

## RESPONSES TO READERS.

All communications for answer in this column should be addressed Correspondents' Department, Family Circle Office, London East.

STUDENT.—1. Gray's "How Plants Grow" is the book you want. It can be procured at any book store. 2. Anthony Trollope's Autobiography can also be obtained from any book-seller.

KATE T.—The case is one in which you should use your own discretion. We do not care to judge the character of the young man from what you have written concerning him, but if you have any reason to suspect his motives, you cannot be too cautious.

KITTY.—The following recipe for chocolate caramels will suit you, we think: Two cups of molasses, one cupful of grated chocolate, one cupful of milk, two teaspoonfuls of vanilla extract, one tablespoonful of butter. Boil about twenty-five minutes, then set to cool in a buttered pan. Mark in squares.

P. E. I.—To prevent the skin from discoloring after a blow or fall, take a little dry starch or arrowroot, and merely moisten it with cold water, and lay it on the injured part. This must be done immediately, so as to prevent the action of the air on the skin. However it may be applied some hours after with effect.

## HEALTH AND DISEASE.

*Mens sana in corpore sano.*

### Hot Water for Inflamed Mucous Surfaces.

Dr. George R. Shepherd, Hartford, Conn., says in the *Medical Record*: I have used hot water as a gargle for the past six or eight years, having been led to do so from seeing its beneficial effects in gynecology. In acute pharyngitis and tonsillitis, if properly used at the commencement of the attack, it constitutes one of our most effective remedies being frequently promptly curative. To be of service it should be used in considerable quantity (a half pint or pint) at a time, and just as hot as the throat will tolerate. I have seen many cases of acute disease thus aborted and can commend the method with great confidence. I believed it may be taken as an established fact, that in the treatment of inflammations generally, and those of the mucous membranes in particular, moist heat is of service, and in most cases hot water is preferable to steam. All are familiar with its use in ophthalmia and conjunctivitis, as also in inflammation of the external and middle ear, and I feel confident that those who employ it for that most annoying of slight troubles to prescribe for, viz., a cold in the head, or acute coryza, will seldom think of using the irritating drugs mentioned in the books, nor of inducing complete anaesthesia with chloroform in preference to the hot water douche.

### Effect of Metallic Poison on the Spinal Cord.

The affections of the nervous system produced by contamination with certain metals, as lead and mercury, have been studied more extensively clinically than pathologically, and even yet it may be held to be undetermined whether the action of the poison is upon the peripheral or the central apparatus. Dr. Popow has recently put on record the results of an anatomical investigation upon animals (chiefly dogs) poisoned by arsenic, lead and mercury, respectively (*Virchow's Archiv*, 93, Heft 2), and in most cases he was careful to administer the poisons in varying quantities, so as to contrast the effects of acute and chronic poisoning.

The general results of his enquiry goes to show that

marked changes of an inflammatory character occur in the spinal cord, both in the gray and white matter, under all these conditions. In acute arsenical poisoning the spinal cord was softened, the gray matter especially being reddened and swollen; there was proliferation of the nuclei of the blood vessels, and an exudation of a peculiar hyaloid substance. The nerve cells were swollen, their processes dwindled, and their protoplasm granular or vacuolated, while in the white columns the axis cylinders showed irregular thickenings. In chronic poisoning it was difficult to discriminate between the two portions of the cord, the divided surface having a yellowish-red color throughout; the walls of the vessels were thickened, and hyaline masses abounded; the nerve cells vacuolated, or shrunken and pigmented; while free pigment masses, representing traces of hemorrhage, occurred throughout the sections. In other words, there is, in poisoning by arsenic, a central myelitis at first, and later a diffuse myelitis. Very similar changes were found in the spinal cord after poisoning by lead—namely, exudation from blood vessels; a general affection of the nerve cells, beginning as cloudy swelling, and passing into atrophy and pigmentation; and inflammatory swelling of the axis cylinders.

In mercurial poisoning, the early changes consist of hyperemia of membranes and of the cord, followed by hemorrhages, inflammatory exudation, and changes in the nerve substance hardly differing from those seen in the other two cases. In each instance the peripheral nerves and the nerve roots showed no alteration; so that the conclusion is that the paralysis, spasms, etc., characteristic of the toxic-effects of these metals, depend upon a central rather than a peripheral disturbance, all the degenerative changes described as occurring in nerves and muscles being strictly deuteropathic. —*Lancet*.

### The Poison of Tobacco.

Everybody knows tobacco will kill snakes and vermin, but every one does not know that the nicotine contained in a single pound of tobacco is sufficient to kill three hundred men, if taken in such a way as to secure its full effect. A single cigar contains poison enough to extinguish two human lives, if taken at once.

The essential oil has been used for homicidal purposes. Nearly thirty years ago it was employed by Count Bocarme to murder his brother-in-law for the purpose of securing his property.

The Hottentots use the oil of tobacco to kill snakes, a single minute drop causing death as quickly as a lightning stroke. It is much used by gardeners and keepers of green-houses to destroy grubs and noxious insects.

A number of instances are recorded in which instant death has been produced by applying a little of the oil from the stem or bowl of an old pipe to a sore upon the head or face of a small child.—*Good Health*.

### No Use for a Thermometer.

Too many babies are subjected to the kind of torture hinted at in the following paragraph:

"I don't believe you have the water of the right temperature. You must get a thermometer," said an Austin mother to the new colored nurse. 'What am dat?' 'It is an instrument by which you can tell if the water is too hot or too cold. I kin tell dat ar without any instrument. Ef de chile turns blue, den de water am too cold; and ef hit turns red, den I know dat de water am too hot.'