decimalized; and equations in thermodynamics require about half the old style multiplication and division.

It may be noted that, unlike the Fahrenheit and Centigrade which depend upon the boiling point of water, a variable quantity, depending upon pressure, and hence not the same from one day to another, or even from one place to another, the Kelvin-kilograd uses only the freezing point. The effect of change of pressure on the freezing point is so small compared with the boiling point that the correction is practically negligible.

ALEXANDER MCADIE

BLUE HILL OBSERVATORY,
JANUARY 30, 1922

THE GEOLOGY OF WESTERN VERMONT

IN a paper entitled "Studies in the Geology of Western Vermont," published in the Twelfth Biennial Report of the Vermont State Geologist, pp. 114 to 279, the writer has described field relations among the lower and middle Ordovician strata along the eastern shore of Lake Champlain in the townships of Benson, Orwell and Shoreham which seem best explained as great dislocations in the forms of reverse faults and one or more low-angle thrusts by which certain massive dolomite and limestone strata of lower Ordovician age have been broken and moved westward for indeterminate distances over shales and interbedded black slates and limestones belonging to the same geological system, but undoubtedly younger in age.

Similar phenomena were described also for the lake region near Burlington, where, however, thrust phenomena had long been better known. In the northern areas, so far as studies had then been carried by the writer, the presence of lower Ordovician limestones on middle Ordovician slates seemed largely confined to the islands of the lake, while on the mainland of Vermont certain siliceous dolomites and quartzites belonging to the Cambrian system and to the lower Cambrian terrane were found reposing on black slates with interbedded limestone bands not very different from those found beneath the lower Ordovician limestones on the islands and on the mainland farther south in Orwell and Benson.

In addition to the description of the more or less clearly defined deformations just referred to the writer offered field evidence in support of the view that similar dislocations may probably define the fundamental deformational features of the rocks within parts of the Taconic Range, and along the "Vermont Valley" and the western margin of the Green Mountain plateau contiguous thereto, although within the latter-mentioned areas the thrust relations have been much disguised by normal faulting.

In the summer of 1921 the writer continued his studies in western Vermont among the islands of Lake Champlain and along the mainland in Phillipsburg, Quebec, and in the Vermont towns of Highgate, Swanton, Sheldon, St. Albans, Georgia, Fairfield, Fairfax, Milton and Colchester. Although there are present in these areas certain differences in respect to deformation and erosion, with which in some degree apparently are to be correlated the former extent and present boundaries of the lake in its northern portions, and also certain geographical variations, chiefly in the rocks composing the lower Cambrian beds in northern Vermont, the major thrust relations are clearly defined. Many interesting structural details were noted.

It is purposed, at the first opportunity, to continue these later studies thus begun and to publish a second paper on the geology of western Vermont, dealing chiefly with deformational features among the islands of Lake Champlain and along the Vermont shore region of the lake as far south as Shoreham.[1]

C. E. GORDON

AMHERST, MASS.,
NOVEMBER 1, 1921.

ACUTE SENSE OF SOUND LOCATION IN BIRDS

IN a recent issue of SCIENCE,[1] DR. A. G. Pohlman, of the St. Louis University School of Medicine, briefly discusses some matters pertaining to the ability of birds to locate the

[1] Published with the consent of the Vermont State Geologist.