

planets revolving around those suns, of the strong probability that intelligent life exists in abundance throughout the universe, of the number of the spiral nebulae, of the probable sizes and masses of the spirals, etc., they frequently react with the comment that, if what the astronomer says (of the universe) is true, it doesn't matter much whether we (the people of the nation or the peoples of the earth) do this or do that. Their "this" and their "that" are generally dictated by the subject which happens to be uppermost in the public mind at the time. If our country is thoroughly interested in the presidential campaign, as it certainly was in the struggle of June, 1912, what is more natural than that Professor Wood's lone visitor should not be the only person to illustrate his philosophy by turning to that absorbing question of the day? And so, following a sudden comprehension of the extent and contents of the universe, our Hercules cluster visitor reacted, "I think it doesn't matter very much whether Roosevelt or Taft is nominated at the Chicago convention;" and G. Lowes Dickinson's lone telegraph operator in a railroad shack in the Rockies reacted, "I guess it doesn't matter two cents after all who gets elected president."

Other visitorial reactions here have drawn upon other subjects occupying the public mind, but there is no call to describe them now.

I recently asked one of my colleagues who has dealt extensively with the visiting public in the past twenty-six years whether he has had any experience bearing on this subject. He replied: "I have on several occasions drawn visitors' responses paralleling the incident described in your address. I have observed this reaction, not only in connection with visitors to the observatory, but from members of audiences to which I have lectured. Last month I delivered a short lecture to the patients in the tubercular hospital at Livermore, California, on 'Life in other worlds,' making references to the great number of suns in our stellar system, the possible multitudes of planets revolving about those suns, and the probability that many of those planets are inhabited. At the close of the lecture one of the patients came

up to me and said, 'After listening to your lecture, I don't think it matters much whether we patients get well or not.'"

I am respecting the value of understatement in saying that the essential parts of Professor Wood's story have happened here many times in the past thirty-three years in connection with the more than 200,000 visitors whose ideas of the universe have been enlarged in an immense number of cases by looking through the telescopes or by listening to the interpretation of astronomical photographs. I hope it is also an understatement to say that my experience in dealing with the public along this interesting psychological line seems to have been somewhat more extensive than that of others who have written on the same subject.

May I turn from these natural happenings to an incident truly astonishing? In some well-known book I have read of a human being who, looking at the moon through a telescope, was told that the large ring-formation in view was the crater Copernicus (or possibly Tycho or Archimedes—I can not locate the passage now), and who said to his instructor, "I should like to know how astronomers discovered that the name of that crater is Copernicus." This imaginary event is widely known in astronomical circles, but no one, in my opinion, had thought that it actually happened or even could happen. Yet, one Saturday night in the nineties a visitor descending from the observing chair said to me in all seriousness and innocence, "I was able to follow your description of the moon's surface, but I should like to have you tell me how astronomers discovered that the name of that large crater is 'Copernicus.'" If this unnatural incident could repeat, why waste energy and ink over the hypothesis that Wood's neighbor, acting in accord with widely prevailing philosophy, was a genuine unique?

W. W. CAMPBELL

MOUNT HAMILTON, CALIFORNIA,  
February 17, 1921

#### GALILEO AND WOOD

TO THE EDITOR OF SCIENCE: I have long been interested in horns, and I should dearly

like to blow a blast on a David Wilbur Horn. To him I will say merely "*Quis custodiet ipsos custodes?*" Let the chemist take heed when murdering romance lest he also murder Cicero. I beg to associate myself with that veteran story-teller, T. C. Mendenhall, whose stories were so good that it never occurred to any one to doubt them.

I will take a little whack at the Galileo story myself, after relating my experience with the Wood story. In the summer of 1912 I was on the train going from London "up" to Cambridge with the guests for the quarter millenium of the Royal Society when I heard Dr. Nicholas Murray Butler telling it to Sir Oliver Lodge, and I assisted him, as Professor Wood had told it to me several years before as having happened at Easthampton. What was my surprise then at seeing Professor Campbell's account as happening later at the Lick Observatory! I immediately wrote him and Professor Wood. In my opinion Wood's story is the better, but I never could believe that the definition in that revolving mercury paraboloid could be good enough for a farmer to make such an observation. I always felt that this telescope in the well was one of Professor Wood's jokes. It was particularly wooden. Perhaps Professor Wood will pardon me if I insert some lines that I wrote in his guest book expressing my feelings on the subject. It will easily be seen that I am no great poet.

Ding, dong, bell,  
Prof is in the well.  
What did he put in?  
Lots of time and tin.<sup>1</sup>  
What did he get out?  
Nothing, just about.  
What a silly prof was that,  
He never knew what he was at.

I am bound to admit that the Royal Society did not agree with me when they elected him a foreign member.

As for Galileo, some years ago I was invited to deliver an address at the dedication of a new physical laboratory at a great university not a thousand miles from here. Sup-

<sup>1</sup> Poetic for mercury.

posing I was to be "the big noise" I prepared an address about an hour long, but was somewhat disconcerted on being introduced by the dean in an address of about half an hour, in which much of the wind was taken out of my sails. In it he used the words, "When Galileo dropped the two weights from the tower of Pisa he sounded the death-knell of the Aristotelian philosophy." Singularly enough the same sentence occurred in my address. But I had my revenge. In beginning I disclaimed all possibility of thought-transference, and when I came to the quoted words I added "as Sir Oliver Lodge says." I was rewarded with roars of laughter, and when I arrived at the club was told that the joke was much appreciated, as the dean was not popular. The joke would have been on me, however, if my manuscript had been looked at, for no more than the dean had I given Lodge credit for the remark that we both had cribbed. He laughs best who laughs last, for the dean is now president of that great university, while the subscriber is even less of a noise that he was then. However, hurrah for history! was it Napoleon who called it "*mensonges convenus*"?

ARTHUR GORDON WEBSTER

WORCESTER, MASS.,

February 13

#### ARCHEOLOGICAL SPECIMENS FOR MUSEUMS

THE curator of the Museum at Phillips Academy has received authority from the trustees to reduce the number of specimens possessed by the department of archeology. We have large numbers of various objects in stone, bone and clay, found during the course of our explorations in New England, the Middle West and the South. We propose assembling collections ranging from 500 to as high as 4,000 specimens, all recorded as to locality from our catalogue, etc., and to send these to museums, natural history societies, etc. There is no condition, but it is requested that certain of the specimens be exhibited. They will be found of value to students. These exhibits have cost us a great deal to accumulate, and while we ask no financial