

TO THE HEIGHTS BY INCLINE

By Edwin R. Weeber

The Patterson Heights Street Railway was capitalized for \$6,000 in 1895. This was actually four years before Patterson Heights was incorporated as a borough (1899), having been part of Patterson Township or "Riverview" prior to that time.

The Patterson Heights Street Railway, better known as the incline, was built by John Reeves, an early resident who, it has been said, received inspiration for its operation through observation of mining equipment during travels in the western part of the United States.

The total length of the car line was approximately three-eighths of a mile. Commencing at the bottom terminal, located at the foot of Bridge Street, where it joins what is now Seventh Avenue Extension, Beaver Falls, the line proceeded north-west along the curb line of Bridge Street to the bottom of Ross Hill. At this point, it crossed Bridge Street and proceeded west between Ross Hill and the now abandoned Patterson Heights or Country Club Hill for a combined distance of approximately one-eighth of a mile to a position at the bottom of the straightway in roughly a north-south line to Patterson Heights. To this point, the car operated in the same manner as any other street car. In order to traverse the inclined straightway, however, it required a cable assist, which will be described later. The straightway portion was approximately one-quarter of a mile long with a grade of approximately 20 percent or 20 feet to the 100.

In the construction of the straightway section of the incline, two major cuts were made on the west side of the right-of-way. Philip Erath, Jr., one of the better known operators, stated that these cuts were hand dug—steam shovels not being in common use at the time.

The cabled portion of the incline was unique. It consisted of one track the length of the hill, or incline for the



Beaver Falls Museum

Passenger car of the Patterson Heights Incline in 1898. It ceased operation in 1927.

passenger car, and an adjacent track for the counterweight car, more popularly known as the dummy, which traveled only the upper half of the incline. The dummy car, weighted with scrap iron, weighed slightly less than the passenger car.

The cable arrangement, which permitted the movement of the passenger car and the dummy in a two-for-one travel distance, was accomplished through the use of horizontally mounted pulleys. One pulley was mounted at the top, a second beneath the track bed at the bottom of the incline and a third mounted in the dummy itself. The anchor points for the cable ends were at the top and halfway down the incline at the end of the dummy track. In order to climb the hill, the operator would grasp the stationary cable with an apparatus on the car known as the clutch or grip. After grasping the cable, the car would proceed up the hill. Two 50-horsepower motors, which powered the car itself from a conventional overhead trolley wire, also moved the cable. As the car started its climb, the dummy car at the top, resting on a short level spot, proceeded off that spot and down the track. When the dummy started down the grade, only nominal power from the car motors was required to

take the passenger car up the hill. The dummy, by the same token, acted as a brake on the return trip down the hill.

In approximately 30 years of operation, no major accidents occurred to the car, although on one or two occasions, the dummy "got away" when the cable was not properly gripped as the car proceeded up the hill.

The windowed passenger compartment consisted of carpeted bench seats positioned on either side of the length of the car that could accommodate approximately 10 to 12 adult passengers. The fact that the seats were carpeted reduced the possibility of the passengers sliding to the lower end of the car as it made its way up the hill. Not taking any chances in our young lives, however, my brothers and I generally tried to get seats at the upper end of the car. Normally, however, we would sit on a covered box containing sand for the track in the forward operator compartment going up the hill. Sand was used occasionally when the tracks were wet or icy.

The passenger car required a cable assist as described, but on at least one occasion, as related by Phil Erath, the car was able to make it to the top without a cable and only sand on the track. Needless to say, there were no passen-