

EYE WITNESS REPORT OF NUCLEAR EXPLOSION, July 16, 1945. O.R. Frisch.

I watched the explosion from a point said to be about 20 (or 25) miles away and about north of it, together with the members of the coordinating council. Fearing to be dazzled and to be burned by ultra violet rays, I stood with my back to the gadget, and behind the radio truck. I looked at the hills, which were visible in the first faint light of dawn (0530 M.W. Time). Suddenly and without any sound, the hills were bathed in brilliant light, as if somebody had turned the sun on with a switch. It is hard to say whether the light was less or more brilliant than full sunlight, since my eyes were pretty well dark adapted. The hills appeared kind of flat and colorless like a scenery seen by the light of a photographic flash, indicating presumably that the retina was stimulated beyond the point where intensity discrimination is adequate. The light appeared to remain constant for about one or two seconds (probably for the same reason) and then began to diminish rapidly.

After that I turned round and tried to look at the light source but found it still too bright to keep my eyes on it. A few short glances gave me the impression of a small very brilliant core, much smaller in appearance than the sun, surrounded by decreasing and reddening brightness with no definite boundary, but not greater than the sun. After some seconds I could ~~my~~ keep my eye on the thing and it now looked like a pretty perfect red ball, about as big as the sun, and connected to the ground by a short grey stem. The ball rose slowly, lengthening its stem and getting gradually darker and slightly larger. A structure of darker and lighter irregularities became visible, making the ball look somewhat like a raspberry. Then its motion slowed down and it flattened out, but still remained connected to the ground by its stem, looking more than ever like the trunk of an elephant. Then a hump grew out of its top surface and a second mushroom grew out of the top of the first one, slowly penetrating the highest cloud layers. As the red glow died out it became apparent that the whole structure, in particular the top mushroom, was surrounded by a purplish blue glow. A minute or so later the whole top mushroom appeared to glow feebly in this colour, but this was no longer easy to see, in the increasing light of dawn.

A very striking phenomenon was the sudden appearance of a white patch on the underside of the cloud layer just above the explosion. The patch spread very rapidly, like a pool of spilt milk, and a second or two later, a similar patch appeared and spread on another cloud layer high up. They marked no doubt the impact of the blast wave on the cloud layers. They appeared, I believe, before the red ball had started to flatten out.

When I thought it was soon time for the blast wave to arrive, I sat on the ground, still facing the explosion, and put my fingers in my ears. Despite that, the report was quite respectable and was followed by a long rumbling, not quite like thunder but more regular, like huge noisy waggon's running around in the hills.