

Show-Bottle Colors.

The following formulæ, many of which are new, are reprinted from the *Western Druggist*:

Crimson.—Iodine, 120 gr.; potassium iodide, 120 gr.; hydrochloric acid, 2 fl. oz.; water, 1 gal. To the iodine and iodide of potassium contained in a mortar add 8 ozs. of water and make a solution. Acidulate the remainder of the water with the hydrochloric acid and mix both solutions. In the event of the bottles being exposed to extreme cold it is advisable to add 10 per cent. of alcohol, leaving out an equivalent amount of water.

Scarlet.—Ammonia water, 16 fl. oz.; acetic acid, 32 fl. oz.; alcohol, 16 fl. oz.; tincture of ferric chloride, 4 fl. oz.; distilled water, enough to make 1 gallon. Add the acetic acid to the ammonia water, shake thoroughly, and add the alcohol. Mix the tincture of chloride of iron with the water, and to the solution so formed add the first solution of ammonia, water, alcohol, and acetic acid.

Crimson, No. 2.—Alkanet root, 16 av. oz.; oil of turpentine, 1 gal.

Dark Red.—Potassium iodide, 640 gr.; alum, 64 gr.; water, 1 gal.

Red.—Cobalt carbonate, 30 gr.; hydrochloric acid and ammonium carbonate, of each sufficient; water, 1 gal. Dissolve the cobalt in hydrochloric acid, dilute with the water, then add of concentrated solution of ammonium carbonate enough to produce the proper tint.

Pink.—Cobalt oxide, 2 av. oz.; nitric acid, c. p., 1 av. oz.; hydrochloric acid, c. p., 1 av. oz. Dissolve and add: Stronger water of ammonia, 6 fl. oz.; water, 3 gals.; sulphuric acid, c. p., 1 av. oz. Set aside for one month. Properly prepared, this is claimed to furnish a splendid pink liquid.

Pink, No. 2.—Cobalt oxide, 60 gr.; nitric acid, 6 fl. oz.; water, 1 gal.

Garnet.—Potassium bichromate, 10 dr.; sulphuric acid, 10 fl. dr.; water, 20 fl. oz. Dissolve the bichromate in the water, and then add slowly and with constant stirring the whole of the sulphuric acid. Then add: Alcohol, $\frac{1}{2}$ fl. oz.; water, enough to make one 1 gallon. By lamplight this fluid shines garnet, while in daylight it appears a deep mauve green.

Violet.—Cudbear, 60 gr. to 2 av. oz.; ammonia water, 4 fl. oz. to 8 fl. oz.; water, 1 gal. Macerate for 24 hours.

Purple.—Verdigris, 640 gr.; water of ammonia, av. oz.; water, 1 gal.

Brilliant Purple.—Copper sulphate, 7 parts; water, 52 parts; French gelatin, 4 parts; boiling water, 52 parts; solution of potassa, 985 parts. (Taking grains this makes approximately 2 fluid ounces.) Dissolve the copper sulphate in the water and the gelatin in the hot water, mix the two solutions, and add the solution of potassa; shake the mixture occasionally during 10 hours, then decant and dilute with enough water to make the desired tint.

Orange.—Potassium bichromate, 4 av. oz.; nitric acid, 1 av. oz.; water, 1 gal.

(Or dissolve 64 grains of chromic acid in 1 gallon of water.)

Amber.—Dragon's blood, 1 part; sulphuric acid, 4 parts; water, 3,629 parts. Macerate the powdered dragon's blood in the acid for 20 to 30 minutes, then add the water.

Straw or Lemon Yellow.—Potassium bichromate, 6 av. oz.; sodium bicarbonate, 6 dr.; water, 1 gal.

Pea Green.—Nickel, 120 gr.; nitric acid, 1 fl. oz.; potassium bichromate, 120 gr.; water, 1 gal.

Olive Green.—Ferric oxide, 1 av. oz.; hydrochloric acid, 4 fl. oz.; copper sulphate, 8 av. oz.

Dark Green.—Copper sulphate, 1 av. oz.; ammonia water, 4 fl. oz.; potassium bichromate, enough to produce the desired tint; water, 1 gal.

Emerald Green.—Nickel, 85 parts; hydrochloric acid, 132 parts; nitrous acid, 55 parts; water, enough to make 4,000 parts (all by weight). Dissolve the nickel in the hydrochloric acid, then add the water, and finally the nitrous acid.

Grass Green.—Copper sulphate, 35 parts; ammonium chloride, 35 parts; water, 930 parts. Add the sal ammoniac to the copper solution.

Sea Green.—Copper acetate, 4 parts; acetic acid, 36 parts; water, 960 parts. Triturate the copper acetate with the acetic acid, gradually adding the water.

Pale Blue.—Copper sulphate, 16 av. oz.; sulphuric acid, 2 av. oz.; water, 1 gal. Dissolve the copper sulphate in the water containing the acid.

Blue.—Copper sulphate, 28 parts; alum, 28 parts; sulphuric acid, 26 parts; water, 946 parts. Gradually add the acid to the water containing the salts.

Purple Blue.—Copper sulphate, 1 av. oz.; ammonia water, 4 fl. oz.; water, 3 gals.

Any of the water-soluble aniline dyes may be employed, but they fade rapidly in the light.

To prevent freezing about 20 per cent. of glycerin or alcohol must be added to the solutions, excepting those containing free chromic acid.

The Conceited Student.

The conceited student is a misguided youth with a head several sizes too large for him. He comes up to his pharmacy college flushed and important from his school successes, and swollen with the flattery of his sisters and provincial aunts. Provincial aunts exude adulation in direct ratio to their absorption of afternoon tea. They tell him that he is destined to be a great man, and he believes them with all the force of his inexperience. He proceeds to show his superiority by saying something disrespectful about the atomic theory. His emphatic statement that it is all rot stamps him among his fellow-students as a daring and original genius. Their silence encourages him to take a rise out of the periodic law. They do not comment on this either. His easy

familiarity with every department of knowledge seems to form a mystic aureole around him, through which the ignorant cannot, and the wise do not trouble to, penetrate. He is cocksure of everything. He never condescends to learn anything; as he can always teach, this seems unnecessary to him.

He is most at home in the rostrum of the lecturer, whence he distributes nuggets of information with the condescension of those who know little that is not superficial. His opinion is deemed so valuable that it is often sought by those who know more about their subject than he. His belief in his own omniscience is so sincere that his sincerity passes for omniscience. Nothing is too insignificant a target for his learning to make flying shots at. If he misses his mark, the bombast of his manner forms a smoke-cloud that screens his failure from inquiring eyes. He speaks much, and is not prevented from astonishing the world by the restraining knowledge of his own incompetence. When demonstrators detect the base ring in his courage, he argues familiarly with them, and puts them right when they have not strayed from the straight path. When they grow sick of his impertinences and leave him to himself, he forthwith informs his neighbors that he has taught those conceited gentlemen to respect his opinion. They, the demonstrators, are mere figureheads, who can only hold their own by not contesting points with men, like himself, who are up to most moves on the chemical board. He then lounges across the laboratory to tell the quiet young man who is going to sweep the medals of his session how to make sulphuretted hydrogen in a test tube by adding diluted sulphuric to crystals of ferrous sulphate. When, partly by overlooking the notes of his neighbor in the chemistry class, he manages to write the equation of the purification of chloride of zinc from impurities of iron and lead, he rejoices like a hen that has laid her first egg, and is a most distressing nuisance while his cackling enthusiasm lasts.

Very, very rarely will he confess that facts have slipped his memory, but he never forgets anything. If, when he cannot call something to mind, you tell him what it is, he remembers it at once. Although he is so very clever, the examiners soon discover his incompetence, and politely remind him that three months' further reading would not be without benefit to him. Then he goes off in a huff to his acquaintances and his provincial aunts, and tells them of the gross ignorance of one of the examiners, and how he was really compelled to set that worthy right. This so annoyed the examiner that that gentleman ploughed him, just out of spite, you know. His provincial aunts believe him, and after he has told the tale a few times he believes it himself, and feels that he has been grievously wronged. Should he manage to qualify later on, he is short-sighted enough to attempt a puny revenge by