Nature Ramblings

By Frank Thone

Bloodroot

A GOOD theme for a botanist-poet might be supplied by the bloodroot, that now stars our woods. Such a one might well hail the little white flower as a "modest poppy" that

"Crowds back its carmine blushes to its root
And turns toward all ardors of the sun
A front demure and white as any nun."

For the bloodroot is really a close cousin of the poppy, and the red that its relative flaunts in its face, this little white spring blossom expresses only in its blood-red sap. It would not be exactly correct, however, to say that the red sap is found in its root, for the thick underground part of the plant is really a rhizome or subterranean stem, from which the true roots, as well as the overground stems, take their rise.

The sap is somewhat thick and milky under its red color, which is another point of kinship with the milky-juiced poppy tribe. And as the juice of the poppy contains a poisonous principle used in medicine, so also does the juice of the bloodroot. Under the Latin name "Sanguinaria" the dried rhizome used to find a more or less prominent place on druggists' shelves; though it is little used now.

The bloodroot is one of the small number of native American wildflowers that needs little warning against reckless bouquet-gathering, due again to that same thick, red, rather irritating juice. Children picking flowers in the woods sometimes take a handful of its attractive, though short-lived, white flowers; but the appearance of their hands and dresses usually causes their alarmed mothers to place further bloodroot gathering under interdict.

Roentgen's Rays—Continued

spot—namely, from that which is the new terminus of the cathode rays.

For this reason, therefore, the X-rays, which it is impossible to deflect, cannot be cathode rays simply transmitted or reflected without change by the glass wall. The greater density of the gas outside of the discharge-tube certainly cannot account for the great difference in the deflection, according to Lenard.

I therefore reach the conclusion that the X-rays are not identical with the cathode rays, but they are produced by the cathode rays at the glass wall of the discharge-apparatus.

13. This production does not take place in glass alone, but, as I have been able to observe in an apparatus closed by a plate of aluminium 2 millimetres thick, in this metal also. Other substances are to be examined later.

14. The justification for calling by the name "rays" the agent which proceeds from the wall of the discharge-apparatus I derive in part from the entirely regular formation of shadows, which are seen when more or less transparent bodies are brought between the apparatus and the fluorescent screen (or the photographic plate).

I have observed, and in part photographed, many shadow-pictures of this kind, the production of which has a particular charm. I possess, for instance, photographs of the shadow of the profile of a door which separates the rooms in which, on one side, the discharge-apparatus was placed, on the other the photographic plate; the shadow of the bones of the hand; the shadow of a covered wire wrapped on a wooden spool; of a set of weights enclosed in a box; of a galvanometer in which the magnetic needle is entirely enclosed by metal; of a piece of metal whose lack of homogeneity becomes noticeable by means of the X-rays, etc.

Eclipse—*Continued*

Shadow Movies

Observations made by Mrs. Isabel M. Lewis, astronomer of the U. S. Naval Observatory, at Honey Lake, California, were successful. Bailey's beads but no corona was observed and it was determined that the path was correct as predicted and the time was right to within two seconds. U. S. Navy airplanes operating for the U. S. Naval Observatory secured one reel of motion pictures of the shadow from an elevation of eighteen thousand feet and from the ground Navy photographers made a reel of the eclipsed sun.

Best Prediction

The solar eclipse of April 28 upon the basis of preliminary reports has been proclaimed the most accurately predicted eclipse of record. Due to the very short totality and consequent narrow path, it was necessary to take into account the latest observations of the moon's position in making the final determination of the area from which the totally darkened sun could be seen.

The prediction made by James Robertson, director of the Nautical Almanac office of the U. S. Naval Observatory was fulfilled with greater accuracy than was to be expected.