

smaller doses, is never nearly so profound. Increase of dose, instead of deepening the narcosis, brings on tetanic symptoms. The depressant action of small doses on the cord, and especially on the respiratory centre, is very much greater than that of morphine.

Compared with codeine, they induce an equal narcotic effect with about one-tenth of the dose; while about a three-times-larger dose is necessary to cause tetanus.

Several chlorine derivatives of morphine were examined, which all showed the characteristic actions of morphine on the central nervous system. In addition they act more or less energetically as muscle-poisons, soon destroying the contractile power of the voluntary muscles with which they first come in contact at the place of injection, and more gradually affecting the other muscles of the body. Chlorine, it is well known, is a powerful muscle-poison, and its introduction into other groups makes the bodies so formed marked paralyzants of muscular tissue.

The research was undertaken with the view of determining the influence of chemical change in the physiological action of certain alkaloids. From the examination of one substance it is unwise to draw any wide-reaching, general conclusions. It seems certain that so long as the chemical changes are restricted to what may be called the outlying groups of the molecule, very little alteration takes place in the physiological action. The change which does take place does not depend so much on the substituting body as on what part of the molecule is substituted. When a change is made in the kernel or groundwork of the molecule, then the action is much more profoundly altered.—*British Medical Journal*, July 26, 1890.

TREATMENT OF NOCTURNAL INCONTINENCE IN CHILDREN.

The following simple theory to explain one of the causes of nocturnal incontinence and its equally simple treatment will interest many who have to treat this often trying and inconvenient habit.

Dr. van Tienhoven, of The Hague, suggests that in these patients, though the bladder acts normally through the day, it misbehaves at night. The question is, Shall the musc. detrusor urinæ or musc. sphincter vesicæ, or both, be blamed? Dr. van Tienhoven believes that the musc. sphincter is not strong enough to keep back the urine which collects in the bladder in the early hours of the night and permits it to find its way into the prostatic portion of the urethra. The musc. detrusor is thus reflexly stimulated and the bladder is emptied.

In order to prevent the urine from running into the urethra in this way the children were made to sleep with the pelvis elevated. In this position the bladder is capable of holding a certain amount of urine before the liquid reaches the level of the urethral opening.

The foot of the bed must be elevated so that the bed forms an angle of forty-five degrees with the horizontal. The children should be sent to bed with empty bladders, and should not take any liquid just before retiring. They sleep well in this position and do not complain. Fourteen cases were treated by this simple method only, and were cured in a short time.—*Correspondenzblatt für Schweizer Aerzte*, No. 18, 1890.