

To ascertain what one of the new conditions might be, a few experiments were made, of which I give you the result.

Three glass test tubes were used, each holding about an ounce of fluid. When equally filled, they were first placed in a vessel of water until they all showed the same degree, about 64° F. The air ranged at 65°. The three tubes were then exposed to the direct rays of the sun. One tube was filled with a black solution of India ink. Another with a solution of iodine, the color of brandy; the third with a light yellow fluid.

#### FIRST EXPERIMENT.

	INDIA INK.	IODINE.	YELLOW.
After the 1st 5m.....	72	69	68
“ 2nd “ .....	73	70	69
“ 3rd “ .....	74	72	72
“ 4th “ .....	76	74	73

#### SECOND EXPERIMENT.

First tube black, the second blue, from sulph. copper, the third a yellow tinge.

	BLACK.	BLUE.	YELLOW.
5m 1st observation .....	72	69	68
2nd “ .....	74	72	70

#### THIRD EXPERIMENT.

	BLACK.	YELLOW TINGE.	WATER.
1st observation .....	72	70	69
2nd “ .....	75	72	70
25m 3rd “ .....	80	74	72
45 4th “ .....	80	75	74
1.30 5th “ .....	84	76	76

The black tube caused a shadow like any solid substance not transparent, the iodine solution a modified one, and the third still less. In the third experiment, when water was used, the shadow was slight, showing the passage of the light through the tube and water. In the three experiments, the heating of the black liquid was more rapid and decided, and in the third experiment, when one tube contained the ink, the second water, and the third water slightly tinged with the yellow, the black tube showed a decided susceptibility.

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