

At the surface (as before)		8°
180 mètres	-	11 $\frac{1}{4}$
260	-	15

as M. Daubuisson had found in 1802.

The ratio deduced is about 1° in 37 mètres in the upper part, and 1° in 22·2 mètres in the lower part.

Again, under the same direction, thermometers placed in gneiss in the mine called *Alte Hoffnung Gottes*, gave

At the surface (as before)		8·00°
72 mètres	-	8·75
170	-	12·80
270	-	15·00
382	-	18·75

From these experiments it is concluded that the augmentation of temperature is 1° in 38 mètres.

In the mines of *Poullaouen* and *Huelgoat*, in Brittany, M. Daubuisson found results which he considered to be partly influenced by local causes. In *Poullaouen*, at 140 fathoms, the augmentation was 3·1° or 1° for 45 mètres. In *Huelgoat*, at 230 mètres, the augmentation was 8·7°, or 1° in 26·4 mètres.

In Cornwall, Mr. Fox's observations, at various periods, yield corresponding results. In a spring *Dolcoath* copper mine, 439 fathoms deep, the temperature was 27·8°, and that of the surface 10°.

In the same mine, 421 fathoms deep, the temperature of the rock of a gallery for 18 months was 24·2°.

Lately (1837) Mr. Fox communicated to the British Association some further observations, made *below the lowest workings*, in the *Levant* tin and copper mine, and the consolidated copper mine. At 230 fathoms from the surface, in the *Levant* mine (in granite), a thermometer, sunk 3 feet below the "sump," stood at 80°; another, sunk only a few inches, was at 78·5°; and the air in the mine 67°. At 190 fathoms, the corresponding indications were 78°, 72·5°, and 67°. The general ratio is 1° Fahr. for 46 feet English; or, allowing 10 fathoms to the invariable temp., 1° in 46 feet.