THE FARMING WORLD.

OF PRACTICAL INTEREST TO AGRICULTURISTS.

The Incubator Now a Lively Industry—One of the Profits of Keeping Sheep—Harnesses Should Be Made to Fit Horses—Brief Notes, Etc.

Machine-Raised Chickens.

In the New York Tribune P. H. Jacobs gives a detailed account of the raising of chickens by incubators at Hammonton, N. J. There are eighteen establishments (seven run by women) with total capacity of over 30,000 chicks every ten weeks, besides numerous smaller ones of 200 to 400 each. The buildings are an incubator house 16x16 feet, of rough boards, lined inside with building paper, and a brooder attached seventy-two feet long, for 1,400 chickens, 100 to an apartment. Various patent incubators are used with success, and also a home-made one operated with hot water. Each brooder section has a "mother"—a table one yard square on adjustable legs, with a curtain about it cut in strips, and is heated by hot-water pipes under the floor in a pipe-box, which supplies pure warm water.

While 98 per cent of good eggs can be hatched, the average is nearer 60 per cent, owing chiefly to the difficulty of procuring good eggs in winter, so that the cost of a chick fresh from the shell may very from 6 cents to $1. The average loss in broods is about 15 per cent. The chicks are "mothered" for twenty-four hours, then fed rolled oats, oatmeal, or a cake made of corn, oats, bran and middlings, seasoned with salt. Small grain is given as soon as they can eat it, and then the cake is scalded instead of baked, and the middlings omitted. Mashed potato or turnip is allowed, but no green food, except a cabbage to pick as they grow larger. Little meat is used. Stale bread, broken crackers and refuse popcorn are used to vary the diet. At a month old they are fed four times a day; scalded mixture night and morning, grain other times. Food costs 5 cents a pound to produce one pound of broiler, up to three or four pounds.

Chicks are sold when they weigh about one and one-half pounds. Average weight is: Four weeks, ten ounces; six weeks, eighteen ounces; eight weeks, one and one-half pounds. They are sold dressed, the work being done by "dressers" at 5 cents per chick, being bled, picked, but not scalded, thrown in ice water, then packed in barrels and boxes, without wrapping. Prices vary from 20 to 40 cents per pound, selling season being December to June, best in April and May.

In regard to breeds, the Leghorn proves very desirable, both pure and as a cross. The chicks are more meaty on the breast, and eggs from hens mated with a Leghorn male are more fertile. When the Brahma chicks weigh one pound eight ounces, the Leghorn chicks will weigh one pound seven ounces. Crosses of game are good, but chicks are tender; Houdan and Langshan cross is one of the best. The main points are short legs, compact body, plump breasts, fat on each side of spine. Color of legs is not noticed.

Cost of outfit for 1,500 chicks is about $1,000. The business requires close attention and cannot be intrusted to hired help. It is not an easy pursuit for women, yet several have been very successful. Hammonton has a mild climate and a sandy soil, and gapes are unknown. It is within reach of five or six markets. More broilers are said to be raised there than in any other place in this county or Europe.

One Profit of Keeping Sheep.

Not the least good obtained from keeping sheep is the continual increasing of the fertility of the farm on which they are kept. Mutton and wool are valuable products, and when due attention is paid to raising the sheep for these products, they may be made very profitable, but when these are merely incidentals of sheep raising the farmer must look elsewhere for part payment. No other animals can compare with sheep for enhancing the fertility of the land on which they are kept, and if for no other reason than this a small flock of sheep should be owned by farmers. Then, in addition to this, fresh mutton of the best quality may be had at pleasure, which for farmers far in the interior is quite a treat.

One of the best ways to bring up an old barren field to a good state of fertility is to turn a flock of sheep on it, and let them roam about it. Feed them quite liberally, and they will spend the rest of their time in grubbing up noxious weeds, and in trampling bushes to death. In a rough pasture lot the sheep will first select the wild rose bushes, ragweed, burdocks, and hazel bushes. After these have all been killed off they will look for grass, and in their grazing they will trample over the whole ground so thoroughly that they will make it smooth and even as a lawn. In this work they perform another good service. They deposit a large amount of solid and liquid manure on the land, which their small feet trample and press around the roots of grass where it can do the most good.

Only a limited number of sheep, however, are needed to perform this duty. If large flocks are kept they not only destroy the weeds and bushes, but turn with equal avidity to the grass and destroy that, too. The land instead of being enhanced in fertility is then really run down and ruined. Over-stocked sheep fields are the bane and ruination of many farmers, and such a catastrophe should be avoided as bankruptcy.

A Few Sheep.

There is often greater profit in a small flock of sheep, especially on a small farm, than there is in a large one. Sheep are excellent scavengers and will eat more varieties of vegetables than any other animal on the farm. In the apple orchard they are lively and quick to gather fallen fruit and will eat the earliest small windfalls that hogs will hardly touch, even though half starved. Almost every farmer keeps a few pigs to eat what nothing else will. He might well keep a few sheep for the same purpose with better assurance that they would not eat anything that could injure the quality of their meat.

Harnesses to Fit Horses.

A nice adjustment of the harness to cause it to fit will save many galled shoulders and other injuries. It is a singular fact that farmers who are careful to have their own clothing a perfect fit should be indifferent to the sufferings of their working horses. On many farms the teams are often changed by sale of old and purchase of new but the old harness is retained. Many think the essential point in fitting a collar is to have it go easily over the animal's head. Each horse should have his own harness and when he is sold his harness should go in the bargain.

Agricultural Atoms.

A dressing of 10 to 12 bushels of air slacked lime given in the fall, to a failing meadow, will act as a vigorous restorative.

Rye for soiling in the spring may be sown up to November, the later the sowing the more seed is to be used, up to four bushels per acre when sown early in November.

Lime is more soluble in cold than in warm water in the proportion of 3 to 1. Hence lime is always used as a fertilizer in the fall so that it may become available through the cold weather.

Now that drills have been invented for boring square holes, it is to be hoped that there may be no more round bolts in any farm machinery. These round bolts are an aggravation and cause a waste of time that a farmer can ill afford.

Experience the past season has shown that green clover may be stored safely in a tight barn, if it is put in layers with dry straw intermingled alternately. The straw absorbs the moisture from the clover, and acquires an improved flavor while the clover cures green and sweet without mold.

There is a diversity of opinion in regard to the feeding down of meadows in the fall. Generally this is thought to be desirable, but when it is done, the droppings of the animals should be spread and the bunches of uneaten herbage should be cut, so as to leave the field in good condition for mowing the following year.

Horticultural Notes.

One year old peach trees should not be planted until spring in the northern states; with two-year-old ones it is different. A very good six will be found in Alexander, Early York, Oldmixon, Smock, Crawford and Susquehana.

A good word can be said for the Vergennes grape. Of a somewhat lighter shade than Catawba, it is of most excellent flavor. Though ripening early it is a good keeper, being in good condition long after Christmas when it is preserved in a cool room or cellar.

As the Niagara grape becomes more widely cultivated, its popularity increases. When first brought before the public, because of much of its fruit being cut before it was ripe, it was thought to lack sweetness. Time has proved this incorrect, and it stands today as the best white grape for general use.

When apple, dwarf pear or quince trees are received from nurseries, see that there are no borers in the trunks before planting. They are easily got at then, but it is a difficult thing to dislodge them after they are in the ground. The mountain ash is another tree which the borers find delight in troubling.

How to Wear Red.

Here is Mme. Modjeska's opinion on the arrangement of color: "Red worn below the face deadens the complexion; worn above the face, hightens the complexion. If, therefore, a woman wishes to subdue the color in the cheeks she should wear a red gown or plenty of red ribbons about her throat; on the other hand, if she wishes to give her face a certain touch of color, let her wear a red hat or red flowers in her hair."

A Gallant Tiger.

Mrs. Barnschoot (relating experiences in India)—And there I was, alone in the bungalow, and the tiger was wandering around the verandah, endeavoring to make his way in."

Mrs. Robinson—And weren't you afraid, dear?

Mrs. Barnschoot—Oh, no! Captain Barnschoot had told me that it was a man-eating tiger; so, of course I was not in the least alarmed.—The Jester.

NOT BLOOD BUT JUICE.

An Adventure with Red Men That Came Very Near Being Funny.

A writer in the Forest and Stream relates the experience of a family besieged by Cheyennes, in the course of which this incident occurred:

At last the Indians stopped firing and we could not get a glimpse of them.

Caveniss said: "Well, old woman, that was a close call; but I am hungry, so get us something to eat."

"All the meat is in the milk house, except that piece on the table, and that belongs to Dick. He has had nothing to eat since yesterday; and he fights as well on an empty stomach as you uns do on a full one," remarked Mrs. Caveniss, smoking. "I'll get you some coffee and biscuit, though."

Marion said, "I'll go and get meat. I guess the Injuns is gone."

Tige took off his big white hat and put it before the open door on a stick for a reply, and a dozen bullets hit around it in a second.

"Do you want to go out there, Bud?" he asked with a wolfish grin.

"I ain't a raid to," responded Marion, "and I can fix so I won't get hit neither."

"All right, get the meat, then," said Mrs. C., "but I'm afraid you will get shot; and we can't afford to lose a man."

Marion, without reply, proceeded to make up a man with a shirt, a pair of overalls and a hat. Then he unfolded his plans to us. Tige was to shove out the dummy and draw the enemies' fire. Caveniss and I were to return it, and Marion was to run to the milk house. When he wanted to come back he was to put his hand out so that we could see it, and we were to go to firing while he ran for the house. He took only a butcher knife. We drew their fire by exposing the dummy, and then we went to cracking away at the smoke of the guns while he ran for the milk house. He got there without a scratch, but when his hand came up and we showed the doll again, Lo wouldn't shoot, and when Marion started they made it very interesting for him. He had a steak in one hand and a can of peaches in the other and when he got into the house he said, with a horrified expression on his face, "I'm shot in the hand." He held up the peach can hand and then looked silly. One of the gentle red men had put a ball through the can, not touching him at all, and when the juice ran into his hand he thought it was blood. We joked him a little, but saw he was mortified, and Mrs. Caveniss proceeded to get dinner.

Manual Labor.

If the public school has failed to emphasize the importance and dignity of labor I believe it is due rather to oversight than intention, says a writer in the American Agriculturist. The schools have largely been controlled by college-men, the minister, lawyer and doctor, and their very presence among the young is an illustration of the apparent superiority of the professional class. I say apparent for I do not think many professional men are willing to be classed among the idle, many think they are among the hardest workers, but farmers' sons meeting school superintendents or committee men of this class in school are likely to imagine otherwise. Certainly not all school managers look upon manual labor as degrading, though I have known one who warned a class of boys never to be caught at it. I certainly think school books would be improved if they contained less in regard to profit on trade and interest on money and more concerning the real sources of wealth. I knew one teacher of agriculture in a state college who begun his course by a lesson in farm superintendence or farm management. I would sooner trust my farm in the hands of a boy who had learned his trade by beginning as a boy on the farm than to one who knew only what he had learned under such college professors at that.

Easy Mathematics.

"It is 90 76-100 miles from Philadelphia to New York," said the teacher. "A cat crawls into the hollow wheel of a freight car in Philadelphia; the wheel is thirty-one inches in diameter; how far does the cat travel while the train goes to New York?"

"About twenty-eight feet," said the smart boy at the foot of the class; it was our cat and she climbed out of the wheel and got run over before the train pulled out half a car-length. When the train got past she looked like a map of the fur-producing region of the Hudson Bay territory, spread out over——"

But the morning hour having expired, and it being the teacher's day to faint, and the time having arrived, she took up the business on the speaker's desk, and proceeded with the regular order.—Robert J. Burdette.

A Startling Admission.

"What becomes of all the stale candy?" was asked a well known confectioner. "It is made up into fresh candy. There is not an ounce of waste about confectionery. You like chocolate caramels? Well, they contain more scraps than any other candy. They are especially adapted for this on account of their dark color. They were first made by a confectioner who received the inspiration from his great stock of stale sweets."—From the Journal of Useful Inventions.

HEIGHTS OF WAVES.

A Great Deal of Nonsense Has Been Written About Them.

All sorts of nonsense has been written about waves "mountain high." The truth is that when a ship is plunging down the back of one wave and is at the same time heeled over till her rail is close to the water, the next wave looks as if it would sweep completely over the vessel and therefore appears as big as a mountain. Lieutenant Quattrough says: "We find reports of heights of 100 feet from hollow to crest, but no verified measurement exists of a height half as great as this.

The highest reliable measurements are from 44 to 48 feet—in itself a very remarkable height. Waves having a greater height than 30 feet are not often encountered." The height of wind waves is governed by what is called the "fetch." That means their distance from the place where their formation begins. Thomas Stevenson, author of the "Lighthouse Illumination," and father of the well-known writer of our day, Robert Louis Stevenson, gives the following formula as applicable when the fetch is not less than six sea miles: "The height of the wave in feet is equal to 1.5 multiplied by the square root of the fetch in nautical miles." Let us suppose that in a gale of wind the waves began to form 400 miles from the ship you are on. The square root of 400 miles is 20, which multiplied by 1.5 gives 30 feet as the height of the waves around the ship.

Now it is well known that in every storm there are occasionally groups of three or four waves considerably larger than the others. Captain Lecky is of the opinion that these are caused by the increased force of the wind in the squalls which are a feature of every big blow. Now, waves travel at a rate which is the result of their size. Waves 200 feet long from hollow to hollow travel about 19 knots per hour; those of 400 feet in length make 27 knots; and those of 600 feet rush forward irresistibly at 32 knots. Let us suppose, now, a wave 400 feet in length and 38 or 40 feet high rushing along at 27 knots. It overtakes a slower wave making about 20 knots, with a height of 25 feet and a length of 200. The two seas become one, forming at the moment of their union an enormous wave. Just at that moment they meet one of those steamers called "ocean greyhounds," which, as every one knows, never slacken speed unless it is absolutely necessary for safety. She is butting into the storm at the rate of say eight knots an hour. She runs plump against a great wall of water which seems to rise suddenly out of the general tumult, rushing at her with a height of 45 feet or more and a speed of over 30 miles per hour. There is a fearful crash forward, accompanied by a deluge, and as the tons of water roll off the forecastle deck, it is found that damage has been done, and the officers on watch enter in the log the interesting fact that the steamer has been struck by a "tidal wave."

New Use For Electricity.

H. L. Lufkin invented an admirable system of extinguishing fires by electricity. Mr. Lufkin proposes to modifty the present system of automatic sprinklers by the use of a motor and pump and a complete system of sprinkler piping. On each floor, or in any number of places on the floor, are placed in convenient positions push buttons for the starting of the motor and pump, and the opening at the same time of any valve required. In a theater, for instance, sets of switches controlling the entire house, could be located in any number of places about the building. On the discovery of a fire, say, in one of the dressing rooms, the sprinkler could be started in the room from any of the respective switchboards, or in the room itself. In the same manner the exits and lobbies could be filled with streams of water, which would allow of the escape of the audience, even though the fire should be raging around them. The complete and instantaneous control of masses of water thus gained, and the ability to localize their flow, suggest possibilities of fire extinction which will materially increase its ease and certainty.

What He Did With the Hair.

A religious society worshiping not many miles from New London, Conn., decided to build a new church this season, and the pastor, among others, was chosen to solicit funds. He did his work very zealously, taking not only widow's but the children's mites as well. This energetic pastor has a class of children in the Sabbath school, and one Sunday, not long since, while instructing them, he compared himself to the Good Shepherd and then inquired what the latter did with his flock.

One bright-eyed little fellow promptly replied: "He shears them!" All within hearing smiled at this answer except the pastor.

An Infant Phenomenon.

Visitor—Can your baby talk any yet?

Mamma—Yes, indeed! Baby, say "mamma?"

Baby—Oogle google.

"Now say 'papa?'"

"Oogle google."

"Now say 'how d'y' do' to the lady?"

"Oogle google."

"Bes its 'ittle heart, it tan talk mos as dood as mamma tan."

A Bright Jury.

Daniel O'Connell was at one time defending a man accused of murder at Clonmel. The circumstantial evidence was so strong against the prisoner that the jury had already determined upon their verdict of guilty, when the man supposed to be murdered was brought into court, alive and unhurt. The jury was desired to return their verdict at once, and they did so, but it was one of "Guilty." "What does this mean?" inquired the judge; "if the man has not been murdered how can the prisoner be guilty?" "Please, yer honor,' said the foreman, "he's guilty; he stole my bay mare three years ago."—San Francisco Argonaut.

A German Woman,s Knitting.

If I were asked to present in one word the characteristics of the German women I should employ the word "knitting work." A drive through the German country on Sunday afternoon reveals rows of women sitting on benches in front of the cottages knitting. The men drink beer and cultivate idleness while the women knit. Children of 10 years also sit in the doorways and knit.—Cor. Lewiston Journal.

Western Union telegraph operators in St. Paul strike to procure the reinstatement of the men discharged for being members of the brotherhood.

"What de preacher talk 'bout to-day brudder Julius?" "Oh, he telled 'bout Samson bent dem Philistines, en, you know I mose cry to tink dem poor creeters couldn't get no Salvation Oil.

At Fresno, Cal., Joseph L. Stillman, who shot Theatrical Manager Fiske, has been found guilty of murder in the first degree and sentenced to life imprisonment.

There has been introduced into the French chamber of deputies a bill imposing a heavy tax on crests and titles of nobility.

Mind Reading.

Bill Moore wanted to dig a well, so he plowed a lot of land and planted it in oats. Every day he watched the oats, observing the spots that showed greatest moisture. Finally he selected a spot and sunk a well. At twenty-four feet he had a fine stream of water—said to be the best well in the county. Other farmers in the same neighborhood have failed to find water at 200 feet.—[Atchinson Globe.