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SO YOU'RE GOING ON THE TRAIN?

WHEN traveling in a train, you are approximately forty-five times as safe as when traveling by auto, and safer than commercial air transportation too. And if the research men have anything to say about it, this record is going to be improved, and at the same time, comfort and beauty are to be increased. For in the annual reports of the Association of American Railroads, research for greater safety, improved service, and increased efficiency and economy in railway operation was the keynote.

Investigation and detection of rail defects by more certain methods are being studied by the Engineering Division. Also, better construction methods in the manufacture of rails for elimination of weak points and increased strength and durability are being devised. Continuous welding of rails has attracted attention and is being subjected to tests to determine the reliability of this process.

A heavy alternating current is passed through and concentrated at the surface of the axle as it revolves in a lathe. Any cracks in the axle will cause changes in the voltage gradient along sections of the axle. These

changes are automatically recorded on a chart leaving a permanent record of the condition of the axle.

Better and more efficient braking systems are being tested, including Westinghouse's new "Anti-wheel Slider" and power brakes which succeed in stopping trains better.

The Signal Section is attempting to enhance safety by more reliable signal systems. Efforts are being made to reduce accidents and mistakes caused by the employees by more exacting physical and mental examinations and studies on foods and vitamins in relation to combating human defects, such as night-blindness.

Great strides in comfort are due partially to the advances in air-conditioning. It is desired to furnish clear, cooled air that is neither stale nor shockingly cold. Problems are encountered in air-conditioning trains, traveling through varying climates, which necessitate equipment for both cooling and heating the air. With more constant temperature and humidity control, more healthful traveling conditions are possible. New Pullman car designs include private baths in luxurious suites provided with large and restful beds.—D. E. P.