

show most conclusively that they both contain a substance known as caffeine or theine which is capable of producing death in lower animals and human beings. One observer found that one-seventh of a grain killed a frog in a very short time. Five grains killed a good sized cat and also a rabbit. Death occurs in lower animals in a manner almost the same as that in which death occurs in poisoning from strychnia. Strong convulsion are produced with the arrest of respiration, and in a short time the heart ceases to beat. Tea contains about three per cent of theine, or more than thirteen grains to the ounce. Every pound of tea contains enough of this poison to kill fifteen frogs or more than forty cats. One case is on record in which a fine horse belonging to an English army officer was killed by eating accidentally a small quantity of tea.

The largest does of theine which is recorded as being taken by a human being, is twelve grains, which produced very dangerous systems, and with the addition of a few grains more would undoubtedly have proven fatal. Yet it is perfectly known that half an ounce of tea containing six and one-half grains of the poison is often used in making a strong cup of tea. Thirteen cups of strong tea would contain a little more than eighty-four grains of the poison theine, or an amount sufficient, in all probability, to kill three or four men.

If tea contains such a poison, why does it not produce fatal results more frequently that it does? may be inquired. We answer, simply because a tolerance for the drug is established by use, just as in the case of tobacco. One-tenth of a grain of nicotine will kill a frog, and so small a does as one-sixteenth of a grain has produced dangerous symptoms in a man; it has also been shown that the smoke from a half ounce of tobacco contains sufficient nicotine to produce death, yet sudden death from tobacco smoking is not a very common result of the almost universal use of this poisonous drug. The wakefulness and increased mental activity which many persons experience from the use of tea are evidences of its character. The same thing is observed in cats and other lower animals when tea is administered to them in a little less than the fatal dose, or when a fatal dose has been given, and before the fatal effects make their appearance. The poor creatures manifest sometimes the wildest excitement.

The facts ought to be more widely known that they bear, and if duly appreciated must have some influence in lessening the use of a beverage which under the guise of "the cup that cheers and not inebriates" has captivated almost the entire English speaking world.

# THE LADIES GUIDE.

THE YOUNG LADY

Pages 216-219

1895.

By J. H. Kellogg M. D.

*Tea and Coffee.*—Some time ago, friend sent us a clipping from a popular newspaper, consisting of an extract from lecture delivered at Sheffield, Eng., in which a professor said, "The domestic, quiet life and habits of the Chinese owe much of their strength to the constant use of this beverage (tea)." This assertion, the gentleman sending the clipping made the basis of an argument in favor of the general use of tea; but who ever heard before that the Chinese were particularly noted for placable, quiet tempers and domestic habits? About the first Chinaman we ever saw threw a flat-iron through a window, breaking two sashes of glass, because some little boys in the street were gazing in astonishment to see him sprinkle clothes with his mouth. The testimony of the eminent Dr. Bock, of Leipsic, is that "the snappish, petulant humor of the Chinese can certainly be ascribed to their immoderate fondness for tea."

Not long ago a lady patient said to us while undergoing an examination, "Now, Doctor, do tell me what make me so cross! I did not used to be so irritable; but for two or three years I have been getting so cross and disagreeable that I do not see how my friends can endure me. I scold and fret without any cause whatever, and get out of patients with every little thing. Do tell me what is the matter." Having learned that the lady was in the habit of using strong tea, we attributed the irritability to that cause. She gave up the use of it in a short time, and soon recovered her former equanimity of temper.

The use of strong tea and coffee by young ladies undoubtedly has much to do with the depraved condition in which the nervous system is found in at least nine out of ten of the fashionable young ladies of the present day. The use of these beverages not only impairs the nervous system through the narcotic principle which they contain, but creates a demand for other stimulants and narcotics, as alcohol, chloral, morphine, which are frequently resorted to.

The use of these articles is so very common and their injurious effects so little appreciated, that we feel justified introducing here a somewhat extended consideration of their character and influence on the human body, hoping thereby to cause a few of these who peruse these pages to take a resolute stand against them.

A correspondent writes that one of his neighbors daily drank "four cups of tea at breakfast, four at dinner and four or five at supper." He raises the question whether his neighbor is not as bad a man from the stand-point of temperance as himself, who uses tobacco. The query is certainly a pertinent one, and there can be no question that the use of tea in the quantities described is quite as bad as the use of tobacco in the quantities it is usually taken. It does not seem to be generally understood that tea and coffee are poisons; but the experiments of a large number

of scientists show most conclusively that they both contain a substance known as caffeine or theine which is capable of producing death in lower animals and human beings. One observer found that one-seventh of a grain killed a frog in a very short time. Five grains killed a good sized cat and also a rabbit. Death occurs in lower animals in a manner almost the same as that in which death occurs in poisoning from strychnia. Strong convulsion are produced with the arrest of respiration, and in a short time the heart ceases to beat. Tea contains about three per cent of theine, or more than thirteen grains to the ounce. Every pound of tea contains enough of this poison to kill fifteen frogs or more than forty cats. One case is on record in which a fine horse belonging to an English army officer was killed by eating accidentally a small quantity of tea.

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