Grier, John A., quoted, 67. Guyot of Provence mentions mariner's compass, 21.

Halske, double transmission, 114. Harmonic telegraphy, 120. receivers, 125. relay, 130.

relay, 130.

Hawksbee, Francis, electrician, 7.

Heat, a mode of motion, 40.
related to atoms, 42.
begins and ends in matter, 44.
electrical and mechanical energy the same.

Henry, Joseph, first practical telegrapher, 90.
constructs long-distance line, 94.
produces induction, 177.
Heraclea and the loadstone, 20.
Hertz experiments in ether-waves, 178.
Homer refers to loadstone, 20.
Horse-power, 214.
House, Royal E., printing telegraph, 108, 110.

Hughes, David E., printing telegraph, 108, 112.

Induction, 56.
guarded against, 169.
produced by Henry, 177.

Keeper of a magnet, 31.
Kelvin, Lord (Sir W. Thompson), cable message receiver, 158.
"Kick," in telegraphy, 115, 118.
Kleist and the Leyden jar, 8.

"Let her buzz," 3.
Leyden jar invented, 8.
Lightning, electricity; Franklin, 8.
restoration of equilibrium, 78.