

CORRESPONDENCE.

Captive Wild Birds.

TO THE EDITORS OF 'THE AUK':—

Dear Sirs:—I have read with great pleasure in your January issue, Mr. Owen's interesting paper on a captive Hermit Thrush, but there is one point in connection with his treatment of the bird—his liberating him—on which I should like to say a few words, particularly as it is almost universally supposed that to give a caged bird freedom, is a kind thing to do, and the happiest for the bird. He had taken the young Hermit before his training for a free life was finished, and accustomed him to having his wants supplied and his safety assured, without effort of his own. Then, when the season was nearly over, he thrust the young creature out into the world to forage for himself. The bird had not learned to seek his own food, nor, probably, to care for his own safety, and his natural ties were completely severed, so that he had no instructor. This is frequently done, and of course from the kindest motives, but it has always seemed to me a great mistake, and a cruelty to the young bird, to deprive him at one stroke of home, protection, shelter and food.

According to my experience, when birds are thoroughly well treated, not too closely confined to cages, and made happy under human care, they learn to appreciate it, and many of them prefer to remain where life is made easy for them. This is often the case, even with old birds who know the pleasures as well as the pains of freedom. When let out, of course they fly, but if they do not get lost they frequently return to their old quarters. Many cases of this kind have been reported, and I have had birds so attached to the comforts of their home that they even refused to leave the cage though the door was open all day long, and birds were free all around them.

Birds are naturally fond of their liberty, no doubt, and if I had the power to prevent it, not one should ever be caged, but after having interfered with their parental training, taken them from their natural life, and accustomed them to human care, to set them free seems to me to doom them to great hardships, if not to death.

OLIVE THORNE MILLER.

A Desirable Substitute for Carbon Disulphide as an Insecticide.

TO THE EDITORS OF 'THE AUK':—

Dear Sirs:—The want of an efficient substitute for disulphide of carbon, one which should be free from the disgusting odor and extreme danger of this chemical, has long been felt by all having ornithological collections; and it seem not unlikely that the comparatively new preparation of formic aldehyde, known as 'formalin,' will fill this want.

Formalin is now easily obtained, is not expensive, and is neither inflammable, nor has it any unpleasant smell. The vapor of formalin is a powerful germicide, according to recent experiments; and only a few minutes are required for its complete diffusion and the disinfection of a room of moderate size. It is said to have no action on animal pigments.

A recent article on 'The Disinfection of Books by means of the Vapor of Formalin' concludes as follows:

1. Books can be disinfected in a closed space, simply by vapor of commercial formalin by using 1 cc. of formalin to 300 cc. or less of air.

2. The vapor of formalin is rapid in its disinfectant action. The effect produced in the first fifteen minutes is practically equivalent to that observed after twenty-four hours.

3. An increase in the amount of air to each cc. of formalin is not counterbalanced by an increase in the length of time of exposure.

4. In case the disinfection has been incomplete, the vitality of the organisms has been so weakened that they survive only if transferred in a few hours to media suitable for their development.

5. The use of vapor of formalin is not detrimental as far as observed in any manner to the books, nor is it objectionable to the operator beyond a temporary irritation of the nose and eyes, somewhat similiar to that produced by ammonia."

Having no infested bird-skins, and being unable to find any *Dermestes*, or other beetles, I can only speak of its effect on the 'Clothes Moth' and larvæ. A number of the moths and caterpillars with the material on which they were feeding, were put in the trays of a museum case, about 5½ cu. ft. in capacity; and in the middle tray a saucer holding a couple of teaspoonfuls of commercial formalin. The can was kept shut for an interval varying from two hours to five minutes, the experiment being repeated a number of times. Exposure to the vapor for half an hour or more was fatal to both moths and larvæ; while often fifteen minutes in the case was enough to kill the moth, and less frequently the caterpillars as well. A longer time may be needed for the formalin vapor to reach and destroy insects which are not on the outside of the specimens, and possibly the disinfection may be found not to be only superficial at best.

If the alcoholic solution — 'holzine' — can be obtained it would doubtless be better than 'formaline,' which is the aqueous solution of formic aldehyde.

I hope others will try this disinfectant, and report its success; for it would certainly be a gain if it were necessary to 'quarantine' our collections for only an hour or two, and without the odor and risk of fire, which now accompany the process.

Respectfully yours,

ARTHUR P. CHADBOURNE,

225 Marlborough St., Boston, Mass.