Oct. 3.

## A Science Service Feature

? WHY THE WEATHER ?

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## CHIMNEY DRAUGHTS AND THE YEATHER

When cool autumn nights make open fires pleasant in the evening, everyone Wants a chimney with a good draught. Even when properly constructed a good chimney may misbehave under certain weather conditions, the fire on the hearth will refuse to burn brightly or will send clouds of smoke into the room. To have a good draught a chimney must be higher than the roof tops near by, to avoid descending winds coming over them. Occasionally, these down-gusts are unavoidable, as when strong northwest winds fall on us with their heavy cold air. An open chimney across which the wind blows horizontally should five good suction, but it allows rain to enter. If the chimney has a cover, it should be open on all sides below, else wind from certain directions is likely to blow down the chimney instead of across the top.

If the chimney is warm and the outer air cold, temperature conditions are right for a strong convective draught that will carry the smoke upward. With a cold chimney and warm, moist air outside, however, the situation is reversed and the chimney will not work when the fire is first started, and later will "draw" poorly. Periods of falling temperature outside lead to improving draughts, while those of rising temperature bring worse ones. This is fortunate in the colder months, for the weather changes tend to regulate our fires in the right direction.

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