



# FARM FURROWS

## "MILK TEST" BABCOCK.

Sixteen years ago Dr. Stephen Moulton Babcock announced through a tiny bulletin, a small, paper-bound, few-leaved circular, a most humble affair, "a new method for the determination of fat in milk adapted to creameries and cheese factories." The bulletin was sent to a few hundreds of people. It gave no hint of the enormous economic influence of the discovery so simply set forth. But this discovery has increased the wealth of nations by many millions of dollars and will continue to do to the end of time; it is the basis of transactions around the globe, running into many thousands of dollars per day; it has been adopted by the butter and cheesemakers of every nation in the world; without it, the present advanced position of this important feature of modern industrial life would have been impossible.

Prolonged study led the chemist to the conclusion that any determination of the real value of milk must rest upon chemical action and mechanical force. He knew, for example, that sulphuric acid would dissolve all the solids in milk save the fat, the actual richness of the milk. He knew that a rapidly revolving receptacle would tend, by centrifugal force, to throw forward a liquid confined in a bottle in the receptacle. He combined the two and made the Babcock Milk Test. He constructed a machine to put the test in practical operation, primitive in its fashion but covering all the essential points. I saw the machine not long since, a simple-looking affair which has traveled tens of thousands of miles and has been seen by tens of thousands of people at great exhibitions in America and abroad.—W. S. Harwood, in The World To-Day.

## ESTIMATING DAIRY PROFITS.

With the advent of the growing season begins the lessening of the cost of food for stock. Dairymen have less labor to perform in spring and summer, as the cows can be put on pasture and consequently feed themselves. Nevertheless there are many points from which the matter of producing milk and butter at the lowest cost may be viewed. Every dairyman should first know the characteristics of the cows in the herd. With the aid of the scales he should be able to estimate the amount of food consumed by each individual and by the use of the milk tester he can keep himself informed of what each cow is doing. Unless he uses these precautions he will be operating in the dark. There is a wide difference in the capacity of cows, even when of the same breed and this difference may be such as to cause a loss from one cow, while the others give a profit. In a herd of from twenty to forty cows, there may be some excellent animals and the entire herd may give a profit, yet among them may be some that entail a loss and at the same time increase the cost for labor. In a test at the Missouri Experiment Station it was found that a cow in a herd that produced 295 pounds of butter in a year only gave a profit of thirty dollars, while another cow that produced only 275 pounds in the same period gave a profit of sixty dollars. The capacity of one cow was to digest and assimilate the food better than the other. The profit was not in the quantity of butter produced, but in the reduction of the cost.—The Epitome.

## CORNING BEEF.

Please advise me whether it is preferable to corn beef in small quantities by a family living in an apartment in the city. Does the pickle need to be kept at a certain temperature—or, expressed another way, does variation of temperature affect the pickle? What is the average length of time necessary to thoroughly corn the beef? Have you a receipt for a pickle that could be used in the above case? M. B. (The practicability would be greater in a house with a cellar, but presumably the apartment house has a cold room of some sort and space to accommodate 500 lb. of beef. If that is the case, take 8 lb. of salt, 2 lb. of brown sugar, 1/2 oz. of saltpeter; cut the beef into pieces about the size you may wish for cooking; mix the salt and sugar thoroughly. Dissolve the saltpeter in a little water as possible and mix with the salt and sugar; put some of this on the bottom of a cask or jar, put in a layer of beef and pack it close and solid, cover with salt and another layer of beef to the finish. After the beef is all in and fairly packed, put a heavy weight on and leave it. After two or three days if there is not enough brine developed to entirely cover the beef, add enough good soft water to do so. It is a good plan to put the pieces intended for fried beef on the top layer. It ought to be sufficiently cured for use in 51 days. This receipt will keep your beef good and sweet for several months when kept in a cool place—the less variation in temperature the better.—From the Country Gentleman.

## DON'T SPEAK TO YOUR HORSE.

Careless must promptly reward performance, and the voice be never used—the horse does not understand your words, and if you are angry your tones will only further disconcert him—while if you are eternally talking to him, you simply render him careless and inattentive. Careless the spot you have just addressed, nor think that he understands a pat on the neck, as reward for something he has just done with his hind quarters. Go direct to the spot, and where two parts have been addressed, caress them both, as in backing, the hind quarters, and the sides where the legs came, etc., etc.—and the same thing in biting—do not pat the neck if you asked him to yield his jaw. "Don't reward your daughter for your son's successful geography lesson"—that is the idea in a nutshell.—From "Directing the Saddle-Horse," by F. M. Ware, in The Outing Magazine.

## A MODEL MILK FARM.

On such a farm the milk-house is properly separate from the barn and deserves a word for itself. There come the clean-handed, white-clad milkers with their covered pails whose contents have been drawn from clean cows. No milk enters the milk-house, but each pours his milk from an outside passage directly into the aerator or cooler. This piece of apparatus takes the warm milk fresh from the cow, and cools it immediately to 35 degrees or 40 degrees F., passing it from a tank over a large expanse of cylindrical pipe, whose interior is cooled by coils through which flows running water. From the cooler, the milk is run direct into sterile bottles. These are capped and placed on ice, where they remain, both on the farm and in the wagon, until the consumer is reached. Such a farm has, as a matter of course, a pure and sufficient water supply and clean and jointless milk utensils.—Hollis Godfrey, in The Atlantic.

## BUSHEL CRATES.

The man who will take the pains to look around and observe will find many ways to make work easier and in fact do better work. For years growers of potatoes used bags in their fields for carrying the crop to the wagons or the storage pit. But some one happened to nail a few slats together, and out of this has come the crate which is now commonly used for potatoes and apples. Scatter the crates about the potato field, and sort the crop as the potatoes are put into the crates. This saves any further handling, and the crates are ready to go to the winter cellar or to the car to be shipped. These crates hold a bushel, when level full of apples or potatoes. They are easily handled and afford good ventilation. They are usually made of 1 1/2 x 1 1/2 inches, outside measure. Use half-inch lumber, with inch square corner posts. Any tough wood will do. Such crates may be bought, knocked down, at from 12c to 15c each, and they will last a long while, if they are properly taken care of when they are not in use.—Indiana Farmer.

## GIVE THE HORSE WARNING.

No movement should ever be required of the saddle-horse until he has been previously warned, and in however crude a fashion, collected for the effort. It is not fair to him to neglect this, nor is it to haul him backward by main strength, or to ask advance by suddenly kicking him in the ribs with the heels, or jarking his mouth with the bits, customary as are these performances; nor should he be turned only by hauling upon one rein until his body must follow his head and neck, or he must fall down.—From "Directing the Saddle-Horse," by F. M. Ware, in The Outing Magazine.

## TO KILL CABBAGE WORMS.

An effective means for destroying cabbage worms, whether they be the Zebra caterpillar or of the common green variety is to fill your sprinkling can with boiling water and sprinkle the cabbage plants, taking care that the hot water comes in direct contact with the insect. The water does not harm the cabbage, but kills the worms. Another remedy for these cabbage destroyers is to sprinkle common salt crystals over the pests or apply as brine.—Indiana Farmer.

## Cold Job for the Under Man.

Some years ago an Irishman just from the old country, secured a job cutting ice on a pond. The foreman gave Pat an ice-saw and told him to go to work cutting ice. Pat had seen a cross-cut saw used in cutting logs, which requires a man at either end. As the saw the foreman gave him resembled the cross-cut he had seen, he supposed it required two men to work it. So, seeing another man standing near when he was to commence cutting, he said: "Say, friend, I'll toss up a cent to see who goes below."

# THE TRAGEDY OF IT!



Cartoon from the New York News.

## GIVE UP COLLEGE ATHLETICS, OR \$3,000,000--WHICH?

Swarthmore Puzzled Whether to Withdraw From Intercollegiate Sports as a Price For the Big Bequest of a Rich Quakeress.

Philadelphia.—By the will of Miss Anna T. Jeanes, member of one of the oldest and wealthiest of Pennsylvania Quaker families, Swarthmore College is to receive coal lands valued at, possibly, \$3,000,000 if it gives up forever all participation in intercollegiate athletics. If the trustees solemnly pledge themselves to forbid every possible form of physical contest with other institutions of learning, from football to lawn tennis, the lands on which are collieries paying heavy royalties go to the institution absolutely; if they fail to do this the property goes to other charities.

Miss Jeanes was almost the last immediate member of her family, and died recently in the Friends' Home, which she established. The surviving members of the family are too wealthy to be affected by the disposal of the \$4,000,000 she left. All are strict adherents to the ancient faith and their wealth has come from the increase in values of property acquired generations ago.

Swarthmore College is a co-educational institution, maintained by wealthy Quakers of Philadelphia, on the outskirts of the city. It has always been distinguished for the athletic prowess of its students. Its football, baseball and lacrosse teams particularly have excelled, while it has produced several intercollegiate champions in general athletics. Members of the Jeanes family have from time to time helped the college, until to-day its productive fund is about \$900,000. Miss Jeanes was always opposed to athletics, holding they absorbed too much of the students' time and engendered harsh feelings between colleges. She made known this in her will.

The question of accepting the bequest came up at the fall meeting of the Board of Managers and a committee, consisting of Joseph Wharton, Charles F. Jenkins and Howard Cooper Johnson was appointed to investigate the lands and make a report to the board at the next meeting in December.

Mr. Wharton, who is one of the executors of the Jeanes estate, read that portion of the will of the Quakeress relating to the institution, and the board, several members of which are women, listened attentively. No one seemed anxious to give up the money, but none seemed willing to take the initiative in advocating the abolition of athletics.

While the committee is investigating the pulse of the college will be felt. From interviews with men prominent in the Quaker college affairs it looks as if the gift would be rejected. Dr. G. A. Hoadley, chairman of the Faculty Committee on Athletics, said: "Athletics are the blood and bone of a college. They should not be cut out for any amount of money. The faculty are opposed to the acceptance of the gift under the conditions imposed."

Walter Clothier, chairman of the Alumni Athletic Committee, says that so far as his committee goes he does not believe athletics should be given up for any amount. He is also credited with having said that the college would rather win a victory from the University of Pennsylvania on the athletic field than have the money.

Professor Hoag, who represents the liberal element of the faculty, said: "I talked with Miss Jeanes frequently about athletics. She was particularly opposed to football, as she said she had read so much in the papers about the accidents which attended the game. She was also opposed to the gambling that so frequently develops over games."

Herman Pritchard, captain of the football team, said: "We would rather have intercollegiate athletics than all the money left by Miss Jeanes, or even all the money in Wall Street."

Swarthmore enjoys at present an endowment of \$900,000. An addition of \$3,000,000 to its productive funds would place it at once on the financial standing of Brown, Princeton, the Northwestern University and the University of California, and within a million dollars of the University of Pennsylvania.

## WOULD CURB POWER OF FEDERAL COURTS

Attorneys-General of Thirteen States Consider Means of Ending State Conflicts.

St. Louis.—Action that may have a far-reaching effect in anti-trust and corporation litigation, and which may bear fruit in almost every State, was taken by the convention of Attorneys-General of thirteen States in its final session here.

A committee was appointed to draft a scheme of anti-trust legislation to be sent to all Attorneys-General, and as a climax the Attorneys-General adopted a resolution which is expected to aid in removing a thorn in the flesh of the State officers—the interference by Federal circuit courts with the operation of State laws.

Permanent organization also was effected, under the name of the National Association of Attorneys-General of the United States, and a united front will be presented in legal actions brought by different States against the same corporation or trust.

The resolution is a memorial to Congress, and was framed by a committee composed of Attorneys-General E. T. Young, of Minnesota; Dana Malone, of Massachusetts; A. M. Garber, of Alabama; W. T. Thompson, of Nebraska; W. H. Dickson, of Colorado, and H. S. Hadley, of Missouri. It follows lines pointed out by Mr. Young. The memorial is as follows:

"Whereas, The efficient administration, as well as the preservation, of our dual system of government requires that each sovereignty be permitted to exercise its function as defined by the Federal Constitution, unhampered by the other; therefore, be it

"Resolved, By the convention of Attorneys-General of the several States here assembled, that we earnestly recommend to the favorable consideration of the President and the Congress of the United States, the enactment of a law providing that no circuit court of the United States, or any judge exercising powers of such circuit court, shall have jurisdiction in any case proceeding to enforce the law of such State, or to enforce any order made by such administrative board, but allowing any person or corporation asserting in any such action in a State court any right arising under the Constitution or any law of the United States to have the decision of the highest court of such State reviewed by the Supreme Court of the United States, as now provided by law.

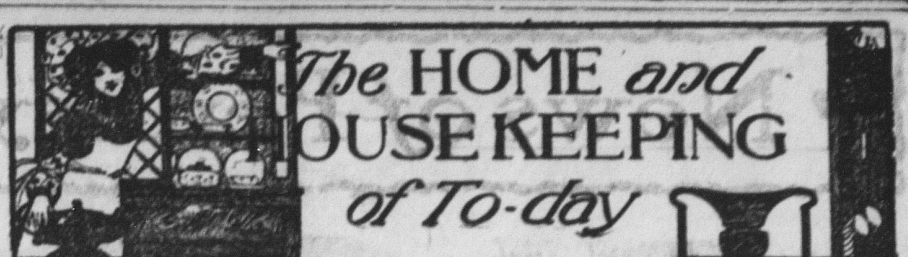
"We also recommend that suits in Federal circuit court by persons interested in corporations to restrain such corporations from obeying the laws of States in which they are doing business be prohibited."

## NEGRO STRANGLER'S STORY.

Chicago.—Richard Walton, a negro, has confessed that he alone murdered Mrs. Lillian White Grant, by strangling her as she lay in bed at her home. Using Police Inspector Hunt as a dummy Walton illustrated how he had tied an undervest about Mrs. Grant's neck and choked her to death.

## CHEAP FARES IN CLEVELAND.

Cleveland, Ohio.—The Cleveland Electric Railway is now selling street car tickets at the rate of seven for twenty-five cents.



# OBJECT OF WOMEN'S CLUBS.

The Woman's Club is here not only to stay but to multiply, and the great question is what its object should be, and then in how far it attains that object. If one ask what it was that marred the life and influence of the old-fashioned much-domesticated woman, we find that the conditions of her life tended to confining her sympathies and interests; to making her useful to a small community rather than to humanity at large. It would be dull, indeed, to overlook the fact, that by just such confining, noble natures were often deepened, and that if they were of value to few people they were, at any rate, of infinite value to those few.

But propaganda, and popular movements and organizations are not for the nobler natures. Noble natures are self-poised and help themselves. No club was needed to help George Eliot write novels, or Rosa Bonheur to paint, or Duse to act, or Florence Nightingale to nurse. Clubs are for the masses who cannot escape deleterious influences except by organized effort. So, if one be called upon to state succinctly the object of women's clubs, one might say their highest function is to introduce to women the idea of comradeship and co-operation, and to release them from merely personal interests. Women have served men and children, but few women have understood how to serve their kind bravely. They have shown passionate loyalty in the family; but only here and there, in special cases, have they shown loyalty to womanhood. If the congregating of women should ultimately lead to the realization that the welfare of each woman is inextricably bound up with the welfare of all women, what a wide realm of reform we might see!

If the comradeship of women should show them that some form of economic independence is necessary to the dignity of each human being, what a world of falseness and favouring might be done away with! Doubtless the humiliating and shocking incident of two little boys who jested and laughed at their mother for buying their father an easy-chair and charging it to him, could only be duplicated in an old-fashioned community, and yet the idea that their mother had a right to any income, or to any expenditure of her own, despite the fact that she had married a poor man and by prudence and industry helped him to become a rich man and had borne his nine children, occurred to them as dangerously new and advanced. They were good sons and loving, but their mother was, after all, only the father's slave, and she had no right, out of his income of some twenty thousand a year, to buy an easy-chair. Perhaps the fact, too, that three little boys who heard their mother say, in response to this tale, "Thank Godness, I can buy a chair when I want, for I make as much as my husband," all blushed and said shamefacedly, "At least, I'd never mention it," may go to show that the economic position of woman needs some readjustment. So long as woman's independence is gained only by underhand means, by favor or admiration, so long will she remain only a part of a man's goods and chattels and in a position which invites dishonor.

It is another question to ask in how far women's clubs are going to improve the life of women. Their clubs are multiple and exist for multiple purposes. There are social clubs that exist for no better object than to cultivate exclusiveness, for the ignoble object of showing that one woman may flaunt something from which she can debar another. There are clubs which exist to offer women a chance at the more common self-indulgences of men. There are clubs to encourage women to speak easily in public, to lose whatever timidity and reserve the centuries of domesticity have inculcated. All these purposes, barring the first, which is simply primitive and vulgar, may be shaped to useful ends if only they lead women to respect and uphold true womanhood. There are many civic duties which women by virtue of their training can attend to better than men. There seems no doubt that, in all matters pertaining to the welfare of the children in the State, the influence of woman would be more scrupulous and disinterested than that of man. There is no doubt that the civic cleanliness, convenience and order would be more wisely administered by women. But, chiefly, let us hope that the women's clubs, by bringing women more constantly in contact with each other, may teach them loyalty to each other and induce the feeling of the responsibility of all women for the fate of each woman.—From the Editor's Diary in The North American Review.

## JOYS OF THE HOSTESS.

Women are really the worst. You feel pretty sure, too, that a man can't stay with you forever, but with a woman there is no such pleasant security. Her plans may change—they often do—and she may decide that she will have to spend the summer with you. You really can't tell. She comes to you with a telegram and a distressed expression. Her next hostess is ill or cookless, and can't have her till later. She is miles away from her own home, and then there is nothing for you to do but to ask her to stay on, though she is the last person in the world that you want with the next set of people that are coming.

Then there is the woman who wants to show you how to run your house or plan your life or manage your husband. The strange thing about her is that the worse housekeeper she is herself the more suggestions she has for other people, and the less devoted her husband is, the greater number of ideas she has as to how a husband should be treated.

And then, too, there is the guest who is afraid of everything on earth—of horses, and automobiles, and boats, and canoes; and the thoughtless person who forgets that you live in the country, and empties the tank by trying to make his bath deep enough to swim in; and the terrible individual who feels particularly intellectual at breakfast, and hasn't the good taste to try to disguise it, but starts large subjects, asks you what you think Ibsen really meant by "The Doll's House," or whether "Salome" ought or not to be given. —"The Joys of the Hostess" in Ainslee's Magazine.

## THE GERM OF DIVORCE.

Marriage is woman's work in the world—not man's. From whatever point it is viewed, physical or spiritual, as a question of civic polity or a question of individual ethics, it is her specific share of the world's work—first, last, and always; allotted to her by laws far stronger than she is. And the woman who fails to recognize this and acknowledge it has the germ of divorce in her veins at the outset.—Anna A. Rogers, in The Atlantic.

## What the Christian Herald calls good service has been done by President Hadley of Yale in warning young men against lying. We wish he had gone further, as he might very wisely have done, but we gratefully acclaim the step he did take. He said, "We all recognize that no man is worthy of our tolerance who departs from the truth for selfish reasons, or who habitually neglects it for any reason whatever." It will be something gained if educated men refuse to tolerate a man who will lie for the sake of gain, or who is a habitual liar of any kind.

## PARISIAN HAT MOST IN EVIDENCE.

Modifications of the cloche figure among the models, or rather it may perhaps be more correct to say shapes with the brim slightly inclined downward; nevertheless the general opinion is that this style is dying out, although we have been treated to so many surprises of late that it is quite possible "general opinion" may again be at fault. Undoubtedly it is the picture style of hat that buy-