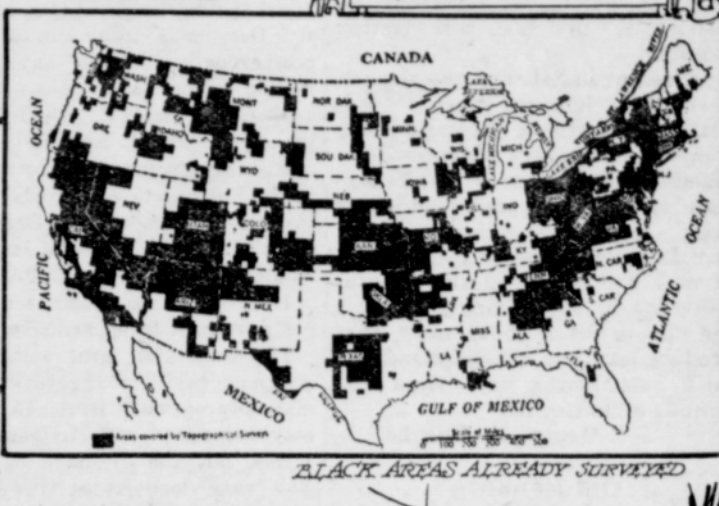
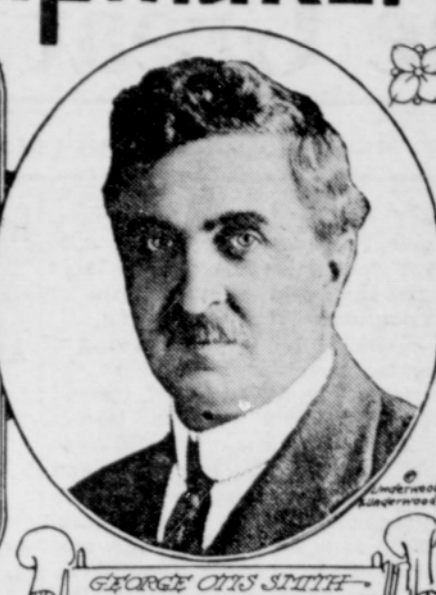
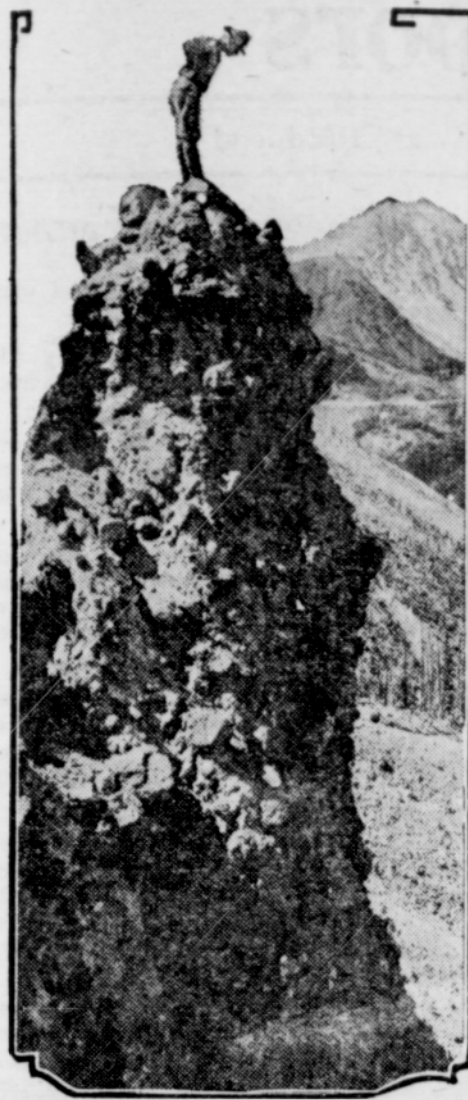


# Uncle Sam: Mapmaker



## Temple Act Provides For Completion of Topographical Survey Within 20 Years

By JOHN DICKINSON SHERMAN

**L**ET'S suppose you are an able-bodied young American of the male sex who wouldn't object to a vacation next summer with all your expenses paid and wages thrown in for good measure. That being the case, you should get in touch with Uncle Sam at Washington, D. C. Uncle Sam, doubtless, will insist upon calling this vacation a job at map making with the geological survey. But don't let the dear old gentleman kid you.

Why, you'll go away off to some wild bit of country and cook at a campfire and eat bacon and beans and flapjacks off tin plates and sleep in a tent and bathe in a stream and fish and hunt and climb mountains. Or maybe, instead of climbing mountains, you'll go deep into some great forest where it's cool and dark and silent and the giant trees meet overhead, with just a glimpse of the blue of the sky. Maybe you'll travel by dog-sled over snow. Maybe you'll paddle down a swift stream between canyon walls. And maybe, if you stick long enough, you'll do all of these things—and more too.

And the surveyors don't make maps in rainy weather; they can't. And rainy days are when the fish bite best. And when the woods are wet is just the time to stalk deer. Why, I knew one surveying camp that had the most remarkable adventure with a grizzly—but that's another story and too long to tell here. Health, strength, an appetite that would "put a soul under the ribs of Death," dreamless sleep, adventure, the joy of "seeing what's beyond the next ridge"—why, if these aren't vacation joys, what are they?

And between you and me these topographers of Uncle Sam believe in taking things as easy as they can and do their job right. George Washington, when he was surveying for Lord Fairfax in Virginia, used to work straight across country, taking things as they came. But the topographic engineers of these latter days can put it all over George Washington—as a surveyor. You see, they have new-fangled instruments and methods. So they just climb the nearest mountain—if there is one—and map the surrounding country from its top.

Why, these topographical engineers are so fond of this sort of map making that Uncle Sam picked out as their boss a man of the name of Birdseye. And he's made good on his name too. I haven't any idea of his mountain record, but I do know that as far back as 1912 he explored and mapped the crater of Kilauea in Hawaii National park. This great volcano has been

continuously active for more than a century and in its crater is Halemau-man—Lake of Everlasting Fire—where dwells Pele, Hawaiian Goddess of Fire. And the next year this Birdseye—probably to get cooled off—surveyed and mapped the top of Mount Rainier, in Mount Rainier National park, which is one huge ice-cap with a snowbank for a summit, 14,408 feet up in the air. But he doesn't confine himself to mountains. Two years ago he led an expedition by boat through the Grand canyon of the Colorado. Oh, yes; they lost a boat or two, had gorgeous adventures and narrow escapes; altogether it was a most satisfactory map making.

So, you see, Uncle Sam's map makers actually get paid for having more fun than anybody. Nevertheless, it's a poor question that hasn't two sides and—

In reality this topographical survey of the United States is a tremendously big and important job. It's so big that after nearly fifty years of work it isn't half finished. It's so important that the Sixty-eighth congress yielded to a popular demand and agreed to appropriate the necessary funds to finish the job in twenty years. And here's the why and wherefore of it:

The geological survey is charged "under direction of the secretary of the interior with the classification of the public lands and the examination of the geologic structure, mineral resources and mineral products of the national domain. In conformity with this authorization the geological survey has been engaged in making a geologic map of the United States and Alaska, involving both topographic and geologic surveys . . ."

George Otis Smith is director of the geological survey. He is a geologist of note and a man of affairs. He was born in Maine in 1871. He is a college man, has the right to wear the Phi Beta Kappa key that denotes scholarship and can write after his name: A. B., A. M., Ph. D., Sc. D., and LL. D. He is a member of many scientific societies and the author of government reports, of papers and addresses and of a book or two. He has been director since 1907, with the exception of 1922-23, when he was a member of the United States coal commission.

The geological survey has several divisions and branches, among which is the topographic branch, of which Col. C. H. Birdseye is chief topographical engineer. He was born in New York state in 1878. He is a college man. After post-graduate work and service as university instructor he did several years of field work. He has been with the survey since 1900, except during his World War service, and took his present position in 1919.

The importance of the completion of the topographic survey lies in the fact that the geological survey's standard topographic map is the only accurate map. Moreover, it is in effect an exact model in miniature of the country it represents. It contains all that does the ordinary map; in addition it shows every physical feature represented to exact scale and every altitude is indicated by the contour lines. These maps are published in



convenient-size sections, each covering a "quadrangle" of ground. The edges of each map join on with exactness to those of adjoining quadrangles. And Uncle Sam sells these incomparable quadrangles at 10 cents each retail and 6 cents wholesale!

This topographic map, which at first glance the uninitiated appears to be a map obscured by a mass of irregular reddish-brown lines, is of tremendous value to the country. For this is an age of construction—irrigation, drainage, waterpower, roads, etc., etc. And the topographic maps do away with the necessity of special surveys. The farmer, for example, can tell whether a drainage ditch is feasible. So that the engineering council, representing practically all of the engineers of the country, led a popular campaign for the completion of the survey, with the result that the Temple act became law.

Though this topographic survey has been in progress since 1879, congressional appropriations have been woefully inadequate. In 1921, for example, only 425 engineers and their assistants were making maps; they covered 12,311 square miles of territory. Only about \$15,000,000 have been spent in 46 years. Under the Temple act congress is expected to appropriate from \$1,500,000 to \$2,000,000 a year. Moreover there is a provision by which states and municipalities may co-operate to speed up the work; such outside contributions this year total about \$400,000. About \$50,000,000 will be needed to complete the survey.

Director Smith and Colonel Birdseye have a big job ahead of them. The gross area of continental United States is 3,020,789 square miles; Alaska contains 580,400 square miles. About 45 per cent has been mapped—see map reproduced by courtesy of the Scientific American Magazine—of which about 15 per cent will have to be remapped because of the use of too small a scale. The standard maps are on the scale of one mile to one inch—one inch on paper to 62,500 inches of country. The completed map, if all the quadrangles were put in place, would cover about one acre.

Uncle Sam must have had a sort of "prophetic hunch" when he picked out Colonel Birdseye. Why? Because in the past forty-six years the topographic engineers have walked about 10,000,000 miles—which would be more than 400 times around the earth. But the topographic engineer of the future will likely do much of his mapping by photography from airplane!

### Self-Supporting Students

In the University of Nebraska last year 76 per cent of the men students and 38 per cent of the women were wholly or partially self-supporting, and records show that the average expenditure for the nine months of school was \$714 for the men and \$729 for the women.—Ohio State Journal.

A prehistoric "apartment house" with 120 traceable rooms was discovered in ruins near Globe, Ariz.

## IMPROVED UNIFORM INTERNATIONAL Sunday School Lesson

(By REV. P. B. FITZWATER, D.D., Dean of the Evening School, Moody Bible Institute of Chicago.)  
(©, 1925, Western Newspaper Union.)

### Lesson for November 1 THE FIGHT AGAINST STRONG DRINK

(Temperance Lesson)  
LESSON TEXT—Eph. 6:10-20.  
GOLDEN TEXT—"Be strong in the Lord and in the power of his might."—Eph. 6:10.  
PRIMARY TOPIC—Loving and Obeying Our Parents.  
JUNIOR TOPIC—How to Be Strong.  
INTERMEDIATE AND SENIOR TOPIC—Strong Armor for a Hard Fight.  
YOUNG PEOPLE AND ADULT TOPIC—The Fight Against Strong Drink.

This is not a temperance lesson in the usual sense that it deals with intoxicants, but in the sense that it has to do with the believer's walk in conflict with the devil. Perhaps there has been no time when the evil one has made such a terrific fight as he is now doing in his attempt to nullify the Eighteenth amendment. The Christian has been saved by grace. Though his redemption is free, between its beginning and consummation there is a real, severe and protracted conflict. This conflict is most difficult and dangerous because it is not with flesh and blood, but with principalities, powers and spiritual hosts of wickedness in high places. Though the conflict is severe and painful, we should bravely battle on because the issue is sure if we go forth in the panoply of God.

I. The Source of the Believer's Strength (v. 10).  
It is in the Lord. Only as the branch is united to the vine, or as a limb is united to the body, is there strength of life. We dare not attempt this conflict in human strength and wisdom.

II. The Enemy (vv. 11-12).  
The enemy is the devil, a personal malicious being, with his many subordinates. His personality is proven by the names given him, and actions predicated of him. He has an exalted position, and is mighty in power, and all unsaved men are under his power. He is the original sinner, and is extremely cunning. He has power over death; enters into men; blinds their eyes; lays snares for them, and sifts God's servants. In carrying on his work, he has his churches and ministers. However, he is resting under a curse. The death blow was given on the cross, and he will receive his doom in the lake of fire.

III. The Christian's Armor (vv. 13-17).  
This means that his weapons of offensive and defensive warfare are not of man's devices. Just as his strength is from the Lord, so is his armor. The believer dare not act merely on the defensive. He must attack his spiritual enemies as well as resist their spiritual attack.

1. A Girdle of Truth (v. 14).  
The truth of God, sincerely and honestly embraced, alone will avail in this conflict. Reason, tradition, speculation and dead orthodoxy will fail in the crucial hour.

2. The Breastplate of Christ's Righteousness (v. 14).  
As the metal plate covered the vital organs of the warrior, so the righteousness of Christ protects us from the enemy's assault.

3. Feet Shod With the Preparation of the Gospel of Peace (v. 15).  
This suggests the firm foothold of the soldier and his alacrity—readiness to proclaim the message of peace.

4. Shield of Faith (v. 16).  
By this he is able to quench all the fiery darts of the wicked. Christ is the object of that faith.

5. The Helmet of Salvation (v. 17).  
Consciousness of salvation enables a man, knowing that he is a child of God, and fellow-citizen with the saints, to lift up his head with confidence and to vigorously assault the enemy.

6. The Sword of the Spirit (v. 17).  
This is the Word of God, the Christian's offensive weapon; with it he can most effectively put his enemy to flight. This Christ used in the temptations in the wilderness, Matt. 4:4, 7, 10, 11. The church of Christ has won all her triumphs by the Word of God. Where she goes on using this, she goes on conquering, but when she falls back upon reason, culture, traditions, science, or the commandments of men, she goes down in defeat before the adversary.

IV. The Way to Get Strength to Use the Armor, and Courage to Face the Foe (vv. 18-20).  
This is by prayer—and prayer alone.

1. Every Variety and Method of Prayer Should Be Employed (v. 18).

2. He Prays for His Comrades, "All the Saints" (v. 18).

He sees all the believers standing shoulder to shoulder against the enemy.

3. He Is Persistent (v. 18).

Some Things to Beware Of  
Beware of idle moments! Beware of the beginnings of evil! Above all, and more than all, beware lest you once admit the fatal intrusion of evil thoughts. In solemn and awful earnest I would say to you, "Watch and pray lest ye enter into temptation."—Farrar.

Eloquence  
Eloquence is the appropriate organ of the highest personal energy.—Eisnerson.

## Children Cry for



**MOTHER:**—Fletcher's Castoria is a pleasant, harmless Substitute for Castor Oil, Paregoric, Teething Drops and Soothing Syrups, especially prepared for Infants in arms and Children all ages.

To avoid imitations, always look for the signature of *Charles H. Fletcher*. Proven directions on each package. Physicians everywhere recommend it.

**Like "Tinned Willie"**  
Canned salmon has become a popular food in the Philippines, 2,500 cases being imported in some recent months.

**Cast-Off Clothing to Turkey**  
Second-hand men's clothing sent from this country to Turkey each year is valued at nearly \$100,000.

A golden plover on the Pacific coast flies 2,000-miles from Alaska to the Hawaiian islands.

Take care of the interesting landmarks. In these motor-touring days they are worth money.



Proved safe by millions and prescribed by physicians for  
Headache Colds Neuralgia Lumbago  
Pain Toothache Neuritis Rheumatism

**DOES NOT AFFECT THE HEART**

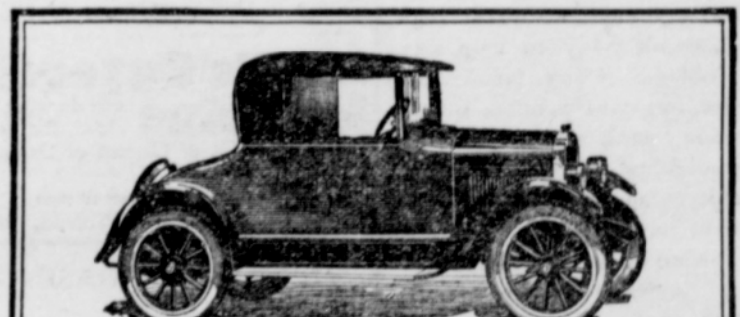
**Safe**—Accept only "Bayer" package which contains proven directions. Handy "Bayer" boxes of 12 tablets. Also bottles of 24 and 100—Druggists.

**Kept His Word**  
"Before Bill was married he said he'd be boss in his own house or know the reason why."  
"And now he's married?"  
"He knows the reason why."

**Good!**  
Teacher—"Why is this called 'free verse'?"  
Bright Boy—"Because it isn't worth anything."

**Vast Salt Beds**  
A bed of salt averaging 500 feet in thickness is said to be under the surface soil of 40,000 square miles of Texas and is believed to extend far into New Mexico, Oklahoma and Kansas.

**A Nice Distinction**  
"I am speaking the truth, not facts," said a witness in an English court.—



Star Coupester \$395, f. o. b. Lansing, Mich.

# MORE POWER

## Low-cost Transportation Star Cars

COMMERCIAL CHASSIS . . .	\$425
ROADSTER . . . . .	\$525
TOURING . . . . .	\$525
COUPSTER . . . . .	\$595
COUPE . . . . .	\$675
COACH . . . . .	\$695
SEDAN . . . . .	\$775

DURANT MOTORS, Inc.  
250 West 57th Street, New York  
General Sales Dept.—1819 Broadway, New York  
Dealers and Service Stations throughout the United States  
Canada and Mexico

PLANTS: Elizabeth, N. J. Lansing, Mich. Oakland, Cal. Toronto, Ont.

### Archery Revival Possible

Stewart Edward White's lion hunting may possibly revive interest in archery, but fashions in such things are capricious. They come and go with no more apparent reason than in the case of the craze for cross-word puzzles. There was a notable revival of archery half a century or so ago, of which a pleasant souvenir is found in the works of Frank Stockton. His account of "Our Archery Club" tells

amusingly how the craze hit one American village, says the Springfield Republican.

It seems to have struck this country even harder than it did England, where it started.

Interest in archery, since it ceased to have practical importance, has always had more or less of a romantic and antiquarian cast. Sir Walter Scott did much to revive it with his romances of chivalry and in particular with his exaggerated account of the exploits of Robin Hood in "Ivanhoe."