I am most grateful to J. Balfour-Browne for identifying this beetle and for details of its distribution. I am also indebted to Dr. J. G. Harrison for obtaining this bird.

A note on the discovery of this beetle was published in the *Ent. mon. Mag.* 96 : 56 in 1960 by J. Balfour-Browne.

P. J. S. Olney.

Eating of metal by ducks

1. A female adult Tufted Duck *Aythya fuligula* shot on 30th January, 1960 over a gravel pit near London, described as being in poor condition, was found to have a 1½″ long nail through the gizzard wall which actually penetrated to the skin of the back (photograph). Where the nail had pierced the back there was local inflammation of the skin and some suppuration. From the position of the nail and the fact that the sharp pointed end was on the outside of the gizzard, it was obvious that the nail had been swallowed and had then worked its way out through the gizzard wall. There was no sign at this stage of any internal haemorrhage and it appeared that the nail had been there for some time. When shot the bird was apparently flying as fast as its companions.

2. A Mallard *Anas platyrhynchos* of about 8 weeks, one of a large number of hand-reared birds, was picked up dead during July 1960 before it had been put out on water. When examined it was found to have eaten a 1½″ piece of wire and 37 copper tacks (photograph). Only one bird was known to have died in this way, though previously a bird had been found dead after having eaten the brass heads of several cartridge cases. It seems likely that the only time copper tacks had been used was during the electrification of the building in which the ducks were kept, and that many years later some of them left behind had been found by this unfortunate duck.

3. A Falkland Island Flightless Steamer Duck *Tachyeres brachypterus* which died at Slimbridge in September 1959 had been ill for several days and had taken no food but drank large volumes of water.

At post mortem examination the bird was found to be in poor condition with a reduced pectoral muscle and depleted visceral fat. The left posterior thoracic and abdominal air sacs contained a foul smelling blackish fluid while the left lung showed severe caseating pneumonia. The probable cause of this condition was three pieces of wire which had penetrated the wall of the gizzard and damaged the liver and small intestine. The longest piece, 6 cms., had damaged the small intestine, which developed a series of adhesions and an associated foreign body capsule 3 cms. x 1.5 cms. Two more pieces of wire, each 3 cms. long, were found in the liver encased in a black material and had presumably come from the gizzard.

A second bird of this species, which died of inanition, had the shaft of a fish hook embedded in the wall of the gizzard and surrounded by a black material. The piece of metal probably came from an eel fed to the bird.

4. A first winter European Scaup *Aythya marila* drake which had been reared at Slimbridge had a piece of wire, 1.5 cms. long, embedded in the wall of the gizzard. One end protruded into the lumen of the organ and the other end pushed the outer surface of the gizzard into a conical shape. This bird died of renal and cardiac disease.

Small pieces of wire have occasionally been found in the gizzards of several other species, especially the European Eider *Somateria mollissima*.

In each case where tissue had been penetrated it would appear that the wire was ingested, and for a time acted as grit since considerable wear had occurred on the pieces. Then the wire moved into such a position that the muscular activity of the gizzard forced it into the wall of the organ and, in the case of the Steamer Duck, right through the wall into other organs.

It seems probable that most of the metallic objects found in these birds had been selectively ingested, though why they should have been remains an enigma. Possibly the smaller pieces were taken as a form of grit, but the larger pieces are quite unlike the normal grit or food of any of the birds concerned. It may be that the shiny appearance of such objects is an attraction. Perhaps the same reasons are involved which cause some birds to ingest lead pellets, with subsequent fatal results (Olney, P. J. S. 1960. *Eleventh Ann. Rep.* : 123-134). Whatever the reasons are, it seems to be extremely unwise to leave metallic objects about where wildfowl can find them.

We are most grateful to J. Moller and Dr. J. G. Harrison for obtaining the first two examples and to R. Young for supplying details of the second bird mentioned.

P. J. S. Olney and J. V. Beer.

A cheap form of semi-permanent binding for journals

THE reference library at Slimbridge continues to grow and more than fifty journals are regularly received by subscription or exchange. At the moment we have no funds for permanent binding of the quite long runs we have accumulated. Yet some form of binding is essential to prevent the separate parts being lost. The solution we have adopted has always roused the interest of visiting scientists, who are also faced with the problem, so it is thought worthwhile setting the details out for wider circulation.

The binding material is polyvinylchloride electrical tape (in our case obtained from Gordon & Gotch (Sellotape) Ltd., London). This is available in a number of pleasing colours and is strongly self-adhesive.

Two parts of the journal are laid spine to spine, the first face down, the second face up. They are then hinged together by running a strip of two inch wide tape down the length of the joint, one inch on each side. A third part is hinged to the back of the second in the same way, and so on. Finally a strip of tape is run down the back of the pile of parts, overlapping the front of the first and the back of the last part. At least half an inch should overlap to ensure firm attachment; if the pile is more than one inch thick, two widths of tape will be needed for the spine. The number of parts that can be bound together in this way depends on their thickness and the relative rigidity of their covers, but four or six make a firm volume in most cases. If desired, cardboard covers can be added, but this is not usually necessary. The tape should not be stretched when applying or it will tend to creep back in time.

The volumes may be neatly labelled by stencilling an abbreviated title on to white card and covering with transparent Sellotape to keep it clean. The