

A Science Service Feature

Released upon receipt  
but intended for use  
February 4, 1932

? WHY THE WEATHER ?

Mailed January 28, 1932

By Charles Fitzhugh Talman,  
Authority on Meteorology.

ARTIFICIAL SUNSHINE

At Fitchburg, Mass., a large factory is now in course of construction. It is not to be one of those "daylight" factories of which so much has been heard in recent years, with walls consisting almost entirely of glass. Neither is it to be provided with windows in which ordinary glass is replaced by some material transparent to whatever ultraviolet radiation of solar origin is able, before getting to the windows, to penetrate the veil of atmospheric gases and dust surrounding the earth. It is to be a windowless building, lighted by artificial sunshine. There will be 680 lighting units, each of which is to be a combination of mercury-vapor lamp and standard incandescent lamp. The mercury-vapor lamp will be a U-shaped tube, between the parallel arms of which there will be a row of four 75-watt incandescent lamps. The output of such units closely approximates daylight in color and provides ultra-violet rays roughly equal in intensity to those found in the natural sunshine of May in New England. The air in the building will be filtered, conditioned and artificially circulated.

Assuming that artificial sunshine is as good as its promoters claim -- and if it is not, it eventually will be -- its advantages over natural sunshine speak for themselves. Its intensity and quality can be controlled. They are independent of variations in the height of the sun and the state of the weather. The light can be distributed evenly through a building. Last but not least, artificial sunshine does not cease with the coming of night, unless somebody turns it off.

(All rights reserved by Science Service, Inc.)

-----  
SCIENCE SERVICE  
21st and Constitution Ave.  
Washington, D. C.