worse during the day and vomited his lunch. The eyes became suffused. The third day after inoculation he felt worse and seemed to have infection of the right maxillary antrum. There was post nasal discharge, the throat was redder and the headache persisted though of lessened intensity. The fifth day he was better though somewhat listless. He coughed during the night and raised a good deal of phlegm during the day. There was still nasal obstruction, a slight headache and a mucoid discharge from the nose. He was discharged on the seventh day after inoculation, feeling better. The headache had disappeared. There was still nasal obstruction shifting from side to side, cough and expectoration. The pharynx was still red and swollen. This volunteer suffered from an experimental cold of moderate severity.

Of the 3 volunteers inoculated with the 17th generation of a tissue medium culture of the virus of the common cold 2 exhibited positive results, one experiencing a cold with mild manifestations and the other a cold with moderately severe symptoms. The third with the exception of slight changes in the throat gave a negative result. These experiments confirm the evidence of the cultivation of the virus of the common cold in tissue medium previously reported.

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The Depression of the Vomiting Mechanism by Digitalis.

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The vomiting produced by toxic doses of the digitalis bodies has been studied chiefly from the point of view of its mechanism and the conditions under which such vomiting occurs. Some time ago the fact was noted that in some instances toxic doses of digitalis which at first caused vomiting, when repeated, failed to cause emesis. The present experiments were planned to extend this observation and to determine under what circumstances the digitalis bodies might produce a depression of the vomiting mechanism.

Observations were made on cats and dogs following the repeated intravenous injection of various members of the digitalis group. Each experiment lasted several days, and in the series of dogs some of the changes produced in the heart by the drug were recorded by frequent electrocardiograms.

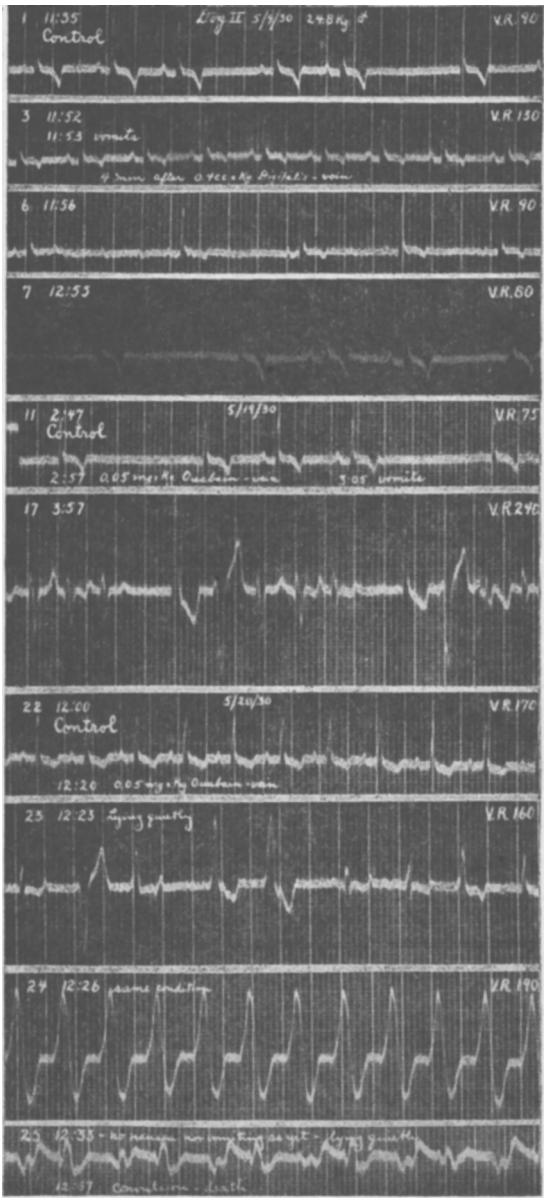

FIG. 1.

Showing relation between vomiting and electrocardiographic changes. The first dose caused vomiting but no ectopic rhythm (tracings 3, 6) and after about an hour the electrocardiogram (tracing 7) was practically identical with the control. Ten days later a dose induced vomiting in addition to ventricular ectopic rhythm (tracing 17). The following day the same dose produced more intense poisoning and death (tracings 23, 24, 25) without vomiting.

It was found that there was a progressive elevation of the threshold of the vomiting mechanism to digitalis. Thus the initial dose of the drug which induced vomiting, when repeated often failed to produce this result, and increasingly larger doses were required to cause vomiting. It was found that the cumulation of digitalis after repeated injections might produce very severe poisoning of the heart as indicated by the development of such toxic rhythms as ventricular tachycardia, while at the same time vomiting did not occur. In fact, in 3 dogs the final increment of digitalis which was fatal failed to cause vomiting, though sufficient time elapsed before death for vomiting to have occurred.

The above facts are illustrated by Fig. 1, which shows selected electrocardiograms from one of the shorter experiments. It may be seen that digitalis given by vein produced vomiting in 4 minutes (tracing 3), and that subsequently an intravenous injection of oubain was followed by vomiting in 8 minutes (tracing 11). On the following day, however, the same intravenous dose of oubain induced a toxic rhythm resulting in death, but failed to cause emesis although 17 minutes had elapsed before the animal died (tracings 23, 24, 25).

Because of the significance attached to the symptom of vomiting as an index of toxicity in digitalis therapy, the possibility of depression of the vomiting mechanism to digitalis apparent in these experiments must be taken into consideration in the clinical use of the drug.

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Liver Changes After Deprivation of External Pancreatic Secretion.

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In a recent investigation concerning the physiology of pancreatic secretion[1] a series of dogs was deprived completely of pancreatic juice by means of fistulas made according to the Elman and McCaughan modification of the Rous-McMaster technique[2] and by

[1] Berg, B. N., and Zucker, T. F., PROC. SOC. EXP. BIOL. AND MED., 1931, **28**, 724. Zucker, T. F., Newburger, M. G., and Berg, B. N., PROC. SOC. EXP. BIOL. AND MED., 1930, **27**, 666.

[2] Elman, R., and McCaughan, J. M., *J. Exp. Med.*, 1927, **45**, 561.