

A Science Service Feature

Released upon receipt
but intended for use
May 6, 1933

? WHY THE WEATHER ? Mailed April 29, 1933

By Charles Fitzhugh Talman,
Authority on Meteorology.

DEADLY FOGS

There have been several outbreaks of so-called "fog asthma" during the prevalence of dense fogs in the Meuse valley, in Belgium. The latest and most remarkable occurred early in December, 1930, when hundreds of people became ill and 63 died. This case was investigated by a scientific commission, which made a report to the Belgian Academy of Medicine. The facts may be summarized as follows:

For more than three days there prevailed in a confined and highly industrialized portion of the Meuse valley, extending for about 12 miles above Liège, a very dense fog drifted by a light wind from the northeast, in which direction the valley trends. Both the natural fog and the chimney products with which it was charged were kept concentrated on the valley floor by what is known as a "temperature inversion"; i.e., warmer air overlying intensely cold surface air. But the critical factor in an unusual combination of factors was shown to be that the fog was charged with sulphurous and sulphuric acid to a degree of concentration that proved fatal because it lasted for more than a few hours, though a much greater concentration might have been borne for half an hour without fatal results.

The real mystery about this occurrence and those of earlier date in the same region is that they have never, so far as known, been paralleled in other parts of the world. According to a French authority, Prof. A. Allix, one place where a death-dealing fog may, sooner or later, occur is the city of Lyons, which is notorious for dense fogs. As to the possibility of a "poison" fog in London, a writer in the Geographical Journal says:

"We think that such a contingency is much less likely in London, partly because the Thames valley is far more open, partly because London fogs have largely lost the choking pungent flavor so noticeable in Victorian days, and partly because the more unstable meteorological conditions in England are less favorable to persistent fogs of this type for days together than on the Continent."

(All rights reserved by Science Service, Inc.)

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