

A Science Service Feature

Released on receipt
but intended for use
March 22, 1928

! WHY THE WEATHER ? Mailed March 15, 1928

By Charles Fitzhugh Talman,
Authority on Meteorology

WEATHER AND FURNITURE

Certain effects of weather on furniture have been studied by the U.S. Forest Service. It has been found that no matter what kind of wood is used, how well it is seasoned, machined and put together, or how carefully it is finished with filler, stains or varnish, the wood takes on and gives off moisture with variations in atmospheric humidity, and shrinks or swells accordingly. This is a matter of practical importance, as there is a wide range of humidity in American houses, especially between summer and winter.

In summer, when indoor and outdoor conditions are the same, the relative humidity may be anything up to 100 per cent. and varies greatly in the course of each day. Taking, however, 75 per cent. as a typical value and assuming a temperature of 70 degrees, we learn that in such an atmosphere furniture may hold 15 per cent. of its dry weight of moisture. With the same temperature and a relative humidity of 10 per cent. (an extreme condition indoors in winter), the moisture content of the wood is only about 3 per cent.

Paint, varnish and enamel do not affect the moisture content in the long run, but they do check absorption and evaporation and thus are useful in preventing sudden swellings and shrinkings, which may easily cause damage. The under as well as the upper surface of a table top, for example, should be varnished, so that the lower surface will not absorb moisture faster than the upper and thus swell more rapidly, producing a "dished" effect, with the edges higher than the center.

(All rights reserved by Science Service, Inc.)

SCIENCE SERVICE,
21st and B Sts.,
Washington, D.C.