

Biographical Sketches of Indiana Scientists, II

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RYLAND THOMAS BROWN. Ryland T. Brown was one of the most influential and colorful scientists in Indiana during the middle decades of the nineteenth century. He was born on October 5, 1807, in Lewis County, Kentucky, and died in Indianapolis on May 3, 1890.

The Brown family moved to Clermont County, Ohio, near New Richmond, in 1809. About this same time a colony from Maine settled in this community and brought with them a teacher, Mark P. Stenchfield, who conducted a school both winter and summer. Ryland was a frail child, unable to stand the rigors of that pioneering period, and his understanding parents encouraged him to attend school to get a good education. Stenchfield was a competent teacher and a zealous Baptist who, with Brown's pious parents, exerted a life lasting influence on the child. The family moved to Richland, Rush County, Indiana, in 1821 and the next year at the age of fifteen Ryland joined the Clifty Baptist Church.

In Indiana Brown began living a backwoods life of labor and privation and served several years as a guide to land hunters. This outdoor life strengthened him and he became an expert woodsman and a keen observer and lover of nature. He was an ardent reader and he frequented the county library that had been established in Rushville.

In 1826 he read a book containing the Campbell-Walker debate on the pertinence of certain Calvinistic beliefs in Christian doctrine. Alexander Campbell, founder of the Disciples of Christ sect, objected to the acceptance of man-made creeds. Brown was won over and at the age of nineteen led the movement to reform the Clifty Church group and free it "from the bondage of human authority." However, the sudden and violent death of his father, in 1825, from an attack of congestive fever, aroused his interest in diseases and their remedies. He began a three-year study of medicine in which for anatomy in part he used a partial skeleton of an Indian unearthed on his father's farm. He attended the sessions of the Ohio Medical College, in Cincinnati, from 1827 to 1829 and graduated in the spring of 1829. (1, 4)

Following his graduation he returned to Rushville and began the practice of medicine. On his return he found the Rushville Community in "the throes of religious excitement over 'Campbellism,'" and Brown, as leader of the reform movement, "was arraigned on the very general charge of being a 'Campbellite' and as such was excluded from the church," that is, the "Orthodox Calvinistic Baptists." However, some forty members of the Little Flat Rock Church, a majority, took control and, in 1830, organized the "Church of Christ at Little Flat Rock." Brown was denied an opportunity to defend his stand but he did write a letter in March, 1830, that was published in the "Christian Baptist" in which he stated: "I became convinced that the popular doctrine of a partial atonement, and unconditional election and reprobation, were alike antichristian and unscriptural." (1)

Later, in 1848, representatives of the Disciples of Christ met in the Flat Rock Church to discuss the founding of a college that was chartered

by the State Legislature in 1850 and opened in 1855 in Indianapolis as Northwestern Christian University, now Butler University.

In October, 1829, Brown married Miss Mary Reeder who was a cousin to Milton Wright, the father of the Wright Brothers, pioneer airmen. In 1832 the Browns moved to Connersville.

Despite his excommunication by the Baptists, Brown both preached and practiced medicine with considerable success. He first held church meetings in the county courthouse and, following a protracted meeting, he and John O'Kane, another ardent follower of Campbell, organized a Church of Christ in Connersville in 1833. In the practice of medicine he formed a partnership with Dr. Philip Mason, who had come to Connersville about 1824, and this partnership lasted several years. He became a member of the Fifth Medical District Society which at that time had considerable influence on "enlightening its members and preventing irregular medical practice." (5)

After a few years his health became bad from overwork and he gave up the active practice of medicine and devoted his time to preaching. He was also interested in education and he attended a convention in Indianapolis on January 2, 1839, for those interested in better common schools.

He preached extensively from 1832 to 1842 throughout the White-water valley and helped to organize a number of churches. At a State meeting of the church held in June, 1842, in Connersville, he and three others were appointed "to labor in word and doctrine 'for the churches in Indiana'." He spent the next year traveling over the State but lung hemorrhages developed and he had to resign. To restore his health he spent the next year in outdoor manual labor running a sawmill, but he continued to preach on Sundays. The work in the open air restored his health. (1)

By 1844 treaties had been concluded with all the Indian tribes in Indiana, most of the Indians had been moved to reservations outside the State, and two thirds of Federal public lands in the State had been ceded to the State. There was a general movement of peoples to the north and Brown, his wife and six children moved to the "Wabash country" in the spring of 1844 and settled near Wabash which had been laid out in 1834. He formed a medical partnership with Dr. James Ford of Wabash. There was much swampy land along the river and Brown's wife and children became ill from chills, malaria or ague. Brown became disgusted and through the advice and efforts of his friend, fellow Mason and strong anti-slavery advocate, Dr. Elizur H. Deming, of Lafayette, he moved to Crawfordsville where he bought a home on the outskirts with one and a half acres of ground so that he could garden and keep a cow. He again began the practice of medicine and resumed his preaching. (3)

This was the low point in his career. At a meeting of the State Agricultural Board in 1878 he related "how he had lost everything about 1840 by going too deeply into debt and he spent the next ten years paying his debts as well as the debts of those for whom he had gone security."

At Crawfordsville he immediately made use of the Wabash College library and scientific equipment and got acquainted with the College faculty. He became deeply interested in the sciences, particularly geology,

through his association with Professor Edmund O. Hovey, who was a minister and professor of chemistry and natural science in Wabash College. Brown was especially interested in the State's coal and limestone resources. Wabash College conferred the honorary A.M. degree on him in 1850. (2)

The Wabash Academy of Science was founded in 1844 and Brown became active in its work. According to its published "Proceedings" for 1854, Brown was then its secretary, treasurer and naturalist. According to its Constitution the duties of the Naturalist, who must be a resident of Crawfordville, were to "open and carry on correspondence with scientific men in different parts, and collect facts and specimens in the various departments of science, etc." The "Proceedings" closes with the "Report of the Naturalist of the Wabash Academy of Science." Brown's Report is eight pages long and is devoted to "Observations on the Topography of Indiana." (9)

On June 6, 1849, a State Medical Convention was held in Indianapolis to organize the Indiana State Medical Society. Brown did not attend this organization meeting but he was a member of the Society from its beginning. The Society held its first Meeting in Indianapolis on May 15, 1850.

Through his Lafayette friend, Dr. Deming, who was trying to secure the removal of the LaPorte Medical School to Lafayette, Brown, in 1850, was employed to teach chemistry in a spring course of eight weeks held in Lafayette. (5)

David Dale Owen made a geological report in two parts, in 1837 and 1838, entitled "Geological Reconnaissance of the State of Indiana," but nothing came of it until 1849 when Governor Joseph A. Wright reported to the Legislature the necessity of continuing the work of Owen. The 1850 Legislature took no action except to provide for the organization of a State Board of Agriculture. This Board was organized in 1851 and appointed Brown its "Geological Agent." In 1852 the Governor appealed to the Legislature again, and on January 22, 1852, Brown delivered a lecture to the legislators in the Hall of the House of Representatives on "The Geology of Indiana as an Element of Wealth to the State" in which he pointed out the need for a survey of the geology and mineralogy of the State in which "the topography of each county should be carefully examined and accurately marked on the map." He also made a 34-page report to Governor Wright, of the State Board of Agriculture, published in the Third Transactions (1853) of the State Agricultural Society, entitled "Geological Survey of the State of Indiana," in which for the first time in geological literature attention is called to the Falls of Eel River as a source of power and the gorges of Turkey Run for their wildness and scenic beauty, and he also discussed Wyandotte Cave. He stressed the importance of limestone for building purposes, sidewalks, etc., and he devoted twelve pages to discussing Indiana's coal resources. In 1852 he also published essays on "Swamp Lands" and "On the Best Method of Improving the Soil."

At a meeting of the Executive Committee of the State Board of Agriculture on January 7, 1854, "On motion of Gov. Wright, Dr. R. T. Brown was employed to prosecute a partial geological examination of the State,

at a salary of \$500 per year." An interesting sidelight on this close cooperation between Governor Wright and Brown is that the Governor was a Democrat and Brown a Whig. (2)

In the Indiana Agricultural Reports for 1854-5 Brown has three essays: "On Grasses," "On the Dairy," and "The Soil of Indiana," and for 1856, a report on "The Manufacturing Capabilities of the Indiana Coal Field," and an essay on "Analysis of Corn." In carrying out his work he traveled over the State studying its geological and natural features and locating the Glacial Moraine across the State. During the years 1856-7 Brown represented the 9th District, composed of Putnam, Hendricks, Montgomery and Boone counties, on the Board of Agriculture.

Despite his other work Brown never lost sight of the evils of slavery and drunkenness and he lectured against both over the State. A poem against slavery that he wrote in 1851 may be found on page 1046 of Dunn's "Indiana and Indianians." Throughout this period he wrote many articles that appeared in the Indiana School Journal, Ohio Farmer, Christian Record, Christian Luminary and other periodicals and the newspapers.

In 1842 a secret society, known as the Sons of Temperance, was organized in New York and the first lodge in Indiana was chartered at Brookville on November 15, 1845. With the organization of the tenth lodge in the State at Indianapolis on April 24, 1846, a Grand Lodge was organized in May, 1846, and "the order was fully launched in the temperance work in which it was the chief agency in Indiana for the next decade." Within five years there were 400 lodges in the State and "the Grand Division of the Sons of Temperance met in 1853, declared for prohibition, elected Ryland T. Brown Grand Worthy Patriarch, and requested him to canvass the State for prohibition on the Maine law basis." A State temperance convention was held in Indianapolis in January, 1854, a State Central Committee was set up, \$12,000 was raised, and following a thoroughly organized State campaign, a State Prohibition Law was passed by the Legislature in 1855 and signed by Governor Wright. (8)

In 1858 Brown was elected to the Chair of Natural Science in Northwestern Christian University, now Butler University, and he moved his family to Indianapolis in August, 1858. For the first time in his life he was a teacher by profession and for the first time, living in the capital city, he was at the center of the political and educational life of the State.

Shortly before Brown left Crawfordsville the Wabash Academy of Science at a preliminary meeting called for the purpose resolved to organize a State-wide association of scientists. At a later meeting held in Indianapolis the Indiana Association for the Advancement of Science was founded with Dr. John S. Bobbs as President and Ryland T. Brown as Secretary. The Association was divided into six sections and definite plans were made for the first meeting with a program on December 30, 1858. The coming of the Civil War terminated the activities of the Association. (10)

Brown early showed genuine concern for improved educational facilities in the State and attended a convention held in Indianapolis on January 2, 1839, for those interested in better common schools. (8) He frequently lectured before school groups and was active in the Indiana State Teachers

Association which was founded in December, 1854. In 1864 Brown was elected President of the Association.

As a college teacher Brown was primarily interested in chemistry and geology. Harvey W. Wiley, who was Professor of Latin and Greek at Northwestern Christian College from 1868 to 1870, got to know Dr. Brown well and at the 1916 meeting of the Indiana Academy of Science Dr. Wiley expressed his estimate of Brown as a teacher as follows: "He was particularly a geologist and taught geology by modern methods. He was also quite accomplished in the theory of chemistry, though not a practical analyst." "I joined on more than one occasion his geological excursions with great pleasure and benefit. He was an interesting speaker and knew his subject well but only from the didactic and theoretical point of view." (7) In line with his interest in science and education, Brown early became a member of the Indiana Historical Society which was founded on December 11, 1830. (8)

Along with his college duties Brown continued his work with the State Board of Agriculture. In 1867 he published "An Essay on the Natural Resources of Indiana." At the request of Lt. Governor Conrad Baker, Acting Governor, he compiled a pamphlet in 1868 entitled "Indiana and Her Resources" in which he discussed the position, soil, climate, waterpower, building material such as stone and clay, coal, iron and manufacturing facilities of the State. Ten thousand copies were printed and distributed throughout Pennsylvania and the Eastern States. In March, 1870, he published a comprehensive series of seven articles in the Indianapolis Daily Journal on "The Indiana Coal Field," based on his long study of the State's coal resources. (2)

At the earnest solicitation of Brown and the leading members of the State Board of Agriculture, the Legislature on March 7, 1869, passed an Act authorizing a Department of Geology and Natural Science in connection with the State Board of Agriculture. Governor Baker appointed Edward T. Cox to the office of State Geologist on March 22, 1869. (2)

Also in 1869 the Indiana Medical College was organized in Indianapolis and Brown, although still on the Faculty at Northwestern Christian College, was selected to teach chemistry. (3, 8)

Following the close of the Civil War, scientists in Indiana again began discussing the organization of a scientific society. Edward T. Cox, State Geologist, led the movement which culminated in the founding of the Indianapolis Academy of Sciences on December 30, 1870, with Cox as President and Brown signing the Constitution as a charter member. This organization lasted only a few years. (11)

After thirteen years of service at Northwestern Christian University Brown resigned in 1871 to accept appointment as Chemist-in-Chief of the Department of Agriculture in Washington, D. C. However, he disliked the confinement of office work and resigned in 1873 and returned to Indianapolis. According to Smart (4), he was appointed Professor of Physiology in Indiana Medical College which, in 1871, had affiliated with Indiana University as its Medical Department. This affiliation continued until 1876. Indiana Medical College continued in operation and over the years affiliated or merged with several different medical organizations, and was affiliated at different times with Butler and Purdue Universities, until

finally in 1908 it united with the Indiana University Medical School. Brown was still on its staff in 1876 and he had also resumed his medical practice and preaching following his return to Indianapolis in 1873. During the period he was in Washington he wrote and published in 1872 *Brown's Physiology* which was a textbook used in Indiana schools.

Brown was appointed head of the "Forestry Display" in the Centennial Exposition held in 1876 in Philadelphia, Pennsylvania. John L. Campbell of Wabash College was Secretary of the U. S. Centennial Commission from 1875 to 1878.

Although Brown was influential in securing the legislative action that created the office of State Geologist, rather strangely he did little or no State geology work during the ten year tenure of Edward T. Cox. However, under Cox's successor, John Collett, State Geologist from 1879 to 1885, and Maurice Thompson, State Geologist from 1885 to 1888, he made a number of county geological surveys and his reports are published in the Reports of the State Geologist. His first report, "Trees and Shrubs of Fountain County," was done in 1881 and he lists 74 trees and shrubs. He reported on Marion County in 1882, Morgan County in 1883, and in 1884 besides his report: "Geological and Topographical Surveys of Hamilton and Madison Counties," he also had an essay on "Fish Culture in Indiana." Under Maurice Thompson he worked in Hancock County and his report was published in 1886. This apparently completed his geological work.

In 1885 when Amos Butler was canvassing scientists in the State as to founding a State-wide scientific society he received the following reply from Ryland T. Brown, written on September 26, 1885, on the "Indiana Farmer" stationery:

"Your circular was received this morning, and I hasten to reply.

"In 1849 we organized the Wabash Academy of Science at Wabash College (Crawfordsville), and it continued in successful operation till 1856 when it was consolidated with a State organization, the title of which I do not remember. This organization, together with the State Historical Society, died in 1861, of war excitement. Subsequently we organized the Indiana Archeological Society, for the investigation of prehistoric remains and the collection of relics. This suspended in 1873, and at present there is a clear field for a "State Academy of Science" and I favor a call of Scientists for the purpose of effecting such an organization about Tuesday, December 29th, 1885. Respectfully and truly yours, R. T. Brown."

This letter is in the Archives Division of the Indiana State Library and the above copy was sent to me by Miss Nelle Coats.

Both "The American Naturalist" and "The Indiana Pharmacist" for 1886 report on the first meeting of the Indiana Academy of Science, December 29, 1885, and state that R. T. Brown gave a report on Indiana Geology and "The Indiana Pharmacist" also quotes from his report. Brown was 78 years old at this time and was probably the oldest in years of the Academy's Charter Members, being at least two years older than Richard Owen and T. A. Wiley.

Brown was active almost to the day of his death, being "employed in an editorial capacity on an agricultural paper" and writing "on scientific subjects apropos to farming, more especially grains and fruits for which he had always a deep interest and a profound knowledge." (3)

Physically Brown was of medium stature and slight physique, weighing about 145 pounds, a homely man with keen blue eyes and red hair and beard which became totally white by the time he was forty. He possessed a "nervous-sanguine" temperament, and was quick of movement and an intensive and indefatigable worker. Frank and brusque, but not ill-tempered or unkindly, he possessed an indomitable will and a clear, logical and practical mind. He was the kind of man one remembered. (1, 3) Edward Barrett, State Geologist from 1911 to 1918, rated Brown as "one of the ablest all-round scientists that Indiana ever had" and ranks him with David Dale Owen and Edward T. Cox "in establishing the foundations of geological science in Indiana." (8) Dr. William B. Fletcher, Superintendent of the Indiana Hospital for the Insane from 1883 to 1888, stated that Dr. Brown believed in the germ theory of disease long before it was proved. (3) For a man who worked under the constant threat of tuberculosis Ryland T. Brown undoubtedly had a remarkable record of accomplishment as a churchman, educator and scientist.

In the last week of April, 1890, Dr. Brown became ill with "the grip" and died at his home in Indianapolis on May 3, at the age of 82 years.

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