Intestines and kidneys were normal and the gonads were in the expected undeveloped state.

Gross diagnosis was obstruction of the digestive tract by a foreign body with consequent gradual starvation. Kenyon and Uttal say that it is "purely conjectural" how their Grackle came to have eaten string. In the case of my Robin, I could scarcely conclude otherwise than that it mistook the piece of string for a worm. Students of bird behavior might enlarge upon these two instances by experiments in order to learn the order of appearance of the various factors involved in the recognition of food by growing birds and the parts played by instinct and experience.—C. BROOKE WORTH, *Swarthmore College, Swarthmore, Pennsylvania.*

Wilson's Thrush in Oklahoma.—Apparently there are but three Oklahoma specimens of *Hylocichla fuscescens* in existence. All these (male, Arnett, Ellis Co., May 27; male and female, Kenton, Cimarron Co., June 2) were taken in 1936 by the writer and identified by him as *H. f. salicicola* (*Auk*, 53, 1936: 434). Further careful comparison has shown the Kenton female to be more reddish brown throughout the upper parts, brighter buff on the sides of neck and breast, and less sharply streaked on the breast than the other two birds, however, revealing the fact that it is actually a Wilson's Thrush, *H. f. fuscescens*. The Willow Thrush, *H. f. salicicola*, is known to breed as far east as Michigan (see Van Tyne, *Occ. Papers Mus. Zool. Univ. of Mich., No.* 379, 1938: 29) so the occurrence of *H. f. fuscescens* in far *western* Oklahoma is indeed extraordinary. The author is grateful to Allan R. Phillips for his assistance in identifying the specimens in question and in thus adding another form to Oklahoma's avifauna.—GEORGE MIKSCH SUTTON, *Cornell University, Ithaca, New York.*

A Successful Method of Preventing Starling Roosts.—Louisville has been plagued with a large winter Starling roost since about 1932. During the first few years the Starlings (*Sturnus vulgaris*) roosted in trees especially on the University of Louisville Campus. Later, attracted by the warmth and bright lights of the business area, they began roosting in increasing numbers on the unused postoffice and adjacent buildings, especially on Fourth, Chestnut, Guthrie, and Walnut Streets. On the postoffice alone about 15,000 birds regularly perch, and several thousands more roost in a group of trees in the tiny park north of the building. The trouble and annoyance caused by this roost, variously estimated from one to two hundred thousand birds, has been extreme. The buildings are rendered unsightly by their guano and shoppers find walking beneath the incoming flocks hazardous to their attire. One large store raised its awnings each afternoon and posted the sign "These awnings raised because Starlings unfair to pedestrians."

Of the numerous methods advocated for eliminating the birds, two merit comment. One store purchased a dozen Screech and Barn Owls and chained them to perches along the upper window ledges after being told that Starlings are extremely afraid of owls. Unfortunately most of the owls were either injured by the chains or died from other causes and the experiment was discontinued before their value could be determined.

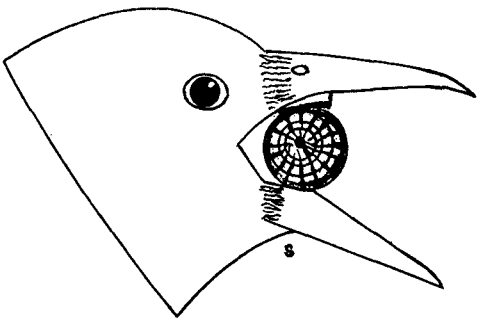
One method, however, has been invented here at Louisville which has proven extremely successful, and as no mention is made of it in E. R. Kalmbach's recent leaflet on methods of combating Starling roosts (*Wildlife Leaflet*, 172, Dec., 1940) it seems desirable to bring it to the attention of ornithologists.

In the fall of 1939, Mr. J. C. Pfeiffer, the engineer for a large department store in the heart of the Starling roost, installed a noise system based on compressed air. The air is circulated through a large pipe in the upper story of the building by an air-compressor. Horizontal pipes of smaller diameter are extended from each of the upper windows. On the ends of each, pieces of soft rubber hose about 18 inches long are attached. The weight of the hose causes it to hang down

over the end of the pipe shutting off the escape of the air. When the air pressure has built up sufficiently, it causes the hose to straighten out and emit a small explosive report. The repeated flapping of the hose accompanied by the popping noises has kept this building entirely free of Starlings for two winters. Although the expense of installing such a system may be $100.00 or more, according to Mr. Pfeiffer the cost of operating the compressor is only $2.00 per month. He turns it on about an hour before dark. About two hours later, when the Starlings are settled for the night on neighboring buildings, he shuts down the apparatus. He finds that it can be left off for several days at a time, the Starlings having apparently established roosts elsewhere. A minor objection to the method is the noisy popping of the numerous swinging hose. Five other buildings have installed similar methods and all have been very successful, as shown by their clean window ledges and awnings. As more and more buildings adopt this compressed air system, it will be instructive to observe the final effect upon the winter habits of the Louisville Starlings.—HARVEY B. LOVELL, *Biology Department, University of Louisville, Louisville, Kentucky.*

The Bronzed Grackle's Method of Opening Acorns.—The writer has known for some time that the Bronzed Grackle (*Quiscalus quiscula aeneus*) splits the shells of acorns in order to secure the meat. While watching the feeding operations of this species at Madison, Wisconsin, in September, 1941, it occurred to me that the procedure might not be commonly known. The reference books consulted were silent beyond the statement that acorns form a portion of the Grackle's diet. Correspondence with J. Van Tyne resulted in reference to the paper by Alexander Wetmore (*Auk*, 36, 1919: 190–7) in which the method of splitting the acorns is described.

The cutting is done by a special ridge or keel in the Grackle's palate. The position of the acorn in the bill during shelling is shown in the accompanying



drawing. Pressure is applied and the acorn rotated until there is produced a circular indentation at right angles to the axis, the shell eventually falling into halves. On October 11, I chanced upon two men shooting Grackles in a field of standing corn which was infested with about a thousand of these birds. Fourteen males and eleven females were thus made available for examination. There was considerable individual variation in the height of the keel and this did not appear