

Milk weighs about eight and a half sounds to the gallon, varying a little according to the percentage of solids. Cream will weigh about eight pounds to the gallon, varying some accord-The richer the cream the less it weighs. Pure butter fat weighs a litde less than seven and three-quarters ! sounds to the gallon. Liquids expand when heated and contract when cooled. A gallon of milk or cream when reated will be less than a gallon when cooled .- American Cultivator.

MAMMOTH CLOVER MANURE.

Where it will grow, medium red slover is ordinarily the best variety to grow. To grow simply for a green nanure crep, mammoth clover is beter. It is also better to sow with timothy on thin land. On such land the stems will not be coarser than the stems of the medium variety on tich land, and it ripens at the same time as timethy. Alsike is the clover for wet land .- Epitomist.

SHADE FOR HOGS.

shade must be provided. Some farmers cut away every vistage of shade. The hog loves a cool damp shade where he can lie and snooze during the heat of the day. If left in a pasture with no shade he will suffer. Experience of prominent breders shows, however, that a mud wallow is by no have a clean bath, no bath is prefer- sinews are sprained, he will prove he should have cool moist ground to beneath the horse, it indicates a dis-"ie upon. - Farmers Home Journal.

ROMAN NOSED HORSE.

same time the ears are pointed and before closing the deal. sensitive, it is safe to describe the animal as gentle and at the same time high-spirited. If on the other hand, The sire is half the herd and more the horse has a dent in the middle than half if he is pure bred and the of his nose, he is likely to be treach- females are scrubs or grades. well as vicious.

Do you attempt to feed and rest the excellent. horse at noon with his harness on? A man might as well think to enjoy his dinner by sitting down to it with faults in butter making. overcoat, hat and gloves on.

GRINDING FEED.

The experiments of the agricultural fairly good layers. experiment stations do not uniformly feed.

But the preponderance of evidence or of grinding feed.

And especially for young stuff and

milch cows.

periments of the stations is, in our choice; there is always a reason. humble opinion, the practice of the They use the feed grinder year af- feed.

ter year. And they are the kind that tual farm practice.

make it worth while to have one.

A feed grinder is not such a very expensive proposition and rightly used it is as profitable an investment expose them to driving rains in chilly as the average farmer or stockman weather or to quarters that are dam; can make.-Weekly Witness.

WHEN COWS SHOULD DRY.

As to when cows should be dried from milking, a dairyman giving his own experience says that this depends to some extent on the quality and vigor of the cow, and that a cow reason that cottonseed meal is. in poor condition may be allowed two months in which to recruit her strength, with advantage to herself and her prospective calf, but this is erous, the animal healthy, and the years, sometimes being milked to about him." within a month of calving, that have carried as good an appearance, and produced equally good calves, as dow looking at the rosy sunset, re those which run dry nearly three marked to the doctor; times as long. Six weeks may be conshiered the average period during circumstances are exceptional.-Indi- dicated. ana Farmer.

CURE FOR SCALY LEG.

scaly leg. It is too severe a treatis very commonly used, and is an ex. panion. cellent remedy much more easily applied than anything that has to be better than coal oil and linseed oil, I may do with the contents.

tainly is efficacious and very easily applied. For the former a half mixture is good. If more time can be taken, use about two parts linseed to one part coal oil. If you are in a ng to the percentage of butter fat. hurry, take a stiff old tooth brush and rub off as much of the scale as can be taken off readily in this way, then dip the legs to the hock, in the oil. If you are not, at intervals of a few days go through the affected flock at night, and dip the feet of every hen, holding her with feet in the oil just an instant, letting the oil drip from the feet into the pail an instant more, then replacing her on the roost.-Farm Poultry.

> TESTS FOR A GOOD HORSE. One not familiar with all the points of a good horse will find in the following from the Farming World, some good suggestions:

Never buy a horse while in motion; watch him stand still. If sound he will stand firmly and squarely on his limbs without moving, except when he has very high life. He will be flat on the ground with legs plump If hogs are to thrive in pasture, and naturally poised. If one foot is brown forward and toe pointed to the ground with heel raised, or if foot is lifted disease of the navicular bone may be suspected or at least a tenderness which is liable to develop into serious disease. If the foot is thrown out, toe raised and heel brought down, the horse has suffered means necessary. If the hog cannot from laminitis, founder, or the back able, but Sus is a child of the soil and | worthless. If feet are drawn together placement of limb and weak disposi tion of the muscles. If horse stands with feet spread apart, or straddles It is said that the horse with the with his hind legs, there is weakness Roman nose is likely to be a good ani- of the loins and the kidneys are dis mal for hard work, and not afraid of ordered. If knees are bent and trem the cars. He is also apt to be slow, ble, the horse has been rulned by According to an authority of the Roy- heavy pulling. You run great risk in al College of Veterinary Surgeons, buying horses with contracted or bad England, the horse's face is a good formed hoofs. It is always safest to index to his character. If there is a have the horse thoroughly examined general curve to the profile and at the by a competent veterinary surgeor

erous and vicious. A horse that For injuries to the teats or udder droops his ears is apt to be lazy as of the cow, an ointment made from a mixture of fresh butter and tar is

Over-ripe cream, too much churning and overworking are three general

Guinea fowls are a small expense to raise as they get most of their liv ing during warm weather. They are

Fright is as disastrous for a hen give results favorable to grinding as for a cow. Be gentle around the flock: it pay.

Don't blame the incubator for a of these experiments is clearly in fav- poor hatch when the fault was with

the eggs or the management. Sick chickens are not only useless but disgusting; don't let them gel But more import than even the ex- sick. Fowls do not get sick from

No matter what method is used most successful farmers and stock skim clean. Butter fat will not make enough pork to be an economical hos

Feeding calves milk that is too coldo not do what is unprofitable in act or too much milk at one time may cause scours. A cup of wheat flour They do not griud all the feed. But and a raw egg in its milk is recom they use the feed grinder enough to mended as a mild remedy for a cal' with scours.

> It is gainful to keep calves clear and dry. It is very poor economy to or filthy.

> If buying hay for dairy cows, re member that it profits to give some thing more for alfalfa or cowpea hay than for hays that are less nitrogen ous, since alfalfa or cowpea hay is \$ better milk producer for the same

> > The Necessary Shock.

A college professor had been seri to some extent a matter of keep, for ously ill of a fever for several weeks the poor cow generally belongs to the but the fever had left him at last, and poor feeder, and, if the feeding is gen. he lay in a stupor, utterly exhausted "This is the really critical period." quantity of milk produced pays ex- the attending physician said to the penies there is no reason why the watchers, in an undertone. "If he period of rest should not be further has sufficient vitality to carry him reduced. In the case of the average through this-and I am strongly dis cow, the milking can be continued posed to hope he has-he will re until within a month of calving. If a cover. At present there is nothing cow is in low condition, it is better we can do but be patient and give in our opinion, to resort to higher nature a chance, watching in the feeding than to dry off. We have meantime for an opportunity to awak known cows treated thus for many en his interest in what is going of

One of the attendants, who hap pened to be standing near the win

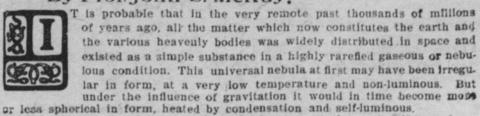
"See what a lurid sky there is." The sick man opened his eyes and which a cow should be dry, unless the turned his head in the direction in

"Lurid!" he exclaimed, in a tone of disgust. "If you will consult your dictionary, madam, you will find that Coal oil alone is little used for lurid means gloomy, ghastly, dismal! "He will recover!" announced the ment. Coal oil with raw linseed oil doctor, triumphantly.-- Youth's Com

Affixing a pure food label does not rubbed in. Sulphur and lard, or even constitute any guarantee, for the lard alone, is good. Whether it is Washington Star, as to what the cool

The Story of the Earth.

By Prof. John S. McKay.



By the irregular falling of the particles toward the centre it may have acquired a rotary motion and in time become a flattened disk or ring. If different centres of attraction should be formed throughout the mass, the universal nebula would separate into innumerable nebulous stars and thus

form what is known as the galaxy or milky way. These nebulous stars contracting under the influence of gravitation would become hotter and brighter, increasing their radiation until they reached the liquid or solid condition. Then as the radiation would be in excess of the heat produced, they would gradually become cold and dark, the larger ones requiring the longer time to reach this condition. As they cooled and condensed new elements and compounds would be formed from the simple primordial substance of the nebula. Such appears to be the condition of the universe today, and such is probably the life history of every sun and star.

In the midst of the great ring nebula that formed the galaxy there was thus formed a nebulous star wifich developed into our sun and solar system. At first it must have been an immense nebula more than six billion miles in diameter turning on its axis once in 200 years. As it contracted it became hotter and brighter and rotated faster. The increased centrifugal force caused a flattening at the poles and a ring of nebulous matter near the equator was left behind as the central mass continued to contract.

This ring of matter under the influence of its own gravitation drew up into a spherical mass, forming the planet Neptune, which continued to revolve around the central sun making a complete revolution in 165 years.

This process was repeated five times, the central mass, contracting, increasing its angular velocity, and abandoning rings which formed in succession the planets Uranus, Saturn, Jupiter, the Planetolds and Mars, each continuing to revolve around the central sun with the speed which it had when the ring was left behind, and in a plane approximating that of the sun's

Finally, when the central sun was about 186,000,000 miles in diameter and rotating at the rate of once in about 365 days, a seventh ring was abandoned which formed the earth. Later two other rings were abandoned which formed Venus and Mercury.

The earth ring in condensing seems to have developed two centres of attraction which resulted in two spheres, very close together and rotating around their common centre of gravity like a double star, the one forming the earth and the other the moon .- Detroit News Tribune.

Skimping Economics and Penuriousness Do Not Pay

By O. S. Marden.

OBODY admires a narrow-souled, dried-up man who will not invest in books or travel, who will invest in the grosser material property but not in himself, and whose highest ambition is to save so many dollars. You can always pick out the man who is so overanxious

about small savings that he loses the larger gain. He radiates smaliness, meanness, limitation. His thoughts are pinched, his ideas narrow. He is the small-calibered man who lacks that generosity and breadth which marks the liberal, broad-gauged man Many men of this type remain at the head of a little two-penny business

all their lives because they have never learned the effectiveness of liberality in business. They do not know that a liberal sowing means a liberal harvest. They know nothing of the secret of the larger success of modern business

There is a vast difference between the economy which administers wisely and that niggardly economy which saves for the sake of saving and spends a dime's worth of time to save a penny.

I have never known a man who overestimated the importance of saving pennies to do things which belong to large minds.

Cheese-paring methods belong to the past. Skimping economies and penuriousness do not pay. The great things today are done on broad lines. It is the liberal-minded man, with a level head and a sound judgment, the man who can see things in their large relations, that succeeds. Large things today must be done in a large way. It is the liberal policy that wins,

Economy, in its broadest sense, involves the highest kind of judgment and levelheadness and breadth of vision. The wisest economy often requires very lavish expenditure, because there may be thousands of dollars depending upon the spending of hundreds. It often means a very broad and generous administration, a liberal spending,

Some of the best business men I know are generous almost to extravagance with their customers, or in their dealings with men. They think nothing of spending a thousand dollars if they can see two thousand or five thousand coming back from it. But the petty economizers are too narrow in their views, too limited in their outlook, too niggardly in their expenditures to ever measure up to large things. They hold the penny so close to their eyes that it shuts out the dollar.

The habit of saving may be carried to such an extent that it becomes a boomerang and proves a stumbling-block instead of a stepping-stone. It is bad economy for the farmer to skimp on seed corn. "He that soweth sparingly shalf also reap sparingly."-From Success.

A Vegetarian's Plea Urging People Not To Eat Meat

AN was not intended to be a carnivorous, but a fruit and vegetable eating animal. A vegetable diet is the most favorable to man, in all respects, physical, intellectual and moral; with it his life is longer, his enjoyment of life greater, his brain more vigorous, and his power of manual labor not less than with an animal diet; and while the use of animal food begets a ferocious disposition, a carelessness about life, a callousness to the sufferings of men or animals, a vegetable diet develops the gentler affections and produces a broad and genial sense of brotherhood.

It is submitted that vegetables contain all the principles necessary for the sustenance of man, that therefore the use of flesh is unnecessary, and that this being so it is selfish, cruel and tyrannical, calculated, too, to increase selfishness, cruelty and tyranny in men, to cut short the existence of inferior animals.

To a race of vegetarian men, like the Hindus, surrounded by vegetarian animals, herds from which they demanded only milk, flocks tribute was their fleece, and poultry which plied nothing but eggs to the board, the idea of depriving creatures of life in order to eat them would seem monstrous and repulsive. We have among us rigid vegetarians who think with the Hindus and the ancient philosophers that fruits and vegetables are the only proper food for rational beings, and who, like them, are shocked to see the bodies of God's creatures exposed for sale at the butchers' as food for man.

The relations between man and the other animals of the globe would have been altogether delightful but for one unlucky circumstance, a circumstance, which, far from being inevitable or natural, is one of the insoluble problems of the earth, and has caused a terrible jar and discord in creation. namely, the fact that one animal is food for another. The normal state of every living animal from the lowest to the highest is one of conflict, the big eat the little, and the weakest go to the wall,

Men are the same as other animals in eating, sleeping, fearing, suffering and propagation. Reason alone is man's superior distinction. Deprived of reason he is upon an equality with the brutes. The uneducated man and the savage are just as rational as our nearest relations among the mammals. The savage in all lands gluts himself with the slaughter of animal life. nor is his civilized Christian brother much behind him in the propensity to destroy animal life, which nothing but the interest of proprietorship avails

In all Christian countries animals are the prevailing food for man, and the way in which animals are slaughtered for what is termed sport and the millions of songsters killed in defiance of the laws of bird protection to adorn the hats of women and the manner in which naturalists impale birds, butterflies and insects with a pin, seem mercilers and abhorrent to a refined

to check. Everywhere it is absolutely a capital crime to be an unowned

If the beef magnates succeed in arousing the people to forswear a meat diet and turn to a pure fruit and vegetable diet they will become bene-

Frank B. Raynor, a life saver at one | Rat catchers and inventors from of the New York stations, can have all parts of London are eagerly comany office in the gift of President | peting for a prize of 10 guineas and Roosevelt that he can fill, and with the emblazoned diploma which the out bothering his head with civit Society for the Destruction of Vermin



GIRLS MARK THEIR LINGERIE.

In this day of ready-mades, the individual way of marking them. Even ! done with the sewing machine, by ery man who speaks to her a seegoing over it twice. Handkerchiefs ond time, is on the verge of falling are especially dainty done this way, in love with her charms and takes and much easier to identify than seriously attentions merely of the when marked simply with the initials moment, it will be only a few years or indelible ink, which becomes dim. when she finds herself high and dry The machine stitching can also be on the rands of time, because every used on small initials for underwear; man who knows her is either afraid and if a set of lingerie is being trim- or bored. med in colors the machine may be threaded with color.

several prospective brides. Every to married women than to girls is thing that they make has a daisy, a because they have no fear of the forbuttercup, or, latest of all, a rose on | mer being unduly impressed. A marit. If the girl doesn't embroider, she ried woman knows that even the most buys Hamburg flowers and button- slavish devotion is for amusement, holes them on. Another idea is to or distraction only. have a whole set of rose lingerie, On the other hand, if a bachelor another of butterflies, and so on. in were to show half the same pleasure this case very often the cloth is mark- in the society of a girl, their friends, ed with the owner's name in indell- if not the girl herself, would think ble ink in some out-of-the-way cor- that the matter was seriously on the ner, where only the laundress will way to an engagement. see it. Another idea is the color marking. A whole trouszeau seen lately was in white, except for the tiny blue bell which appeared on each thing in that line from machine-made piece of the lingerie.

monogram it is correct to have the years women of wealth in all parts same design stamped in several sizes, of the world have devoted their time Any girl who is at all clever with to encouraging revival of lacemaking a pencil can draw the different sizes They have supplied the raw material for herself after she has the first to working women and have impressdesign done. The same is true of ed on their protegees the possibility initials. Both these and the mono. of profit in light labor at home. Few gram are now done in script rather crafts offer such a margin of gain, for than old English style.

forming the second kind. Now domes. novel as to be a delight to the buytic labor is not pleasant, first because er .- New York Press,

it leaves no record, second because the work brings no honor to the per. PRESENTED TO AN OLDER WOformer other than the very doubtful honor which attends the destruction of the results.

able objects during family migrations. not even know. When we can impress on others not to be permitted to look after obscure and disregarded things. Woman be-Beved for ages that she could not throw a stone, could not grasp the elements of the science of mathematics and was so timid that she was bound to scream when she saw a mouse. The great uprising began When she recognized, as a woman, that these statements were not true,

Demestic work is not liked; not held in honor, and until it is accorded na-Conal distinction, women will seek generally in black with frills of black another outlet for their efforts.-New lace and huge bows of black velvet. Haven Register.

TREND TO GAYER GOWNS.

"Every time I come to New York," said a woman who visits the city at intervals of two or three years, "I notice a distinct advance in the gavety of gowns worn for walking. Apparently the tailor-made costume is losing its grip even on the progressive avoman. New Yorkers are working back to the theory of their grandmamas, that woman should be attired attractively at all times. Frocks are worn in the street today which & few years ago would have made a carriage imperative. It is no uncommon sight to see women in Fifth avenue dressed in a way that in the preceding decade would have been considered correct only in drawing rooms. At first I thought the trend had to do only with actresses and the newly rich, but I realize all your best families have yielded to it. Twentleth century fabrics have had something to do with causing the reversion to early nineteenth century frilliness, I dare say, for the number of materials jending themselves to glad colors and soft effects is growing yearly. But the chief reason probably is that women have regained the understanding that they are on earth to make life worth living to mankind, and that the more becomingly shey array race will ber-New York Press.

THE GIRL SERMOUS. The girl who would make herself only thing that makes one's clothes popular with men will take neither seem at all personal is to have some perself nor them too seriously. It is difficult to tell which of these two girls who make many of their own is the more fatal error to commit things enjoy putting on the little If the considers herself irresistible, touch which makes them peculiarly either as to looks, conversation or their own. The easiest way and the clothes, she fails to make the nalatest is to have the name in full, tural effort that might render her first marked in the owners handwrit- most attractive, and satisfied as she ing. Then it is worked with plain is, becomes either dull or ridiculous. outline stitch, or the work can be If, on the contrary, she thinks ev-

According to a cynical old philosopher, says Brockton Times, the reason. Flower marking is a dainty fad with that men as a rule are more attentive

GREAT YEAR FOR LACE. This is the year of lace. Every cotton to handwork of the greatest If the lingerie is marked with a artistic value is in demand. For thread costing a few cents may be Perhaps the simplest of all mark transferred into lace that will sell ing is with the tiny medallion initials, for as many do'lars, the difference repwhich come in several-sizes for a resenting only the talent and industry few cents aplece. They are sewed of the worker. It is not an easy task into place and one initial outlasts to make a community enthusiastic several garments.-Pittsburg Press, over lacemaking. A good deal of time has to be spent in learning the art, NO HONOR FOR DOMESTIC WORK, and the beginner is likely to be dis-There are two kinds of work in the couraged. To offset that tendency the world, both equally necessary; the women who patronize the craft buy one kind is pleasant, the other un- early efforts, which, on account of pleasant, and the great permanent their imperfections, have little marstruggle of humanity is to get the ket value. But they reap their repleasant work for themselves individu- ward when the beginners become exally, and to compel others to relieve peris, for one never can tell when them of the horrid necessity of per- a worker will produce a pattern so

MAN

A young woman always rises when being presented to an older woman, and If domestic work had been pleas, some faddists have adopted the Engant, man would have reserved it for lish rule of not introducing persons himself, having the strength and the who come together in the drawing opportunity to make his own condi- room, the theory being that as they tions, but primitive man preferred the meet in the hostess' home introducpleasures of the chase, and to culti- tions are not necessary. While the vate the free galt and lofly mien of broad basis is correct, that the hosa bold and beautiful brave, while wom. tess' friends are also those of her an cooked the flesh and dressed the guests, some persons find themselves skins of the fruits of the chase, car. embarrassed when confronted by perrying the tentpoles and other port. fect strangers, whose names they do

It is always the part of good form only that the unpleasant things are to speak to any person, man or wotheir portion but that they like the man whom one finds in the same allotment, we have added a new ele. drawing room. This rule is not to bo ment to the art of government. When applied to dances or gatherings in we have convinced people that they big halls, and two strangers, who are inferior they think it a privilege speak then commit a very ill-bred act. -Washington Star.

> FASHION NOTES. A huge white chip lined with pink straw is a dream.

Cretonne is full of charm, and it is little wonder that the fabric is pop-With the tailor-made suit the flat

There are many net hats which are

sailor seems to be the leading favor-

One particularly smart tie was double, with the lower wings edged with German valenciennes and the upper

with tiny crocheted circles and stars. The big picture hat lined with black satin put on plain and trimmed with a mass of wisteria, morning-glories, irises or other similar blossoms is a high favorite among millinery conceits.

Short coats of white pique, handsomely braided in soutache or embroldered, are for wear over muslins,

For the front of the corset a heartshaped sachet bag filled with cotton and my lady's favorite sachet is covered with flowered sllk. This little affair is attached to one side of the corset, and after it is closed it is secured by a tiny gold safety pin.

Indian muslin and spotted gauze are being much used for afternoon and evening gowns as these fabrics do not crush as easily as muslin de sole.

A very smart tailored costume noticed recently was of white serge showing a line of black.

The new ways of arranging the coiffure are all designed to make the hair look as 4f waved naturally and very little.

Hand embroidered veils are fashion-

It is still the vogue to dye laces to match the materials they trim.

Alfred Soderman of Wercester. Mass., has succeeded in growing pothemanives the happier and botter the tatoes and tomatoes on the same