

## FAVOR PROJECTS FOR GOOD ROADS

Remarkable Increase Shown in Statement Issued by Bureau of Public Roads.

### MANY AGREEMENTS EXECUTED

Great Reduction Made in Time for Preliminary Work Before Actual Construction is Begun—Few Projects Completed.

The remarkable rate at which the number of federal-aid road-building projects has increased since the war is shown in a summary relating to all such work from September 30, 1916, to April 30, 1920, which has been prepared by the bureau of public roads, United States department of agriculture. On the later date the states had filed with the bureau 2,885 project statements of which 2,790 had been approved, representing 27,796 miles of highway.

#### Work in Progress.

Up to May 1 of this year 1,974 projects had proceeded to the stage at which plans, specifications, and estimates had been delivered to the bureau of public roads. The plans, specifications and estimates of 1,827 of these had been recommended for approval, representing 13,845 miles. Project agreements had actually been executed and construction work was in progress on 1,569 projects, totalling 11,987 miles. In addition, work had been begun on about 100 projects for which agreements had not actually been signed, thus expediting the progress of the work and bringing the total mileage under construction up to 13,540. The summary shows that a great reduction has been made in the time required for preliminary work before actual construction is begun.

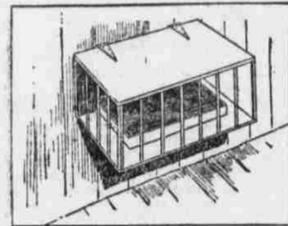
#### Agreements Made.

On the average the states have submitted project statements for nearly 55 per cent of their respective allotments and have entered into agreement to construct highways which call for about one-half of their federal-aid money. The projects actually completed and paid for are comparatively few, but they are materially exceeded in number by those which are practically completed. California, Delaware, Illinois, Idaho, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Minnesota, Nebraska, New Hampshire, New Jersey, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, Utah, Washington, West Virginia and Wyoming have each submitted approved project statements for all or nearly all of their allotments.

### PROTECTION FOR WATER PAN

Slatted Cage Attached to Wall Is High Enough to Keep Out Fowls' Scratchings.

To protect the water pan in the poultry house or outdoors, make a cage with a hinged top, as shown. The fowls can readily reach inside and get a drink, and as the cage is fastened to the wall, several inches



Water Pan Protected.

from the floor, there is little danger of having dirt scratched into the pan, writes B. Frank Boyer in Farm Journal. When placed outdoors, the top of the cage protects the water from the rays of the sun.

### COLORADO BEETLE BAD PEST

Insects May Be Killed by Spraying With Strong Solution of Bordeaux Mixture.

The Colorado potato beetle is the worst pest which potato growers have to fight. They may be killed by spraying with a strong arsenic such as paris green, using at the rate of half pound to 50 gallons of bordeaux mixture.

### IN MAKING BEET-TOP SILAGE

Some Fundamental Factors Involved as With Corn—Thorough Packing is Required.

The fundamental factors that are involved in making good corn silage also apply in making beet-top silage. Pack the mass thoroughly to exclude the free air and then seal tight. Good silage requires thorough packing.

### MOISTURE INJURIOUS TO HAY

It Should Not Be Raked, Bunched or Put into Stacks While It is Wet With Dew or Rain.

The hay maker must ever keep in mind that hay is always more likely to be injured by moisture that is on it than by moisture that is in it. Therefore it should not be raked, bunched or put into stacks when it is wet with dew or rain.

## ONE DIP NOT ENOUGH TO CURE SHEEP SCAB

One Reason Is That All Eggs Have Not Been Killed.

Important That Second Treatment Be Made Before Mites Which May Hatch Out Have Had Chance to Deposit More Eggs.

A single dipping usually fails to rid a flock of sheep from scab, according to findings of specialists of the United States department of agriculture reported in Farmers' Bulletin 713.

The apparent reason is either that all the females in the course of depositing eggs, at which time they appear especially tenacious of life, or all the eggs already deposited have not been destroyed by the dipping; consequently, after the eggs which may have escaped the first dipping have had an opportunity to complete their incubation, it is essential to dip the sheep again.

It is also essential that the second dipping take place before any mites which may hatch out after the first



Dipping Sheep in Cement Vat.

dipping have had time to become mature and deposit more eggs. As the eggs on the body of the host usually require 4 days' incubation, sometimes a week, and probably never more than 10 days, and as 10 to 12 days are necessary for the young mites after hatching to grow to maturity, mate, and deposit their eggs, it would appear that the best time for the second dipping is about 10 days after the first, as all the eggs will have hatched, while practically none of the new generation of mites will have developed sufficiently to deposit eggs. Practical experience has shown that the second dipping may be delayed until the fourteenth day without unfavorably affecting the results of the treatment, but wherever possible it is preferable to follow the 10-day rule.

Copies of Bulletin 713 will be furnished, upon request, by the department at Washington, D. C.

### PLANTING ENDIVE IN AUGUST

Is King of Winter Salads and There is Plenty of Room at This Time of Year.

Ordinary endive is the king of all winter salads that are in reach of the ordinary gardener. It should be planted from the first to the middle of August. The green curled varieties are best. There is always plenty of room in the gardens at this time of year, therefore sow the rows wide enough apart to allow banking with earth. Thin the plants to stand about four inches apart. Having it that close together will not produce large heads, but they will be finer in texture and more tender.

By the time the first freeze is expected this will be a hedgerow. Lift the outer leaves, pressing boards against the sides of the row and hold them in place with stakes. Leave it until in danger from freezing weather, then draw earth against the boards and add straw covering.

### GETTING RID OF QUACK GRASS

Three-Year Crop Rotation, Including Grain, Clover and Corn, Is Excellent Plan.

A three-year crop rotation—small grain, clover and corn—and a two-year crop rotation—corn and rye or early potatoes and rye—also afford an excellent opportunity for getting rid of quack grass. Extra expense required by extra tillage will in most cases be largely made up by increased yields.

### INVESTING IN FOREST CROP

Less Actual Cash Called for Than in Any Other Form of Enterprise on Many Farms.

A forest crop calls for less actual outlay of cash in proportion to the final income than any other form of enterprise. An investment of \$10 to \$15 an acre, with a small annual carrying charge, in 40 to 50 years will produce a return equivalent to from 4 to 6 per cent compound interest for the period involved.

### CAPS GIVE GOOD PROTECTION

Weights to Hold Down Covers on Hay Crop Can Be Made of Concrete—How They Are Made.

To secure sweet, mold-free hay, cover the haycocks with a canvas or muslin cover. Good weights to hold down the covers can be made of concrete. Mix one part cement to two parts sand; mold them like doughnuts or cakes, embed a galvanized wire loop in each, and set them inside in a damp place for seven days before using.

## DAIRY THE DAIRY

### ROUGHAGE AIDS FAMOUS COW

Helen Ulkje Calamity Gained in Milk Production When Switched From Grain Ration.

When Helen Ulkje Calamity 145857 was switched from a grain to a purely roughage ration, it was thought that she might object to this change of diet and drop off in milk production, but she didn't. In fact, this cow actually increased her flow of milk and surpassed any of her previous years' production records by more than 2,400 pounds of milk.

Helen, who comes of a good old family, and is a granddaughter of Homestead Girl De Kol—Sarcastic Lad, was sent by the dairy division of the United States department of agriculture from Beltsville, Md., to Huntley, Mont., in May, 1918. When she freshened on June 21 it was decided to run her on a semi-official yearly test without any grain in her ration.

Her ration consisted entirely of alfalfa hay, silage, and pasture, and she was milked three times a day. The alfalfa hay was of fine quality, and most of the silage was corn silage, although she received a little sunflower silage in December, January and February. The pasture was an irrigated tame-grass mixture and was of good quality.

At four years of age Helen had produced at Beltsville 11,476.6 pounds of milk, 382.05 pounds of butterfat, on two daily milkings, and a grain, hay and silage ration. Again, at six years of age she produced 11,778.2 pounds of milk, 388.29 pounds of fat, on two milkings and a grain, hay and silage ration. She was eight years and three months old when the test on roughage alone began, and her production for a year on that feed was 14,210.1 pounds of milk and 470.24 pounds of fat.

Helen is now being run on a second test, three milkings a day, with the same roughage but with a grain mixture in addition. She has milked as high as 91 pounds a day, and promises to increase considerably her record made on roughage alone. The dairy division, in co-operation with the Montana experiment station, will run other cows on roughage alone, and



Cows and Corn—A Good Combination in Profitable Dairying.

also on roughage and grain, at the Huntley experiment farm, to ascertain the maximum producing ability of good cows when they are fed on good roughage only, with access to pasture, and also when they are given grain in addition to the roughage and pasture.

### RIGHT CARE OF COW'S TEATS

One of Most Delicate and Troublesome Parts of Animal's Anatomy—Influences Milk Flow.

One of the most delicate and troublesome parts of a cow's anatomy is the teat, and the keeping of this right has a lot to do with the milk-yielding part of the cow. The cow is kept to produce milk, and the teat is, as it were, the "neck" through which it must pass, and the condition of the teat must very much influence both the quantity and the quality of the yield.

### SUMMER ATTENTION TO COWS

Fly Aggravation Can Be Reduced by Keeping Animals in Stable During Heat of Day.

Keeping cows in a cool darkened stable during the heat of the day and turning them out to pasture at nights will tend to reduce the fly aggravation. All stable doors and windows should be screened, and manure, which is the breeding place of flies, should be kept cleaned away and either scattered over the fields or kept in a place where it can be screened.

### DESIRABLE TASTE TO BUTTER

Important That Utmost Care Be Taken in Production and Ripening of Cream.

Butter made from sweet cream has rather a flat taste and isn't desirable on that account. In order to obtain this clean, sour flavor in the cream it is important that extreme care should be taken in the producing and ripening of the same.

## BETTER HIGHWAYS

### WAR "T. N. T." AIDS HIGHWAYS

High Explosive Allotted Bureau of Public Roads for Use in Road Construction.

Trinitrotoluene is its proper scientific name, but the human tongue has its limitations, and so this much-talked-of explosive is generally known by its abbreviation, "T. N. T." It is a pale yellow crystalline substance much used in the late war to furnish the explosive element for shells, bombs, and the depth bombs, which did so much to check the submarine activities.

The sudden collapse of the German resistance found the United States government with a large supply of T.



Surfaced Shell Road in Eastern Texas.

N. T. on hand which it was not advisable to store. The bureau of mines demonstrated by experiment that this T. N. T. could be used for industrial purposes, and allotments from the war department's stock were assigned to the department of the interior for use in the reclamation service, national parks service, Indian service, Alaskan engineering commission, and to the department of agriculture for use in road construction work supervised by the bureau of public roads.

The value of T. N. T. in road-building operations has been fully demonstrated, and the bureau of public roads has published a circular to describe its characteristics, and to furnish directions for use of the explosive in place of dynamite for blasting, ditch digging and rock breaking. As a general rule, T. N. T. may be used for any purpose to which dynamite may be put. It is safe to handle; does not cause "dynamite headaches" as readily as the commercial explosive, and is a trifle more powerful than low-percentage dynamite.

### JOHNSON LAUDS GOOD ROADS

California Statesman Says Improved Highways Have Helped to Develop His State.

Senator Hiram Johnson of California, in speaking of the necessity of improved highways in the United States recently said:

"We have had a great object lesson of the value of good roads in the paved highways of my own state—California. They have been a great factor in the development of the state, opening up regions which hitherto were inaccessible and adding to the prosperity of all. The improvement of the nation's highways will be of great economic value to the country as a whole, relieving the congestion which now exists on other transportation facilities and making distribution of the nation's commodities easier and cheaper. The good roads movement meets with my warmest approval."

### BIG PROGRAM IN MINNESOTA

Construction Plans Call for Expenditure of \$11,127,986—Trucks Sold to Farmers.

Minnesota has a road building program calling for the expenditure of \$11,127,986. As an illustration of what the farmers of that state think of the motortruck a statement recently issued by a bank in Minneapolis might be cited, in which it is said that "trucks in large numbers, intended for immediate use in marketing grains, are being sold to farmers." Elevator scales in many places are being remodelled to accommodate the growing fleet of farmers' trucks.

### BONDS FOR IMPROVED ROADS

Districts, Counties and States Making Big Appropriation for Better Highway Systems.

Bonds running high into millions of dollars are being issued by districts, counties and states for the making of better roads. The national government is aiding by appropriating money also, based on the amounts raised by the states.

### Much Interest Manifested.

The widespread interest manifested in better roads is shown by comparison of previous totals with those of 1918, when \$800,000,000 was spent for road construction throughout the country.

### Roads Are Necessary.

Passable roads are an actual necessity and every progressive community recognizes this fact, and is improving or will later improve every road over which there is any considerable travel.

## NATIONAL CAPITAL AFFAIRS

### U. S. Has Grown 13,000,000 in Ten Years



WASHINGTON.—The population of continental United States under the 1920 census enumeration is approximately 105,000,000, according to an estimate worked out by Dr. Joseph A. Hill, chief statistician of the bureau of census division of revision and results.

Under the estimate the increase over 1910 is 13,000,000 in round numbers, or approximately 14 per cent. The population in 1910 was 91,972,296.

Dr. Hill uses in his estimate the figures in complete returns announced for 1,406 cities and towns, which have an aggregate population of 11,929,354. On 1,314 of these 1,406 cities and

towns comparative statements of their respective increases or decreases during the 1910-1920 and 1900-1910 periods are available.

These comparisons show that the 1,314 cities and towns made an average gain of 35 per cent between 1900 and 1910, but during the 1910-1920 period the average gain for the same places was only 23 per cent.

The increases in rural districts invariably are smaller than in the cities. This is shown by the fact that, while the 1,314 cities and towns gained 35 per cent from 1900 to 1910, the entire country showed a gain of only 21 per cent.

The percentage gain of the entire country from 1900 to 1910—21 per cent—was but three-fifths of the percentage gain by the cities and towns—35 per cent. If the same ratio prevailed in the 1920 census—the cities gained 23 per cent—the percentage gain for the country would be 15.3 per cent. Actual decreases shown in rural counties, however, caused Dr. Hill to place his estimate at 14 per cent increase.

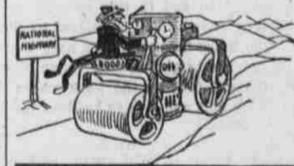
### Good Roads Problem National, Not State

DECLARING problems of highway construction are national rather than the concern of the individual state, the report of the war department to the highways committee of congress summarizes conclusions reached as a result of the army convoy of seventy-three trucks which lizned a trail from Washington to the Pacific coast last summer. These conclusions are, in part, as follows:

First—That the necessity for a comprehensive system of national highways, including transcontinental or through routes east and west and north and south, is real and urgent, as a commercial asset, to further colonize and develop the sparsely settled sections of the country, and, finally as a defensive military necessity.

Second—That the existing roads and bridges, especially in the sparsely settled sections of the middle and far western states, are absolutely incapable of meeting the present day traffic requirements and until modern types of roads and bridges are constructed which will permit the rapid movement of heavy motor cargo vehicles during any season of the year and in all conditions of weather, economical transcontinental highway traffic will continue to be but a vain hope.

Third—That the road problems of



the middle and far western states are national rather than local problems, as these states, while possessing vast area and tremendous mileage of highways, have only a sparse population which cannot possibly undertake the needed highway improvement work, which, moreover, is usually of greater importance to the country as a whole than to the individual states.

Fourth—That the radius of action and the resulting utility value of the motor vehicle is limited only by the condition of the roads, and that the provision of adequate roads will have a far-reaching effect on the economic development of the country at large.

Fifth—That the types of motor vehicles, especially those used by the army, should be co-ordinated with the road conditions.

### Against Spirit and Form of Government



INDIGNATION over the growing power of the departments runs like a thread all through the proceedings of the last session. For example, here are a few remarks by Senator King of Utah:

"The executive departments and instrumentalities of the government seek to extend their authority; they clamor for huge appropriations. The condition of the country and the treasury do not influence them. During the congress we have witnessed demands from executive officers for billions of dollars, when they should have asked but for hundreds of millions.

"Often, in order to get through appropriations desired, officials of an executive branch of the government will send letters and telegrams to remote parts of the land for the pur-

pose of organizing movements to force congress to yield to their demands. In this way they debauch the people, exceed their rights, and pervert our form of government. The executive departments are organized for the purpose of executing the law, administering the law, but they are not satisfied with that. They want to make the law. They want congress to become a rubber stamp, a passive body, to register their wishes and grant their fiscal demands.

"So long as executive officials do that, and send their emissaries out through the states—as they are doing and have done for years—organizing the people for the purpose of having them ask and demand appropriations, we will have these conditions.

"Mr. President, I hope some measure will be enacted into law that will make it an offense for any executive official, big or little, high or low, cabinet officer or otherwise, to carry on campaigns throughout the country to compel congress to appropriate money to place in their hands for expenditure or to increase their power and jurisdiction. It is indeed, it is against the spirit and form of our government."

### History in a Nutshell for Congressmen

HISTORY in a nutshell was what one might call a paragraph in an address by Congressman Foss of Ohio just before the adjournment. He said:

Mr. Chairman, almost every administration from the beginning of the government has been marked by some outstanding event of legislation, some of them adversely rather than favorably. The first, quite naturally, was marked by the many acts necessary to put the Constitution in operation. The administration of the elder Adams was marked by the alien and sedition laws. Jefferson's administration will always be looked upon as the one administration that started the expansion of the country, so far as territory goes, in the purchase of Louisiana. Madison's administration was principally marked by the war of 1812.

Monroe's administration probably will be longest remembered by the doctrine that bears his name. Jackson's administration will always be regarded as the one in which the outstanding event was the fight against the national bank idea and the specie circular. Polk's administration will be remembered by the Mexican war.

Lincoln's administration, among



other things that will mark it, will be remembered by the creation of the interstate commerce commission and the tariff law known as the Wilson tariff bill; his second by his stand for the integrity of the Monroe doctrine. Harrison's administration will always be remembered by the antitrust law of 1890, known as the Sherman Antitrust act, and the McKinley bill of the same year.