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per cubic foot of dry air, tables of humidity of air or percentages of full saturation from dry and wet bulb, table of temperature of dew point of different states of hygrometer ranging from 140 to 210 deg. If you are unable to give us the desired information, can you direct us to any one who could do so? A. Nearly all, if not quite all, the tables for aqueous vapor are to be found in the "Smithsonian Physical Tables." Any special figures could always be obtained from the U. S. Weather Bureau, Washington, or from the forecast official at your own city station of the bureau. These officials are always pleased to be able to do a favor to any of the people.

(9817) N. O. J. asks: 1. If a coil gives 1 1/2-inch spark with two Grenet batteries, will it give a 3-inch spark with four Grenet batteries? If the voltage and amperage are doubled in operating a certain coil, will the spark be twice as long? A. Doubling the number of cells in a battery for a coil will not double the spark length, although it will increase the length of the spark. The reason is that the internal resistance of the cells and connecting wires is added to the former resistance of the circuit. This cuts down the current below double the current given by half the battery. Nor will the spark length be doubled by doubling the voltage, if the amperes remain the same. The amperes turns are the measure of the magnetizing power of the primary circuit. Hence the spark length will not be increased except by increasing the amperes. 2. I have a dynamo that has an output of 40 to 50 volts at about 2 to 3 amperes. Is this too high a voltage or too high an amperage for the induction coil described in SUPPLEMENT No. 160? A. The coil of SUPPLEMENT No. 160 requires perhaps 3 to 10 amperes at a pressure of 6 to 5 volts. Your dynamo will require an external resistance if you connect it with the coil. Its voltage is too high.

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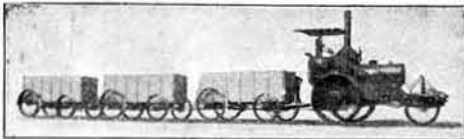
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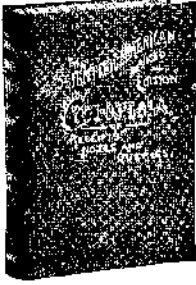
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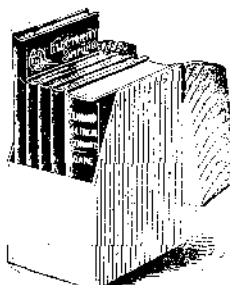
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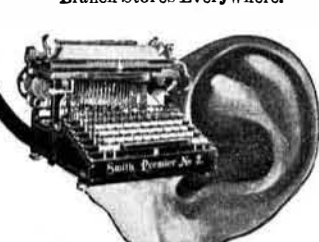
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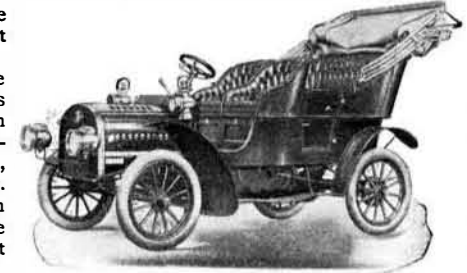
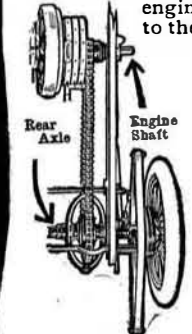
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