point of ozone cannot be below  $-125^{\circ}$ . According to Troost it is  $-119^{\circ}$ , while earlier, Olszewsky had placed it at  $-106^{\circ}$ .

J. L. H.

## CURRENT NOTES ON METEOROLOGY. AUGUST HOT WAVE IN CALIFORNIA.

THE August number of the California Section of the Climate and Crop Service contains an account of the hot wave of that month, by George H. Wilson. This hot wave lasted one week, and was the most severe on record, throughout the Sacramento and portions of the San Joaquin Valleys. Maxima up to 120° were noted, and the temperatures were about 20° above the normal in the great valleys on August 11th. In the Sacramento Valley it is stated that birds flew into the houses, seeking shelter from the withering heat, and in a few cases they are reported to have fallen dead from the trees. During the hot wave there was a marked absence of northerly winds in the interior valleys, and as the ground was very dry, owing to a drought, the surface was effectively heated.

## MONTHLY WEATHER REVIEW.

THE August number of the Monthly Weather Review is one of unusual interest. Among the papers it contains are the following: 'The Effect of Approaching Storms upon Song Birds,' by C. E. Linney; 'Progress in the Exploration of the Air with Kites at the Blue Hill Observatory,' by A. Lawrence Rotch; 'Destruction by Lightning in New York State during the month of August, 1898,' by R. G. Allen; 'The Measurement of the Wind,' 'Sensible Temperatures or the Curve of Comfort,' and 'Waterspouts on the Lakes,' by Professor Cleveland Abbe.

## NOTES.

THE Southern Pacific Railroad Company has recently supplied ordinary meteorological instruments to 181 of its stations be-

tween Ashland, Ore.; Ogden, Utah, and El Paso, Texas. The state of the weather, direction of wind, temperature and rainfall are included in the daily record, and at nine important points pressure readings are made. Daily telegraphic reports are forwarded from each point to San Francisco. Weekly crop reports are also sent from 52 important producing centers. The Company forwards over its own wires, without charge to the government, warnings of frosts and hot northers. The meteorological observations thus collected are placed at the disposal of the Weather Bureau.

In the September number of the Monthly Review of the Iowa Weather and Crop Service it it noted that of 266 head of live stock killed in Iowa by lightning during the past summer 118 were found in close contact with wire fences.

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## BOTANICAL NOTES.

SOME MORE ATROCIOUS BOTANY.

It is quite bad enough that we have textbooks on elementary botany that are so full of error that teachers have to be warned not to use them, but now we find a new source of confusion and erroneous infection in an unexpected quarter. Our attention has just been called to a recent book, 'Applied Physiology,' by Dr. Overton, published by the American Book Company, in which the author manages to bring in more than the usual number of misrepresentations and misleading statements regarding plants, commonly found in such books. The following examples will give an idea of the botanical pabulum which the Doctor supplies to his pupils:

"The greater part of all young plants is starch" (p. 26). "Each grain [of starch] is made up of layers of pure starch separated by an exceedingly thin layer of a substance like cotton, called cellulose" (p. 26). "As