

"Sun Boiler" Is Employed for Cooling and Heating

Scientist Sees Great Possibilities in Device.

Cleveland, Ohio .- Dr. Charles G. Abbot, secretary of the Smithson-ian Institution in Washington and one of America's foremost "scholars of the sun," revealed here, in connection with a demonstration of his "sun boiler" that he believes the sun can be made to cool in summer and warm in winter.

Reversal of the sun's normal effect involves harnessing the heat given off by the sun on clear days, Dr. Abbot said. He believes the "sun boiler" can do the effect-reversing trick.

It is a simple apparatus, consisting of a concave mirror that catches the sun's rays and casts the heat onto a tube of water. Concentrated by the special metallic reflector, the heat raises the temperature of the water and turns it into steam.

At the demonstration, Dr. Abbot's "sun boiler" was able to develop a steam pressure of thirty-five pounds to the square inch by using the con-centrated heat from eight electric lamps.

Many Adaptations.

"There can be many adaptations from the boiler," Dr. Abbot said.

SMART FALL OUTFIT



The simple sports dress is of dark oxford gray wool with kick pleats worn red, and black plaid, which features

"It can be used to run a steam engine to develop electric power, to pump water for irrigation purposes, to distill water in places where it is brackish or to serve as a source of power on the farm. But it may be used directly to heat or cool a dwelling."

A current of air passing through the boiler tube may be sent into a sand silo where the heat may be collected and stored for periods of nearly a month, according to Dr. Abbot.

The sand silo, now a subject for serious research, is an insulated chamber shaped like an ordinary silo, but containing sand, stone and a glass wall. The heat from the silo may be released gradually into the home when it is needed, Dr. Abbot said.

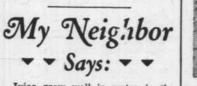
"On the other hand," Dr. Abbot pointed out, "the principle of re-frigeration such as applied in gasrning refrigerators may be used for cooling. The heat from the sun's rays would take the place of the gas burner.

Simpler as a Cooler.

"Use of the 'sun boiler' for cooling during the summer would be more practical, of course, than its use for heating in the winter. You would naturally have more sunlight in the summer, or in the tropics, where refrigeration is most needed."

A "sun boiler" with a mirror fifteen feet long and twelve feet wide would develop two to three horsepower, Dr. Abbot said. A sun power plant spread over a square mile of barren and heat-baked land would generate 70,000 horsepower.

Dr. Abbot said his "sun boiler," with a few modifications of its present design, could be placed in production.



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their resources, we question the cre-ativeness of that decorator. After

all the art of it is ideas . . . it's

not so clever to be able to make a

room look like a million if a million has been spent on it. But it is clever to make it look like a mil-

lion when it's cost a small penny. Another interior decorator who's

Tousehold Hints PUBLIC **OPINION** LEONARD A. BARRETT

By

A recent radio address was without precedent. An associate justice of the Supreme court felt convinced that it was the better part of wisdom to address the public over a general radio hook-up. In country listened with deep inter-est to what Jus-

tice Hugo L. Black had to say. It is not the purpose of this ar-ticle to discuss the merits of the issue upon which the associate justice spoke, but rather to emphasize the power of public opinion. Never before in the history of the Supreme

SAFETY FOR CARVER



. . .

W E SAW a high and mighty in-terior decorator put his nose up in the air over the desires of an VV terior decorator put his nose up in the air over the desires of an engaged pair seeking his advice on ever, there are some new rugs on the market that we're terribly exheir new home. With "only" \$3,000 to spend, said he, he just didn't see how they could expect to do any-thing very interesting. Well, well, we replied, but that's quite a lot for a young couple to have in cash to put into their house of home. And if knowledge and an cited about . . . in fact there's one that we feel we simply must have and are hinting subtly to that effect at our own dinner table these days. These rugs are machine made in America; good velvet in quality. Their names are as nice as their of hope. And if knowledge and exdesigns and colors. "Normandie Quilt" is blonde to

beige in coloring with a design that copies an old Norman bed quilt. Suggested for use with draperies in eggshell and upholsteries in blues and beiges. Perfect with French provincial furniture, of course, but nice with many of the walnut styles. "Flowers and Scroll" is copied

after a Georgian needlepoint design that is deliciously floral. Delightful with Eighteenth or Nineteenth century furniture but could be used with the more dignified maple. A drapery ensembled with this repeats the scroll and flower motif on a perience do not enable a trained decorator to offer usable sug-gestions to people with a limit to smaller scale.

"Regency"-Suggested by an old dark-ground floral needle-point document similar to one that Marie Antoinette worked on. 'Twould be charming with draperies of moire with satin Roman stripes and up-holstery in green coptic cloth (a spun rayon), and in the same fabric as the draperies.

"Antique Kirman"—A copy of a fine old pastel Persian carpet in which grays, blues and beiges pre-dominate. Perfect with Eighteenth century furniture. Draperies of eggshell and peach damask and up holstery in a heavy beige cotton.

C By Betty Wells .- WNU Service

TO HEAD ANNAPOLIS



UNIFORM INTERNATIONAL CUNDAY JCHOOL Lesson By REV. HAROLD L. LUNDQUIST, Dean of the Moody Bible Institute of Chicago. Western Newspaper Union.

IMPROVED

Lesson for November 21 CHRISTIAN WORKERS

LESSON TEXT-I Corinthians 3:10-15; Galatians 6:6-10. GOLDEN TEXT-And let us not be weary in well doing: for in due season we shall reap. if we faint not.-Galatians 6:9. PRIMARY TOPIC-In Our Church. JUNIOR TOPIC-What Can I Do to Help? INTERMEDIATE AND SENIOR TOPIC-What Can I Do for Christ and the Church? YOUNG PEOPLE AND ADULT TOPIC-The Need for Christian Workers.

"Laborers together with God"such is the glorious and distinctive title of true Christians, according to the verse just preceding our as-signed text. Unfortunate is the all too common error of regarding only pastors and missionaries as the workers in God's vineyard. While we recognize that there is a special calling for some men to leave their vocations and devote their entire time to the Lord's work, let us be sure properly to stress the impor-tance of every Christian's being a worker for God.

The portions assigned for our study present the privilege and re-sponsibility of Christians as fellow-workers with Christ, under the figures of builders and of seed sowers. I. Builders of the House (I Cor.

3:10-15).

The first requisite of a building is a foundation and it must be strong and true. Builders for Christ have a sure foundation stone in Him.

1. The Foundation—Jesus Christ. There is only definite assurance in Paul's word concerning the foundation. It is perfectly clear to him that there can be no Christian faith without Jesus Christ. Such a state-ment sounds almost childish. One might well assume that no intelliof God's builders, and reject his foundation stone. But, alas, many are they who claim to be Christians, who profess to be raising a structure of Christian life and testimony, but who have set aside the only possible foundation on which to build. 2. The Master Builder-and his

builders.

Paul was a pioneer. He declares his ambition and calling to be "to preach the gospel not where Christ was named, lest I should build on another man's foundation" (Rom. 10:25). Such a privilege does not come to all men, but let those who thus serve learn of this "wise mas-ter builder" that they may lay only

Four Strands of String Make Rug

A durable scatter rug in cotton -quick to do, inexpensive, sturdy, colorful. It's made of four strands worked together forming a stout "thread." Made in three colors, you can have gay rugs for Winter -rugs that will fit the coloring of



your rooms exactly. Crochet the medallions one at a time, some plain, some figured, and join them for this stunning diamond design. In pattern 5927 you will find complete instructions and charts for making the medallions shown; an illustration of them and of the stitches used; material requirements; a photograph of the medal-

lion; color suggestions. To obtain this pattern, send 15 cents in stamps or coins (coins preferred) to The Sewing Circle, Household Arts Dept., 259 W. Fourteenth St., New York, N. Y. Places write your name ed Please write your name, address and pattern number plainly.

I'M FEELING **FINE THIS** MORNING - FREE FROM THAT THROBBING HEADACHE AND READY FOR A GOOD DAY'S WORK.



a friend of ours takes pride in the bright ideas she can think of that can be worked out with hard work, love, a needle and a tack hammer. Here are some of her suggestions of ways to get "decorator touches" with trimmings. In the Living Room .- A sofa that isn't so much one way or the other

fact, we might say that the address was inter-national in character, for Europe as well as our

