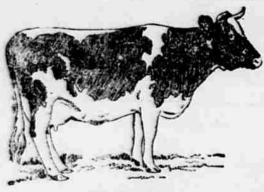


Good Guernsey Cow.

The cut shows the Guernsey cow, Miss Bobolink, 2157, A. G. C. C., bred and owned by Mr. N. I. Bowditch,



MISS BOBOLINK.

animals of the same breed, it is seen that Miss Bobolink has made the second best milk and butter record of any Guernsey, and has nearly equalled the best record. The best records now standı

Butter fat, 1bs

Cow. MII NIS

Lily Alexandre . Bretonne (3660) ...11,218 5.47 602.91 907 Miss Bobolink Fantine Second (3790) ..... 9,748 5.84 516.60 602.60

\*Only one test.

In addition to the above performance, Miss Bobolink was milked three months longer, and gave from October 1, 1897, to January 1, 1898-2,480.5 pounds milk, which tested 5.3 per cent. butter fat, or 153.37 pounds butter, the fall, winter them and let them run making the total record for the fifteen

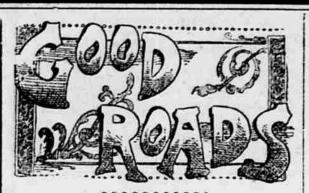
carefully picked by hand and handled in a manner to prevent the slightest injury as the decay of one apple will soon affect all. Apples that are not perfectly sound when harvested should not go into barrels, but be made into cider.

# Geese Must Graze.

The goose is as much a grazing antmale as a sheep or a cow. Green stuff being its natural diet, the transition in winter to grain exclusively is more violent than in the case of hens, which, in a state of nature, do not feed principally upon herbs, but upon insects, seeds and a little of everything. Of South Framingham, Mass. From Oc- course, geese will not starve in winter tober 1, 1896, to October 1, 1897, she and early spring, even if allowed nothgave 12,437 pounds of milk, average ing but grain, but the greediness with test 4.8 per cent. butter fat. This equals which they will devour such fresh food 596.98 pounds butter fat, or 696.46 as apple parings, cabbage, potatoes, pounds butter for one year. Compar- | etc., shows the urgency of their need ing this performance with that of other | for it. In cider-making time a few bushels of seedling apples, that will keep well, should be laid by in the cellar for the geese. It is worth all the trouble just to see the evident enjoyment with which they eat them, to say nothing of the promotion of their thrift Let the young goslings out on some fine grass plot and see them pick. At night they will come up with their crop and neck full up to their mouth. Give them grass.-Farmer's Voice.

### Begin Right with Turkeys.

They are as easy to raise as chickens if one has the right stock. But most people pick out all the largest birds to market at Thanksgiving and Christmas and keep the small ones, with the impression, I suppose, that they will grow if given time. This is a great mistake, as in a flock you will always find a few better developed, bigger-boned birds, and these invariably have the constitution we need for breeding purposes. To make a success select the best hens in the flock; good deep, blocky birds, with big bone and short legs, and dispose of the long-legged, loose-built ones. I find the Bronze the hardiest, but a cross with the wild would perhaps still further improve them. The biggest drawback with the wild cross is, they are hard to keep near the home and are easily frightened. Having selected your breeding stock, which is best to do in



Corea Is to Have Good Roads. The good roads movement has struck Corea, and the government of that faraway country has put the matter of making a survey of its territory and of

establishing a system of improved highways under the control of a new department. In a dispatch to the state department, at Washington, Minister Allen, at Seoul, says:

"Corea has never had a proper survey made of its lands. The treasury department knows in a rough manner the extent of tilled fields as they existed a few hundred years ago, but new land brought under cultivation is apt to be known only to the country officials, who draw much of their consid- no means keeps even pace with the erable revenue from the taxes on the new land.

"It has now been decided to have a complete and proper survey made of the whole peninsula, preliminary to a just and proper assessment. An American, R. Krumm of Columbus, Ohio, has been engaged as chief engineer of the Corean government for the direction of all engineering work. Mr. Krumm is now engaged with the engineering metal, although it was first discovered force of the Seoul-Chemulpo Railway."

#### Bad Roads Are Costliest.

When once the fact gets firmly established in the minds of the farmers of the United States that it is more expensive to maintain bad roads than to make and keep in condition good roads they will take an active interest in the question and an era of road building will begin which will add to their wealth, prosperity and comfort, and benefit the country at large as much as has the laying of the railroad tracks and the advance of the steam locomotive.

Let those engaged in agriculture study such figures as those recently issued by the supervisor of roads in the State of New York, wherein he

with a fatal illness, could take the place THE FARM AND HOME of any of his workmen, whether it was a man driving rivets or an expert putting together the most delicate parts of a steamship's machinery. Something very like what John Roach

said, I heard another great man, who is now dead, say. This was Peter Cooper, a man of whom American boys cannot know too much, and whom they certainly cannot too much admire.

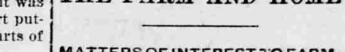
"If I had my way," said the venerable philanthropist, on the occasion to which I refer, "I would give every boy a trade. Then I would have him stick to it, love it and be good to it. If he does, it will be good to him."

PLATINUM A RARE METAL.

#### Costs Over \$100 a Pound and Found Chiefly in the Ural Mountains.

The steady and rapid increase in the demand for platinum has resulted in a sharp advance in price, and consequently in a somewhat corresponding increase in production, although the metal is so rare that the production by growing demand. At present the price for crude platinum at the mines in Russia is 900 marks-about £45 or nearly \$225-a kilogram, a kilogram being two and two-tenths pounds. The Russian ministry of finances has recently issued a report on the production of platinum in Russia. It has long been known that Russia led all other countries in the production of this in America, and the report shows that Russia at present furnishes forty times that produced in all other countries taken together. It is not a vast amount either. In the year 1880 the quantity produced in Russia amounted to 2,946 kilograms; in 1895 it reached 4,413 kilograms. This rare metal is found in Russia only in the southern Ural where, in mining for the metal, the still rarer metal iridium is found, but only in small quantities. Last year the quan tity of iridium obtained did not amount to more than four and one-tenth kilograms, or about nine pounds. Platinum

is a refractory metal, and the methods of working it are not known in Russia, so that the ore is exported to Germany and to England, and Russia reimports



MATTERS OF INTEREST TO FARM-ER AND HOUSEWIFE.

How to Raise Chickens Successfully-The Packing of Fruit for Market-When to (ut Corn Fodder-General Notes About the Farm.

Mrs. W. S. Sherd, in Practical Farmer, tells how she manages chickens to make them profitable. She says: "Before setting my hens I cleared the nest of the old filling, threw in two or three handfuls of fresh slacked Lae, put in fresh straw and sprinkled more lime all through the straw. I dusted each hen well with lime before placing her on the nest; again in about two weeks dusted both nest and hen, and at hatching time not a louse was to be seen. Kept hen cooped for a week, feeding chicks table crumbs, scraps of bread soaked in milk, curd and occasionally corn meal moistened, but not sloppy. When a week old I let them eggs by this plan of feeding. If you feed oats for a change, cook them. I cook the roots, chop them up fine, then stir bran into the water they were cooked in, salting and peppering well. This they enjoy, and pay me well in eggs for my trouble."

# Shipping Fruit.

Those who ship fruit to market may not be familiar with the methods of handling fruit by the carriers and merchants. Fruit started from the farm may be apparently well and properly packed, and yet arrive in the market in poor condition. The packing of fruit After years of study of the native for market requires judgment and ex- roots go down to great depths and seperience. There is something to learn and every grower should give some attention to securing information in that direction. One of the most important points is to have the fruit uniform, mysteries, has therefore no effect on his and of the same quality at the bottom character, but he becomes accustomed of the basket or box as at the top, buyers always making close examination.

where for their stock this year, and the problem before them is to get enough cattle at a reasonable figure .--National Stockman.

### Care of Raspberries.

Raspberry bushes should not be neglected at this season. The canes that bore a crop this year should be cut off and removed to be burned. If left standing they will require as much sap as ever, and thus lessen the amount that should be available for the new canes that are coming on to produce the crop of next year.

The new canes should be pinched off as soon as they get three feet high to induce them to send out lateral branches on which the fruit clusters of the next crop are to grow.

If proper care is taken of the raspberries there will be no need of stakes to keep them standing, as they may be so encouraged that the canes will be strong enough to stand without help and bear any load of fruit that may grow on them.-Farmers' Voice.

### Late Pullets.

Those hatched since June will not lay until next spring, but they will be out on pleasant days after the dew was among the first to begin laying in the off and fed on wheat screenings most- spring, and will not moult until the ly, though I fed some curd and corn fall of next year. Such breeds as Legmeal, keeping milk or water near the horns and Hamburgs, however, mature coops at all times. I never had chick- very quickly, and pullets of those ens thrive and do so well, and I think breeds sometimes lay when only four two very important things in giving months old. The early pullets-those them a start were their freedom from hatched before April-should begin to lice and the feeding of proper food. lay before winter begins and lay First get rid of the lice, then give through the winter. If the flock is proper food, and you will have no trou- large it will pay to get rid of the cockble raising chickens. For winter feed erels, so as to afford more room for raise plenty of beets, carrots, turnips, the pullets and hens. Where the birds cabbage, squashes and potatoes, and are crowded lice multiply rapidly and depend less upon grain, as the roots interfere with the growth of the young are so much cheaper and relished so stock. Very little grain should be given much by the fowls. You will get more poultry during the prevalence of warm weather.

### Growing Alfalfa.

In growing alfalfa the land must be plowed deep and harrowed fine. Ma. nure and fertilizer should be applied liberally and lime applied on the land in the fall. Sow the seed in the spring using from 10 to 20 pounds of seed, ac cording to circumstances, sowing broadcast if the land is clear of grass and weeds. If not it will be an advantage to drill the seed in rows, close together, and cultivate the first year with wheel hoes. Once established, an alfalfa plot will last for years, as the cure moisture. In this section farmers should sow a few rows by way of experiment in the spring and keep the plants free of grass and weeds.

months: 14,917.5 pounds milk-849.83 pounds butter. The picture from which the cut was made was taken January 23, 1898, or after fifteen monhs' work, yet on that day she gave twenty-one pounds milk.

Growing Corn After Corn. In all Eastern corn growing the usual rotation never allows two corn crops to succeed each other without several years intervening. The corn is always planted on clover or grass sod, and after it some small grain follows for one or perhaps two years when the field is again seeded, and after two or more years the corn comes in the rotation again. So if corn smut appears in one crop it has no chance to propagate except what is blown into adjoining fields, or is carried to the barn and so disseminated through the manure pile. In the West the growing of corn after corn on the same land was continued so long that the fields were filled with smut and the land had to be seeded down so as to allow the smut spores to die out. Growing corn after corn also developed the burrowing worm, which into your 2 by 4 and 2 by 6 in sills and is hatched in the tips of ears while tenfler, and eats its way into the corn while in its succulent stage. This worm has sometimes appeared in Eastern States where a great deal of corn is grown. It is probably true that no crop can be exclusively grown in any section without sometime finding an insect enemy or some fungous disease to destroy it. So though two crops of corn will not exhaust the soli more than would a crop of small grain after the corn, and in most cases not so much, it is not best to put them together. The corn stubble is necessarily left naked during the following winter, and is therefore subject ed to more freezing and thawing and more washing away on the soil than if the land were seeded quickly after it. American Cultivator.

A Twin Cucumber.

Mr. Alex. Weir, Ravensworth P. O., Muskoka, Ont., writes to the Montreal Herald and Star, as follows: I have



A TWIN CUCUMBER

twin cucumber which I raised this horse finds irregularities in its suryear and it is the first I have met with face, and by placing the heals.

out all the time.-Alex. Johnston.

Log Chicken House. Here is the plan of chicken coop built of logs. First lay the sill logs and toenail on the corners, making the logs 2 by 4 by 8 feet and 2 by 6 by 8 feet.

Spike these two together and brace



SUBSTANTIAL POULTRY HOUSE.

from the inside so they will be perfect ly plumb. Now start putting up the logs, one side at a time, or build all sides evenly as you go. Drive a spike into your logs as fast as you go, so as to hold them in place. You can put a round log in the corner 6 inches in diameter and 8 feet long. After the house has been built, spike the 2 by 4 onto this and also the plate logs. Peel the logs .- A. L. Lord, American Agriculturist.

How to Kill Lice on Hogs.

Hogs will invariably take to the water when given an opportunity, especially when troubled with lice. If the animals have no wallow, one should be provided. This is easy to accomplish. Simply dig a hole and fill with water and the hogs will do the rest. When the wallow is formed pour over its surface kerosene oil varying in amount according to size of wallow. The mud and water thus treated becomes sure death to the lice on hogs .- J. L. Irwin.

# Farm Talk.

Much has been said of late in regard to the wholesomeness of apples, and a Paris specialist says that women who want to have clear complexions ought to eat three or four apples a day. They act on the liver.

As an evidence of how rapidly the for ests of Pennsylvania are being cut away it is cited that in 1888 Westmoreland County had 153,717 acres of timber land, and within the past ten years there has been a decrease of over 30. 000 of this timber area.

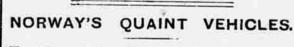
Clay makes a better stable floor than planks, for it contains a little dampness taken the liberty of forwarding you a which conduces to good feed, and the shows that it costs half as much to haul produce three miles by wagon as it costs to haul it 500 miles on the railroads. The supervisor figures out that with a system of good macadam roads the farmers would save an amount each year equal to the interest on from \$10 to \$30 an acre, according to the crop raised, and would increase the value of their land either to sell or hold by

Need of Trained Road Builders.

a like amount.-Philadelphia Inquirer.

The present system of road building in most states, Michigan among the rest, is not expensive, but absurdly inefficient. Road building is a science, which cannot be successfully applied by men who have not made it a study. "The trained road builder," says the church and (in the case of headmen) go New Jersey commissioner, "is just as necessary as the trained doctor, manufacturer or educator." When this fact is recognized and a system of scientific

proper legislation ETAOIN N roadmaking becomes established by proper legislation, the advantages that are sure to follow will make the rural population wonder how they could have been so shortsighted as to have put off a useful reform so long.-Detroit Free Press.



Fashioned for One or Two Passen gers, and Very Comfortable.

As every tourist is aware, a cariole is a most comfortable little car on two wheels for one passenger, says the Montreal Star. The seat is shaped like a shell and nicely padded and the traveler goes along with his feet resting in fixed stirrups at the sides, unless he likes to tuck them up in front of him or dispose of them elsewhere on the framework of the carriage. The driver sits behind on a box, used for stowing away small packages inside and for taking quite a lot outside.

A stolkjaerre is intended for two persons and a driver. It is a rough cart and again the driver sits behind. Very often these drivers are tiny lads. You may get one of about 8 in some places when the men are busy at the harvest, and it is usual, when two conveyances are required by the same party, to expect one of the travelers to drive the second conveyance.

As the little yellow ponies know the routes inch by inch, and as it is the custom when numbers of conveyances are going the same way for them to form a very long procession, there is not much need for a crack whip. A trille is rarely seen. It carries four persons and is more or less like a small English barouche. The way in which the driver manages to stow his person so much of the worked-up platinum as it requires.-Manchester (N. H.) Union,

# The Philippine Character.

character, I have come to the conclusion that the Philippine islander is very matter-of-fact. He is not unwilling, but unable, conscientiously to accept an abstract theory. Christianity, with its to do that which his forefathers were

coerced to do, namely, to accept the outward and visible signs without being imbued by the inward and spiritual grace. The mere discipline-the fact that, nolens volens, they must at a given hour on a given day appear dressed in their best and to attend the to the monk's residence to "kiss hands' -has certainly had the effect of taming the masses into orderly beings. Yet restraint of any kind is repugnant to him. He likes to be as free as a bird, but he is of a pliant nature, and easily man aged with just treatment. He is ex tremely sensitive to injustice. If he knows, in his own mind, that he has done wrong he will submit to a thrashing without any thought of taking revenge. If he were punished out of mere caprice, or with palpable injustice, he would always have a lurking desire to give quid pro quo. He has an innate contempt for cowards, hence his disdain for Chinese, but will follow a brave leader anywhere and will never be the first to yield to hunger, fatigue or possible chances of death. He takes every trouble with profound resigna-

tion; he promises everything and performs little; his word is not worth a straw; and he does not feel that lying is a sin. He is inconstant in the extreme, and loyal so long as it suits him, but as a subject he can be easily molded into any fashion which a just, honest and merciful government would wish.

### Do as You Like.

Perhaps the poorest opinion of music as a vocation is attributed to a builde: in Glasgow. The man had sent his som to college, where the young fellow cacelled in musical accomplishments. In course of time he announced to his father his firm intention to become a musician. The father objected vehemently. The son urged, and was at last affected to tears, declaring that he would never be happy in any other calling. This melted the father's heart, and he exclaimed:

"All right, do as you like; but don't ever come round grinding your organ ig front of my house!"

# Teeth Made of Paper.

Cutting Down Corn Stalks. When cutting down corn fodder one point to observe is to cut when the corn is bright. Do not delay until the fodder begins to turn yellow, but cut when the blades are green. The ears will be dry and be as valuable when fodder is cut at the green stage as to leave the corn standing until the blades begin to change. It is sometimes inconvenient to get into the field to cut the corn when it is ready, which causes a delay of a day or two. If the weather is dry and warm the delay may greatly affect the value of the corn fodder. The stalks should be shocked in a manner to prevent being thrown down by the wind, as dirt is not conducive to its appearance or quality. it will be more readily accepted by stock.

# The Asparagus Bed.

The soil for an asparagus bed should first place, the bed should have good drainage, and then it should have dug into it a heavy dressing of old mai-ure. Do not use fresh manure, as this will be filled with weed seeds, and, besides, it is not so well adapted to plant nutriment as old rotted manure. Having the soil properly prepared, trenches should be opened about six inches in opth and the plants set in these renches, spreading out the roots on the ttom of the trench in every direcon. This done, commence to fill in the il, which must be fine and capable sifting down closely among the three inches of soil, tread it down little compared with the advantages firmly on the roots, and then finish filling it in. Never allow any weeds to grow among the plants. To mainbe lightly pointed in so as not to dis-

turb the roots.

#### An Every-Season Crop.

Eggs are the all-year-around crop. Other crops have their harvest, when they must be sold at once or stored at an expense. With proper care hens are like money on interest, work Sundays, holidays and rainy days. A basket of eggs carried in one hand will often bring as much money as a load of straw. A neighbor hauled a cord of wood to market for \$2; his wife carried ten dozen eggs the same day, which brought \$2.50. A crate of eggs, which can be taken to market in a light vehicle, will fetch as much as a load of produce. The cost of producing eggs is nothing compared to the hard work and expense of producing the other.

**Combination Mixture for Spraying.** Arsenic and soda solution, or arsenite of soda, is more safely used in combination with Bordeaux mixture than The fodder should be removed to an alone. When in combination it will not open shed as soon as it can be done, so injure the foliage, but alone it is liable as to protect it against rain and damp- to burn the leaves. The same objection ness. If fodder is carefully preserved holds good, however, with reference to Paris green and London purple. It is better, however, in almost every case to use the combination mixture, as fungi are nearly always present and unless they are kept in check there is be made rich before planting it. In the but little use of fighting insects .- Ohio Station Bulletin.

### Irrigating Gardens.

Ten years ago the cost of a windmill was more than the owner of a small farm could afford, but windmills are better, more efficient and cheaper now. being within the reach of all. For irrigating gardens or small fruit farms they have been found very serviceable. and are more satisfactory in this section than in the West, as they are not essential except when there is a dry spell. When rain is abundant the windmill stores water for use when the roots. After filling in two or moisture is lacking, and the cost is but gained.

### The Pasture in Winter.

Keep the stock off the pasture and tain the fertility, supply a coating of spread manure over the surface, so as old manure, two or three inches in to protect during the winter and give thickness, over the whole bed every the grass a good start early in the fall, letting it lie on the surface, where spring. Those who manage to have good the rain can soak it and wash it into pastures allow the grass to grow late in the soil. In the spring, what is left can the year and broadcast with manure after the frost appears. In the spring the land is harrowed, so as to fine up

the crop. The time has gone by when apples could be shaken from the trees or picked up from the ground as wind- fails. The best success in keeping them over winter is when not a single apple in a barrel is bruised or injured in any manner. Just as soon as the skin is broken the apple begins to de-	<ul> <li>ways on a strain.—Farm Journal.</li> <li>The editor of the Wool and Cotton Reporter, Mr. Bennett, of Saugus, Mass., says that his farm in Freedom, Me., which he purchased and stocked with sheep a few years ago, cut when he began about forty-five tons of hay of an inferior quality. This year it has cut nearly 200 tons of the highest quality. People laughed at him when he began, but now he is doing most of the laughing.</li> <li>Experiments in feeding and in computing the value of eggs show that if no estimate is made for labor one dozen eggs can be produced at a cost of about</li> </ul>	I remember years ago, when I was a very young man, writes Foster Coates, meeting John Roach, the great shipbuilder, in his shipyard at Ches- ter. Pennsylvania. I remember, too, what he said then about the value of a trade to a boy. "Young man," he said, laying his great, broad hand on my shoulder, and looking at me earnestly with his keen, steel-blue Irish eyes, "next to a clear conscience, a trade is as good a thing as any young man can have in this country. You can carry it with you all your life long; you have to pay neither rent nor taxes upon it, and it will help you around a sharp corner when most other things will fail." I have never forgotten that utterance from a man who started in life—after landing in New York from Ireland—as	that is artificial teeth for human use, manufactured from paper pulp instead of porcelain and other materials that are usually selected for making our imi- tation masticators—are said to be very unsatisfactory. It is distinctly dura- ble, and not being brittle does not chip off. The moisture of the mouth has no effect upon it, it retains its color per- fectly, and is lighter in weight than porcelain and cheaper, of course, to make.	of prices than a year ago for thin cat- tle. There is another feature of the trade, however, that is likely to modi- fy this tendency to some exteut, and that is the condition of the range cat- tle. Last year the average condition of the cattle from the northern ranges was far from good, and a great many of them went to the feed lots of the corn belt to again appear on the mar- kets during the winter months. Unless all signs fail, there will be quite a dif- ferent state of affairs this year. The ranges are unusually good, and have been all along, and the cattle promise to come to market in excellent condi- tion for the slaughterer. Moreover, the market promises to require them, as the supply of corn-fed natives is appar- ently running low. The feeders who	The Best Cantaloupe. Cantaloupes have been plentiful this year and were very fine, but consumers do not get those of the best quality. The Emerald Gem, a dark variety, and of unsightly appearance, would be re- jected in market, yet it is far ahead of all others in quality. If some enter- prising grower would give away sam- ples, with a circular calling attention to the variety, he would be unable to supply the demand the next season and could get his own prices for them. <b>Early Onions.</b> To have carly onions before the spring varieties are ready sow the seed of the Egyptian tree onion, and leave the plants in the ground all winter, They are hardy, and if covered with straw, and the covering removed in March, they will start off early in the spring and give the first crops to be
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