

The Two Uses of Atomic Energy

What was aimed at in the combined efforts of the scientists was the development of methods for the release of atomic energy, either to produce an explosion, or as a source of power. The immediate purpose of the construction of large-scale production plants, and the work of the Combined Policy Committee, was the use of atomic energy for military purposes.

It is now known that the release of atomic energy can be effected so rapidly that a few pounds of "active material" will produce an explosion equivalent to that of the setting off of several thousands of tons of TNT. On the other hand, the energy released can, it is believed, be so controlled as to produce a steady flow of heat obtainable at a temperature high enough to operate steam-driven electrical generating plants. One ton of "active material" used in this way would generate as much power as about three million tons of coal.

In a passage which will carry its appeal to every human heart, Mr. Churchill has vividly expressed the sentiments to which these amazing facts give rise:

"This revelation of the secrets of nature long mercifully withheld from man should," he said, "arouse the most solemn reflections in the mind and conscience of every being capable of comprehension. We must indeed pray that these awful agencies