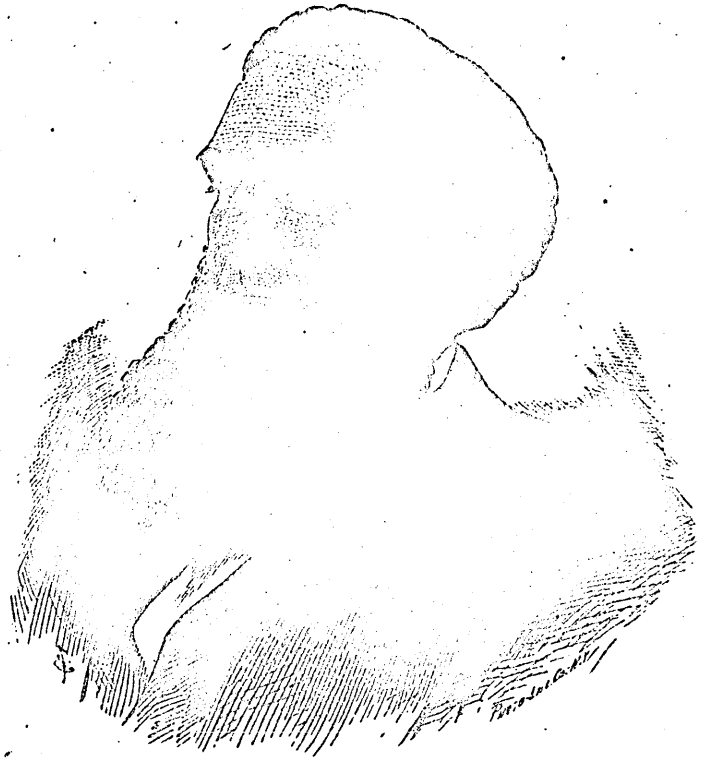
business of the State University and the geological survey were so much broken up, that, in 1865, Prof. Swallow accepted an appointment as state geologist of Kansas, and continued in that work two years. He had previously, in 1858, discovered and determined rocks in Kansas, belonging to the Permian group of geological series. This was the first time that rocks of this age were shown to exist in America; and this discovery by Prof. Swallow, together with his reports on the geology of Missouri and Kansas, and papers read before the American Association, gave him a high rank and honorable recognition among the learned societies and savans of America and Europe.



GEORGE CLINTON SWALLOW, M. D., LL. D.,
Professor of Geology and Agriculture in the State University of Missouri, and Dean of the State Agricultural College.

In 1870 the University of Missouri was enlarged, reconstructed and reorganized on the true university plan—with co-ordinate schools or colleges of literature, science, art, law, medicine, mines and agriculture. Dr. Swallow was appointed to the chair of natural history and agriculture and made dean of the agricultural college, which position he still holds.

For nearly thirty years past he has been a working and leading member of the agricultural and horticultural societies of the state, their very existence having grown out of his urgent and eloquent advocacy of such organizations as early as 1852. He has also been an active member of the "American association for the advancement of science," and has taken an honored and leading part in many of its profoundest discussions. He has always been a staunch opponent of "Darwinism," or the materialistic phase of the doctrine of evolution. His most persistent and useful work is, perhaps, his study and classification of Missouri soils as shown by his numerous publications on their chemical and physical properties, and the best modes of culture for the staple crops of the Mississippi valley. [See page 70 and following pages.]

ROCKS, COAL, FOSSILS, ETC.

In Prof. Swallow's geological map of Missouri, Lafayette county is all included in what he marks as the "coal measures," or upper carboniferous formation, except some strips of alluvial bottom lands along the Missouri river; these bottom lands he marks as "quarternary"—but other authorities would further subdivide and class them as "recent" formations, (see geological chart on page 67) because they are the same sort of formations as are now being made every year by the Missouri and other rivers. By referring to the chart the order of superposition of the different geological formations will be readily seen. Lafayette county bluffs show the coal-measures subdivision of the carboniferous age; then there is an absence of several succeeding formations, to-wit: Peruvian, Triassic, Jurassic, Cretaceous and Tertiary; but the first division of the quarternary is found—a layer of sand and gravel, with occasional granite boulders from the azoic rocks of Dakota, Wyoming and Colorado. These are the drift materials of the glacial epoch; and upon them is deposited the "bluff formation," as Prof. Swallow calls it, but which is called *loess* by most other writers. The manner of production of this "bluff formation" will be found explained on page 80, and this is the body soil or clay at the top of the geological formations all over Lafayette county, except the recent bottom lands or flood plains of the rivers and creeks, and the outcrop of other formations in the river bluffs and on the banks of streams.

The writer of this history learned from some former pupils of the Elizabeth Aull Seminary that Miss Emma G. Wilber, a long time favorite teacher there, used to take her pupils out on geological excursions; and also have them bring in any specimens which they might find, and which she would explain to them individually or in class. And Miss Wilber having removed to Englewood, Illinois, we wrote to her, requesting a sketch of some of her geological excursions with her classes, and notes of any rare specimens found. Accordingly, the lady wrote us in reply, under date of June 23, 1881: