Further information may be obtained by anyone who will take the trouble to visit the high school where Professor Wiley performs experiments for the benefit of his pupils. The galvanic battery was manufactured by Bunsen and contains twenty-four large cells. The experiments with these instruments were highly satisfactory, the light being only two or three per cent. less than that of the sun. The gas flame paled to a vapor and the air was filled with flickering waves like those we see in summer when the atmosphere is at white heat. The light itself is a white flame as trying to the eye as the sun. The hue given to surrounding objects is sickly in comparison with the light of day.

The reporter, after all, has given a vivid description of this characteristic phenomenon.

In the *American Journal of Science and Arts*, July, 1879, I published a paper relating to the exhibitions of electric light at Purdue University. I had constructed a special lamp to be used for this purpose. In order to increase the conductivity of the carbons I plated them with copper. I made various other adjudications in regard to the lamp in order to make it more effective and to utilize the carbons more economically. On the publication of this paper I received a letter from Dr. Charles J. Brush informing me that he had taken out a patent on copper-coated electrodes and warning me that if I wished to use them at all I should have to pay a royalty to his company. This was the first intimation that I had that the process which I also invented was covered by letters patent. I wrote to Dr. Brush that I had no expectation nor desire to offer my invention for commercial purposes, and that I should certainly not do so anyway in view of the fact that he had already patented the process. My invention was largely, however, the improvement which I introduced into the copper-coated electrode. This was my first introduction to Dr. Brush, whose wonderfully successful career in electric lighting and in other allied branches of science has reflected such credit upon himself and has facilitated such valuable improvements in all branches of the technical science connected with electric illumination.

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THE PROPOSED NATIONAL PARK IN THE MAMMOTH CAVE REGION AND THE KENTUCKY GEOLOGICAL SURVEY

THE creation of a national park in the Mammoth Cave region has been pending for several years. Regarding the progress of the movement the director of the Kentucky Geological Survey, W. R. Jillson, writes:

> . . . Over a million dollars have now been raised and subscribed for the purchase of this park, and I am assured by Governor Sampson who is chairman of the organization raising the funds, that there will be no difficulty in securing the entire amount. In other words, Kentucky will do its part and the Mammoth Cave region will become a national park in due course.

It is perhaps premature to congratulate Kentucky on this achievement. But it seems worthwhile to point out the change in sentiment which this large amount of public subscription reflects. Five years ago I made my first visit to the cave area. At that time the subject of a national park was greeted on all sides with annoyance and resentment—even with counter propaganda on governmental invasion of private rights. I soon learned that it was necessary to avoid the subject to save argument. This spring the attitude was patently different. The native residents seem to be ready for the change; many of the employees connected with the cave properties are not averse to the plan; some even have contributed to the public funds.

How much the efforts of the Kentucky Geological Survey and its publications have had to do with this change in sentiment is difficult to evaluate. It seems to me that it may be more than coincidence that during the past five years there have been published the volume on the geology of Edmonson County, in which Mammoth Cave is located, a booklet on Kentucky State Parks, besides the survey and publication by cooperation with the U. S. Geological Survey of several topographic quadrangles in that vicinity. I noted in one hotel the state geologic map displayed in the main lobby. The state seems to be conscious of its geologic survey! In anticipation of the growing interest in the cave area an illustrated guide by A. K. Lobeck is shortly to be published.

In its molding of public sentiment by the dissemination of information the Kentucky survey appears to have made an achievement.

A. C. SWINNERTON

ANTIOCH COLLEGE

QUOTATIONS

CHEMISTRY IN INDUSTRY

SIXTEEN years ago the Society of Chemical Industry last met in America. Those who recall that meeting remember the spirited controversy between Sir William Perkin and Duisberg over synthetic rubber. No one then dreamed what was impending and what enormous demands the nations would soon make upon applied chemistry. As President Francis H. Carr said in the annual address, the great advance which has occurred is due in part to the fact that whole nations have made united effort to achieve a com-