

Each prisoner receives per diem 33 p. c. nitrogenous matter, 27 p. c. albuminoid, 15 p. c. gelatin, 18 p. c. fibrin, 7 p. c. hydrated matter, and the right to 10 cubic metres of air. (*Ch. News*, xvii., p. 56.)

If any of our readers is of a *mathematical turn* of mind, here is a titbit for him: The frequency of the pulse in man, as connected with his stature, is in the ratio of the ninth root of the fifth power of the height. (VOLKMANN. *Ch. News*, xvii, p. 72.)

Extraordinary Use of Distilled Water.—In the rainless region of South American (between the 18th and 28th parallel south—600 miles) people have for many years derived their supply of portable water from the sea of the Pacific, distilled in greater part by coal imported from England at \$15 per ton. Even the locomotives. (Capiapo and Caldera) are driven with distilled water. (*Ibid.* xvi, 24.)

Essay on Coal, delivered 1858 by an Oxford candidate: Coal is a black mineral. The way they produce it is this: First they dig a large pit in the earth. Then they cut down a quantity of timber and put it in the pit, and cover the whole with peat. Then they burn the timber. After it has been burnt once it becomes charcoal, and out of the charcoal they make *oxygen* gas, with which we light our streets and houses. (*Ibid.* xvii, 253.)

Syrup Bottles.—Nothing is more disagreeable than the cementing of the stoppers; in order to remedy this a peculiar kind of glass stoppers with very slender body has been invented. Stoppers are not at all necessary—a metal cap (as we use for soda water syrups), or, cheaper still, the lower part of magnesia boxes, answers every purpose, it being only necessary to keep out the dust. A better way is to discard syrup shelf bottles entirely, and use plain bottles, which are stood on a piece of felt in jars; another piece of felt, forming a kind of cylinder, protects them against breakage. The bottles can be easily cleaned, and the surrounding air (as a bad conductor of heat) will prevent the syrup from spoiling so soon.

Ointment Jars.—Before filling in a new batch, be sure to scald out the jars to render them perfectly sweet. As this scalding out cannot well be done where the jars are provided with glass labels, the best way is to get hold of cheap tumblers of size to fit in the jars, and put the ointment in the tumblers. These can easily be scalded out. To guard the tumblers against being broken, stand them on a piece of thick hatter's felt, and cut another piece to form a kind of cylinder round the tumbler.

Black Ink.—Nutmeg ink writes very pale at first: manufacturers used to "age" it by keeping it several months, stirring two or three times daily, in order to darken the color. This time can be considerably shortened by blowing air through the ink, which can very conveniently be done by means of a soft rubber syringe. Since the idea is to oxidize the iron salt, the oxidation can be obtained in a short time by putting chlorate of potassa and cupric oxide (or powd-