

Smoke Appears Cause Of 1780 "Dark Period" In U.S.

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From Mrs. V. L. I. of Salem,
Oregon, comes this query: "What
is the explanation of the sun and
moon's being darkened over
New England, May 19, 1780?
Was it due to smoke, or how is
it accounted for by modern up-
to-date astronomers?"

There are authentic records of
about 20 dark days in America,
several of which were discussed
briefly in this column last Sep-
tember. With scarcely any
repetition the present article
deals solely with the event of
1780. A publication in 1785 by
one who experienced this gloomy
day, Dr. Samuel Williams, pro-
fessor of natural philosophy at
Harvard university, gives us
this information:
During the previous three
weeks uncommonly large fires
had raged in the woods of New
England. The winds had been
small and variable, so the
smoke instead of dispersing had
been rising and collecting until
the atmosphere was charged
with an unusual quantity. For
several days the sun and moon
had appeared remarkably red
and devoid of light.

On May 19, extraordinary
darkness was noticeable around
10 a. m. "It appeared first in
the southwest and came on with
the clouds. In most places it
was too dark to read common
print. We dined by candle light.
The clouds were faint red, yel-
low and brown. Thunder was
heard at most places. Rainfall
brought down black ashes of
burned leaves. The clouds
seemed to form a number of
layers." He reminded his read-
ers of three other dark days
earlier that century.
Dr. Williams thought it a na-

tural phenomenon of combined
smoke and dense layers of cloud.
He discussed at length the re-
fractive and reflective properties
which prevented sunlight from getting
through to the earth. He con-
cluded: "In this way we may
account for all the phenomena
observed May 19, 1780."

From many other accounts we
learn that by 1:30 p. m. it was
getting lighter and by 3 p. m.
"natural day revisited the land."
"In the evening the clouds came
over us again," and the night
was intensely dark despite a full
moon.

Dr. Samuel Tenny, a physi-
cian, wrote: "The darkness was
most intense in Essex county,
Mass., lower New Hampshire,
and Maine. It was not so dark
in Rhode Island and Connecti-

cut; and in New York still less.
In New Jersey it was not un-
commonly dark. Previous to
the phenomenon the sky was
overcast with common clouds.
Between these and the earth an-
other stratum intervened to ap-
pearance of great thickness. As
this advanced, the darkness pro-
gressed. The sunlight which
got through the top stratum was
so weakened that it could not
penetrate the thick lower layer."

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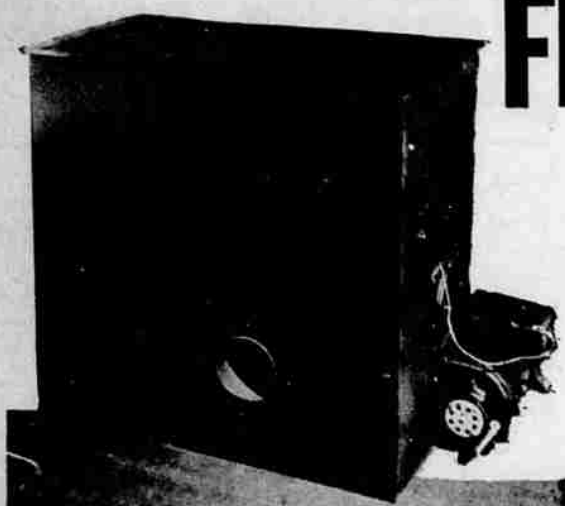
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