the accompanying sketch correcting that formerly given, in which the lines marked in longer dashes give the conjectural course of the veins where they are not determinable, and the lines marked with shorter dashes the portions where faint indications on the stone render the determination somewhat more probable. This view is based on the complete change between the course of the nervules attached apically to the uppermost branching vein, and those below it, by which they are separated into two sets, intensified no doubt by the accident which has caused them to overlap where they are nearest together, but even in other respects very distinct.

On this basis we must make a very different interpretation of the entire neuration. The scapular vein must be looked upon as a simple unbranched vein; the vein terminating at the tip, with the more oblique branches confined to the apical fourth of the wing, as the externomedian vein; the branches below this, as far as but not including what I formerly considered the externomedian vein, as branches of the internomedian vein; and the remainder of the nervules impinging on the lower margin, and more closely connected than the others by cross-veins, as branches of the anal vein.

Thus interpreted, the wing falls into a group of paleozoic insects which was perhaps the most numerously represented of all the old neuropterous types in carboniferous times, a group which is separated from all others by the complete independence of the mediastinal, and the lack of any inferior branches of the scapular vein,—a group to which the name of Homothetidae, with this complete alteration of the features by which it was at first characterized, may be applied.

As the lack of inferior branches to the scapular vein is an attribute at the present day of nearly all Pseudoneuropterous wings, and as it occurs in no true Neuroptera whatever, or certainly only in very exceptional instances, we find in Homothetus characters borrowed from prominent features of two great divisions of insects.

As stated above, Dr. Hagen suggested that the "areulus" could be explained by supposing it to indicate the point where, in the front wings of Corydalis, the horny basal part is separated from the membranous portion by a softer integument. This explanation would hardly be tenable on account of the distance in this case of the "areulus" from the base of the wing, but the facts given above show that the explanation is unnecessary.

Xenoneura antiquorum.

A re-examination of both fragments of this wing in the light of Dr. Hagen's statements shows my figure to be correct in every point wherein it has been criticized, except in the wholly insignificant matter of omitting to give with sufficient distinctness what Dr. Hagen has compared to the "recurrent vein" of Hemerobidae. On the other hand, Dr. Hagen is incorrect in every statement of fact where his statement controverts mine. He has had the misfortune to publish his statements after an examination of only the more incomplete and less distinct of the two halves of the fossil. He complains that "the whole wing is shown by numerous parallel and very close longitudinal lines to have been placed beneath or above some part of a plant; on account of these lines some parts of the venation are less distinguishable." In the better St. John specimen these lines do not in the slightest degree interfere with the neuration or its determination, but in at least two specific cases these lines on the Boston specimen have led Dr. Hagen into error.