

## Poles for the Chicago, Milwaukee & Puget Sound Electrification

A tangible sign of the approaching electrification of the Chicago, Milwaukee & Puget Sound Railway, concerning which a statement was published in the *ELECTRIC RAILWAY JOURNAL* for Jan. 3, 1914, is the shipment of the 45-ft. red cedar poles which will carry the 100,000-volt transmission line of the Great Falls Power Company.

The order calls for 2705 45-ft. and 255 50-ft. poles for use on the transmission lines proper. In addition to this the railway is using 3625 6-in. top 25-ft. poles for a telephone line paralleling the transmission line. All of these poles are being shipped from the Priest River, Idaho, yards of the pole contractor, Lindsley Brothers Company, Spokane, Wash. Every pole is treated with Avenarius Carbolinum by the open-tank process, the immersion lasting for fifteen minutes at a temperature of approximately 200 deg. Fahr. The 25-ft. poles are treated for 6 ft. of the butt and the 45-ft. and 50-ft. poles for 8 ft. of the butt.

## New All-Steel Cars for the Albany Southern Railroad

Two 51-ft. all-steel arched roof, combination passenger cars of the neat design shown in the accompanying illustration have been recently placed in service by the Albany Southern Railroad, Albany, N. Y.

The cars, manufactured by The J. G. Brill Company, are mounted on Brill 27-A trucks which are equipped with third-rail brackets and paddle shoes of the General Electric type. The wheels are of 34-in. diameter solid rolled steel. Brakes are of the Westinghouse straight-air type with 12-in. brake cylinder, type M L slack adjuster and P. V. brake valves. All car wiring is in conduit.

The switches are installed on an inclosed panel board inside the smoking compartment. The cars are lighted with fifteen 23-watt tungsten lamps equally spaced on each side.

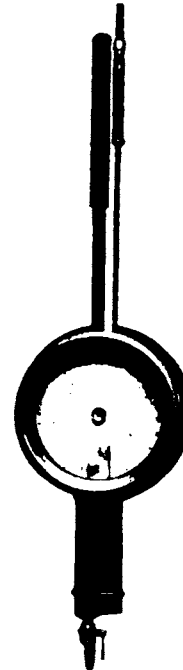
The seating capacity per car is sixty-two. The seats in the main compartment are of the reversible type with high back and arm rest and with Pantasote covering, while the longitudinal seats in the smoking compartment are of rattan. The floor is of wood and double, and the ceiling is of agasote painted in light green. The interior is finished in a dull cherry. The exterior is of Pullman green and striped and lettered

with gold leaf. Other equipment for these cars includes Brill ventilators, Van Dorn No. 6 couplers, Ohio Brass air sanders and double-spring roller bearing trolley bases, GE trolley poles, the Universal Trolley Wheel Company's trolley wheels and Earll No. 7 trolley catchers.

## Combined Recording Barometer and Vacuum Gage

One of the most important factors in the economy of steam consumption for power purposes is the absolute back pressure. To reduce this back pressure to a minimum is the office of the condenser, and it is, therefore, most desirable if not absolutely necessary to keep close watch on the condenser. For this purpose vacuum gages and recorders are installed.

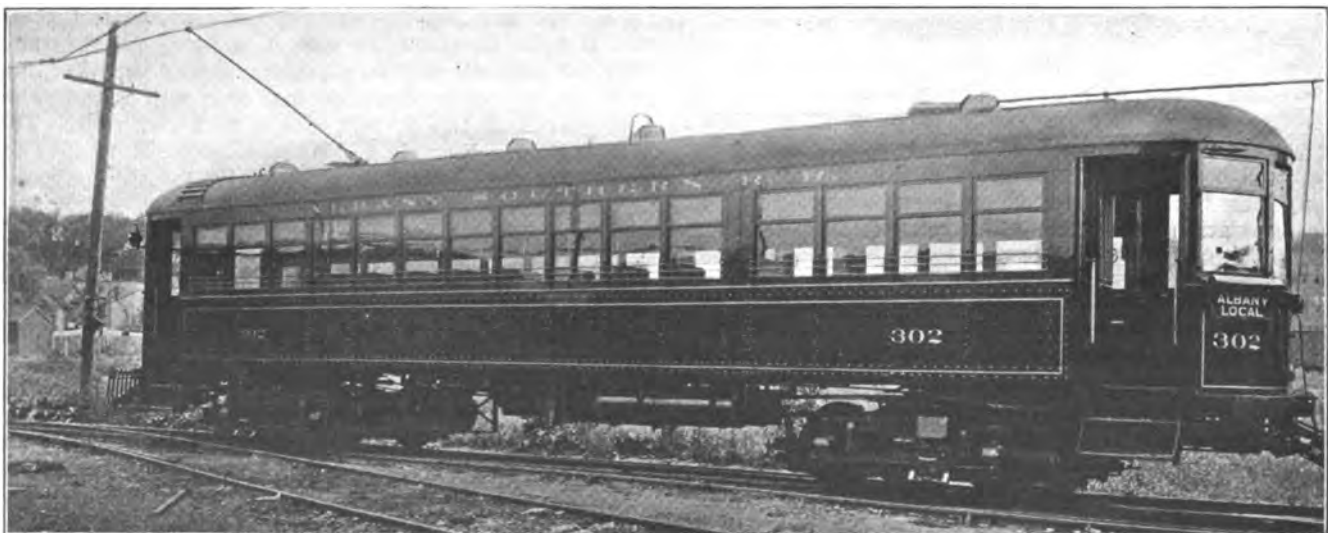
The ordinary vacuum gages and recorders, however, do not indicate or record the back pressure directly nor correctly. The vacuum as recorded varies with the barometer at the same time and place, whereas the absolute back pressure in the condenser is independent of the barometric pressure but is always equal to the difference between the two. The nearer the vacuum approaches the barometer, the lower the back pressure and vice versa.



DUPLIX PRES-  
SURE RE-  
CORDER

The Uehling combined barometer and vacuum recorder of the Uehling Instrument Company, Passaic, N. J., has been developed to put these two records in juxtaposition on the same chart. With the barometer record used as the base line the absolute back pressure can be correctly read off directly from the chart. The device consists of two float chambers, one connected with a barometric mercury column, the other with a mercury column in communication with the condenser. These columns and double-float chambers are secured to the case of the recorder.

The pens of the recorder are actuated by the floats and move in correct harmony with the barometric pressure and the vacuum.



ONE OF TWO ARCH-ROOF CARS FOR THE ALBANY SOUTHERN RAILROAD