

tries. For the purpose of facilitating the acquisition of that salutary substance by the poor mountaineers, the Austrian Government has recently abolished the duties that used to be levied on the importation of coffee. These interesting facts were established on the spot many years ago by M. de Gasparin, who has lately been taken away from science and his country, and they further met with a very satisfactory explanation at the hands of this eminent agronomist. Coffee, says M. de Gasparin, renders the elements of our organism more stable. The labours of Duhamel, and those of M. Flourens have shown us that a double movement of molecular composition and decomposition is constantly going on in our organs; this constant movement of absorption and of formation of new tissues takes place as well in the blood as in the bones and muscles. If, therefore, coffee retains this double vital movement, the necessity for re-composition, and, consequently, for alimentation, must be proportionately less. In fact, it is observed that, under the influence of coffee, the produce of the secretions is more fluid, the respiration less active, and, consequently, the loss undergone by the absorbed substances less rapid. A diminution of animal heat has even been observed under similar circumstances. This last consequence helps us to understand the utility of coffee in hot countries; there, where the temperature is so difficult to bear that it seems, so to speak, to wear out the springs of life. Our military and naval authorities have for some time made coffee form a part of the rations of our soldiers and sailors on active service, and have reason to be satisfied with the result of the innovation. The use of coffee has been of immense benefit to our troops, as well in the African deserts as in the Crimea, in Italy, and in China; the crews of our fleets have also derived the same hygienic advantages. It is of infinite value to our soldiers in Mexico, and principally in the *Tierra Caliente*, at Vera Cruz, that hotbed of yellow fever. Coffee is the drink of hot climates, as are alcoholic liquors the natural necessities of northern countries. It is known that in 1814, the Russians consumed enormous quantities of spirits together with fat substances. These two systems of alimentation, that is to say coffee and alcohol, are in conformity to the respective necessities of such people, and to displace them would be contrary to the precepts of hygiene. As man advances in life, the bony tissue diminishes in quantity. We know, for instance, how easily the bones of old people are fractured. This accident is consequent on the slight resistance offered by the bone, which becomes weakened by the diminution of the organs. Now, to point out the consequences of this disappearance of the bony substance in persons of advanced age. The phosphoric particles of the bones are absorbed, carried away in the circulating torrent, and the molecules, thus moved along by the blood, end by obliterating the small blood-vessels or capillary tubes. One of our learned professors of the Faculty of Medicine, M. C. Robin, promulgated the idea of dissolving the phosphal deposits by means of a chemical agent; with lactic acid, for instance, it might be possible, perhaps, to prevent this obstruction of the vessels, which is the frequent cause of fatal congestions in the case of old people, and thus to extend the limits of human life. M. Petti-

is of opinion that it is better to prevent the obstruction of the vessels than to have to combat it, when once in existence. From the well established fact that coffee retards the movement of the decomposition of the organs, M. Petit concludes that by its habitual use the life of man might be prolonged beyond its ordinary limits. He recommends then the use of coffee by old persons; and by those who have reached the age of fifty it can be taken in doses of from one to four cups a day, according to the necessity, the circumstances, and the habit of the body of each individual. It need hardly be added that the use of coffee does not render other hygienic precautions less indispensable. M. Petit brings numerous examples to the support of his opinion, chosen from among the cases which the exercise of his art has enabled him to observe, and in the course of the supervision of his hydro-therapeutic establishment at Chateau-Thierry. These observations tend to prove that coffee may be considered as conducive to longevity. They also tend to recommend its employment in the treatment of cerebral congestions and hæmorrhages, affections which are almost always fatal, and against which art possesses but very few resources. This is, however, a point in medicine altogether in opposition to received practice, and which needs a more profound study, and to have the facts more thoroughly examined than are those put forth by the author. The property which coffee possesses of rendering the produce of the secretions more aqueous, leads Dr. Petit to recommend it as an agent for combating the gout, gravel, and calculous affections. On this point he agrees with M. Trousseau, who recommends it under similar circumstances in his treatise on "*Materia Medica and Therapeutics*," and who points out with reference to this subject that in the East and in the Antilles these complaints are all but unknown, where the consumption of coffee is enormous. These are the principal facts contained in the pamphlet of the Doctor of the Chateau-Thierry. We are not prepared to defend the opinions put forth by the author. But the views he expresses appear to us sufficiently original, and to be based on sufficiently serious scientific considerations to be reproduced in this work.

#### BOILER EXPLOSIONS. \*

There is, perhaps, hardly a subject within the range of human knowledge, which has been invested with such mystery as boiler explosions. Almost every agency of nature, has been called in to account for those fearful catastrophes which have desolated happy homes, and but too often extended misery far and wide. Merely to attempt a recapitulation of the various theories advanced to account for the tremendous effects produced by the violent rupture of a steam generator, would fill pages; while an extensive library would scarce contain the reports of innumerable discussions and controversies, elicited by the promulgation of the different opinions held by the authors of these various theories. Able mathematicians; clever engineers, standing high in their profession; continental *savants*; American philosophers; have alike de-

\* From *Cor. Mechanic's Magazine*.