A very able review of the present status of the pharmacology of cannabis, active substances and synthetic derivatives, has been given by S. Loewe. In conjunction with other recognized American investigators, Roger Adams, E. J. Wollner, et al., he has himself made important contributions to this subject. The large number of animals at his disposal, for example, 2600 experiments carried out on 150 dogs, give his conclusions still greater weight. Reference will be made to some of his important findings.

The active substances with cannabis effect are the tetrahydrocannabinols, and Loewe refers to the ingenious hypothesis that cannabidiol represents the starting Point, and cannabinol the final stage in a phytochemical process where the active substances occur as the intermediate steps.

Not all the effects described with crude cannabis preparations could be reproduced with pure substances. Loewe is justified in saying that the experimental study of the psychological effect in man .and, for obvious reasons, still more so in animals - presents an as yet unsolved problem, even with pure substances. The reasons for this state of affairs will continue to exist and have been explained elsewhere.(52) The catalepsy which has been observed in many animal species, can be produced with all pure substances which cause ataxia. There is continually more and more proof that the ataxia produced in dogs is an important test which is "highly specific for cannabis" and parallels the psychological effect. The centre of the ataxia as well as its mechanism are unknown. All active substances caused central excitation. Mice even became aggressive (:). There is no hypnotic effect as was supposed by earlier investigators. Possibly cataleptic symptoms in man have been misinterpreted as a sedative effect.