

came very bright and complete except for the portion below the horizon. It clearly showed red on the inside and blue on the outside. Tangent to this halo, directly above the sun and convex toward it, was a strongly colored arc of a circle, red on the convex and blue on the concave side.

As the sun's altitude increased the parhelic circle gradually extended until it reached nearly around the horizon and the paranthelia  $120^\circ$  from the sun had become very distinct patches of white light. The  $22^\circ$  parhelia meanwhile had become dazzlingly bright, considerably elongated perpendicularly, and showed orange red on the side farthest from the sun. This color arrangement being the reverse of that of the  $22^\circ$  halo seems peculiar.

The phenomena remained visible until about eleven o'clock before which time the  $22^\circ$  halo appeared as a complete circle above the horizon and the parheliion directly below the sun showed brightly. Before vanishing the bright  $46^\circ$  halo and its brilliantly colored tangent arc appeared almost at the zenith.

Measurements of the diameters of the halos and the angular positions of the parhelia were made with an improvised transit. No claim to accuracy can be made for them, both because of the apparatus and because of the bright and diffuse nature of the objects, but the results obtained are practically those given above as was to be expected.

The temperature during the night had been below zero and in the morning was still  $3^\circ$  or  $4^\circ$  below it. The air was quiet and filled with falling crystals of ice.

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#### MARKING MICROSCOPE SLIDES

IN the issue of SCIENCE for January 4, Mr. P. A. West gives an aluminum clip method for labelling glass slides while staining which he finds more satisfactory than the diamond pencil or the water-proof-ink method.

With me his objection to a label scratched on the glass does not hold, as I use a jar in which the upper end of the slide is not covered by the stain. I have for several years used

an improvised carborundum pencil and have found it most satisfactory.

A fair-sized crystal of carborundum, chosen for one or more sharp points is laid between the two halves of a firm piece of elder pith about an inch and a half long, with the sharp end projecting only sufficiently to make its use easy. Rubber bands are then wound tightly about both ends of the pith, holding the carborundum firmly in place. The pencil may be pointed up by trimming the edges of the pith around the crystal. This pencil is more easily handled than the bare crystal and scratches the data quickly and easily on the slides.

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#### SCIENTIFIC BOOKS

*The Organization of Thought.* By A. N. WHITEHEAD, Sc.D., F.R.S., Fellow of Trinity College, Cambridge, and Professor of Applied Mathematics at the Imperial College of Science and Technology. London, Williams and Norgate. 1917. Pp. 219.

This volume is a collection of eight discourses bearing the following titles:

- I. The Aims of Education—A Plea for Reform.
- II. Technical Education and Its Relation to Science and Literature.
- III. A Polytechnic in War-time.
- IV. The Mathematical Curriculum.
- V. The Principles of Mathematics in Relation to Elementary Teaching.
- VI. The Organization of Thought.
- VII. The Anatomy of Some Scientific Ideas.
- VIII. Space, Time and Relativity.

Except number VII., which is here published for the first time, the articles are addresses delivered before various scientific associations in course of the last four years. The range of discussion is wide, even wider than the diversity of titles might lead one to expect; yet the discussions have a deep unity in the fact that they deal with various aspects of one great matter, the organization of thought, and so the book is happily named. Fresh, direct, trenchant, vital and swift, the style is such as to give the reader more energy