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NOTES ON A HORN-FEEDING
LEPIDOPTEROUS LARVA
FROM AFRICA

WITH TWO PLATES

BY

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NOTES ON A HORN-FEEDING LEPIDOPTEROUS LARVA FROM AFRICA

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(WITH TWO PLATES)

Among the zoological objects secured by the Smithsonian African Expedition, under the direction of Col. Theodore Roosevelt, is a skull of a large Water Antelope (*Cobus* sp.) on the magnificent (over two feet long) horns of which was a large number of curious larvæ tubes of a microlepidopteron, *Tinea vastella* Zellar.

The skull is evidently not of an animal shot by the party, but was picked up on the ground. It bears the label No. 6825 S. N'guasso Nyiro River, British East Africa, June, 1909.

The evidence of moth-infestation on the horns was very striking and is well illustrated in the two excellent photographs, reproduced on plates 1 and 2, for which I am indebted to Mr. T. W. Smillie. It consists of large bunches of dark brown finger-like tubes each about $\frac{1}{4}$ of an inch in diameter and anywhere from $\frac{1}{2}$ to $2\frac{1}{2}$ inches long. These tubes are very tough, being made of silk, into which is incorporated earth and chewed-up fiber of the horn; the interior of the tubes is smooth gray silk. The tubes are closed at their outer end like the fingers of a glove and are connected at their basal end with round holes leading into galleries in the horn, where the larvæ found their nourishment.

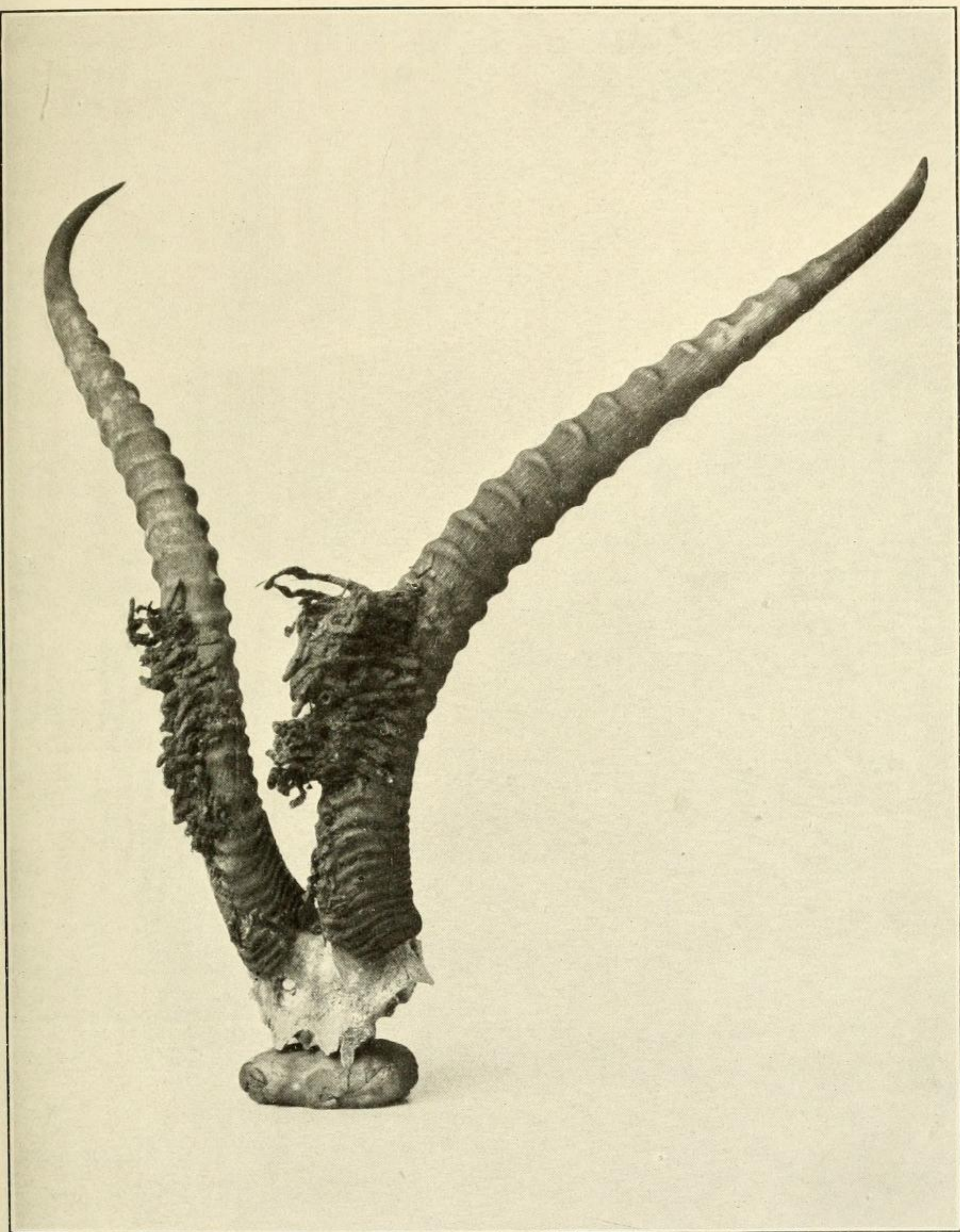
Accounts of similar infestations of horns of ruminants have occurred from time to time and they seem particularly common in Africa.

There has been some difference of opinion among the observers about the possibility of the horns of living ruminants becoming infested and some of the evidence seems sufficiently conclusive that such infestation may occasionally occur. The substance of the horn is the same in the living animal as in the dead, and it seems at least possible that the moth may deposit its eggs on the horns of a resting or sleeping animal, and that the larvæ in such case could develop successfully, but this is undoubtedly the exception and the species normally only attacks the horns of dead animals.

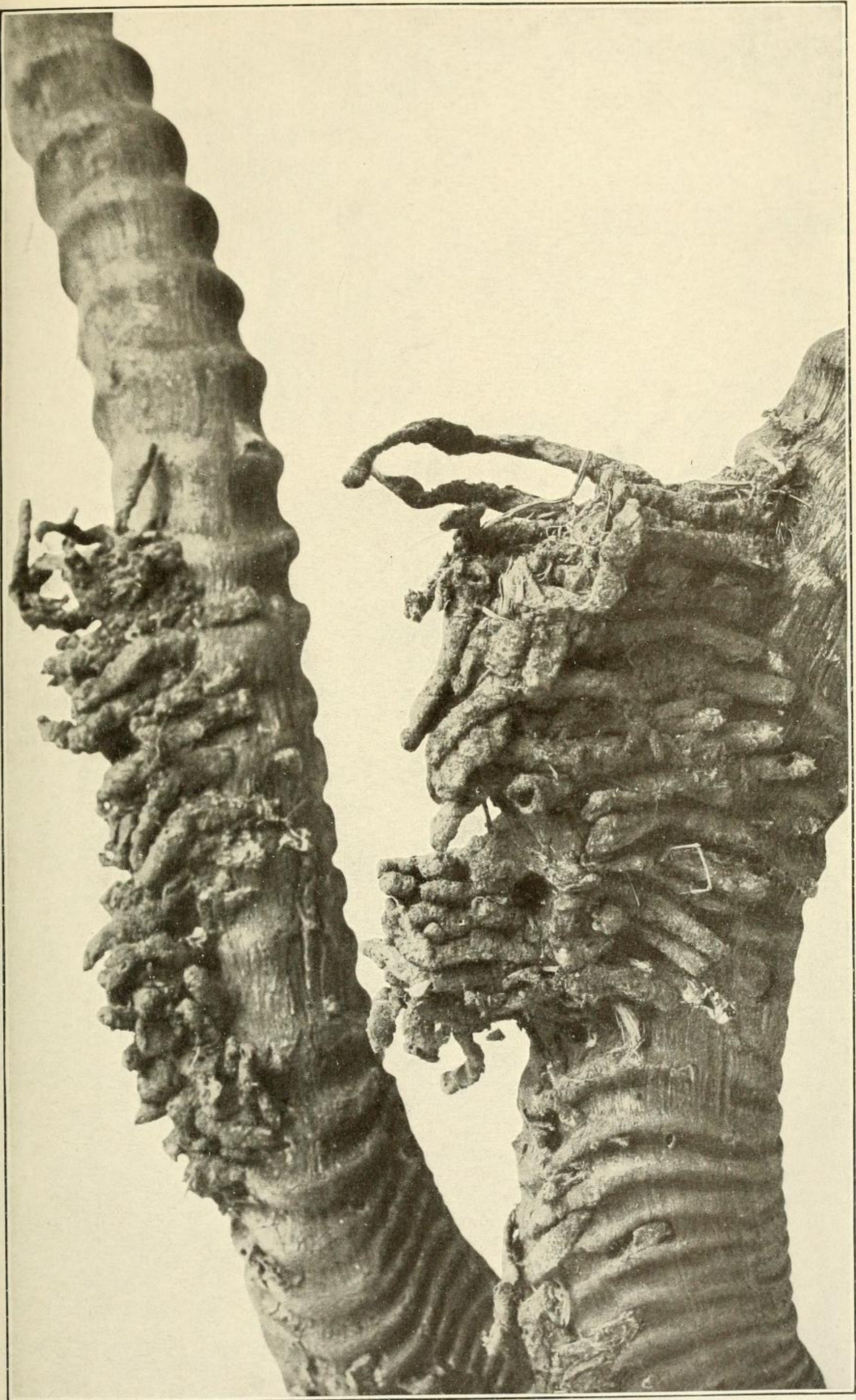
Lord Walsingham has given a review of the subject (Proc. Ent. Soc., London, 1881, pp. 238-241) but no figure has been given of this infesta-

tion except the rather primitive sketch accompanying the account of Mr. N. H. Corquodale on the infested horns of a hartebeest in *Nature*, Vol. 58, 1898, p. 140. This sketch differs in some particulars from the present specimens; it figures the larvæ tubes as single and coming from all parts and sides of the horns, while in the present specimen they are more or less bunched and matted together, though a few single tubes were found; more important than this, the present specimens were confined to the side of the horn, which had evidently been toward the ground, and besides particles of the horn they had incorporated in them a good proportion of earth. The explanation of this may be that Mr. Corquodale's horns have become infested while or just before they were boxed for shipment and that the larvæ constructed their tubes in different directions, due to the varying position of the box, which was no doubt frequently changed during transit.

While the present cases presumably are the work of *Tinea vastella* Zellar, which seems to be common everywhere in Africa, and which is credited with all the recorded infestations from Africa, it should be remembered that other species of the genus have similar habits, and that more than one species may be involved. Stainton described one species, *Tinea orientalis*, bred from horns in Singapore, and the writer has seen similar work in horns of domestic cattle lying on the ground at Fajardo, Porto Rico; in fact the habit is parallel with and very similar to those of the common tubemaking cloth moth *Tinea pellionella* Linné.



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