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? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University,
says:

SUMMER HEAT WARMS WINTER CELLARS

Down in the ground at a depth of from 30 to 50 feet it is a little warmer in midwinter than in midsummer. In fact, the highest temperature in the small annual range there comes at the same time that the lowest temperature occurs at the surface. The ground is a very poor conductor of heat, and for that reason the daily variation of atmospheric temperature does not penetrate to a greater depth than two or three feet, and requires hours to reach even that shallow depth with its feeble effect on the temperature. Similarly, the heat of summer gradually extends its influence downward, though ever to a weaker and weaker degree, just as heat applied to one end of an iron bar eventually works its way to the other end. In the case of iron, however, the transfer is far more rapid and more effective than in the ground. So poor is the transfer of heat there that seasonal changes rarely extend beyond a depth of 50 feet, and to accomplish this requires six months, or from midsummer, when the temperature wave starts down, till midwinter, when its weak remnant arrives.

The effect is felt in subterranean chambers, even in the ordinary house cellar, where the walls are cool in summer, and relatively warm in winter, no great amount of heat escaping through them into the ground. Where winters are cold many householders take advantage of the poor conductivity of loose soil and other material by making embankments against the outside walls of their cellars.

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