

AGRICULTURAL HINTS

INSECT-EATING BIRDS.

Some Facts Which Farmers Should Always Bear in Mind.

Probably few farmers have any idea of the assistance which they receive from friends who ask no reward, except now and then a little fruit, or a few seeds of grain. A recent number of the National Stockman gives a mass of testimony as to the noble work done by the birds in the destruction of grasshoppers and other insects. The experiments were made by Prof. Aughey, of the University of Nebraska. Tabulated results show conclusively that birds of all kinds were doing their best to reduce the number of locusts. The birds of the thrush family were examined first. The stomachs of six robins contained the remains of 265 locusts; three wood thrushes had 68 locusts; one hermit thrush contained 19 locusts; two olive backed thrushes had gathered in 55 locusts; two Wilson's thrushes absorbed 73 of the pests, while five cat birds had "called" 152 of the insects. Three blue birds yielded 677 of the "hoppers," and one little ruby crowned kinglet showed up 29 as the result of



A CROW BLACKBIRD.

its industry. But four tufted titmice contained no less than 250 specimens, and nine long-tailed chickadees had secured by hard work 481 of these enemies of agriculture. Four slender-billed nuthatches had the remains of 92 locusts. But the little warblers also insisted in "taking a hand" in the general massacre, for seven golden warblers turned in 77 locusts and 176 other insects. Five black-throated green warblers had secured 116 of the hoppers and 104 other insects. Four black poll warblers gathered 123 locusts and 47 other insects. Eight prairie warblers showed the remains of 116 locusts and a still larger number of other insects. Seven barn swallows called in 139 locusts; eight cave swallows exhibited 326 of the pests; five bank swallows contained 104, and ten purple martins had sacrificed 265 of these insects. Many of these birds were seen to feed the inmates of their nests with young locusts.

But the roll call does not stop here, even if our space should; and we would gladly give the complete record—for the roll of honor includes the yellow-headed blackbird, the vireos, shrikes, the bobolinks, Baltimore Orioles, Brewer's blackbirds, purple grackle and others which ate locusts almost without limit. Not only these birds did their full duty, but even the ravens, the crows, the magpies and the bluejays followed up the good work and consumed vast numbers of the pests. The flycatchers and peewees were not far behind, while 348 "hoppers" were taken from the stomachs of seven night hawks. The humming birds are generally regarded as simply ornamental, but Prof. Aughey states that his cat caught a specimen of the ruby-throated humming bird, whose stomach contained the bodies of four locusts. Ten specimens of the yellow-billed cuckoos yielded 416 locusts and 152 other insects. But the woodpeckers were evidently bent on business, and did not confine themselves to a single article of diet, for 29 woodpeckers contained 853 locusts and 725 insects of various sorts. Even the birds of prey seemed to have joined in the good work, for 18 owls examined displayed the remains of almost 600 locusts and other insects. Not to be outdone by the owls, the two Hawks which were taken gave up 378 locusts. In the same line followed the wild turkeys, grouse, prairie hens and quail. Emulating the above good examples, a large variety of shore birds did almost equally good work, considering that their natural food is largely found in the water.

In view of the above, can any farmer have a shadow of doubt as to the inestimable value of the birds as aids in protecting his crops? If a few birds furnished such results for a single day's work, what would be the result were a calculation to be made of the work of all the birds for an entire season? All sorts of birds were examined, from the pelican, with its mammoth form, to the gem-like humming bird, and all proved to be the friends of the farmer in protecting his crops from the ruthless invader. How foolish is he who allows these his allies to be hunted as if they were robbers and enemies, and especially where he allows them to be slaughtered for no good purpose. Would space permit we could refer to hundreds of cases, in many of which the evidence is even stronger than any given above, and all of such unquestioned truthfulness as to leave no doubt as to the facts in the matter. A word to the wise is sufficient.

H. H. WATERS.

WORK FOR CONVICTS.

They Should Be Employed in the Construction of Roads.

The abnormal floods along the Mississippi river have provoked much discussion of ways and means for preventing their future recurrence or for restraining the swollen stream within safe limits. Some urge a stronger and higher system of levees; others the opening of new, or reopening of old, channels, through which the river may be partly or wholly diverted from its present course; and others yet other projects, all, of course, involving the doing of much work and the spending of much money. The further suggestion is made, as applicable for the execution of any of these schemes, that the manual labor required on the vast job shall be done by the able-bodied inmates of the prisons of the various interested states. This suggestion is an eminently practical one, and it leads to the further suggestion that just such jobs afford the best possible field for the employment of convict labor.

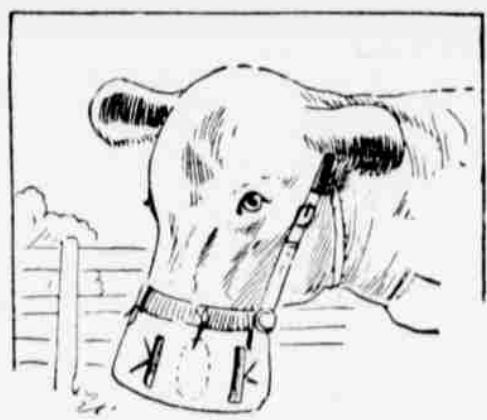
Country and suburban roads, for example, which in all parts of the union are in need of improvement. The spring season is the best of all times for road-building. It is the very time when farmers and villagers are most busy with other matters and can least well devote attention to the roads. And it is the time when the housed-up prisoners are most in need of wholesome occupation in the open air. There are three elements of the problem which unerringly point to its right solution. If to do work when it can best be done, with the least possible disturbance of other industries and at the lowest cost to the proprietor and to the greatest benefit to the workmen, and, indeed, to all concerned—if that be business wisdom, the inmates of our state prisons should be set at road-making forthwith.

In that way they will get the exercise they need, the public will get the much-needed good roads, and there will be no competition between convict and free labor. How much the convicts need such work is demonstrated in the Kings county penitentiary, where the inmates are reported to be in danger of going mad, some of them actually doing so through enforced idleness. How much improved roads are needed almost any suburban or rural village will testify.—N. Y. Tribune.

MUZZLE FOR HEIFERS.

A New Kind Which is Said to Accomplish Great Things.

One of the puzzling things in dairying is the bad habit that calves and heifers acquire of self-sucking and sucking each other. To remedy this, this muzzle is said to be equally effective for foals, and having no spikes cannot hurt



MUZZLE FOR HEIFER.

the mother when calf or foal attempts to suck. When weaned the flap of leather in front can be removed by unbuckling the straps, and the other part converted into a useful leather headstall. This muzzle does not hinder animals from eating grass, even if it be very short, as the flap, if properly fixed, goes out in front sufficiently to enable them to graze with freedom. After having them on for a day or two they become quite adepts at feeding with them. The two leather straps underneath the headstall, one on each side, and extending to the flap in front, can be shortened or lengthened at will. The two iron clips which are riveted on the front flap of the muzzle are to prevent it rolling up when the leather gets wet.—Farm Journal.

DEPENDS ON FEEDING.

How to Turn a Promising Calf into a Profitable Cow.

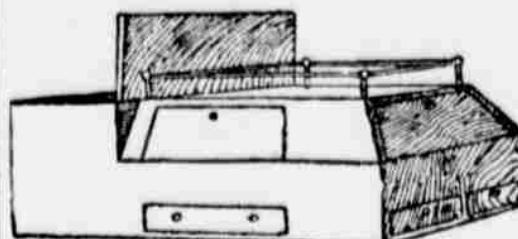
When calves are intended to be grown for cows it is a great mistake to feed them so heavily as to increase the tendency to fatten. Often this can be seen at birth in the thick, bull-like neck and heavy head. In such case it is best to fatten and sell to the butcher, no matter what stock may be its ancestry. But frequently also the calf which seems to be all right for a good milker is fed so heavily and on such fattening food that its tendency for life to produce fat and beef rather than milk and butter is fully established. To grow a good cow the calf should not be stunted, says American Cultivator. That will impair digestion, which is just as important for the cow as it is for a beef animal. Calves intended to be kept for cows should have much succulent food, with enough of the kind of nutrition required to make large growth. Then it will be well developed and come early into heat. It is always advisable to breed as early as possible. Then when the tendency to milk production has been fully established, good feeding with the best food will turn the product of the feed into the milk pail, where it will be most for the farmer's profit to have it.

FARM AND GARDEN.

HANDY ARRANGEMENT.

Wagon Box for Farmers Who Sell Their Own Produce.

The accompanying illustration shows a box for a farm wagon excellently adapted to the requirements of those who practice selling their farm products from house to house in village or city. There are four large compartments, easily accessible, one in front, whose cover forms the seat of the driver; one on each side, and one in the rear. Different sorts of bulky articles can be carried in these, while in hot weather one compartment can be fitted to contain ice, for the well being of the butter and dressed poultry that is being marketed. In fact, there are many products of the farm that are benefited by going to market iced in the hottest of summer weather, such as early vege-



BOX FOR FARM WAGON.

tables, strawberries, cream, etc. The drawers at the bottom of the box will be found convenient for eggs in two or three tiers of pasteboard egg fillers, or in the patent wire fillers, while the railed space on top will hold any articles that may be carried in bags or boxes.

Many farmers have a strong prejudice against "peddling" their produce, as they call the house-to-house sale of it. This is an unfortunate prejudice, for selling directly to the consumer is one of the most profitable methods of disposing of farm crops. Nor need it be at all disagreeable, if rightly managed. Have nothing but the best upon your cart; have regular routes and regular customers, and they will watch for your coming and make your trading agreeable. Selling at first hand means a steady cash income, and prices much higher than would be received from dealers. Then, too, it often means the sale of produce when the dealers are overstocked, and not willing to purchase at any price.

A valuable point to be borne in mind by those who thus sell their farm wares is not only to have choice articles for sale, but to carry them to the customers in attractive shape. Let the wagon look neat, being well painted and having the name of the farm painted in bright letters upon the sides. Then let the driver be neatly dressed, pleasant and gentlemanly in his address, and the work will prosper. These little matters are of far more importance in the successful selling of farm products than many would believe. Attractive appearance from beginning to end sells goods. Don't try to build up such a trade by using an old ramshackle wagon, with the articles for sale dumped indiscriminately on the bottom; such a plan doesn't attract purchasers.—N. Y. Tribune.

WILL FIGHT LOCUSTS.

Nebraska Entomologist's Queer Mission to South America.

Millions of bushels of corn are annually exported from Buenos Ayres, but Argentine has so suffered from a plague of locusts that the entire crop has been destroyed, and not a shipload has been shipped this season. The chamber of commerce has engaged Prof. Lawrence Bruner, entomologist for the agricultural experimental station of the University of Nebraska, to investigate the locust migration. He is now at Buenos Ayres, and if he succeeds in exterminating locusts and grasshoppers will receive a handsome bonus. He believes that methods employed in Nebraska will be efficacious in South America. During the plague in Nebraska he developed some wonderful results. Farmers who desired aid sent in some healthy insects provided with sufficient food to last to their journey's end. In return they received "sick" bugs in packages, with directions for using. The professor began by securing some dead insects, killed by the fungus sporotrichum globuliferum. They were placed in cages with healthy grasshoppers, kept in a high temperature, and the healthy insects were soon inoculated. The disease is a dry rot, which causes the bodies of the locusts to decay. The spread is rapid, and result fatal. It somewhat resembles leprosy in the human family. The disease begins to show from the second to the fourth day after the infection has been placed in the field. The bugs leave their food plant and keep moving rapidly. The next day they are sluggish and seek protection from the sun. From the sixth to the eighth day the first dead bugs are found wrapped in a fungus resembling cotton. The insects do not have sense enough to seek a field not infected, but remain in the locality where they are inoculated.—Chicago Inter Ocean.

Why He Is Poor.

The farmer's overalls are worn, His back with toil is bent; His faded coat is old and torn, He can't lay up a cent. He markets half a load of grain, For mud his farm entrails, And so the extra trips explain The farmer's overhauls. —Good Roads.

A FINE INVESTMENT.

Money Spent for Good Roads Draws an Immense Interest.

The strongest argument which can be made for good roads is to show the results which have come with their construction. Mecklenburg county, in North Carolina, offers an illustration, which contains an eloquent plea for good roads. That county has built macadamized roads during the past few years. Before they were built, two bales of cotton were considered a good load on the old dirt road, for a team of mules to draw. That was during fairly good weather. When the weather was bad, no one undertook to haul cotton. Since the construction of macadamized roads, the ordinary load has been regularly increased from two bales of cotton to ten, and the same single pair of mules continue to draw it. The weather, too, is left entirely out of consideration. The roads are just as good after a rain as at any other time. Whenever the load can be properly protected, farmers rather prefer to do their hauling in rainy weather, because they are then unable to work in their fields. Col. J. C. Tipton, of North Carolina, is authority for these statements, as made before the National Road conference.

Good roads will always raise the value of real estate. Ready access to market is considered a most valuable feature of farm property. This is why a farm near to a market town brings a much higher price than one situated several miles away. Where a farm is connected with a good market by a first-class road, its distance becomes of little importance. This has been strikingly shown in New Jersey. Farmers in that state have enjoyed the benefits of good roads to a greater degree, perhaps, than any other real.

Real estate has risen in value wherever macadamized roads have been built. H. H. Brown, a farmer residing at Old



AN IDEAL HIGHWAY. (Forest Hill Road, Near Chicago.)

Ridge, N. J., declares that since his town has built a few miles of macadam roads, property has almost doubled in value. New Jersey farmers are enthusiastic for the further extension of the state aid system, under which the improved roads of that state have been built.

Good roads have paid for themselves in New Jersey. They have paid for themselves in North Carolina, in Massachusetts and in Connecticut, the states in which the greatest progress has so far been made in their construction. France, Germany, Holland and Belgium have found macadam roads profitable. Is there any reason why they should prove unprofitable in any state in the union, with our vast agricultural interests? Our exports of grain are growing steadily from year to year. Machinery is used at every step. Large amounts are spent for this machinery each year, because of the saving it effects. If our agriculture is to continue to compete in the markets of the world, those who are engaged in it must practice economy at every step. The loss due to bad roads is one of the greatest wastes of energy connected with farming as carried on in this country. Why not, then, invest in good roads, which will save farmers more than any other investment they can make? —Otto Dorner, in Cycling Gazette.

Proper Handling of Grapes.

Grapes, like other fruits, need to be carefully handled to bring the best prices. The vines need to be gone over frequently during the ripening season, gathering only those with full color, because grapes do not, like other fruits, color after being gathered. The bunches should be cut off with a pair of scissors, and so handled as not to disturb the bloom. Ordinary varieties may be at once packed from the vines into the basket that is intended for sale. Choice varieties should be gathered into shallow trays or baskets, in which they should stand a day or two on shelves in the fruit house, and then repacked. By this treatment the stems will wilt, and the bunches will then keep without molding and pack more closely than when green.

The Coloring of Butter.

One of the nice points in butter-making is to color the butter the proper shade, as the quantity of color used must almost continuously be changed, according to the season. Great care must be taken to use the proper amount of salt. A butter-maker's eye or taste may deceive him, and he may not see butter other than his own make more than once or twice a year, perhaps not that often, so it is pretty hard for him to fix his eye on the proper shade for color and his taste for the proper amount of salt.—Field and Farm.

FUSSY WOMEN.

They Are Not All Slender—Don't Besing to Any Particular Cast.

Of what use is a fussy woman in the emergencies of life? She loses her head figuratively, in an accident; fidgets the patient's nerves to fiddle-strings in a sick-room and becomes supine and hysterical in a domestic cataclysm. Does the fussy, fidgety woman ever enjoy herself on a pleasure trip, or, as important, does she ever allow members of her party to enjoy themselves? Rarely, I think. I took a bank holiday excursion trip to Margate this year in search of "copy," and the full significance of the fussy woman was borne in upon me by one of the occupants of the third-class carriage that I elected to honor with my company. She was a large woman with a large party. She upset one of my preconceived notions that fat women never fuss, for she was very large and she fussed very conspicuously.

I had watched her on the platform before the train came in sight. She was makingspasmodic dives after her purse, her tickets, her children, her lunch baskets; she was evidently possessed with the notion that she was about to lose them. When she had cackled all into the carriage her fussing was not finished; she fussed because she could not see where the 'am sandwiches 'ad got put to; she fussed because George had lost his penny; she fussed because she could not make up her mind whether it would be better to have the window up or down; she fussed because somebody "thought as 'ow it might be r'ring in Margit," and she omitted to bring the "macs."

The climax of her fussing was seen when the departure bell sounded and "Sandy," presumably her husband, had not come back from having a "arf-and-arf" with his mate in the rest-room.

She was a specimen of the lower-class "fusser," but I have encountered quite as bad fidgets among women of a higher grade, and I am not sure that their fussing is not more trying than the fussing of the lower-class woman, who may perhaps be pardoned for not knowing any better.—Daughter.

DAINTY COTTON MATERIALS.

Make Pretty Costumes for the Warm Season.

Grass linen, in plaids, stripes, lace effects, embroidered and plain, again is prepared to lead all transparent fabrics. It is to be found for twenty-five cents up to five dollars a yard and in several shades of the "natural" color. The heavier linen crases are of an improved smoother weave, and are gray and natural colored at 15 to 60 cents for odd skirts and jacket suits. Striped and flowered dimities are in light green, blue, pink, yellow and violet shades at 15 to 50 cents for dresses and shirt waists. Organdies are even prettier than they were last summer, in natural-looking blossoms over delicately-tinted grounds, and will retail at from 25 to 50 cents. Their rival is Swiss muslin with small or medium dots and all of the light tints for the ground, which may be plain or in floral figures. Plain-colored lawns will sell chiefly for lining these transparent materials. Piques will flourish in spite of the crash fever, in medium cords of one or two colors, and are only intended for jacket suits. Plaids in every material, silk, wool and cotton, are among the promised successes. Percale in stripes, dots and small figures sells at from ten to twenty-five cents for shirt waists and morning dresses. A touch of black in the figure is very stylish in cotton fabrics. In white goods dimity, Swiss muslin, nainsook, organdie and lawn have the preference, and are ranked among the cheapest as well as the most expensive goods. Foreign and domestic gingham show plaid, striped, checked, etc., patterns, in which green is prominent, as it is in all wash goods. Gingham is not as popular as it was owing to the craze for sheer goods, but it was too useful a fabric for women and children to be without. This is in medium-sized plaids, stripes of immense variety and checks of various kinds. Green, red, strong pink, yellow and a touch of black are prominent tints introduced in gingham. Vivid colors predominate in all spring materials.—Ladies' Home Journal.

The Wearing of Tucks.

To be really fashionable one must wear tucks. They are seen on everything, and the work on some of the new blouses and bodices is enormous. Not only are quarter-inch tucks closely set in groups all over the bodice and up the sleeves, but these are frequently supplemented by a tucked bolero and by groups of tucks on the skirt. Even low cut evening bodices are arranged with tucked draperies of lisse. Sometimes the tucks are horizontal, but more frequently they are arranged to run around the figure.—Philadelphia Press.

Fruit Jumbles.

One cupful butter, two cupfuls sugar, one cupful rich buttermilk, 4½ cupfuls flour, three teaspoonfuls baking powder, one teaspoonful each cloves and cinnamon, one cupful stoned, chopped raisins. Mix soft as possible, lay a large spoonful for each jumble on buttered tins and sprinkle with sugar.—Ladies' World.

Cauliflower Salad.

Boil a cauliflower till about two-thirds done; let it get cold, then break it in branches, and lay them neatly in fish. It is then ready for the dressing. —Good Housekeeping.