

A GREAT INDUSTRY.

ENORMOUS BUSINESS DAIRYING HAS COME TO BE.

Seventeen Million Cows Giving Milk in the United States—Aggregate Value of Their Produce Exceeds \$500,000,000 a Year—This Country Leads.

Comparatively few persons realize what an enormous business dairying has come to be in the United States. In this industry, as in so many others, this country beats the world. There are over seventeen million cows giving milk in the United States, and it takes an army of over three hundred thousand men working from ten to twelve hours a day to milk them. The aggregate value of the produce of these dairy cows exceeds \$500,000,000 a year. They produce nearly a billion and a half

last fifty years. Before that time the milch cows of the country were of the mixed and indescribable race known as "native." It was the "old red cow" of our boyhood, specimens of which occasionally are seen in out-of-the-way parts of the country living in the "old red barn." The keeping of cows on an American farm was incidental to the general work. In the fall and early winter the cow was allowed to go dry. Winter dairying was practically unknown. The care of the milk and the making of the butter and cheese were in the hands of the women of the household, and the methods and the utensils used were crude. The average quality of the products was inferior, and the supply of the domestic markets was unorganized and irregular.

In the Eastern and Middle States the milk was usually set in small, shallow earthen vessels or tin pans for the cream to rise. Little attention was paid to cooling the air in which it stood in

begin to prevail. Then came the establishment of "creameries" and the improvement of the breed of dairy cattle. When the improvement of the native stock of cattle began, a cow that would give milk that would make a pound of butter a day for two or three months was a local celebrity. As late as 1865, when good cows sold for \$40 or less, an enterprising farmer in New England advertised widely that he would pay \$100 for any cow that would yield fifty pounds of milk a day on his farm for two or three consecutive days. Not an animal was offered on those conditions. Nowadays a cow that does not average from six to seven quarts of milk a day for 300 days—being 4,000 to 4,500 pounds a year—is not considered profitable. There are many herds having an average yearly product of 5,000 pounds a cow, and single animals are many which give ten or twelve times their own weight in milk during the year. The quality of the milk has improved so much that the milk of one cow now will make as much butter as did the milk of three or four of the old native animals.

Prodigies.

Though the old native stock was a pretty tough and disreputable race of cows, there would appear once in a while in it a prodigy. Such was the famous "Oakes cow" of Massachusetts, which astonished the world, in 1816, by giving forty-four pounds of milk a day, out of which was made 467 pounds of butter in one season. This ostentatious cow did this when her friends and neighbors were proud they produced sixty pounds of butter a year. It made her famous, and she had her picture painted in oil, but none of her descendants took after her, and she was regarded as a freak.

Nowadays the Oakes cow would be regarded as a good cow—nothing more. The Shorthorn breed led in the introduction of improved cattle into the United States and formed the foundation upon which many fine dairy herds were built. They were brought from England, and much of the Shorthorn blood can still be found in prosperous dairy districts throughout the United States. Soon, however, they began to breed the Shorthorns for their beef qualities, and now few full-blooded Shorthorns are classed as dairy cattle. Ayrshires from Scotland, Holstein-Friesians from Holland and Jerseys and Guernseys from the Channel Islands were then brought in, and upon animals graded and improved from these breeds the vast dairy industry of the country now mainly depends. The Ayrshires and Holsteins are great milk givers, and the Jerseys and Guernseys (often mis-called Alderneys) are great butter makers. Brown Swiss and Simmenthan cattle from Switzerland, the Normandy breed from France and red-poled cattle from the south of England have also been imported, but are in what is known to dairymen as the "general purpose class." They are pretty good in everything, but have no specialties.

It used to be believed that successful dairying could be carried on only in the United States in a belt lying between the latitude of Philadelphia and the latitude of the northern boundary of Vermont and extending as far west as the Missouri River. Even in that belt it was believed that the true dairying districts were in detached sections which did not occupy more than one-third of its area. This idea has been exploded. It has been found that good butter and cheese can be made in almost all parts

good wife "setting" the milk and then going around with her little tin skimmer and removing the cream for the morrow's churning.

An excellent example of the changes wrought in dairy practice is afforded by an instance in Northern Vermont, a region long noted for its butter production. St. Albans is the business center of Franklin County. During the middle of the century the country-made butter from miles around came to this market every Tuesday. The average weekly supply was thirty to forty tons. This butter was varied in quality, was sampled and classified with much labor and expense, placed in three grades and forwarded to the Boston market, 200 miles distant. All this butter was made upon 1,000 or 2,000 different farms, in as many churning. In 1886 the first creamery was built in this county; ten years later there were fifteen. Now, a creamery company in St. Albans has fifty-old skimming or separating stations distributed through this and adjoining counties. To those is carried the milk from more than 30,000 cows. Farmers having home separators may deliver cream, which, being inspected and tested, is accepted and credited at its actual butter value, just as other raw material is sold to mills and factories. The separated cream is conveyed by rail and wagon—largely the former—to the central factory. There, in one room, from ten to twelve tons of butter are made every working day. A single churning place for a whole county!

Within recent years there has been a great development in the utilization of the by-products of dairying. Ten years ago there were enormous quantities of skimmed milk and buttermilk from the creameries, which were absolutely wasted. Now, however, there is a constantly growing demand for buttermilk in the market, while in many places new branches have lately been added to the industry, which make sugar of milk and some other commercial products from whey and utilize skim milk in various ways. The albumen of the latter is extracted for use with food products and in the arts. The casein is desiccated and prepared as a baking supply and substitute for eggs, as the basis of an enamel paint, as a substitute for glue in paper sizing, and it is also solidified so as to make excellent buttons, combs, brush backs, handles, electrical insulators and similar articles.

Only one thing in dairying remains unaltered and unchanged. That is the milking of the cows. Many mechanical devices have been invented and patented for the milking of cows by machinery, but none of them has been a success. Cows are milked now as they were in the days of Abraham, and still Mary "calls the cattle home across the sands of Dec."

English as She Is Wrote.

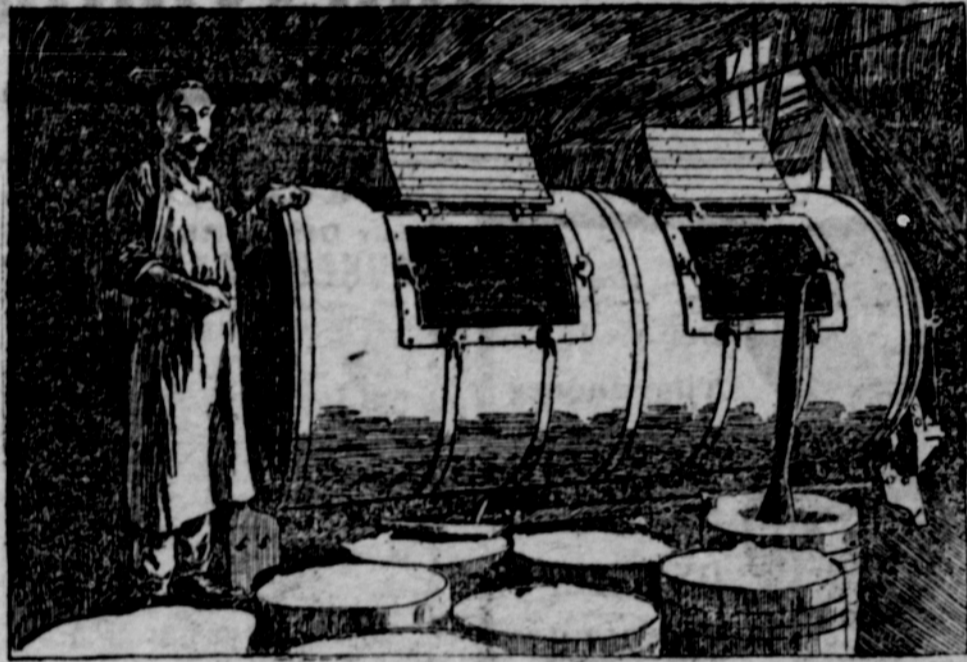
The following notice is displayed in a hotel in Norway: "Bath! First-class bath. Can anybody get. Tushbath. Warm and cold. Tub bath and shower bath. At any time. Except Saturday. By two hours forbore."

And this is the notice that was posted up recently in an art exhibition in Tokio, Japan: "Visitors are requested at the entrance to show tickets for inspection. Tickets are charged ten cents and 2 cents, for the special and common respectively. No visitor who is mad or intoxicated is allowed to enter in, if any person found in shall be claimed to retire. No visitor is allowed to carry in with himself any parcel,

BUTTER MAKING—OLD AND NEW.



THE OLD WAY.



THE NEW WAY.

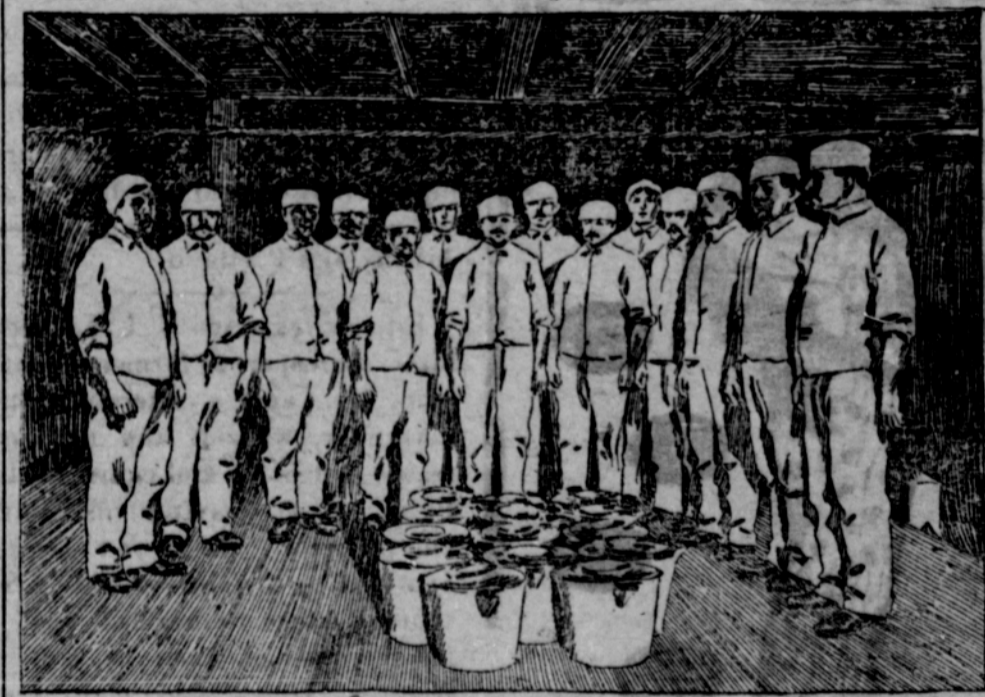
pounds of butter, three hundred thousand pounds of cheese and over two billion gallons of milk yearly, for the Yankee cow is a good cow, an industrious cow, and works all the year round.

Dairying in other countries sinks into insignificance when compared with the industry in the United States. So fond are the Americans of dairy products that it takes from twenty-three to twenty-seven cows to each hundred of the population to keep the country supplied with milk, butter and cheese and provide for the export trade. The export trade does not amount to much. It has fluctuated much, but never rose beyond the produce of five hundred thousand cows. Nearly all the great

summer or to moderating it in winter so long as freezing was prevented. The few who scalded milk had no idea of the true reason for so doing or why beneficial effects resulted. The pans of milk oftener stood in pantries and cellars or on kitchen shelves than in rooms specially constructed or adapted to the purpose. In Southern Pennsylvania and the States further south spring houses were in vogue. Milk received care, and setting it in earthen crocks or pots, standing in cool, flowing water, was a usual and excellent practice. Churning the entire milk was common. This is still done to some extent in the Southern States, where butter is made every morning, and where all the milk is buttermilk. In seasons of scarcity of milk there was no butter. In the Northern States there were some instances where families were supplied with butter weekly during most of the year, and with an occasional cheese, directly from the producers. But the general farm practice was to "pack" the butter in firkins, half firkins, tubs and jars and let the cheese accumulate on the farm, taking these products to the market only once or twice a year. Not only were there as many different lots and kinds of butter and cheese as there were producing farms, but the product of a single farm varied in character and quality according to season and other circumstances. Every package had to be examined, graded and sold upon its merits. It was usual for half the butter in market to be strong, if not actually rancid, and for cheese to be sharp. With the products largely low in grade, prices also were low.

As a rule, except in the pasture season, the cows were fed insufficiently and unprofitably and housed poorly, if at all. It was a common thing for cows to die in winter of starvation and exposure, and it was considered no disgrace to farmers to have their cattle "on the lift" in the spring. "On the lift" was a common expression in the past in some localities, indicating the actual necessity of human aid to raise the emaciated animals to their feet. There were, of course, some farmers who took care of their cattle and who made a specialty of turning out first-class dairy products, but as a rule things were in the condition described.

Toward the middle of the century, the production of cheese being in excess of the home demand, an export trade in it began. With the growth of cities and towns the business of milk supply increased and better methods



MILKING FORCE ON A LARGE DAIRY FARM.

of Northern America. As a rule good butter can be made wherever good beef can be produced.

Mechanical Devices.

Along with the growth of the dairy business came the invention of many mechanical devices for doing by machinery what had hitherto been done by hand. One curious device is called the dairy "centrifuge," "cream separator" or "skimmer." It is a closed bowl revolving at the rate, sometimes, of 25,000 times a minute. The milk flows through a feed pipe into the rapidly whirling bowl, and from the bowl two projecting tubes discharge continuously the one cream and the other skimmed milk. A skimmer of standard factory size handles 250 gallons of milk an hour. This is different from the

umbrella, stick and the like kind, except his purse, and is strictly forbidden to take within himself dog, or the same kind of beasts. Visitor is requested to take good care of himself from thievery."

There Would Be No Change.

"No, Harry, I am sure we could not be happy together; you know I always want my own way in everything." "But, darling, you could go on wanting it after we were married."—Brooklyn Life.

It's far easier to show another man his proper place in the world than it is to find your own.

The girl who doesn't care for diamonds must be stone blind.

INSOMNIA

"I have been using CASCARETS for Insomnia, with which I have been afflicted for over twenty years, and I can say that Cascarets have given me more relief than any other remedy I have ever tried. I shall certainly recommend them to my friends as being all they are represented." THOS. GILLARD, Elgin, Ill.



Pleasant, Palatable, Potent, Taste Good, Do Good, Never Sicken, Weaken, or Grip. No. 26, No. 100. CURE CONSTIPATION. Sterling Remedy Company, Chicago, Montreal, New York, 316 NO-TO-BAC Sold and guaranteed by all druggists to CURE TOBACCO HABIT.

Phases of Hunger.

The kinds of hunger are described, we are told, by Drs. Mathieu and Beauchant, and have been named "painful hunger" and "agonizing hunger." The need of taking food generally produces secretion of the gastric juice, and with some persons the excess of acid in this fluid causes pain, which may be allayed by taking an alkali to neutralize it. The variety of hunger referred to above as "agonizing hunger" is characterized by painful anxiety of mind. Those who suffer from it fear that some terrible accident is about to happen to them; they break out into perspiration, tremble, and sometimes lose their reason. If food is taken, all these symptoms disappear.

"If Any Man Will Do His Will."

These are days of intense intellectual activity. To be accepted a proposition must be backed by incontestable scientific proof. Because of this many earnest souls seem to find themselves hindered in that spiritual growth and fellowship for which they long and strive. It is well to remember that logic cannot decide everything; that the truths to be gained by faith are still the transforming truths; and that only those who live in the spirit can talk of proving or disproving the things of the spirit. We must seek to find. We must seek to know.

Every time a rain comes the crab grass will get a start. When very young it can be easily destroyed with a rake or weeder, but give it two or three days' start after a rain, with the weather very warm, and considerable labor will be required to get rid of it. It is not difficult to conquer it if taken in time, but the work must not be postponed.

Every moderate drinker could abandon the intoxicating cup if he would, every inebriate would if he could.—John B. Gough.

It is hardly consistent to say that interest in the Bible is declining while 2,500,000 copies of it are being printed every year.

HEALTHY WOMEN.

Mary J. Kennedy, manager of Armour & Co.'s exhibit at the Trans-Mississippi Exposition, at Omaha, Neb., writes the following of Peruna,

as a cure for that common phase of summer catarrh, known as indigestion. Miss Kennedy says:

"I found the continual change of diet incidental to eight years' traveling completely upset my digestive system. In consulting several physicians they decided I suffered with catarrh of the stomach. Their prescriptions did not seem to help me any, so, reading of the remarkable cures effected by the use of Peruna I decided to try it and soon found myself well repaid."

"I have now used Peruna for about three months and feel completely rejuvenated. I believe I am permanently cured, and do not hesitate to give unstinted praise to your great remedy, Peruna."

The causes of summer catarrh are first, chronic catarrh; second, derangements of the stomach and liver; third, impure blood.

Such being the case anyone who knows anything whatever about the operations of Peruna can understand why this remedy is a permanent cure for summer catarrh. It eradicates chronic catarrh from the system, invigorates the stomach and liver, cleanses the blood of all impurities, and therefore permanently cures by removing the cause—a host of maladies peculiar to hot weather. The cause being removed the symptoms disappear of themselves. "Summer Catarrh" sent free to any address by the Peruna Medicine Co., Columbus, Ohio.



The Oakes Cow



Cow of 1900 (Jersey). DEVELOPMENT OF THE COW.

output of the dairies is consumed at home. We are the greatest butter-eating people in the world, our average yearly consumption being at the rate of twenty pounds to the person, or about one hundred pounds annually for a family of average size. As cheese-eaters, however, we do not shine. The average consumption of cheese in this country does not exceed three and a half pounds per capita a year, which is far below the European average. As milk drinkers we average twenty gallons apiece yearly. Although we are not great cheese eaters ourselves we send about fifty million pounds a year to the peoples of the earth, who are fond of that form of food.

In Early Days.

All this great dairy industry of the United States has been built up in the