

# AGRICULTURAL NEWS

## THINGS PERTAINING TO THE FARM AND HOME.

### The Self-Pollination of Orchards—By-Products of the Cotton Plant—Fertilizing the Garden—Why Sheep Pay—Inoculation for Texas Fever.

The past season has been a good one to study the subject of self-pollination in orchards, and of the need of insects to supplement this work. It was true through all the New England and Middle States, that here and there a variety was in full bearing, where the failure of the apple crop was otherwise complete. Throughout Central New York the Porter, and the 20-ounce pippin, and the ribstone pippin were full of fruit, although affected by curculio and fungus. There were scattered orchards, also, that were bearing full crops of Baldwins, greenings and spies, while neighboring orchards were entirely without fruit. This seems to have been the result either of close bees, or of having the trees very close together and low-limbed, allowing insects to work sharply between the almost continuous showers of last May. The low-growing trees have the disadvantage of allowing the tetranychus to work all summer. This pest is far more in cool shade, and it is rapidly getting to be our worst apple enemy. It works all through the warm weather, laying its eggs under the skin of the apples, at all stages of growth. So far no remedy has been discovered, except to pick up and destroy the dropping fruit. This should be done to prevent the spread of all sorts of insects.

**Cotton Plant By-Products.**  
Other by-products of the cotton plant besides cotton-seed oil, oilcake for feed, and hulls for fertilizer are being developed. One of these is the use of the fiber for the stalk for the manufacture of bagging. According to the Scientific American, a machine has been perfected for working the stalks into bagging. Some of this cotton stalk bagging has been tested and pronounced excellent for the purpose. It is strong and clean, and does not readily ignite. Five tons of good stalk will yield about 1,500 pounds of first-class fiber. At this rate the annual crop will produce all the bagging needed to wrap the lint and leave a surplus to be devoted to other purposes. It is predicted that machinery for making coarse matting from the fiber will be produced shortly.

The root of the cotton plant is being experimented with for its chemical properties. The root of the Egyptian cotton plant yields a drug that has the properties of ergot; and the American plant, under a chemical manipulation, has yielded a similar product. This has not yet been fully developed. A difference has been detected in the properties of the roots of different kinds of cotton, long staple and short staple, hence it is probable that many drugs may be extracted from the different varieties of roots.—Tradesman.

**Fertilizing the Garden.**  
There is no better way to fertilize the garden than to haul fresh manure from the stables and spread over the surface during the winter, says the Farmer's Voice.

It is almost impossible to put too much manure on a garden. We would not hesitate to put it a foot thick on the surface, for it will reach only so much more plant-food into the soil, and by plowing time next spring will be settled down until it can easily be plowed under to furnish humus for the betterment of the physical condition of the soil.

Wood ashes make an excellent fertilizer for the garden, but they should be saved and applied on top of the soil after it is plowed in the spring, as potash is one of the plant-foods that may be washed too deeply into the soil to be reached by the roots of garden plants, many of which are shallow-rooted.

**Why Sheep Pay.**  
Sheep are an enemy to weeds and burrs. Where they have a chance to run, they will completely destroy all noxious weeds and briars. They bring up the fertility of the farm, are great equalizers of the soil by grazing in the valleys through the day and sleeping on the knolls at night. By their constant grazing—if the field is not overstocked in a very dry weather—there will grow a very thick sod that will produce an abundance of feed. They produce the most healthful, sweetest and most delicious meat of any other stock. They are unlike all other stock. If decently managed, a good sheep can never die in debt to a man. If it dies the first winter, the wool will pay for its keep up to that period. If it lives to be sheared once, it brings its owner in debt to it, and if the ordinary course of wool producing and breeding goes on, that indebtedness increases with great rapidity as long as the sheep lives.

**Artichokes.**  
There is no root crop so valuable, and has so little said about it, as the artichoke. They are very valuable on the farm for all kinds of stock. They excel other crops by not being injured by freezing and thawing in the ground during winter. They need not be dug and stored away as other root crops, thus saving a great amount of labor, and they yield from 800 to 1,200 bushels per acre. The hogs should be turned in to root up the crop after the frost has killed the stalk. One acre will fatten forty head of hogs, with a little corn to finish. They are planted and cultivated the first year like Irish potatoes, after that they grow year after year on the same ground, as the hogs always leave enough tubers in the ground to produce the next crop. Leave one lot just as they grew for spring use,

and here turn the hogs to fatten for the spring market. Cows, calves and colts relish them in winter. An experiment station made an analysis and found them very rich in protein, an element which is very essential to the growth and development of young animals.—Globe-Democrat.

**Controlling the Bean Weevil.**  
This little pest develops in dried beans at almost any time during the storage period in the winter. The eggs are deposited in the green beans, the larvae hatch in a couple of weeks, gnaw out cells in the interior of the bean, where they attain their growth and pupate. Sometimes several are found in a single bean. The only way to get rid of them in a bin is to make a storage place as nearly air-tight as possible, then place a saucer of carbon bisulphide on top of the beans and close up the bin and let it remain closed for a day or two. Carbon bisulphide, being heavier than air, and very volatile, permeates every portion of the bin and destroys every living thing among the beans. Care must be taken to keep fire away during the treatment, as the bisulphide is very inflammable. It has been suggested that if the beans are heated to 145 degrees as soon as ripe the partially grown larvae will be destroyed without injury to the germinating quality of the seed. Late planting is also advised so that the crop will escape the ravages of the adult insects. In the latitude of Central Illinois, beans planted from June 20 to July 10 were almost free from the weevil, while those planted early were seriously injured.—Orange Judd Farmer.

**Potato Experiment.**  
An interesting experiment was once made by Prof. Sturtevant to ascertain the depth to which the potato sends its root after food. Early in August he selected a potato to plant which was growing on a high ridge, the seed having been planted six inches deep. By digging a trench alongside so as to expose a section of the soil, and then washing out the roots with a stream of water, he found one root reaching thirty-four inches below the top of the ridge, or twenty-eight inches below the tubers, or twenty-two inches below the surface of the ground between the ridges. The deeper roots appeared more fibrous than those that were near the surface, and they diminished very little in size after attaining a distance of six inches from the stem. Very few roots were found above the tubers, and such as were found were short and thick.

**Asparagus.**  
There is no vegetable after the potato so indispensable as the asparagus. A bed once planted is good for fifteen to twenty years, if properly cared for. The one-year-old plants are usually quoted at one-half the price of the two-year-olds. They can be planted close together to insure a stand. Make the rows four feet apart and not over eighteen inches in the row. If one misses they will still be close enough. Plant not less than eight to ten inches deep. Do not cover more than three to four inches, and as the plants begin to show cultivate in until the furrow is leveled up. The asparagus grows with as much certainty as the potato. Your beds should be heavily manured at least every two years.

**Changing Seed Potatoes.**  
The Ohio experiment station holds that a change of seed potatoes "is not so important as is commonly supposed," and that the "keeping of seed is worthy of more consideration than is usually given to it." It says: "Our experiments all indicate that potatoes of our own growing are as good for seed as any, if well kept. We do not find anything in the practice of changing seed for the mere purpose of securing that which was grown on a dissimilar soil, or in a different climate, to commend. Changing for the purpose of getting an improved variety is likewise uncertain as to results."

**Salad Plants for Winter.**  
Besides lettuce, which, of course, remains our mainstay for winter salads, have some cresses with which to add something of pungency and spicy flavor to the former. Ordinary cress and water-cress come equally handy for this purpose, and both are easily grown. The ordinary cress may be grown in large flower-pots or in boxes without much trouble. Fill the box or pot with rich soil, and sow seed rather thickly. In a few weeks you will have quite a picking, or rather cutting. Keep a few such pots or boxes going, by sowing seed every week or so.

**Coal Ashes.**  
It is a great mistake to throw away coal ashes. Have all coal ashes carefully sifted and use them in the stable as an absorbent. Also sprinkle them about in the hen house, under the roosts, etc. They make an excellent absorbent, keeping the stable and hen house dry and clean, and absorb all bad odors, and holding onto and thus saving all the liquid portion of the manure. If used on dry land, they help to hold moisture, and when used on heavy soil they will lighten it up, putting it into much better condition for plant roots.

**Fertilizers for Corn.**  
The largest yield of corn in some Texas tests was produced by the application of 500 pounds per acre of acid-phosphate. Of the complete fertilizers, an application of 100 pounds of kainit, 400 pounds of acid-phosphate and 150 pounds of muriate of potash gave the best results.

**Inoculation for Texas Fever.**  
Experiments at the Mississippi station indicate unmistakably that the blood serum inoculation as practiced during some recent tests had no effect in either preventing or curing Texas fever. The removal of the tick is the only way to prevent infection.

## HOW SOME PEOPLE LIVE.

### Queer Ways of Eking Out Insufficient Regular Incomes.

In the struggle for life, which is so keen at this end of the century, some people resort to strange expedients to get bread and cheese or to increase a pittance to a comfortable income. Inspector Livingstone, who was formerly in charge of the police at the law courts, tells a tragic story of a poor and briefless barrister who fought a long and grim battle with fate, and was beaten in the end. In the early hours of the morning he worked as a market porter at Covent Garden, and then at 10 o'clock adjourned to his chambers in the Temple, donned wig and gown and attended the courts, waiting day after day to grasp the skirts of happy chance. Others as unknown to the world and friendless as he had their opportunity, but none presented itself to him, and in hope ever deferred his race was run.

A Somerset House clerk, who rushed into matrimony before he had properly counted the cost, and found it difficult to run even a modest household on £150 a year, especially after the arrival of a little stranger, got over the embarrassment by starting a coffee stall near Smithfield Market in the early morning. He kept his truck in the neighborhood, but brought down his stock of comestibles from his home in Camden Town. Fortunately, his wife, who did her best to help on the enterprise, was a capital plain cook, and his mutton pies and buns had a great reputation in the market. He was generally cleaned out by 8 o'clock, and no one would have thought of identifying him with the smart young man, silk-hatted and top-coated, who two hours later crossed the Strand to Somerset House.

A rising author who is now sought by the publishers, but had a particularly hard struggle to find acceptance, tided over the worst period by acting as a broker's man. Taken as a whole, he found it a most unpleasant experience, but he declares that he wouldn't have missed it for the world, for it has supplied him with material for numbers of sketches and short stories. A Christmas story which brought him a lot of praise, for instance, was a chapter from that experience and well deserved the encomium of "very realistic" from the critics.

A friend of the writer, who rejoices in what the police reporters call "a very aristocratic appearance," and has in addition excellent manners, adds enough to a slender income to pay for the summer holiday for himself and family, his tailor's and bootmaker's bills and even his rent, by acting as a private detective at balls and receptions in Belgrave and Mayfair. Chance threw him in contact with the manager of a detective agency which does a great deal of business of this kind, and his first job was, in fact, simply as a night's diversion at the invitation of the manager aforesaid. But so pleased was the lady of the house with his appearance and obliging courtesy that she made special mention of it to the manager, who accordingly proposed to my friend that he should accept regular paid employment. He was nothing loath, and now has engagements almost every night during the season.

Another curious case is that of a non-conformist minister in the south of London who doubles his slender salary by the profits of a flourishing photography business on the other side of the Thames. Originally he took up photography as a pastime, but, acquiring considerable skill in the work, was pestered by people who wanted to get their portraits taken on the cheap. So he determined to gain instead of lose by his work, and, taking convenient rooms at some distance from the scene of his ministerial labors, set up as a "photographic artist" under another name, his daughter acting as his assistant. Fortune favored him, and before the secret of his constant absence from home was fathomed by the curious of his flock he had made so promising a business that he stood in no awe of deacons or church, though, indeed, the former have taken a very sensible view of the matter, and admire rather than condemn his enterprise.—Cassell's Saturday Journal.

## SCIENCE AND INVENTION

A ton of Atlantic water yields, after evaporation, eighty-one pounds of salt; of the Pacific seventy-nine, of the Arctic and Antarctic eighty-five, of the Dead Sea 187.

The weights of classes of students before and after examination have been made the subject of recent investigation. In high classes, where naturally the responsibility of the examination to be gone through with was most felt, several pounds were lost, showing how the mental strain was felt. In lower classes the loss was not so great.

M. Auguste Chaveau finds that sugar has more value than fat as an ingredient of diet for a man at work. In fact, 75 parts by weight of sugar are equivalent to one hundred parts of fat. Sugar is not only better than fat because it supplies more heat and energy to the person, but also because it promotes the assimilation of proteins, or to speak generally, because of its influence on the renewal and formation of the anatomical elements of the body.

A curious instance of dwarfism in pines is recorded by C. E. Bessey of the University of Nebraska. On Green Mountain, near Boulder, Col., he found in a crevice of the rock at the summit a pine tree (*Pinus albicaulis* Engelm.) only thirteen centimeters (under three inches) high and five millimeters

(one-fifth inch) in diameter. It had no branches and bore a single tuft of needles at the top. Nevertheless, it showed twenty-five distinct annual rings, and was therefore twenty-five years of age.

An elaborate investigation into the protection of iron and steel against corrosion has been completed, and the results are given in a German technical journal. It was found that certain Japanese lacquers gave the best protection. They enabled the metal to resist salt water, steam and hot acids. The Orient in this department excels the best efforts of the Western nations.

Experiments with plant seeds subjected to extreme cold have shown that the power of germination is not destroyed, but merely suspended by the cold. By the use of liquid air, seeds of barley, oats, squash, cucumber, pea, sunflower, and some other plants were recently kept for 110 hours at a cold of 183 to 192 degrees Centigrade. They were then carefully and slowly thawed for 50 hours. They were then planted, and sprouted as well as if they had not been frozen.

An instrument has been made in England to be sent to Japan. Its use is to measure the blow of a wave. A similar apparatus was used to measure the wave-blow off the Skerryvore Rock, Scotland. There the waves sweep in from the wide Atlantic. In summer a force of over six hundred pounds to the square foot was recorded. In winter as high as a ton to the square foot was attained. This gives an idea with what ships, lighthouses and other similar structures have to contend.

Near Wierdeman's, Texas, is an abandoned well, about sixty feet deep, and overgrown with vegetation, which, a correspondent of Popular Science says, is famous in the neighborhood for its musical powers. In fine weather, particularly with a westerly wind, it gives forth a sound like that of an Aeolian harp, swelling and dying away by turns. When a heavy northerly wind is blowing, the water rises within a few feet of the top, and strange noises, which some persons think resemble moans, issue from the well. An attempt to fill up the well a few years ago failed, apparently because of the existence of a subterranean cavity which swallowed up the dirt as fast as it was dumped in.

## UNPREPARED.

### Occasions Upon Which Irving Showed His Extreme Diffidence.

Washington Irving was not a ready after-dinner speaker. The author of "American Bookmen" says that he slumped public appearances; yet when Dickens came to New York, in 1842, Irving could not escape presiding at the great dinner in his honor. They had already become friends through correspondence, for Irving's delight in "Little Nell" had been expressed in a letter to the author, and Dickens, in his enthusiastic response, had said: "Diedrich Knickerbocker" I have worn to death in my pocket; and yet I should show you his mutilated carcass with a joy beyond expression."

The night of the public dinner came, and Irving's dread of the introductory speech kept him murmuring throughout the repast, "I shall certainly break down."

At the proper time he rose to his feet, began bravely, but could only utter a few sentences, and ended by taking refuge in the announcement of the toast:

"Charles Dickens, the guest of the nation."

The applause was generous and Irving took his seat.

"There," he said, "I told you I should break down, and I have done it!"

Later, while on his way to Madrid, he found himself called upon, at the dinner of the Literary Fund in London, to respond to the toast, "Washington Irving and American Literature." All he could say, in acknowledgment of an enthusiastic reception, was:

"I beg to return you my very sincere thanks."

One Englishman at the table was heard to make the laconic comment, "Brief!"

"Yes," said another beside him, "but you can tell the gentleman in the very tone of his voice."

## FIRST HORSELESS CARRIAGE.

### Vancanson Invented It One Hundred and Fifty Years Ago.

If further proof were needed of the dictum that "there is no new thing under the sun," it has been supplied by an article in the *Revue Scientifique*, which traces the invention of the auto-car to the ingenious mechanic, Vancanson, just 150 years ago. In a memorandum recently brought to light, it is recorded that Vancanson was honored in 1748 by a visit from Louis XV., for the purpose of inspecting a marvelous carriage that ran without the aid of a horse or any visible means of propulsion.

Two persons took their seats in the vehicle, which seems to have been as gorgeous as a sheriff's carriage, and were driven around the court yard to the satisfaction of his Majesty and of the Duc de Mortemart, M. de Lauzun, M. d'Arveze and other members of his suite. But, though a promise was secured of royal patronage, the Academy of Sciences declared that such a conveyance could not be tolerated in the streets, and the scheme was nipped in the bud. The motive power was supplied by a huge clock spring, so that only a short journey was possible, but the gear seems to have closely resembled that of the horseless carriages of today.

A man is mad when he oversleeps, and mad when an alarm clock wakes him up on time.

The phenologist always has his business on the brain

## THE FLOOD OF PATENTS.

### Articles of Every-Day Use the Subject of Thousands of Inventions.

"It is becoming harder every year for a man to get out a successful invention," remarked a patent attorney. "The other day I was in Washington and my work required me to search the old patent list. The thing that attracted my attention was the great number of patents taken out on common, every-day articles. Why, they are so covered with patents that it seems absolutely impossible for an inventor to make any improvement upon them without infringing upon somebody else."

"For instance, take knives, forks and spoons. How many patents do you suppose are taken out on these three articles of every-day necessity? A dozen or two? Why, bless you, they are protected by 2,103 patents. Then take brooms and scrubbing brushes. You wouldn't think that any number of inventions could invent more than a hundred improvements upon such things. Well, there are patents for them to the number of 3,184. It seems ridiculous, doesn't it? It did to me, and for a time I thought I would go home and advise everyone of my clients to give up the inventing business."

"I had the curiosity to go a little deeper into the subject and I made a record of the number of patents taken out on other small things. Games and toys are protected by 4,453 different patents. But, of course, that can be overlooked, for games and toys are as varied and uncertain as our winter weather. The laundry business is hedged in pretty well with patents, for there are 7,633 taken out on various laundry articles. Burglars ought never to be able to get through our locks and latches, for they are protected by 5,976 patents; but then this is partly offset by 4,220 patents for saws and sawing apparatus which burglars might use for destroying locks. Altogether, however, the farmer seems to be the man for whom the inventors have labored most. There are 50,000 patents recorded which in one way or another tend to benefit the farmer. It must be that this is a pretty fertile and profitable field for the inventor, or else he would not devote so much time and labor to it."

"Manufacturing interests of all kinds are pretty well loaded down with patents. In the furniture trade alone there are 4,854 patents to protect the business outside of those which pertain to chairs. These latter necessary articles for the home are covered with over 500 patents. When you take up a piece of paper to write a letter you probably do not realize that the manufacture of stationery is handicapped, or protected, whichever way you please to put it, by 4,532 patents. That fact ought to make one careful how he attempts to invent a new style of envelope, blotter or writing paper. He would have to be a remarkable genius to get around all of these and establish a clean bill of health for his invention."

"When I look at one of the tall buildings in the city in the course of construction I stop now and view it with more interest than I ever did before. That builder has had a host of inventors laboring to make his work easier. His cranes and derricks are protected by 596 patents, the roof he may put on has 665 patents and the elevators he may put in the building have 1,439 patents. Then the stone workers who carve the front for him use tools which are covered by 2,188 patents. I suppose if the builder had to stop and think of all this he would not be able to finish his work. But a patent attorney must know it."—New York Sun.

## A Hero at Home.

Not all the heroes were at Santiago. One of them came forward recently in Topeka, when the Santa Fe Railroad found it necessary to reduce the force employed in the freight department.

Among those who were to be discharged was a man with a wife and half a dozen children, and his salary was the family's only income. Lines appeared in his face as the expiration of his term of service drew near, and his eyes told a story of suffering and despair.

Dean Waters, a fellow employe, saw all this. It made him sick at heart, and his folks saw that something was the matter, but he kept his thoughts to himself. For a week he watched the other workman suffer in silence, and at night he could not sleep for thinking of the hardships in store for this man's wife and little ones. Then he made a resolve. Going to the head of the department, he said:

"If I resign my position, will you keep Mr. Blank?"

"Yes," replied the head of the department.

"Accept my resignation," said Waters, and he left the room without another word.—Topeka Capital.

## LUCK.

"After all, it's an ill wind that blows nobody good."

"What's happened now?"

"The druggist had such a cold when I went in to get some grip medicine this morning that he couldn't talk; so I escaped a long argument about something he had put up himself that was better than the stuff I wanted."

## The Correct Thing.

"Pa, are you going to have any galvanized iron on our new house?"

"Any w-h-a-t?"

"Any galvanized iron?"

"Galvanized, you mean, don't you?"

"Yes, pa; but teacher says we mustn't say gal; it's a girl."

A Western judge has decided that the term "home" is merely a shelter and not a support. Thus the umbrella sees the lamp-post and goes it one better.

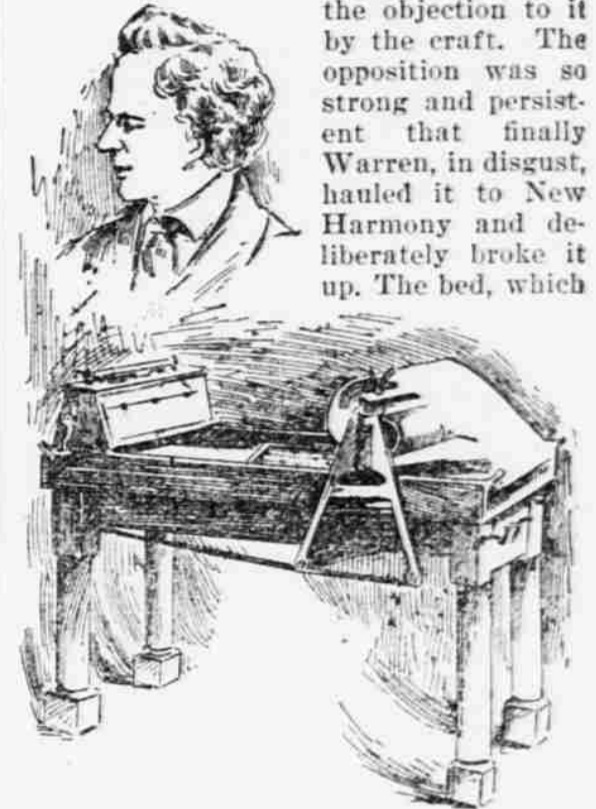
When a girl is known as "Babe" in her childhood, at what age should she begin to kick on the name?

## THE FIRST WEB PRESS.

### Said to Have Been Made by Josiah Warren, of New Harmony, Ind.

According to the Indianapolis News, Josiah Warren of New Harmony, Ind., was the real pioneer in the modern method of rapid printing. One Sir Rowald Hill outdated him, but Hill's machine, we are told, was, "although very ingenious in its design, imperfectly executed, and not a practical and working success." He worked out the idea of his improved press in New Harmony, then went to Cincinnati, where proper facilities were to be had, and built it. On its completion he sent it down the river to Evansville, where it was to be utilized in turning out political literature for the famous campaign of 1840.

It went to the office of the Southwestern Sentinel, a sheet begot of that campaign, and did its work so effectively that the printers of the town made a crusade against it. One man, with the aid of a boy, could turn out forty to sixty copies per minute, which was about ten times faster than the old rate of speed; hence the objection to it by the craft. The opposition was so strong and persistent that finally Warren, in disgust, hauled it to New Harmony and deliberately broke it up. The bed, which



WARREN AND HIS PRESS.

was of stone, was converted into a doorstep, which ignoble end, it is said, it still serves; and that, so far as history and legend go, was the end of the Josiah Warren web press.

As an inventor Warren failed of his desires. He devised not only the old web press, but also a stereotyping process, which some claim to have been the forerunner of the present process. He also adapted his type plates to a curved or cylindrical surface, such as is now generally used on the rapid presses. As preliminary to his printing experiments he learned to make types and equipped himself with an outfit by molding them like so many bullets by the side of his fireplace. Specimens of the work from his stereotype plates may be seen in the New Harmony Library, and it compares well with the more modern work of a perfected art.



An abdominal bandage should scarcely be worn to reduce fat simply. A moderately strong bandage gives the flabby abdomen a grateful support, but too much pressure results from some of the obesity bands, and uncomfortable pressure is dangerous in all fat persons.

For a cold in the head manifested by repeated sneezing, running of the nose and changed voice, hot water and borax should be used to wash out the nostrils every hour or two. If circumstances do not permit this, a powder of bismuth, myrrh and acacia may be used as a snuff.

Poor soaps, improper diet, chronic diseases of the stomach and bowels and changes incidental to youthful development cause pimples. Pimples should never be squeezed upon until there is a distinct yellow top on them. Then this should just be punctured with the point of a needle dipped in alcohol. After the pus is removed, the pimple should be covered with oxide of zinc salve.

Pains about the heart frequently occur from the upward pressure of gas in the stomach, as the organs are only separated by a thin membranous muscle, somewhat domed-shaped. Where this pain occurs with belching of gas, use some mild medicine like pepsin, and avoid potatoes, fresh bread, corn, rice, peas, beans and cocoa, and eat thin soups, lean meats and eggs.

Profuse perspiration indicates a poor condition of the body, and children who sweat excessively are apt to show joint deformities, asthmatic cough or other peculiarities which point to a poor constitution. For those afflicted thus, 30 drops of albuminate of iron before meals, and a teaspoonful of pure cod liver after meals, will be found efficacious. The inhalation of the smoke of eucalyptus for this ailment, as in asthmatic conditions, will be found only slightly serviceable.

## Mice that Manufacture Thread.

A Scottish artisan has conceived the ingenious and economic idea of employing mice in the manufacture of thread. The small quadrupeds are made to turn a wheel with their feet, and in this manner, and by means of a simple mechanical contrivance, they are able to make about 2,800 reels of 137 yards each daily. To produce this quantity it is estimated that they cover a course of 18,000 yards.

After a man becomes old, time flies so fast that he no sooner gets away from a barber shop than it is time to start back for another shave.