching and photographing of the corona. None of the Tech party could properly be termed astronomers, and no new line of research work was deemed advisable.

In April, Mr. J. Rayner Edmands (M. I. T., '69) of the Harvard College Observatory, went South to look over the place selected by the Harvard eclipse party in Greenville, Ala. Mr. Edmands very generously offered to look in on Washington, Ga., on his way South, to sample the hotels and look about for a favorable site for our instruments. Soon there came an assurance from Mr. Edmands that “we had landed on our feet” in selecting Washington. Later there came a transfer of Harvard, Blue Hill, and Flagstaff parties to this point. The last arrangement was a happy one, beneficial to all concerned.

By the first week in May the new equatorials of five and

three inches' aperture, ordered from the firm of Alvan Clark & Sons, Cambridge, were completed. These telescopes were fitted with eye-pieces and shades especially devised for eclipse work by Mr. Lundin, and proved most satisfactory in every way.



A Typical Residence, Washington, Ga.

On May 9 the writer sailed from Boston on the Savannah steamer, which had on board the outfit of the Harvard, Blue Hill, and Technology parties. The largest part of the freight was the box containing the cluster of cameras for Harvard's intra-mercurial research. This was later to have a house built about it and to be mounted equatorially. On arrival in Savannah it was found that the freight just filled

a large box car, and here it became evident to the writer that some kinds of freight even more than tourists needed to be "personally conducted." In spite of "smashers" and railroad wars, it finally landed safely in the Washington, Ga., depot.

Washington, Ga. ! It is now a name to conjure with !



City Square.

The little mule-car that hauls you from the depot to the hotel prepares you for something quaint and picturesque ; but the picturesqueness is dispelled on entering the brand-new hotel, with its electric lights, its baths and large airy rooms, to be restored when you look from the windows on the City Square with its old court-house and the crowd of jet black negroes with their nondescript mule teams. You

take a stroll about the town, and you learn that the place is rich with historical associations. On all sides are the great magnolia-trees in full bloom, gardens running over with rose-bushes, shaded walks and drives leading to stately old mansions surrounded by colonnades reaching to the eaves.



“Colonnades to the Eaves.”

After a while you begin to ask questions, and wonder why you have not known of this town before. The answers to your questions gradually make things clear. This town has long been the abiding-place of the best blood in Georgia. It is the heart of the old Confederacy. It is here their great leaders were born, and it is here they came

back to live in the days following the war. The old town, uninjured materially by the actual struggle, offered the balm of repose and serenity. No tourists came here, and no curious tourists were desired. But the contrasts! The very new stores, the electric lights in the shop windows, the telephone, all give a check to sentimentalizing. Now is



On the Road to the Eclipse Station.

the day of the new generation without war memories. The hotel is the growth of the present year. It is not long that the Square has been sprinkled from the hydrant, and to-day they are laying the first sewer pipes in the streets. It has not, however, the "hustle" of the Western town. The darkies dig the sewer ditch to a drawling tune, and no hasty shovel or pick mars the rhythm of the movement.



Here is the home of General Robert Toombs, who would not have a hotel built in the place as long as he lived, who said, "If any respectable stranger comes to this town, he is welcome to my home; and, if he is not respectable, we do not want him." Close at hand Alexander H. Stephens was born. You hear many interesting anecdotes of these



Where Jefferson Davis held his Last Cabinet Meeting.

leaders, and those who still bear their names are not a few. Here Jefferson Davis held his last cabinet meeting. The town may be said to have been the birthplace and death-bed of the Confederacy. The town is very old, and was named for General Washington before the site of the capital in the District of Columbia was selected.

Nothing could exceed the generous welcome which these

warm-hearted Southerners extended to the little Yankee party of eclipse seekers. It would be out of the question to think of telling of the eclipse without some preface about the people and the place.

The site selected by Mr. Edmands was certainly the best to be found, and on the first day after arrival the ground was staked out for the location of buildings and instruments. An observation on Polaris gave the north and south line for orienting the piers and buildings. The brick and cement pier for the astronomical transit and the building for the Harvard big camera were well advanced before other arrivals from the North reached Washington. Mr. W. H. Attwill, of the Harvard party, was the first to come and get to work. His heroic struggles with "Jumbo," as the big camera was called, are a matter of town history now. Next to arrive was the representative of the Boston press, Mr. William H. Hills of the *Globe*, accompanied by his wife. They proved to be a most pleasant and congenial addition. Then followed Professor W. H. Pickering of Harvard and Mr. George L. Hosmer of the Institute of Technology. The preparations went steadily on from the first day, and each one seemed to be on hand at the right time for his special work. Mr. Hosmer began the adjustment of the astronomical transit, and soon we knew the latitude and the local time to a fine point. A wire was put up connecting the observatory with the Western Union Station in the town, and then the ticks of the astronomical clock in Washington were received on the spot. The local sidereal time recorded on our chronograph and the time signal from Washington, D.C., enabled us to compute the longitude. We knew that the maps of this part of Georgia were not controlled by triangulation, and it was not to be expected that the latitude and longitude of the town could