



Grand Scales

Q U A R T E R L Y

ISRAELITE HOUSE OF DAVID

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The religious colony known as the Israelite House of David was established in Benton Harbor, Michigan on St. Patrick's Day 1905 when 41 year old Benjamin Franklin Purnell arrived there with a band of his loyal followers. Shortly afterwards, Brother Benjamin and his flock established what was to become a miniature city that eventually grew to cover over 1000 acres of land including farm lands, docks, factories and buildings valued in the millions of dollars. In 1908, an amusement park known as Eden Springs was opened complete with rides, restaurants and a dance pavilion.

The talented H of D orchestra provided music for all occasions and the House also fielded an outstanding traveling baseball team. Industrious and self-sustaining, the House of David has survived to this day although charges of religious fraud and immorality followed Brother Benjamin Purnell from the beginning until his death in 1927.

At its peak, there were over 1700 members from every corner of the world, many of whom were highly skilled in the manual arts. H of D members abstained from meat, alcohol and tobacco although meat dishes were served to the public in their restaurants and, when it was legal, they also sold beer. Male members who were married wore beards and had relatively short hair while unmarried men had long hair but were clean shaven.

The fascinating story of the H of D can be found in the recently published book, "Brother Benjamin - A History of the Israelite House of David" by Clare E. Adkin. While the book concentrates on the organization and its key people, it does contain some information about the miniature railroad which once graced those Midwestern grounds over 90 years ago. First opened in 1908, by 1920, the line that Brother Benjamin built grew to include a total of eight 15 inch gauge steam locomo-

tives operating over a one mile main line.

The Early Days

The late Cliff Shirley, dean of park locomotive historians, visited the H of D in the early 1950s with the goal of learning the history of the railroad and its motive power. As misfortune would have it, Tom Roberts, the H of D's master mechanic and the man who had brought the line into existence, had died prior to Cliff's visit. Cliff was able to talk with Joseph Nelson, who was then in charge of the railroad, and the H of D photographer, Mr. H. E. Kirkham. Joe Nelson was very busy at the time and could only spare a few moments for conversation but Mr. Kirkham was able to sort through his photographs and found some pictures of the trains in operation. Cliff next visited the roundhouse and talked to two young men working there but they did not have any historical information since the railroad came into being long before their birth. Despite these setbacks, Cliff was still able to piece together a plausible story of the road, which I will repeat here.

Early in 1908, Brother Benjamin

decided to build a miniature railway on H of D property and he purchased one, or possibly two, 15 inch gauge Cagney Class D locomotives from an unidentified source. The year was verified by a member of the H of D baseball team who told Cliff that the railroad was not there when he left with the team for the 1908 season but was in place upon his return. From this, it appears that the track was laid during the spring and possibly summer.

What sparked the idea of installing a miniature railroad is not known but it seems likely that it was pure pragmatism. The grounds were extensive and the opening of Eden Springs Park made a long distance transportation system a necessity. The H of D had a recruiting booth at the 1904 St. Louis World's Fair and were able to see Cagney's 62 mile line in operation there. The wisdom of using miniature trains to transport visitors over the many acres was readily apparent.

Soon after the railroad opened, it was seen that many more locomotives would be needed as future growth occurred. Rather than buy additional equipment, Brother Benjamin elected to locally build



what was needed to suit the specific needs of his railroad. A requirement for a greater tractive effort than what could be developed by a 4-4-0 must have inspired the 4-6-0 wheel arrangement. While the Cagney design did serve as a general pattern for all of the H of D's locomotives, there were some significant differences such as using Baker rather than Stephenson valve gear. The H of D's locomotives also seemed to be more durable than the venerable Cagneys especially in regards the design of the main bearings.

Cliff's intuition at that time led him to believe that, while some Cagney parts were used in the construction of the H of D locomotives, most of the design and construction was done at the House. He also thought that a full set of drawings must exist somewhere in the railroad archives since the operation was professional in every sense of the word and normal practice would have required occasional reference to design data. However, in later correspondence, Cliff told me that he had received information from Jeff Jefferis stating that the H of D 4-6-0s were actually major rebuilds of Cagney 4-4-0s. Clare Adkin's book states that eventually all of the H of D's records will be given to state authorities so perhaps someday live steamers, (more likely our great grandchildren), will be able to examine the original drawings and data and learn the facts.

The Railroad

Running for one mile through 50 acres of beautiful parks and orchards, the line spanned two high bridges. The miniature rail of unknown weight was carefully spiked to oak ties and guard rails were used on all curves. Each curve was properly banked and every crossing had a gate manned by an adult H of D gateman. There was an additional mile of side tracks which ran to a miniature roundhouse where each locomotive had its own numbered stall.

The roundhouse had the proper facilities for raising steam namely, an overhead hood/blower system for each locomotive that connected, via a common duct, to a large stack mounted on the roof. One simply spotted a locomotive's stack under its hood connection and fired up. By 1920, the line boasted of eight coal burning locomotives : Nos. 1 through 4 were 4-6-0s while the remaining nos. 5 through 8 were 4-4-0s. The ten wheelers weighed in at 2200 lb. while their smaller brothers

tipped the scales at 1800 lb. Boiler pressure was 150 psi and each locomotive carried two headlights.

Passenger trains consisted of a maximum of eight canopied cars seating eight passengers each while work trains had as many flat and other type cars as were needed to do the assigned job. The locomotive engineers were usually young boys in their late teens; they certainly must have appeared to be shining heroes in the eyes of the visiting children. Each train also carried a conductor who rode at the end of the last car and kept a sharp eye out for any sign of trouble. A rope ran from the conductor's position up to the canopies and forward to the engineer on the tender ? it was used to signal danger during the run in a manner similar to full size practice of those times.

Over the years the track layout underwent several changes but the general destinations remained the same C at one time the route was a figure 8 while the final configuration was an irregular loop. It extended to the parking lot entrance where visitors were picked up and transported to various destinations within the grounds. At peak traffic periods, four trains were operating on the line, one pulling out after loading at the entrance, one unloading at the entrance and one on each side of the loop.

The appearance of the locomotives remained essentially the same throughout their lifetime except for one instance when a streamlining hood was added to No. 4 and she received the name "Hiawatha ". The workmanship of the hood was very good but the hokey appearance of the streamlined locomotive did not generate positive comments and the hood was later removed. Operations were conducted with safety in mind from the beginning ?I am not aware of any serious injury which occurred to a passenger during the many decades in which the line operated.

The Later Years

In the late 1940s, the original eight locomotives were replaced by three new Prairie 2-6-2 locomotives nos. 901 through 903, designed to the most modern standards and built by Tom Roberts and Joe Nelson in the H of D shops. I think that 902 had Baker valve gear while 901 and 903 were fitted with Walschaerts gear. The locomotives were coal burners and had 4" x 5" cylinders powering 16 inch drivers. Developing almost 1000 lb. of tractive

effort at 200 psi and weighing 6100 lb., the new Prairies could easily handle trains which would have been impossible for two of the old locomotives.

It was planned to build three more Prairies for a total of six and many of the major assemblies, including the boilers, had been completed but, to my knowledge, the additional locomotives were never finished. Fred Kiesel, of the Wabash, Frisco and Pacific, visited Benton Harbor in the early 1950s and actually saw parts for the unfinished locos stored in a loft over the car barn.

Fred eventually purchased four of the old locomotive chassis, three 4-6-0s and one 4-4-0, believed to be Nos. 1, 3, 4 and 6 respectively, and transported them to Missouri. Jeff Jefferis also purchased one of the 4-4-0s, No. 8, and ran it for one season in Piedmont, Missouri before reselling it. Using the new Prairies, the H of D continued operations; they eventually were to cease, perhaps in the 1970s or 1980s, and the equipment went into storage.

Brother Benjamin preached to his followers that both he and they were indestructible. For many years after his death, his mummified body lay in state in an upper front room in the "House of Diamonds" watched over by the faithful who were awaiting his resurrection. Although that did not come to pass, in a sense he lives on today through the remarkable miniature railroad that he willed into existence. His locomotives are definitely in the senior citizen category and earned their retirement long ago but several of them have been resurrected by dedicated live steamers and, despite their age continue to operate in all their glory on the Grand Scale lines. I expect that they will be hard at work well into the 21st Century. Unlike we poor mortals, these remarkable locomotives may be as close to indestructible as it is possible to get.

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