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CHAPTER III.

THE SUGAR INDUSTRY.


Long before the Christian era classical and sacred writers made mention of that “sweet cane” whose product plays so important a part in the everyday requirements of modern life.

Sugar-cane was introduced into Spain by the Moors early in the eighth century. The Moorish empire sank before the combined might of Spain in 1492, and in that year Columbus added a new world to the realm of Castile. Within a few years the sugar industry had taken firm root in the West Indies, and on every isle dotting the Spanish Main waved countless fields of cane, yielding crops beside which the production of Andalusia, already waning under the dead hand of Spain, paled into insignificance.

To the first Spanish planters is due the system upon which the sugar industry was conducted in the tropics for more than three hundred years. The haughty hidalgo, scorning to labour with his own hands, forced into his service the unresisting natives of the West. Unused to strenuous toil, they sank beneath the burden. Touched with pity for their sad lot, and anxious to save them from extirpation, Las Casas, “the Apostle of the Indians,” urged the substitution of the children of Ham, whom he and all good Christians believed to have been doomed to perpetual bondage; and African slavery thus became an established institution in the West.

Whether under Spanish or British rule, the sugar industry of the West Indies, and of all other tropical countries to which it was extended, was carried on under a system of large plantations, owned as a rule by men of good family, who, deeming personal control beneath their dignity, deputed to overseers of meaner rank the supervision of their servile labourers. The profusion of Nature, coupled with vicarious management
and the absence of competition, engendered extravagance, improvident husbandry, and wasteful and unscientific manufacture, the while there rose to Heaven—

"Steaming up, a lamentation and an ancient tale of wrong,  
Like a tale of little meaning, tho' the words are strong;  
Chanted from an ill-used race of men that cleave the soil,  
Sow the seed, and reap the harvest with enduring toil."

Until well on in the nineteenth century little progress was made either in cultivation or manufacture. For more than three hundred years the history of the industry was one of slave labour, crude methods, and planters to whom life in the tropics meant exile from Europe, and whose sole object was to amass wealth to be spent in the pleasures of the courts of St. James, Versailles, or Madrid.

The first blow struck at the old-time theory that the tropics were created solely to supply the needs of dwellers in temperate climes was dealt by Napoleon when he took steps to establish the beet-sugar industry in France. His object was twofold—to render Continental Europe, which was then lying at his mercy, independent of Britain and the British colonies; and to cripple the trade of the only Power which had never stooped to his sway. Unconsciously, at the same time he laid the foundation of a tropical Britain peopled by the British race.

The successful establishment of the beet-sugar industry called for the application of industrial, scientific, and organising capacity of the highest order, and the Governments of France and other European countries fostered its development by heavy bounties.

The abolition of slavery in the British West Indies in 1834 and the later emancipation of the negroes in the United States so disorganised the sugar industry of the West that those engaged in it were too engrossed with their own affairs to heed the progress of the beet industry of Europe. The output of beet sugar steadily forged ahead until, in the early eighties, it was almost equal to the output of cane sugar. Tropical planters and manufacturers then found themselves engaged in a life-and-death struggle for which they were ill-equipped. Forced by inexorable necessity to face the situation, they realised that only by following the example of their rivals—by calling in the aid of science both in cultivation and in manufacture, and by paying the strictest attention to the financial side of their enterprise—could they hope to hold their own.

Just at the time that the Southern States of America were fighting desperately in defence of the slave system, the foundations of the
Queensland sugar industry were being laid. Despite the high prices then ruling for sugar, the profits were not large, owing to the primitive methods of cultivation and manufacture adopted on the plantations. In time, even in this remote quarter of the globe the growth of the beet industry compelled the planters to make radical changes. Antiquated husbandry, crude processes, and wasteful management were superseded by modern scientific methods. The subdivision of large estates, the substitution of small white growers for gangs of unskilled coloured labourers, and the establishment of co-operative central factories were Queensland's contribution to the solution of the problem of Beet versus Cane.

As Napoleon in his wildest dreams had no conception that his anti-British policy would ultimately lead to the expansion and evolution of the sugar industry of the tropics, so the Queenslander who first planted a few sticks of sugar-cane on the shores of Moreton Bay half a century ago little foresaw that from that humble beginning would develop the greatest agricultural industry of this State—an industry which, if treated with continued consideration and sympathy by the Commonwealth, bids fair to revolutionise the hitherto accepted view of the relations of the white races to the tropics. Yet, if we read aright the brief history of the Queensland sugar industry, and appreciate its present position, that first planter commenced a work which is likely to lead to permanent settlement in the tropics by men of European descent.

There was little to distinguish the establishment of our sugar industry from similar ventures in other parts of the tropics where the supply of cheap coloured native labour was insufficient for the requirements of the planters. The men who opened up the first plantations in Queensland were not Australians, except by adoption. Their experience had been gained in Java, Mauritius, the West Indies, and elsewhere. They came to this country imbued with the old notion that the best and most economical means of carrying on tropical agriculture was to cultivate large estates by the aid of gangs of coloured labourers; and it is a moot point whether, fifty years ago, any other method of establishing tropical industries in Queensland was possible. Certain land concessions were given to encourage the newcomers, and they were permitted to import Pacific Islanders, under Government supervision, as contract labourers for work in the fields.

Not all the early planters had been sugar-growers previously. In the Mackay district, which has always been one of the chief sugar centres, the first settlers grew cotton, tobacco, and arrowroot. But early in the sixties it was recognised that the production of sugar offered the most satisfactory and profitable field for their enterprise. Generally, they were representatives of that class of whom Benjamin Kidd, in his "Control of the Tropics," says: "The more advanced peoples, driven to seek new outlooks for their activities, will be subject to a gradually increasing pressure to turn their attention to the great natural field of enterprise which still remains in the development of the tropics."

It was not sufficient for these early planters to take up land and plant their crops; they had to erect mills, where the cane could be converted into sugar, and this required capital. The cost of labour, provisions, and supplies was enormous. Communication along the coast was such that goods were taken North in small sailing vessels, and the pioneers were quite accustomed to travelling in a small steamer which anchored under the lee of a convenient island during the darkness of the night. Those who see the condition of the industry which has evolved from these first efforts must, in justice to the pioneers, recall the difficulties and risks which were faced by them.

Forty years ago the industry was an infant struggling with its teething troubles, still liable to premature death. In 1871 there were only 9,581 acres under sugar-cane in the whole of Queensland, and the production of sugar was only 3,762 tons, not equal to half the output of one of our large modern factories. The industry was then chiefly confined to the South, but it soon made its way northwards, and expanded so rapidly that, in 1881, the area under cane had increased to 28,026 acres, and there were no less than 103 mills in operation.

The industry then entered upon the first of its great reverses. Owing to the enormous increase in the output of beet sugar in Europe, prices fell rapidly. The first of the larger class of factories, conducted on modern lines, with improved appliances, came into existence, and small mills, unable to compete successfully, began to close. Labour supplies from the South Sea Islands became more expensive, and a class of white men, originally labourers who had saved money, took up selections as sugar farms, and sought to dispose of their crops of cane to the planter-proprietors of existing mills. The latter, alarmed by the passage of legislation decreeing an end to the employment of coloured labour, planted larger areas with the object of taking off as much cane as possible before they were deprived of the services of the Polynesian labourers then under contract. The immediate result was that the small farmers were unable to sell their crops at reasonable rates; and to help them the Government...
of the day, whose avowed policy it was to have the industry carried on by white labour, decided to advance money to groups of these farmers to enable them to erect co-operative factories for the treatment of their cane. As an experiment, two such factories were built in the Mackay district, where the need was most clamant; and thus was laid the foundation of the central mill system, which has given such an impetus to the growth of the industry, conducted on the basis of white labour. Tentative though the experiment was, and though for many years not a complete financial success from the point of view of the mills, the erection of these mills at least showed that the interests of the farmer and the factory were mutually interdependent.

It was seen almost at once by the large planter that the farmer, working in the field beside his employees, was more eager for success than when he worked as labourer or overseer for another. The control of the factories, under directorates of farmers, was found to be more satisfactory and more economical than when in the hands of planters or managers with old-fashioned ideas of organisation—with managers, sub-managers, and large administrative staffs. Five years after the first loan was granted by the Government, and barely three after the rollers were started in the first of the two pioneer mills, these facts had become manifest. It says much for the sense and courage of the planters that this revolution in established methods did not dismay them, and their wisdom was shown in setting to work energetically to put the new methods into practice in the conduct of their own business.

In 1891 the Colonial Sugar Refining Company set the example by cutting up one of its large estates into farms of moderate size. Ten years earlier that estate was a cattle station, employing a couple of white men and a few aboriginals. Before the first six months of 1891 had passed, it was the home of fifty or sixty settlers, a number trebled within the next few years.

The new departure largely overcame the labour difficulty; in addition to that, it went far to meet the low prices for sugar. Many of the factories still continued to make sugar for sale in the open market, and a considerable quantity found its way, profitably, to London.

In 1892 a special Commissioner of the London “Times” (Miss Flora Shaw, now Lady Lugard) travelled through the sugar districts, and noted the evolution which was taking place. She seemed to foresee the future more clearly than many of those actually engaged in the industry. “Even the sugar industry,” she wrote, “appears as a whole to be half-
unconscious of the results of the reorganisation through which it has passed, and lies, as it were, still asleep in the dawn of its own prosperity."

The middle nineties saw the fuller development of the central mill system. More groups of farmers were formed, loans were obtained from the Government, and further factories, mostly large and all well-equipped with the most modern machinery, were erected. A sudden demand arose in all parts of the coastal belt for sugar lands. The wiser of the planters subdivided their estates; owners of lands hitherto unutilised cut them up, and sold them to the inrush of farmers. The financial crisis of the early nineties and the action of Parliament in removing the embargo on the introduction of Pacific Islanders were no doubt contributing factors to the rapid increase in the number of would-be sugar-growers; but, whatever the cause, certain it is that at this time the spurt in cane cultivation and white settlement was greater than at any other period in the history of the industry in Queensland.

The year 1898 saw no less than 111,012 acres under cane, with a sugar production of 163,734 tons. The factories employed 3,709 men, nearly all Europeans, and the declared value of the sugar sent away from Queensland exceeded £1,300,000. The actual number of farmers cultivating cane in that year is not ascertainable, but it approximated 2,500.

It may fairly be claimed that Queensland has conquered her tropical littoral. Between Nerang in the South and Port Douglas in the North stretches a coastline of nearly 1,000 miles. At intervals along this great distance are large areas under cane and a number of considerable towns almost entirely dependent upon the sugar industry—including important centres like Bundaberg, with over 10,000 inhabitants, and Mackay and Cairns, each containing over 5,000 souls. Uninhabited swamps and forests and mountain lands—covered with rank tropical grasses or dense growths of trees and creepers—have given place to cultivated fields, in which stand thousands of comfortable homes rendered accessible by well-made roads, while many districts are provided with most of the adjuncts to modern civilisation. In fact, the white settler and worker live under conditions in no way inferior to those prevailing in agricultural centres in other parts of the world. European brains and European labour have brought into being a flourishing industry, and converted into one of the healthiest portions of Australia, fitted to become the permanent home of millions of our own race, a malarial belt where it had for long been thought none but coloured people would ever be able to labour and live.
The latter end of the nineties and the opening years of the present decade saw a further development of the principle of white settlement in our tropics. The federation of the Australian States offered the sugar-producer some escape from the keen competition of the world's markets through its fiscal policy of unhampered interstate freetrade, with protection against the world.

The Commonwealth Parliament, in its first session (1901), decided that the eight or nine thousand Pacific Islanders employed in cultivation should be returned to their islands, granting, by way of compensation for the increased cost of production, a bounty upon all white-grown sugar. As was the case under somewhat similar circumstances nearly twenty years before, this withdrawal of coloured labour gave a great impetus to planting. There was naturally some anxiety as to whether the supply of white labour in the future would be sufficient; but the profits made in the industry enabled the farmers to pay high wages at harvest time, and men flocked to the sugar districts from all parts of Australia.

One result of the labour legislation has been that many of the growers on large areas have considered it to their interest still further to subdivide their holdings, and their action has had the effect of increasing largely the number of farmers. It was estimated that last year the registered white growers of sugar-cane in Queensland numbered no less than 4,425. In addition to these, there is still a small number employing casual coloured labour. Of the whole output of 151,000 tons of sugar, fully 93 per cent. was produced without the aid of any coloured labour. In other words, white men almost exclusively, whether as employers or as workers, are now engaged in developing our tropical resources, and peopling with our own race solitudes previously untrodden save by a few aboriginal natives.

Less than thirty years ago it was the belief of most of those engaged in sugar production that the work of the mills was one of extreme complexity, and that success depended upon the possession of some special secret in the working. At that time the planter was also the miller. Now the work of cultivation is generally dissociated from the manufacture of sugar. Principally owing to the proprietary interest of the farmers in the various central mills, every stage of the work is openly and intelligently discussed, results are compared, and an efficiency attained which in many respects is equal to any in the sugar world. The factories no longer make sugar for the open market, but sell to the refiners. Analytical chemists check the work at every stage in the factory, and labour-saving appliances are the rule and not the exception. A modern factory is a wonderful illustration of the application of science, mechanical invention, and organisation to human industry.

Nothing can better indicate the evolution of the Queensland sugar industry during the past forty years than a comparison between one of the first mills established in the State and one of the most modern.

Forty years ago the sugar-cane was drawn in a cart close to the single set of crushing rollers, flung on the ground, and then fed, stick by stick, through the rollers, emerging with less than half the juice extracted. The crushed sticks were taken out and spread on the ground in the open, until dry enough to be collected and brought to the furnaces for use as fuel. In the modern factory the cane arrives by tram or train, is mechanically placed on a long endless carrier, and passes, at the rate of twenty tons or more per hour, through several sets of rollers, the refuse, caught by strainers, returning to the rollers, while the megass, or exhausted fibre, goes direct to the furnaces.

The old mill crushed enough cane during six months to make two or three hundred tons of sugar. The modern factory deals with sufficient to produce anything from six to ten thousand tons, and in some cases more.

Steam has taken the place of fires at the boiling stations, and boiling in vacuo has been as fully adopted in Queensland as in other parts of the sugar-producing world. In the old mill the masse cuite, the last stage of the product before the sugar is dried off, had to be dug out from tanks, men standing up to their knees in the sticky substance, and handling it in buckets. Now, the masse cuite goes direct from the vacuum pans to the receivers, and thence into the centrifugals. There the molasses is separated, and the sugar is carried automatically to the bags standing only a few feet from the railway trucks which are waiting to take the product to the ship's hold.

The old-style factory carried on its operations solely by day. The present-day factory is lit throughout with electric light, and works day and night (Sunday excepted) for five or six months, employing, according to its capacity, from 100 to 150 men. Around each factory has sprung up a small settlement of artisans, storekeepers, and others, while, under a statute passed by the Queensland Parliament, the employees are decently housed, fed, and assured of good sanitation, their mental, moral, and financial welfare being provided for by the institution of reading and recreation rooms, and the establishment of branches of the Government Savings Bank.
Turning to the agricultural operations, similar evidence of the evolution of the industry is to be found. Time was when a visitor could stand on some slight eminence and look over vast areas of cane, the vista unbroken save for a few trees, or the plantation roads running like ribbons through a sea of waving green. Now the prospect discloses the homes of farmers standing out amongst the cane, with all the evidences of a closely settled and thriving population. The large gangs of labourers tending the cultivation have for the most part disappeared. Instead, the farmer and his sons, with possibly one or two labourers, work side by side in the fields.

At harvest time long lines of carts drawing cane to the mills no longer make a picturesque feature in the landscape; locomotives now haul cane-trains over the hundreds of miles of narrow-gauge tramline which radiate from the factories to all points from which supplies of cane are drawn. Where but a few years back was naught but the lonely bush, its silence broken only by the lowing of a few cattle, the occasional passing of an aboriginal stockman or a party of drovers, carriers, or a chance swagman—birds of passage between the inland stations and the ports on the coast—townships have sprung into being, and every half-mile reveals the home of the farmer nestling among his fields of emerald green.

During the past few years, mainly owing to the satisfactory prices received for their cane, the farmers have been profitably employed. They have learned in the school of experience that cane cultivation requires practical knowledge, and that in many cases their land needs special treatment, which they must study for themselves. Nothing has brought this fact home to the farmers more thoroughly than the work of the Sugar Experiment Station at Mackay, and the valuable reports published by the late Director, Dr. W. Maxwell.

In the early seventies the sugar-planters of Mackay awoke one morning to discover the whole of their crops destroyed, as if a fire had passed over them. They then grew only one variety of cane, which had become diseased. Fresh varieties had to be introduced from abroad, with all the risk of introducing canes that were worthless, or, worse still, of bringing in pests or diseases. So far, sugar-cane in Queensland has been singularly and fortunately free from natural enemies. Thanks to the work of Mr. H. Tryon, the Government Entomologist, the grower readily recognises the presence of insect pests, and knows how to deal promptly with them on their first appearance.

The farmer is learning to know his cane; he studies its habits, and is
quick to appreciate the good and bad effects of his operations. The analyses at the mills have directed his attention to the importance of cane being a good sugar-producer, and, as he is in many cases a shareholder in a factory, he is alive to the fact that weight of cane is not the only essential to success. For many years the need for securing canes richer in sugar was largely neglected all over the world, but recently efforts have been made to repeat in the case of cane the splendid results won by such men as the late Sir J. B. Lawes and the French chemist, Vilmorin, in connection with the sugar-producing qualities of the beet. The officials at the Queensland Sugar Experiment Stations have tested fully sixty varieties of cane, including some from Papua, to discover the agricultural and milling value of each.

It is only natural that in an industry whose operations extend over so many degrees of latitude conditions must greatly vary. Irrigation is necessary in some districts, notably in the Burdekin Delta, which lies in a dry belt. Drainage is the prime requisite in other places. Fertilisation varies with the soils, and information as to the latter has been compiled in a series of exhaustive analyses made by Dr. W. Maxwell at the laboratory in Bundaberg. In South Queensland the cane frequently takes two years to mature, while in the extreme North fifteen months after planting it is fit for the rollers.

According to the official estimate of the Commonwealth Treasurer for 1908, 4,825 farmers were then engaged in the industry in Queensland, 91.7 per cent. of whom employed white labour only, the number of employees being in round figures 30,000. In 1902 the number of farmers was only 2,496, showing the rapidity with which closer settlement is taking place. It is true that of late there has been a reduction in the area under cultivation, but this is probably attributable to the tendency to make "intense cultivation" a feature of the industry in order to solve the labour problem. Some of the larger areas under crop have been curtailed, and the reduction has not been made good by the increased settlement; but, as in the eighties those engaged in the industry found, possibly unconsciously, a remedy for the dearth of labour, so we may reasonably expect that the present difficulty in obtaining men for the ordinary work of cultivation will be met by new developments.

What does the future hold for us? Can we continue the work of building up a white nation beneath a tropical sun—a task which in many parts of the world is considered quixotic? The areas available for cane cultivation are still enormous, and, though hesitancy and doubt may for a
time join hands in checking expansion, the main facts remain that there is
room for the people and that there is a demand for the product. Australia,
in her fiscal policy, has recognised that the sugar industry is a national
industry, and our statesmen realise that it is doing for the Australian
tropics what no other industry on the coastal lands has yet seriously
attempted—what, indeed, no other country in the world is as yet prepared
to try.

Assuming, as we have a right to assume, a sympathetic Australian
Government, we can turn to the future with eyes full of hope. There
are many directions in which we may look for the expansion of the
industry. The increasing population of the Commonwealth involves an
added capacity to consume the product. The field of invention in regard to
the harvesting of the cane has yet to be explored and exploited. At present
the cost of cutting and loading a field of cane is from eight to ten times
that of harvesting an equal amount of sugar beets. Experiments are
constantly being made with mechanical appliances for cutting and loading
and unloading cane, and this is one direction in which Queenslanders may
look forward hopefully to the time when they will not only lessen the
volume of labour required, but when they will reduce the burdensome
nature of the work, and place the cane-sugar industry in a position to
compete successfully with the great beet-sugar industry of Europe.

Some 250,000 gallons of rum are distilled annually at Bundaberg, but
we are told officially that 4,000,000 gallons of molasses go to waste every
year. The conversion of this product into foodstuffs for live stock as an
adjunct to the main industry would add materially to the profits.

In some sugar districts, dairying is finding a footing, and possibly the
time is not far distant when a form of mixed farming will enable the cane-
grower to utilise more of the by-products of his industry, at the same
time rendering him more independent of unfavourable meteorological
conditions. Generally speaking, improvement in the quality and quantity
of the cane, intense culture, mechanical inventions, and the use of by-
products are all within the bounds of possibility, and will make for further
progress.

But all these things are of secondary importance compared with the
need of a settled working population. Back from the coast lies a range of
mountains, rising often 3,000 feet above the level of the sea. Along and
behind these mountains are excellent lands, well suited for close settlement
and for the production of cereals, and the fruits and vegetables so greatly
needed in the more humid areas of the littoral belt. The climate of this
elevated hinterland is excellent, and the close settlement of these lands will
furnish one of the safeguards of the sugar industry, seeing that a perma-
nent population within easy reach will always be available for employment
in the canefields and sugar-mills. To a large extent, the populations of the
lowlands and the highlands will be mutually dependent upon each other.

In the early days of settlement in East and West Moreton and on the
Darling Downs, the small selector, with no capital in many cases save a
pair of strong hands, a courageous heart, and a tireless energy, made
his way every year to the squatter's shearing shed. No thought had he
of “knocking down” his hard-earned cheque. Labour disputes never
entered his mind. With his earnings he paid his rent and improved his
land. It was men of this stamp who built up the great agricultural
industry of Southern Queensland, and they and their descendants of
the second and third generations are the very cream of the farmers of
to-day. It is to a similar class of settlers in the sugar districts and their
hinterland that we look for the proper settlement and development of our
tropical lands. And in our aspirations for a great white agricultural
population we are entitled to expect the sympathetic assistance of our
kinsmen in the South and of the Empire at large. For not only are we
doing what we can to make a prosperous and contented people, but we are
doing a great work for the whole of the white races. We are proving that
the tropics can be conquered and permanently settled by people of our own
race and colour; we are holding one of the gateways of the East; and we
are garrisoning an important outpost of the Empire. Kipling's stirring
words, written of Queensland, find an echo in the hearts of Queens-
landers—

The northern stirp beneath the southern skies—
I build a Nation for an Empire’s need,
Suffer a little, and my land shall rise,
Queen over lands indeed!