

it is equal to approximately 900 miles of No. 8 B.W.G. copper, weighing 435 pounds to the mile.

The railroads have adopted as a standard for their despatch-

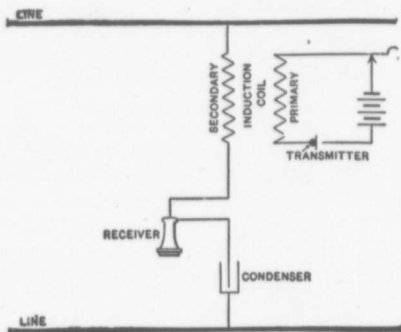


FIG. 10—FIRST FORM OF WAY STATION TALKING CIRCUIT.

ing circuits No. 9 B. & S. copper wire, firstly because of the economy derived; secondarily, it contains satisfactory tensile strength. It can now be seen by the above figures that with the use of this size wire, circuits 480 miles in length can be used before the so-called commercial transmission limit is reached.

As despatchers' circuits in Canada average approximately 135 miles and never over 350 miles, there is a considerable margin of surplus transmission available, which can be taken advantage of in arranging circuits to permit several operators listening in simultaneously. The loss sustained by the selector

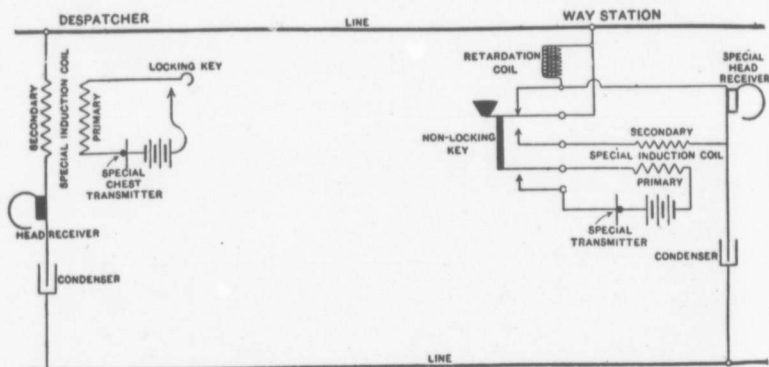


FIG. 11—HIGH EFFICIENCY TRANSMISSION SCHEME.