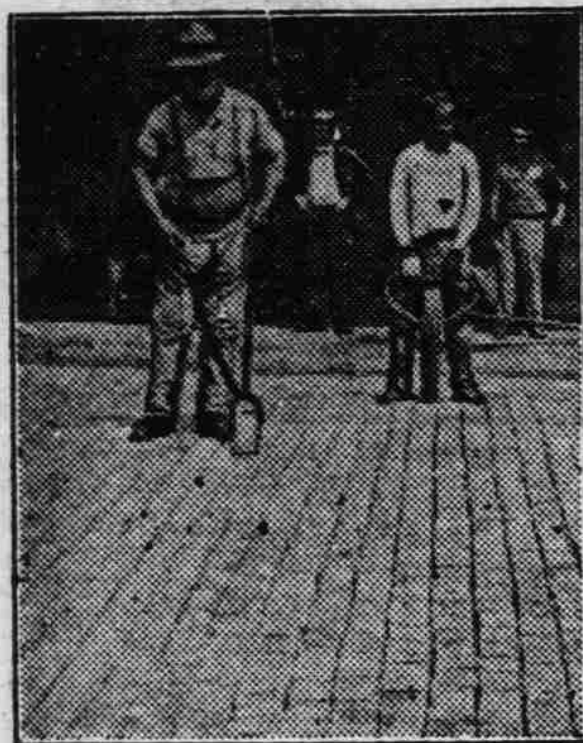


# PUBLIC ROADS

**GRANITE BLOCK FOR PAVING**  
Material Regarded as Particularly Suitable for Trunk Lines Entering Large Cities.

Study of various paving materials suitable for much-traveled highways has disclosed interesting data on granite blocks to the bureau of public roads of the United States department of agriculture. Many road builders are coming to regard this material as particularly suitable for trunk lines entering large towns and cities where there is an increasing amount of heavy traffic.

Though the initial cost of granite block construction is high, the maintenance of the pavement, if properly laid and grouted, is less than that of



The Maintenance Cost of This Kind of Pavement, if Properly Laid, is Less Than That of Almost Any Other Kind of Pavement.

almost any other type of pavement. In Worcester, Mass., over a period of 10 years the average maintenance cost per yard was less than a half cent. This also is true in other cities, regardless of the fact that in general the streets covered with granite block paving are those carrying the most severe traffic.

## ROAD TESTS IN CALIFORNIA

Over Adobe Land Concrete is Laid on Sides With Macadam in Middle—Surface Topped.

An experiment in road construction over adobe land is being made in a section of the county highway between Bay Point and Pittsburg, in California.

Experience has shown that concrete roads built over adobe land results in the cracking and disintegrating of the road in a few seasons and in an effort to overcome this trouble County Surveyor Arnold is having the link of the county highway constructed in a manner tried in several eastern states and proved successful.

The concrete is laid in two separate sections, each eight feet wide with a two-foot strip through the center. In this strip is placed oil macadam which is rolled level to the surface of the concrete and the entire surface is faced with a topping.

## GOOD ROADS ARE ESSENTIAL

Success of Motor Truck Express Lines Depends Greatly on Character of Highways.

The success of the motor truck express depends to a very large degree on the character of the roads over which the routes run. Bad roads increase the operating costs, and consequently the rates to patrons, beyond the point of economy. Trucks are destructive to roads unless the roads are permanently built. Therefore, the problem of improving and developing the marketing facilities for farmers through the establishment of rural motor express lines is directly connected with the problem of permanent improvement of the highways.

## TRUCK IS QUITE EFFICIENT

Cost of Construction and Maintenance is Lowered One-Half by Use of Equipment.

In the construction and maintenance of the earth roads in the rural sections, the most efficient equipment yet found consists of a road grader drawn by a five-ton truck. This equipment will do the common grading such as is usually done on this type of road for about one-half the cost of doing the same work with teams in the old way.

## MANURE CARRIER IS USEFUL

Cost of Handling Fertilizer is Materially Reduced—Hauled to Fields Immediately.

The cost of handling manure may be reduced by the use of a carrier and an overhead track. The usual plan is to throw the manure into the carrier; this requires but one handling. The carrier is then dumped into the spreader, which is hauled to the fields and unloaded by the horses. Manure is thus handled but once.

# POULTRY

## POOR HATCHES IN INCUBATOR

Carelessness in Manipulation of Machine is Sure to Bring Disastrous Results.

Many causes for poor hatches of chicks in incubators can be traced to the operators not educating themselves on what is necessary in the way of fertile eggs, saving eggs for incubation and taking care of them. Eggs for incubation should be kept in a well ventilated room with medium temperature. All eggs should be turned at least once every 24 hours, and no eggs should be over ten days or two weeks old at the outside.

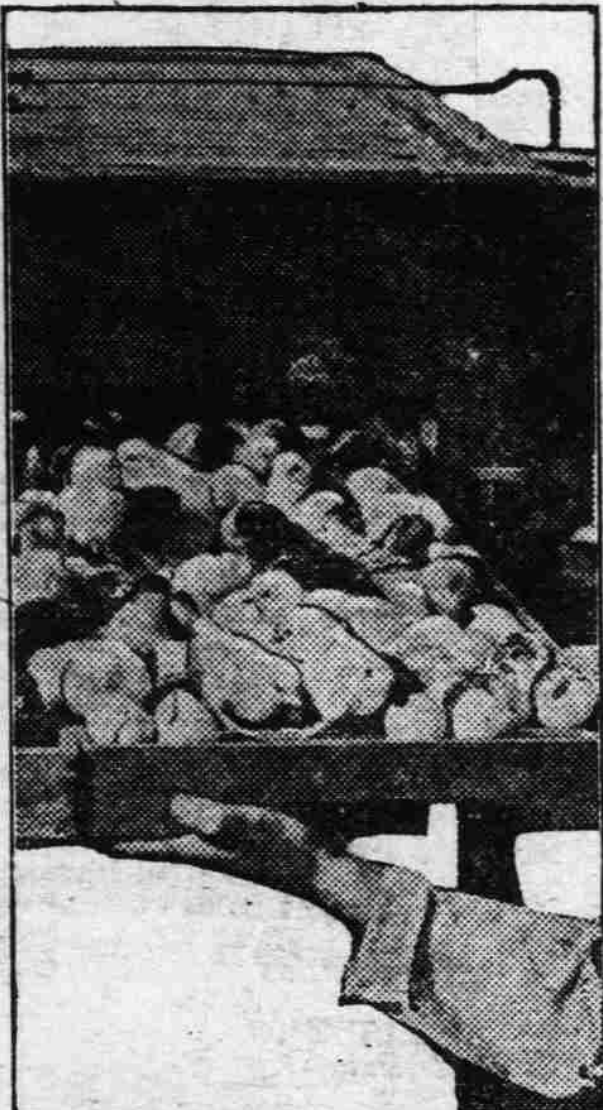
One should be careful to strictly follow the directions accompanying the incubator. The directions for one make of machine do not always do for that of another make, for the ventilation, regulation, etc., may be different.

The principal reason why young chicks die in the shell about the eighteenth day is a poorly ventilated room.

Other causes than poorly ventilated rooms are poorly ventilated incubators, and eggs are not properly fertilized. An egg poorly fertilized will start to grow and die for lack of vitality. Opening up the incubator during the latter part of the hatch, or about the time the chicks begin to pip, lets out the moisture and dries the chicken up in the shell, or, in other words, stops the pores of the shell, and causes a great many to die. Under no condition should the incubator be opened after the eighteenth day until the chicks are entirely hatched.

As a rule, beginners with incubators do not read the book of directions properly. Many a person who has seen an incubator, and probably run a hatch of some other make thinks he knows all about it, does not read the directions and makes a flat failure every time. Sometimes no consideration is given to the ventilation of the room in which the machine is placed. Possibly there may be decayed vegetables therein, or the air is stale.

There are few failures nowadays by poorly regulated incubators, except in the cheaper line of machines where the temperature will change 10. 12



Splendid Hatch from Incubator.

and 15 degrees. One point I have noticed here at home by having a green hand set an incubator, says a writer in an exchange. He reads the directions, maybe thinks he has learned them by heart, sets his regulator as soon as the thermometer gets to 103, turns the thumb screw where he supposes is right, and places the eggs in the machine.

Now, the thumb screw and regulator is a very tender affair, and one turn of the thumb screw will cause a change in the atmosphere inside the incubator of three to four degrees. It should be turned slightly, about one-fourth of the way round, so the temperature stands just at 103.

A great mistake is made by paying too much attention to an incubator. I never see to my machine more than twice a day, once in the morning and once in the evening. I see that the regulator is set properly and everything running nicely before putting in the eggs, and then place the eggs in it and do not touch the regulator. At first it will lower the temperature a little when the eggs are put in, but if the regulator is properly set, the temperature will rise to the proper degree.

## TREAT POULTRY FOR VERMIN

Bath of Road Dust, Tobacco and Sulphur is Excellent—Dipping is Also Favored.

One of the best methods to keep poultry free from lice is to provide a "dust bath." This may be made of a box large enough to accommodate several fowls at a time and partly filled with road dust, tobacco dust and sulphur, according to the following proportion: Road dust, six parts; tobacco, one part; sulphur, two handfuls.

Dipping chickens in a two per cent solution of chlorine is also recommended for the control of lice.

# LIVE STOCK

## MORE AND BETTER PASTURES

Problem in Coastal Plain Section of South Has Become Increasingly Important.

(Prepared by the United States Department of Agriculture.)

The pasture problem in the coastal plain section of the South must be solved to bring about agricultural utilization of these lands. The problem has become increasingly important since the high prices of feeds are more and more forcing attention to the only cheap feed—pasturage. The bureau of plant industry has recently done a great deal of work along this line. The investigators have confirmed the bluegrass experiments, in which it was shown that heavy pasturing was much the best method



A Fine Southern Pasture.

both agronomically and economically. Unfortunately, say the specialists, facilities for experiments and demonstrations are wholly inadequate in attempting to work out a system of better handling of northern pastures. On the coastal plains of the South, unless the soils are much affected by drought, continue the experts, carpet grass supplemented with lespedeza makes excellent pasture. Golden crown grass is also excellent. Efforts are being made, with the aid of a new stripping machine, to place carpet grass seed on the market in adequate quantity. Several newly introduced grasses are promising as pasture possibilities.

## SAFEGUARDING SHEEP FLOCK

Large Number of Animals Lost Each Year From Some Preventable Disorder.

Thousands upon thousands of sheep die each year from a great variety of preventable causes. The killer dog is not the chief cause of loss. He may cause perhaps 1 per cent of the deaths due to accidental causes, but the most serious losses are attributable to ignorance and carelessness upon the part of the owner or his shepherd. Among the chief causes of loss may be mentioned lack of shelter for lambing ewes and their newborn lambs. A sudden snow or rain storm coming at lambing time often finds ewes and lambs exposed, and many deaths result.

## PASTURAGE CUTS FEED BILLS

Cost of Pork Production Can Be Reduced by Providing Suitable Pasture for Hogs.

Farmers can reduce the cost of pork production next year by providing a suitable pasture for their hogs, says W. H. Peters of the animal husbandry division, University farm. Most pasture grasses are rich in protein. The call for high grain rations is therefore less urgent a matter to be taken into consideration in these days of falling prices for hogs and pigs. Alfalfa and brome grass are best for growing pigs, but no matter how good a pasture is some grain must be fed if the hogs are to thrive and make profitable gains.

## BULL OF CHANGEABLE MOODS

Wise Plan to Play Safe at All Times by Keeping Animal Completely Under Control.

The bull is of very changeable moods, and one never can tell when that mood is going to change. The only wise plan is to take no chances with his moods—play safe at all times by keeping him wholly under control, or where he cannot reach you.

## PASTURE FOR GROWING PIGS

Clover, Rye, Rape, Sorghum or Anything Green is Good—Something Else is Needed.

Plenty of good pasture is very important in growing pigs. Clover, grass, rye, rape, sorghum—in fact almost anything green that pigs will eat is good for them while growing, but pasture alone will not make big-boned, stocky pigs.

## HUGE HOUSING CORPORATION

Famous Boy Scout Founder, Traveler, Lecturer and Writer is Taking a Short Rest at Asheville.

Asheville.—Hendersonville, seeking to overcome the already serious shortage of houses in that city, even this far in advance of the expected record breaking summer season, has organized a corporation of business men, 100 of whom will invest \$1,000 each in the erection of small cottages to be rented, and with the work on this plan about to be started, it is believed that Asheville's neighbor will have it all over the bigger city when the great rush starts here this summer.

Ernest Thompson Seton, one of the founders of the Boy Scout movement in America and noted traveler, lecturer and writer, is in Asheville for a short rest before continuing his lecture tour, which will take him over a greater part of the State. His lecture here was called off, owing to the ban on public meetings, due to the influenza epidemic.

The Asheville Citizen Company has closed a deal whereby they take over the Y. M. C. A. building for one hundred thousand dollars. The building will be used as a home for the newspaper.

Gastonia.—Belmont's twelfth and the ninety-first cotton mill corporation for Gaston was announced.

The mill will be equipped with 10,000 spindles and capitalized at \$500,000 or \$600,000.

Williamston.—The Atlantic Hotel, at Williamston, closed several weeks ago by order of the State Board of Health for persistent violations of hotel ordinances has been allowed to re-open for business after a thorough overhauling and promises to conduct the place in full compliance with sanitary regulations.

Charlotte.—O. Max Gardner, Lieutenant-Governor, addressed the Kiwanis Club here paying special attention to the question of increased pay for teachers, which he endorsed. The club adopted a resolution in favor of better pay for public school teachers in North Carolina.

Fayetteville.—Announcement was made that Camp Bragg is now under quarantine. The quarantine order was issued on the recommendation of the camp surgeon as a precautionary measure to guard against the appearance of influenza in the camp.

Goldboro.—According to information reaching the office here of Assistant Supervisor D. M. Prince, of the Third District Census Bureau, J. T. Brown, one of the enumerators in this district, was shot and painfully wounded while engaged in this work in Onslow county.

Washington.—Two Congressmen and a number of drainage experts and civil engineers are on the program for the convention of the North Carolina Drainage Association, to be held here February 25th and 27th. Congressman John H. Small, of the first district, and S. M. Brinson of the third district, will speak.

Raleigh.—Judge Geo. P. Pell, of the State Corporation Commission, received notice of his appointment by President Walter A. Shaw, of the National Association of Railway and Public Utilities Commissioners, chairman of the committee on "Express and other Contract Carriers by Rail." This committee will make an extended report to the National Association which meets in Washington next October.

Morganton.—Alfred Mull, appearing in the Burke county court room at the preliminary hearing of the Mull-Lefever affray and killing, hobbled up the steps on crutches, presenting a battered appearance as charges were made against him. He was re-committed to jail without bail in three cases; one for the alleged murder of his nephew, Lenoir Mull, one for assault and another for carrying a concealed weapon.

Women's College Publication. Greensboro.—"North Carolina Community Progress" is the title of a new publication, the initial number of which has just been published by the extension division of the North Carolina College for Women, under the editorship of Prof. E. C. Linderman. As the title indicates, this publication is to be devoted to the many aspects of community progress within the state, and purposes to bring before the state community workers the best ideas and suggestions that come from various sources.

## Sheriff Shot by Moonshiner.

Yadkinville.—Sheriff J. E. Zepchary, of Yadkin county, was shot through the heart and killed at a blockade distillery, eight miles from Yadkinville, the county seat.

Three men were at the plant and all of them were arrested and brought to the Forsyth jail for safe keeping. Rev. A. A. Caudle, a Baptist minister of Yadkin county, accompanied the sheriff to the moonshine plant and declares that Robah Batty, aged 23, is the party who did the shooting.

# DAIRY

## BOYS AND GIRLS' CALF CLUB

Question for Farm People and Extension Workers to Think About, Say Dairy Experts.

(Prepared by the United States Department of Agriculture.)

Why shouldn't a boys and girls' club grow into a men and women's cow club? Or, more immediately speaking, a larger boys and girls' calf club—larger boys and girls, that is, not larger club. Or, getting nearer the meat—or the milk—of the thing, why shouldn't the club boy or girl who raises a calf milk that calf when she



Youngster Making a Good Start.

becomes a cow, watch her development keep a set of books on her production, and, in a small way, learn the essentials of dairy farming, taking the figures to school and getting them interpreted, and incidentally teaching "the old man" a new trick or two?

That is the question, in one form or another, asked by the experts of the dairy division. It is a question that farm people and agricultural extension workers might think about. There may be more to say on the subject after a while.

## GENTLE TREATMENT OF COWS

Unique Blotters Distributed by the Department of Agriculture Urging Kindness to Animals.

The following, printed on blotters, was distributed by a dairying agent for the United States department of agriculture and the Utah Agricultural college:

Our Domestic Animals Have Acute Hearing. WHY YELL!

Show me a man who says "milking is a dirty job" and I will show you a man who will make a dirty job of milking.

DAIRYMEN! SAFETY FIRST! Cleanliness is Safety.

Gentle treatment of our cows, horses, hogs and sheep will put money in our pockets and peace in our hearts.

## MORE MILK AND BUTTERFAT

Of Greater Importance Than Improvement in Breed Types—Purebred Bulls Essential.

Far more important than the improvement in breed type due to the use of purebred bulls, is the increase in milk and butterfat production of the daughters of purebred bulls from high-producing families. It goes almost without saying that a purebred bull, when introduced into a herd of scrub cows, will produce daughters that produce more milk and butterfat than their mothers.

## DAIRY NOTES

Winter cow comfort means more winter profits.

A cow that ranks with the best of her breed is worth half a dozen average cows.

Good dairy cows are hard to find and high in price. The best way to get them is to raise them.

There may be some roughage the cows like better than silage, but the average dairyman hasn't discovered it.

It is becoming more evident daily that a herd of cows on the farm offers the owner an opportunity to increase his profits, and at the same time maintain the fertility of his soil.

# Home Town Helps

## LAYING OUT SCHOOL GROUNDS

Room Not Necessary for Playing Should Be Devoted to Flowers and Shrubs.

M. F. Ahearn, professor of landscape gardening at the Kansas State Agricultural college, tells some interesting points to be kept in mind in planning the country school yard. "There should be sufficient room for a baseball diamond, a basketball court and a tennis court," Professor Ahearn says. "In all instances the playground should be provided first. In the rural districts there will necessarily be only a few pupils and there will be a call for so large a playground area as where the enrollment is large. Perhaps the basketball court and baseball diamond will be sufficient for the needs of the ordinary country school.

"Evergreens are best for windbreaks and hackberry are best for shade. When the grounds are large enough a small grove of trees will be an asset to the utility and beauty of the school.

"In all instances only hardy shrubs and shrubs should be planted, because they have to stand the attacks of boys and the trying conditions of summer when they are usually neglected. The country school without trees and shrubbery is like a picture without a frame."

## KEEP THE PAINTBRUSH BUSY

Real Economy, and Adds Enrichment to Appearance and Length of Service.

Painting adds greatly both to the appearance and service of all buildings and appliances. One may buy mixed paints, or may purchase pigments and oil and mix them. The surfaces should be clean and dry before they are painted. Use a good coat made of equal parts of paint and linseed oil and cover with one or two coats of paint, which should be thoroughly brushed into the surface.

Whitewash is the cheapest of all paints and may be used either for exterior or interior surfaces. It can be made by slaking about ten pounds of quicklime in a pail with two gallons of water, covering the pail with burlap and allowing it to stand one hour. Water is then added to bring the whitewash to a consistency which may be applied readily. A weatherproof whitewash for exterior surfaces may be made as follows: (1) Slake one bushel of quicklime in 12 gallons of hot water; (2) dissolve pounds of common salt and 1 pound sulphate of zinc in 2 gallons of boiling water; pour (2) into (1), then add gallons of skim milk and mix thoroughly. Whitewash is spread liberally over the surface with a broad brush.

## Fruit Trees on City Lots.

The planting of dwarf fruit trees including a species of pear tree which may be trained fan-shape on a wall, and a peach tree which will bear the next year in the demonstration gardens in many states, ought to attract householders generally where detached dwellings are the rule to the importance of making their yards productive. Fruit trees will thrive in good soil. They do not require much attention beyond pruning and spraying. In France fruit trees have been growing along the highways for centuries. They serve the double purpose of shade and profit. Charles Latham Pack, president of the American Fruit Growers' association, says that if city dwellers were to give as much attention to the planting of fruit trees as some of them have given to back-yard vegetable gardens they would soon be producing a large amount of fruit for the kitchen.

## Beautifully the Home.

There are so many native shrubs, vines and flowers to be planted about the farm homes that their absence is a deplorable fact. In a recent drive a thousand miles we saw only few farm houses where attention had been paid to beautify them. Naturally they were noticed. Don't dot the lawn with fantastic flower beds of annual flowers. Put hardy shrubs around the foundations, the taller growing ones behind. Then in front of these plant the perennial flowers such as iris, gladiolus, narcissus, peony, sweet William, phlox, etc. Keep the lawn open. A few ivy or wild grape vines make a hideous outhouse less noticeable. Shrubs can be transplanted in winter. Get as much soil with them as possible, and tamp the roots firmly in place.—Farm Life.

## General Interest in City Building.

It is interesting to note that in the past year the public, more than ever before, has participated in the financing of the nation's operations. We are coming to a thorough realization of the fact that the general investing public should be given an opportunity to share in these operations. This is opening up for the benefit of the country a vast reservoir of capital, and it is giving the public an opportunity to participate in the fruits of the general development of our American cities.—Boston Herald.