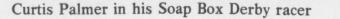


Not exactly a soap box





Curtis Palmer, age 10, of 23 W. Market St., Marietta, recently spent 8 months preparing to roll down a hill.

That's not as silly as it sounds: Curtis is going to participate in the Soap Box Derby at York on July 16th. Derby cars don't have engines, but are designed to roll down an incline with the least possible resistance. The 8 months Curtis put into building his car were intended to minimize that resistance, thereby winning him the Derby.

"Curtis is a natural

"The competition is ferocious," according to Jim. Before a race, Curtis tapes all the tiny slots in the body where axles and cables pass through it. He even turns the screws so that the slots are aligned fore-and-aft, in hopes of cutting air drag.

So far Curtis has won five of the seven races he has entered his car in. On the 16th, at York, he will again roll down a 1000 foot track, reaching about 40 m.p.h. at the end. He told us that he gets quite a sensation of speed toward the end of a run. block nestled into the underbody is jammed onto the pavement. It's covered with rubber, and stops the 220-pound car quickly.

220 pounds is the most the car is allowed to weigh. All Derby racers bolt scrap metal into their cars to reach this figure. Everyone agrees that heavier cars go faster, but where to put the weights is disputed. Curtis has all his weight over the rear axle.

Jim and Curtis are look-



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mechanic," says his father Jim. "He likes to grab wrenches and do things." Jim, who used to build and race his own motorized autos, advised Curtis on the assembly procedure and design, but Curtis did all the actual work himself.

Starting with a kit from the Derby organization (consisting of axles, steering gear, and brake cables), Curtis carefully framed out, fastened, and sanded his pine boards and plywood until they assumed the correct aerodynamic form. Extra attention to detail is evident throughout his vehicle. He even varnished the inside, as well as applying three coats of enamel, by hand, to the outside.

Because of the many strict rules which govern the event, there are only a few areas in which to innovate. The mechanical parts are identical on each car, and the wheels, the biggest influence on speed, are assigned at random at the track. Body materials and overall dimensions are fixed, so air resistance becomes the biggest factor in building. The car doesn't have ordinary brakes, but is fitted with a drag shoe. When Curtis pushes his brake pedal, a wooden ing for a sponsor. A sponsor pays certain fees for the car and in return gets his or her name placed on the vehicle. Any one who is interested should drop in on Jim at 23 W. Market.



