

# RAILROADING ACROSS THE POND

## Part 1: Those funny things on the ends of the cars and engines



The French Chapelon Pacific announced in 2008 Volume One — our first-ever European-prototype model — became the best selling M.T.H. O gauge steamer in the past six years. Clearly there is an interest in European O gauge, both in the U.S. and on the other side of the pond. In this issue of *CrossingGate*, we begin a series of articles to help American modelers appreciate and enjoy European trains.

the 1870s, Eli H. Janney, a dry goods clerk and former Confederate officer, invented the Janney coupler, commonly known today as the knuckle coupler. Earlier American couplers such as the link and pin required a man to stand between two cars while they were coupled together, and many lives and limbs were lost in the simple act of putting a train together.

In Europe, however, the situation was not so simple. With trains traveling across a multitude of national borders, there was no single government to mandate a standard automatic coupler. To this day, the common European coupler consists of a simple tow hook on each end of a car or locomotive, and a short chain to hold the hooks together — a coupling method basically unchanged since the Liverpool & Manchester Railway of 1830. While a variety of modern couplers, some based on the Janney design, are used on passenger trains throughout Europe, there is still no standard automatic coupler in widespread use. A European standard coupler incorporating automatic air, control and power connections has been approved but, due to cost considerations, has yet to be implemented.



In 1893 the U.S. Congress effectively made Janney's coupler (and George Westinghouse's air brakes) the American standard when it passed the Safety Appliance Act, also called *An Act to Promote the Safety of Employees and Travelers upon Railroads by Compelling Common Carriers Engaged in Interstate Commerce to Equip Their Cars with Automatic Couplers and Continuous Brakes and Their Locomotives with Driving-wheel Brakes, and for Other Purposes*. It's important to note that the Janney coupler actually serves two purposes: it holds cars and locomotives

The European hook-and-chain coupler has two important limitations: It is smaller and thus not as strong as a knuckle coupler, so there are no mile-long European freights hauled by several diesel locomotives. And while the hook-and-chain holds cars together, it doesn't keep them from bumping into each other. Which leads us to the second thing you'll find on the ends of European cars and locomotives: buffers.

### Couplers

Perhaps the most obvious difference between European and American trains is the way they're coupled together. In

together, but it also spaces them a certain distance apart — so they won't bump into each other when the train slows or stops.

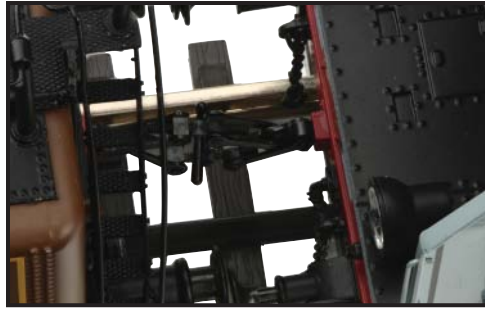
### Buffers

On either side of a European coupler is a spring-loaded, bumper-like device called a buffer. To make a coupling, cars or locomotives are pushed together until



Knuckle Coupler

their buffers touch. A worker then steps between the cars, attaches the coupling chain between the tow hooks, and tightens the chain using a turnbuckle-like device in the middle link. This pulls the two mating cars or locomotives together and compresses the buffer springs. British railroaders call this a screw coupling, because of the screw in the chain that tightens up the slack. In effect, the buffers keep the cars spaced apart, and the screw coupling holds them together. An interesting British practice, extinct since the 1970s, was the "loose-coupled" local freight. Cars were coupled with simple three-link chains that had no means of drawing the buffers together, and no train air brake was used. These

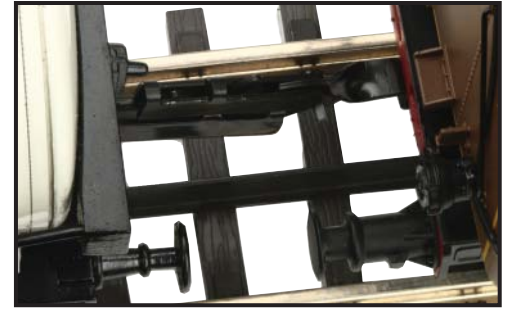


European Screw Coupling

freights traveled at low speeds and used a heavily weighted guards van (British variation of a caboose) at the rear, with its brake lightly applied, to keep the train stretched out.

## Modeling European Couplers

With no prototypical automatic coupler to model, European model railroaders have come up with several options. Fine-scale modelers use a prototypical screw coupling, complete with a miniature turnbuckle to tighten the connection and compress the buffers. While this looks terrific, it requires very large radius curves and switches to prevent "buffer-



Ace Trains Coupler

lock," which occurs when buffers become misaligned, slip behind each other, and lock up. This has even been known to occur on prototype railroads and cause derailments.

For easier operation, many European hobbyists use Kadee®-type operating knuckle couplers or one of several non-prototypical model couplers — such as the Ace Trains tinplate-type coupler. M.T.H. European locomotives are supplied with fine-scale screw couplers, Proto-Couplers compatible with American-prototype models, and Ace Trains-style tinplate couplers. Scale-wheeled models also include a bracket for mounting Kadee couplers.



M.T.H. Electric Trains has begun shipping ready-to-run train sets from the all-new Lionel Corporation Tinplate product line. Both Standard and O gauge sets are available in this year's lineup. Each of the sets contains a Proto-Sound 2.0 equipped locomotive and a trailing freight or passenger car consist. O Gauge sets come equipped with a 31" x 51" oval of RealTrax while the Standard gauge sets are equipped with a circle of traditional standard gauge tinplate track. Both types of sets include a powerful Z-1000 transformer.

kind product lines. The new packaging combines classic Lionel packaging elements in a modern presentation. Inside most packages, the locomotives and cars will come wrapped in special protective sheets — decorated in

# LIONEL CORPORATION TINPLATE PRODUCTS BEGIN SHIPPING

Perhaps the most distinguishing element of the new sets and all the Lionel Corporation Tinplate products is the all-new packaging design, created especially for this unique and one-of-a-

Lionel Corporation Tinplate decor — and inserted in impact-resistant poly-foam.

All Lionel Corporation Tinplate products can be ordered through any M.T.H. Authorized Retailer.

