

on the other hand from the present position of the plane to calculate its original dip.

1st. Find by problem 1 the dip of the plane in the direction (*a*) of the secondary tilt and (*b*) of its strike.

2nd. Add or subtract (as the case may require) to or from (*a*) the amount of the secondary tilt (*n*).

3rd. From $a \pm n$ and *b* (two apparent angles) find the full dip and its direction by Problem 2.

Example.—A plane dips N. at 50° , and is subsequently tilted 49° to W. 30° S. Find its final position. Its original dip to W. 30° S. by Prob. 1, is by diagram $-30\frac{3}{4}^\circ$, by logarithms $-30^\circ 47'$ (being that amount to E. 30° N.) and to N. 30° W., $45\frac{3}{4}^\circ$ (logs. $45^\circ 54'$).

After the secondary tilt the dips are W. 30° S. $18\frac{1}{4}^\circ$ ($49-30\frac{3}{4}$) and N. 30° W. $45\frac{3}{4}^\circ$.

The resultant position being 47° to W. 42° N. or by logs. $47^\circ 17'$ to W. $42^\circ 19'$ N.

W. H. DALTON, H.M. Geol. Survey.

LABYRINTHODONTS OF THE COAL-MEASURES.

SIR,—At the last meeting of the British Association, in August, 1872, the following resolution was adopted:

“That Professor Phillips, Professor Harkness, Mr. Henry Woodward, Mr. James Thomson, and Mr. L. C. Miall be a Committee for the purpose of investigating and reporting upon the Labyrinthodonts of the Coal-measures; and that Mr. L. C. Miall be the Secretary.”

The Committee has entered upon its work, and it is hoped that useful results will be laid before the Association from time to time. It has become clear that the preliminary investigation at least must not be limited to British Carboniferous Labyrinthodonts, but must include the Triassic genera as well as the Carboniferous examples discovered in other countries. The successful prosecution of the inquiry is therefore found to depend in part upon the assistance which can be rendered by geologists resident in different parts of the world.

I am instructed by the Committee to inquire whether you can aid us in any way. Casts and photographs of instructive specimens, drawings, if practicable, of full size, and measurements of such parts as can be clearly identified, would be specially valuable. The Committee will further be glad to receive any publications bearing on the subject, which may not be readily accessible in England.

PHILOSOPHICAL HALL,
LEEDS, May, 1873.

L. C. MIALL, *Secretary to the Committee.*