Our results confirm these data and further show that NaH_2PO_4 produces marked opisthotonic convulsions. The orthophosphoric acid does not produce convulsions or tetany within the limits in which we have worked—death by respiratory paralysis ordinarily ends the experiment before symptoms become manifest. It would thus appear that either by a change in the $[H^+]$ or by the addition of the Na^+ or by both we can obtain a wide variation in symptoms (1) sudden death with very few nervous manifestations (H_3PO_4); (2) violent convulsions (NaH_2PO_4); (3) tetany (Na_2HPO_4) and (Na_3PO_4).

141 (2664)

Reflex association of feeding and defecation in young birds. (Troglodytes Aedon).

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In connection with the problem of visceral reflexes, it is of interest to record an observation on young house wrens (*Troglodytes aedon*). A brood of six nestlings ranging in age from three to six days was orphaned, and for several hours were fed insects and worms by means of small forceps.

When disturbed, the young bird, if hungry, extended the head and opened its beak. As soon as a morsel of food was swallowed, the bird became very active, scrambling and jostling until it had pushed its head down toward the center of the nest and elevated the anus just over the edge of the nest, in which position defecation always occurred. At once the bird became quiet and could not be induced to take food again for a period of from one and one-half to three minutes. Defecation in this position *always* followed the taking of food.

Ornithologists have long known that in many species the parent birds carried away excreta after every trip to a nest with food. A parent wren was observed to repeat this operation on an average of 25 times an hour, carrying away the excreta *every time* food was carried to the nest.

By noting the color of the food and that of the feces it was made certain that each bolus was digested and the waste ready for voiding before the bird could be stimulated to receive food again. The young bird, then, does not take food until the previous bolus has been digested. Immediately upon swallowing a fresh supply a very complicated reflex is set up, which not only leads to defecation but places the young bird in an unusual position in which the parent bird can most easily collect the excreta as voided and remove it from the nest.

142 (2665)

The rôle of B. acidophilus in dental caries.

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Since the first pronouncement by Miller[1] in 1890 that tooth caries is the result of the acid fermentation of carbohydrates by bacteria, students of this subject have been searching for a specific organism of caries.

Kligler[2] first pointed out that in the lesions of caries *B. acidophilus* is commonly present, associated with *L. buccalis, C. placoides,* and *B. putrificus.* Later Howe and Hatch[3] found in advanced lesions of caries the Moro-Tissier group of organisms associated with certain other types which they called respectively Bacillus X, M, and Y. More recently MacIntosh, James and Lazarus-Barlow[4, 5] in England, and Rodriguez[6] in this country, by the use of acid media have found that in deep carious lesions

[1] Miller, W. D., *The Micro-organisms of the Human Mouth,* Philadelphia, 1890.

[2] Kligler, I. J., *J. Allied Dent. Soc.,* 1915, x, 141, 282, 445.

[3] Howe, P., and Hatch, R., *Dental Cosmos,* 1917, lix, 961.

[4] MacIntosh, J., James, W., and Lazarus-Barlow, P., *Brit. Dent. J.,* 1922, xliii, 728.

[5] Idem, *Brit. J. Exp. Path.,* 1924, v, 175.

[6] Rodriguez, F. E., *Military Dental J.,* 1922, v, 199.