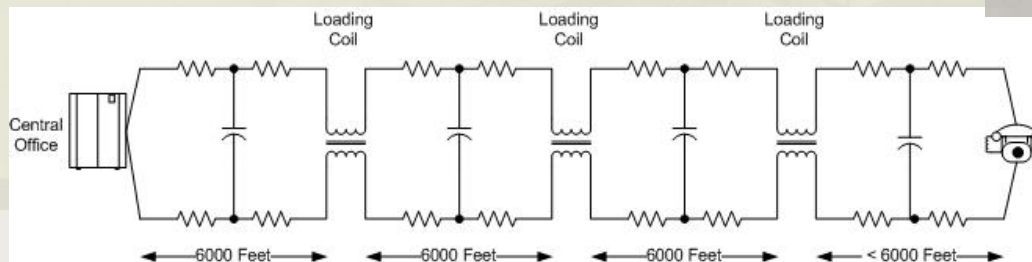




Wire Line



- More than 95% of all electrical communications were by wire.
- Telephone
- Telegraph (Teletype)
- Facsimile



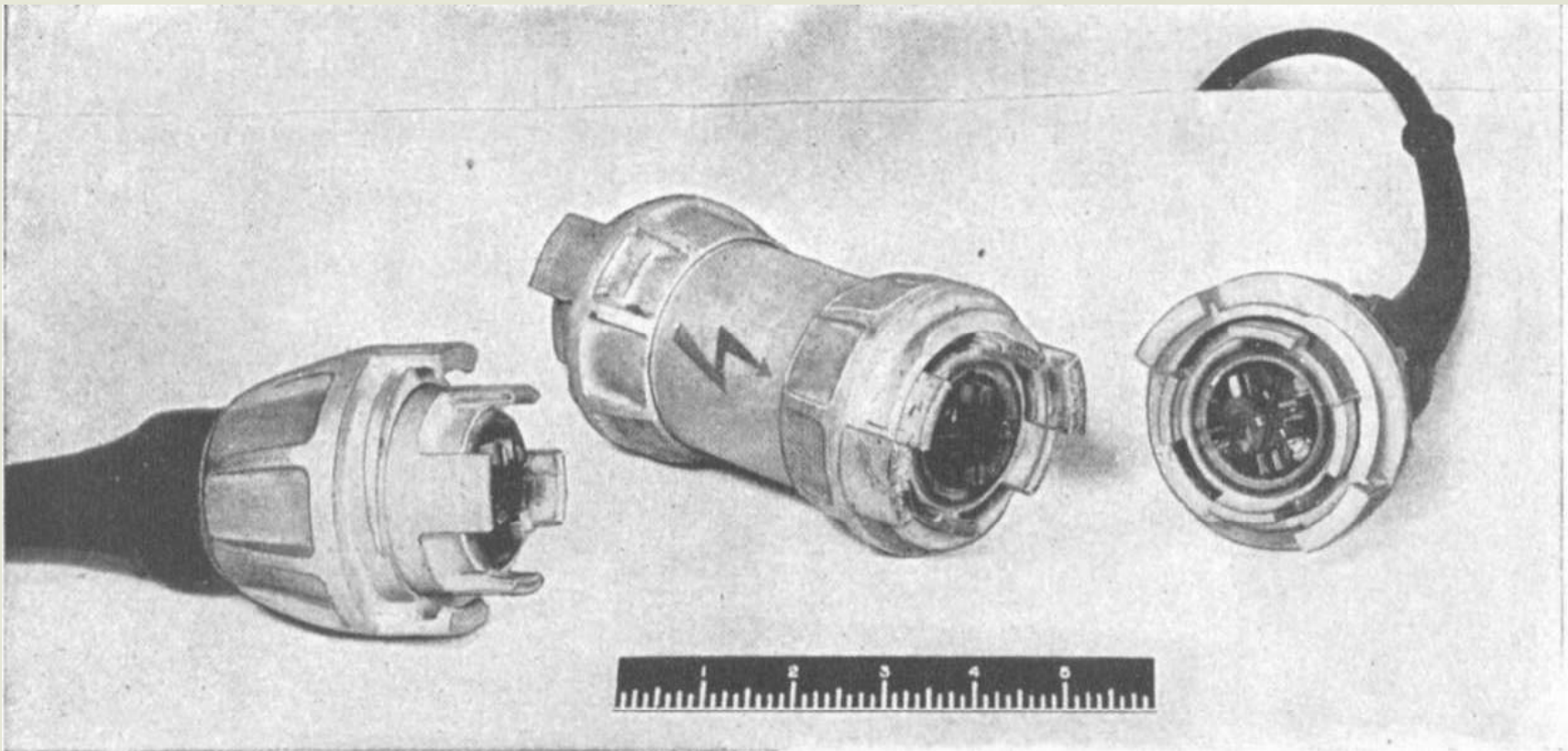
Open-wire line with loading coils.



Spiral Four Cable



- Samples captured from Germans by British sent to the Signal Corps Lab by the Tizard Mission (September 1940).





Spiral Four Cable



- US spiral-four cable from TM 11-369
- Seeking a copy of this TM

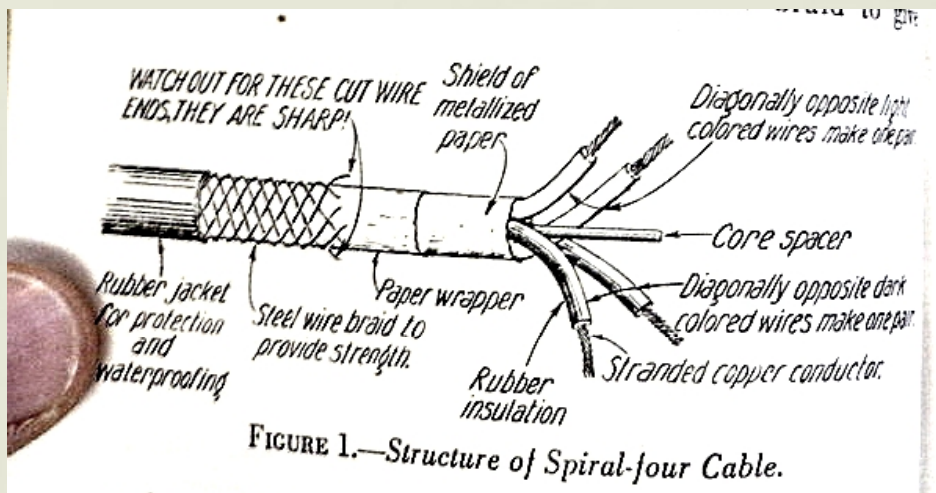


FIGURE 1.—Structure of Spiral-four Cable.

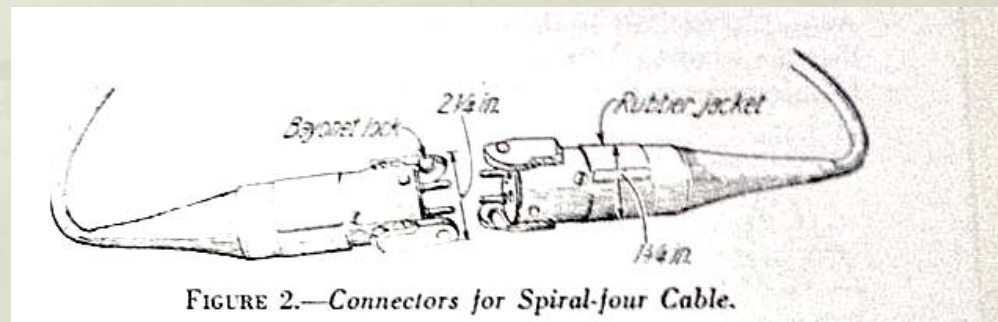


FIGURE 2.—Connectors for Spiral-four Cable.





Spiral Four



- Combines the low loss of open wire on poles with the ease of deployment of field wire. (polyethylene insulation)
- Developed by Bell and Signal Corps Laboratory
- Announced January 1942.
- WC-548 (cable type)
- CC-358 – Specifies a ¼-mile section with connectors
- Hermaphroditic connectors – either end connects
- Built in loading coils and balancing condensers
- 40-mile voice range
- Made field carrier multiplex equipment possible.



Spiral Four



- Quantity delivery in 1943
- Lay at 5 miles per hour in daylight from a duce and a half.
- 1/10 the time and 1/5 the material of pole lines
- 39 tons /100 miles versus 240 tons for rapid pole lines and 870 tons for standard pole line