extensive notes yet published are those contained in A. J. North's big work. In the Catalogue of the Jacksonian Oological Collection (1907), other very informative notes as well as some photographs appeared. Mr. A. H. Chisholm wrote a very interesting article on the bird, under the caption "A Fairy of the Sandstone," in the Australian Women's Mirror for January 16, 1925.

In conclusion, I wish to express warm thanks to my friend, Mr. F. Booker, whose enthusiasm in the dark-room, and where possible in the field, has helped me very considerably. I am also grateful for advice and assistance from Mr. W. A. Rainbow (Librarian of the Australian Museum), Mr. M'Carthy (his assistant), and Messrs. J. R. Kinghorn and A. H. Chisholm.

Photographing the Rock-Warbler.

By Norman Chaffer, R.A.O.U., Chatswood, Sydney.

BECAUSE of that charming nest suspended from the roof of a cavern or beneath a shelf of sandstone, the Rock-Warbler is the "Hanging Dick" of many school-boys. And because it is found only "where dripping rocks gleam and where leafy pools glisten" (or in the vicinity of such spots) some other people know it as the "Cataract-Bird." To others again it is the "Sandstone Robin." In any case, the fact is that behind each of these names stands a very endearing little bird, one that attracts because of its novelty, its brightness, its picturesque habitat, its restricted range, and its unusual nesting habits. Having these points in mind, I count days spent in photographing the Rock-Warbler as among the most enjoyable of my experience.

On September 10, 1922, I found a "Hanging Dick's" nest with three young which offered some prospects of being photographed. I noticed that sunlight, somewhat diluted by passing through the leaves of the gum trees, could be reflected on to the nest with the aid of a mirror. The nest was situated in a low, dark cave in a small gully leading down to Middle Harbour, and was built above running water. The following week, armed with camera, tripod and mirror, I set out to try my luck. The "Hanging Dick" was on the nest when I arrived and I had almost to touch it before it flew off. Focusing was very awkward and uncomfortable in the low cave, and considerable manoeuvring was required to dodge the water dripping from the roof. The mirror was propped in position with stones at the cave entrance.

Soon the shrill call of the Rock-Warbler was heard and the bird came quickly, hopping and flying over the rocks. It went without hesitation on to the nest, notwithstanding that the cradle was brightly illuminated by the light reflected from the mirror. On alighting the feet clutched the front of the nest and the tail was spread out



 $\label{eq:Rock-Warbler} Rock-Warbler \ at \ Nest \ under \ shelf \ of \ Sandstone.$ Photo. (by N. Chaffer) taken with aid of mirror.

fanwise and pressed against the nest for support. When inside, the bird turned round and faced the entrance. The bird was quite fearless and seemed almost to ignore my presence. Using a stick I gently tapped the nest, but it merely held up its head and looked around. After considerable shaking and tapping of the nest, the bird came out, but only flew a few feet away and soon returned.

Most of the photos were taken direct with the antinous release, while seated some three feet from the nest. The bird often alighted on the tripod when approaching or leaving the nest.

Usually, when alighting on the nest the head would be thrust in immediately, mostly giving no chance of a photo. After each return the bird became more and more difficult to dislodge; I could wave my hand up and down a little distance from the nest without effect. In time, the small mother would tire of being forcibly ejected and would go away for fifteen or twenty minutes.

One trouble I found on developing my first lot of exposures was a blurred image in many of them, due to the swaying of the nest. On another visit I propped the nest at the back with a stick, but the "Hanging Dick" would have none of that—she made straight for the stick and several times dislodged it. Some of the photos I secured by blocking the entrance.

A second series of photos was taken with the bird on a stone approaching the nest. I sat at one end of the cavern near the nest to prevent the bird approaching from that direction, but even then she would often slip by me unawares. A few times I guided her with a stick to the stone upon which the camera was focussed. Sometimes she would even allow the stick to touch her, uttering only a note of remonstrance.

The young Rock-Warblers, by the way, were fed largely on moths. The parent birds would eat bread crumbs, but did not give them to the babes.

Quite a number of factors contributed to the failure of many of the large number of photos taken during 1922 and again during 1925. The comparatively long exposure necessary, 1/10th of a second at F.8, caused many of them to show movement. Then there was the swaying of the nest to contend with or a passing cloud or swaying branch partially obscured the sun. The mirror had constantly to be adjusted as the sun rose higher, and this fact accounted for some failures—the light in some cases was only reflected on portion of the bird.

I spent many hours photographing the "Hanging Dicks," and not a moment of the time is regretted. Seated comfortably in the cool shade of the cave, time passed quickly. Even during the absence of the bird there was plenty to interest. At the top end of the caverna miniature waterfall babbled musically, and from the tangled gully outside the crack of the Whip-Bird and the songs of many others

----1 to heard.