

ORCHARD and GARDEN

MEAT FOR CHICKS.

In concluding a report of experiments in feeding young chicks the Rhode Island Experiment Station says: "The use of the proper proportion of animal food will pay a handsome profit through decreased mortality and increased weight of the chicks. In feeding bear in mind that chicks in a state of nature spend practically all of their working hours in search of food, and that they do not fill their crops in ten minutes every two hours. Feeding should be, as far as the time of the attendant renders profitable, a continuous process, but by no means a continuous gorge. The experiment which led up to this conclusion was with an incubator hatch of 219 chickens. These were separated into lots of about fifty each and placed in similar brooders. For thirty days all conditions were kept alike except the ration. Pen A was fed a balanced ration of grains, meat and green food. The chicks grew and thrived and not one chick showed symptoms of digestive disorder. The deaths amounted to 3.9 per cent. In pen B all animal food was withheld; the deaths were 9.5 per cent., of which 75 per cent. had bowel trouble. Pen C was fed on grain alone, all animal food and all green food being omitted from the ration; the deaths were 32.7 per cent., of which 76.5 per cent. showed digestive trouble. In pen D all grain food was omitted; the deaths of chicks were 63.7 per cent., of which 85.8 per cent. showed bowel trouble. All the living chicks were weighed at the close of the test, and pen A showed the greatest average weight for all breeds. This experiment shows conclusively that outside of the brooding and conditions during incubation chicks may be killed by improper feeding. Where one does not wish to buy the prepared beef scraps the bones and scraps from the table will go far towards feeding the baby chicks at first if put in shape so they can eat them."

TOO MUCH FAT ON SHEEP.

Professor J. Long, a well-known English live-stock authority, writing of the late Smithfield (England) show, says: "Although the number of excessively fat sheep carcasses were fewer than ever before, it is still true that in many cases the fat on the back of exhibits was nearly or quite two inches in thickness. What is wanted is a carcass with abundance of tender lean. This was found in the Suffolk carcass which won the champion prize, but even here there was too much fat covering the lean. The carcass weighed 102 pounds, the live sheep fasted weighing 164 pounds, so that a little more than sixty per cent. was carcass weight of the live weight. This sheep was a Shortwool wether lamb, and it compared well with the first prize Longwool wether lamb, a cross between the Suffolk and the Cheviot, which weighed seventy-nine pounds in the carcass against 125 pounds, which was the weight of the live sheep. Here the chops were good, but there was too much suet and fat in general. I do not think that excessive fat applies so much to breed in the sheep as to feed. For instance, among the carcasses which were fat enough to make a person with a delicate stomach sick, was a Scotch Blackface, which supplied fifteen pounds of suet, and which was covered with a layer of two inches of table over the ribs. In another case a Devon was covered with nearly two inches of solid fat."

CLEAN MILK AND THE BARN-YARD.

The Illinois station claims that in the production of clean milk no one thing is of more importance than keeping the cows out of filth. Many yards into which dairy cows are turned each day for their drink and exercise are knee-deep with mud and manure during the winter and spring, if not nearly the entire year. In summer when cows are on pasture they would keep comparatively clean, were they not obliged to wade through a filthy yard going to the stable for milking. The yard should slope from the barn and be covered with gravel or cinders sufficiently deep to form a hard substance. Manure should not be allowed to accumulate against or near the barn, and no swine pen should be nearer than 200 feet, on account of the odors from it being readily absorbed by the milk.

SOMETHING BESIDES CORN.

A noted hog-breeder says: "The need of something besides corn, something to build up frame and muscle, is quite generally recognized by up-to-date breeders and feeders. What that something is to be is the question. Oats, shorts, bran, etc., are good flesh-formers, but are rather expensive if fed intensively; and most of us are feeding for profit. The only feed that is rich enough in protein, and at the same time cheap enough to be largely used in pork production is grass. So important do I deem this auxiliary ration that if I could not have pasture I would raise very few swine. The value of grass for the breed sow and the growing pig is not alone in its nutritive elements, but largely in its promotion of health and giving tone to the system, enabling the animal to give a better account of the corn it consumes. If all the hogs in the country could have the advantage of a run on grass, and plenty of pure water, the danger from swine plague would

be reduced to a minimum. But on many farms no arrangement is made for hog pasture, and this is especially true on farms occupied by renters, and on such farms a very large amount of pork is produced."

CHEAP WAY TO ERADICATE STUMPS.

The following method of getting rid of stumps is recommended by the Scientific American: In the autumn bore a hole one or two inches in diameter, according to the girth of the stump, vertically in the centre of the latter, and about eighteen inches deep. Put into it one or two ounces of salt-petre; fill the hole with water and plug up close. In the ensuing spring take out plug and pour in about one-half gallon of kerosene oil and ignite it. The stump will smoulder away to the very extremities of the roots, leaving nothing but ashes.

FALL SPRAYING.

Bulletin No. 254 of the State Experiment Station, at Geneva, N. Y., holds out a little prospect of relief to the orchardist who finds spring all too short to allow of thorough spraying of his scale-infested trees. The results of extensive tests seem to show that fall spraying with sulphur washes is safe upon harder varieties of fruit trees and as effective as spring spraying, so far as scale destruction is concerned. Some of the washes tested also appear to promise a shortening of time and decrease of trouble in preparation of an effective compound.

DANDELIONS IN LAWNS.

Many a lover of a pretty lawn has tried to eradicate dandelions by cutting them out with a knife. The Maine station informs us that when we cut off the crown an inch or two below the ground we multiply the number of plants. The side roots start into business for themselves, forming new crowns. If we do not cut, the seeds give new plants, and so the extermination of dandelion is rather a hopeless task. Where it is very thick, the only thing to do is to destroy the old sod, kill out the roots and reseed heavily with grass. Where the plants are few in number, it may be just as well to imagine that they add beauty to the lawn and try to enjoy their presence. Of course they can be killed by the free use of blue vitrol, but each spot so treated will remain bare for years.

SALT FOR CHOLERA.

At a meeting of the Kansas Poultry Association Mr. E. Harrington said: "This fall Mrs. Harrington discovered that the cholera had appeared among her chickens. I had heard somewhere that there is nothing to beat salt as a disinfectant. I had the hired man clean the henhouse as clean as he could, wash it out thoroughly with just as strong brine as he could make and fill every crack and crevice with the brine. He did so, and we haven't lost a hen since. I tried the same thing on my hogs when the cholera broke out among them, and I am satisfied that I saved a lot of them and prevented a further spread of the disease."

GREEN FOOD FOR HOGS.

The pasture is almost as important as the feed lot. If you have not the alfalfa hog pasture you should lose no time in starting one. Some sow rape for the hogs to pasture on, others sow rye, while some sow sorghum. Any green crop is better than a dry lot. Swine of all ages should be supplied with a liberal allowance of green feed and the more permanent this supply can be made the cheaper it will be and the less liability to neglect in this important feature of hog feed.

ANIMAL FOOD FOR HENS.

The use of animal food is becoming more general every day as it is better understood, but animal food alone will not give a full egg yield. Other proper foods must go with it, and the fowls must be so fed as to produce all the component parts of the body and the egg. Animal food, wheat, oats, corn and clover hay should make the hens lay, providing they are compelled to hunt and dig in straw for all the grain they get. Proper food and exercise are the needed things to have winter eggs.

MOVING LARGE TREES.

A French expert on tree-planting reports great success in moving large trees at night. He takes them up late in the evening after ten o'clock, moves them as rapidly as possible, and waters the soil and the branches bearing the buds. The results were excellent, only two of the large shade trees dying, although a number of the species were considered hard to transplant. For the first fifteen days after transplanting he advises that the boughs and leaves of the tree be abundantly sprinkled.

Panama.

It is supposed by some that Panama derived its name from the native word for butterfly. Explorers of the interior tell of swarms of butterflies which at times rise on the slopes of the mountains in dense clouds, darkening the sunshine. Others maintain that the name is from an Indian word meaning abounding in fish.

On the beach at Norwich, England, the children enjoy one of the finest sports possible—tobogganing down a steep sand hill. The sand bluff is 130 feet high, of soft sand, and the coasters slide down by hundreds.

Germany will further exclude American meats declares the St. Louis Post-Dispatch. She is protecting her great horse-flesh industry.

Nature's Mysteries.

By George L. Brown.

NATURE has many mysteries, both in the animal and vegetable kingdom, that no student of nature or scientist has ever been able to intelligently explain, secrets on which the door seems to have been locked and the key hidden.

When I was a boy on the farm, my father bought a pig a few weeks old, bringing it home in a bag from a distance of about two miles. While taking it from the team, it escaped from the bag and at once started in a bee line for the place from which it came. Not by the road over which it had been brought, but across fields over two high hills, through a piece of woodland, across a wide brook that intervened, and in a few hours was back from where it was taken.

What hidden hand guided it where none of the so-called higher animals could have found the way? Many of our migratory birds find their way across the trackless waters to the distant shores of South America and return each season and the guide that bids them forward go never falls the way to show. Some would call that guide instinct, some would call it reason, others would say the sixth sense, direction.

No one knows, it is simply one of nature's mysteries. No scientist can tell you why nature's law is reversed in the case of birds of prey, and the woodcock and snipe families, where the females are larger than the males.

Neither can they tell you why the hop vine climbs around the pole with the sun from east to south, while the bean vine climbs around in the opposite direction. Although scientists have demonstrated beyond a doubt that no animal on the face of the earth was created for its own benefit, from the tiniest insect up to man, still they are unable to tell us what mission for good, or for whose benefit some of them were created.

Nature never duplicates, either in man, beast, bird, fruit or flower. Though multiplied by millions the result will be the same—each will have an individuality of its own.

Such are nature's mysteries which we find all through the animal and vegetable kingdom, and as such they will remain.—Forest and Stream.

Is the Democracy of Our Colleges in Danger?

By President Arthur T. Hadley, of Yale.

THERE is no doubt that the democratic spirit in our colleges is subject to more dangers today than it was fifty years ago. The old graduate is right in thinking that it is easier to keep up the democratic spirit where everybody is doing the same thing and where nobody has much money. But the old graduate is wrong in thinking that we can legislate ourselves back to this condition when the world outside has passed beyond it; or that men trained in such a college as he remembers would be able, after they graduated, to meet the demands and the temptations of the present age. Lycurgus made Sparta into an old-fashioned college, with no electives and no money. How miserably the Spartans failed when they were called upon to do anything which made for human progress is a matter of history. Our college graduates are going into a world of political life more complex than anything which the Lacedaemonians had to deal. It is only by training them to deal with the greater problems which freedom and wealth are creating throughout the country. It is one of the most hopeful signs in the undergraduate life of the present day that the most open eyes for the assumption of political responsibility. The studies and efforts of our undergraduates in our college clubs will probably not advance them very much in the direction of getting office during their earlier years of professional life. But these studies and efforts will help them, and will help the country as a whole, toward the establishment of a system under which the man with money feels that he holds that money in trust for the public, and the man who desires office desires it primarily for what he can put into it rather than for what he can get out of it.—Harper's Magazine.

For City Farmers as Well as Country Folks

Don't Leave Stones in the Road Even if You're Not Going That Way Again

By E. S. Martin.

DON'T leave stones in the road. If your horse doesn't stumble over them somebody else's horse may. When you see in the beaten track a loose stone fit to give a wheel a hard jolt or bring down a stumbling horse, stop and throw it to one side. It will pay you to take that trouble even on a strange road that you expect never to travel again. It is good for your character. It helps to justify your claim to be a civilized man, living in a civilized community. Every truly civilized community rests upon the theory that the care of all is the duty of each, and its civilization is high or low according to the prevalence or scarcity of individual responsibility for the general welfare.

There are two large classes of folks in the world, those who go through life leaving messes behind them to be cleared up, and those who clear up their messes. If you clear up faithfully after yourself, that is much, but it is not quite enough. You must expect also to contribute part of your time and strength to clearing up after the weak and the shiftless. If everybody did his duty there would be little need of government. The purpose of government is to defend the weak, to constrain the lazy, to restrain the greedy, and to make the best sense of the wisest people available for the benefit of the general community. If we were all responsible and dutiful and picked out of the road the stones that we saw there, the work of government would be light.

Hard bargains, hard words, neglected chances to give help where help was needed, slanders, ill-natured gossip, misrepresentation—all such things are stones in the road. Don't leave them behind you, to plague you when you come that way again, or else to plague some other traveler. Clear up as you go along.—From "The Farmer's Seasons," in the Fiction Number of Scribner.

Danger of Plutocracy.

By Joseph Taussek.

WHILE an oppressed people on one side of the globe are struggling for the liberties which have long since become the priceless heritage of their Western brethren, it will be well for men to weigh heavily the words so eloquently set forth by Justice Brewer in his recent speech before the Texas and Arkansas Bar Association.

Emanating as they do from a representative of one of the highest tribunals in the world, his remarks have a very deep significance. In these days of political antagonism, inspired more than ever before by motives of self-aggrandizement, it is an encouraging sign to find that there are still among us men who hold their lives and the high principles upon which our nation is founded to be one and inseparable.

Nine-tenths of the legislation in the United States is the result of the abnormal growth of wealth. As this legislation is controlled by a class whose only aim seems to be a purposeless accumulation of wealth, it is necessarily partial and undemocratic and our nation is in danger of falling under the yoke of a plutocracy which would pale the tyranny of ancient Rome.

If the "brotherhood of man" is to become anything more than an empty combination of words, it will be when the men who control and distribute wealth and power extend a helping hand and afford a beneficent example to those under them, and by promoting as far as possible a community of interest among their less fortunate fellowmen instead of competing for possible gains in a common field.

He Stopped the Coughing.

One Sunday morning a clergyman was greatly annoyed by the unusual amount of coughing among his congregation. He had not a strong voice and could only be distinctly heard when the people were still and attentive. As the coughing went on, and even grew worse, he suddenly stopped right in the middle of the sermon. All eyes were instantly turned to the pulpit, every cough was hushed and there was perfect silence.

"My friends," said the minister, with a smile, "it seems you stop when I stop."

minister proceeded with his sermon under far more favorable conditions.

Length of Wall-Paper.

Most persons have an idea that all pieces of wall-paper are necessarily of one length. Our domestic papers run eight yards to the piece. Those from France and Germany measure nine yards, while the English rolls contain twelve yards. Then, of course, there's the repeat. On some of the new papers with the smallest figures this is next to nothing, and on some others, notably that long-tailed bird pattern, if the bit over the figure is required for each length it means a loss of five feet on each strip put on the wall.—Philadelphia Record.

INTERESTING TO



RULES FOR HOME EDUCATION.

The following rules are worthy of being printed in letters of gold, and placed in a conspicuous place in every household:

- (1) From your children's earliest infancy, inculcate the necessity of instant obedience.
- (2) Unite firmness with gentleness. Let your children always understand that you mean what you say.
- (3) Never promise them anything unless you are quite sure you can give them what you say.
- (4) Always punish your children for wilfully disobeying you, but never punish them in anger.
- (5) Never let them perceive that they vex you, or make you lose your self-command.
- (6) If they give way to petulance or ill temper, wait till they are calm, then gently reason with them on the impropriety of their conduct.
- (7) Remember that a little present punishment when the occasion arises is much more effectual than the threatening of a greater punishment should the fault be renewed.
- (8) Never give your children anything because they cry for it.
- (9) On no account allow them to do at one time what you have forbidden, under the same circumstances, at another.
- (10) Teach them that the only sure and easy way to appear good is to be good.
- (11) Accustom them to make their little recitals with perfect truth.
- (12) Never allow tale-bearing.
- (13) Teach them self-denial, not self-indulgence of an angry and resentful spirit.—Home Illustrated.

SPAIN'S WOMEN ARE ADORABLE.

What women are more adorable, so proud, so simple, so radiantly feminine? As a type, the Spanish woman of the South is unique. She is small and slender, exquisitely proportioned, with tiny, but beautifully shaped hands and feet. Her head, poised proudly on a torso of classical symmetry, is small, and her hair is black and crisp, of the bluish tint peculiar to the raven.

Her face is oval—such as Ruskin admired—finely chiselled, frank and childish; her lips full, red and pouting, her nose slightly aquiline with nervous, quivering nostrils. Her eyes, almond shaped, dark, lustrous, pensive and passionate, now flash open like globes of fire, now dreamily close as if in sadness. In her white lace shawls, and the flowers of Spain in her hair, she is quite irresistible, yet no prouder creature exists, nor less coquettish a nature.

Her love consumes her, and she would no more smoke a cigarette than she would play hockey or golf. She is simple as a bird, upward and capacious as a child; sincere, for she does not know what it is to be insincere. When she loves she will die for you; but when she hates she will slay you with a glance as keen as any dagger.

A ROYAL HONEYMOON.

The life of the royal couple at the Granja palace, writes The World correspondent in Madrid, is very regular and extremely happy. They both rise as early as 7 o'clock every morning, and after a frugal breakfast they generally pay a visit to their favorite horses in the royal stables, afterward promenading together in the splendid park.

As a rule both the King and Queen start for a gallop across the country later in the morning, followed at a respectful distance by an equestrian. Exactly at noon the King and Queen return to the palace for luncheon, which is generally attended by four or five of the oldest members of the court.

After a siesta the King and Queen depart on an automobile tour, and it is not very seldom they forget to take with them Maurice, their faithful and discreet chauffeur. Dinner at La Granja is usually served at 7, after which a short conversation is held with those gentlemen and ladies of the court who have attended the dinner. As late as 10 o'clock the hour at which the sovereigns retire, they promenade alone in the park by moonlight, without consideration of court etiquette or of their temporary guests.

THE WIFE'S RIVAL.

There is one question that should come to every wife who sees her husband attracted by another woman: "Where does she charm where I do not? Does she try to please him more than I have done? Is the suggestion immoral only? What is the unconscious need back of this outcome of it; the thing that I have unconsciously failed in? Why should any one have more attraction for him, more power over him, than his own wife?"

And one thing is certain—if his regard is falling you under the conditions of life that you are now both living under, change them—never keep on under any conditions that are futile of result. By some means, in some way, get out of the rut. Give him some other interest, other company, a fad, anything to take up the mind or his attention so that this other harmful interest may be crowded out. Plan for it as you never planned

before. A fishing trip will cut out the dawdling passion for almost any woman. Even fishing over an impossible canoe or an impossible sailboat with a yachting magazine and a couple of enthusiastic nautical friends will supply a counter attraction through many winter evenings.—Mary Stewart Cutting in Harper's Bazar.

TO STAY-AT-HOMES.

A change of air and scene is very desirable, but all of us cannot have these luxuries. Luxuries they are, though there has grown up an idea that they are necessities. Let those of us who perform stay at home console ourselves with two reflections. First, that our forefathers never dreamed of shutting up and leaving their homes for weeks at a time, and yet they lived in comfort and died at a ripe old age. Second, that whether we get through the summer comfortably or not depends much more on ourselves than on our surroundings. A nervous, fretful woman will let the heat wear her out quite as much as the mountains or seashore as if she had never left home. A serene habit of mind and determination to make the best of things will carry one triumphantly through the hot days and over the weary nights, even if they must be spent among bricks instead of by rolling waves or rustling trees.—Harper's Bazar.

AS TOLD BY GIRLS' VOICES.

Every now and then you hear of a girl's voice, low and sweet and so perfectly modulated that you wonder why there aren't more women who cultivate their speaking voices.

Nothing so definitely marks the distinction between culture and the lack of it as a voice. And nothing is a much better index to character.

Listen to voices anywhere you happen to be—at a tea, or in a shop, and notice how one voice will be nasal, another shrill, one throaty, another low, but coarse and think what a difference it would make if each woman would pay only as much attention to her voice as she does to her manicuring, for instance.

A beautiful face is often marred by the sharp voice that accompanies it, and seems so oddly mismatched.

The constant use of slang has an actual physical effect upon voices which is anything but agreeable. You almost never find a hard voice, with anyone who uses beautiful English. Slang coarsens the voice, giving it a sharp quality that is as unpleasant as the stream of slang itself.

DIET FOR THE COMPLEXION.

A beauty specialist the other day well versed in the laws of hygiene said: "No wine or spirit, no beer, no tea, plenty of fruit, eating an apple first thing in the morning and a tumbler of water the last thing at night." Plenty of vegetables of the more common sort were recommended as wholesome, such as carrots, cabbage, beet root, watercress and similar simple fare. White meats, and not too much of them, plenty of fish, are enjoined, and no highly spiced or cooked-up dishes. Above all, we are to pay attention to the bath; a tepid one must be taken daily. A little common vinegar is not bad in it, with sage leaves soaked therein. Some salt is another good thing, and a few drops of tincture of myrrh.

WOMEN WATCH BUYERS.

Greater than ever, jewellers say, is the demand for women's watches this year. Why this should be the purveyors have not undertaken to explain. Of course, with woman's position of increasing importance in the affairs of the business world she practices more frequently the virtue of punctuality.

The increased sale of tiny timepieces, however, cannot be accounted for through that circumstance, for the varieties that are being sold are of the small, showy sort that are pinned on the front of the dress, where the actual wearer cannot see them.—Jewellers' Circular-Weekly.

CUTTING EYELASHES.

An eyelash is pointed. A cut lash is blunt. A lash once cut never again becomes pointed. Every lash lives a variable time and then falls out, to be replaced by a fresh one. When a cut lash so falls the new comer is pointed. So any mischief resulting from cutting the lashes will be remedied by time.

Opinions differ as to whether lash cutting promotes growth. That it renders the lashes unsightly is very certain.

THE AMEER'S LADY DOCTOR.

The late Ameer of Afghanistan, Abdurrahman, for several years employed a woman physician, Dr. Lillias Hamilton. His successor, Habibullah, has recently engaged another, Dr. Alice Van Ingen Winter, who with her daughter, a trained nurse, and a woman companion, has just taken up her residence at Cabul.

SUMMER GAYETY.

Earnest women in Shetland shawls, with spectacles and thin knobs of hair, eating blueberry pie at unwholesome hours in a shingled dining-room on a bare New England hilltop.—Edith Wharton in Scribner's Magazine.

A machine for making wood pulp was invented by Keller in 1844, but it was not till fourteen years later that the process for making paper from the pulp was invented.

The "Thousand Caves of Buddha" are to be explored by a French expedition to East Turkestan and Central Asia, to be headed by Professor Palliot of the Ecole Francaise d'Extreme-Orient.