

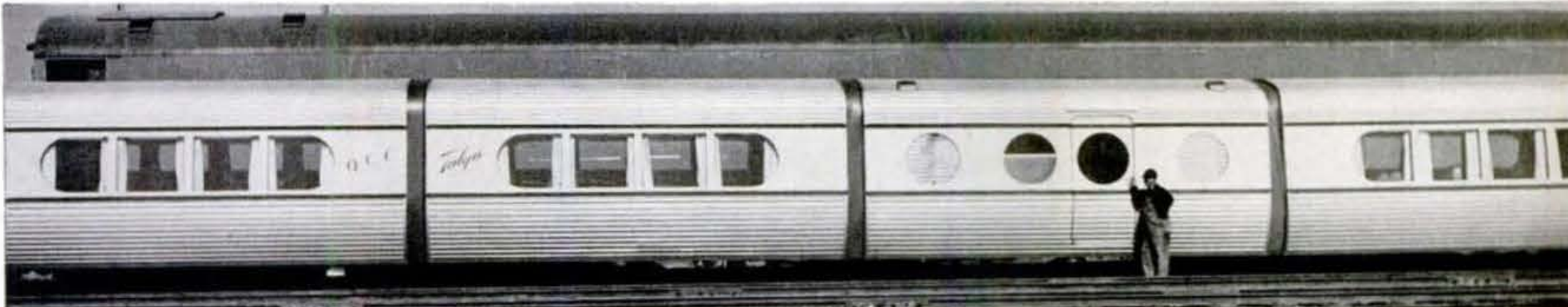


TAIL END OF THE TALGO TRAIN'S OBSERVATION CAR RESEMBLES A SQUAT METALLIC BUBBLE. PASSENGERS RIDING IN IT ARE ONLY 18 INCHES FROM THE TRACK

# THE TALGO

Bizarre train by A.C.F., a major U.S. car builder, is a strong bid to revolutionize railroad travel

U.S. railroads are impaled on a dilemma: they are steadily losing money on passenger business (\$426 million in 1947) yet they must replace their ancient passenger cars with new ones that are costlier than ever. A possible answer to this, and to the challenge of the airplane, has been streaking up the Susquehanna Valley at 60 mph this spring on a series of slow test runs. It is an all-aluminum train of short (20-foot) cars which each have only two wheels at one end, the other end resting on the car ahead. Low, light, fast and economical, the new train, modeled after the Talgo, a Spanish-made prototype, was built by the American Car and Foundry Company. This week A.C.F. is introducing it publicly and hopes thereby to begin a revolution in U.S. railroading.

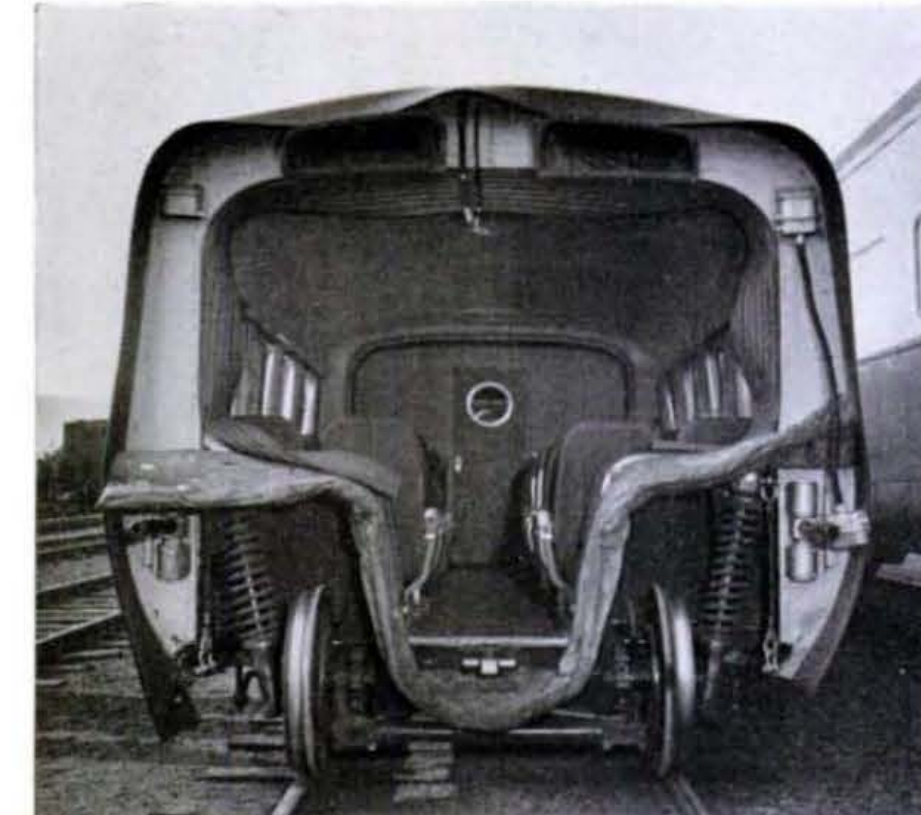


SHORT TALGO CARS ARE CLOSELY COUPLED TO MAKE A CONTINUOUS UNIT. EQUIPMENT CAR (ROUND WINDOWS) CARRIES KITCHEN, TOILETS, AIR CONDITIONING

## Talgo CONTINUED



INTERIOR view from one car to next shows how doors and vestibules have been eliminated between cars. Cars are also four inches wider than standard.



END VIEW of a car shows how the wheels are set up into the low body. Big springs, containing shock absorbers, give smooth, balanced ride at high speeds.



LOW-SLUNG TALGO (left) has floor 33 inches below standard car (right). Speed and high acceleration of Talgo could cut travel time more than a third.

## Talgo CONTINUED



INVENTOR GOICOECHEA (in army uniform) emerges from the sleek and glossy observation car of his second train, built in a Spanish umbrella factory.

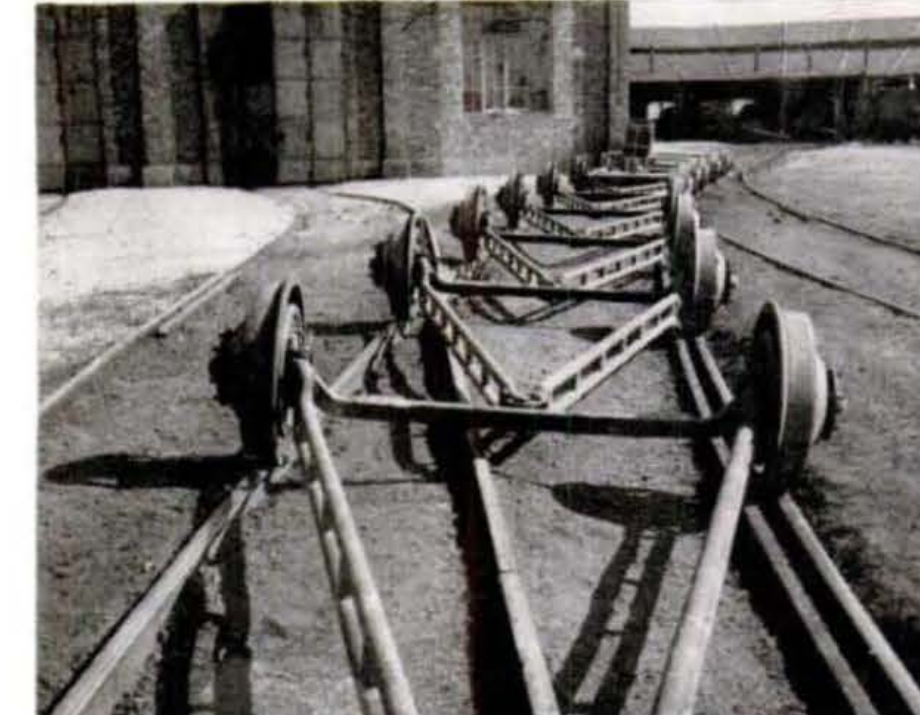
## TALGO WORKS LIKE A TRAILER



LOCOMOTIVE LOOKED LIKE A BUG

The original Talgo got its name from five initials which also tell its history: *tren* (train), *articulado* (articulated), *ligero* (light), *Goicoechea* (its inventor), *Oriol* (the name of the wealthy family that backed it). Lieut. Colonel Alejandro Goicoechea was an obscure Spanish army engineer who, fascinated by the possibilities of improving railroad car design which had changed little in 100 years,

began experimenting in 1941 with a radically new kind of train. His first model (below) consisted of mere sets of wheels hitched one behind the other like a series of trailers. Each pair of wheels was thus led smoothly along the track and around curves by the preceding pair. By contrast, the wheels of a conventional railroad car, mounted in swivel trucks, find their way around curves by bumping their flanges along the track, with consequent friction, noise and tendency to derail. The second train had a curious locomotive which resembled Der Captain in *The Katzenjammer Kids* (inset), but the train's practicality was proved during 80-mph test runs from Madrid to Aranjuez. Now A.C.F. is building two more such trains for Spain and a third (shown on preceding pages) so that U.S. railroads can study it and then order. To the U.S. railroad business, which has lost much of its instinct for adventuring, a train that resembles a plane, cannot be backed up for long distances and must operate as a unit may at first appear ridiculous. At second glance, when its low construction cost, swayless comfort, operating economy and high speed are considered, it may look pretty good.



PRINCIPLE OF TALGO train is illustrated by series of trailers which made up Goicoechea's first "train." Likely backers took sooty tours on board seats.