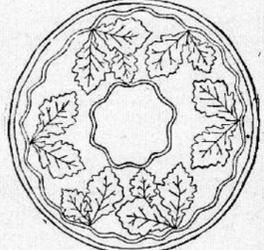




WORK ON HUCKABACK.

Embroidering That is Comparatively Easy on the Eyes and Yet Produces Fine Results.

Those who are familiar with this brand of linen know that in the process of weaving two threads are thrown up on the right side and lie flat but loose at regular intervals across the material. These open the way for "darning" the background, this being a peculiar feature of huckaback embroidery. The embroidery floss is run across the huckaback under the loose threads and over the remainder in a regular darning stitch in parallel rows until all the space is covered except that occupied by the design, which is then left plain, or embroidered in any manner desired. Only patterns showing conventional figures and ample spaces are suitable to



HUCKABACK CENTER PIECE.

This work, which may be carried out with regulation embroidery silks, using a rather heavy grade, or in the mercerized lineens so widely used at present. Where designs require shading, the silks are best, as the various consecutive shades are procurable in these goods. In other cases the lineens answer perfectly. A centerpiece design is shown in the illustration, autumn leaves furnishing the motif. It measures 16 inches in diameter, and can be duplicated at home with a handful of leaves, paper and pencil. The space between the inner and outer way lines is darned, leaving the leaves plain. For this, a delicate shade of green silk is used. Embroider the two lines of satin stitch in a slightly darker shade of green. Satin stitch is a succession of stitches close together across the space to be covered, either straight or diagonally.

The size of the centerpiece is buttonholed with still a deeper green, and between this buttonholing and the line of satin stitch, scatter French knots irregularly. These are made by coiling the silk about the needle two or three times and inserting it at the point where it comes up through the linen, thus forming knots on the right side of the fabric.

Embroider the leaves in "long and short" stitch all around, using green, brown and red shades, with a touch of yellow here and there. Outline the veins and midrib in the shades predominating in each leaf, and endeavor to vary the leaves as much as possible, so that no two will look alike when finished. This work is speedy, and the result cannot fail to gratify. The smaller illustration shows a design adapted to decorating a shawl or dresser scarf, or for towel borders. For towels, all white floss is always preferable, since they can then be boiled without fear of ruining the colors, but for ornamental covers for dressers, stands, etc., this design is most effective carried out in pink, blue, yellow or light green. Whatever color predominates in the furnishings of the



HUCKABACK BORDER.

room will be suitable. The open spaces between the two horizontal bars are covered in darning stitch. The bars themselves are then worked solid in satin stitch, and the interlaced portions of the design outlined on both edges and filled between with French knots or with herringbone stitch. This latter is formed by placing stitches diagonally across the space at regular intervals, slanting first one way and then the other with ends crossing, somewhat after the manner of a rail fence. The design must be duplicated as often as necessary to complete the embellishment of the desired article.—Miss Y. Mahaffy, in Ohio Farmer.

HABITS AND HEALTH.

Crusades for Sanitation Hard to Carry to Success on Account of Public Indifference.

It is no easy task to carry to success a crusade in the interest of public health. Those who have engaged in such movements, says the Baltimore American, know how many obstacles must be overcome, how many disappointments and discouragements must be borne with equanimity before the goal sought is reached. Public indifference to such matters is one of the chief obstacles, and until that is removed there can be very little hope of results worth having. The large majority of people are fairly healthy, and it is difficult to make such people believe that it is necessary for them to pay any great amount of attention to laws of sanitation or rules of hygiene. They eat well, sleep well, keep strong and hearty, and hence care very little for the sanitary condition of their surroundings. In truth, it is not always the dirtiest places in a city which are the most unhealthy. In one section where the gutters run with filthy water, where the children are thick as hops and as dirty as pigs, the mortality is very low, even less than in sections where cleanliness is counted next to godliness,

SHOE-STRING BELTS.

They Are Very Pretty and No Clever Girl or Woman Need Be Without One.

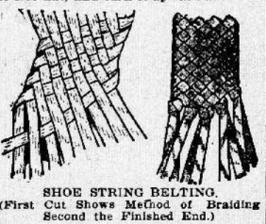
Shoe-string belts may be made of white, colored or checkered lacings. White belts can be cleaned with a brush after soaking for a few minutes in soapuds. Five pairs of lacings are required for a belt of medium width. Run a large safety-pin through each lacing, about one inch from the end, and fasten the pinned ends to a table, or stuff them in a bureau drawer. The strings must lie flat, and should be numbered in order, beginning at the right.

Take No. 1, holding it flat between the thumb and forefinger of the right hand, turn it over toward the left, until the part that was underneath lies on top; pass the string over No. 2, under No. 3, over No. 4, and so on, weaving it over and under the strings alternately to the end of the row, No. 10 coming above No. 1.

Take No. 10 in the left hand and turn it downward and over toward the right, and pass it under No. 1. At the right hand take No. 2 in the same way, pass it over No. 3, under No. 4, continue in this manner to the end of the row, where No. 1 holds the last position.

Take No. 2 in the left hand, turn it downward and toward the right, and pass it under No. 1, over No. 10, working toward the right.

Take No. 3 in the right hand, and use it in the same manner as you used No. 1 and No. 2; at the end of the row take the string in the left hand, and work it toward the right. Continue the work to the desired length and add about three inches to the usual waist measure to allow for crossing the ends. When braiding, give each string a slight pull, in order to make the work close and even. At the beginning of each row at the right-hand side, take the string as it lies flat, and turn it upward and over



SHOE STRING BELTING. (First Cut Shows Method of Braiding Second the Finished End.)

toward the left; and at the beginning of each row at the left as you take up the first string as it lies flat, turn it over and downward toward the right. To finish off the ends of a belt, arrange the ends in pairs, take the right-hand string, and tie it in a knot that will include the left-hand string.

When the knots have been tied at one end, remove the other end of the belt from its fastenings, and tighten up the end, braiding one side of it so that each side will be of the same length, then tie the knots to correspond with the other end. Cut off the surplus ends, allowing about one and one-half inches for the fringe. Take a large pin, and fringe out the ends.—Lillian Kempton, in Modern Priscilla.

HOW TO RETAIN YOUTH.

Work with Discretion, Get Plenty of Beauty Sleep and Never Lose Temper or Patience.

Keeping young looking depends very much on yourselves. Here is some good advice once given by a beautiful woman to a girl admirer who asked her for her recipe: "Never work on till you are weary at the last gasp, whether at your business or your pleasure, but rest as you go along. If you forego rest till your work is done the chances are that you will then be too tired to take it. Get all the beauty sleep you can. Remember that late hours are fatal to good looks and health and don't commit the folly of working far into the night and then wondering why your work is not well done and you feel so good-for-nothing next day. Shield your nerves and don't let them become too sensitive. Make yourself take life calmly. If you lose a train don't pace the platform wildly, but inquire when the next comes in and sit down calmly to wait for it. That's just what most women don't do; they sit down, perhaps, but they tap the floor with their feet, clinch and unclinch their hands and are apparently in a fever heat of excitement over the arrival of every train that comes in, even though they have been assured that theirs is not due for another half-hour. That half-hour of waiting means to them a frightful wear and tear of nerves and they are practically weeks older for it. Try to cultivate calm, but if you cannot do that all at once you can keep your face still. It need not record all your emotions of anger, worry and perplexity. Biting your lips and wrinkling your brows will not help you and the indulgence in these tricks will add ugly lines to your face, making you old-looking before your time."—Chicago News.

Won't Steal Chickens Again. A negro minister at Ferguson, Mo., pounced upon a white man who was discovered stealing his chickens. The rogue was secured for the night by being locked up in the henhouse. The next morning, with the aid of neighbors, the thief was fastened to a wagon tongue, with a rope around his waist, the tongue was then raised up in the air, with the rogue thus suspended, until he pitifully promised never to steal chickens again.

Hard Water Ruins Skin. Don't use hard water if you value your complexion. The excess of lime in hard water neutralizes the oil in the pores of the skin, and thus hardens the cuticle.

That's Different. "The old lady'll give you half Columbia for betting on a horse race." "No, she won't. This time I won't."—Atlanta Constitution.

OWNED BY THE PEOPLE.

American Railways Divide Two-Thirds of Earnings with People Directly Interested.

"In one way and another the people of the United States own the railways of the United States, and something like 2,000 persons, through wages, interest and dividends, divide two-thirds of their gross earnings of \$1,726,380,267 (1901-02) among them, and the other third goes for fuel, taxes, supplies and equipment." This statement, says the Railway World, Sison Thompson, head of one of the bureaus of the General Managers' association, with headquarters in Chicago, was led to make as a result of replies to the question: "Are there 1,000,000 owners of railway securities in the United States?" received from 39 of the leading railway companies of the country. These 39 represent 107,640 miles out of the 203,471 of single-track mileage in the United States. They gave the total number of stockholders on their books as 191,387.

"This is pretty nearly equal to two stockholders of every mile of railway," says Mr. Thompson. "The ratio on the Illinois Central, as given by Stuyvesant Fish, is a little over two to one. On some of the railroads the ratio rises to three to one, and in two cases as high as eight to one, while in one case the ratio swung as far as one to six the other way. Applying two to one as the ratio, approximately in the total, would give 400,000 stockholders in round numbers for the 200,000 miles of railway in the United States as owning \$6,024,201,225 of capital stock, as reported June 30, 1902. Assuming that the \$6,109,581,669 funded debt is as widely distributed among bondholders, the railway ownership would appear to be held in something like 800,000 hands. But large as these figures are, and approaching the total of railway employees (1,189,315), as they do, they by no means represent the total of those interested in railway ownership. The figures given are for registered stock, and, as the controller of one of the largest systems wrote: 'It is very probable that the number of actual stockholders is twice as great as the number of registered stockholders.' Then there is the holding of railway stock by insurance companies, savings banks and trust companies, extending their ownership among thousands. And what is true of these institutions as to stocks, is also true as to railway bonds—only more so."

President Stuyvesant Fish, of the Illinois Central railroad, at the recent annual meeting of that company, presented statistics showing that one year ago the company had a total of 7,128 stockholders, and among them were 5,599 persons who owned less than 100 shares each, and who, combined, owned \$13,152,000 of a total capital stock issued amounting to \$95,028,400. During the year the total number of stockholders increased to 8,647, out of whom 6,728 owned collectively \$15,947,600. This shows that the increase of 1,519 in the total number of stockholders came mainly from the small investor.

It is a matter of considerable importance that the people residing along the lines of great railway systems are becoming more and more financially interested in these companies, as evidenced by the fact that 2,218 of the Illinois Central stockholders reside in the 12 states in which the company has lines and 1,324 are residents of the state of Illinois, the home of the company.

THE SLY OPOSSUM. Not So Brainless and Foolish as Its Actions Would Seem to Indicate.

To the casual observer the opossum is a brainless, slow-going lazy beast, with scarcely enough energy to eat his food, says a writer in Woman's Home Companion. But I fancy that there is a good deal more of the knave than the fool about him, and that his apparent stupidity is but a part of his business policy. Helpless as he often seems to be, he usually has a snug hole to crawl into when he wishes to sleep, and he seldom goes hungry when there is any food to be had. Although he is slow, he is persevering, and manages somehow to capture many animals which have much greater speed. Squirrels, for instance, often fall a prey to him in the open woods, and once, when I left an opossum for a few hours in the same room with some red squirrels, he had captured and half devoured one before I returned. Rats, mice and rabbits he also captures, probably by lying in wait for them, and insects he obtains in various ways. Birds' eggs he regards with much favor, and he finds a great many, both on the ground and in the trees, during the nesting-season. Young birds, too, are hunted for and devoured, and occasionally the old birds themselves fall to escape him.

But he is not dependent on animal food, for all is grist which comes to his mill. He is fond of nearly all the wild fruits and berries he finds in the woods and fields, and will even come into the orchards and vineyards to sample the cultivated varieties.

Why He Didn't Merry. One of the best of the Bulletin sketches hangs in the library of Joseph Chamberlain. It portrays a thin, haggard man in the prisoners' bar, talking to a very mild and sympathetic-looking judge. Phil May's story of the sketch is that the prisoner had been dragged before the judge every few months for a number of years.

"Your face is familiar here," the latter now said. "It is, your honor—worse luck," returned the prisoner. "Are you married yet?" "Not yet, sir."

"Not yet, eh? How long is it now that you have been engaged?" "Seven years, your honor." "So long as that? Why in the world haven't you got married in all that time?" "Because, your honor," the prisoner explained, "Ann and I haven't managed to be both out of jail at the same time."—Boston Post.

May Be Flooded. The statement has just been made by a government surveyor that 840 square miles of the Missouri River valley in Iowa is many feet below the level of the river. The statement is rather startling, for the reason that there are a number of pretentious towns in this district, and a great throng of people who have always believed that they were out of the reach of floods.



THE ROAD TO GRUMBLETOWN.

'Tis quite a straight and easy road That leads to Grumbletown, And those who wish can always find A chance to journey down.

'Tis customary for the trip To choose a rainy day— When weather's fine one's not so apt To care to go that way.

Just keep down Fretful Lane until You come to Sulky Stile, Where travelers often like to rest In silence for awhile.

And then cross over Broukling Bridge, Where Don't Care Brook flows down, And just a little way beyond You come to Grumbletown.

From what I learn, this Grumbletown Is not a pleasant place; One never hears a cheerful word, Or sees a smiling face.

The children there are badly spoiled, And sure to fret and tease, And all the grown-up people, too, Seem cross and hard to please.

The weather rarely is just right: In this peculiar spot; 'Tis either raining all the time, Or else too cold, or hot.

The books are stupid as can be; The games are dull and stale; There's nothing new and nothing nice In Grumbletown, I'm told.

And I've taken pains, my dears, The easiest road to show, That you may all be very sure You never, never go! —Ellen Manly, in St. Nicholas.

UNCLE SAM'S MAILS. They Can Follow a Traveler All the Way Around the World and Back Again.

The United States mails are carried everywhere. It would be almost a physical impossibility for a man to hide himself in any remote corner of the world without being discovered at last by some insignificant agent of a world-wide service, the machinery of which operates quietly and with clock-like regularity. If a bird's-eye view of the different railroad and steamship lines which carry the mails could be taken the giant spider's web thus formed would appear woven in a pattern so intricate that the mind would balk at the mere suggestion of unraveling it. And besides the regular steamship and railroad threads of this maze would appear tens of thousands of cross-lines, representing pony routes, dog-and-sled trails, swift courier and runner trails, and even reindeer, whaling-ship and canoe lines. Every sort of vehicle and beast of burden, and nearly every invention of man for quick transportation, have been pressed into the postal service, and it is possible for a letter to go around the world under conditions so strange that the mere history of its journey would form a story of thrilling interest.

If a man should start from New York and travel northward to Alaska, then down the coast to California and take



ship to Manila, and follow the lines of travel to Hongkong, to Singapore, to Canton, to Tokio, to Vladivostok, to St. Petersburg, to Vienna, to London, to South Africa, and finally to South America, touching on the way at several Pacific and South Atlantic islands, and thence back to his starting point, he could travel a distance several times greater than the circumference of the globe. If he ordered his mail forwarded to him, and left correct addresses at each place, the letters would dutifully follow him and finally be delivered to him in New York a few days after his own arrival there. All that he would have to pay extra for this remarkable journey of his mail would be a dollar or two in tolls, which would represent the charges for forwarding exacted by some of the countries through which it passed. There is in the post office department at Washington the envelope of a letter which traveled in this way 150,000 miles, and another which came safely through a trip of 125,000 miles. Both are marked and stamped in a way to baffle any expert of a very expert decipherer of puzzles.—St. Nicholas.

CANDIDATES FOR ARMY. Examinations of Recruits Show Unusually Large Proportion of Physically Perfect Men.

It appears from the report of the surgeon general of the United States Army that the total number of candidates examined for enlistment was 45,218, and that of these about two-thirds, or 30,175, were accepted. This, says the Los Angeles Times, is a large proportion, when the fact is taken into account that the standard of excellence required is very high, none but physically perfect men being accepted. Of the 45,218 applicants for enlistment 42,183 were white men and 3,035 were colored men. Of the white men 37,780 were accepted and of the colored men 2,386.

Out of every 1,000 men accepted 781.05, on the average, were born in the United States, 64.76 in British territory, 45.25 in Germany and 8.79 in Sweden and Norway. Of 18 American Indians examined 14 were enlisted as scouts. It is interesting to note that during the year 736 native Malays were examined for enlistment as Philippine scouts, and that of these all except 20 were accepted, showing a surprisingly high standard of physique among the Filipinos.

TRICK WITH A SLATE.

When Cleverly Performed, According to Instructions Given, It Affords Lots of Fun.

An ordinary slate, such as children write on, is shown to the audience; to prove that nothing is written upon it both sides are rubbed with a wet sponge. A chair is brought to the foreground, the seat of which is covered with a black cloth. Then the performer asks any girl in the audience to be kind enough to give her first name and offers to let the slate guess the date of her birth. After the name is given the performer places the slate on the chair and lays a piece of chalk upon it. After making a few motions over the slate to indicate that the writing is going on the performer lifts up the slate and behold! One side of the slate shows the correct name and date of birth.

This seems to be a trick hard to explain, but nevertheless it is a very



simple one. Take a plain slate, on one side of which the name and the date is previously written. A friend of the performer is instructed to call the name so quickly that no one else can get ahead of him. All that is left to do is to secrete the name and date on the slate until it is time for it to appear.

To do this you will have to get a piece of cardboard, fitting exactly over the black part of the slate, both sides of which are covered smoothly with black slate paper. Sheet B is laid over the side of the slate with the writing on it (A). Place the slate with the sheet (A) face down on the chair. When you are going to show the secret writing to the audience lift the slate in such a way that the sheet of paper stays upon the black cloth, where it (being black, too) cannot be discerned.—Cincinnati Enquirer.

STORIES ABOUT EAGLES.

They Show That the Big Birds Are Not Afraid to Tackle Even the Strongest Antagonist.

Some years ago Sir Charles Mordaunt witnessed in Scotland a strange battle between an eagle and a stag, which completely dispels any theory that the ornithologist may put forward as to eagles not attacking large animals, says the Chicago Journal. The bird singled out from a herd one particular buck, which it succeeded in driving from the rest. It struck the animal repeatedly with its powerful wings, knocked it down and finally killed it.

Baron Schroeder witnessed a still more remarkable spectacle. An eagle attacked a fawn which was one of a herd in the highlands. The cries of the little one were answered by its dam, which sprang upon its fore and struck it repeatedly with its fore feet. Fawn, deer and eagle rolled headlong down a declivity, and the bird was dislodged from its hold and the fawn rescued.

But Sir Kenneth Mackenzie knows a more thrilling story than either of these, for, according to report, an eagle was seen in 1741 during a battle in his forest of Gairloch. Fixing its talons in the quarters of a roe, the bird was dashed against a tree, to a branch of which it endeavored to hold to stay the flight of its captive. The bird was halved in an instant.

Many traditions are extant as to eagles having carried off and devoured children. In the north of England the legend is perpetuated by the name of many an inn, the sign "The Eagle and the Child" being common. The most recent case bearing close scrutiny appears to be one which occurred in South Africa. A Boer farmer, living on the veldt just beyond Barberton, whose stock had been harried by eagles, lay in ambush for an eagle robber, and saw one of them descend and carry off the five-year-old child of one of his Kaffir servants. He shot the bird, which with the child still clutched in its grip, fell into a thorn bush. The bird was dead when picked up, but the babe was little hurt. The eagle measured nine feet from tip to tip of its wings.

Two eagles will stalk a covert in concert. While one conceals himself the other beats about the bushes with a great screaming, driving out its quarry for the hidden eagle to swoop down and make an end of it. An even more insidious method has been observed, when an eagle, detecting a sheep on the edge of a precipice, screamed shrilly, and with the valley below, where it could devour it at its leisure.

There is good reason for believing, after all, the ancient legend as to the manner in which Eschylus, the Greek poet, met his death. It is said that an eagle dropped a turtle on his bald head, a Algerian traveler is familiar with the sight of eagles carrying turtles and tortoises to a height and dropping them upon rocks to break the creatures' shells and render the flesh accessible.

Crocodile's Mixed Menu. The capacity of the ostrich to swallow all sorts of articles is matched by that of the crocodile, if the list given below is a fair sample: The stomach of a recently killed Indian crocodile contained a half-digested calf, a human skull, a silver bangle, some gold ornaments, a tobacco box made of tin, a lime case, a nutcracker, a railway ticket, a horn case containing some 20 copper coins and a soda water bottle containing some mustard. The foregoing list of articles is sufficient to convince students of natural history that crocodiles are passionately fond of bric-a-brac of a substantial nature.—Boston Herald.

Seven Shots Per Second. A revolver that shoots seven times in a second has been invented by a gunsmith in Brussels.

FARMER AND PLANTER.

THE MAN WHO KNOWS HOW. The Farmer's Success in 1904 Depends Largely Upon Well-Matured Planning.

It is worth while to plan. All real success is the result of plans. Plans well laid and persistently carried out do not often fail. The success of next year's plans will depend to a considerable degree upon the plans made now.

All who have observed closely this 1903 have seen a year of extraordinary weather conditions. Through all of these many have come with good crops. These planned well in 1902. Deep soil, which was not stirred wet, has produced good crops in spite of the peculiar weather conditions. These soils have absorbed the excess of rain and resisted the excess of heat and drought. Thousands who grow restless and plowed wet lands, have seen their mistakes emphasized by the failure of the crops. We should all learn from these extremes of weather the wisdom of deep, fall plowing, and shallow spring and summer cultivation.

We should learn to trust and cooperate with providence rather than try to force providence to bend to our plans and yield to our errors. Nature's laws are all good and change not at our bidding. Obey them and you will succeed. Violate them and you will fail.

There are many lessons we should heed, but one very largely affecting all of our success deserves careful consideration: We can not force success no matter how much we try, when we go contrary to nature's laws. This is true of each one of us, and it is true of all of us. It will be the same if we all join together. We can not prevent water from washing the land if we plow shallow. We can not make soil productive if we plow wet.

For years past we have done all we could to force a very large yield of cotton, but we plowed shallow and wet and fertilized foolishly and we failed. This year we greatly increased the acreage in cotton and greatly increased the quantity of fertilizers. But we have signally failed to produce a large crop. Imperfect stands, failure to come up promptly, growing off slowly, rust, boll worm, caterpillar, etc., have made a light yield. And now this is cut short by an early, killing frost. The full extent of damage from the frost will not be known until the picking is ended. Week after week we will realize it more and more. We hear men argue that a half stand will make more than a full stand. If that be true why do we plant for a stand and hoe for a stand and plow for a stand? Why not just change our plans and half do the whole business? This argument will not do. We have never been able to pick any cotton from the missing places in our fields. Our cotton has grown upon stalks and not in the open air without any stalk. The crop is short; the price is high. If we sell slowly we will see still higher prices.—Southern Cultivator.

THE TURPENTINE INDUSTRY.

Operators in the South Are Adopting the New Method of Extracting Turpentine.

The discovery of a new way of extracting turpentine, made two years ago by Dr. Charles H. Herty, working under the direction of the bureau of forestry, is resulting in a complete change of methods by turpentine operators all over the south.

In a bulletin published last spring by the bureau of forestry the claim was made that the experiments with the new cup and gutter system of turpentine had resulted in an increase over the old boxing system of 23 per cent in the amount of the product extracted. This figure has now been raised to more than 36 per cent. In other words, Dr. Herty's system, when universally adopted in the south, as it is bound to be sooner or later, will have raised the turpentine production of this country by more than a third, provided the same number of trees are used. Two years ago, when Dr. Herty first made known his discoveries, he put 20,000 cups into operation. Last year this figure was increased to about 400,000. This year a conservative estimate places the number of cups to be used at 3,000,000. The figures give some indication of the rapidity with which turpentine operators are adopting the new system. The change of methods has been so rapid that the pottery company which undertook to supply operators with earthen cups has been unable to keep up with its orders and has been obliged to refuse contracts for over two million cups. It is safe to say that the majority of the large turpentine operators in this country have given up the boxing system and will extract their turpentine by means of cups and gutters.

The economic saving of this new discovery is enormous. It not only causes a great increase in the amount of turpentine produced, but it is a most important factor in saving the pine forests of the south. Every one knows that trees from which turpentine has been extracted by the old method—"boxed" timber it is called—soon die from the wounds inflicted on them. The cup and gutter system, on the other hand, is not fatal to the life of the tree, and does very little damage to the timber.

The bureau of forestry has arranged to give the personal assistance of Dr. Herty to turpentine operators who desire to install the new system.—U. S. Bureau of Forestry Bulletin.

THE VALUE OF LEGUMES.

Extracting Fertilizing Material From the Air One of the Most Valuable Functions.

Natural laws of plant life are very instructive to the tillers of the soil. Prof. Voorhees, who is reliable, made very clear, in some experiments how cow-peas take nitrogen from the atmosphere and deposit it in the soil.

He grew plants in large pots, so that he could tell exactly what happened to the soil. Before the cow-peas were planted the soil was analyzed so that the exact amount of nitrogen which it contained was known. The cow-peas were grown without any fertilizer, and

and the tops were cut off close to the soil about a row would in making hay. After this crop was taken off the soil was analyzed again and it contained more nitrogen than it did before the crop was planted. Let us think what that means. Here was average soil which produced a fair crop of cow-peas, and still had more nitrogen left than before! No one will believe that the nitrogen climbed into that soil and lay down, a willing captive! Nitrogen isn't built that way—it is constantly trying to escape, and such experiments prove that the cow-pea is one of nature's policemen and that he knows how to arrest the runaway. We understand from this what it means to a field or farm to have a crop of cow-peas growing every few years in poor-peas growing every few years in good soil. Another thing which Prof. Voorhees has shown is the fact that the gain of nitrogen to the soil is a greater when no nitrogen is used as a manure. It seems to be settled that the cow-pea is like a majority of humans. It will not hustle for its nitrogen unless it has to do so. On a poor soil and well supplied with potash and phosphoric acid, the cow-pea will secure nitrogen from the air. In rich soil or where nitrogen is added as a fertilizer, the plant will take that first of all. Therefore the way to use peas is to plant them on the poorest soil and use a fair dressing of potash and acid phosphate with them.—Southern Agriculturist.

High-Class Eggs. I do not think it would be possible to get as good an egg yield as I report without the best of care in feeding. My poultry have been fed three times a day, just as carefully and thoroughly as work horses or fattening stock. Another thing which will add largely to the profit is to market all surplus poultry as early as possible. A duck ten weeks old will cost less than half what one will four months old, and will bring just as much money. Early chicks no larger than quail will often bring more money than those that are kept twice as long. During nearly the entire four months in which my eggs were sold, as reported, the hucksters were paying but seven cents per dozen in cash, and the grocers eight cents in trade; but by contracting my eggs to a large boarding house, warranting every egg to be fresh, and seeing that it was so, I received always two cents or more above the market price. When no nest eggs are left in the nests, and one person gathers in a cool place, and markets regularly on a given day each week, it is perfectly safe to warrant the eggs, for they can not be otherwise than perfectly fresh and good.—Southern Farmer.

The Bee Business. There are bee keepers and bee keepers, bee fanciers, and bee cranks, practical bee keepers and imitation bee keepers. The latter class are those who have heard of some one making big money out of bees, or those who have a neighbor that has secured a good crop of honey and sold it at a fair price, and they imagine he is getting rich fast, so they want some of it, too. They imagine that all that is necessary is to procure a few colonies of bees and set them under the shade of an old apple tree and after that have the swarms and take the honey in the autumn. They think that bees gather honey from the time the first flowers bloom in the spring until frost has killed all vegetation in the late autumn. Should any such bee keeper read this article I would advise him to do one of two things, either sell his bees to some one who understands caring for them or else make a thorough study of the business and make a practical bee keeper of himself. And I might add right here that he must not expect to do this in six months or even within one year.—Progressive Bee Keeper.

HERE AND THERE.

In nearly all cases a hog that is kept penned up in a close pen with a board floor will get stiff or become crippled in some way.

Recently a carload of corn fed razor-back hogs from Arkansas were shipped to Kansas City and brought the highest prices on the market.

The soil for Irish potatoes next spring should be deeply and thoroughly plowed now, or as soon as convenient, and the sooner it is convenient the better.

Large Yorkshire pigs have been bred in England for a hundred years, with the view to producing lean meat instead of fat. Hence they are called "the bacon breed."

There is no fertilizer that varies so much in value as stable manure. This variation is caused by the manner in which the stuff is kept and the amount of litter it contains.

A goose has been known to sit for a month on a stone, when her eggs had been taken from her. Hens will sit nearly as long on a door knob. Here is more fidelity than common sense.

Cotton seed meal is an excellent addition to the daily ration of fowls of all sorts. If mixed with oats and bran, put about one pint of the meal to a gallon of mixture. We have used this with good results for several years.

Geese are grassers and will do well on any green pasture. If they have access to a creek so much the better, but they can be successfully grown without water to swim in. But in fattening they need some good, sound grain every day.

The blackbirds are eating the boll weevils. Mr. V. J. Hutcheson, a Texas farmer, reports that his son had a blackbird in the craw of which were 21 boll weevils, some still alive. He thinks it is a good idea to encourage the blackbirds.

The only change between summer and winter feeding for fowls should be that which is unavoidable, except that more corn may be given in winter than summer. Green feed and meat scraps can be made to take the place of grass and insects which abound in summer.

Closely calculate how many acres you can cultivate in any given crop in an average season; then reduce that number to one-third and plant. You will make more, provided you put as much judicious cultivation on the two-thirds as you expected to put on the larger area.