

SUCH IS LIFE—Poor Grampaw!



By CHARLES SUGHROE

Montana Dam Noted for Grandeur of Its Setting

Stores Water From Glaciers, Melting Snows

Red Lodge, Mont.—In the gnarled hinterland of the towering Beartooth mountains man has taken a seven-league step in his age-old feud against drouth, the perennial libertine of crops.

Glacier lake dam, the highest and most isolated structure of its kind in America, located 24 1/2 miles by road and foot trail south of here, has been completed and accepted by the Montana water conservation board.

Built as a supplemental reservoir to supply water to 54,000 acres of rich farm land in Red Lodge valley from Red Lodge to Silesia, Glacier lake dam is notable for the spectacular grandeur of its setting and its extreme isolation.

**Solid Rock Foundation.**

Carved from a rock-ribbed palisade, unfathomed Glacier lake is nourished by everlasting glaciers and melting snows. At an elevation of 9,750 feet the lake is surrounded by peaks from 11,000 to 12,000 feet high.

The dam is a rock-filled project with a maximum height of 52 feet

GASSING 'EM UP



The hands that used to pump them down the alley in the baseball season, now serve Dizzy Dean in getting the "go fluid" down the tanks of cars that pull up at his filling station at Bradenton, Fla., where the Cardinals have established their training camp. The colorful pitcher, it seems, has got wise to himself because he's selling gas in liquid form now, where formerly he dispensed freely of the airy variety.

(5 feet freeboard), with a crest of 730 feet and a top width of ten feet. The upstream slope is 1:1; downstream slope, 1 1/2:1, and foundation and abutments are in solid rock.

The back or downstream part of the dam is composed of rock fill. Most of the rock varied from two to ten cubic feet while being loaded by hand. After the shovel came on the job the rocks averaged one cubic yard in size. Voids were well filled with rock which graded down to three inches.

On the upstream face is a hand-placed rock rubble wall which varies from four to six feet in thickness. The face was grouted. On the grouted face was placed a concrete slab, reinforced with electric welded fabric, varying from six to twelve inches in thickness.

**Tunnel Taps Lake.** Across and beneath the present outlet of the lake a tunnel 6 by 4 1/2 feet wide and 115 feet long was drilled. The tunnel taps the lake about six feet below the normal August level and forms a permanent outlet for the reservoir.

A vertical shaft from the top of the dam into the tunnel provides for the gate. A cutoff trench was excavated 18 inches into solid rock. The dam, costing \$82,731, was built as an auxiliary to the \$450,000 Cooney dam, which is located on Red Lodge creek.

A four-mile approach road was bulldozed, linking a CCC trail leading to the outside world with a point on the rim of Rock creek gorge 4,000 feet from the dam site and about 1,700 feet lower in elevation.

From the end of the haul road to the dam site the world literally stands on end. A cableway about 3,500 feet long was constructed. The shovel used for excavation of the dam was dismantled, transported to and from the site by cable as were the 3 1/2-ton trucks which were used.

Student Invents Machine to Speed Mathematics

Sydney, N. S. W.—A machine that promises to be of great value to the world's scientists and engineers has been invented by a young research physicist at Sydney university.

Simply by tracing curves on a sheet of paper, it reduces to a matter of hours complicated mathematical solutions that by ordinary methods would take perhaps as many weeks.

The machine can be adapted to solve rapidly problems of railway engineering and bridge construction, range tables for heavy artillery, statistical and economic investigations, physics, bacteriology, or electrical research.

It can add up the total of three quantities (numbers) which are continuously varying, so that the total itself keeps changing. By ordinary mathematical methods this might require weeks of tedious labor

STANDARDS OF LIVING

By LEONARD A. BARRETT

One of the problems involved in the recent depression was the maintenance of our American standard of living. Those whose living standards were not affected, suffered very little during the trying years. He suffered most whose reduced income forced a reduction in the annual budget. A cheaper rent meant a less desirable residential section; the dismissal of servants gave rise to a less orderly house and, in some cases, to a very irritating environment. Less expensive raiment meant cheaper material with a depreciated value. In almost every condition of luxury



HE KNOWS CALORIES



Harold Hawes, shown here measuring the ingredients for mashed potatoes, is the only man ever to enroll as a regular student in the school of economics at Purdue university. He is planning to become a dietitian.

curtailment was necessary. Many persons felt that the standard of living was greatly lowered, compared with former times when "our living standards were incomparably better than those of other times and places because we had learned how to build immense factories and transportation systems and to undertake efficient mass production."

What are these so-called standards? Who creates them and by whose authority are they maintained? Do they express luxury or necessity, satisfied needs or unappeased desires? Are they original expressions of culture or standard commodities? Who shall say on which street I shall live or to what social group I shall belong? True, the dictates of society may be responsible for acknowledged standards, but are not the standards which elevate personality the product of a silent monitor residing within that personality? Has not the time arrived when, in order to have a more equitable standard, we may have to shuffle off the superficial from our patterns of living? Who will have the courage to do this? The answer is not difficult if we have a correct appreciation of true aristocracy. We should no longer think of aristocracy as an exclusive "privileged class superior to all other classes," simply because of wealth. Wealth does not necessarily mean culture. "Those may hold who can" has proved itself a vicious philosophy, as the revolutions of history attest.

Real culture is always of the spirit, and may be found wherever the individual is larger in human aspect than he is in accumulation, whether that accumulation be manners or money. Standards of living should express more high thinking and less wasteful living.

How shall we evaluate the present standards and preserve the best? Democracy points to the individual. The question is, what standards make me sensitive to aspirations, sound in thinking, honest and sincere in achieving? Larger economic privileges with increased financial income will not in themselves secure inner culture. That must come from the quality of the spirit of the individual. External stimuli cannot be substituted for human sympathy, simple justice, and

Household Hints

By BETTY WELLS

"MY DINING room has me down," writes Mrs. T. H. B. "Because it looks empty, yet I don't know what to buy for it. I enclose a rough sketch of the floor plan and would certainly appreciate any suggestions you might make. I have table and chairs in early American maple and a plain blue rug. I want to buy some more furniture but can't see where it could be put and I'd like to have the walls papered and will make new curtains, but I'm at a loss as to what would be best."

The trouble, of course, is that her wall spaces are so broken up by windows and doors—there are two sets of double windows on two walls of the room, and the other two walls are broken by the arch into the living room and the door into the kitchen. Our suggestion would be to use a pair of corner cupboards in maple which would give a feeling of being furnished to the room and yet make use of otherwise difficult spaces. Then she could use one small chest or buffet with a picture above it which would make an odd wall seem of more importance than it really is.

As for the walls, we'd like a toile de Jouy type of wall paper with the design in blue on ivory ground. . . . if she could find a chintz of similar pattern and coloring, that would be lovely for the curtains. (Or do as some of the decorators do now—use the toile de Jouy chintz for walls and windows both!) Or just use glass curtains of plain ivory marquisette with the toile patterned wall paper. Add contrast by the use of brilliant pottery on the shelves of the corner cupboards and in the picture over the chest or buffet.

No Whimsy, Please.

She had a lovely new home and a grand young son, aged nine. She said, "Oh, I know I should 'do' his room up brown I really want to, but as yet he's not particularly interested in boats, or circuses or any of those usual motifs that are used for boys' rooms. He's quite serious about most things and I just can't picture him in one of those oh-so-gay boy's rooms you see in pictures. I'm sure he's much more interested in his geography than he would be in a tricky wall paper and whimsical touches."

Of course, the geography was her clue. And she did a splendid job of her young son's room and he loves it. Yet she didn't spend so much that his changing tastes, as he reaches adolescence, won't allow for more extensive alterations later. First she was wise and left the walls in their clean gleaming white plaster state. The woodwork was painted an off-white so that later decorative schemes won't require expensive scraping jobs nor lots of paint to cover. The floor was covered, sensibly, with a gun metal linoleum. An inlay of the four points of the compass was placed in a prominent spot in the floor covering.

beneficent conduct: for these are the outward expressions of the inner heart life.

© Western Newspaper Union.

She chose Jacobean oak for a single bed, chest and desk for her son, claiming that it just seems to suit his personality; strong, quiet and sturdy. For curtains, however, she selected a brightly striped crash material, bright blue, red and orange, with white stripes between and made them up in simple draw style. A blackboard monopolized one wall and large brightly colored maps were placed on other walls—the maps pasted to composition board, shellacked and surrounded with oak-framing. A world globe was an important part of the decorations. A series of book shelves, stained oak, contain toys and books and other objects a small boy collects.

The whole point of the room is that, right now, it's a perfect setting for this travel-minded young man. But none of its travel features are expensive or permanent, so that later when the nine-year-old's tastes and hobbies change, as inevitably they will, changes can be made easily and without too much strain on the purse. The sturdy furniture will always be a good "mixer" no matter where those future interests fall.

© By Betty Wells.—WNU Service.

"THEME SONG" DRESS



The deep yoke-shirring of this little "theme song" dress, extending all the way to the waist, is decidedly "tops" in style for the very young miss, this season. Small puffed sleeves complete the quaint picture. And newer than new is the fabric itself, designed to interpret a familiar song, to the delight of young wearers. "Daisy, Daisy, tell me your answer true" is the song from which this particular design drew inspiration.

First Ladies' Aid Society

The first Ladies' Aid Society in the country was organized in Cleveland during the early days of the Civil war.

President Gets Red Cross Button



President Roosevelt receiving a Red Cross button and membership enrollment card from Faith Young, four-year-old granddaughter of Owen D. Young, The Chief Executive, who is president of the American Red Cross, was the first to join the annual nationwide American Red Cross roll call. In the center is Admiral Cary T. Grayson, chairman of the Red Cross.

Catch Up on Chic



IF YOU'RE a bit behind in the thrilling game of Sew-Your-Own, Milady, why not take advantage of the holiday season and catch up? Today's trio is especially right for "vacation sewing" because it consists of simple practical pieces that require little time and trouble. Make all three and you'll have gone a long way toward putting the old punch back in the game.

Streamlined Styling.

The slip at the left is all you could wish for from the standpoint of styling. It offers superb lines from the moderately low cut V neck, through the dart-fitted waist right down to the very hem. The clever overlapping back is light proof and provides an action pleat so necessary for complete satisfaction. Important, too, is the

fact that you may choose the material you wish in your own color. Better make it in duplicate for many meticulous months ahead.

Pretty in Sheer Wool.

The two-piece in the center is, like the slip, heavy on style. The defined waist is effectively young as is the flowing skirt and little round collar. It is just the frock to give one lots of get-up-and-git for the second semester, or "to break the ice" whenever one is anxious about one's appearance. It can be the height of chic in sheer wool—very pretty in flat crepe.

Modern Home Dress.

When it's home you're thinking of you naturally turn to a frock like the third member of the trio at the right. This button-all-the-way model is different enough to delight you and simple enough to set you sewing at sight. It is cut for comfort but with an ever watchful eye on that elusive little thing called chic. Crisp contrast may be had in the collar and cuffs and in that trim row of buttons that march down the line—and then back again. Look fresh in your version in pretty percale.

The Patterns.

Pattern 1946 is designed for sizes 14 to 20 (32 to 44 bust). Size 16 requires 3 1/2 yards of 39 inch fabric. One yard of ribbon is required for shoulder straps.

Pattern 1404 is designed for sizes 12 to 20 (30 to 38 bust). Size 14 requires 4 1/2 yards of 39 inch material.

Pattern 1390 is designed for sizes 34 to 48. Size 36 requires 4 1/2 yards of 35 inch material. The collar and cuffs in contrast require 1 1/4 yards material.

Send your order to The Sewing Circle Pattern Dept., 247 W. Forty-third street, New York, N. Y. Price of patterns, 15 cents (in coins) each.

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Home Heating Hints

By John Barclay Heating Expert

**Poking Fire Bed From Above Forms Clinkers, Smothers Fire, Wastes Fuel**

WHILE a poker frequently is a handy implement to use on a furnace, let me caution you against using it for the purpose of agitating the fire-bed from above! That results in a lot of trouble for you and for your furnace.

Stirring the fire through the furnace door opening only mixes ashes with the live coals, creat-



ing clinkers. As you know, clinkers choke a fire and prevent the coal from burning freely and completely. Also, they clog the grates, making it difficult to shake the fire properly.

Owing to the odd size and shape of lumps of coal at the point that is poked from above, the fuel-bed becomes packed, and this packing prevents the free passage of air, thus forming clinkers. Clinkers formed this way, however, cause less trouble, for ordinarily they can be broken up and dropped into the ashpit by gently shaking the grates.

Constipated?



What a difference good bowel habits can make! To keep food wastes soft and moving, many doctors recommend Nujol. INSIST ON GENUINE NUJOL.

CHEW LONG BILL NAVY TOBACCO

Are Women Better Shoppers than Men?

GRANTING a woman's reputation for wise buying, let's trace the methods by which she has earned it. Where does she find out about the advantages and details of electrical refrigeration? What tells her how to keep the whole household clean—rugs, floors, bathroom tiling—and have energy left over for golf and parties? How does she learn about new and delicious entrees and desserts that surprise and delight her family? Where does she discover those subtleties of dress and make-up that a man appreciates but never understands?

Why, she reads the advertisements. She is a consistent, thoughtful reader of advertisements, because she has found that she can believe them—and profit thereby. Overlooking the advertisements would be depriving herself of data continuously useful in her job of Purchasing Agent to the Family.

For that matter, watch a wise man buy a car or a suit or an insurance policy. Not a bad shopper himself! He reads advertisements, too!

AMAZE A MINUTE SCIENTIFACTS BY ARNOLD

REACHING THE SUN'S HEAT  
AN INSTRUMENT WHICH WILL CONCENTRATE THE SUN'S ENERGY 200,000 TIMES AND WILL GIVE TEMPERATURES EQUAL TO THE SUN'S 10,000° IS BEING INSTALLED IN CALIFORNIA.

ISLANDS OF THE HIBISCUS—HAWAII HAS 2,500 VARIETIES OF HIBISCUS.

A LANGUAGE FROM A LANGUAGE—AN 850-WORD BASIC VOCABULARY OF ENGLISH ADEQUATE FOR ORINARY COMMUNICATION HAS BEEN PREPARED FOR THE USE OF FOREIGNERS.

WNU Service.