

while a certain amount of benefit is perhaps derived from the use of such agents, there is always a possibility of serious damage ; and doubtless in all cases a considerable amount of harm is done through the toxic influence of the drug, which falls with especial weight upon those organs which are most concerned in its elimination—the liver and the kidneys.

A medicinal stimulant is a mortgage placed upon the vital capital of the body, which must be paid sooner or later. It is a draft upon the constitution. A stimulant is simply a means by which the nerve centers are made to give up a little more of the energy which they have stored up, and unless the stimulus is of such a character that the storing power as well as the expending power of the nerve centers is increased, there must be a loss from its employment.

A toxic agent, like strychnia, may provoke the expenditure of nervous energy, but it does not replenish energy ; while it does lessen the activity of the kidneys in eliminating tissue poisons, and the efficiency of the liver in the destruction of toxins and leucomains, thus encouraging the development and maintenance of a condition which is, in itself, an indication for the necessity of employing tonic measures ; in other words a medicinal tonic or stimulant aggravates the very condition it is intended to cure.

*Nervous Energy.*—The establishment in modern times of laboratories for psychological and neurological research has been the means of throwing much light upon the nature of mental and nervous activity. Nervous energy no longer means, as formerly, an intangible, mysterious something, but, as has now been clearly demonstrated, is immediately and definitely connected with material elements found in the interior of the nerve cell. For example, a nerve cell, when in a state of rest, shows a large number of grayish granules, which have been shown to be intimately connected with the storage of energy ; so that when the granules are abundant, the cell is like a fully charged battery, ready to discharge under the influence of the right sort of stimulus the maximum of energy which it is capable of exhibiting. On the other hand, when the cell is fatigued, as after prolonged, energetic work, the granules are found to be very few and small, and the cells shrunken and pale.

With these facts in mind, it is easy to understand why such disappointing results have followed the use of strychnia and a very large number of medicinal agents, so-called “ nerve tonics,” since it is evidently impossible that these drugs should in any way increase the store of energy in the cell ; and the most that can be expected from them is the excite-