

ciation, has made some experiments in the comparatively shallow salt mines of Cheshire which evince an augmentation of 1° in 70 feet from the surface.

But the greatest strength of observation, independent of mineral veins, has been concentrated in the coal districts. Mr. Bald, Mr. Buddle, and other observers, have long since collected much information in the collieries of the Tyne and Wear; of which, however, we can make only partial use, because the experiments were mostly made on the air, which, for many reasons besides miners' lights and chemical actions, is unlikely to yield accurate ratios, such as are now attainable.

The following are some of Mr. Bald's results, published in the Edinburgh Royal Transactions. The scale is Fahrenheit's.

Whitehaven. — Spring at surface	-	-	49°
480 feet	-	-	60

Ratio from surface, 1° for 44 feet.

Workington. — Spring at surface	-	-	48°
504 feet	-	-	60

Ratio from surface, 1° for 42 feet.

Percy Main Colliery, Northumberland. — Mean			
temperature at surface	-	-	49° *
900 feet depth	-	-	70

Ratio from surface, 1° for 43 feet.

Jarrow colliery. — Surface assumed	-	-	49.5°
Water at 882 feet	-	-	68.0

Ratio from surface, 1° for 48 feet.

Killingworth colliery. — Surface assumed	-	-	48°
Water at 1200 feet depth	-	-	74

Ratio from surface, 1° for 46 feet.

The near accordance of these results is remarkable. The ratios are all in error by a small quantity, because no allowance is made for the depth of variable heat.

* It is really under 48° . — *Author*.