

of the tripod with vegetation, for, if the reader will transpose,

"A primrose by the river's brim
A yellow primrose was to him,
And it was nothing more."

FRANCIS H. HERRICK

Travels in the Confederation (1783-1784).

From the German of Johann David Schoepf.

Translated and edited by ALFRED J. MORRISON. Philadelphia, William J. Campbell. 1911. 2 vols. \$6.00.

Few, if any, of the early travelers through America showed a wider mental grasp on matters falling under their observation than did Dr. Johann David Schoepf, a surgeon to the Bavarian troops employed by the British government in their vain attempts at subduing the unruly Americans during the war of the Revolution, and who subsequent to the declaration of peace made, for that period, extensive journeys through the eastern and southeastern United States. Schoepf was no mere specialist. His training had been broad and he lived at a time when it was possible for one mind to grasp and perhaps master the essentials in all branches of science. That he was a man of more than ordinary powers of observation and scientific acumen is evident from his published writings, which cover a wide range in ethnology, meteorology, biology, botany and geology. He was, according to Goode, the author of the first special ichthyological paper ever written in America or concerning American species, while his "Beiträge zur mineralogischen Kenntniss des ostlichen Theils von Nord Amerika" (1787) was the best systematic record of the geology of the eastern United States that had appeared up to date. The breadth of the man, however, is nowhere shown to better advantage than in the work now under review. "I willingly admit," he wrote, "that these notes are neither so complete nor of such importance as I could wish, but . . . to be candid, the motive of my journey was curiosity."

Whatever the motive, it is difficult to conceive of his getting into readable form and in a limited space a greater amount of information on a variety of subjects than here, and a

hearty vote of thanks is due Dr. Morrison for thus bringing to life, resurrecting, as one may say, a story of travel which might otherwise remain inaccessible to most readers and hence be forgotten.

After seven years of garrison duty Schoepf began his *Reise* in July, 1783, by boarding a flat-bottomed water craft known as a "petty augur" bound for Elizabethtown, New Jersey; thence by various modes of conveyance he proceeded through the state into Pennsylvania as far west as Pittsburgh and southward into Maryland, across the Potomac into Virginia, the Carolinas and from Charleston by boat to Florida, returning by way of the Bermudas to Europe. His narrative is in form of an itinerary and is really extraordinary in its detail. No object or item was too small for his consideration, or apparently too large for his comprehension. He noted the general physical features of the country passed over, its climate, mineral productions, soil, vegetation, animal life and the cities and towns and their manner of government. The character of the people and their personal idiosyncrasies are discussed in a way comparable only with the later writings of Featherstonhaugh in his "Journey through the Slave States" (1839), though from a less cynical standpoint. He seemed not favorably impressed by the German farmers of Pennsylvania. "They give their children no education." "Their conversation is neither interesting nor pleasing." With the people of Virginia he is likewise disposed to be critical, but considers their objectionable characteristics as in part due to the debasing influence of slavery. The Assembly he did not find impressive. "Among the orators here is a certain Mr. Henry." (Presumably Patrick—he of "Give me liberty or give me death" fame.) "He has a high-flown and bold delivery, deals more in words than reasons, etc." Charleston, South Carolina, in spite of a climate which he states makes it in spring a paradise, in summer a hell, and in autumn a hospital, is described as one of the finest of American cities, and, Philadelphia excepted, inferior to none.

The geology given is naturally largely of a mineralogical nature, though the possible effects of uplift and erosion were partially comprehended. The following description of the marble beds of Swedes Ford, Pennsylvania, is characteristic:

These strata, resting one upon another almost perpendicularly, are very clearly distinguished by divers rifts and clefts as well as by changed colors. This can scarcely have been their original bearing; rather it is likely they have suffered a powerful alteration in their bed.

Copious notes are given on the mineral resources, together with descriptions of mines and remarks on the condition of the metallurgical industry and the effects of tariff legislation. The need of a "trust buster" was evidently manifest even at that early date. Concerning an unsuccessful attempt to check imports by high duty on the part of the iron workers of New Jersey and Pennsylvania we are informed:

Therefore several of the larger furnace and forge masters proposed to hinder the further import of foreign iron by coming to an agreement among themselves that whenever iron came in from Europe they would offer their own at a certain loss under the prices of the European merchants so as to frighten them off from further imports.

The volumes are of convenient size, good paper and type, and the rendering into English well done. It is a work which those interested in the beginning of science, or the early history of the country may peruse with pleasure and which all may read with profit. One can but hope that it will meet such a reception as may lead to a like rendering by Dr. Morrison of the "Beytrage" above mentioned.

GEORGE P. MERRILL

THE INTERCOLLEGIATE GEOLOGICAL EXCURSION

THE eleventh Intercollegiate Geological Excursion, though it began on "Friday the 13th," was blessed with perfect weather and the attendance was over 70. We regretted the absence of Professor William Morris Davis (to whom a greeting was sent) and Secretary Professor Cleland (detained at the

last moment) yet the presence of Dr. C. A. Davis, the peat expert of the Bureau of Mines, and David White, from Washington, and a delegation headed by Professor Chadwick from St. Lawrence University, helped to make up. The state geologists of Connecticut, Rhode Island and Vermont (there is none in Massachusetts) were present and members of the faculties of Dartmouth, Vermont, Amherst, Smith, Mt. Holyoke, Yale, Worcester, Boston and Salem Normals, as well as the immediately adjacent institutions of Harvard, Tech. and Wellesley. Professor Lane, of Tufts, had charge of the excursion.

Starting Friday noon from Davis Square, Somerville, at Morrison Avenue a diabase dike ridge of La Forge's "Older" E.W. family was visited, then at the corner of Francesca Avenue was a temporary exposure showing the Somerville slates beautifully glaciated and the preglacial weathering not entirely removed, a north striking camptonite dike with brotocrystals of biotite and an older labradorite porphyrite. Then near the old powderhouse the diabase with quartzite inclusions was shown on the terraces and its peculiar spheroidal weathering. This was visited again at Governor's Avenue in Medford and unpublished analyses by C. N. Whitney, showing that the weathering is largely oxidation and hydration without leaching, were shown that evening by Professor Lane, who called attention to the fact that the phosphorus seemed higher in the weathered material and thought that the weathering was in some ways like that of an arid region. He also said that his studies¹ showed that if the consolidation temperature was something like 1100° C., the initial temperature was near 2000°. Thence passing along Broadway, hills and drumlins were being cut away, showing rock core, with accumulation of the till on the lee side exhibiting also some sign of nipping by an old ocean shore 35 feet above the present level.

On Simpson Avenue (Nos. 69 and 31) in temporary excavations for cellars, sections of washed gravel were exposed—largely an

¹"Die Korngrösse der Auvergnosen."