

## The Blast

Jack Payne

I WAS AN eye witness to an atomic blast. My experience on that infamous day at Yucca Flats, Nevada, has been etched in my memory, perhaps because I was one of a select group of mortals to be so close to a weapon so powerful and awesome that it ended a World War, and, even today, acts as a major deterrent to another major world conflict.

The Marines in my unit, Test Unit No. 1, had been indoctrinated and rehearsed for this eventful day. We had received many hours of instruction and, no doubt, a great deal of this preparation was directed at dispelling the fears and apprehensions our "guinea-pig" group was to face. We were told of the shock wave, a force so violent that it would shake the ground like a strong earthquake. Much emphasis was placed on the tremendous brilliance of the initial light from the bomb blast, a light so intense that to look at it with the naked eye might result in permanent blindness. The effects of radiation on the body left me limp. Radiation, it was explained, could enter the body, and over a period of years, like the process of erosion, wear away various organs within the body. Its effect could also be seen in any future generations that might be produced. Radiation could so deform a baby that it might resemble some creature from another planet, or some prehistoric monster. Not one small effect of the bomb eluded our instruction.

I must admit that after a period of time, all this talk of blindness, shock waves and radiation left me with a dismal, pensive outlook of the eventful day.

March 14, 1955, came all too quickly. The weather was chilly. The gray dawn over us was like a huge blanket. Suddenly, the rays of the sun spread over the hills surrounding Yucca Flats. As we sat huddled in our foxholes, many of us wondered what the next few minutes would hold for us. It seemed as if each minute were an hour long. Somewhere in the distance, a resonant voice came over the loudspeaker: five, four, three, two, one, then suddenly—the blast! The ground beneath us rumbled and shook; I glanced quickly upward to see what had happened to the massive steel tower which had housed the bomb in its vast framework. Only a few minutes before, it had stood proud and erect on the sands of the desert; now it was a twisted, tangled mass of steel, not even a third as high as it had been before the bomb was detonated.

The destruction caused by the blast was unbelievable; the devastation exceeded my wildest imagination. Everywhere I looked I saw the same desolate picture, with debris scattered around the bleak desert. The various objects that had been placed in the test area were gone or twisted so badly that it was hard to recall what that particular object had been before the blast. The tanks that had been

placed in the area had been thrown into the air as if they were toys. The model houses were in shambles, their roof tops scattered over the entire region. Glass and other debris was thick in the heavy dust created by the tremendous blast.

Although deadly, the gases from the bomb caused the most beautiful sight I have ever seen in my life. The sky was aglow with every imaginable color: purple, orange, red, yellow, blue, green, and many other shades of these colors. The multi-colored sky reminded me of an abstract mural, alive with color, yet strangely distorted.

As I look back on that beautiful yet frightful day in 1955, I am filled with a humble appreciation of our modern scientists. They have created a paradoxical type of weapon that is at the same time a temptation and a deterrent to war.

## The Supreme Value of Knowledge

Frances Farnam

“THE supreme value of knowledge lies, not in the thrill which its discovery gives to the small band of experts, nor even in its practical usefulness, but in the enlargement and ennoblement of the human mind in general of which it is the cause.” This statement, made by W. T. Stace in his essay, “The Snobbishness of the Learned,” reveals a certain truth now becoming evident in the rapidly advancing world of today, a truth in which I firmly believe.

Knowledge in itself is familiarity gained by actual experience; hence, knowledge is the practical skill or perception of truth. The knowledge, for example, of the complicated process of trial and error in experimentation which resulted in the development of penicillin as a vaccine, is the primary value of a person's awareness of the substance. It is clearly evident that the scientists who perfected the highly beneficial antibiotic received a great deal of personal satisfaction from the knowledge that they had contributed immeasurably to the advancement of civilization. But is this thrill and satisfaction the end of, or is it the means for gaining the supreme evaluation of knowledge? So often, in our absorption in mastering the means, we lose track of the end which was our goal at the start.

The practical usefulness of penicillin, as an antibiotic drug which is a powerful bacterial destroyer of streptococci and meningococci, is definitely an indisputable benefit to the world in general. Its power for destruction of those bacteria which seek to incapacitate and ruin millions of persons each year is of utmost importance in science today.

Yet the researcher's and scientist's thrill and personal satisfaction, and the practical usefulness as a means of destruction of detrimental bacteria do not constitute the paramount measure of knowledge. Knowledge is valuable to man when his knowledge is applied to the comprehension of modern technology, his realization of the economic and social impact on society as a whole, and in strengthening his hu-