

CARPENTER BEES EATING LEAD CABLE-COVERS.

By

MAJOR W. R. S. LADELL.

In June 1928 damage to lead cable-covers, in the form of holes about 2mm. in diameter, was noticed. These holes were attributed to a bostrychid beetle, but there were other markings on the covers suggesting the work of bees. A query on the subject was sent to the Cable Makers Association. While the secretary and several members of the Association had never heard of insects attacking lead cable-covers, one member agreed that certain insects undoubtedly did bore through these lead covers.

In India and other eastern countries it is found that the only effective protection against insect attack is to cover the lead with a thin brass tape, applied helically with an overlap between layers of waterproof cotton tape.

Last April attention was drawn again to holes through cable-covers, which were lead pipes 2cm. in external diameter and 1.6cm. in internal diameter. These holes were larger than those seen in 1928, the actual hole being elliptical and about 0.5 by 9.7 cm. in diameter, and often had a slanting approach. The markings were rather similar to the nibblings of rats, but much smaller, and immediately suggested the big carpenter bees, *Xylocopa latipes* or *Xylocopa dissimilis*.

A number of experiments were made with carpenter bees and lead cable-covers. In the most successful, these insects were imprisoned in a section of lead pipe, whose ends were closed, light being provided by very small holes through the cover. The insects were refreshed by drops of sugary water injected into the holes. In every case the insect started work after a short period, and in sixteen hours was free. Some very successful cinematograph films were taken of the bee at work gnawing the lead pipe. Evidently the bee can be induced to bore under the unnatural conditions of the experiment, only when it is so closely confined that it cannot fly, and only when it sees a way toward daylight. The hole made by the bee in confinement agreed with those made on the cable *in situ*. The

evidence is sufficiently convincing that the damage to the cables was caused by *Xylocopa latipes*, boring in an attempt to find a suitable home.

As remedial measures are suggested:—(1) armouring the cable with a strip of brass; (2) coating the cable with a mixture of tar and sand.

[*Abstracted, by kind permission of H. R. H. the Minister of Commerce and Communications, from an illustrated article in 'The Record', No. 40, April, 1931.*]