

## EDUCATION, NOT LEGISLATION

**Editor's note:** The following is the first in what Dick Ray and I hope becomes a series of short pieces on railroad equipment and therefore on safety. Please feel free to contribute, so that we all are better educated when we start out on the next run.

### SPRING FROGS

By Dick Ray

WM M9 #67

The saying "Education, not Legislation" originated with Fred Fisher of Riverside, New Jersey, several years ago, and is particularly appropriate now that we are redoing the Rulebook. The Rulebook requires that cars be walked through a spring frog, but perhaps not everyone knows what a spring frog is. This article and the accompanying photos are intended to be an educational service for those who do not know about the danger presented by a spring frog. But be forewarned; now no one can say, "I did not know what that was!"

Look closely at the frog behind the railbus. If the bus moves backward there is seemingly no flangeway for his right rear wheel. If the flange follows the one flangeway you can see, he will be derailed. The close-up photo of the frog shows that there is a spring-loading mechanism holding the needed flangeway closed. The railbus and typical railroad cars are heavy enough to overcome the spring tension and so provide a flangeway through the frog.

Our motorcars are typically not heavy enough to pry the flangeway open and so will bounce up and over the frog. If the car is going faster than a walk, the guardrail shown on the left rail may not be enough to contain our flange, and a

derailment may occur. It has happened more than once, but should never happen again. Remember that you do not just fall onto the ties. You fall onto a switch which can damage your rear pulley or sprocket. In addition the rails can bring you to a very sudden stop and cause you to fall out of the car.

The spring frog is intended to provide a smooth route through the main line or straight route. The railbus is on the diverging route. The danger to a motorcar is present going either direction on the diverging route, but the straight route is safe.

The railbus is a 1918 White, and is located at the Whippany Railroad Museum at Whippany, New Jersey. The rail in the vicinity of the spring frog bears the dates 1919 and 1923. It is not known if this is the original rail, but the bus went into service here in 1918 on the Morris & Essex Railroad. Some of the ties do not have tie plates, and the rail appears to be no larger than 70-pound.



*As Fast Train Nears.*