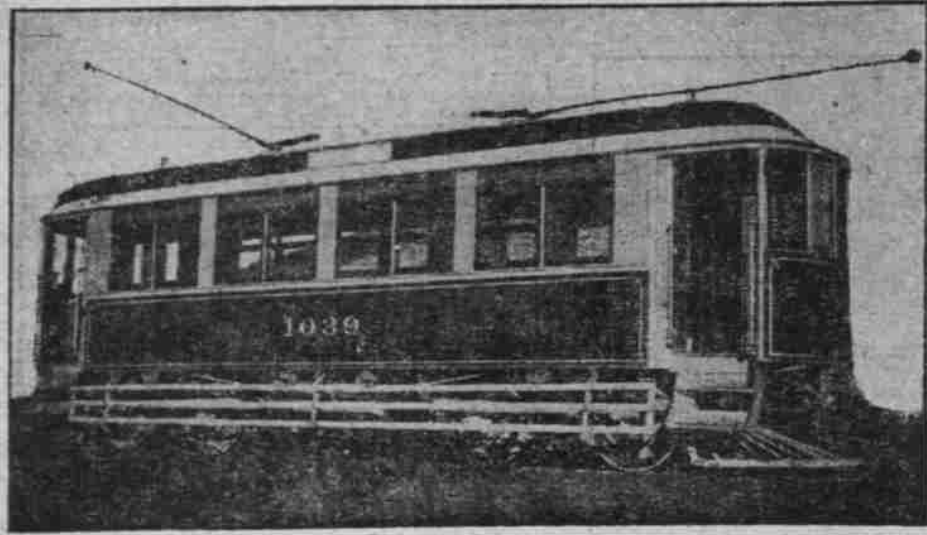
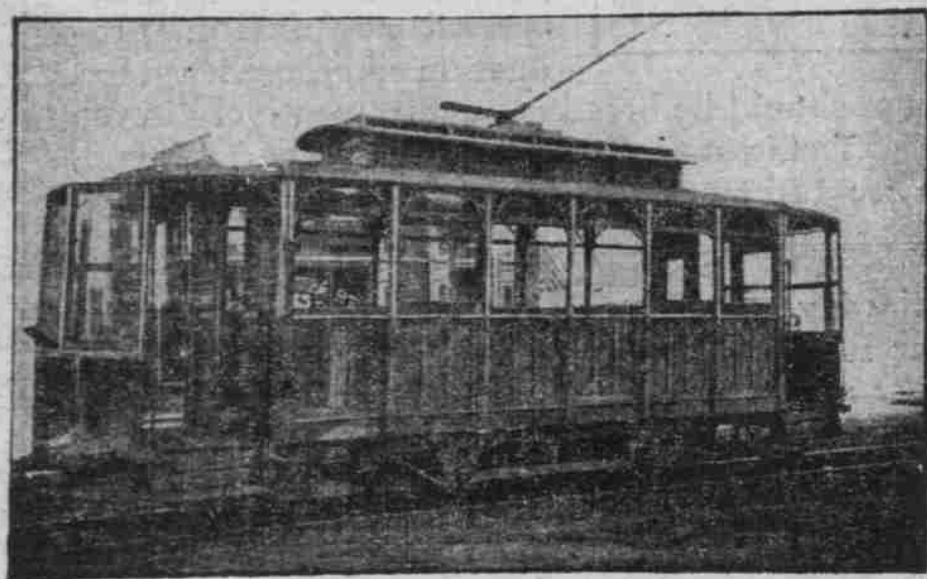


PROGRESS OF THE STREET RAILWAY SERVICE IN PORTLAND DURING LAST DECADE



OLD TYPE OF CAR USED BY OREGON WATER POWER & RAILWAY COMPANY

This car has been rebuilt since it was first put into service, therefore the above photo does not show it as it was at that date.



OLD TYPE OF CAR USED BY MULTNOMAH STREET RAILWAY COMPANY.

The car shown in the above picture, like many others in use at the same time, was made over from a horsecar.

THE MOST noticeable change in the above-mentioned period is in the size of the cars. The old type of car seated from 16 to 20 people, while some of the new cars will seat as high as 75 people. Owing to the fact that the old cars had only one 25 horsepower motor to drive them, they were incapable of climbing steep hills, and as a consequence streetcar lines could not be operated on many streets. At present some of the cars in service have as high as four motors, each of which can develop 37½ horsepower, making about 150 horsepower in all for the car. Such cars as these can climb very steep hills, and by the use of magnetic brakes can be operated on such hills with far greater safety than even a cable car could. This makes it possible to build lines into districts that could not be reached by streetcars in the olden days. The Council Crest line is an example.

The cars are made far more comfortable by tightly fitting doors and windows, cane upholstered seats and electric heaters for use during the Winter months.

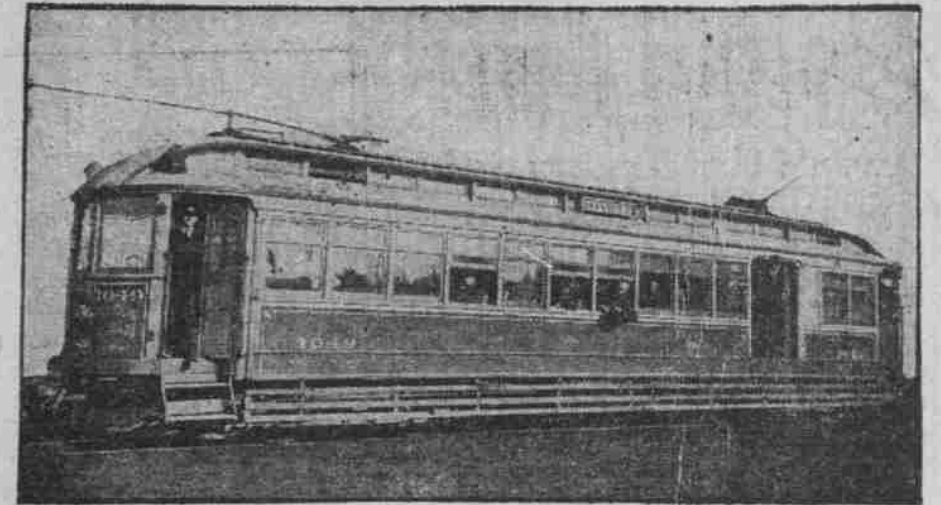
Another improvement is the use of double trucks instead of the single, which does away with the "rocking horse" effect. By the use of air brakes the heavy cars of the present type may be stopped in a very short distance, thus increasing the safety of operation and securing quicker service.

The old cable cars have been replaced with modern electric cars, which can make the same runs in about half the time that it took the cable cars.

The greater amount of power on the present cars makes it possible to use trailers, and the latest cars are equipped with what is known as the "multiple unit" system of control, which permits of two or more motor cars being run in one train. These improvements make it possible to carry the crowds during the rush hours with much greater facility than could be done with single cars.

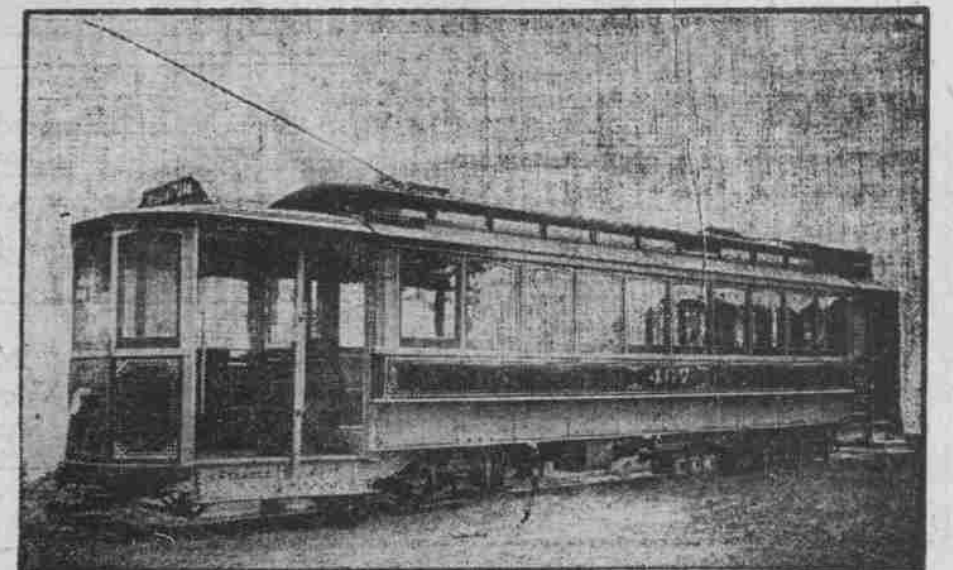
The most valuable improvement, however, to the traveling public is the inauguration of the universal system of transfers, which enables a person to travel from any point in the city to any other point for one 5-cent fare. Ten years ago there were four companies operating in the city, and, as they did not issue transfers over other lines than their own, a passenger would have to pay as high as 20 cents to get from one point to another.

The old 40-pound rails have been replaced by heavier rails, some of which run as high as 90 pounds. In 1898 there were about 100 miles of streetcar track in Portland, whereas today there are 230 miles.



NEW TYPE OF CAR USED BY PORTLAND RAILWAY, LIGHT & POWER COMPANY ON THE O. W. P. DIVISION.

This particular type of car is built in San Francisco.



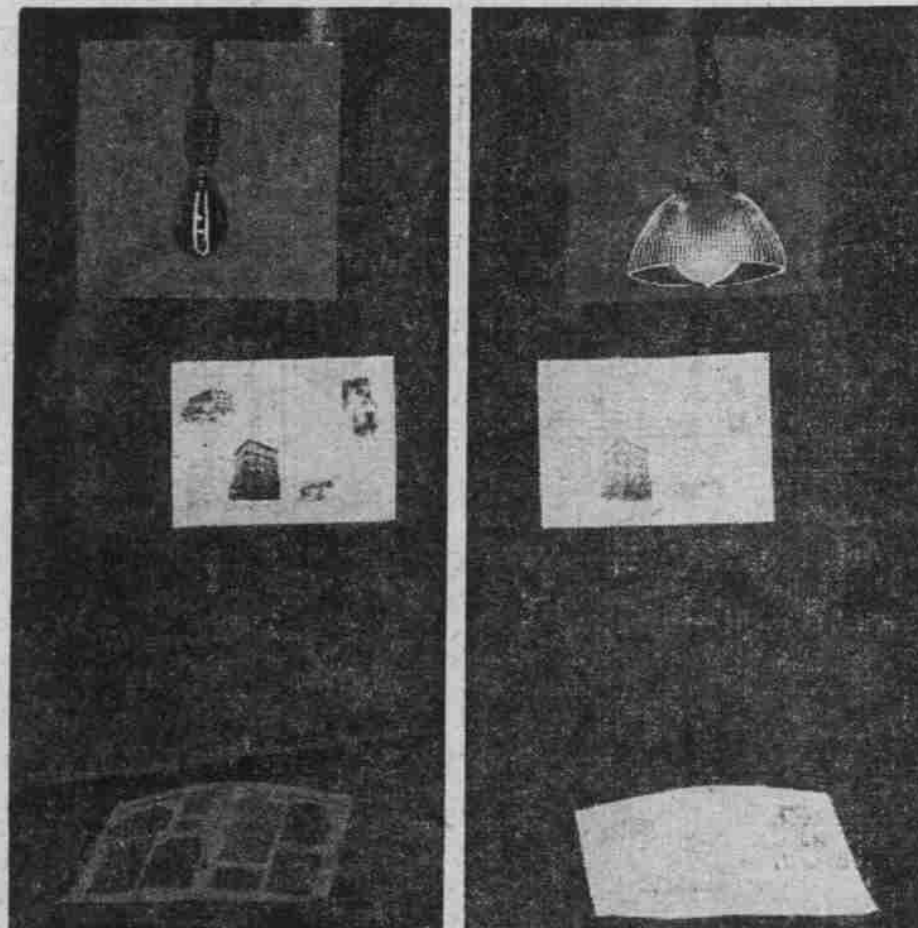
NEW TYPE OF CAR TO BE USED BY PORTLAND RAILWAY, LIGHT & POWER COMPANY.

The above is what is commonly known as the "pay-as-you-enter" type, and represents the most modern and approved practice in streetcar construction.

THE PROGRESS IN THE ELECTRIC LIGHTING, POWER AND HEATING FIELD DURING THE PAST DECADE

THE improvement made in the electric lighting world is well represented by the picture to the right. The lamp shown in the left side of the picture is one of the old 16 candle power lamps in use about 10 years ago. This lamp took 69 watts to operate it, while the new type of lamp shown in the right side of the picture takes only 60 watts and gives far more light, as can be seen from the photograph, the actual candle power of the lamp being 48, or four times more light for less current.

By the use of the prismatic glass reflector shown, the intensity of light BELOW the lamp is increased to about 78 candle power. Inasmuch as the light is most always wanted below the lamp, it is fair to say that the USEFUL light of the present lamp and reflector is almost six times that of the old lamp as it was generally used without any reflector. The reflector also serves to protect the eyes from the DIRECT light from the filament of the lamp, which is VERY injurious to the eyes.



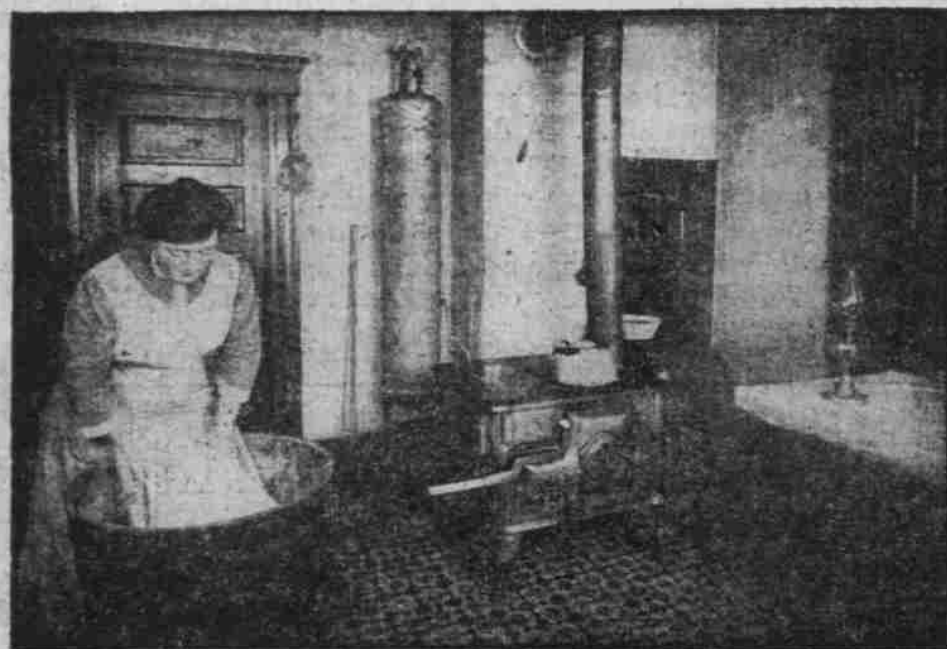
ASIDE from the improvement made in the electric lighting field, the advancement made in other applications of electricity in the household is well shown by the two accompanying pictures of the old and new type of kitchen. We are all familiar with the old wood stove, which always needed attention and heated the kitchen to an almost unbearable temperature in the Summer, and with the back-breaking washtub and the smoking and ill-smelling oil lamp. With the kitchen equipped with electric cooking, heating, cooling and power appliances, one room may be used for both kitchen and dining-room, if desired, for the dirt and heat that was present in the old kitchen is avoided.

The electric air heater and the electric fan give the occupant almost perfect control over the temperature of the room in all kinds of weather. The motor-driven washtub does away with the backache, and the motor-driven sewing machine makes sewing a pleasure.

THE price of electricity has been reduced to about two-fifths of what it was 10 years ago, which means that the cost per candle power of useful light is about one-tenth of what it was in those days. The company is now making free renewals of burned out or blackened lamps, whereas formerly the customer was obliged to pay for these renewals at a much higher price than is now charged for the first installation of lamps. Another valuable improvement is the increased reliability of service.

Owing to the fact that the company formerly only had one source of supply, which was at Oregon City, it was impossible to avoid occasional "shut downs," whereas at present, with three main sources of supply—at Oregon City, Cazadero and North Portland—"shut downs" are almost unknown.

During that time the distributing lines in all of the districts have been rebuilt to take care of the increased amount of business, and better service is being given all over the city and improvements are being made every day.



PHONES—
A 6131
MAIN 6688

PORTLAND RAILWAY, LIGHT & POWER CO.

PHONES—
A 6131
MAIN 6688

GENERAL OFFICES AND APPLICATION DEPARTMENT, COR. FIRST AND ALDER. SUPPLY DEPARTMENT, 147 SEVENTH ST., BET. MORRISON AND ALDER