THE DAIRY INDUSTRY OF SOMERSET.

By Eldred G. F. Walker, Chew Stoke, near Bristol.

It does not often fall to the lot of one whose forefathers have been engaged in the dairy industry for over two centuries on the same farm, and over five centuries in the same village, to become historian, and therefore I fully appreciate the honour conferred on me in being asked to contribute an article on the Dairy Industry of Somerset as it was and as it is. Of the "as it was," I have mainly to depend upon the traditions handed down by my parents, who doubtless received them first hand, also by word of mouth. Of the "as it is," I have had a personal taste myself, and in this respect I may be excused from presenting a vast array of figures so overwhelming as to be seldom read, and, if read, never remembered except by some devout lover of statistics.

Perhaps there is no county in England that has such a diversity of soils and climate, and, therefore, methods of agriculture. It is situate in the south-western district of England, bounded on the north by Gloucestershire and the Bristol Channel, from the mud of which arises, at ebb tide, that life-giving iodine and ozone, and up which the gulf stream runs, and thus renders the temperature very equable, inasmuch so that near the sea sub-tropical plants thrive. On the east it is bounded by Wiltshire; on the south-east by Dorset; and on the west and south-west by Devonshire. Roughly, it is about seventy miles across and about fifty miles from north to south. It is the seventh largest on the list of English counties, and comprises an area of 1,630 square miles.

There is but one word that can properly characterise Somerset, its soils, climate, and farming, and that is "Diversity." Nearly all the soils and formations of which England is made up are parcelled out somewhere or other in Somerset. Exmoor and Mendip has its granite; the old red sandstone and the mountain limestone, with its veins of lead and iron ore, meet on Mendip; on its spurs are found the white and blue lias formations, some of which having been boiled and baked in volcanic days are now termed Mendip flints; there are trap rocks galore, as well as the carboniferous formations. The new red sandstone provides ideal lands for tillage, the marls and heavy clays are grand wheat lands, the oolite makes Dundry alike the richest and sweetest pasturage in England. Away down towards the Dorset border, the greensand and chalk are to be found; if the hills are conglomerate the vast levels are composed either of rich alluvial or peat. The

physical aspect is most varied, rendering it most picturesque and ever-changing, and the climate is in keeping. Whilst the strawberry plants are in bloom at Cheddar, the snow drifts may still be lying unmelted on the northern slopes of the Mendips; and when the cows may be nearly knee deep in grass at Glastonbury, the fields will scarcely have doffed their March brown in the vale of the Chew. In the sunny spots of the Quantocks, spring flowers may be found in bloom before the close of the year. The climate is ever variable: mountain fog, a bone-searching impenetrable mist, may settle on the top of Mendip, known as a cap, whilst in the summer the marsh fogs are very prevalent, and with the moonlight on them present all the appearance of a summer sea. Whilst the Mendips absorb every drop of rain that falls on them, and yield it up as deep springs, the hard marl parts with it at once, and thus we have deep-cut watercourses with little water in them except at flood times. On the other hand, the moors are very absorbent, but the water is stagnant.

Such a variety of conditions at once point to mixed farming, and it is here that to write of the dairy industry of the county becomes so difficult, because it is practically a sheer impossibility to separate it. But dairy and arable farming are blended more completely than in any other county that I know of. And it may be justly termed a county of small holders, many of them being yeomen. The large farmer is practically unknown.

In the county are 14,046 holdings. Of these, 403 are above 300 acres, 4,298 above 50 and not exceeding 300 acres, 5,983 above five and not exceeding 50 acres, whilst 3,362 are above one and under five acres, the whole giving an average holding of 60.8. There are only 11 counties with a less total average, viz.:—Lancaster 40.8, London 31.9, Middlesex 45.3, Monmouth 50.4, Stafford 49.3, Surrey, 55.7, Worcester 47.2, West Riding of Yorkshire 44.2, Chester 44.0, Cornwall 44.8, and Derby 42.2. But it will be seen that most of these other counties are contiguous to very large towns, or have market garden requirements to fulfil, whereas in Somerset there are very few of these market gardens, except in the early potato and strawberry growing districts of Axbridge and Cheddar.

These small holdings are doubtless accountable for the high rental paid in Somerset, which, without doubt, continues to be one of the highest, if not the highest, rented in the kingdom, as much as £2 per acre being paid for land of a similar quality obtainable in other counties at from 10s. to 15s. per acre. At one time exceptional rentals were paid for the rich grazing lands on the levels, particularly the Pawlet Hams, the rich marshes at Kingston Seymour and Wick St. Lawrence, and then right away from Highbridge to Taunton. The grass grown on these levels will fatten a bullock without extraneous help. But the decrease in

the price of beef has very much diminished the buying as well as the rental value of these lands, which are mainly used in the grass months only; few of them are ever mown, or stock kept on them in the winter. These grazing lands have a great influence on the dairying of the county, as on these come all the farmers' stock that have failed as milkers, and of young stock especially bred for grazing in the dairy herds. I may be pardoned in putting the cart before the horse, but it will explain other matters later on.

In Somerset, in 1905, the total acreage under crops was 854,408 acres; of these, 48,848 acres were clover and grasses under rotation, 27,521 being for hay, and 21,327 kept for pasturage. Of permanent grasses, 237,553 acres were for hay and 434,848 for pasturage. The total of green crops was just on 40,000 acres. To consume the produce of this acreage 40,425 horses were kept and 474,096 sheep. But more interest will centralise on the cattle: there were 115,253 cows and heifers in milk or in calf, 45,167 two years old, 42,907 under two years old, and 44,844 under one year, the total of cattle being 248,171. It will be seen that the average rate of rearage brings about a complete renewal in six years.

It may be mentioned that in nearly all instances the arable portion of the farms is made subservient to the dairy lands, of which it may rather be described as a helpful adjunct. The dairy districts may be said to comprise the whole of the northern portion of the county, with the exception of the grazing flats near Kingston Seymour. This includes the vales of the Avon, the Yeo, and the Chew. Until comparatively recently these vales produced some of the finest butter in the world, and all the year round dairying was practised on the farms, cows coming into profit at varying seasons in order to comply with the demands of the market. Most of the butter so produced went to Bristol by means of the market cart, which also contained fruit, eggs, poultry, and even the carcase of a fatted calf, or the joints of a home-killed porker. It was generally the farmer's wife who went to market, and had her recognised round of private custom. The expense of running these farms was not great, apart from the high rentals and rates, and everything was disposed of to the best account. The labour bill was mostly a summer one. Most of these farmers reared a few calves, and these grew on to fill up the gaps caused by sale or otherwise in the mature herd. The advent of the Danish butter, and more recently the numerous substitutes and adulterations, brought about an entire change in the practice of this district. The decadence of the butter trade has caused the downfall of the market cart, and milk churns have replaced the butter churns. At first this conversion of trade was remunerative, as the milk was sent warm by road into Bristol. But gradually the improvements in the methods of refrigeration enabled milk to be sent from longer distances, and the price of road-borne milk fell, until now it scarcely

does more than meet the wear and tear of horse-flesh. Prices now range from 5d. per imperial gallon for the summer months, with a graduated rise, up to 8d. for the few winter months. As milk-selling means the loss of the pig, many farmers would again revert to produce were it not for the difficulty in getting the female section of the household to again undertake the drudgery of the dairy. In the valleys above described the farmers are about making a hand-to-mouth existence, few of them increasing their bank account, and, in consequence, many of their daughters go out as "helps."

A different type of farmer is met with in the eastern portion, right away from Bath, past Frome, on to Wincanton, and across the vales to Glastonbury; here the manufacture of the Cheddar reigns supreme, and the sow follows the cow. And as a small Cheddar is of little value, except as truckles, the farms are larger and the farmers' capital also, as they have many week-ends out of pocket before the return from the first draft of cheese sold brings in a bulk to again draw from. It is the lack of endurance, or rather capital, that has turned many a cheese tub on its side and brought to the door the milk churn with its fortnightly remittance.

The aim of the Cheddar-cheese maker is to have all his cows come into profit in April, to be further assisted by a number of two and three years old heifers calving in May. Taking the average yield of Cheddar-cheese at 4 cwts., the yield of a cow may be taken at 450 gallons between April and the 1st of November, with a few gallons before and after. The average milking capacity of a Cheddar-cheese maker's dairy of cattle, which, of course, includes the heifers of various ages, may be taken as an average of slightly under, rather than over, 500 gallons per annum. In general practice a gallon of milk is supposed to yield one pound of Cheddar-cheese curd. Cows that calve earlier than April are generally allowed to fatten their calves, either direct by sucking, or else the cows are milked and the warm milk given to the calves, whilst early-calving heifers run their calves into "suck teats," which are very popular with local butchers, as being slightly cheaper than the "stagers"—that is, hand-feds. In the autumn and winter months, instead of being converted into butter as formerly, the milk is now sold for town consumption if the farm is situate within easy distance of rail.

On all cheese farms a necessary adjunct is the bacon pig. Porkers and butter-making are otherwise invariably associated. But the profits of the pig trade have recently been curtailed by means of the Swine Fever Regulations, causing the closing of the markets and the fancy trade requirements as to thickness of the back fat, and arbitrary weights; also through the new tuberculosis crusade, whereby the finding of a tubercle as large as a pea in the brain causes the loss of the whole carcase, without an atom of

compensation to the farmer. Therefore the profit of pig-keeping has been reduced to the manurial return made for the consumption of the whey, greater profit or loss depending on the commercial value of Russian barley or American maize. Thus the return from a Cheddar farm may be briefly summed up as follows: Calf sold, worth 30s. when dropped, fattened until worth £4; four hundredweight Cheddar cheese at 60s., £12. The cow becomes dry by autumn, or if she calves in April the sale of winter milk will return about the same as the calf, as it is worth more per gallon than at the time when the calf consumes it in the spring. I have mentioned before that the average return of the pig is doubtful. Thus it will be seen that the gross return of a Cheddar-cheese cow is £16 But this is only where the best quality (*i.e.*, not exclusive prize dairies) cheese is made. It will take three acres of Cheddar-cheese land to keep a cow the whole year round, and a bit of help beside sometimes, taking this at £2 per acre. Acting on the Inland Revenue method of calculation of three rents—one for the landlord, the others for rates and labour—it will be seen that the farmer has but £2 10s. per cow as his share. This is not the most reliable or accurate method, as the farmer's work and family's labour, and casualties amongst the cows, are not taken into account, yet it serves as a rough guide. Thus a 40-cow dairy will bring in a return of £100 a year, which certainly is not much on which to live and bring up a family respectably upon. Therefore the dairy farmer cuts his expenses, and as he cannot afford to keep his hunting horse, it will be noticed that the packs of hounds are remarkably scarce in the Cheddar-cheese district as compared with the arable counties. It is this that tends to the conservatism of the cheese-making farmer. He knows that to obtain any return for himself, he and his sons must don the milking gown night and morning, and go through the routine of the farm in the middle of the day; whilst his wife or daughters must be in the dairy from seven a.m. to darkening eve before the cheese is finally put in press. This chaining up leads to a veritable home life, but it does not tend to widening the range of vision or the adoption of more up-to-date methods. So long as the old style remains good, all is well. Thus it will be seen that there are in Somerset fewer pedigree herds of cattle than in any other county with a similar grass area.

Here I may remark that the breeds of cattle are varied. There are remnants of the old Longhorns—characterised by big horns, big tails, and big teats—and the old Alderney brindles. But nearly all of these have been crossed out by the Shorthorns. In the west, however, the Red Rubies or North Devons still retain their old-time grip of the soil; they are very rich milkers, but not quite so heavy in their yield as the Shorthorns. Very few Jerseys are kept outside of fancy herds. Cheese-makers have a pious horror of Jersey milk, and as butter-making has now so much diminished, only a Jersey

or two are kept in milk-sellers' herds to assist in keeping the quality up to the standard during the first grass months. But even allowing for this, the number of Jerseys kept in the dairy herds diminishes annually.

In connection with the Cheddar-cheese industry, it is worthy of note that the invention of the big Cheddar was due to Somerset, and not to that country of big ideas across the Atlantic. At Pennard the produce of 730 cows was made into that big Cheddar cheese, weighing 11 cwts., measuring 9 feet 4 inches in circumference and 20 inches deep, which was presented to her late Majesty Queen Victoria.

But no article on the dairy industry of a county remarkable for its verdure would be complete without an attempt being made to trace the history of this make of cheese that has won a world-wide reputation. Its earliest history is buried in oblivion. But that picturesque gorge in the Mendips, at the foot of which nestles the little village of Cheddar, is where the cheese was undoubtedly first made. The pastures near at hand were sweet, as all mountain limestone herbage is, and, furthermore, the cattle had access to the sweet pure water that gushed out from beneath the rocks. Naturally, with such facilities the cheese made was of much finer quality than that made from cows feeding out on the rich grass moors and slaking their thirst at stagnant ponds. But a little retrospect in reference to this make of cheese may not be out of place.

In Thomas Hale's book, "A Compleat Body of Husbandry," published in 1758, the following reference is made to Somersetshire cheese :—"This is a large rich cheese, named from the county where it is made. The bigness is a material article, for I have seen the same kind of cheese made smaller, and it has not been at all particular, or scarce seemed of the nature of the larger. What is farther singular is that there is butter worked into it, which helps the mellowness. Let the milk of twelve cows be set over-night for cream, and in the morning let the milk of the same cows be brought in warm. Let the cream be taken from the over-night's milk and mixed with this ; let all be strained together into a large tub, and as much rennet put in as will turn it. Let it be covered up half-an-hour, then open it, break, and press down the curd ; separate the whey, and when the curd has been well worked in the hands, add three pounds of fresh butter ; this must be worked into the curd, and a little salt sprinkled over it. It is then to be put into the press in a large wet cloth, and turned frequently, every time using fresh wet linen till towards the last, and then there must be three or four dry cloths. When it is put in for the last time it must be firmer pressed, and it ought to remain in the press 40 hours. When it is taken out of the press it must be washed over with whey and laid in cloths till dried. It is finally to be laid on

a shelf, that it may dry perfectly, and there must be turned very frequently, and every time carefully wiped."

It seems singular that for nearly a century there is no actual record of the processes of Cheddar-cheese making until 1856. At this time a deputation of Scotchmen came south to investigate the process of making the cheese that was giving such a big return of money. In making its report, this deputation refers to the Joseph Harding system, as follows :—

"We were indebted to Mr. Titley, cheese factor, Bath, for an introduction to Mrs. Harding, Marksbury, and her nephew Mr. Joseph Harding, Compton Dando, who make first-rate Cheddar cheese. In addition to the girls who do the work of the dairy, several men and boys are employed to milk the 73 cows belonging to Mrs. Harding at Marksbury. The men carry the milk, but they do not enter the dairy in doing so. It is poured through a sieve into a receiver outside, from which a pipe conveys it through the wall to the cheese tub or to the coolers. A canvas bag is also placed over the inside end of the pipe, so that a double precaution is used against impurities entering with the milk.

"The rennet is prepared much in the way that it is done in many Ayrshire dairies. Mrs. Harding steeps five vells at once, and this usually suffices for two weeks, in which time about 21 cwt. of cheese may be made. The vells appear to be carefully cleaned and preserved. Pure, well-flavoured rennet is certainly indispensable in the manufacture of first-class cheese.

"Immediately after the morning milking, the evening and morning milk are put together into the tub, the temperature of the whole is brought to 80 degrees by heating a small quantity of the evening milk. The thermometer is regularly used. In spring, and towards winter, a small quantity of annatto is used to improve the colour of the cheese. It is put into the milk along with the rennet at seven o'clock. After the rennet is added, an hour is requisite for coagulation. At eight o'clock the curd is partially broken and allowed to subside a few minutes, in order that a small quantity of whey may be drawn off to be heated. This whey is put into a tin vessel, and placed in a boiler in an adjoining apartment, to be heated in hot water. The curd is then most carefully and minutely broken, Mrs. Harding and her neice performing this part of the work with utensils called shovel breakers. The servants are never entrusted with this duty. When the curd is completely broken, as much of the heated whey is mixed with it as suffices to raise it to 80 degrees, the temperature at which the rennet was added. Nothing more is done to it for another hour. A little after nine o'clock the work is resumed. A few pailsful of whey are drawn off and heated to a higher temperature than at eight o'clock. The curd is then broken as minutely as before, and after this is

carefully done an assistant pours several pailsful of the heated whey into the mass. During the pouring in of the whey the stirring with the breaker is actively continued, in order to mix the whole regularly, and not to allow any portion of the curd to become overheated. The temperature at this time is raised to 100 degrees, as ascertained by the thermometer, and the stirring is continued a considerable time until the minutely-broken pieces of curd acquire a certain degree of consistency. The curd is then left half-an-hour to subside. At the expiry of the half-hour the curd has settled to the bottom of the tub. Drawing off the whey is the next operation, and the ease with which it is performed would astonish an Ayrshire dairy manager. The greater proportion of the whey is lifted in a large tin bowl, and poured through a hair sieve into the adjoining coolers. As it runs into the leads it appears to be very pure. When the whey above the mass of curd is thus removed, a spigot is turned at the bottom of the tub, and the remainder is allowed to drain off, which it does very rapidly without any pressure being required. To facilitate this part of the work, the tub is made with a convex bottom, and the curd is cut from the sides of the tub and placed on the elevated centre. It is carefully heaped up. and then left for an hour with no other pressure than its own weight. After this interval it is cut across in large slices, turned over once on the centre of the tub, and left in a heap as before for half-an-hour. The whey drips away towards the sides of the tub and runs off at the spigot, and no pressure being applied, it continues to come away comparatively pure. After undergoing these simple and easy manipulations, and lying untouched during the intervals that have been mentioned, the curd is ripe for the application of pressure. But great care is taken not to put it into the vat to be pressed at too high a temperature. If the heat be above 60 degrees, and it usually is higher at this time, the curd is broken a little by the hand, and thrown upon a lead cooler, until it is brought down to the desired temperature. It is then put into vats and subjected to a moderate pressure for about an hour. The next process is to take the curds from the vats, break them finely by putting them through a simple curd mill, mix them with salt, and make them up into cheeses ; a pound of refined salt is sufficient for half-a-cwt. of curd. The cheese is put into the press at from two to three o'clock, and remains till the morning. Between the time of salting and six o'clock of the same afternoon, something near to one quart of whey is pressed from each cwt. of cheese, after which as much does not come as would wet a cloth. Next morning the cheese is reversed in the vat, and a calico cloth put upon it to give it a smooth surface, and the following morning another fine cotton cloth is put upon it. The third morning it is laid upon the shelf. The spring and early summer cheeses are ready for the market in September."

A few years later Mr. Harding invented his process of slip scalding. The morning's milk being mixed with the evening's at

a temperature of about 80 degrees, the rennet was then added, and an hour allowed for the milk to coagulate, when it was broken up. Now comes the variant with the first-described process. The scalding whey was added to the curd in its pulpy state before it had time to settle and get hard. This scald was brought up to a temperature of 100 degrees Fahr. At the same time he abandoned the old system of low temperature in the cheese-room, or rather a damp cellar, and went in for a heated cheese-room kept between 50 degrees and 70 degrees, and thus came about the rapid ripening by which the cheese was ready for cutting in three instead of 10 or 12 months under the old plan. There is not the slightest doubt but that the name of Harding will go down to all time in connection with Cheddar-cheese making. It will be noticed that he did not use either the acidimeter or sour whey, but he lifted the make out of the old ruts of mere chance, and may be recognised as the first really scientific instructor. About 50 years ago the American dairymen fixed upon Cheddar cheese as the most likely to sell in the United Kingdom. But with the Yankee idea of greatness, farmhouse dairying was not large enough, so they started the factory system, which has now run right round the world. But of these the Somerset maker knows little, or cares little either, except as having to meet them as competitors in open market.

For some 20 years the Harding system was the model, though each maker had his or her adaptions of it. But there was more to follow. Sometime before 1880 a member of the firm of Messrs. Hill Bros., Evercreech, came into my father's cheese-room, and was so impressed with the richness of the cheese that he gave four guineas per cwt. for it. It was so fat, however, that he had to keep it several months before he could sell it properly matured. My mother had introduced a blend of two local systems. Shortly after this, Messrs. Hill Bros. collected some information, which they printed, and which contained some hints as to a more rapid system of ripening. Three outbreaks of foot-and-mouth disease, and two years of abortion in the herd, brought on the disastrous year of 1879, when all the sheep on the farm died of fluke, and several of the cows were affected thereby, which caused the abandonment of the cheese tub. Shortly after this Messrs. Hill sent out some private information as to cheese-making, to which, if I remember right, was attached a note specially mentioning how very rich cheese might be rapidly ripened without losing the fat by sweating. Amongst Messrs. Hill's regular dairies improvement followed, and gave that firm a high status in the markets. Shortly after this, Mrs. Cannon brought out her fine system, and showed the value of it by winning right along the line at the Frome Show. So continuously did success attend her that it was not long before she had won some £2,000 in prizes and a world-wide reputation. So much was her system appreciated that the Bath and West of England Society officially adopted it as the method of instruction for use in its cheese schools, which were started in 1890, and the

system now remains the same as when started, with perchance the solitary inclusion of a more reliable acidimeter—more easily read. The essential characteristic of the Cannon system is early ripening.

But away down in Dorset another system was evolved by Mr. Theodore C. Candy: this may be termed long-maturing. With the certainty of high values, it has become extremely popular; and these are the two great systems in use in Somerset during the summer months. Space here does not permit me to describe them, and I think that I have given enough of the practical details of this popular make of cheese. But full details of both will be found in Mr. F. J. Lloyd's "Report of the Results of Investigations into Cheddar-Cheese Making," issued by the Board of Agriculture in 1899.*

A writer in Queen Elizabeth's days describes Cheddar cheese as "being of such a size as to take two men to lift it." Mr. George Gibbons, in his paper read before the British Association, mentions that in Brewster's State Papers is a letter dated November, 1625, from the Secretary of State to John Lord Poulett, reminding him of a cheese he was to send to the writer. The latter replies on November 30th that he "has sent to take up all the cheeses at Cheddar for him." Ten years later, in the month of December, the same writers are again in correspondence, and mention is made that "Lord Poulett sends a Cheddar cheese, and apologises for sending but one. They were wont to be common in that county, till now they are grown in such esteem at the Court that they are bespoken before they are made." Subsequently he "sends two more, which are all that can be gotten of last summer's making; if he likes them, will take care to victual him better against another winter." It would thus appear that the cheese were not so long in ripening in those days as they were a couple of centuries later.

Whilst on the topic of Cheddar cheese, I must mention two names that will ever be associated with it—one is that of Archdeacon Denison, who sang its praises and kept one piece for over 40 years; and the other is that veteran dairy farmer, Mr. George Gibbons, of Tunley, near Bath, who at the International Dairy Show in New York in 1878 won the two chief prizes with six Cheddars made in his dairy. He was also awarded the gold medal for Cheddars at Paris, and seven medals at Amsterdam and Copenhagen. It is to Mr. Gibbons that the successful run of the Bath and West Cheese Schools, conducted in connection with the Somerset County Council, is entirely due. Several hundred pupils have passed through these schools, and have helped the old county to reassert itself as the producer of the finest Cheddar cheese in the world.

In the "Farming of Somersetshire," by Thomas Dyke Acland, Junr., and William Sturge, published in 1851, the following

* C 9374, price 1s. 7d.

reference is made :—"The price of the best Cheddar cheese is from 65s. to 70s. per cwt., and varies little from season to season, being a luxury which at all times finds a ready market. The middling and inferior qualities range on the average from 50s. to 56s. per cwt., the fluctuations in price being considerable, and depending on the demand in the manufacturing districts and on the general state of the trade of the country. The farmers have lately complained that the price of these qualities is reduced by competition with the American cheese, the manufacture of which is said to be improving so as to be better suited to the English palate than when first imported ; but it has not as yet entered into competition with the finest qualities of English cheese." That was written over half-a-century ago. I make another quotation from to-day :—"The fourth draft (over 73 cwt.) of this year's cheese, made during the months of July and August at the Cheese School carried on at Glendale Farm, Wedmore, by the Bath and West and Southern Counties Society, for the Somerset County Council, has just been sold to Messrs. Hill Bros., Evercreech, at 68s. per cwt." What other make of English dairy produce can show such uniformity of price after more than half-a-century, as is shown by the foregoing comparisons ?

But of late another make of cheese has made surprising headway in Somerset. I refer to Caerphilly. Originally made in Wales, its use was to be cut out in junks to be eaten by the colliers in the coal mines. Improvement in make brought about a demand that supply can scarcely overtake, and now its merits as a toasting cheese has created a demand for it far away from the miners' homes. It is one of the most profitable and ready-money cheeses that the farmer can produce. As the process of manufacture is not extensively known, I describe it briefly as follows :—Mix the evening's and the morning's milk ; see that it gets fairly ripe ; no cream must be removed. The acidity should be about the same as for Cheddar. When renneted the milk should be at 90 degrees, and should in 45 minutes set sufficiently for cutting. This being done, the curd should be left for the whey to rise, 15 or 20 minutes, depending on amount of acidity present. Break rather coarse for half-an-hour. Then test for acidity, which should show ·9 before drawing the whey. It is not easy to draw the whey from the curd, and care has to be taken to keep the latter in a pile in the tub. After having drained for a short time, slice with curd-cutter, spread a cloth over the rack in the cheese cooler ; then put the curd into a bowl, and thus put the curd on the rack. This facilitates drainage. Tie up lightly, and invert a milk tin over the bundle. Then apply pressure in the form of half-a-cwt. ; leave under pressure for 30 minutes for acidity to develop. This should be from ·28 to ·30 ; the latter is considered rather too high. Open the cloth, turn out the lump of curd, and cut into inch cubes ; put back into

the cloth and re-tie, and re-apply pressure until the acidity reaches ·40, which it usually does in about half-an-hour. Then put 9lbs. of curd into each vat, the curd during the process being lightly broken by means of the hand. No salt should be added, as with Cheddar. It is not quite so easy as one thinks to set up a tier of Caerphilly vats in the cheese press, but here practice tends towards perfection. Then apply a pressure of six cwts. for 45 minutes; take out of vats and turn, being very careful to put the cloths on even and smoothly, so that no creases can leave their marks on the cheese. Return to the press and apply 10 cwts. pressure. Leave until next morning, when they are ready to be taken out of the press. Previously a brine bath of cold saturated strength has to be prepared; into this the cheeses are immersed and left until the next morning, when they are turned and again left in the brine until the following morning, being thus in the brine 48 hours. They are then taken out and put on boards to dry until the following morning, when they are weighed and taken to the cheese-room, there to be turned every day until they are sold. They are ready for the factor in a fortnight, and for the consumer in three weeks. It may appear from this description that it takes a long time to make this cheese, but if the milk is renneted at, say, 7-45 a.m., the day's work is completed at 12-45 p.m., showing what a quick process it is as compared with Cheddar making. That it is profitable is without doubt, as I have seen 90 gallons of milk produce 120 lbs. of curd fit to go into the cheese-room. As it remains there only a fortnight, the shrinkage cannot be much, and as these cheese sell at from 50s. to 60s. per cwt., the popularity of the make yearly increases.

A few years ago the making of skim-cheese was much in vogue, especially before the introduction of the separator, the result being a cheese of Blue Dorset character. The great market for this was Wells. But there the decay of trade was such that at last there was no cheese offered, and the Market House has been turned into a Post Office; thus old methods and practices go out.

There are a few butter factories which take the farmers' milk, but the bulk of the milk from the eastern and southern portion of the county goes to London. An agitation is on foot to sell by imperial measure instead of the barn gallon. More milk would be sent from the west of the county from below Bristol did the Great Western Railway provide greater facilities, so that the morning's milk could be retailed in London in the afternoon. The farmers are not organised, though there is a local society that covers a portion of other counties as well that is gradually increasing in strength.

The Somerset County Council supplies a considerable amount of technical education in dairying matters. It has recently restarted its migratory butter schools, and now it is about to take over the management of the cheese schools also.

The great incentives for cheese-makers are those two superb shows for cheese—the Mid-Somerset at Shepton Mallet at the beginning of September, and the Frome Show at the end of the same month. In connection with the latter show, in the Market House, often more than 100 tons of Cheddar cheese is on sale. To be the champion at either of these shows is considered quite equal to the remission of half-a-year's rent. Were it not for these shows the spirit of emulation would not be kept up, and Somerset Cheddar continue in quality to be about the best the world produces, despite the world-wide attempts being continually made to arrest this supremacy from it.

A Somerset farmer's wife, Mrs. Walter W. Keel, of Stanton Drew, holds the most coveted gold medal of the butter-making world, that presented by Her late Majesty Queen Victoria at the Windsor Royal Show; and another Somerset farmer's wife, Mrs. Baber, of Axbridge, was silver medalist at the same show. Both of these undoubtedly owed their success to the migratory butter schools established by the Bath and West of England Society, and though these schools ceased their work some years ago, the good work still comes to the surface, as is shown by the number and success of the Somerset cheese and butter makers as each Dairy Show comes round. Though there has been a gradual transition by means of improved appliances, still many old and long-tried practices survive in connection with the Dairy Industry of Somerset.