

# AGRICULTURE



## The Chinch Bug.

In the accompanying cut we show the chinch bug, an insect that has proven very destructive to grain crops in some sections of the country. By the side of the mature bug will be seen a perpendicular line about one-eighth of an inch long. That shows the real size of the insect, the illustration being greatly enlarged. The chinch bug is a native insect, originally subsisting on various wild grasses in the Mississippi valley and throughout its range. It is now widely distributed, being found in all the territory between Manitoba and Nova Scotia and the Gulf of Mexico.

There are numerous ways of fighting this pest. Waste land should be burned over and cleared up. Wild grasses infested by chinch bugs should also be given the fire treatment. The rubbish in the fence corners and by the hedges should also be raked up and incinerated. When

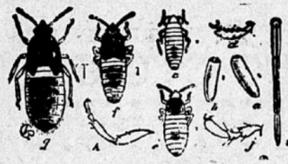


FIG. 2. The chinch bug (*Blissus leucostriatus*): a, b, eggs; c, newly hatched larva; d, 1st larva; e, larva after first molt; f, same after second molt; g, pupa; h, the natural size indicated as side; i, enlarged leg of perfect bug; j, tarsus of same, still more enlarged; k, pronotum or back, enlarged (from Riley).

the ground is frozen tame meadows may be burned over without injury to the grass. Trap crops may be planted and will sometimes do good. Rotation is one of the best ways of checking the ravages of this insect. In the rotation, small grain should be dissociated as much as possible from corn. Some try plowing under the first rows of an attacked field, but this does not always prove effective. Spraying with kerosene emulsion gives some relief when the work is done in time. One of the methods that has been quite generally practiced is the plowing of a furrow and dragging a log through it to kill the bugs as fast as they accumulate. The tarred line has been tried as a barrier to an invading army of these insects with some success. It must, however, be renewed several times a day.

## Test the Seeds.

At this time of year seed should be procured and prepared for the coming season. It put off until a later time, because of the delays that arise during the rush of spring shipments and spring work, the seed may not be on hand at the proper time, the seeding will be late, and smaller yields will be the result. This is the proper time to investigate the vitality and germinating power of seeds. This should always be done unless there is no question about the matter, and there usually is; and the cost of a test is but a trifle. Purchased seed should always be tested. Seed may have been put away in storage in proper condition, but it may have absorbed moisture from the air, the ventilation may have been poor and the seed may have been injured by molding or heating or freezing. If such seed is used and the usual amount is sown, the stand is poor and irregular, and a low yield is the result.

The weather during the fall of 1902 was hard on the vitality of seeds, and even where the best of care has been taken the per cent of germination may be low. Where the seed has been neglected the per cent of germination may fall below 50. The rainfall was frequent and heavy and much of the seed was soaked in the field. Freezes do much damage while seed is in such condition. Much poor seed will be sent out the coming season and it is very necessary that seed be tested before planting.

A simple germinating apparatus can be made from two ordinary plates and a piece of flannel cloth. Fold the cloth and lay it in one plate, placing the seeds between folds of the cloth, which should be moist, but not dripping. Cover the whole with another plate inverted and stand in a warm place. If the test is made during cold weather, care must be taken to stand the plates where the temperature will not fall much below 50 degrees Fahrenheit at night and will be about 65 or 70 degrees during the daytime.

The seeds that have sprouted should be removed every day and the number recorded. When the test is completed the number of seeds sprouted can be compared with the number put in the test and the percentage of germination determined. Cereals and alfalfa should be tested for about ten days, while grass seeds need fourteen to thirty days.

## Practical Knowledge.

A Scripture examination was being held recently in an English school, where the lesson was Elijah offering sacrifice on Mt. Carmel. As the children looked like good scholars, the inspector gave them a question: "Now, you have told me that Elijah put the bullock on the altar. Why did he put water around the altar?" The children looked amazed except one little boy, who stood up and said: "Please, sir, to make the gravy."

"Spangling" is the marking produced by a large spot or splash on each feather, differing with that of the ground-color.

# THE DAIRY

## The Expensive Poor Cow.

Some dairymen would be better off if they did not have so many cows as they own at present and some would be actually better off if they had none. This is a hard saying, but it is true. The sooner the poor cows are weeded out of the herd the better. It takes a fairly good cow to pay expenses. There are millions of cows in the United States that are not fairly good. This is proven by statistics regarding the average of milk and butter production. The average cow is not a money maker, and there are millions of cows poorer than the average cow. From the average cow down they should be sent to the shambles. The farmers of the United States would be ahead what they received from them as beef. This would be clear gain, and more, for it would be preventing annual losses that are now occurring with great regularity. The men that scoff at book farming, that will not read agricultural papers and that will not attend farmers' institutes are the fellows for the most part that are keeping these expensive poor cows. The men that are awake and that think are quitting that kind of business. Moreover, the men that are progressive are getting ahead of the men that refuse to think. They are going out among the slow men and are annually buying their best cows to put into their own herds. They are doing this at the expense of a few dollars per cow more than they would have to pay for a poor cow. They are doing the right thing, for if the other men refuse to be instructed they must necessarily suffer the loss of their best animals. A cow that will make a profit of fifty dollars a year is certainly worth twice as much as the cow that will make only twenty-five dollars' profit in a year, yet the foolish man that sells the better cow will part with her for \$35 when he would want \$25 for a poor cow. Every farmer should investigate the matter and as quickly as possible get rid of his expensive poor cows.

## To Get a Good Dairy Herd.

To obtain a good dairy herd it is necessary to both select and breed. It is a great mistake to sell the heifer calves from good cows, as farmers now generally do. If the people that are in the dairy business want good cattle it is now necessary for them to raise their own animals. The practice of going out and buying good cows, keeping them for a short time under heavy feed and then sending them to the butcher has been going on so long that it is now extremely difficult to go out and purchase first-class cows. In breeding up it is necessary to select till a number of good cows are obtained. These cows must be not only good milkers, but hardy in constitution. They should be bred to the best sires obtainable. The sire must be carefully chosen and with due regard to the milking qualities of his dam and grand dams on both sides.

A. J. Glover of the Illinois Agricultural college was recently sent out to purchase a Holstein bull to put at the head of the Holstein herd at the college. He hunted for a good many days before finding a suitable animal. One was finally obtained, and here are some of the things in his favor: The dam of this bull produced 662 pounds of butter fat in one year. That means 15 per cent more than that amount in butter. The grand dam on his dam's side made 704 pounds of butter in a year. The dam of the sire of that bull made 27.75 pounds of butter in a week. This bull himself has six daughters in the advanced registry, and one of these daughters has made 24.88 pounds of butter in one week. The dam of the bull purchased gave 18,289 pounds of milk in one year, and the grand dam gave 20,304 pounds in a like period.

## The Poorly Constructed Silo.

It is doubtless true that more silos have proven failures because of poor construction than for any other cause. The cheap silo is more than likely to be a silo poorly constructed. The maker tries to save not only on material, but on labor. The result is that men are employed that do not understand the principles entering into the construction of a silo. Apertures are left here and there where the air can get through into the silage. After filling, the silage is exposed to air not only from the top, but also from the sides. Perhaps corners have been left, even in round silos, where little pockets of air are formed. When the silo comes to be emptied, the proportion of spoiled silage to good silage is very large. The owner becomes both disgusted and discouraged, and does not refill the silo. The structure stands as a monument of failure and prevents other farmers from constructing silos, for they think it a fair sample of silo. It is possible to construct cheap silos that are serviceable, and will last a long time, but the ordinary man will be more successful with his silo if he does not try to save too much money in the first cost.

Eleven villages in Russian Turkestan are said to be in ruins as a result of the recent earthquake and fully 6,000 houses have been destroyed. The government will be obliged to supply the wants of the working people at Andijan until spring.

Experience is a great teacher, but her tuition fees are exorbitant.

# NEW YORK'S ABSENT SONS.

## More Than 1,250,000 of Them in Other States of the Union.

There are more than 1,250,000 natives of New York now resident in other states of the country, and very few of these, relatively, adopted the advice given to New Yorkers many years ago to go West and grow up with the country.

Only one state of the West has a considerable population of native-born New Yorkers, and that state is, strange to say, Michigan. There are 160,000 natives of New York resident in Michigan—more than 10 per cent of the whole number of native New Yorkers resident in other states.

After Michigan, but with a much smaller number of New York residents, comes Illinois. The two Western states which have the largest number of Native-born New Yorkers next to Michigan are Wisconsin and Minnesota.

Emigration from this state has not been on the usual lines of travel through the middle West, but has been decidedly toward the northwest, and especially into states along the Canada border.

There are some curious facts shown in the distribution of native-born New Yorkers through the country. There are nearly twice as many in California, on the distant Pacific, as there are in Missouri, in the Mississippi valley. There are more natives of New York resident in the single state of Massachusetts than in all the states of the South collectively.

There is a very small number of New Yorkers in Indiana, and actually fewer by several thousand in Ohio, one of the most populous states of the country, than in Connecticut, one of the smallest.

The largest numbers of natives of New York resident in another state are found, of course, in New Jersey, and Pennsylvania, which adjoins New York throughout nearly all its south boundary line and a portion of its west boundary line, has a considerable number.—New York Sun.

## MAKING WAR ON INSECTS.

### "Set a Bug to Catch a Bug" Now the Accepted Motto.

The orthodox way to dispose of a noxious insect is to import from foreign parts a beneficent insect which will attack and kill it. This is the plan which the guardians of certain Massachusetts parks are considering for the extermination of the gypsy and brown-tail moths. There is an insect, it appears, which regards the gypsy moth as its natural quarry, and a good-sized importation of these creatures would undoubtedly do the work of a great many industrious men with spraying machines. It is just the same method of procedure which has been adopted to fight the San Jose scale, which is itself supposed to be an importation from Hawaii or Australia. The department of agriculture has imported from China an insect which preys upon the San Jose scale, and these are raised in cages of netting and distributed to the fruit growers of the far West. Set a bug to catch a bug may well be the agriculturist's motto. According to a recent estimate, the havoc wrought by a dozen species of insects causes this country an expense of more than \$300,000,000 a year. These are the chinch bug, the grasshopper, the Hessian fly, the potato bug, the San Jose scale, the grain weevil, the apple worm, the army worm, the cabbage worm, the boll weevil, the boll worm and the cotton worm. The chief difficulty is that the imported bugs may be just as objectionable as the domestic, though in different ways.—New York Evening Post.

## Needed a Tonic.

"No," said the mistress of the Sixth ward home to which a vendor of a sure cure for catarrh applied yesterday. "I haven't any catarrh, don't need any medicine for it, and wouldn't buy any from a peddler, anyway."

"But, madam," said the cheeky pushing his way into the house. "let me tell you about this wonderful remedy."

He yanked out his samples and his order book and reeled off his regular song—everybody has catarrh, everybody buys this remedy, and everybody snuffs it three times a day and drives the catarrh out of the keyhole, etc.

When he paused for wind the angry woman sweetly asked 766 questions and kept him talking for an hour. When his voice was worn to a whisper she said, calmly:

"Well, I haven't a cent of money in the house, so I can't buy any of your medicine."

"Why in blazes didn't you say so an hour ago?" he yelled as he bolted for the street.—Pittsburg Dispatch.

## Congressman's Autobiography.

Senator Depew's autobiography in the Congressional Directory, which occupied nearly a page in the late volume, has been eclipsed by that of Robert Baker in the new directory. Baker is the new Democratic representative from Brooklyn, and the story of his life, about 1,000 words long, occupies considerably more than a page. Several hundred words are devoted to minor incidents in his career.

## "Ish Dot All?"

When the wall of the building at the corner of Fourth and Spring streets fell a few days ago a large crowd collected immediately. A German rushed up to one of the men standing there and inquired excitedly: "Vot's de matter?" "Couple of men killed." "Gouple of men killt, oh! ish dot all? I taut sompotty vass fighting."—Los Angeles Herald.

# "DESPISED AND REJECTED OF MEN."

In the midst of the busiest crowd He stood, unseen by the passers-by, If they thought of Christ, 'twas a mystical Christ, or a Christ that dwelt on high; Or some fancy portrait of Christ they knew, or the Christ of a Sunday prayer, So He passed as silently from their midst, for He found no welcome there.

He longed to speak to the souls of men grown hard in the greed of gain, He longed to bind up the broken hearts grown callous by want and pain; He longed to tenderly guide the feet of the sheep that had gone astray, Or to bear the burden of some sad souls, and to wipe all their tears away.

He heard the skeptical coldly sneer at that Christ of some Scripture tale, He saw in the churches dissension rise, and the doctrine of hate prevail; He found in the new flow of modern thought no place for the Crucified, And He stood apart from the world of men, a Christ that the world deride.

And His heart was filled with a pity keen for the eyes that would not see, For He loved the souls He had died to save on the Cross of Calvary; For unchanged lives ever that love divine, that shines to the perfect day— Oh! world of men, do ye know what ye do when ye cast such love away?



# The Earl and the Model

## Do you remember Lord Partlett?

If you do you will likewise recollect that he was also called Lord "Shady." He passed off this, by no means flattering, nickname with a laugh whenever he was taxed with it, declaring that his partiality for the "shady side of Pall Mall" was the fount and origin of its bestowal.

Those who were at all closely acquainted with his lordship's little ways had a different explanation, and to see him ogling the fair ones in Regent street on a sunny day, hanging about the stage doors of the musical comedy theaters, or peering into the faces of the little chorus girls on their way to and from rehearsal gave grounds for suggesting that the contention of the knowalls was not altogether without foundation.

Lord Partlett had, indeed, a nice eye for the fair sex, and consequently when it happened one fine day that he lounged into the studio of Walter Bywater, to escape a shower, and observed a large painting of a lady clad mainly in a wreath of seaweed and a few iridescent seashells, it was only natural that he should have exclaimed, as he did, what time he adjusted his monocle: "By Jove, Bywater, that's not at all bad."

"I'm going to send it to the shop," Walter answered, vaguely indicating that noble pile, Burlington house; "but it's sure to be chucked. It's too big, and it's too Frenchy for them."

"What's the price?" "Goodness only knows. Haven't thought about it. But, there, I'm sick and tired of the thing, and I shall be glad to get rid of it. You can have it for a thousand," he added, with a laugh.

"Done," said Partlett, quickly, "on one condition."

"Honor bright?" exclaimed the astonished artist, "or is it a joke?"

"No joke, my dear Bywater. I'll buy that picture when it's finished, and give a thousand pounds for it if you in your turn will give me the name and address of your model."

Bywater looked dumfounded. "I can't tell you," he replied quickly, "because I don't know. She came in one day, quite by chance, she was just what I wanted, and there you are. I know as much about her as the man in the moon."

"She'll be here this afternoon?" "I don't know," said Bywater, scrapping his palette furiously; "she's a most uncertain young party."

"The rain seems to have stopped," said Partlett carelessly. "I think I'll be off; much obliged for the shelter, Bywater."

Half an hour later Mademoiselle, the Model, entered the studio. She had it to herself. Bywater had gone off in a cab to curse a dealer, a favorite form of pick-me-up which he indulged in when he felt low-spirited.

Profiting by his absence, Fritz, the studio boy, seized the occasion to run around the corner to toss a pal for cigarettes.

Slowly she disrobed, and, having arranged her hair, she flung a padded robe around her and seated herself in a low chair.

She had not been there many minutes when she felt there was some one else in the room.

She looked up. Clarence, earl of Partlett, smiling and debonair, was standing just behind her.

"Don't be alarmed my dear," he said, in his soft, dulcet tones, as he



Ogling the fair ones in Regent street on a sunny day.

seated himself in the chair he had a moment before vacated. "I am Lord Partlett, a great friend of Mr. Bywater's. You may have heard of me." "Mr. Bywater is not in, and—"

"That I know," the old earl chuckled, "I saw him go off in a hansom. I was waiting in a tobacconist's shop out of the rain. I don't want Bywater. I want to have a word with you, if I may."

"With me?" "Yes, my dear, with you. I was admiring your portrait on canvas a short time ago, and I asked Bywater all about you."

"And what did he say?" "By gad, he said nothing. Couldn't get a word out of the fellow. Very stupid of him. I offered to buy that



picture—your picture—if he would give me your name and address. And he pretended not to know either! As if that would take me in."

The old man laughed quite heartily at his own shrewdness and penetration.

"Of course, I saw how it was at once," he went on; "he's in love with you. Now, don't deny it. I say he is. That's all right. Every artist falls in love with his models. It's the usual thing."

"If that is all you have to say, you had better go."

"Now, don't get angry, my child. There's no cause for it. I'm not going to interfere. It's got nothing to do with me. But Bywater's an idiot to lose a thousand pounds, when half a dozen words might have put the money in his pocket. All I wanted the address for was to call on you and ask you to come out to supper next week. I've taken a fancy to you, you know. Funny, isn't it? But it's true, all the same. Now, I'm getting up a little bohemian party. We are going down to Richmond. A bit of a hop, some supper and that sort of thing—all friends, you know, and just what you would like. Will you come? I'll look after you," he added, coming a little closer to the girl.

"And if I do, what then?" "Oh, anything you like," laughed his lordship, softly, "give it a name—a frock, a bracelet—"

"I don't want anything for myself," the girl answered; "I want you to do Bywater a good turn. He's a good fellow, and he's awfully hard up. Buy his picture; buy two or three—half a dozen. You won't feel it."

"Two or three—half a dozen! Whew! That's rather a wholesale order. I'm not made of money."

Her robe had fallen away somewhat, and the old earl fixed his monocle on a white shoulder and a white neck, and silently gloated.

"What do you want for them?" he said, waving his hand round the studio, "you are the seller, you know, and so you must name the price. Or," he added, quickly, "suppose I make a bid, a sporting offer. I'll buy five of those water colors in the corner—they are the best Bywater's ever done—at a couple of hundred each and half a dozen kisses. And you to come to Richmond with me next week. That's part of the bargain, the most important part," he added, dryly.

"Going, going, gone!" exclaimed the girl, striking a palette with a big paint brush, "write out your check."

The old man got up deliberately, went to the writing table, scribbled a check, and handed it to the girl.

"There, I've done my part. Now for yours."

Partlett made a step forward, as though to clasp her in his arms.

The door opened and Bywater entered.

"Walter," said Miss Model, handing him the check, "Lord Partlett has bought those five water colors in the corner at £200 each and six kisses, and supper with him next week at Richmond. It's a bargain. Here's

the check. I have agreed to the kisses and the supper, but as you are my husband, my consent, of course, goes for nothing without yours."

There was a muffled exclamation, the closing of a door, a cry of "Hil hansom!" outside.

Lord Partlett had gone.—Chicago Journal.

# THE PROSPERITY OF CHURCHES.

## Valuable Property Owned by Denominations in Cities.

The marvelous business development of our large cities has brought a new element into the problem of the down town church. Such churches find that there are what Emerson called "compensations." While they are often worried over the loss of income-producing members, they find themselves in the possession of a valuable property; and the question is what to do with it.

Within a year or two a number of these churches have had to determine their policy in the light of their opportunities as owners of valuable real estate. The example of the Broadway Tabernacle is still fresh in mind. That church sold its corner for \$1,350,000. A more recent sale, not quite so large in amount, but involving an even more historic site, was that of the Park street church, in Boston, which obtained \$1,000,000 in round numbers for its property. The Madison Square Presbyterian church obtains a site for its new church across the street from its present location and a bonus of \$225,000.

The first Presbyterian church of Pittsburg has a valuable site down town in the heart of the business district. It was offered a large sum of money for this site outright, but preferred to accept, in lieu of such a sale, a ground rent of \$30,000 a year on a lease for 999 years, plus a cash bonus of \$150,000.

The Second Presbyterian church of Pittsburg has been offered \$425,000 for its present site, and expects to get a full million dollars for it. The proposition now is to add something like \$200,000 to this, and with this sum erect on an adjacent site a structure which will include a secular and commercial feature, as well as provide accommodations for a well-organized church.—Church Economist.

## COMING OF THE ST. BERNARD.

### How the Breed of Noble Dogs Was Discovered to Americans.

Forty years ago the St. Bernard dog was hardly more than a myth to most Americans. In Sunday school literature he figured occasionally, to the joy of dog-loving children, but the real live hero of Alpine fame they would not have recognized had they seen him.

Comparatively few of our country men visited Europe in those days. Our leisure class was limited and a journey abroad meant as long a stay as possible in the great cities, among the treasures of art. St. Bernards were rare upon the great highways of travel. Their work was on the bleak mountain passes, protecting poor wayfarers from the fury of the elements, and far away from the beaten track of foreign tourists.

Travelers who crossed into Italy by way of Tete Noire pass and saw beautiful young pups there were sometimes tempted into buying them, but the risks of transportation were great and very few crossed the Atlantic. Prior to the early '70s most of the importations went to New York state and the first fine collection or kennel of them known belonged to Col. Parker of Albany.

Soon after the era of dog shows opened the eyes of the general public to the wonderful beauty, extraordinary size and charming character of this breed, says Country Life in America, and then the St. Bernard bounded into popularity, and as American dollars ever fly fast after beauty and fashion many thousands were exchanged for beautiful specimens of the "Alpine mastiff."

## Trolley Car Strikes a Deer.

A motorman on the Berkshire trolley road reported striking a deer Monday which was walking on the tracks near the Valley mills, between Lenoxdale and Lee. As the car did not stop it could not be learned whether the animal was killed. The deer, it is believed, strayed from October mountain. Deer are becoming quite common in that section. One was recently struck by the cars in Connecticut and was killed by the game warden. Some weeks ago a man killed a doe near Hillsdale, N. Y., for which he will have to pay dearly. The doe was first seen by Charles Burch, a horse trainer, and was being pursued by two dogs. He mounted a running pony and drove the dogs off. The doe was then nearly stroked out, and allowed Mr. Burch to stroke its head. The deer wandered away and went into a neighbor's barnyard, where she lay down, and was killed by the farmer. The game warden was notified and the man was arrested.—Springfield (Mass.) Republican.

## Heroic Woman Abolitionist.

Miss Sarah E. Sanborn, who died at the age of 80 last week in Hampton Falls, N. H., was once the heroine of an exciting abolitionist adventure. Her brother, Franklin B. Sanborn, with whom she was then living, was outspoken in his utterances and work in support of the abolition cause. An attempt was made to kidnap him. The hack in which he was to be carried away was left standing at the door. Miss Sanborn seized the whip and lashed the horses till they ran away; then she helped her brother to escape. For this exploit the citizens of Concord afterward presented her with a pair of pistols.