

The Army Worm.

While we do not think there is much likelihood of a recurrence of the army worm pest next year, yet it may be well In case we should have another indiction to know a little more about it. The New York Agricultural Experiment Station has devoted Bulletin No. 104 to an investigation of the beast, and from it we extract some facts which our renders would do well to bear in mind.

The eggs are very small, globular in form, and nearly white in color. They are usually laid in the leaf sheaths of grasses and grains, and the early broed, which does the mischlef, oviposit freely in the cut straw of old stacks, in hay ricks, in old corn shocks. and in bits of corn stalk that have been left upon the surface of the ground in pactures. This will explain a fact that has been noted by many. that the worms started in blue grass pastures on which cord fodder had been fed to cattle. The young caterpillars come forth in

about ten days from the t. ne the eggs are laid. In case the eggs were placed on fresh grass or grain, the young larvae feed for a time in the sheath where the eggs were placed, but finally include the whole blade in the bill of four weeks. At this time a single larvae measures about an inch and a half in length and a quarter of an inch in diameter. They may be briefly described as being smooth, naked caterpillars, moderately dark in color, with longitudinal stripes running the full length of the body. The third stage in the insects' life begins when the caterpillars go into the ground or under stones to make the wonderful change from an active caterpillar to an apparently lifeless creature. This stage is



THE ARMY WORM.

called the pupa stage, or, in the case of the butterflies and moths, is more familiarly known as the chrysalic stage. A single chrysalis measures about three-fourths of an inch in length.

Capacity of a Corn Crib. It is a safe rule in estimating the size of a crib, to allow two cubic feet to each bushel of corn. By a cubic bushel is meant 70 pounds of ear corn, which is equivalent to 56 pounds of shelled corn. The rule is to allow 14 pounds for cob in the fall, and 12 hazel. pounds in the spring after the corn has been dried out perfectly. Two cribs thirty feet long, six feet wide and ten feet high, will by this rule hold 1,800 bushels. Ten feet is too high to throw corn easily with a scoop shovel, but there can be two openings for each crib extending down to within four or five feet of the floor, and when the crib is full to the bottom of these, short boards can be placed across them, as the crib is filled, and most of the filling can be done with case. When the cribs must be filled to the top, a boy or man can throw corn back to the ends and fill it.

so as to utilize all the space.

Freserve a Record. It would be no bad plan for every farmer, and particularly for every young farmer, to make a resolutionand keep it-to preserve an intelligible record of all his transactions, the times, the seasons, the crops grown, the dates of planting, with such history of their progress as will throw light upon the results reached. How one's time has been employed, what work was done, when, and in short every fact relating to the economy of the farm might be briefly but intelligibly noted. Such a record, even for a single year, would be of value in planning for the next year, enabling the farmer to better plan his work, because the points at which he succeeded, as well as those at which he failed during the previous year, would be full of suggestion and reminder.

The Advance in Wheat. The price of wheat has advanced in all parts of the world, and is due to legitimate causes. First came a drouth in Australia, which cut down the last crop in the colonies very materially. Later the advices from Adelaide indicate great need of rain, and the next crop there may be dwarfed on that account. Two bad years in succession in Australia are improbable, but not impossible. The crop in the Argentine Republic is short for the same reason, and this is also true of India and Russia. The spectacle of California shipping wheat to Calcutta is one the world has never before beheld.

Pay off and Quit. Whenever there is any misunderstanding between employer and em- off soft it is not ripe.

ploye on the farm, and one or the other feels that they have not had their just deserts, it is time to pay off and quit. These sores never heal up entirely. and it doesn't pay to doctor them up, and have them break out in a new place worse than ever.

A Time for Liberality. A little neighborly belp and counsel may go a great ways toward keeping ome people from fallure. There are in every community those who are in a position to either distress or to help their less fortunate neighbors. In most cases it will do these people no good to draw the lines too tightly, while such action may cause the failure of some who would otherwise have avoided it. A man may be pretty hard up financially, and yet be all right. If his creditor knows this and takes advantage of it in a time of financial unrest the debtor and the whole business community are wronged, usually with no advantage to the creditor. No one is urged to take any great risk for the sake of accommodating a neighbor, yet all should realize the good that a little leniency may do, and the harm that may result from the opposite course.

Poultry Feeding Rack. For the bottom take a board 1 inch thick, 6 inches wide and 6 feet long. ends I inch thick, 6 inches wide and 18 inches long. Nail solid to ends of bottom; their ends flush with underside of bottom. Two strips half an Inch thick and four inches wide are nailed to the edges of the bottom, thus making a trough three inches deep with ends 18 inches high. Then take strips onequarter inch thick, 3 inches wide and



18 inches long, pointed at upper end, and nail them to the sides of the trough, leaving a space between pickets of 11/2 inches for chicks or 2 inches for fowls. fare. They are full grown in about This gives a complete and durable feed rack, where the weak have equal chance with the strong, and no waste

of feed.-Farm and Home. No American Fat Stock Show. There will be no American Fat Stock Show in Chicago this year. The Illinois State Board of Agriculture has decided that the time is too short to allow for proper arrangements being made. The stockmen, too, are of the opinion that it would not be convenient for them to attend, the time being too short for them to get their herds in condition. It is probable that another cause has operated to some extent. The Springfield fair involved them in debt about \$15,-000, and they had asked to have a guarantee fund of \$20,000 raised if the fat stock show was to be held. Only \$15,000 of the latter sum bad been subscribed.

Dead Furrow a Nuisance. The dead furrow is always a nuisance in preparing land for a crop. unless it is upon wet lands, which must necessarily be thrown into ridges a couple of rods wide to carry off surface water. The reversing plow is now used and highly recommended when it is desirable to have lands level. We shall investigate this reversible plow and report upon its practical utility another season.

Dairy Dots.

It is well to remember that culls will come with the best of breeding.

If a cow has a sore teat, milk very carefully, and apply extract of witch

If a cow's teats are muddy or covered with other filth, they should be washed with water and then wiped dry before

beginning to milk. With temperature under control and churning direct at the right time, the butter will come solid so as to be easily

handled and free from buttermilk. When the butter is marbled, it is either caused by leaving too much buttermilk in the butter at the last working or the salt has not been distributed

Much of the average farm butter contains many of the essentials of good quality, but because it fails in one or more essentials it falls to bring best prices.

The laws enacted during the past two years with reference to oleomargarine seem to be slowly but surely reducing the output of the stuff, and they are certainly of great benefit to the legitimate dairy interests.

Arricultural Atoms. Chinch bugs winter over among dead grass, in corn shocks, piles of rubbish, and along fences, especially

hedges. The potato blight is on the increase, Bordeaux mixture for blight and Paris green for bugs will have to be kept in stock by the potato grower.

For storing corn fodder, either shredded or bulk, any sort of a shed that has a rainproof roof will do. All that is necessary is that it be kept dry.

Land that is rich enough to produce crops on the "intensive" plan does not need rest, but a judicious rotation must be kept up, with clover mixed in somewhere.

Make your cellars frost proof, white wash them, and let them at all times have light, and be capable of frequent ventilation. A cellar may be of greater value, or a nuisance.

The preponderance of evidence seems to be against the replowing of corn land for wheat. The land is in good condition without plowing. Cut the corn off low and drill in the wheat,

To tell when pumpkins are ripe chin them with the finger nail. If the nail makes a snapping noise when breaking through the rind it is ripe, but if what you don't like"? it makes no noise or the chip comes

USEFUL BOOKS GIVEN AWAY.

INSTRUCTIONS FOR MAKING ART AND FANCY WORK.

Mrs. Nella Daggett of Boston has recently written a book, "Fancy Work and Art Decortions," that gives practical instructions is making dollies, table covers, sears, tray cloth pin cushions, etc., etc., with flity illustration in the book of the covery of the book tower.

COUPON NO. 716 "O." This entitles any reader of this paper to one copy of Francy Work and Art Dec-

al offer is made to advertise the reliable mond Dyes, and to get their book upon he dyeing into the hands of women who was dress well by making their old clothing The fact that Diamond Dyes have been the standard home dyes for nearly twenty years, and that their sale increases from year to year, is proof positive that they have never had an equal.

CWINDLING ADVERTISERS.

footland Yard Detectives Keen an Eye Upon Dangerous Sharpers.

There is one official at Scotland Yard who is but little known to the public. but who all the same works very hard and successfully for the public good by closely scanning, day in and day out, the advertisements appearing in every London newspaper.

This official's primary duty is to keep others if we had fewer faults of our a bright lookout for the very numerous own. swindling class which advertises for managers and so on prepared to invest money; but, quite beyond this, be, an the most careful manner, notes all advertisements as strike him in any way as being suspicious, handing them over to the heads of different departments. He is himself an expert in all matters that deal with eigher writing, and part of his duty is to translate every cipher that may appear, handing over a copy of the staff when anything is revealed that justifies such a course.

The writer had the privilege the other day of a short chat with this official a bright young fellow, speaking several languages, who said:

"I am afraid that I am not allowed to tell you much, but I may say that no day ever passes without my handing over some advertisement for inquiry. Our scrutiny in this way has become very keen recently, for it is an open secret that certain foreign catch advertisement swindlers are expected here ere long.

"Besides, there have been exposed in court many cases of swindling recentwhich have depended solely on alluring advertisements. In two of them I gave warning long ago, but no prosecutor would come forward. Were I allowed to do so, I could show you stay, when he proves that nobody else is hundreds of most mysterious cipher advertisements in the book over there. the bulk of these, of course, being be tween lovers, but many of them con taining warnings from one educated swindler to another.

"Of course, you know that the thieves even are all specialists nowadays, and it is surprising how soon a bogus advertisement swindler gets to work again in the same direction when he is released from jail. I am advised of the release of these men, and the characteristics of their style are soon observable again in the advertisement

"We, as a rule, warn them at once this way hundreds of warnings are pastures, but it is hard to convince sent out yearly and do an amount of good that the public knows nothing of that way. My duty is very monotonous, and I dare not get even a single edition behindhand."-London Tit-Bits.

ERATION.

The above class of scientists recognize, and have repeatedly borne testimony, to the efficacy of Hostetter's Stomach Bitters as a remedy and preventive of lever and ague, rheumatism, want of vigor, liver complaint, and some other aliments and infirm conditions of the system. Experience and observation have taught them its value. They but echo the verdiet long since pronounced by the public and the press. Only the benighted now are ignorant of America's tonic and alterative.

The multitude is like the rea; it according to the wind.

DEAFNESS CANNOT BE CURED.

By local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous liming of the Eustachian Tube. When this tube is inflamed you have a rumbling sound or imperiect hearing, and when it is entirely closed, deafness is the result, and unless the inflammation can be taken out and this tube restored to its mormal condition, hearing will be desiroyed forever; nine cases out of ten are caused by estarrh, which is nothing but an inflamed condition of the mucous sursaces.

We will give One Hundred Dollars for any case of deafness (caused by eatarrh) that cannot be cured by Hall's Catarrh Cure. Send for circulars; free.

F. J. CHENEY & CO., Toledo, O. Fold by druggists, 76c.

Liall's Family Fills are the best.

Great things are not accomplished by idle dreams, but by years of patience and wisely directed study.

CLERKS AND SALESMEN-MALE AND PE-(LERRS AND SALESMEN—MALE AND FE-male—Employed and memployed; send stamped self addressed envelope at once for registration application blank to Employees industrial Association. Home office, 246 Wash-ington street, Portland, Oregon.

We will forfeit \$1,000 if any of our published testimonials are proven to be not genuine. THE Preo Co., Warren, Pa.

We want your tea-trade for the rest of your life.

Do you see now how we can afford to say: "Get every sort of Schilling's Best of your grocer, and get your money back on himself.

TRUMPET CALLS.

Ram's Horn Sounds a Warning Note 70 be a lion is to



have a lion's enemies. To give less than we should is not to give as God

would. The man who gives help to an-

other learns how best to help him-No gift will be

too small that heart full of love behind it. Blessed are the meek. The rabbit survives, but the wolf is gone.

Suffering often puts into the human voice a tone that seems divine. The strongest of all men is the one

who takes God to be his strength. Something is sure to be accomplished by the man who sticks to one thing.

If we see nothing good in others, they will not be likely to see much good in Not until we know a man's heart

have we any right to say that we know We would all have less cause to blame

Only God can tell how much wrong doing is prevented by one man doing

Before we can know much of God we have to find out a good deal about our-

As much bitterness and hate can be expressed in a word as can be fired out

It is better to be able to suffer long of the translation to active members and be kind than to be able to talk like an angel.

The man who says no to himself in nothing has the devil for a traveling

The Christian who does not look happy when he gives dims the polish on his gift.

The man who would have a large life, must work and pray that he may have a large heart.

A good man finds good wherever he goes, because the good in him brings out good in others.

The slothful man can never find that sweetness in bread which God puts in it for the diligent man. We often call upon God to take away

our trials, when what he wants is to give us grace to stand them. The devil almost gains our consent to

doing anything to make him go. There is probably a time in the life of every man when his hand almost

touches the philosopher's stone. There will be no revival when the people can see clear across the house that the preacher isn't expecting much. Every mother should train her chil-

dren as carefully as she would if she knew they were to be kings and Many a man cheats himself out of a blessing, because he is not willing to

trust God with the way in which it David found the valley of the shadow

those who have not tried it that it is

Filters.

Prof. Tyndall's idea, expressed many years ago, that filtration through a plug PHYSICIANS WISE IN THEIR GEN. of cotton wool was a most efficient method of freeing air from microbic germs, led to attempts being made to sterilize water in the same way. Little success has hitherto been attained, but quite recently M. Henri Potevin claims that he has evolved a method of so constructing such filters that he can completely sterilize water in large quantities. The fibers of the cotton are finely powdered and sifted, and then suspended in water and allowed to settle. This either bears you up or swallows you, they do in compact mass, forming a paste, which, allowed to dry slowly, gives filter plates quite impervious to germs, etc. The best results are gained by placing the plates between two plates of sandstone or perforated metal, and if they are arranged in a battery, like the filter presses so commonly used in Europe for sewage, sludge, etc., very large quantities of water can be rapidly sterilized. Periodical cleanings are necessary, as no matter what care is taken, the rule which holds good in all other filters serving the same end, that the microbes are able to get through the filtering material eventually by a process of growth, obtains. There is, however, no great difficulty in this, as the cells of the material are easily purified by a fresh pulping in boiling water.

> Woman's Reason, Surprised Dame-What? And you have refused Mr. De Goode? I thought you liked him.

> Lovely Daughter-I did, but to tell you the truth, none of the other girls seemed to care a snap for him.-New York Recorder.

A Fure Way. An agricultural exchange asks: "How can we prevent cider from working?" You might get it a government position.-Texas Sifter.

Wheel News. "It is queer how you inexperienced riders always take such long rides." "No, it isn't a bit queer; we are afraid

to stop and get off for fear we can't get

on again."-Detroit Free Press, A man without cuthusiasm is a very poor friend, but he takes good care of

This is the season when those persons who have never tried 'possum

Get Your Christmas **Gifts**

Free

Many thousand dollars worth of valuable articles suitable for Christmas gifts for the young and old, are to be given to smokers of Blackwell's Genuine Durham Tobacco. You will find one coupon inside each

two ounce bag, and two coupons inside each four ounce bag of Blackwell's Durham. Buy a bag of this celebrated tobacco and read the couponwhich gives a list of valuable presents and how to get them.

Blackwell's Genuine Tobacco

Cheapest Power....

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.....FOR SALE CHEAP

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State Your Wants and Write for Prices

Hercules GasEngine Works

105-7 Sansome Street San Francisco, Cal...

Gas, Gasoline and Oil Engines, 1 to 200 H. P.

Mr. A. H. Crausby, of 158 Kerr St., Memphis, Tenn., says that his wife paid no attention to a small lump which appeared in her breast, but it soon de-veloped into a cancer of the worst type, and notwithstanding the treatment of the best physicians, it continued to spread and grow rapidly, eating two holes in her breast. The doctors

soon pronounced her incurable, A celebrated New York specialist then treat-ed her, but she continued to grow worse and when informed gave the case up as honeless.

Someone then reand though little hope remained, she begun it, and an improvement was noticed. The cancer commenced to heal and when she had taken several bottles it disappeared entirely, and although several years have elapsed, not a sign of

the disease has ever returned. A Real Blood Remedy.

S.S.S. (guaranteed purely vegetable) is a real blood remedy, and never fails to cure Cancer, Eczema, Rheumatism Scrofula, or any other blood disease. Our books will be mailed free to any address. Swift

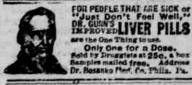
Atlanta Ga. HOUSEHOLD COODS, ETC.

This circular is issued for the benefit of our country customers who cannot avail themselves of our Daily Special Sales. Send us your address. You will find both goods and prices right. WILL & FINCK CO., 818-820 Market Street, San Francisco, Cal.

WHEAT Make money by successful speculation in Chicago. We buy and sell wheat there on margins. Fortunes have been made on a small beginning by trading in futures. Write for full particulars. Best of reference given. Several years experience on the Chicago Board of Trade, and a thorough knowledge of the business. Downing, Hopkins & Co., Chicago Board of Trade Brokers. Offices in Fortland, Oregon, and Spokane, Wash.

AXLE BEST IN THE WORLD. GREASE

Its wearing qualities are unsurpassed, actually outlasting two locks of any of er trand. Free from Animal oils. U-T THE GE-UINE. FOR SALK BY OREGON AND WAS CHARTS and Dealers generally.



A Risay Service.

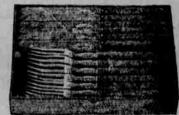
The African Lakes Company has become so careful that it compels its agents to pay their own funeral expenses; so many agents died that an order was netually issued compelling the agents to die at their own expense. For a long while the company has enjoyed a monopoly of trade.

Governesses in families of the nobility seldom, if ever, dine with the heads of the establishment. They take their meals slone or with the younger members of the family.



Pay the Postage,

THIS SET OF HOUSEHOLD KNIVES Consisting of a 14-inch bread knife, 12-inch cake knife and a paring knife, ... At 21 Cents for the Three..... These knives cut bread and cake with-out crumbling, and if hot as well as if cold. Also



Rogers Bros.' Genuine Triple Plated Knives and Forks

and grandmother had and grandmother had died from cancer he AT \$3.65 forks, as shown above.

OLDS & KING. 302 Washington St. .

HOW TO BE BEAUTIFUL!

MME A. RUPPERT'S FACE BLEACH. Porland, Cr.

MME. A. RUPI ERT says: "I appreciate the fact that there are thousands and thousands of the ladies of the United States that would like to try my World Renowned FACE BLEACH; but have been kept from doing so on account of the price, which is \$2 per bottle, or 3 bottles taken together \$5. in order that all of these may have an opportunity, I will mail free a sample bottle, safely packed, plain wrapper, on receipt of 25 cents. FRECK LES, pimples, moth, sallowness, black heads, acne, eczems, olliness or roughness, or any discoloration or disease of the skin, and wrinkles (not caused by facial expression,) ACE BLEACH removes absolutely. It does not cover up, as cosmetics do, but it is a cure. is a cure.

Fend for my book "How to be Beautiful," free on application. Address all communications of call on

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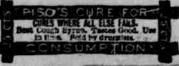
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RUPTURE and I II.ES cured; no pay until cured; send for look. Das. Mansettin & Ponterfield, NS Market St., San Francisco.

SURE CURE FOR PILES DR. BO-SAH-KC'S PILE REMEDY. No. 10 pt. 10 p



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