

ORCHARD and GARDEN

SAVING DAIRY VALUES.

The principal advantages of the farm separator of the creamery are increased value of skim milk, saving of cost in hauling the dairy products, less expense in making up the butter, a smaller and less expensive creamery plant, and a possibility of a better butter product. I have named these advantages of the farm separator in their value of importance, although there may be a great many exceptions to this enumeration. For instance, the lessening of the cost of delivering the dairy products to some distant creamery may be of greater value than the increased value of the skim milk, and there may be other conditions that would change the order of the advantages of the farm separator.

Users of the farm separator find one of their greatest advantages in having the warm, sweet skim milk, fresh from the cow, for calves, pigs and other feeding purposes. With separator skim milk there is no scouring or other digestive troubles with the calves, and this one point is not fully appreciated, for this trouble impairs the future usefulness of our cattle more than we think.

Where patrons deliver whole milk at the creamery it will cost them on the average about eight cents per one hundredweight for hauling. With a herd of twenty cows, giving one hundred thousand pounds of milk annually, this means a cost of eighty dollars to get it delivered at the creamery. In delivering cream it usually costs about one-half a cent per pound of butter fat, which means with one hundred thousand pounds of milk testing four per cent, or four thousand pounds of butter fat, that the cost will be twenty dollars, a saving of sixty dollars, and very often the creamery man hauls the cream himself free of charge, because he can reach out farther from his factory, and haul a larger quantity of butter fat to his factory in the form of cream, compared with what he could haul in the form of milk, and thereby increase the business of his factory.—American Cultivator.

THE FARM NEEDS SHEEP.
Sheep are oftentimes spoken of as a nuisance by some people, but wise land owners give them credit as being great renovators of run-down or worn-out farms and even call them fertility conservers.

They are the latter and more, too. The life and habits of sheep make them not only conservers of fertility, but distributors of it where most needed. If given an opportunity, though sheep are averse to water and always seek an elevation for their resting place, they do like the succulent growth, even though it be weeds, found in the lowland of a field or pasture which has been enriched by the washings from the higher surrounding land.

These two peculiarities of sheep once came under very particular observation. When I turned some sheep into a clover field they at once sought out the spot where the clover did not catch and eagerly devoured any weeds or pigeon grass that had taken possession of the spaces. They then sought the weeds and succulent grass in the low places and runs in the fields leaving the clover on the high land, where most needed to enrich the soil, untouched, only touching this grass when practically everything else had been eaten.

More than this, when night came the sheep sought the higher portions of the field for their resting place and their droppings there deposited the fertility gathered during the day from the lower land, thus conveying back what had been washed away through the process of nature and cultivation. A farm upon which sheep are kept ought to be not only fertile, but also evenly fertile, which is a much desired condition. Farms are very few which can not with profit keep sheep.—Gilbert Allen, Alexandria, Ind.

USE AND EFFECT OF HEN MANURE.

Hen manure is something we want to get rid of, and this quite promptly and frequently. Once every week or two is none too often for the good of the fowls in hot weather, unless we keep the droppings sprinkled with super-phosphate or something else that acts as a disinfectant. We also want to make the best possible use of it. If there is any virtue in it we do not want to lose it. I always put the stuff directly on my garden patches here and there, as land becomes available for replanting, says Farm and Fireside.

Early in June I gave my lima bean vines, then small plants, a dressing of hen manure that happened to be left over in barrels from the winter accumulations, putting a small shovelful around three or four plants in the row. This dressing was afterward worked into the soil with the cultivator and hoe, and for some time no visible trace of it has remained, except that we see its marvelous effect in the growth of the vines. I have seldom seen such a mass of foliage and long strings of large pods, running from the ground up to the top of trellis, or such a mass of bloom.

Since then I have been putting the cleanings of the hen-house on various crops, around tomato vines, cucumber vines, celery, etc., and always at least in a favorable (reasonable wet)

season, with marked effect. Let no hen manure go to waste!

AS TO FEEDING THE POULTRY.

An excellent trough for feeding grain to poultry is made in the regulation V shape, except that the bottom board is about three inches wide on the inside, thus giving a chance to clean it thoroughly. This trough is long enough so that there is room for every bird on one side or the other. If the flock is large, have a number of troughs. There are always some fowls in a flock who will fight harder for food than others, but will not be a bit greedy if there is room enough for all. We arrange smaller troughs for the soft food; they are really boxes with the sides flaring out and with a broad board at the bottom so that they are not easily tipped over. They are about eight inches high.

The mash is put in these boxes and after the fowls have finished the boxes are removed, washed out and set in the sun to dry or in season when there is little sun they are wiped dry. This keeps them clean and prevents any musty food from accumulating in the corners. Water vessels are also supplied in sufficient quantity so that all of the birds will have a chance to get at them and the water is changed several times daily, in winter warming it sufficiently to take off the chill. Three times a week these vessels are thoroughly scalded and then dried. This makes considerable work with a large flock of birds, but it pays because it gives each one a chance to obtain what it needs and reduces to a minimum any chance of disease from unclean food or water.

YOUNG MEAT BEST.

Young hogs, weighing from 150 to two hundred pounds, make the nicest meat and pigs fed on a variety of food with sufficient protein in it are very much better than corn-fed hogs, where corn is fed exclusively. Most people think a thick-fleshed or broad-backed hog is of necessity a lard hog, but hogs grown on the right kind of pasture, and that must be a continuous one during the growing, always feeding grain during pasture season, and then finished on the balanced ration, and this kept up for generations, can be lean as well as thick-fleshed hogs. This is true of cattle and sheep, and why not also of hogs? We have fed largely on skim milk, peas and oats, in connection with corn and ample pasturage, and know we can have a thick-fleshed hog that will make nice meat, especially when not too old.—Thomas Convey, Iowa County, Wis.

LIME FOR HESSIAN FLY.

Many successful wheat growers claim that they have found lime to be effective in ridding their wheat of the Hessian fly. It is also beneficial as a fertilizer and renders the soil friable and easy to work. Sow a barrel of air-slacked lime to every twenty acres of wheat, a few days later repeat the dose and later go over the field with the lime the third time. That will require three barrels to each twenty acres and it is claimed that where this has been done not a fly nor any of its eggs can be found in the whole field though adjoining fields may be full of them.—The Epitomist.

FARM NOTES.

Give the mares in foal good, nutritious food and good care now. Keep the best sires for brood mares; sell the geldings.

Large breeds hatched now make good layers, but seldom attain full size. Dispose of breeding males no longer required. They are expensive boarders.

Dry feed for the chicks that you intend to keep is safe and saves a lot of work.

It does not follow because a hungry pig will gulp down almost any kind of slop, that any kind is good enough for him. Make the slop strong enough to give the pig a well rounded form that will stay with him all of the time, not the form that is seen just after leaving the trough.

Sheep restore to the soil a larger proportion of the elements they take from it in grazing than do any other stock.

When a sow has proven herself to be a regular breeder, has large, healthy litters at regular intervals, and has invariably such a good flow of milk as insures the proper suckling of the young porkers, then keep such a sow as a breeder just as long as she proves profitable, for the older she gets the better will be her pigs until she gets beyond the breeding age.

By raking the fence corners and burning the materials many harboring places of insects will be destroyed and the farm made cleaner in appearance.

Keep your eyes and ears open for the first symptoms of disease; and when a fowl gets a cold, remove to dry, warm quarters at once.

If your fowls need a good stimulant—and be sure they do—give them red pepper. This is a safe drug and is not poison. A good tonic is the tea of white oak bark or of peach leaves.

Remember, corn is a winter food, but do not go to an excess in using it. Our plans for feeding it is to give it for the evening meal and not shell it. Let them have all they want for their supper.

It is not necessary to have a stove in your poultry house, if it is made tight and free from draughts. In the most severe weather, a lighted lantern hung up in the house will be sufficient in most cases.

Future Occupations and Interests of the Medical Profession

By President Eliot, of Harvard.



HE future occupations and interests of the medical profession are to be in some respects different from those of the past, and they are to be more various. The ordinary physician has for the last hundred years been almost exclusively a man devoted to the treatment of diseases already developed in human bodies or of injuries already incurred. He made his diagnosis, and then sought remedies and a cure. He was the sympathetic and skillful helper of sick or injured persons. Most of the cases that came under his care were cases considered as to symptoms, and called for unusual knowledge and skill in discerning the seat of the disorder, or the approximate cause of the bodily disturbance. Hence the special value of the experienced consultant, who was ordinarily a man of some peculiar natural gift of body, mind or temperament, possessing also in high degree the faculty of keen observation and the habit of eliminating irrelevant considerations, and ultimately finding his way to the accurate, limited inference from the facts before him. Both the ordinary physician and the consultant have already been much helped by the extraordinary progress made in medical science during the last thirty years, but they have been helped chiefly to a surer recognition of diseases established in human bodies, and to a better treatment of their patients' diseases when recognized.

The physician or surgeon commonly renders a personal service to an individual, sometimes for a pecuniary recompense, but often without money compensation. He is often a trusted adviser in the most intimate family concerns. Births and death alike bring the physician into the home. In rendering these services he must be tender, sympathetic, considerate, pure-minded and judicious. There will always be need, crying need, of the physician and surgeon in this sense, and for these functions; and whatever else the regular education of the physician provides in the future, it must provide all the elements of the best training for the practicing physician who is to treat diseased or crippled human bodies, and give advice about the sudden and the chronic ills which afflict humanity. So much will continue to be demanded of all good medical schools; but much more they must do.

The progress of what we call civilization exposes human beings more and more to the ravages of disease. When savages come in contact with men called civilized, they invariably suffer from diseases new to them. When a rural population crowds into cities, it falls a victim to diseases from which in the country it had been exempt. When hundreds of thousands of people huddle into small areas, and create there smoke, dirt and noise, they suffer not only from diseases, but from the exacerbation of diseases not wholly unknown to them in the rural condition. Under such favorable conditions of residence and labor the human body degenerates in many respects, and, losing vigor, becomes in some respects less able to resist the attacks of disease.

The Ship Canal Between the Chesapeake and Delaware Bays

By George Harvey.



HE commercial usefulness of a broad and deep waterway between the bays (the Chesapeake and the Delaware) named will be appreciated when we point out the services that have been rendered even by the small Chesapeake and Delaware Canal, which has existed for about three-quarters of a century, and which has a depth of only ten feet, and a width of not more than thirty-six feet at the bottom. The construction of this canal began in April, 1824, and was completed in October, 1829. During the period of its existence 708,000 vessels, carrying merchandise to the aggregate weight of 46,000,000 tons, have passed through it. Its largest traffic in any one year was 1,318,000 tons in 1872; but although the traffic has since decreased, it amounted, even last year, to more than 700,000 tons, carried in 547 vessels, besides tens of thousands of passengers conveyed through the waterway on the Ericsen Line steamships. The initial cost of this canal, which is thirteen and five eighths miles long, was only \$2,500,000, and the total subsequent expenditure for repairs has only been about a million and a half of dollars. No fewer than seven canal routes have been surveyed at various times across the peninsula separating the Delaware and Chesapeake bays. They vary in length from 13 5/8 miles to 53 3/4 miles, and the estimated cost of construction ranges from about \$8,000,000 up to \$42,000,000. It is, as we have said, only the two shortest routes which the present canal commission is directed to examine. When the new Chesapeake and Delaware Canal shall have been finished, an artificial waterway deep and wide enough for battle-ships will next be called for between Philadelphia and New York. The Delaware and Raritan route may be selected for that purpose; or perhaps a more northerly line might be preferred.—Harper's Weekly.

Need of Social Inspiration for Art

By M. Jean Devalve.



IN proportion as the artist observes with greater piety, as he penetrates and identifies himself with nature, surrenders himself to her, does he find unity in her laws, correspondence between her sensible manifestations and the yearnings of his own soul. In the shape of the earth, in the movements of life, animal and of the sun's rays in the many aspects of life, animal and human, he will discover himself. He expresses himself in copying things, for he understands the union between his thought and all the forms of nature, and realizes that in the marvelous multiplicity of appearances there is but one life, one will.

And this comprehension of nature is the new center, the unique center in which henceforth the union of souls will take place. This comprehension is the true internal discipline of the spirit—a discipline far stronger than any external one. The artists thus have a ground of reunion in love and profound reverence for nature. And the same ground will serve as the principle of their future union with the people. It is not possible or conceivable that art subjected with fervor to the truth of nature should not respond fully to the needs of the life of the people; it is not possible that the productions of such an art should not harmonize with the fundamental activities of men and with their celebrations and festivals, should not serve to beautify and elevate their lives and their interests. But it should be borne in mind that the secret of popular art is not in trying to please or astonish or educate the people, but, without any extraneous designs, in all sincerity and passion, in understanding nature and expressing the truth. Such art will make its appeal spontaneously; it will be social because human, universal, natural.

Why They Are Not Likely to Have Many "New" Women for Some Time in Old Japan

By Prof. Taichiro Honjo.



IN Japan there is no co-education of the sexes, except for young children of the primary grade. Boys and girls above the middle grade have separate schools, each with its separate programme or curriculum. One of the most surprising things to me in your American School system, so far as I have inspected it, is the fact that the education for girls and for boys is practically identical. They are both taught the same things!

In the reverse is the case. The boys are specifically trained for business, for the army, for diplomacy. The girls are fitted to become good wives and mothers. That is the chief end of all the educational facilities provided for them, even in the highest grades.

Cooking and sewing occupy an important place in the rudimentary instruction of Japanese girls. With these combined the care and training of their younger brothers and sisters. The theoretical study of pedagogy is combined with actual kindergarten practice. Medicine and surgery, in their simpler domestic applications, are also considered a proper part of these "little mothers' " equipment for family life and management. English is the only foreign language taught in our girls' high schools. Their teachers are of both sexes. The average age of graduation is from sixteen to eighteen. The Formosan government is now spending a large sum of money for a new high school on the American plan whose faculty board will include a number of lady teachers from the United States. This experiment is independent of the State educational system of Japan.

INTERESTING TO



WOMEN INCREASE OF HOUSEHOLD EXPENSES

Harper's Bazar has been publishing during the last summer and autumn an exceedingly interesting and practical symposium in which Bazar readers tell how they are meeting the increased expense of living in cases where there is no corresponding increase of income. The following instance, from the Bazar, is a typical one:

"The expense of living has increased; our income has not. This increase has been met by us in the following ways:

"We give almost \$25 less to the church and to various benevolences, than we used to.

"Formerly we spent about \$25 a year for magazines and books. Today we scarcely spend \$5, depending upon the library for nearly all our reading.

"We save certainly \$25 by doing less entertaining than formerly.

"I have saved about \$60 by keeping a maid only half a year, where formerly we kept one all the time. I have her during the summer and fall, when I do not wish to be in the hot kitchen and do want to be out-of-doors. We save perhaps \$15 a year by not going to so many entertainments and concerts. Indeed, we have cut these out almost entirely. We simply cannot afford them.

"We spend some \$40 less for vacation and for travel.

"I save perhaps \$25 a year by making over my own clothes and others which friends give me for the children, where formerly we were accustomed to buy them ready-made cheaper and the clothes wear better.

"This accounts for about \$215 of the \$245 that must be saved on account of the increased cost of living. The other \$30 is money that we do not save. Where formerly we tried to put away \$80 to \$100 for a rainy day and for old age, now the best that we can do is to save \$50."

THE SULTAN AND THE EMPRESS.

The Sultan of Turkey, who never leaves Yildiz Kiosk except to go to prayers on Friday at noon, proposed to send various high dignitaries to receive the Kaiser as he stepped on the shore of the Bosphorus at the official landing place (on his visit to Constantinople).

The Kaiser required that the Sultan must receive him in person; and the Sultan had to yield, for he keenly desired the glory in Mohammedan eyes of having a European sovereign come to pay his respects to the Commander of the Faithful.

The Sultan was waiting, then, to receive the Emperor as he stepped from his boat, and two carriages were in readiness, one to convey the two sovereigns and one for the Empress. The Kaiser overturned the arrangement by putting the Empress into the first carriage with the Sultan while he himself occupied the second. So the Sultan endured the indescribable humiliation of driving through the streets of his own capital, before the eyes of his Mohammedan subjects, sitting side by side with a Gaiour woman. Nothing could be more humiliating to the Sultan than that situation, and the most effective counterblast to his Pan-Islamic propaganda would be to circulate through all Islam the description of that carriage drive, if any Mohammedan could be induced to believe it.—An Eastern Traveller in the Contemporary Review.

BUSINESS WOMEN'S LUNCHEON.

"A lettuce sandwich, a big red apple, a cup of cologne and plenty of bread and butter" is said by one writer to make a fact luncheon for a business woman on which will not make the man rebellious. The same writer's "facial contortions are responses for more wrinkles than age."

FASHION NOTES.

The furrier is doing embroideries lavishly with garments this season. The use of sable with tails at the neck and one huge rose at the side.

Brown is the popular color of the season, and, bined artistically with green is the color effect.

The revival of mille balls, tassels and cords amongsting novelties seems to be of great every day.

Wide ruffles of or tucked brusels net are verpular on wool or silk negligees.

A large obolucke holds the wide straps of that cross over the full lace of a sumptuous afternoon gown.

Tan and grayest shades are the colors parrelence for afternoon and callistumes.

A fetching t of originality is given some of latest of the plaid silk belts by (kid buckles and bindings with v they are finished.

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Two rows open, one wider than the other, pip together by one edge, peep at the edge of the girle, providi novel bit of trimming for a -designed princess gown.

Narrow ribbon slipped through the rib lace medallions adds a contrast touch to the decoration of collars and bodices that is very ete.

The long time on a hat of original design sits at the right side of the head crossing flows along the leldoward the front, drooping at the effect is to frame the fe chantly, the soft feather by most becoming

Among the prominent women who ride in this fashion are Viscountess Castlereagh, the Duchess of Westminster and the young daughter of the Duchess of Sutherland. Their riding habits are so contrived as to present the neatest appearance. Seen from some points of view it can hardly be realized that they are not using a side saddle.

The chief opposition to the custom comes from the teachers of horsemanship, who find the new style much easier taught. The course of lessons is much curtailed; indeed, girls learn to ride astride as quickly as their brothers.—New York Sun.

St. Etienne, re, turned out \$16,884,18 worth of bolts and kindred articles a 1an increase of \$743,544 over 1917 this amount \$10,496,132 worth used for home consumption and \$88,186 worth was exported.

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BAROMETRIC EFFECT OF CLOTHES.

No one can possibly deny that clothes have a barometric effect upon one's self-respect and temper. The workman in his "Sunday best" feels much more important than he does in his workaday attire, than he does in his respectable of new mourning; a new hat will revive the spirits of most women, whatever may be their station in life, and every woman feels the more satisfied with herself and has a greater sense of dignity when she is conscious of being bien mise.—Lady's Pictorial.

THE 'HOUSEWIFELY' INSTINCT.

There are very few women, indeed, married or single, who have not the housewifely instinct, though circumstances, of course develop it in differing degrees. There is not the same need nor opportunity for individual research perhaps, into the mysteries and allurements which took up so much of the old time housewife's attention, simply because modern conditions have placed so many of their ready made within our reach at a moderate cost. But there is still the same desire to shine in the housewifely world to go one better than one's neighbors, to give to the home the individual touch which is so dear to the housewifely heart and so acceptable to those who benefit by it.—Annie S. Swan, in The Reader.

WOMEN WAGE EARNERS.

According to a Census Bureau report issued to-day, women wage earners are increasing steadily and are engaged in 316 of 239 industries. The greatest increase is shown for the manufacture of tobacco, cigars and cigarettes, New York State leads in the employment of women, with garment making most prominent.

The American factory women, including girls more than 16, earned in 1905 the sum of \$317,279,098, or 5 per capita of about \$208, against an average annual age for men. If years and older, about \$524, though the limitations of this census prevent fixing these wage-earners as accurate. Pennsylvania ran first and Massachusetts second in the number of children employed—Baltimore American.

JAPAN GROWS AT THE NEW WCAN.

The girl who is the product of the female education of the present day does not make suitable wife for ordinary Japanese any means. She learns much at school that is of no use to her in afterlife, and she is too often made conceited by the smattering of knowledge she possesses and is apt to put on airs. There is a great lack of practical about the instruction given to young girls at most modern schools. Some of the girls from these schools manifest the tastes of officials, but the majority of them are shunned by marriage men for the reasons given above.

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