

most neglect at the least loss; but therein lies one of the chief values of dairying as an occupation. It furnishes constant employment and requires considerable intelligence; but for both, it pays the highest returns.

We should breed more dairy cattle because there is always a demand for them, and at the present time the demand is strong.

The little town of Starkville, Miss., shipped about seventy-five car-loads of dairy cattle during the year 1909, and beyond doubt, the net per cent of profit on these cattle was greater than on the cotton which was shipped during the same year.

As population increases, and hu-

man food becomes more scarce, the dairy cow increases in numbers, because live stock have been found essential to a high degree of soil fertility, and the dairy cow is the most economical producer of human food.

At the present time dairying is the safest line of farming in the South. With fair intelligence, which will enable one to use the dairy knowledge now available to all, the dairy farmer can not fail. He will increase his soil fertility and make money, the two facts which constitute successful farming. The dairy cow is queen of farm animals. May she assume her proper place in the farming of the South!

MAKE PORK FOR THREE CENTS A POUND.

That is What Some Georgia Farmers are Doing and What Thousands of Other Farmers Can Do—More Money in Pork Than in Cotton.

IT HAS BEEN the experience of those who have tried pasturing for pigs that pork can be profitably raised in the Southern States, especially on the sandy loam soils. Pork production on pastures of cowpeas, soy beans, sweet potatoes, peanuts, Bermuda grass, etc., is a paying business. Of course, the farmer who depends upon the corn crop alone finds that his hogs will eat their heads off during one season. The first requirement in raising pork is a good pasture, and the farmer must not expect poor land to give satisfaction as a hog pasture. With a good permanent pasture of Bermuda and clover and annual pastures of the crops named above, the farmer of the Southern States can grow pork at from one to three cents per pound.

Must Have Pasture to Make Cheap Pork.

Mr. William Greene, of Macon County, Georgia, has been putting his pork on the market for several years at a cost of 2½ to 3 cents per pound. His permanent Bermuda grass pasture contains some of the best land on the place—land that was making a bale of cotton per acre when sodded. In connection with this pasture he has a good spring and swamp where they obtain good water and some food in the form of worms, roots, etc. He has several fields adjoining the pasture in which is planted rye for winter and early spring grazing, wheat for later spring grazing, Bermuda grass as a summer pasture, peanuts, green peas and sweet potatoes for the fattening of the hogs and turnips as a late fall and winter feeding.

Invested \$200 in Hogs and Pasture and Made \$600 Clear Profit.

The Groover Brothers, of Bullock County, Georgia, have been growing pork for several years at a cost of 1½ cents to 3 cents per pound on a free wood range and pastures of velvet beans, soy beans, ground peas, field peas, and sweet potatoes. Their stock of hogs is a mixture between Berkshire and the common breeds. They run at large in the swamps during the spring and early winter, feeding on herbs and grasses. In August they are turned into the potato fields and transferred to the peanuts and cowpeas as these crops ripen. The porkers are sold from September to December in the city of Savannah at from 7 cents to 11 cents per pound. The breeding hogs are kept throughout the winter on the velvet bean pods which are very hardy and do not decay for several months. Nothing is harvested—the hogs being allowed to graze on all the crops. The peanuts, cowpeas, velvet beans and soy beans for fall and winter pastures are usually planted in rows in the corn middles and after the

corn is harvested the hogs graze off the remainder. Potatoes are planted in a separate field early in the spring and are ready for grazing in July and August.

By following this system for the last eight years these farmers have found that pork can be raised at from 1½ cents to 3 cents per pound. In 1907 they invested \$200 in hogs and pastures and received a return of \$800, a profit of \$600.

Most of these hogs were pastured in a field of seven acres, which was grown in corn, cowpeas and velvet beans. The profit on the hogs, however, was not all the profit, as the improvement of the land in this field increased the yield of cotton in 1908 one-half bale per acre over what the same field produced in 1906 with the same seed, methods of cultivation and fertilization.

How Mr. B. Harris Makes Cheap Pork.

Mr. B. Harris, formerly State President of the Farmers' Union of South Carolina, has been growing pork for several years at a cost of 2 cents to 3 cents per pound. This, however, is grown on pastures and not by the costly feeding of corn. Mr. Harris grows clover, barley, rye, wheat, and oats for early spring feed. He wishes nothing better than Bermuda grass as a permanent summer pasture. He also grows to success sweet potatoes, peanuts, pumpkins, tomatoes, beets, turnips, and sorghum cane. On these crops he has been growing pork at a cost of 3 cents per pound. He says a hog is a natural grazer, and if he gets the chance will do his part. Mr. Harris lives in the Piedmont belt of Anderson County, South Carolina, and in one year he sold \$200 worth of pigs from one-half an acre of Bermuda grass.

The Cheapest Plan Yet.

Mr. B. H. Thompson, of Aurora, N. C., claims that on the red clay lands he is able to grow his bacon at less than one cent a pound. His principal pasture is red clover, crimson clover, timothy and herds' grass, tall meadow oat grass, and orchard grass. His hogs graze on these grasses all winter and spring, costing nothing for their keep. Mr. Thompson harvests enough hay from this pasture to pay for the rent of the land and the trouble of looking after the hogs, thereby making his pork entirely free of cost. The pigs injure the hay crop very little in grazing over the fields in winter and spring. This farmer has used this system of growing pork for fifteen years, and many of his neighbors are now following his methods.

J. P. CAMPBELL,
U. S. Dept. of Agriculture.

"Recipe for educating your children: Educate yourself."

Other Cream Separators Merely Discarded or Abandoned De Laval Inventions

It is interesting and instructive to know that nearly, if not quite, every cream separator that has ever been made, and certainly all that are being made at this time, are merely copies or imitations of some type of construction originally invented or developed by the De Laval Company, and either not used by it because of something more practical or else discarded and abandoned in the course of De Laval progress and utilization of later improvements.

As earlier patents have expired some of their features have one after another been taken up by different imitators, so that at all times, as is the case to-day, every separator made in the United States or elsewhere in the world, utilizes some type of construction originally owned and developed by the De Laval Company, though some of them have never been commercially used by the De Laval Company because of their inferiority to other types of construction used by it.

The De Laval Company has always been forging ahead, with its many years of experience and the best of experts and mechanics the whole world affords in its employ, so that before any expiring patent might permit the use of any feature of construction by imitators the De Laval Company had already gone so much beyond that type of construction that it was then old and out-of-date in the modern De Laval machines.

All cream separator inventions by others have been of immaterial details or variations, upon which patents have been taken, if at all, more for the sake of the name than by reason of any real value or usefulness attaching to them.

The first practical continuous flow centrifugal Cream Separator was the invention of Dr. Gustaf de Laval in 1878, the American patent application being filed July 31, 1879, and issuing as Letters Patent No. 247,804 October 4, 1881.

This was the original Cream Separator—of the "Hollow" or empty bowl type—and it has been followed from year to year by the various steps of cream separator improvement and development, all De Laval made or owned inventions, the American patent applications being filed and letters patent issued as follows:

The original hand Cream Separator of the "Bevel Gear" type; application filed October 2, 1886, issuing as Letters Patent No. 356,990 February 1, 1887.

The original hand Cream Separator of the "Spur Gear" type; application filed January 17, 1887, issuing as Letters Patent No. 368,328 August 16, 1887.

The original Steam Turbine-driven Cream Separator; application filed December 8, 1886, issuing as Letters Patent No. 379,690 March 20, 1888.

The original "Tubular" shaped "hollow bowl Cream Separator; application filed April 19, 1886, issuing as Letters Patent No. 372,788 November 8, 1887.

The original "Disc" bowl Cream Separator; application filed May 12, 1890, issuing as Letters Patent No. 432,719 July 22, 1890.

The original vertical curved or interlocking "Blade" Cream Separator bowl, covered likewise by the application filed May 12, 1890, issuing as Letters Patent No. 432,719 July 22, 1890.

The original "Bottom Feed" Cream Separator bowl; application filed July 24, 1889, issuing as Letters Patent No. 445,066 January 20, 1891.

The original "Suspended" bowl Cream Separator; application filed August 21, 1893, issuing as Letters Patent No. 512,203 January 2, 1894.

The original "Star" or "Pineapple Cone" shaped series of cylinders Cream Separator bowl; application filed August 24, 1893, issuing as Letters Patent No. 521,722 June 19, 1894.

The original "Curved Disc" Cream Separator bowl; application filed January 18, 1905, issuing as Letters Patent No. 892,999 July 14, 1908.

The original "Split-Wing" Tubular Shaft Cream Separator bowl; application filed April 29, 1898, issuing as Letters Patent No. 640,358 January 2, 1900—which invention, with a series of later improvements, is the type of bowl construction used in the De Laval machines of to-day, and still covered by protecting patents which prevent its appropriation by would-be competitors.

The patents thus enumerated are but a few of the more important of the more than 500 original Cream Separator patents owned, controlled and developed by the De Laval Company during its thirty years of creation and development of the Cream Separator industry throughout the world. They are recited because they show in the most illustrative and conclusive manner possible De Laval originality and leadership from 1878 to the present day.

In addition to these patent-protected features, the De Laval machines have within two years been mechanically re-designed and re-constructed in every part, from top to bottom, so that the new and improved line of De Laval machines are to-day, even more than at any past period, fully ten years in advance of any other cream separator made.

These are the Rock-of-Gibraltar-like separator facts against which the mere "word claims" of would-be competitors fade away like the mists of night before the rays of the morning sun.

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