

STROPHANIN.—Strophanthus now holds a recognized and valuable place among the remedies used in the treatment of cardiac complaints, being perhaps only secondary to digitalis. An interesting article was read at the Medical Congress held in Vienna in April last, by Rothziegel, on the active principle of strophanthus, namely strophanin. An abstract of the paper is published in the *Centralblatt für Klinische Medizin*, 1890, No. 27. The doses given were 0.0002 to 0.0003 gram, amounting to $1\frac{1}{2}$ to 5 milligrams *per diem*. In English measure this would amount to about $\frac{1}{800}$ to $\frac{1}{160}$ of a grain for a dose. It is best given in capsules, and repeated every two hours. Rothziegel sums up his results thus: (1) The circulation was in most cases greatly improved, the pulse became stronger and more regular, a difference being sometimes noticed in from five to ten minutes after the first administration of the drug, but the full effect upon the pulse was not attained until the second or third day of its use. The improvement occurred later than with digitalis; but if the strophanin were continued its beneficial effects were more lasting, and persisted for some time after the drug had been discontinued. (2) The dyspnoea, palpitation, and other symptoms occurring in organic disease of the heart were much relieved while the patient was taking this drug. As a rule, the dyspnoea disappeared before the palpitation. In cases of so-called "nervous palpitation," strophanin produced some relief, but this was only temporary. (3) The amount of urine secreted was increased, but not until the strophanin had been taken for some considerable period, and, moreover, the quantity passed was not so large as when digitalis or the tincture of strophanthus had been given. The increase in quantity of urine lasted for several days after the strophanin had been discontinued, and was apparently due to increased blood-pressure, and not to any direct action on the kidney. No sign of kidney irritation was noticed at any time. (4) Gastric disturbances even after prolonged use of the drug, were very rare, and even when such phenomena did appear strophanin could be taken in capsules without any discomfort. As a general rule, the appetite was increased. The condition of the stools was not altered. There was no diaphoretic action. (5) The nervous system was only influenced indirectly, and that favorably, owing to the improved strength and regularity of the heart's action. (6) An accumulative action was not noticed in the case of strophanin, and the drug may be continued for weeks without any ill effects. (7) Subcutaneous injections ($\frac{1}{100}$ grain in watery solution), in cases where the heart's action was very weak, produced a rapid and lasting effect on the pulse, and no unpleasant local effects were caused by the puncture. (8) With the tincture of strophanthus, strophanin compared unfavorably. The tincture

acted more certainly, quickly, and energetically than the alkaloid; this was especially noticed in its diuretic action. Cases, however, occasionally occurred in which not only the tincture of strophanthus and digitalis, but also the other cardiac tonics, could not be taken, but in which strophanin was well borne, and the latter was found to be a good substitute for the tincture in such cases. Other instances were also noted in which all the cardiac tonics were ineffectual, while the administration of strophanin was followed by satisfactory results. (9) The indications for the use of strophanin in valvular disease, with or without affection of the myocardium, are the same as in the use of digitalis; that is to say, when there are indications of heart failure. In acute and chronic Bright's disease strophanin produces diuresis, especially if the heart's action is at all weak.—*Lancet*.

THUNDER AND SOUR MILK.—The effect of thunderstorms in turning milk sour is a matter of constant observation in every household. It is not certainly known to what element in the air this souring action on milk is to be directly attributed, and most people are content to ascribe it to "electricity in the air." An Italian *savant*, Professor G. Tolomei, has lately made some experiments with the view of elucidating this question. He found that the passage of an electric current directly through the milk not only did not hasten, but actually delayed acidulation, milk so treated not becoming sour until from the sixth to the ninth day, whereas milk not so electrified became remarkably acid on the third day. When, however, the surface of a quantity of milk was brought close under the two balls of a Holtz machine the milk soon became sour, and this effect he attributes to the ozone generated, for when the discharge was silent the milk soured with greater rapidity than when the discharge was explosive, in the former case more ozone being formed than in the latter. The souring of milk is generally attributed to the growth of a ferment (bacterium), which converts the milk sugar into lactic acid. It is possible, then, that the presence of ozone in the air overlying the milk hastens the growth and multiplication of the bacterium. The first observation—namely, the retardation of souring by the passage of a current through the milk—may be a point of practical importance to milk traders. Any methods of preserving milk from its first retrogressive changes, which does not involve the addition of extraneous substances (antiseptics) to the milk, and which is at the same time cheap, effective, and not likely to prove injurious to the consumer, is sure to be welcomed at a time when milk is sent long distances to market, and is often stored for a considerable time before it reaches the consumer.—*Brit. Med. Jour.*