

reous water, and in addition to the above enumerated ingredients, contains free sulphuretted hydrogen, and hydrosulphuret of sodium.*

Springs in the bed of the Vermilion River, at Vermilionville, are sulphureous in their character, and at the same time equally rich in saline matter with the Illinois Springs. It is difficult to obtain a supply of water from them, as their points of issue are completely overflowed at high stages of the river.

Of the TENNESSEE Springs I have not much to say, having been unsuccessful in some attempts to procure information respecting them. I will begin by repeating what is found in my first work on the subject.†

* This is the first announcement, as far as I am aware, of the presence of this sulphuret in any of the sulphur springs of the United States.

† On Baths and Mineral Waters. To save the trouble of inquiry for this book, I may as well say that it has been out of print for many years. Its place is intended to be supplied by the volume already published, "Baths and the Watery Regimen," and the present Manual, and, finally, by the larger work already referred to, but not yet finished, on Mineral and Thermal Springs in all parts of the world.

"Nature has been exceedingly bountiful to the western region in the abundance and excellence of its sulphur springs; especially of those in which sulphur and the muriates of soda and lime are held in solution. Throughout the longitudinal range of Tennessee, for example, from west to east, from Nashville to the Virginia line, the traveller must have been struck with the number of these springs which present themselves in regular succession on or near the high road.

"*White's Creek Spring*, twelve miles from Nashville, is much resorted to. My stay at it was too short to enable me to glean much information respecting the virtues of its waters from personal observation. I learned that it contained sulphate of magnesia, iron, and sulphur. The impregnation with this last was very strong, the taste even acrid. Experience has shown that this water, when drank, is best adapted to diseases of low action. In calculous affections and cutaneous disorders, it has the reputation of having wrought wonderful cures.

"*Robertson's Springs* are saline. They are twenty miles from Nashville.

"In East Tennessee especially, inducements, presented as well from this cause as from the purity of the air and agreeable variety of scenery, are held out to many families from Mississippi and that region of country, for change of climate and travel. Many avail themselves of the advantages thus offered, and realize more completely what they hoped for than if they had visited more celebrated watering places, and become the slaves to fashions and usages, often irksome by their strangeness, and injurious by their taxes on personal comfort and health.

"Twenty miles east of Knoxville are *Lee's Springs*; two sulphur and a chalybeate: the last is very strong. At *Rutledge* (Granger County), and at *Beane's Station*, are strong sulphur springs."

Dr. Troost, in his Sixth Report of the Geological Survey of the State of Tennessee, enumerates several mineral springs, all of them sulphureous; viz: *French Lick*, *Tyre's*, *Dun's*, *White's Creek*, *Sam's Creek*, in Davidson County; *Winchester* and *Brown's*, in Franklin County; *Maysfield*, in Williamson; *Hager's*, in Sumner; and *Terrie's*, in Rutherford

County. All of them contain sulphuretted hydrogen and sulphate of lime, and most of them chloride of sodium. That of *White's Creek* has sulphates of soda and magnesia.

The quantity of sulphuretted hydrogen is from 6 to 13 cubic inches in 20 ounces of water—proportions beyond those of the *White Sulphur* in Virginia, and the *Blue Lick* in Kentucky.

Within a few minutes' walk of the city of Nashville—I speak of thirty four years ago—there is quite a strong sulphureous spring. Probably the same as that called the *French Lick Spring*.

I have been favored with the following memorandum from a young friend (Mr. Dashiell) from Tennessee, who is now attending a summer course of medical lectures in this city.

"*Winchester Springs*, four miles from the town of this name, are situated upon the Nashville and Chattanooga Railroad, in Franklin County, Tennessee, some seventy miles from Nashville, and fifty from Chattanooga. They are of considerable celebrity, and from their variety and close proximity demand a passing notice. Within a stone's

throw we have four different springs; red and white sulphur, chalybeate, and *freestone*. They are all very large, and flow in full stream. They are situated in a beautiful valley, surrounded by hills covered on all sides by plants and flowers most rare. To the traveller, weary of a railroad car and fond of botanizing, no more profitable and pleasant place can he find to wile away a few days. The springs have been analyzed by the state geologist and the best chemists in Nashville, and they have been proved to possess the best qualities. The invalid in search of active medicinal waters and *bracing* air, should pay Winchester a visit.

"*Alliance Springs*.—Near the above, some four miles distant, have been discovered springs of nearly equal value and variety. They are called 'Alliance Springs,' and bid fair to become a *fashionable* resort.

"*Montvale Springs*, situated near the city of Knoxville, East Tennessee, accessible at all times, I believe, by conveyances from the city, are rich in medicinal waters of different varieties, and are much resorted to by *invalids* and pleasure-seeking people from all parts of

the South. The scenery around is grand; and this region has even been called the Switzerland of America."

Warm Springs, of the temperature of 95° F., are on the French Broad River, issuing from its banks.