

(in which R = Me or Et, R' = Am, 1-methylbutyl, iso-Am, iso-Bu, *sec*-Bu or 1-methylpentyl, and R'' = Me, Et or allyl) were studied by injecting solutions of the sodium salt of the compounds intraperitoneally into albino rats weighing 75-125 grm. (av. 97 grm.). Substitution of an Et or Me group in place of the H on the N distinctly shortens the duration of action. With an Et in place of Me on the N, the anæsthetic and the lethal dose in mgrm. per kgrm. was more than twice those of the Me group on the N; but no change in the duration of action was observed. Duration of action is therefore not dependent on the quantity of drug administered.

A. PAPINEAU-COUTURE (Chem. Abstr.).

*Synergism and Antagonism of Drugs. II. The Action of Physostigmine on Autonomic Ganglia.* (*Journ. Pharmacol.*, vol. lviii, pp. 105-10, 1936.) Koppányi, T., Dille, J. M., and Linegar, C. R.

Physostigmine abolishes the vagal (parasympathetic) paralysis of nicotine and curare and the sympathetic paralysis of nicotine. The ganglionic paralytic effect of nicotine and curare in the autonomic system is opposed by physostigmine but not by pilocarpine. Atropine prevents the ganglionic effect of physostigmine. These actions of physostigmine are interpreted as being due to a stimulation of the release of acetylcholine, previously interfered with by nicotine or curare.

T. H. RIDER (Chem. Abstr.).

*Atropine in the Cure of Postencephalitic Parkinsonism.* (*Argomenti Farmacoterap.*, vol. iv, pp. 11-14, 1936.) Budinis, I.

A report of the administration of gradually rising doses of atropine sulphate in 50% solution according to the method of Römer in 9 cases of Parkinsonism with favourable results, which are discussed.

C. R. ADDINALL (Chem. Abstr.).

*The Respiratory Centre and Narcosis.* (*Arch. Intern. Pharmacodynamie*, vol. liv, pp. 219-46, 1936.) Mansfeld, G., and Tyukody, Fr. v.

Four active respiratory centres and one inhibitory centre are concerned in respiration. The cerebellar dog breathes normally. Removal of the cerebellum causes cessation of respiration. If the upper region of the medulla is then removed respiration begins again. This region thus contains an inhibitory centre, and after its removal the respiration is no longer affected by oxygen or carbon dioxide. The pons also contains a respiratory centre whose function is similar to that in the cerebellum, but reflexes from the carotid sinus act only on the cerebellar centre. The lower region of the medulla contains two respiratory centres. Phenobarbital has a different affinity for the different centres. If only one centre is regulating respiration the all-or-none law holds for the action of this drug.

M. L. C. BERNHEIM (Chem. Abstr.).

*The Brain Content of Anæsthetics in Experimental States of Hypo- and Hyper-sensibility.* (*Anesthésie et Analgésie*, vol. i, pp. 229-42, 1935.) Tiffeneau, M.

Acidosis favours hypnosis. In fish, the rapidity of narcosis is greater in an acid medium. In rabbits chloroform is more rapidly absorbed into blood and brain by animals in a state of acidosis. In dogs and rats the brain content of alcohol is greater in normal animals than in those which have acidosis. In mice the relative amounts of anæsthetic C<sub>2</sub>H<sub>5</sub>Br fixed by the blood and brain vary with the rate of production of anæsthesia. The right hemisphere apparently contains more C<sub>2</sub>H<sub>5</sub>Br than the left, and the posterior portion of the brain contains more than the anterior.

T. H. RIDER (Chem. Abstr.).

*Barbiturates. XVII. The Effect of Prolonged Chloroform Anæsthesia on the Duration of Action of Barbiturates.* (*Journ. Pharmacol.*, vol. lviii, pp. 119-27, 1936.) Koppányi, T., Dille, J. M., and Linegar, C. R.

Chloroform anæsthesia (2 hours) of cats and rabbits prolongs and deepens the anæsthesia from pentobarbital and barbital 24 hours later. Conclusion: The