



VALUED

In the fields of sport and entertainment, human legs are recognized important assets—not just taken for granted as they are in everyday life.

orientation of our head bones, we could grow a brain able to answer the endless questions shot at it by our endlessly "monkeying" hands.

There are a whole lot of things we have to thank to our legs.

This article was edited from manuscript prepared by Science Service for use in illustrated newspaper magazines. Copyright, 1936, by EveryWeek Magazine and Science Service.

Science News Letter, February 22, 1936

CHEMISTRY

Fireproof Wood Approved By Fire Underwriters

FIREPROOF lumber—dream of man since the ancients suggested soaking timber in vinegar to prevent burning—is at last a reality.

The laboratories of the National Board of Fire Underwriters in Chicago have placed their seal of approval on chemically treated red oak and maple, which cannot be burned in a practical sense and is an obstacle to the spread of fire instead of path for its travel.

"Practically noncombustible and non-flammable" is the verdict of the laboratory after months of testing in real fires and under rigidly controlled conditions.

Walls and floors of the fireproof wood act as fire-stops, prevent the passage of fire and confine a conflagration to its point of origin.

The approval report also notes that the fireproofing properties last throughout the life of the timber.

The successful fireproofing is effected by a method not unlike that used in the treatment of telegraph poles, railroad ties, fence posts, etc., with creosote for protection against decay, except that incombustible salts are used in the case of the fireproofed lumber. The technique of the process is exacting, as its success depends largely upon getting just the correct amount of salts into the wood as a greater or lesser amount fails to give the desired results. Protexol Corporation of Kenilworth, N. J., is the manufacturer.

Properties of the fireproof lumber other than its fire-resisting qualities were also investigated. Its workability was found to be equal in every way to that of untreated lumber. Its ability to take paint and varnish is not altered, its appearance is unchanged and its weight is only slightly greater than that of untreated material.

In the tests conducted at Underwriters' Laboratories actual fire conditions were created. Whole floors of the fireproofed lumber, and others of untreated lumber, were subjected to a roaring inferno in gas-fired furnaces especially designed for such work. Through windows the behavior under fire of the fireproofed and the untreated floors was observed and compared by one group of engineers, while a hundred feet away other engineers recorded the temperatures of the floors by means of meters connected with thermocouples.

The fireproofed floors came from the furnace at the completion of the tests blackened and charred on the exposed surface but intact and otherwise sound, having successfully stood as a barrier against the fire.

Test floors were repeatedly washed to determine the lasting quality of the fireproofing. For thirty days an automatic machine scrubbed them with cleaning compound, flushed with clear water and dried the surface every thirty minutes.

Science News Letter, February 22, 1936

● RADIO ●

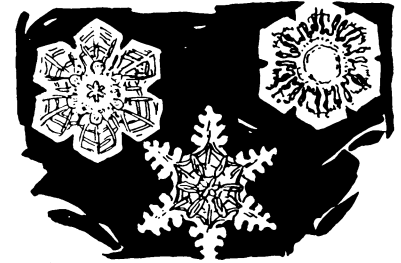
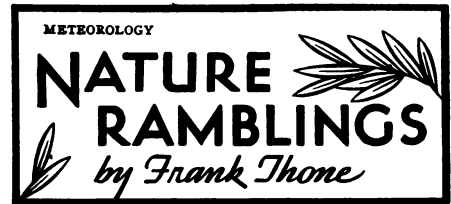
February 25, 3:15 p. m., E.S.T.

WEATHER — WHETHER OR NO —
Dr. W. J. Humphreys of the United States Weather Bureau.

March 3, 3:15 p. m., E.S.T.

PLANT GROWTH SECRETS — Dr. P. W. Zimmerman of the Boyce Thompson Institute for Plant Research, Inc., Yonkers, N. Y.

In the Science Service series of radio discussions led by Watson Davis, Director, over the Columbia Broadcasting System.



Miracles of Unlikeness

See Front Cover

SNOW has fallen over wide reaches of our country; deeper than it has lain for years it now lies from Washington to Maine, from the Canadian border to the Ohio. A cold wave of record-breaking length and intensity brought it and piled it up, and continued cold kept it from melting away. Lighter than feathers by the handful, in the aggregate it totals a tonnage that can be expressed only in figures of astronomical magnitude.

And if the total number of tons of snow is almost beyond calculating, what shall be said of the total number of flakes? Each so tiny that it can just be seen with the naked eye, so light that its weight will hardly disturb the most delicate of scientific balances, the numbers of these tiny white bits of frozen water, even on a square mile or an acre, let alone more than half a continent, simply baffling any attempt at imagining.

Yet it is highly probable that each separate flake that has fallen all winter, or in all past winters since the world has known snow at all, has been absolutely unique, wholly without an exact twin anywhere or at any time.

It is not possible, to be sure, to make a categorical denial that any two snowflakes ever have been alike. That would mean that one would have to take every snowflake that has ever fallen and compare it with every other snowflake—a feat impossible to the limits of absurdity.

But it is possible to assert, with the records all in your support, that nobody ever found a snowflake exactly like any