

# GAS MEN PLAY A BIG PART IN WINNING WAR

Ten Thousand Soldiers Toil at Turning Out Shells to Rout Germans.

## MANY ARE INJURED AT WORK

Edgewood Arsenal in Maryland Won Place of Leadership Over Allies in Scientific Progress and Deadliness of Output—Gas Factory City in Itself.

Baltimore, Md.—While the men who have been working in shipyards and munition plants have received just praise for their fulfillment of patriotic duty, there is an army of men 10,000 strong who have worked faithfully, carefully screened from public notice, performing some of the most important work of the war, work which was largely responsible for the early signing of the armistice, who have received no recognition at all.

Day after day they have secretly worked in the manufacture of the poisonous gases which routed the Huns and impressed upon the Germans the ingenuity and resourcefulness of the American brain.

These men of the Edgewood arsenal stayed on American soil, never had the excitement of an ocean voyage or adventure in a foreign country or the hero worship of those who have been overseas, and yet while staying right in this country they ran greater risks than many of the men on the firing line.

### 300 at One Time in Hospital.

The hospital at Edgewood is now occupied by 300 men who have been gassed or burned while about their country's work. There have been as many heroes at Edgewood as on the battlefield. There is in the hospital a blue-eyed boy in early manhood, smiling bravely through scars which are today as vivid as the first day, months ago, when they brought him, a writhing bit of humanity, to the hospital. Nor is he the only one. There are others, some of whom have been gassed twice and three and are today laid up in Colorado, having developed tuberculosis.

Hundreds of others are maimed and will always bear the marks of their sacrifice for Uncle Sam, which they gave so gladly without any of the glory, stripes, promotion or encouragement given to the men in the camps and trenches.

The signing of the armistice has made it possible for the public to have the first insight into the vast work which has been accomplished at the Edgewood arsenal, where has been manufactured and shipped safely "over there" more gas than has been made by England and France combined. Far removed from prying eyes, these thousands of men have produced gases which will go down in history as among the greatest achievements of the war.

### Gas Factory a City in Itself.

Where on October 24, 1917, stood a bare waste of forest, now stands what is a small manufacturing town and a city in its activities. Great chemical plants have risen with lightning rapidity. There are the chlorine, phosgene, chlorine and mustard gas plants, and then down near the water the large filling plant where the big shells were filled with deadly poisons and sent on their errand of freeing humanity.

Edgewood arsenal covers a tract of 300 acres, adjoining its companion unit, the great Aberdeen proving grounds, where the biggest of the big guns were tried out that were designed to smash the strongest of German fortifications. At the arsenal these results; it was confidently predicted, would be more effectively secured, and certainly at smaller human cost, by the gas products which

it was confidently declared would smother the Metz forts.

Upon these 300 acres have been constructed a large number of immense chemical plants with the necessary adjuncts, all on an extensive scale, connected by 35 miles of railway, operated by United States army crews, working three shifts a day. At first it was attempted to run the arsenal with civilian labor, but the hazardous character of the employment made this class of employee so uncertain, although fancy wages were offered, that it became necessary to use enlisted men exclusively throughout the plant.

The result has been that work of a highly specialized nature and extra hazardous has been done by men receiving from \$30 a month up, and under rigorous military discipline.

The research laboratory work of the arsenal has been highly fruitful and the gases of the Germans are said to be mild in comparison with the more terrible products of Edgewood, of which the Germans had only got a foretaste when the armistice was signed.

### "Come to Teach, Remain to Learn."

Two experts, Colonel Auld and Captain Hankar, one sent from England and the other from France, to aid in the establishment of toxic gas plants, said on leaving: "We came to teach, but we remain to learn."

The Central Construction corporation received a contract in October, 1917, for the construction of a gas shell filling plant at Edgewood, under the immediate supervision of Capt. (now Lieut. Col.) Edwin M. Chance, then connected with the ordnance department.

It soon became quite evident that more than one gas shell filling unit would be required. It was also apparent that experimental work necessarily had to be carried on in connection with construction on a somewhat elaborate scale in the first unit, both of which circumstances caused the pressure on the entire situation to be rapidly increased, hence the contractor's organization, as well as the military personnel, began to increase rapidly early in the present year, until at the height of its operation the construction corporation had approximately 6,000 men in its employ; new camp buildings and mess halls were constructed at top speed.

When we saved salt last winter we helped swell the amount needed for the making of chlorine, of which it is the foundation. This plant produced 100 tons of chlorine and 112 tons of fused caustic soda a day, making one of the largest single plants of its kind in the country. For the first time vis-

## Silk Stockings Banished in Kansas Gymnasium.

Lawrence, Kan.—Silk stockings are a thing of the past in the women's gymnasium of Kansas here, the ban having been one of the first rules placed by the authorities recently. Hereafter all girls in the gym classes must wear cotton stockings. The new rule is made in the interest of uniformity, economy and democracy.

itors—a party of business men—were allowed through the plant last week and they saw one of the commonest of table supplies, salt, being made into one of the most fatal poisons. This chloric gas passes from 3,552 electrolytic cells, is dried by sulphuric acid and pumped to the chemical plants. Dry chloric gas is bubbled into the common sulphur in tanks and becomes a basic raw material in the production of mustard gas, which was one of the deadliest weapons used to win the war.

Then there is the phosgene plant. Here coke is received by rail and burned by a common steam boiler. Pure oxygen, obtained from liquid air and carbon dioxide, are passed together through red-hot coke producing carbon monoxide. Dry chlorine gas and carbon monoxide are suitably mixed, and by passing over a catalyst, converted to form gaseous phosgene. The liquid phosgene is filled into one-ton containers for overseas shipment and was the gas most largely used in the war.

Chlorpogrin, one of the commonest war gases is another product of Edgewood and was produced at the rate of 30 tons a day.

Filling plants are another important feature of the arsenal. Here shells are received by rail and inspected. Phosgene, chlorpogrin and mustard gas are received from the chemical plant. Other war gases are obtained from outside plants by rail. The capacity of these plants is more than 125,000 containers a day. The ventilation is such that men in direct contact with the liquid gas are not required to wear masks. The filled shells are returned from filling machines and are classified by weight and stored one day as a test for leakage. They are then painted gray and striped, the numbers and colors of the stripes indicating the nature of the gas within the shell. Here the drums, whose range is approximately 1,700 yards, are filled with the fatal gases. The grenades are filled by hand with stannic chloride and are used especially in clearing dugouts. Others are filled with white phosphorus and are used in the production of smoke screens in connection with the concealment of troops.

# M'NULTY'S DEEDS WIN THEM LASTING FAME

Washington.—What's in the name McNulty?

The encyclopedia is silent concerning its origin, but two marines of that name, who probably did not even know one another, had lives that were nearly parallel to one another, and both distinguished themselves as heroes on the battlefields of France. Which is indicative that the same fighting blood courses in the veins of these McNultys from an ancestry that was doubtlessly Irish.

Their names were nearly alike—Thomas John McNulty and John McNulty. They were both in the beginning of their forties—they were both in the marine corps—they were both first sergeants—and both had seen 19 years of service under the Stars and Stripes. Moreover, both fought in the same battles in France and both were seriously wounded. And the climactic result of this strange

parallel was that both distinguished themselves as heroes almost at the same time. John was awarded the distinguished service cross and Thomas was cited for distinguished service.

But here the parallel ceases and things begin to take opposites. Thomas John enlisted in San Francisco, and it was at the other side of the continent—Norfolk, Va.—that John enlisted. Thomas John was born in America and John in England. Thomas John was first sergeant of the Sixty-sixth company of marines and John was the first sergeant of the Seventy-seventh company.

It was in the marines' great fight at Belleau Wood that First Sergt. Thomas John McNulty won his fame and subsequent citation. He led his company of men in a daring charge across a field of poppies against Belleau Wood, whence German machine guns poured death into their midst. His grim shouts of encouragement cheered them on to victory until his voice was silenced by lead and he fell seriously wounded amid the blossoms.

But his was a hardihood that could not die by any sudden means. Upon his recovery he joined a replacement battalion and was in the heat of subsequent battles up to the time the armistice went into effect. He has a father, Patrick McNulty, living at No 1013 Bennet street, Scranton, Pa.

### Extraordinary Heroism.

First Sergt. John McNulty was awarded his cross for extraordinary heroism in the fighting between Blanc-Mont and Saint Etienne. Under a heavy artillery and machine-gun fire that rolled forward with a German counter-attack he stuck by his machine gun. Every man of his gun crew was shot down beside him, but he stuck. Shot after shot burrowed its way into his vitals, but still he stuck to his machine gun with a tenacity that could only be broken with death and a regard that he did not have for his life. It was at a moment when it seemed that his iron power of will was soon to have no living body to direct that the German attack was beaten off, and First Sergeant McNulty laid his head on the ground exhausted. Even then he stuck by his gun, and it was only when ordered to the rear by his commanding officer that he finally retired. "He was an inspiring example to his men," according to memoranda in connection with his being awarded the distinguished service cross.

His mother is Mrs. Jane A. Wilson, who lives at No. 45 Dashwood street, Revere, Mass.

# FOUNDED HALF A CENTURY AGO

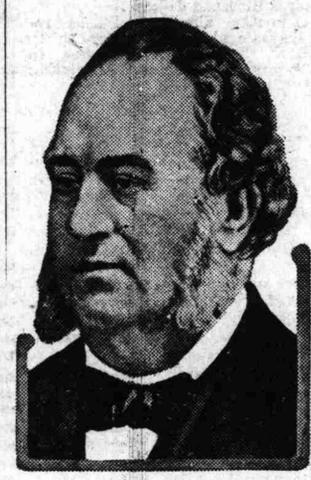
National Prohibition Party Organized in Chicago by 500 Delegates.

## EARLY STANDARD BEARERS

Eighteenth Amendment Has Never Been Favored by Leaders Because of Odds of 10 to 1 Against Its Passage.

The National Prohibition party is just fifty years old, its semi-centennial falling on September 1, 1919. It was born in Farwell hall, Chicago. The convention numbered about 500 persons from 19 states.

The formation of the party was probably first discussed in public at a Pennsylvania state temperance convention in 1867. Temperance leaders had failed to get much consideration from the Republican and Democratic parties and were feeling the need of independent action. The Good Tem-



James Black.

plars, an order of total abstainers organized in 1851 at Utica, N. Y., were also working to this end.

The call for the Chicago convention originated May 29, 1868, in the grand lodge of the Good Templars at Oswego, N. Y., which appointed a committee to convene a national gathering to organize a political party favorable to prohibition legislation. This committee consisted of John Russell, Detroit, Mich.; Daniel Wilkins, Bloomington, Ill.; J. A. Spencer, Cleveland, O.; John N. Stearns, New York, and James Black, Lancaster Pa. At this convention the party was organized, a platform was adopted and a national committee was appointed, with John Russell chairman.

The first national nominating convention assembled in Columbus, O., on Washington's birthday, 1872. It named James Black for president and John Russell for vice president. Black was one of the founders of the National Temperance Society and Publication house, an organizer of the famous Ocean Grove (N. J.) Camp Meeting association and a prominent Good Templar. Upon his death in 1893 he left his "temperance library" of 1,200 volumes to the National Temperance society. Russell, the "Father of the Prohibition party," was a Methodist minister and a leading Good Templar. His newspaper, the Peninsular Herald, was the first to advocate the formation of a separate political party for prohibition.

Notwithstanding the worthiness of the cause and the candidates, the public support at the election of 1872 was not enthusiastic. The total of the votes received by Black and Russell was but 5,607.

In 1876 Green Clay Smith of Kentucky and Gideon T. Stewart of Ohio were the candidates. They polled 9,737 votes. In 1880 Neal Dow of Maine, with H. A. Thompson of Ohio as running mate, appealed to the country. General Dow was widely known as the author of the Maine prohibition law, but he succeeded in getting only 10,366 votes.

### Candidates and Their Vote.

The Prohibition convention of 1896 split the party over woman suffrage and money. The "free silver" minority formed a Liberal party, with Bentley of Nebraska and Southgate of Illinois as its standard-bearers. They polled about 13,000 votes.

The feature of the Prohibition campaign of 1900 was a tour of the country by the candidates and a corps of speakers by special train. In 1912 the Prohibition convention renominated the candidates of 1908. The candidates since 1894 and their vote are as follows:

- 1888, Clinton B. Flisk, New Jersey, and J. A. Brooks, Missouri, 249,945 votes.
- 1892, John Bidwell, California, and J. B. Cranfill, Texas, 270,710 votes.
- 1896, Joshua Levering, Maryland, and Hale Johnson, Illinois, 130,753 votes.
- 1900, John G. Woolley, Illinois, and H. B. Metcalf, Rhode Island, 209,469 votes.
- 1904, S. C. Swallow, Pennsylvania, and George B. Carroll, Texas, 258,205 votes.
- 1908, Eugene W. Chaffin, Illinois, and Aaron S. Watkins, Ohio, 253,231 votes.

1912, Eugene W. Chaffin, Arizona, and Aaron S. Watkins, Ohio, 208,923 votes.

1916, J. Frank Hanley, Indiana, and Dr. Ira Landrith, Tennessee, 214,340 votes.

The National Prohibition party, curiously enough, has been rather opposed to prohibition by constitutional amendment. In the last Year book (1916) we read:

"Although the Prohibition party may be said to be committed by platform declaration to the adoption of a national prohibition amendment, when placed in power, the program of the party has never contemplated agitation for a nonpartisan amendment to be enforced by administrations not favorable to prohibition. . . . The general opinion seems to favor admitting the desirability of the amendment as the end to be accomplished, at the same time emphasizing its impracticability as a method, and denying its necessity as a condition precedent to securing national prohibition. . . . The odds are so overwhelmingly against the ratification of an amendment that they cannot possibly be overcome through any reasonable expenditure of time, money and effort so long as the liquor traffic exists to fight for its life."

The National Prohibition party is certainly right about the apparent odds against the adoption by congress of a constitutional amendment and its ratification by the states. There have been 1,757 amendments to the Constitution proposed and 18 of them have been passed. Herein lies the marvel of the ratification of the eighteenth amendment in about thirteen months.

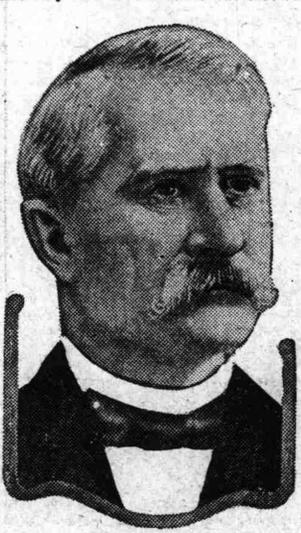
It has been figured that the chances against the passing of an amendment are 10 to 1. The case is put thus:

The chances against ratification are 2 to 1 in the house of representatives, and 2 to 1 in the senate, and, therefore 4 to 1 in congress. That is: Should the measure pass either house by unanimous vote, the one-third opposition in the other house would block it in congress as a whole; in other words, the resolution must be supported on the two chances in each house, while if the opposition scores on its one chance in either house, the measure fails. The chances in the state legislatures are 6 to 1 against the resolution; hence, in the congress and the legislatures combined the chances are 10 to 1 against passage. In other words, the measure might pass both houses of congress unanimously, and be defeated as a whole by the one chance in the states. It might pass either house of congress and all of the legislatures unanimously, and be defeated by the one chance in the other house of congress.

### St. John Makes a Stir.

John P. St. John was the first Prohibition party candidate to make a real stir in the political world. What he did in the campaign of 1884 was long remembered. St. John was born in Indiana and in the Civil war was lieutenant-colonel of the One Hundred and Forty-third regiment, Illinois volunteers. He was twice elected governor of Kansas on the Republican ticket and was defeated for re-election to this office in 1882 by anti-prohibition Republicans, who thought him too warm a friend of the temperance cause.

Frances E. Willard and a delegation of women presented an enormous petition to the Republican national convention, urging consideration for the prohibition forces. The story of that time was that the petition was not only laid on the table but thrown



John P. St. John.

on the floor, where it was found the next day, much the worse for wear.

Anyway, Miss Willard took her grievance to the Prohibition party. The Prohibition party offered the nomination for president to St. John, with William Daniel of Maryland for vice president. St. John accepted the nomination. He was an effective speaker and campaigner and he went out after blood—and especially Republican blood. He carried the war into New York, considered a "doubtful" state in the exciting struggle of that campaign between James G. Blaine and Grover Cleveland.

St. John jumped the Prohibition vote from 10,366 votes to 150,823 votes. What is more, he polled enough votes in New York to defeat the "Plumed Knight" in that state and, as it turned out, in the nation. The feeling of the time is indicated by the fact that St. John was burned in effigy in more than 100 cities.

# IMPROVED UNIFORM INTERNATIONAL SUNDAY SCHOOL LESSON

By Rev. P. B. FITZWATER, D. D., Teacher of English Bible in the Moody Bible Institute of Chicago. (Copyright, 1918, Western Newspaper Union.)

## LESSON FOR FEBRUARY 2

### THE GIVING OF THE MANNA.

LESSON TEXT—Exodus 16:1-36. GOLDEN TEXT—Give us this day our daily bread.—Matthew 6:11. ADDITIONAL MATERIAL—Deut. 8:1-2; John 6:25-28.

PRIMARY TOPIC—God's gift of food.—Ex. 16:1-15. JUNIOR TOPIC—Daily food in the desert. Memory Verses—Matt. 6:21, 28. INTERMEDIATE TOPIC—Our daily dependence upon God. SENIOR AND ADULT TOPIC—Poverty and providence in our day.

### I. Lusting for the Flesh Pots of Egypt (16:1-36).

1. Murmuring against Moses and Aaron (vv. 1-3).

As they journeyed from Elim into the great wilderness they became conscious of the scarcity of some of the things they had enjoyed even in Egyptian slavery. Only a few days ago they were singing God's praises for their wondrous deliverance at the Red Sea (Ch. 15). Now at the beginning of their privation they are murmuring. They utterly lack spiritual perception. They were a free people on the way to their own land. What did it matter, with such a prospect, though they were a bit hungry?

This complaining showed a base ingratitude and was most dishonoring to God. Unthankfulness is a sign of heart corruption (Rom. 1:21).

2. God's answer to their murmurings (vv. 4-12).

(1). He promised to rain bread from heaven (vv. 4, 5). His purpose in this was to teach them that "man doth not live by bread alone, but by every word that proceedeth out of the mouth of the Lord." (Deut. 8:3). The manna was given by God, but the people must gather it. (2) He promised to give them a vision of his glory (vv. 6-10). This served as a warning and an encouragement. Despite their murmurings against him he invites them to come near unto him. Wonderful grace that sinful, ungrateful men should be permitted to come near to God! (3) Flesh and bread promised (vv. 11, 12). God answered the cravings of the people, by giving them quails and manna to eat. How gracious is our God! II. Quails and Manna Given (16:13-15).

At the appointed time God gave the Israelites the promised food. He first allowed them to feel their need, to show that man's highest need is to believe God and rely upon him for all needs (Deut. 8:2, 3; Matt. 4:3, 4). He then displayed his glory, showing that he was able and willing to supply their need if they would obey him.

1. In the evening the quails came up (v. 13).

Since they desired flesh he gave them flesh to eat. This is an example of the patience and long-suffering of God. How he caters to the whims of his vacillating children!

2. In the morning God gave the manna (vv. 14, 15).

The Israelites did not know what it was. They exclaimed: "What is it?" Moses told them it was the bread which the Lord had given them to eat.

III. The Responsibilities of the Israelites (16:16-31).

1. They must gather a certain ration daily (v. 16 cf. v. 4).

This was to test their faith. They must look to him for their daily bread (Matt. 6:11).

2. Every man was to gather for himself (v. 16 cf. v. 20).

The manna typified Christ (John 6:33, 51). As each man was to gather for himself so each one must appropriate Christ for himself.

3. The manna must be gathered fresh every morning (v. 21).

This was to be done early, before the sun was up. Christ, our manna, should be taken each day, and the first thing in the day (John 6:57).

4. They must not gather in excess of one day's supply (vv. 18, 20).

That which was in excess of the day's supply became corrupt. Christians should make use of the gifts bestowed by God. God's graces are only good when put to use.

5. The manna must be eaten to preserve life.

They were in the wilderness, so could only live by eating of the food which God gave. In the wilderness of this world only those who feed upon Christ, the true manna, have eternal life (John 6:50, 51).

6. Due consideration should be given to the Sabbath day (vv. 22-31). A double portion was to be gathered the day before.

IV. Manna Kept as a Memorial (16:32-36).

This was to be kept as a reminder of God's favor in supplying them with bread in the wilderness for forty years.

### Help From Nature Study.

The study of nature is well pleasing to God, and is akin to prayer. Learning the laws of nature, we magnify the first inventor, the designer of the world; and we learn to love him, for great love of God results from great knowledge.—Leonardo da Vinci.

### Think First Upon God.

In the morning, when you awake, accustom yourself to think first upon God, or something in order to his service; and at night, also, let him close thine eyes.—Jeremy Taylor.

## PRESIDENT WILSON AND MME. POINCARE



President Wilson and Mme. Poincaré, wife of the French president, heading a procession leaving the railway station at Paris. President Poincaré is shown behind President Wilson with Mrs. Wilson.