

PHYSICS

Houses Protected Against Winter by Cellulose Film

Transparent Covering May Be Applied Over Windows, Storm Sash, or Specially Built Frames; Cost is Low

CELLULOSE film wrappers, that now protect packs of cigarettes and nickel candy bars, will presently be fortifying whole houses against winter cold, if the method developed by the Yankee ingenuity of Prof. R. H. Wallace of Connecticut State College works out as well as it seems to promise.

Not that the whole house will be wrapped in the transparent sheets. That isn't necessary. But windows, outside cellar doors, and other warmth-wasting openings, Prof. Wallace has found, can be effectively insulated against the cold with cellulose film.

The film is useful even where storm sash is already used. One very effective trick is to put sheets of it on both sides of the sash, sealing the whole frame into a sort of envelope by means of a hot flatiron run along the overlapping edges. Common window screens can be treated in the same way. Or the sheeting can be mounted on specially made, lightweight frames.

The method is especially valuable for greenhouses, Prof. Wallace states. He is a plant physiologist himself, and has a small conservatory built as a leanto against one wing of his house. Cellulose covering as an auxiliary to the glass saves him a substantial sum in reduced heating costs, he reports.

As a striking demonstration of the heat-saving effects achieved by his method, Prof. Wallace placed a series of thermometers by one of his windows that was protected both inside and out with cellulose film. One cold winter morning he took a photograph that showed all four instruments.

The outside thermometer, fully exposed to the weather, showed a reading of 12 degrees Fahrenheit. The next thermometer, between the outer film and the glass, read 24 degrees. The third, between the glass and the inner film, stood at 47 degrees, and the fourth, within the room and back of the protection of two cellulose films and one sheet of glass, told that room temperature at that point was 59 degrees.

Prof. Wallace has experimented with

a number of different makes of cellulose film, and states that the most satisfactory is the cellulose-acetate type in a somewhat heavier weight than is used for ordinary small-package wrapping purposes.

Cellulose film insulation for houses can be held to quite moderate costs. By interesting a number of his neighbors in a cooperative purchase last year, the Connecticut scientist found it possible to give protection to all windows of 30 ordinary-sized houses at a cost of about 15 cents per window.

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SOCIOLOGY

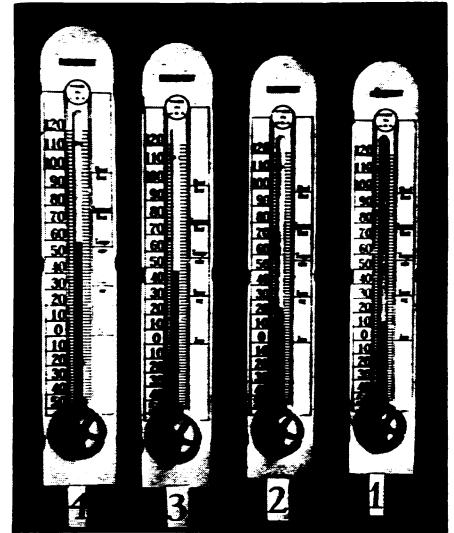
Unemployed College Youth In Vanguard of Revolution

THE professions and the ranks of college graduates do not constitute that sector of civilization toward which one would be likely to look for the beginnings of a revolution.

Yet educated youth in the vanguard of revolution is not a surprising possibility in view of facts resulting from a world-wide survey of unemployment in the learned professions made by Dr. Walter M. Kotschnig, who has worked widely with student problems on an international basis.

Unemployment or under-employment of young college and university graduates may well have far-reaching repercussions even though the present crisis seems in many localities only temporary. Dr. Kotschnig observes: "Where the overcrowding of the professions leads to a prolonged unemployment of successive generations of graduates, it may become a formidable threat to the very existence of an ordered society."

Thousands of parents have saved and slaved a lifetime to give their children an education, only to see them in the end unemployed, very often broken in body and in spirit. To these fathers and



THERMOMETERS TELL

These four temperature readings, taken simultaneously within a few inches, bring out graphically the gains made by adding cellulose-film protection to a window.

mothers Dr. Kotschnig dedicated the book (Oxford University Press) that reported his findings. He found promising young men and women, loaded with degrees and certificates, to whom society denies the opportunity to put to any use their gifts and their knowledge.

Dr. Kotschnig in his inquiring travels in European countries found graduates of two or three or four years ago, dejected, with blank hopelessness in their eyes. They had paid call after call, written letter after letter, all to no avail.

Then came the reaction. The old order was rotten, it must be destroyed. A new order must be created in which there would be room for educated youth to work and achieve position and happiness. In Germany and other disturbed nations unemployed professional men and women played important parts in revolutions.

Less dangerous is the situation in the U. S. A. There are, in Dr. Kotschnig's opinion, still wide occupational fields to be conquered, even in professions that now seem to be crowded. He urges a nation-wide search for new needs for professional services.

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