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A FREE FARMER IN A  
FREE STATE







HER MAJESTY QUEEN WILHELMINA  
From the State Portrait by Thérèse Schwartz-van Duyl

Frontispiece.

# A FREE FARMER

## IN A FREE STATE

A STUDY OF RURAL LIFE AND INDUSTRY  
AND AGRICULTURAL POLITICS IN AN  
AGRICULTURAL COUNTRY

BY

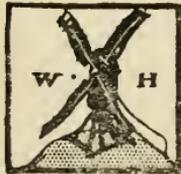
“HOME COUNTIES”

(J. W. ROBERTSON SCOTT)

AUTHOR OF

“*Country Cottages*,” “*Sugar Beet; Some Facts and Some Illusions*,”  
“*In Search of a £150 Cottage*,” etc.

ILLUSTRATED



LONDON

WILLIAM HEINEMANN

1912

*Copyright 1912.*

TO MY NEIGHBOUR AND FRIEND

THE COUNTESS OF WARWICK

whose pioneer efforts to provide an enlightened country education for farmers' sons at Dunmow and for girls at Reading and Studley, showed a grasp of an elementary fact in Rural Therapeutics : that only when rural life and industry are made interesting and financially tolerable will intelligent men and women remain contentedly in the country.

The story of this heroic people is more romantic and more instructive than that of the stand which Greece made against Persia. The debt which civilization and history owe to this people is greater than that which is due to any other.

I do not find that in any department of enterprise, of commercial integrity and of intellectual vigour the Dutchman of to-day is behind any European nation whatever, or even the race which achieved so remarkable a position in the 17th and the first half of the 18th centuries.

The Elzeviers were the first publishers of cheap editions. From Holland came the first optical instruments, the best mathematicians, the most intelligent philosophers as well as the boldest and most original thinkers. Holland is the origin of scientific medicine and rational therapeutics. From Holland came the new agriculture, horticulture and floriculture. The Dutch taught modern Europe navigation. They were the first to explore the unknown seas, and many an island and cape which their captains discovered has been re-named after some one who got all his knowledge by their research, and appropriated the fruit of his predecessor's labours. They have been as much plundered in the world of letters as they have been in commerce and politics. Holland taught the western world finance, but they also taught commercial honour, the last and hardest lesson all nations learn. The Dutch are the real founders of international law.

*There is no nation in Europe which owes more to Holland than Great Britain.* In every department of art, of agriculture, of trade, we learnt our lesson.—*Thorold Rogers.*

*Onbekend, onbemind.* (Unknown, unliked.)





NEW AND OLD IN HOLLAND

The girls are wearing the dress of South Beveland, one of the Zeeland Islands

## PERSONAL

THE phrase, adapted from Cavour, which forms the title of this book I once heard used by a former Dutch Minister of Agriculture.

I went first to Holland when I was just out of my teens. Five months ago, when I was forty-six, I went again. Between my first visit and my last, however, I had been several times in the country. During the full quarter of a century that has gone, I have enjoyed, as I am delighted to have this opportunity of gratefully acknowledging, an exceptional advantage in steadily gathering the outlook of the Hollander: during every month of the twenty-five years I have been the recipient of one long letter or more—"leading articles" the writer has dubbed them—from the doyen of the Dutch Press, my venerable friend, A. G. C. van Duyl, late editor of the "Handelsblad," and the husband of that distinguished painter, who, as Baedeker says, "has won a European reputation for her portraits." By her kindness, a reproduction of her impressive State portrait of Queen Wilhelmina forms the frontispiece of this book.

Living, as I have done for nearly a dozen years, in an agricultural county which faces Holland, and wholly occupied with the study of the problems of the countryside, I have

been particularly interested in rural life and industry in the Netherlands. It is with Rural Holland, therefore, and with its lessons for us, that this book deals. In this agricultural country, however, the Man on the Land and those thriving folk, the man on the canal and the merchant by the water-side who market his produce, play so conspicuous a part that they can hardly be studied without a great deal being learnt about Holland generally, and some social, religious and political problems of the Dutch people presenting themselves. But the costumes of Marken and Volendam are not even mentioned.

I have copied, I know not where, the following passage :

The night I returned to Amsterdam I fell in with some English friends, just arrived from a tour. They were in a mixed mood of amazement and depression. What an industry and thrift and prosperity everywhere ! And how slack and spendthrift and depressed their own country across the North Sea !

I hope I have lived long enough in Rural England, in my youth as well as in my middle age, not to fall into the sin that so easily besets the versatile journalists-turned-countrymen—"a-year-but-only-twa'" who seem to write so much rural matter in the papers. A book like this must have many shortcomings ; but, whatever they may be, the reader who knows the English country-side because he lives in it all the year round, and he and his have succeeded in getting, all things considered, a fair and agreeable living out of it, is not to be tried once more by the most exasperating and most hopeless of all the follies of rural journalism and authorship ! I press upon him no patronising proposals to transfer to our much-prescribed-for rural districts an agricultural and horticultural practice rooted in the geographical and economic conditions of another country ; I offend his sense of justice by no japes at an agriculture so old, so varied, so capitalised, so competent and so world-famous as that of Great Britain. Every year I live in the country,

and every year I know more of what the people who work the land of the United Kingdom are doing, I realise more fully the profound agricultural truth underlying the remark of a skilled Dutch farmer to an English landowner in my hearing: "If you were to come to farm in Holland, you would imitate me, but if I were to go to farm in England I should imitate you." Nor shall we cross the North Sea in the spirit satirised in the story a Dutch farmer once told me at the expense of a very self-satisfied English agricultural deputation. He alleged that a member of it asked at one well-doing town, "How many Englishmen are settled in this place?" The answer was, "None, I believe." "What!" was the response; "such a prosperous place and no Englishman?" At the same time I am not without hope that there are things in this book, things not only about the training of the man on the land and the organisation of agriculture, but about the outlook of the countryman and the raising of the standard of rural life, about the sociology and politics of the country-side and the essentials of rural efficiency, which are worthy of the consideration of those who live in Rural Britain and think about its welfare.

This book does not profess to give more than trustworthy glimpses of the work and the position of the man on the land in the Netherlands. What is in many ways the best treatise on Dutch agriculture, though open to criticism in details, Dr. J. Frost's "*Agrarverfassung und Landwirtschaft in den Niederlanden*"—it is now unfortunately six years old—extends to five hundred pages, containing more matter to the page than mine, and the author was at work in Holland for two years on end. Yet one of those who furnished information to Dr. Frost assured me that he should have taken four years over his task! (Economic conditions in Prussia make the interest of many German readers in the practical side of Dutch agriculture and horticulture keener than our own.)

I desire to mention gratefully that my book has been read wholly or in part, in typescript or in proof—sometimes more than once—by many Dutch friends competent to advise me on different aspects of rural life and industry in the various provinces.

The companion of my 1911 tour through the eleven provinces—"Two see more than one," says the Dutch proverb—was my friend, Mr. Robert Hobbs, junior, of Kelmscott. As a member not only of a firm which is famous for its prizetaking for dairy shorthorns, and well-known as one of the largest producers of milk, but of a family the roots of which go deep in the agricultural history of England, I could not have had with me a better instructed or a more open-minded judge of the agriculture of a dairy country; and I am under many obligations to him.

While I have not hesitated to express opinions when necessary, I have chiefly endeavoured, as in the case of my other country books, to gather together as large a mass of definite and trustworthy information as possible and to lay it before the reader, arranged as carefully as practicable, for his own judgment.

While the author of a book of this class must spend, first and last, upon collecting material for it and upon slowly writing it, an amount of time out of all proportion to the financial return from its sale, I regret no effort given to "A Free Farmer in a Free State," because I feel very strongly that an unexaggerated but sympathetic presentation of work-a-day conditions in rural Holland is likely to be of some service to us here, and must also do a little to draw still more closely together two closely-related, neighbouring peoples who should be the fastest of friends.

In this connection it is excusable to call attention to the fact that the work is published at a moderate price. Another volume on Holland costs four and sixpence more

and contains no illustrations. As to my illustrations, the intention has been to show as far as possible unfamiliar rather than familiar Holland.

I may also fairly call attention to the exceptionally full Index.

A volume like this is sometimes taken up by a reader who lacks the time to go through it all. To such an one I venture to suggest that he should skip the quasi-technical section entitled "The Co-operator, the Schoolmaster and the Statesman," Chapter XXIV. and the political section.

Certain passages and phrases in the first three chapters may be familiar to some readers. This is because I have occasionally had recourse there to a series of articles which I wrote in the spring of 1910, when the "Daily Chronicle," to which my acknowledgments are due, asked me to report on the agricultural situation in Holland. My thanks are also due to the "Times," "Contemporary Review," "Journal of the Board of Agriculture" and the "World's Work" for permission to embody in some of my chapters parts of articles contributed to their columns.

Further, my thanks must be given not only to my old friend, Mr. van Duyl, and to many informants whose names I am precluded from mentioning, but to those constant friends of every English agriculturist visiting in Holland, Mr. F. B. Löhnis, Inspector of Agriculture, and Dr. J. J. van Ryn, Agricultural Commissioner in London; to Mr. T. J. Mansholt, also of the Directie van den Landbouw, to whom I am greatly indebted; Mr. R. P. Bonthuis and Mr. H. L. van Duyl, in the same Government Department; my brother-in-law, Mr. Anton van Anrooy; Dr. G. G. van der Hoeven, editor of the "Nieuwe Rotterdamsche Courant"; to many of the Rijkslandbouwleeraren and Rijkstuinbouwleeraren of the kingdom, particularly Messrs. C. K. van Daalen, J. Elema, D. S. Huizinga, I. G. J. Kakebeeke, N. Nobel, A. M. Sprenger,

J. Timmermans, and H. Wibbens—but I need not say that they are not to be held responsible for any statement in these pages—to Mr. J. Heidema, Mr. Reitsma of the "F. N. Z.," Mr. A. Plate, Mr. A. M. Kapteyn, Mr. J. H. Schuurman, Mr. B. W. ter Kuile, Dr. Heringa, Mr. U. G. Schilthuis, Mr. R. Pape, Mr. J. M. Hummelinck, Mr. and Mrs. L. H. Mansholt and Mr. Aylmer Maude.

A considerable proportion of the illustrations are from original photographs. The drawings and maps are by Mr. W. G. Keith. The material has been obtained from many sources, but I desire to acknowledge my special obligations to Beekman and Schuilings's "Atlas van Nederland" (Zutphen: W. J. Thieme and Cie)—an excellent volume which I took with me into every province; Dr. Blink's authoritative "Nederland" (Amsterdam: Looy and Gerlings); Mr. H. v. D. Kloot Meyburg's "80 Schetsen van Boerenhuizen in Nederland" (Rotterdam: W. L. and J. Brusse)—a spirited collection, the text of which is accompanied by an English translation; and to the great work of the late Dr. Gallée, "Het Boerenhuis in Nederland en zijn Bewoners" (Utrecht: A. Oosthoek), of which it is a great pity we have no counterpart dealing with the agricultural architecture of our own rural districts.

I am indebted to the courtesy of the Dutch Department of Agriculture, of the Agricultural Benevolent Institute of Frederiksoord, and of the Vereeniging voor Vreemdelingenverkeer of Deventer—a delightful centre where a Dutch Colonial Exhibition is to be held in July—for the loan of blocks, and for the loan of photographs to Fraulein Anna Langen, of Bonn, Messrs. W. Keesen, Jr., and Zonen, of Aalsmeer, and the Controller of H.M. Stationery Office.

GREAT CANFIELD,

DUNMOW, ESSEX,

*May, 1912.*

What! Give up liberty and property, like slaves with wooden shoes?—“*Vicar of Wakefield.*”

‘Damn all foreigners!’ said the man in the crowd at Oxford, ‘What has old England to do with foreign countries?’—*Morley’s “Life of Gladstone.”*



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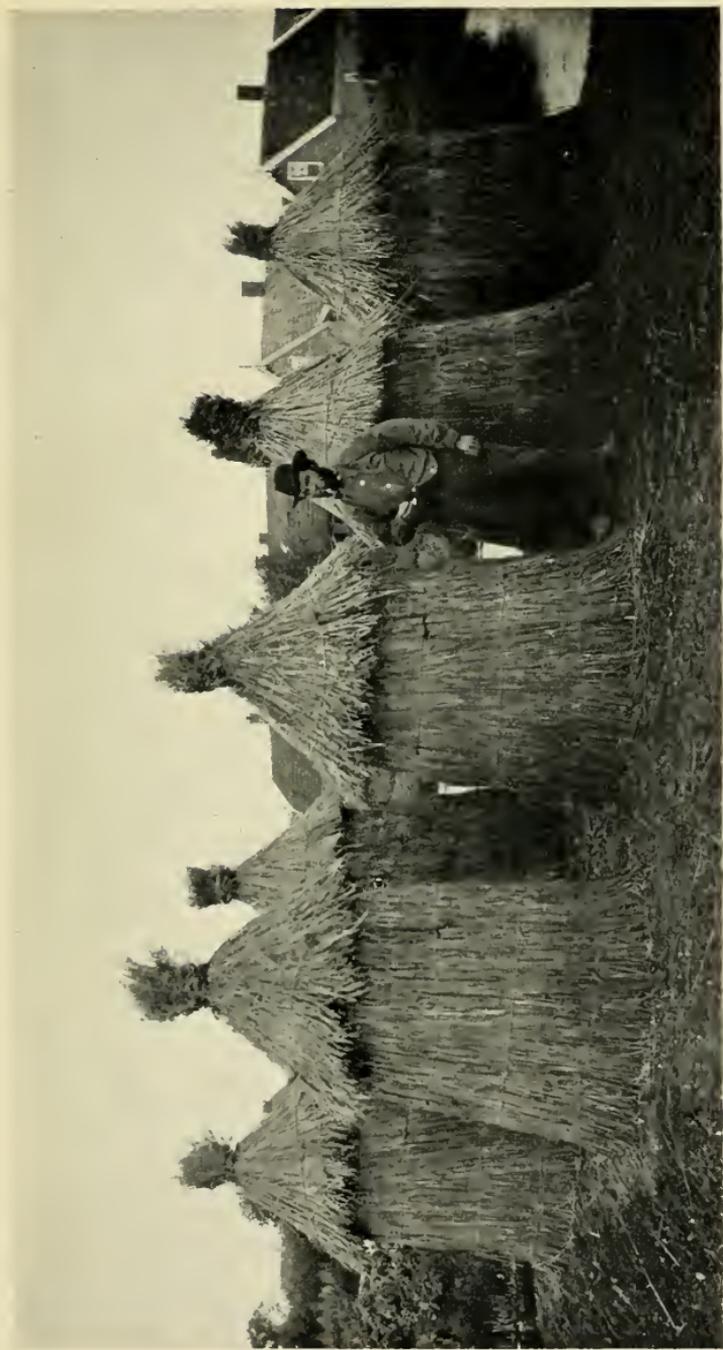
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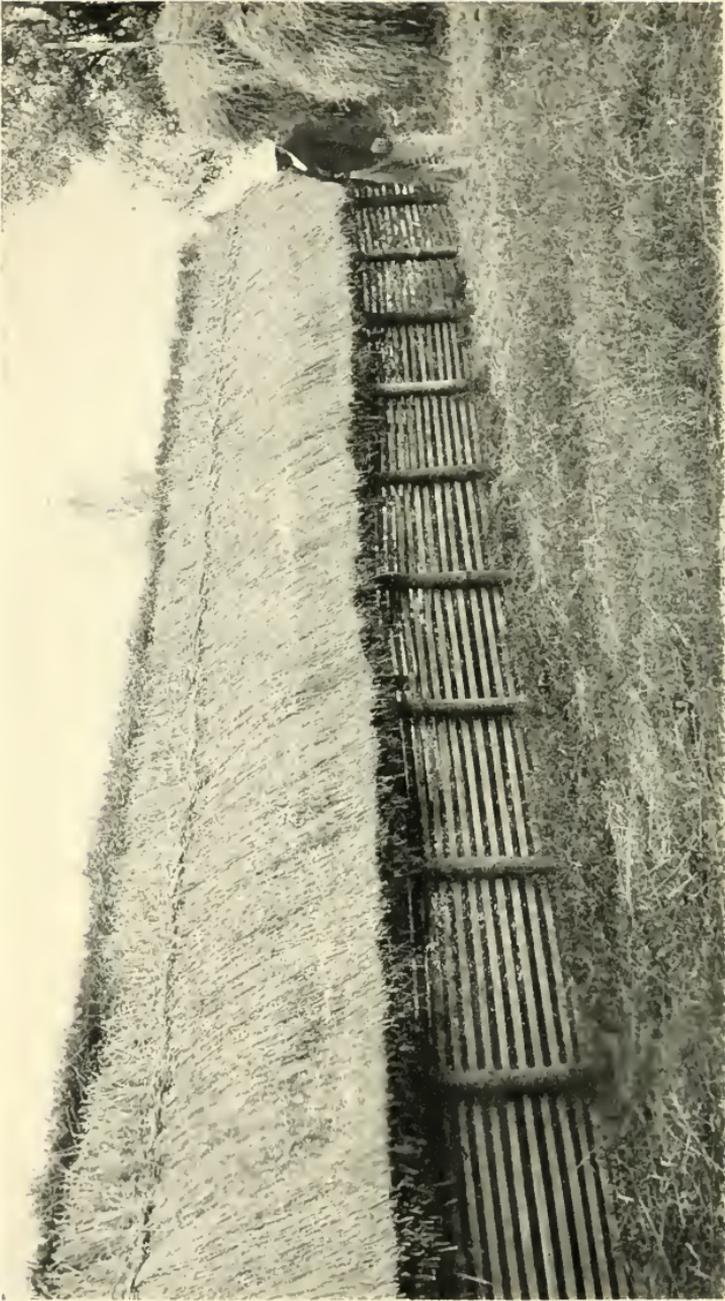
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NORTH HOLLAND METHOD OF ONION STORING



HOW ONIONS ARE STORED IN ZEELAND

## INTRODUCTION

**Our Kinship with the Dutch.**—In Holland,\* the first country one reaches from the Thames or Harwich, a country to which one travels at a third of the expense of the journey to Edinburgh,† there is at hand a political and social laboratory of which we might make a great deal more use than we do.

Between the Dutch and the English there are notable differences in character, in outlook, and in training. But there are more points of resemblance between Hollanders and Britons than there are between Britons and any other European people. It would be an interesting subject for discussion, indeed, whether the essential differences between the Dutch and the English are much greater than

---

\* HOLLAND AND NETHERLANDS.—Following our national usage, the country of the Dutch is called in this book indifferently both Holland and the Netherlands; in Dutch *Nedervland* (*singular*), or *Nederlanden* (*plural*); in German, *Niederlande*. Netherlands is used by Motley of a country which comprised the territory of Holland and Belgium as they are to-day. When a Dutchman, speaking in Dutch, says *Holland* he usually means the whole kingdom, though Holland is properly, of course, the country comprised in the provinces of Noord (North) and Zuid (South) Holland. *Nederland* seems to come awkwardly on the tongue even of Frisians and Limburgers, and Holland is used colloquially for the whole country as England is used colloquially even by Scotsmen, occasionally, for Great Britain. But I have heard Dutchmen say "Such and such may be seen in Holland" or "When you were in Holland" when the reference was clearly to Holland proper. A Limburger or Brabanter may mean by Holland all the country north of the Maas, a Frisian or a Groninger all the country but Friesland and Groningen. Between 1806 and 1810 when Louis Napoleon ruled over the Netherlands, his dominion was called the "Kingdom of Holland."

† London to Rotterdam, return saloon, 32s. ; second, 20s. London to Edinburgh, return third, 62s. 8d.

between the rural Aberdonians and the country people of Oxfordshire.

However close our kinship with Germany may be, it is in Holland that there is to be found the counterpart of that freedom of thought, freedom of speech and freedom of printing, freedom of trade and freedom of entrance to the oppressed of other nationalities, on which we have prided ourselves.

We have frequently fought, and, as the flags in some museums of the Netherlands remind us, not always successfully with the Dutch, and, as history shows, with our animosity rooted in very much the same feelings that thousands of our people appear to entertain towards Germany. For centuries, however, our interests have been identical.

There is in Holland, as in our own country, a perfect illustration of what King Edward once called the working of a Monarchy in a modern State, and in neither realm does the Salic law run.

The two countries have not only a long naval and commercial history; they possess great over-sea interests, and "The Colonies and India" are in the daily speech and writing of both—the Dutch East Indies have a population of 38,000,000\* and at the last census of the Netherlands nearly 12,000 persons were returned as having been born in the Dutch Colonies.

The Army and the Police and Authority generally are in Holland not the rulers, but, as with us, the friendly unobtrusive servants of the nation. I remember asking on one occasion whether I might properly interrogate a certain burgomaster—in Holland not only the president of the municipality, but the holder of a life appointment under the Crown—on the subject of Free Trade and Protection. "Why, of course," said my friend; "we are not in Germany." (Neither are we in Germany where officers in uniform carry brief bags and baskets, hang up their swords in tram cars or strap them on bicycles, and a recruit may be seen carrying

---

\* At Singapore, the Dutch East Indies are well in view; in the West Indies, Dutch Guiana and British Guiana lie alongside.

his rifle very easily indeed during sentry-go in front of the Queen's Palace.)

Nor should I fail to mention as further indications of likemindedness, the interest in country life which is a national characteristic in Great Britain and Holland, and the fact that there is in the Netherlands, as with us, a large number of daily newspapers of the first class, remarkable at once for their integrity, ability, and extensive circulation.

A large proportion of the reading matter in Dutch book shops is, of course, English.\* The hastily-assembled audience which Mr. Roosevelt addressed in Amsterdam during his European tour obviously understood everything he said. In fact, so widespread is the knowledge of English even among people who are not usually regarded as belonging to the educated classes, that an Englishman in moving about the country finds very little more practical difficulty than he experiences in rural Wales.†

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\* A great deal of French and German is read. Agricultural students, especially, read German.

† THE DUTCH AND ENGLISH LANGUAGES.—In his admirable "Elements of Dutch" Dr. J. M. Hoogvliet says: "Dutch is spoken in the northern and western parts of Belgium, and dialects of striking likeness to Dutch in the whole western part of Prussia and along the coast of the Baltic. Moreover, on the northern border of France, there is a narrow tract where a Dutch dialect is heard. Dutch has the greatest affinity to the Low Dutch dialects in Germany, to English and to Friesic, which is spoken in Friesland. It has a more distant relation to High Dutch or German, and to Swedish, Danish, Norwegian and Icelandic.

"To a superficial observer Dutch, especially in its written form, will appear much more like German than like English. The principal cause is that English has changed very much in the last ten centuries and adopted Roman and other non-Saxon words and expressions, whereas Dutch, especially literary and scientific Dutch, during the last centuries has been much under the influence of German. The near relation of English to Dutch may be easily shown even now, whenever phrases are formed with exclusively Saxon words. 'That is good' is in Dutch 'dat is goed' (*oe* sounds as the English *oo*). In the same way, the Dutch 'Waar is mijn dochter?' is much nearer the English 'Where is my daughter?' than to German 'Wo ist meine Tochter?' Every sentence of 'Come here now, Peter, will yer, it is so cool here in the boat, do come here' would be perfectly intelligible to a street Arab in Holland. The truth of this, however, is far more clearly visible, when the English tongue is looked upon in its original form. In that

#### 4 A FREE FARMER IN A FREE STATE

**A Nation under a Microscope.**—This country, which has so many vital interests for us, has two further advantages for the political and sociological student.

In the first place, in no country in Europe are the best types of our own people better liked, or our political, social and religious history better understood.

Second, Holland is a very small country. It has a much smaller population (six millions) than Greater London\* (7,250,000). Although two-fifths of the people are rural, the cultivated area of Holland is less than the total area of our counties which lie opposite it—Essex, Suffolk, Norfolk, Lincoln, and Kent. The whole country is about the size of Bucks and half a dozen Norfolks. It is a nation under a microscope.

On the great question of the land the Dutch are particularly serviceable to us. The land is and must ever be their greatest interest. This is not only because the country possesses no iron of much value, and has only lately begun to work in any quantity the coal† which is stowed away in the extreme south on the German-Belgian frontier. “God made the sea,” says the Hollander, “*we made the land.*”

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language the words, ‘Where is my daughter?’ sounded ‘Hwar is min dohtor?’ (pronunciation almost entirely as the Dutch words ‘Waar is mijn dochter?’). To a scientific student of English and Anglo-Saxon some knowledge of Dutch is indispensable.

“It is sometimes said that the Dutch language has a rough and disagreeable pronunciation; but there is a difference between the Dutch spoken by a porter and by men or women belonging to the first classes of Society.”

\* Metropolitan and City Police Districts.

† COAL MINES.—It appears from “De Nederlansche Mijnbouw,” that in 1909 about one and a quarter million tons of coal were raised, and that the number of persons employed in connexion with coal raising was about 5,812. In 1900 the number was 1,671 and in 1895 only 452. The coal mines are in South Limburg.

IRON.—Bog ore is found, I believe, in all the provinces bordering on Germany. The granular sort is sent abroad for gas purification, etc. The kind in clods of earth is also exported. The total export of both varieties does not reach 6,000 tons in a year. I have met plenty of Dutchmen who did not know that any iron at all was produced in Holland. In addition to iron imports, there is a surplus of steel imports over exports of nearly 150,000 tons.

The astounding achievement becomes a very real thing when, say, from the river steamboat between Amsterdam and Aalsmeer, one gazes down upon multitudes of prosperous homesteads covering an area of more than seventy square miles, which, within living memory, was the Haarlemmer Meer; as one watches the driving of the piles, on



THIS IS THE CULTIVATED AREA OF HOLLAND. THE TOTAL AREA IS EQUAL TO BUCKS AND SIX NORFOLKS

which the houses of half a million of the people of Amsterdam must be standing—even gas mains are laid along the tops of scaffold-poles driven down through the sand; as one sees with one's own eyes that the best agricultural

land of the Netherlands has been reclaimed from the waters, which are only restrained from rushing back over the country by waterworks which are one of the wonders of the world.

**Free Trade Farmers!**—When the price of corn fell, owing to the opening-up of great, cheap corn-growing areas over-sea, it was not only through her corn-growing that Holland, like ourselves, was badly hit. The Danes were cutting into her butter trade, and her market gardening was also feeling acutely the strain of competition. The Dutch have remained, like ourselves, however, Free Traders.

Let me quote from a keen believer in Tariffs, Dr. Frost, who as the wandering agricultural attaché of the German Foreign Office—why has not our Foreign Office such an attaché?—has written the best book on Dutch agriculture, “Agrarverfassung und Landwirtschaft in den Niederlanden,” published on behalf of the German counterpart of our Royal Agricultural Society.\*

When the agrarian crisis broke over Western Europe, Dutch agriculture was doomed to go downhill at a greater rate than that of the neighbouring countries. For while the latter built up huge tariff walls against cheap imported produce, and by the erection of this dike sought to prevent the swamping of their markets with cheap competitive produce, the Dutch markets remained as open as hitherto to foreign imports. To the statesmen of the Netherlands, it seemed an outrage to create even the slightest difficulties for Dutch trade, and in any way endanger its freedom.

During the 'eighties the agricultural crisis went from bad to worse year by year, till it reached its highest point in the beginning of the 'nineties. Some idea may be formed of the wretched state of Dutch agriculture in those days from the results of the Agrarian Inquiry published in 1890.

In 1890 a Bill was introduced to impose a moderate import duty on grain. This proposition, however, met with such opposition in the Dutch Parliament as its author little dreamt of. The big commercial towns of Amsterdam and Rotterdam had naturally a great stake in keeping the grain market open, as otherwise the great overland trade with Antwerp would have suffered damage; moreover even a moderate duty involves certain formalities and expense. As the result of a tax on grain, wages would probably have risen, and Amsterdam and

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\* Dr. Frost has made similar investigations in other countries. He was in Denmark when I was there, and is now, I believe, in Norway.

Rotterdam would have lost their reputation as cheap harbours. Finally the breeders raised difficulties on their side, as they believed that the price of cattle-food might rise to such a point that they would not be able to compete with the foreign market.

Since that time no serious effort has ever been made to introduce Protection.

Most of us in agricultural England, where I live, believe that Tariff Reform might not be disadvantageous to the farmer. It is, therefore, an arresting fact for a resident in Essex like myself, that it is only necessary to go to an agricultural country directly opposite my own county in order to find many thousands of men on the land who are evidently strong for Free Trade!

Holland is not only an agricultural country, she is much more of an agricultural country than Great Britain. Again, as we have seen, her land is worked by people closely related to us and living in administrative and social conditions which are singularly like our own.

For some years it has seemed to me that the question whether rural Holland is prosperous or not, and if so why, was well worth discussion in a non-partisan spirit. My two longest visits to the Netherlands have been made specially with the object of studying this question. It is particularly interesting at the moment, for Holland, which has so long followed the same fiscal policy as we have, is now discussing a Tariff Bill.

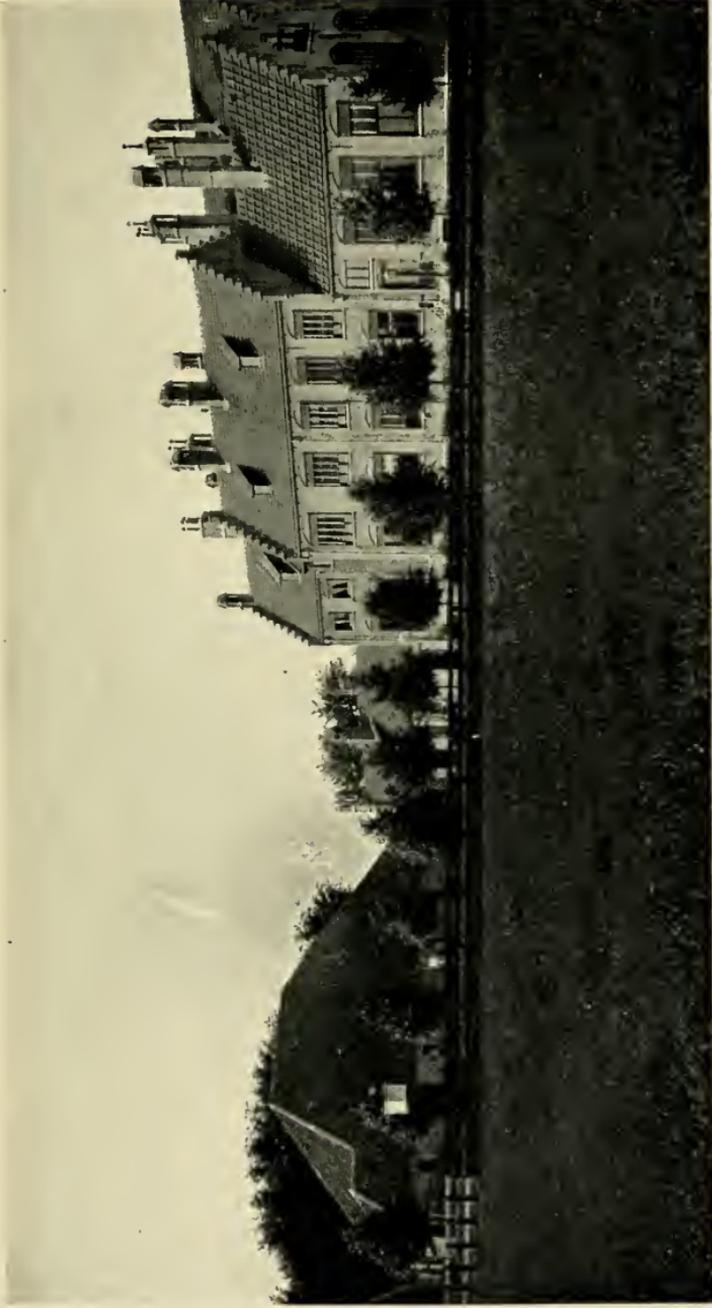
Suppose Holland, the only other Free Trade country in Europe besides ourselves, went Protectionist? Free Traders never seem to think about this weak point in their armour.

The Liberal business man, being a townsman, would no doubt meet the situation with the argument that as Holland is not much of a manufacturing country, its abandonment of Free Trade could not greatly affect the case for Free Trade in Great Britain. But the plea for a Tariff in Great Britain is made largely in the interests of our rural districts, and Holland is above all an agricultural country. Also, if the manufactures of Holland are inconsiderable, it is a great commercial nation. About £250,000,000 worth of goods come into Dutch ports in a year.

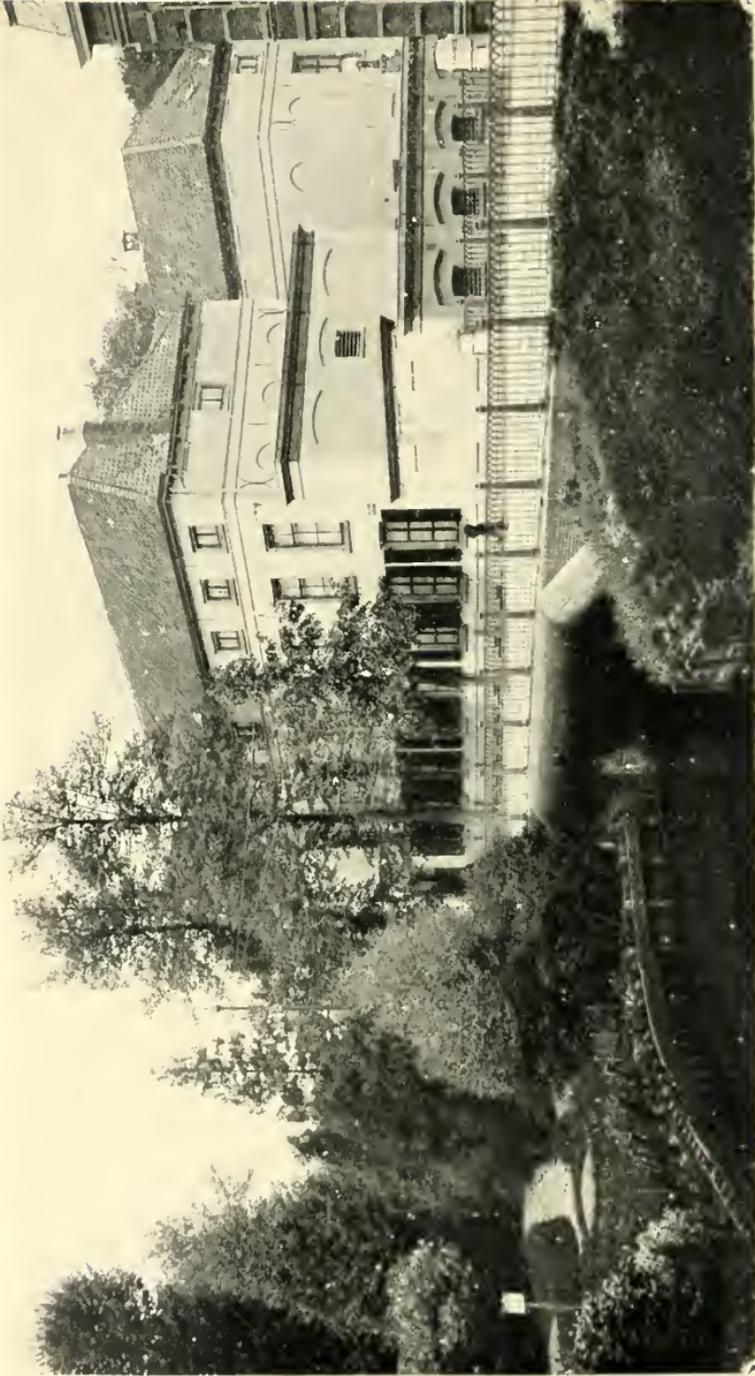
The truth as to whether agricultural Holland is prosperous or not, the truth as to the different factors in her

## 8      A FREE FARMER IN A FREE STATE

prosperity if she be prosperous, and the truth as to whether Holland is likely seriously to adopt a Tariff system constitute a question of importance, not only to politicians, landowners and farmers, but to everyone who, because he takes an interest in the problems of rural Britain, endeavours to be informed as to the tendencies affecting its welfare.



AGRICULTURAL AND BUTTER EXPERIMENTAL STATION AT HOORN, NORTH HOLLAND



FRONT OF THE STATE VETERINARY SCHOOL AT UTRECHT

# HOLLAND AS EVERYONE MAY SEE IT

## CHAPTER I

### PROGRESS IN PLAIN FIGURES

“ **Outside Signs of Welfare.** ”—A friend of mine living in England has an ordinary piece of meadow land in Holland which, before the depression of the 'seventies, was never worth more than 1,500 guilders. To-day it is worth 2,000 guilders.

All over the country the value of land for sale and to let has increased. Take, for example, the period corresponding with that during which there has been free importation of agricultural products into the Netherlands. Within that time the area of land under cultivation has risen by 50,000 acres, and there have been brought on the land 20,000 more horses, nearly a quarter of a million more cattle, and half a million more pigs. In five years the annual output of butter has increased by 7,000 tons. Fifteen years ago the Netherlands sent abroad 5,700 tons of bulbs in a twelve-month ; the export is now thrice that weight.

I could pile up whole chapters of such figures. In Holland it is a commonplace that whereas half a century ago agriculture and trade were declining, agriculture and most of the industries of Holland are now doing well. In the course of several visits to Holland, I have never met anyone who disputed the fact that, in spite of the rise in the price of food throughout Europe, food is still relatively cheap in Holland, and that more of it is eaten, or that wages are higher and people are better housed.\*

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\* **COST OF FOOD IN HOLLAND AND ABROAD.**—The following are the contract prices of food at prisons and asylums in Holland in 1909 : wheatbread, 1d. per lb. ; rye bread,  $\frac{3}{4}$ d. ; beef,  $6\frac{1}{2}$ d. ; flour,  $\frac{7}{8}$ d. ; butter,  $11\frac{7}{8}$ d. ; rice,  $1\frac{1}{4}$ d. ; potatoes, 3s. per cwt. ; milk,  $\frac{7}{8}$ d. per pint. The following prices may be added : Butter, Leeuwarden market, 1908,  $11\frac{3}{4}$ d. Cheese, Purmerend market, 1908,  $5\frac{1}{2}$ d. In December, 1910, the prices of pigs in cents per kilo were as follows : Berlin, 74 ; Paris, 86 ; Leeuwarden, 45. Cattle were : Berlin, 97 ; Paris, 92 ; Amsterdam, 81.

## 10 A FREE FARMER IN A FREE STATE

We have already seen how the population has grown. Open the State "Year Figures" and trade is found to have increased like this:

YEARS		IMPORTS		EXPORTS
1872-1876 average	..	6,793,000 tons	..	3,269,000 tons.
1877-1881	..	9,094,000 "	..	4,054,000 "
1882-1886	..	11,601,000 "	..	5,817,000 "
1887-1891	..	14,076,000 "	..	7,753,000 "
1892-1896	..	17,616,000 "	..	10,511,000 "
1897-1901	..	24,847,000 "	..	16,442,000 "
1902-1906	..	35,472,000 "	..	23,585,000 "
1907	..	39,696,000 "	..	29,275,000 "
1908	..	37,720,000 "	..	26,865,000 "
1909	..	42,083,000 "	..	30,833,000 "
1910*	..	47,580,000 "	..	35,529,000 "

I turn to that impressive collection of tables in the "Year Figures," headed "Uiterlijke Teekenen van Welvaart" ("Outerly [Exterior] Signs of Welfare"), and make notes at random. This is the kind of thing:

In 1896 the interest paid to depositors by the Post Office Savings Bank was £102,453, and in 1910 as much as £343,399. Account is also to be taken of the operations of the credit banks. (See page 30.)

But let us look at more recent figures. The number of persons paying the tax on income outside capital rose from 288,485 in 1901-2 to 438,911 in 1909-10. The tax on capital—only levied on incomes over £1,000—was paid in 1901-2 by 82,038 persons, in 1909-10 by 90,769, and in 1910-11 by 96,203.

Succession duty paid in 9,849 instances in 1902, was paid in 11,089 in 1909.†

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\* Latest year for which there are figures.

† TAXES ON INCOME.—There is no State income tax. There is a tax on capital and a tax on professional income (earnings from trade and industry, salaries, pensions, etc.). Up to now agriculture does not contribute to the tax on incomes, as the earnings made are considered to be earnings out of capital. Capital is presumed to give a profit of 4 per cent. So for a capital of £10,000 an income of £400 is presumed, and if the capital is invested in land, the owner and farmer together are supposed to make an income of £400. It was a concession made to agricultural interests in order to get the law passed on the unfounded

## PROGRESS IN PLAIN FIGURES

11

I will trouble the reader with only one more table. The wages of the following classes of men engaged in the service of the State have risen as shown—the figures are cents per hour:

	1894	1908
General labourer .. .. .	13	16
Mason .. .. .	18	23
Mason's labourer .. .. .	13	18
Smith .. .. .	17	22
Carpenter .. .. .	16	21
Painter.. .. .	16	20

While the wages earned by these men have been thus raised, the hours they have worked have been considerably reduced. But the table can only be used for purposes of

plea that a land tax was already levied, or that the farmers had had a bad time—it was about 1892. The weak point in Holland, which has already attracted attention, is that the savings do not rise with the increase of incomes. This will be best illustrated by the following figures:

Tax on incomes (apart from income from capital)—

		£
1894-5 per 1,000 inhabitants .. .. .		1,023.
1904-5 .. .. .		1,371.
1909-10 .. .. .		1,708.
Against tax on capital—		
1894-5 per 1,000 inhabitants .. .. .		1,440.
1904-5 .. .. .		1,453.
1909-10 .. .. .		1,527.

To a certain extent the different rate of increase is accounted for by the increase of taxes—especially by the taxes levied by the towns; also by the fact that the increase of the value of the land is not fully shown in the amount of capital; but it cannot be denied that people, as a rule, the lower as well as the higher classes, spend too much and save too little. The figures of the saving institutions, as well as the succession duty figures, make the same impression.

**TAXES, AND DEAR AND CHEAP LIVING.**—Direct taxation (*personeele belasting*) is based on rentable value of the house lived in, fireplaces, furniture (without pictures), servants, horses, bicycles and motor cars. Towns are in different classes from 1 to 9. Amsterdam is a first-class town. In Drenthe four towns are seventh class, and all the rest eighth or ninth. So, as far as taxes are concerned, it is more economical to live in the provinces. The province and the town may, however, levy additional rates on the basis of the house duty. Amsterdam levies 151 per cent. additional, and the province of North Holland takes 11 per cent.

comparison; in reality the wages in the larger towns are much higher.

The number of persons who were living without a calling—that is including women and children—was, in 1889, 2,853,281. In 1909 it was 3,173,431.

Account might also be taken of the many new country houses. Whether they are beautiful or not, they are undoubtedly signs of prosperity.

The number of rooms counted for purposes of taxation rose from 723,412 in 1899 to 1,066,591 in 1909.\*

Whereas in 1897 some 39,219 householders kept one servant, there were in 1909 some 46,699 doing so.

Bicycles (*fietsen*) which numbered 94,370 in 1899 reached in 1909 a total of 486,767—for a population of 5,898,429 persons!

Taxation is levied on nearly five thousand automobiles.

Again, in 1899 there was double the number of houses in process of building than there was in 1889.

There has also been an enormous increase in postal matter. While in 1890 there were 67,369,000 letters, 91,077,000 printed papers, and 30,000,000 postcards, in 1909 the numbers were 155,494,000 and 267,295,000 and 704,000,000 respectively.

An indication of how things are going in Holland is clearly given by the fact that the number of emigrants to other countries was only 1,899 in the year 1900, and, in spite of the increase in population, only 2,939 in 1909.

As to indications of prosperity resulting from better feeding, better housing, and better conditions of life generally, take the fact that the percentage of recruits† reaching the measurement of five feet and a half and over—only 28 per cent. in 1880, 34.37 per cent. in 1890, and 39.9 per cent. in 1900—was in 1909, 46.56 per cent.

In 1879 the percentage of the population which was between 65 and 84 years of age was 5.28. In 1899 it had risen to 5.80.

\* These figures only refer to the houses in the country which were taxed.

† 22,000 men are called by lot to the colours every year.

The number of infants born dead fell from 47 per 1,000 born in the year 1890 to 39 in the year 1909. The number of illegitimate births, which was 2.69 per cent. in 1900, had decreased to 2.18 in 1909. The number of deaths from pulmonary consumption which was, in 1905, 17.93 per 10,000, was, in 1909, 16.13 per 10,000.

Whereas the percentage of illiteracy among recruits was 12.3 per cent. in 1880, 7.2 per cent. in 1890, and 2.3 per cent. in 1900, it was only 1.4 in 1909. The percentage of prisoners unable to read or write was, in 1890, 24 per cent.; in 1900, 15.9 per cent., and in 1908, 10.9 per cent.

## CHAPTER II

### MAKING A LAND AND A CLIMATE

**A Farmer who does not Grumble.**—As to agriculture, largely based though it is, in many parts of the country, on sugar beet culture, Holland imports, unlike Germany, no foreign labourers; the people of the country districts find them worth living in themselves. We shall examine later on in detail the evidence on which we may believe that Dutch agriculture is doing well. For the present, I shall simply say that no one who knows anything of agricultural conditions, and passes through Holland with his eyes open, can be in doubt that, as one of the highest authorities on Dutch farming said to me, “agricultural Holland is unquestionably prosperous,” or as the author of “Home Life in Holland” has written:

The flourishing—the *bloetijd*,\* as they say in Holland—of Dutch agriculture needs no argument. It is notorious. It has indeed reached the inconceivable period of prosperity in which the farmer has ceased from grumbling and, casting down his eyes in a shamefaced chuckle, admits that he is doing very well.

Why?

**The Hollanders’ Three Advantages.**—The Dutch farmer and the Dutch gardener have obviously had three great advantages. Whatever view we may take of the question of Free Trade versus Protection, it is plain that the Dutch have benefited immensely:

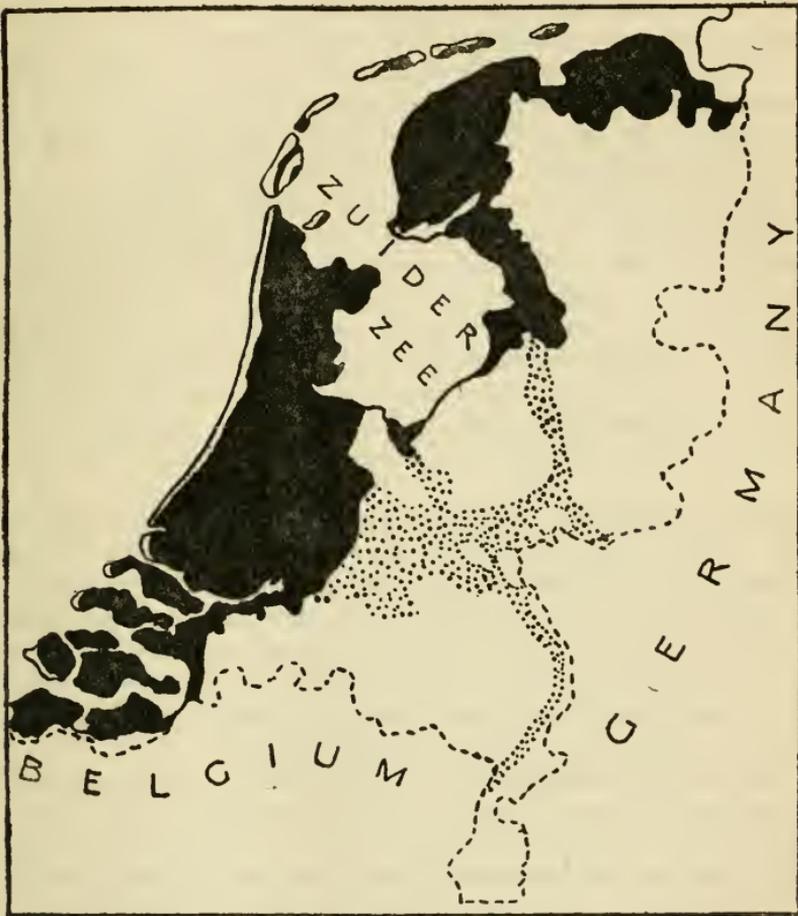
by their geographical situation,  
by their system of cheap water carriage, and  
by the nature of their soil.

But is the geographical situation of Great Britain and Ireland inferior to that of Holland?

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\* Should be *bloei*.

Have there been no possibilities of cheap water carriage in islands with fine rivers and many ports and water-ways, which, according to the recent Royal Commission, might



MAP OF HOLLAND SHOWING APPROXIMATELY THE AREA (IN BLACK) WHICH WOULD BE INUNDATED IF THE SEA DIKES BROKE, AND THE AREA (IN DOTS) WHICH WOULD BE COVERED BY WATER IF THE RIVER DIKES GAVE WAY (After Blink)

have been much improved? If we have not the remarkable farm canalisation system of Holland, have we not more inlets of the sea?

As to the soil of Holland, the pasture of half the provinces is famous for its succulence, and the garden land is valued for the ease with which it can be worked, and for that nearness to water which saves the plants from drought ; but who made most of the land? Who should enjoy its advantages but those who have called them into being?

If all the Netherlands is not, as we shall see in later chapters, netherland ; if dikes are not a feature of all its landscape—as most tourists, who visit only Zeeland, North and South Holland, Groningen and Friesland, seem to imagine—much of the country is a wholly artificial product recovered from the waters, and a great deal of its industry, in its cities and fields alike, is carried on below the level of the sea, the canals, and the canalised rivers.

But a country in large areas so sandy that for the comfort of its inhabitants its roads are usually brick-paved, a country, much of which is moor and marsh when it is not sand, cannot be made to produce grass and farm crops, vegetables and flowers without extraordinary treatment.

**Miracles of Soil Transformation.**—It is a commonplace that nowhere outside China have greater miracles of soil transformation been wrought than in Holland. The wonder of bulb-growing, for example, is not the kaleidoscopic miles of garish bloom about which tourists and guide-books have so much to say, but the patient and far-seeing way in which the sand Dunes have been excavated in order that bulb gardens might be made on the peat below.

Throughout Holland one is always meeting with quaking barge-loads of cow house and stable manure. It may be suggested, perhaps, that with all those "couthy" black-and-white cows so extraordinarily thick on the ground, manure must be cheap. Nothing of the sort. I priced wheelbarrow loads of stable manure in two districts remote from one another ; in one case the cost of a wheelbarrow load was 10d., in the other case 1s.!

There is no mystery about the process of land-making and the process of soil-transformation. From the train or the river steamboat one can see both going on.

"I remember skating there," said a youngish man to me,

pointing to a tract of rich farm land some three or four miles broad. And two years ago I walked over two and a half acres of garden which was made twelve years before by staking out that area in a mere, and then dumping into it innumerable boatloads of sand, clay and soil.

**The Island Gardens.**—Aalsmeer, where there are 5,000 nurserymen, consists like that other Dutch Venice, Boskoop, of extraordinary-looking little squares and oblongs of gardens, divided by strips of water. The gardens have been made either out of water or by laying canal load after canal load of earth on the top of bog. The front door of almost every grower's house and office at Aalsmeer, as at Boskoop, is reached by a special draw-bridge. Canals, a yard or so deep when made, are dredged and redredged—the mud is wanted for the gardens—to the utmost depth at which their sides may be expected not to cave in.

The essence of successful culture of plants for transplanting is that they shall have well-balled roots, and in order that these may be produced, there is mixed with the soil at Boskoop peat brought from the North of Holland. As trees are sold out of the gardens, the precious soil is naturally reduced by the amount clinging to the roots of the plants that are gone. It is replaced by grass sods brought to the gardens from two hours' distance.

It is an illustration of the extent to which much of Holland rests upon water that when one walks in one of the parks of Amsterdam the ground shakes beneath one as a carriage passes; at Boskoop if one jumps on the ground by the side of a canal, the water eddies so much as to scare the pike. On strings of barges in the Dutch canals are the names of companies which do nothing else but transport sand from one part of the country to another.

The visitor to Holland cannot fail to notice that the levels are being altered all over the country. Take the case of the newer parts of Amsterdam. They are built on a morass which was lower than the level of the old city. Therefore it has been raised by means of sand from *seven to nine feet!* It is not an acre or two, but square miles which have been so treated. When space was wanted for a large central

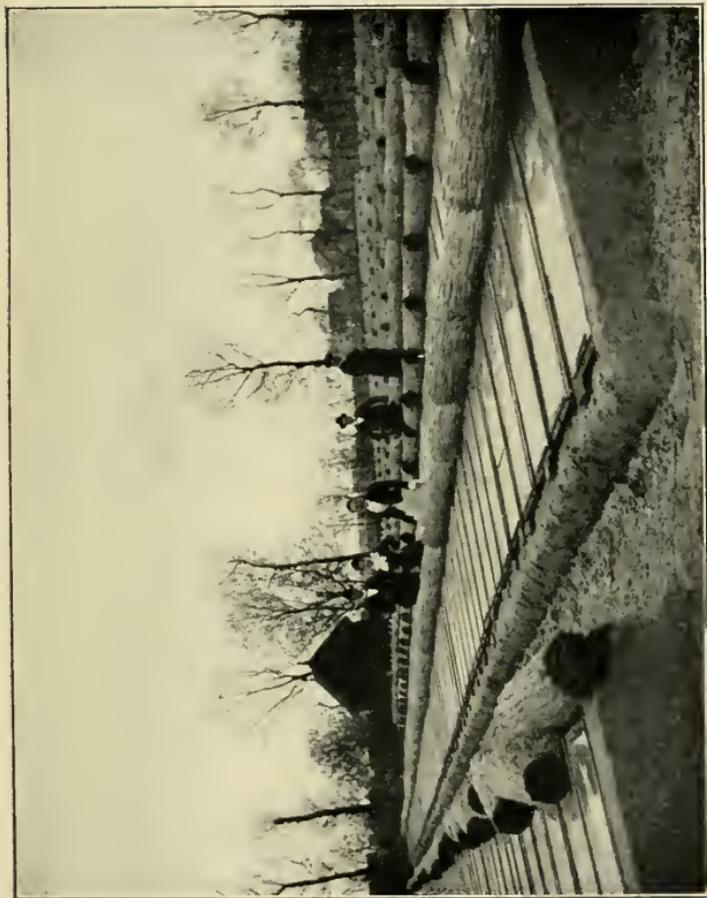
station it was obtained at the water front by tipping into the river Y the loads of sand brought to the spot by *10,000 trains of either 40 or 50 waggons*, I forget which. The bottom was 25 feet below water level. When the required land had been created piles were driven, and on this a solid oak floor was built. On this the station buildings were erected. The piles (from Norway) were of the exceptional length of 75 feet.

The removal of the sand of the Dunes is advantageous not only to the contractors and to the public works which need the sand, but to the landowners from whose properties it is taken. When the sand is gone the proprietors have to their credit the trifle of money paid for the sand and the good bulb soil which has been laid bare. The bulbs are grown about the level at which the sand joins the peat. The peat is dug out and exposed to the frost, which crumbles it, and an excellent garden mixture results from combining it with sand and manure.

I have a personal experience of the rate at which the sand has been removed near Haarlem. I once stayed at the village of Vogelenzang. Even from the somewhat raised railway track it was impossible to see the church tower of the village of Hillegom. To-day the walk between the two places—it takes about an hour—is as flat as a *flensje* (pancake) and one takes one's way through a maze of canals.

**The Wonders of the Westland.**—The Dutchman has not only made land for himself out of water, sand and moor, he has given himself the advantages enjoyed by countries which lie within more favourable degrees of latitude.

A great deal has been written in the English Press, not always wisely, about French gardening, but there are in Holland miles and miles of lights above manure a foot deep. As for glass culture, at at least one recent Continental exhibition a remarkable thing was seen, Dutch growers actually beating French growers with grapes! At Loosduinen I was shown through glass-houses, one of which alone (it contained cauliflowers and tomatoes) enclosed an acre. A man who had five acres of houses and had started life as a labourer was said to be worth £20,000.



GLASS CULTURE IN THE WESTLAND  
THIS IS A DISTRICT CLOSELY RESEMBLING ESSEX



PEACHES AND GRAPES IN THE WESTLAND

Loosduinen is in that wonderful 5,000 acres of wind-swept sand and clay called the Westland, which extends all the way between the Hook and The Hague. But it is no longer wind-swept. The 1,500 market gardeners there have wind-breaks, wind-breaks of brick, wind-breaks of straw or sacking, wind-breaks of wood, wind-breaks of cropped elm or willow. There are even screens to keep out the cold air when the greenhouse doors are opened. There are five million square feet of glass in this naturally unpromising Westland—the winter cold freezes the ivy—where more than a thousand tons of grapes and strawberries are produced in the year.

I have heard people say in England that in places in Holland where produce is grown for the English market—and the Westland, for one district, would be badly off indeed without Covent Garden for a customer—the land must be cheap and wages low.

Obviously, land made, as we know it to have been made in Holland, land the mere keeping of which in existence is a subject of constant care, cannot be cheap. Land I priced in two places in the Westland was £150 and £255 per acre. In Boskeep and Aalsmeer, most of the nursery plants raised in which are sold to England and other foreign countries, the land values given to me were still higher—in Boskoop £200 to £300 per acre, and in Aalsmeer beyond that.

As to taxes and wages, I found neither lower than those paid in my own county. In the Westland in one place day labourers were getting half a crown a day, and 6s. 8d. in the season—the wages in my district are 2s. 2d. and harvest money—and in another 15s. a week in the winter, and £1 a week in the spring and summer.\* And there is no cheap female labour; as with us, women no longer work on the land.†

“Tell me this,” said an Essex man to me; “when I was in Holland I found land fetching thrice what mine would bring, and wages higher than with us, yet these Dutchmen are prosperous. Why?”

We shall see.

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\* For details of wages, see Chapter XXIV.

† In other districts, however, they do; but I doubt whether women more commonly work on the land in Holland than in England.

## CHAPTER III

### “WHERE HE JUMPS I FOLLOW”

**Dutch Humour.**—In the Netherlands in the sixteenth century the Spaniards had a medal struck. It represented a globe with a horse rearing on the top of it. Below was the inscription: “The world is not sufficient for him.” But after a signal victory by the men of Zeeland, one of the United Provinces, it was their turn to strike a medal. They chose the same device, but they added near the horse rearing on the globe the lion of Zeeland, a lion swimming in the waves, with this motto: “I struggle and keep my head above water,” and they added the inscription, “Where he jumps I follow.”

The story is not only a characteristic example of Dutch humour, but it suggests one of the reasons why Dutch agriculture and horticulture are prosperous. Where fortune has leapt the Hollander has followed. He has prospered by the modernising and the intensifying of his methods.

**Progress and the Reluctant Farmer.**—It would be a mistake to imagine, however, that the natural man in Queen Wilhelmina’s dominions was much more eager than the countryman of other nations to leave behind him the ways of his fathers and to exert himself to manage his holding on new lines. There is indeed undeniable evidence to the contrary. For instance, we find Dr. Frost—who, as an impartial authority, is well worth quoting—writing:

The modernisation of agricultural methods forced its way but slowly in the Netherlands, as is natural in a country of small farmers. The greatest forward movement has been made in the last ten years, and honour is due to the Dutch farming community and its technical leaders that in a comparatively short time the farming class, as a whole, have taken advantage of modern methods. When one considers, quite apart from their obstinacy and distaste for anything new in agricultural methods, which is characteristic of every farmer, more or

less, that the general culture of the great mass of Dutch farmers is at rather a low standard, it is extraordinary with what intelligence and what practical understanding they regard modern agricultural technique. Nearly every farmer one meets, be he in ever such a small way, can talk about phosphoric acid and nitrogen. He can tell you the proportion of fat in the milk, and he sprays his potatoes.

What set the farmer to use his wits and to seek and value scientific and commercial instruction was, as we shall have ample evidence later on, the gracious pinch of Foreign Competition.

**Revolutionary Changes.**—The way in which the people of the Netherlands have adapted themselves to changed conditions shows itself in small matters as well as big. I know a busy little place in Holland of 5,600 inhabitants which has 1,400 bicycles; there are said, indeed, to be more bicycles in Holland per head of the population than in any other European country. In many villages the spectacle of so large a proportion of the population on bicycles is almost comical.

Turn to agricultural statistics for an illustration of adaptability, and one finds that while in the 1881-90 period the Dutch grew 86,000 hectares of wheat a year, by 1907 they had cut down to 54,000 hectares a crop which they realised was being grown in competition with more advantageously situated areas oversea. The production of buckwheat between the same periods fell from 50,000 hectares to 18,000. On the other hand, in response to new opportunities, beet, which stood at 20,000 hectares, grew to 44,000,\* and carrots rose from 22,000 to 32,000 hectares.

A district to which a few years' old guide book, which I happen to have by me, sends a visitor in order to see its cheese-making, now devotes itself to market-gardening. Fishermen as well as farmers have within recent years become nurserymen. At a recent exhibition of Dutch produce at Manchester I heard of a Cheshire man complaining bitterly to the stall-holders of the perfidy of the Dutchmen in putting cheese on the market at the time of the year when high prices are paid, “and then at the low

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\* 56,000 hectares in 1910.

time of the year doing something else." Just so! Friesland particularly has now adopted the business-like plan of making the kind of cheese that is thought to suit the market best. Simultaneously, no doubt, many an honest English farmer is calling loudly for a duty on Dutch cheese, the while he goes on steadily making the cheese immemorially produced in his county. It is not more than three years ago that Dr. J. J. van Ryn, Dutch Agricultural Commissioner in England, wrote a pamphlet urging the farmers of Holland to produce the profitable Cheddar, yet last year one Dutch province alone marketed £40,000 worth!

"I was at Aalsmeer yesterday," writes a correspondent, "and talked with a man as he rowed me through the gardens. They began there, it seems, with nurseries for big trees. It did not pay and they took to the more complicated gardening they are now at. I asked how it was that we no longer had Aalsmeer strawberries. 'Didn't pay; we had to leave off and apply ourselves to specialities.' Always adapting themselves you see to altered circumstances and clever enough to see the change coming before adversity is upon them."

**Intensification.**—Hand in hand with the modernisation of agricultural methods there has been, as Dr. Frost says, "a continued intensification":

This intensiveness increased with the invention of new labour-saving appliances and the formation of new agricultural ideas. One would form a very exaggerated picture if one imagined that the whole of the Netherlands is worked with the spade, and that the cultivation was more horticultural than agricultural. There is a very great difference between horticulture and agriculture in the Netherlands, as elsewhere. At the same time the intensiveness with which Dutch agricultural work is carried on is very great. The proof lies in the yearly increasing profitableness of Dutch agriculture.

The profits made from Dutch produce, as a whole, have been on the increase. In spite of a limitation in grain production, the average area of cultivated ground has increased; so has the land employed for pasture and garden purposes.

The ever greater expenditure on agricultural machines, agricultural implements and the like, is an undeniable proof of continued intensiveness.

Even more intensively worked than the profitable soil is the meagre sandy soil. The results are really astonishing. Hardly is one crop

harvested than the land is made ready for the next sowing. Even in the early winter the sandy soil is expected to render service and bear late turnips. These between-crops are found almost everywhere on the sandy soil.

The greatest improvements in intensive cultivation are to be found in horticulture, where the smallest areas of land are made to produce marvellous results. Where the low-lying, moist Dutch soil, carefully prepared, is not sufficiently fruitful, the Dutch gardener covers in his whole garden with glass, and where even that is not sufficiently productive, he builds hot-houses costing many thousand marks and forces in them cucumbers and tomatoes like grapes.

Those who have not followed with their own eyes the course of Dutch agriculture at the beginning of the 'nineties, the same author says in another place, can have little idea of the wretched conditions it was in in those days :

The landowners were deeply in debt, and were largely in the hands of town capitalists ; farmers were forced to give up their farms.

Doubtless there may have been farmers before the fall who indulged in too high a standard of comfort, and had too low a standard of duty, and they may have been brought to their senses by the crisis. But, to-day, as well as then, there are stupid, lazy and self-indulgent farmers. The success of the last few years is in my opinion due, not to the shaking up of the farmers by the sudden fall in agriculture, but rather to the modernisation of agricultural methods.

**High Prices of which Advantage is Taken.**—A distinguished English agriculturist lately assured me that what our agriculture needs is higher prices. High prices have unquestionably been one of the factors in the agricultural prosperity of Holland. This has been the case, however, because the Dutch have known *how to get the full benefit of those high prices*. The price paid in London for large, brown, absolutely fresh eggs is high, but many of our farmers are content to accept the lower price paid through a series of middlemen for ungraded eggs of uncertain age. The trouble with these egg producers is not, therefore, that prices are not good, but that they do not know how to take advantage of them.

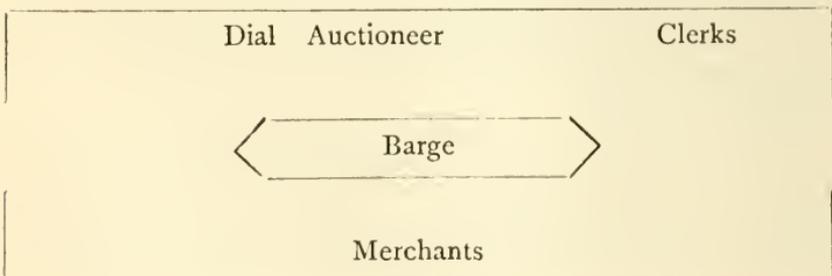
The Hollander has secured high prices by other means than co-operation, and I shall have something to say about them, but the achievements of co-operation, which is rooted in the agriculture of the Netherlands, are remarkable. The fact that there is no end to the things co-operation does for

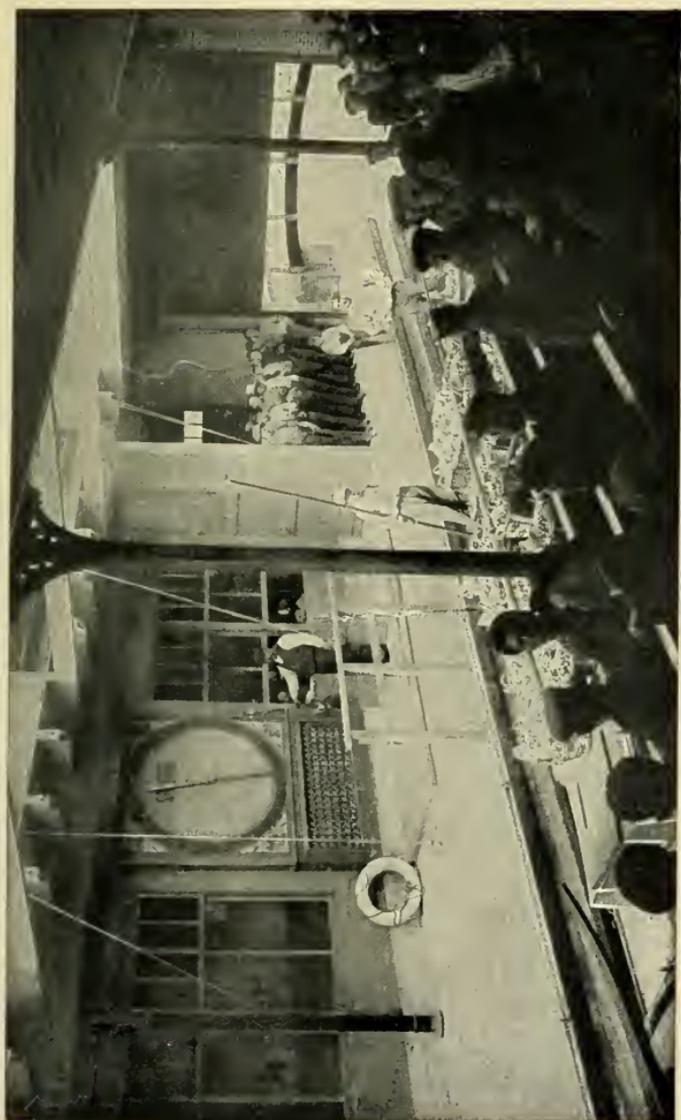
the Dutch farmer and grower does not impress me so much as the way in which I found co-operation taken as a matter of course.

**A New Kind of Dutch Auction.**—Let me first give an account of co-operative auction marts. A co-operative auction mart means, of course, that the producer no longer seeks the merchant, but that the merchant has to wait upon the producer. It is an interesting experience, indeed, to see the traders thronging into the producers' auction rooms.

At Maastricht and elsewhere butter and eggs are sold in a particularly businesslike way at a co-operative auction mart. The buyers sit on raised seats, and between the knees of each there is a button communicating electrically with a big dial and with the clerks. Each creamery has a number which is shown electrically on a plate as its produce is put up for sale. The putting up for sale consists simply of this: the pointer on the dial, round the rim of which prices are marked, is released and swings round. When the figure some buyer is prepared to give is reached, he presses his button and the pointer stops. The sale is made, and there can be no dispute either as to who bid or what the price was. The auctioneer has not opened his mouth, except before the pointer was set going to announce the quantity for sale.

At Loosduinen I was a witness of this method of selling in the case of market garden produce. The co-operators' auction mart straddles a piece of canal wide enough for a barge to be poled through. The same was the case elsewhere. Here is a rough diagram which will help to make the accompanying illustration perfectly clear:





SILENT SALES OF PRODUCE FROM BARGES AT THE CO-OPERATORS' MART,  
LOOSDUINEN

There is an electric push at each merchant's seat, and the dial pointer is stopped when it reaches a figure some one is willing to give.



BARGES OF PRODUCE AT MERCHANTS' SHEDS (ON THE LEFT) AFTER  
LEAVING THE CO-OPERATIVE SALE SHED (ON THE RIGHT) AT LOOSDUINEN

In comes the grower's barge piled with “salads.” Two lads belonging to the mart hold up specimens of the produce in either hand, throwing them to merchants if need be—even quality is guaranteed by the co-operative society to which the grower belongs—the pointer is released, one of the merchants touches his button, the sale is over, the amount is entered into the grower's book previously left at the office for the purpose and now flung on the barge, the barge is poled out, and another barge appears with a fresh lot of produce.

It took just a minute and a half, I noticed, to sell one barge's load of 2,200 head of lettuce and 1,000 cucumbers. Any vendor dissatisfied with the price made pulls a bell, a string attached to which hangs within reach over the barge; but I heard the bell rung only once. In the Westland alone there must be eight or nine vegetable and fruit auction marts of the same sort. Outside the Loosduinen mart, at which £1,000,000 worth of produce is put up for sale in a year, the merchants had their packing sheds, alongside which the barges drew up as they emerged.

The greenstuff I saw sold early in the afternoon would be down to the Hook of Holland in the evening, and on some London luncheon table next day. In a country where special cabbage trains are run (to Germany), and a passenger train may be shunted to let an egg train pass, “perishable produce”—uniformly crated, however, and consigned in bulk—gets the attention it deserves.

# THE CO-OPERATOR, THE SCHOOLMASTER AND THE STATESMAN

## CHAPTER IV

### THE FARMER AS MANUFACTURER AND MAN OF BUSINESS

**The Middleman.**—An account is given later of the co-operative manufacture of butter, cheese, potato flour, straw-board, and cattle cake; of the co-operative provision of artificials and other things. Here it is convenient to have a little history and a few figures for readers who are particularly interested in co-operation, cattle breeding, rural education and self help. Those who are not may skip a Chapter or two.

Co-operation arrived in Holland from Denmark, to which it had come from England. When the Dutch farmer—as conservative as his class always is—was brought face to face with the loss of his butter trade, owing to the improved methods of the Danes, he abused the middleman very much as that worthy is blamed nearer home: he was—I am translating—"fattening on the life-blood of the struggling and helpless farmer"; and so on.

It was a Friesland agricultural society's deputation to Denmark which was the means of setting the first Dutch co-operative creamery going. (The first ordinary creamery was a proprietary affair, started at Leyden in 1879.) The first co-operative creamery opened its doors at Warga in 1886, and Friesland has led the movement ever since. This pioneer creamery got its funds from the big proprietors and the farmers, who bound themselves for thirty years to send all their milk not consumed at home. On such guarantees, on the Danish system, the banks and other

money-lending organisations now advance money to co-operators at from 4 to 5 per cent.

**And the Co-operator.**—When I first went to Holland the first co-operative creamery was just being set going. Last year, of all the 958 creameries in the country, 680 were co-operative! Further, of the 291 cheese factories 201 were co-operative. The particulars, which are to be found in Chapter V., dealing in detail with the butter and cheese industries, are even more striking. Here I need give this little table only:

CO-OPERATIVE AND NON-CO-OPERATIVE BUTTER PRODUCTION :

	1906		1910
Co-operative Factories ..	28,193 tons	..	33,724 tons
Non-Co-operative.....	11,181 „	..	12,544 „

**The “F. N. Z.”**—The organisation of co-operative butter and cheese making is remarkable. The creameries are combined in six powerful provincial associations, and the provincial associations in their turn have joined together to form the famous federation for the whole country known as the “F. N. Z.” (The initials of the Dutch words for Federation of Dutch Creameries.)

The creameries belonging to the provincial associations which form the “F. N. Z.” are more than 380 in number, and in 1910 they handled about 190,000,000 gallons of milk. In order to keep the “F. N. Z.” going it receives about a penny per 1,150 gallons. In the direction of the movement a distinction is drawn between national and provincial interests. The former are the affair of the “F. N. Z.” It is the medium of communication with—and representations to—the Government, of which, as I was informed, it was “strongly independent; it does not at all receive money from the State.” In addition to looking after general interests, the “F. N. Z.” serves its members in the following ways:

It supplies all the requirements of the dairy industry from machinery to bottles, salt and coal. It disposes of about 300 tons of butter in a year. It has also agents abroad who take butter, and it furnishes about 800 reports in a year to its societies with regard to the standing of particular firms.

It grants all sorts of certificates for qualifying for various positions in the creameries, runs a superannuation fund, and issues a weekly paper.

It organises central butter competitions.

It gives special certificates to creameries which it has proved can be depended upon for a regular supply of good butter.

And it organises butter and cheese exhibits at foreign exhibitions.

And it is all done on an income of £1,500 a year.

**Co-operators' Agents in Great Britain.**—The provincial associations do very much the same kind of work in the interests of their own provinces. The Friesland association, now 14 years old, is supported by an assessment of about a penny per 250 gallons of milk. It has a special trade-mark, and procures in a year the requirements of its members to the value of £40,000. As a result of its activities, two export associations have been organised. One of these associations has agents in four cities in Great Britain, and the turnover is about half a million a year. Societies united to it must dispose of none of their produce through any other channel. Roughly speaking, the organisation has succeeded because of its grading and because of its knowledge of the British market. It pays for its butter according to the standard reached at the weekly butter competitions, of which a word in a moment. It is said that before long the Friesland creameries will be all united for sale.\*

The South Netherlands association possesses a successful auction mart for export butter.

The result of the organisation in Friesland and the South Netherlands is that the creamery managers have no anxieties at all about marketing and are able to give all their energies to making the best butter and cheese.

Incidentally it may be mentioned that the non-co-operative creameries are now also organised in an association.

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\* OBJECTS OF THE FRIESLAND ASSOCIATION.—1. To promote co-operation and improve the dairying industry. 2. To advance the reputation of Dutch produce at home and abroad. 3. To carry out weekly, butter and cheese competitions. 4. To purchase the requirements of societies. 5. Voluntarily to control and advise on the book-keeping of societies. 6. To provide technical instruction and grant diplomas.

This association co-operates with the "F. N. Z." in regard to trade interests.

**Butter Competitions and Brands.**—I saw a provincial butter competition in the north. The butter is kept for a week, but not in cold storage. Half of the time, indeed, the outer cover of the package is not even removed. It is judged on the eve of market day by a couple of butter merchants, who receive 16s. 8d. each for their trouble. The managers of the competing creameries are able to see the samples on market day. In any case the butter is returned to them. The fact that only half a dozen certificates are given in a year among about eighty competitors shows how high a standard is maintained.

It will be gathered that while the Boter Controle, described in Chapter VI., guarantees the purity and the maximum moisture of the Dutch butter which bears its labels, the guarantee of quality is furnished by the certificates of the "F. N. Z." and of the provincial associations, issued on the basis of the weekly competitions. The brands of the "F. N. Z." and of the provincial organisations are only granted under stringent conditions. It will be agreed that the brands and the Boter Controle label together furnish about as high a testimony to the standard of the butter bearing them as can well be conceived.

**Co-operators' Factories.**—I must now present in tabular form some details of other departments of co-operation in the Netherlands. The figures as to co-operative potato-flour, strawboard (see Chapter XX.), and beet sugar factories (see Chapter XXIII.), may be set out as follows for 1910:

POTATO FLOUR—

Province	Co-operative		Non-Co-operative	
Groningen .. ..	7	..	..	17
Friesland .. ..	—	..	..	2
Drenthe .. ..	5	..	..	1
Overijsel .. ..	1	..	..	1
	—			—
Netherlands	13	..	..	21
	—			—

## STRAWBOARD—

			Co-operative		Non-Co-operative	
Groningen	..	..	5	..	..	13
Drenthe	..	..	1	..	..	—
			—			—
Netherlands			6	..	..	13
			—			—

## BEET SUGAR—

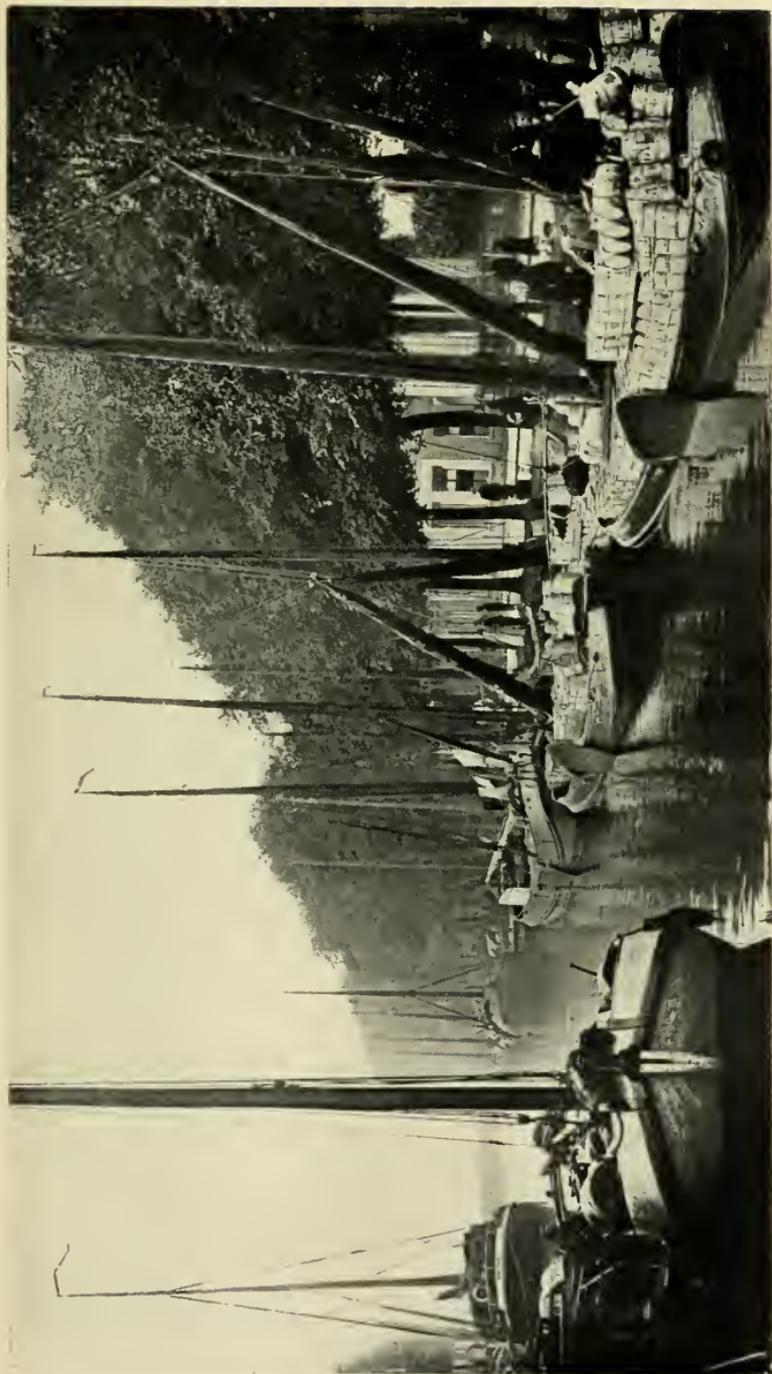
Groningen	..	..	—	..	..	1
Overijsel	..	..	—	..	..	1
Gelderland	..	..	—	..	..	2
Utrecht	..	..	—	..	..	1
North Holland	..	..	—	..	..	1
South Holland	..	..	—	..	..	3
Zeeland	..	..	1	..	..	1
North Brabant	..	..	1	..	..	17
			—			—
Netherlands			2	..	..	27
			—			—

**Co-operative Purchase.**—The latest figures for co-operative purchases are for 1907, and appear on the next page.

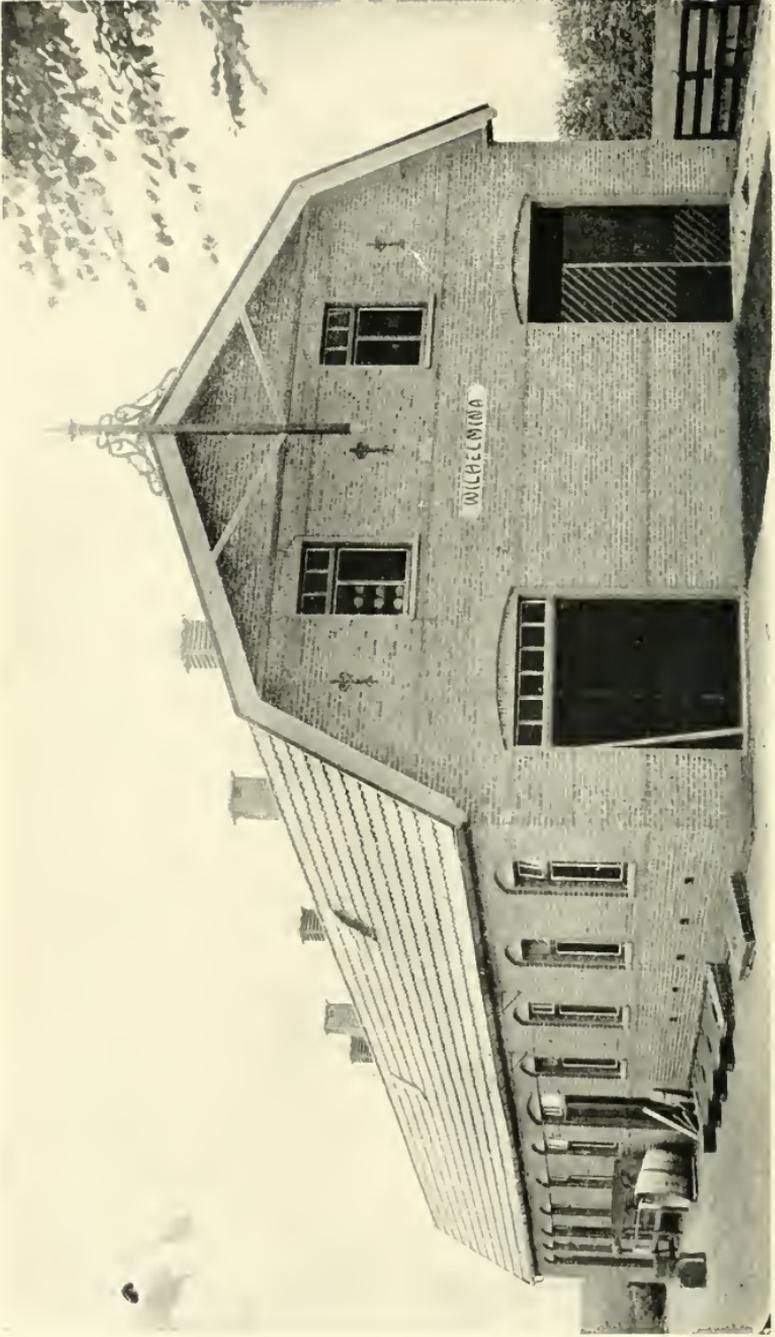
It will be agreed that the advance in three years is noteworthy. References to the working of the supply societies with which I made acquaintance will be found in later chapters.

**Credit Banks.**—There are no fewer than 582 credit banks in the Netherlands. They are affiliated to one of three central institutions—Co-operatieve Centrale Boerenleenbanken at Utrecht, Eindhoven (N. Brabant) and Alkmaar (N. Holland), which may be addressed for further particulars. The most important is at Utrecht. It is now fourteen years old, and has 288 banks. The Eindhoven institution has 262. This leaves 32 for Alkmaar. The existence of two large central banks is due to political and denominational feeling, on which a word or two later on. The Eindhoven bank is under Roman Catholic and the Utrecht one under Orthodox guidance; the bank at Utrecht is neutral.

The banks are in three departments, savings, credit and current account. The latest figures are :



OFFICIAL SAMPLING OF BUTTER



A NORTH HOLLAND CHEESE FACTORY

VALUE OF CO-OPERATIVE PURCHASES BY AGRICULTURISTS IN A YEAR,  
AND NUMBER OF CO-OPERATORS

Provinces	Manures	Feeding Stuffs	Seeds	Other Goods	Total	Per 100 Hectares* cultivated	Number of Societies	Number of Members
Groningen ..	fl. † 2,752,040	fl. 144,332	fl. 81,764	fl. 9,878	fl. 2,988,014	fl. 1,555	115	5,871
Friesland ..	292,488	300,254	5,071	3,144	600,957	232	30	2,253
Drenthe ..	1,587,316	506,978	23,692	1,263	2,119,249	1,829	92	5,916
Overijssel ..	524,751	1,458,638	25,926	16,292	2,025,607	1,043	62	6,189
Gelderland ..	529,455	1,215,059	14,581	93,495	1,852,590	643	107	11,140
Utrecht ..	56,048	354,776	3,817	7,085	421,726	443	26	981
N. Holland ..	87,480	947,118	1,074	17,865	1,053,537	529	78	4,381
S. Holland ..	378,760	1,353,658	12,812	124,596	1,869,826	784	66	3,118
Zeeland ..	1,586,809	109,040	9,884	4,278	1,710,011	1,155	79	4,902
North Brabant ..	1,097,047	1,488,379	13,730	51,230	2,650,386	953	202	17,707
Limburg ..	443,717	792,855	11,271	61,825	1,309,668	1,023	139	11,984
Netherlands 1907 ..	9,335,911	8,671,087	203,622	390,951	18,601,571	878	996	74,442
"    1904 ..	6,132,081	5,422,870	175,157	151,612	11,881,720	559	855	56,192

\*  $2\frac{1}{2}$  acres in a hectare.

† 12 florins in £1.

## SAVINGS BANK

BANKS	Savings Pass Books	Due depositors end previous year	Added deposits during 1909	Drawn out by depositors	Due to depositors end of year
Utrecht .. ..	31,230	£853,048	£1,019,456	£776,208	£1,096,296
Eindhoven .. ..	21,942	702,089	506,270	345,551	862,809
Alkmaar .. ..	2,466	101,490	115,955	109,249	108,195
Total .. ..	—	£1,656,627	£1,641,681	£1,231,008	£2,067,300

## CREDIT BANK

BANKS	Pass Books for advances	Advances end previous year	New advances for 1909	Repaid	Advances end of year
Utrecht .. ..	10,899	£465,508	£322,163	£225,319	£562,352
Eindhoven .. ..	9,413	443,422	160,389	93,735	510,076
Alkmaar .. ..	—	56,439	56,339	36,760	76,017
Total .. ..	—	£965,369	£538,891	£355,814	£1,148,445

## CURRENT ACCOUNT

BANKS	Number of a/c current depositors	Dr.	Cr.	Paid in	Paid out	Dr.	Cr.
Utrecht .. ..	1,707	£139,665	£26,820	£495,611	£520,083	£174,557	£37,241
Eindhoven .. ..	575	49,086	12,548	127,189	141,451	66,515	15,715
Alkmaar .. ..	—	—	—	—	—	—	—
Total .. ..	—	£188,751	£39,368	£622,800	£661,534	£241,072	£52,956

It must be borne in mind that the population has also the Post Office Savings Bank to put money into. For total of interest paid by the Post Office in a year, see page 10.

**Eggs.**—The improvement of the poultry industry has been taken up by the U. P. N. (the initials of the Society for Advancing Poultry Culture), the operations of which are carried on throughout the kingdom. There are hundreds of local associations, and more than 17,000 members. The U. P. N. has done much to improve both breeds and methods of sale. The fact that Holland, from being, as late as 1906, an egg-importing country, has become an egg-exporting country, is largely due to the efforts of the Society. It has also started several egg auction markets or *veilingen*. Such *veilingen* are to be found in Amsterdam, Rotterdam, Roermond, Maastricht, Venlo, Hengelo, Leeuwarden, and elsewhere. At the mart at Roermond no fewer than 13,568,800 eggs were sold in 1910.

**Cattle Insurance.**—Cattle insurance has made great progress. There are no available figures, however, later than 1906, and these are not perfect. The best table that I can make is on page 34.

**The Non-£ s. d. Side of Co-operation.**—In conclusion, it must not be assumed that Dutch agricultural co-operation is a thing of £ s. d. only. Dr. Frost shows that the highest ideals of Sir Horace Plunkett for rural co-operation have been achieved in the Netherlands:

Apart from direct and practical advantages, the Co-operative movement has been the means of improving the social life of the farming community. It has taken the farmers out of their isolation and raised them intellectually. They meet one another at committee meetings; they visit experimental stations; they exchange views with neighbouring farmers; they read more newspapers, and have begun in many respects to feel themselves to be members of one great whole, and that is a factor which has been of inestimable value to the Dutch farmer. It is not only the intellectual life of the farmers which has been raised, but also their interest in and love for their calling.

Every word of this is true.

## THE INSURANCE OF HORSES, CATTLE, PIGS, SHEEP, AND GOATS

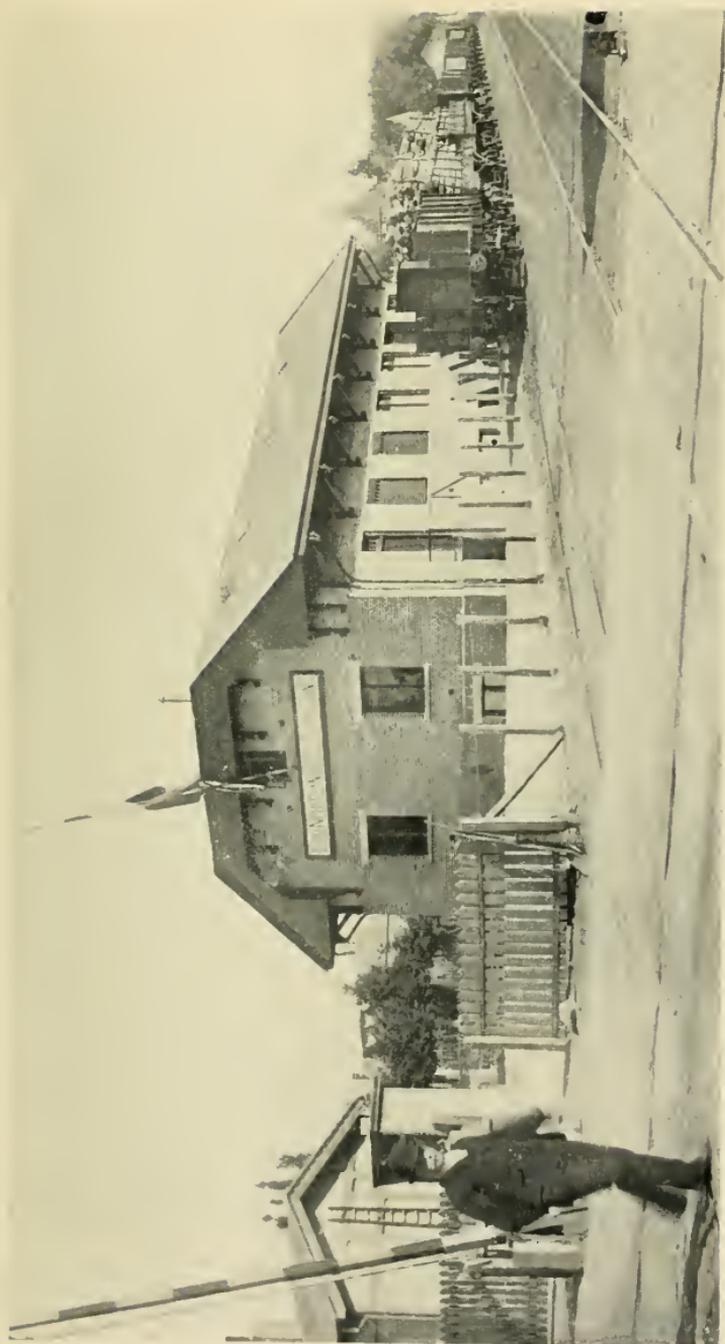
	Societies	Members	Animals Assured	Value in Florins	Number of Claims	Amount Paid in Florins	Average Number of Animals Assured per Member*	Number of Claims per cent. of Animals Assured	Amount Paid per 100 fs. Assured
Horses ..	377	30,447	56,814	14,791,116	1,692	290,799	1.9	3.0	1f. 97c.
Cattle ..	748	72,797	273,099	— †	5,294	— †	3.7	1.9	— †
Swine ..	56	4,357	9,096	—	582	13,205	—	—	—
Sheep and Goats ..	55	3,857	6,362 ‡	—	488 §	5,614	—	—	—
	1,236	111,458	345,371	—	12,456	309,618	—	—	—

\* Obviously small men.

† Returns incomplete.

‡ Of which 2,635 were goats.

§ Of which 249 were goats. By the way, readers interested in goats may be glad to hear of a useful book, "Geitenfokkerij," by the Rijkslandbouwleeraar for Limburg, Mr. J. Timmermans (Nypels, Maastricht).



CO-OPERATIVE BUTTER MART AT MAASTRICHT



INSIDE A CO-OPERATIVE CREAMERY: WHERE DUTCH CLEANLINESS TELLS

## CHAPTER V

### HOW CHURNS CAME TO BE DRIVEN BY STEAM

**Systematised Scrubbing.**—Every visitor to Holland must take away an impression of courtesy and good-heartedness. Persons of consequence have made themselves my couriers and guides; farmers' wives have welcomed with a smile my perambulations and prying in their houses from parlour to pantry, from peat hole to attic, in boots it was impossible to wipe completely clean; their husbands have set going in my honour those musical boxes and gramophones to which the boer takes so kindly—in one house five musical boxes were made to play at once; creamery operatives have stopped work to sing and trombone "God Save the King."

He who has been in Holland before ceases to marvel at vessels floating high above the level of fields. The strangeness of being in a country without bridges except over waterways, and in great areas without stones wears off. He is no longer appalled by the thought that if the mills stopped running for only three days the cattle could no longer feed. There is no novelty in the wayside instructions to use the foot-path, the cinder path or the brick way, according as you are a pedestrian, a cyclist or a carriage person, nor in the injunction to drive to the left, as in England, when you are in Limburg, and to the right in every other province. But it is impossible not to continue to be impressed by the advantage which the Dutch, in their butter and cheese making, derive from the national bent towards cleaning and order. In this people, with a passion for the scrubbing brush and for straight lines, with a relish for reports and statistical statements, with a liking for study and for having a place for everything, with careful habits such as that of tying up cows' tails in the cow-houses, and, when the cattle have gone out to the fields for the summer, of scouring out every inch of those buildings and raising them, by means

of coir and flannel mats, paint, muslin blinds and geraniums, to the status of parlours, there is a *tendenz* which is the commercial making of a nation whose business is the production of food products in close international competition.

**Dairies at The Hague.**—Before giving an account of butter and cheese making I may perhaps mention the excellent dairies at The Hague. None makes a better impression on the visitor than the “Landbouw” (“Agriculture”) with its thirty-five cowkeeper shareholders. It supplies milk to the capital through three shops by means of eighty hand-carts and three vans. The consumer has benefited as well as the farmer.\* Every shareholder runs his milk through a wadded filter and refrigerates it. Before the milk-drinker obtains the product it is pasteurised as well as filtered and cooled. I was interested to notice on looking down the price list that butter-milk was the same price as ordinary milk; the worth of butter-milk has still to be preached in the Midlands and in the South of England.

Co-operative effort has by no means done away with private enterprise. The companies buy milk at about 7 cents ( $1\frac{2}{5}$ d.) and sell at 11 cents ( $2\frac{1}{5}$ d.) a litre.† (There is a bonus on very early morning deliveries.) The London dairy companies buy normally at 2d. and sell at 4d. a quart.

**Lakes of Milk.**—How many butter and cheese factories and how many farm buildings—the word to use is, *boerderij*, farmery—I have been over I do not know, but I have seen enough milk in vats for our whole hamlet to swim in. I find in my notebook and on the backs of letters many such jottings as “a ton of butter daily,” “sixty tons of milk daily,” “ten million gallons of milk used yearly,” “2,000 cheeses daily,” “36,000 cheeses in the factory,” but really I am not always quite sure of the names of the places to which some of these pencillings refer. But how scrupulously clean was all the milk, and all the things brought into

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\* Capital £800. No shareholder gets more than 4 per cent. on his money. All profit over 4 per cent. is divided among the shareholders in proportion to the milk supplied. The “Landbouw” has four depôts for receiving milk and at two cheese is made.

†  $1\frac{3}{4}$  pints.

## CHURNS DRIVEN BY STEAM

37

contact with the milk, and all the folk who attended to the milk, of that I am sure.

**Farm Dairy v. Creamery.**—The production of butter in the Netherlands rose from 60,000 tons in 1906 to 64,600 tons in 1910. Of the 64,600 tons some 15,200 tons were made in Friesland, 10,300 tons in North Brabant, 3,100 tons in North Holland, 7,500 tons in Overijssel, 5,000 tons each in Limburg and South Holland, and smaller quantities in Drenthe, Groningen, Utrecht and Zeeland. More than half of the 64,600 tons, that is 46,300 tons, were made in creameries. Of those 46,300 tons, the proportions made in steam and hand-power creameries\* and on co-operative principles, and on ordinary business lines were, in 1910, as follows:

### CO-OPERATIVE AND NON-CO-OPERATIVE PRODUCTION OF BUTTER IN 1910 AND 1906

Province	CO-OPERATIVE			NON-CO-OPERATIVE			Total Production in Creameries
	Number of Creameries		Production in Tons	Number of Creameries		Production in Tons	
	Steam Power	Hand Power		Steam Power	Hand Power		
Friesland ..	84	2	10,650	38	—	4,335	14,985
N. Brabant..	59	141	5,772	15	9	725	6,497
Gelderland ..	44	26	4,957	31	4	1,120	6,077
Overijssel ..	35	7	2,806	35	3	1,810	4,616
Groningen ..	38	4	1,689	7	—	251	
Drenthe ..	53	25	3,726	3	4	97	3,823
Limburg ..	38	91	3,062	2	6	63	3,126
S. Holland ..	6	1	292	51	6	2,637	2,929
N. Holland ..	14	3	225	40	4	1,212	1,437
Zeeland ..	4	1	135	7	1	56	191
Utrecht ..	4	—	405	12	—	235	641
Netherlands	379	301	33,724	248	37	12,544	46,268
(1910)							
(1906)	304	445	28,193	195	31	11,181	39,374

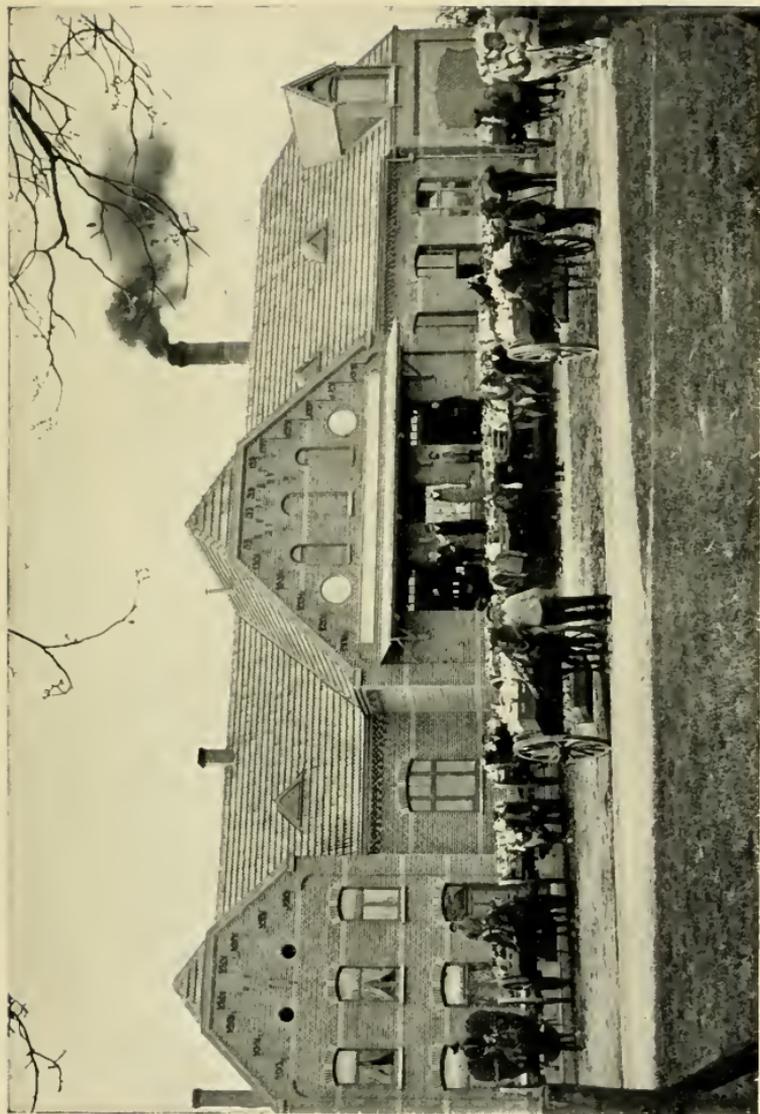
\* A hand-power creamery is one in which the churns are worked by hand. A co-operative creamery of this sort may be a partnership of half a dozen or a few more members. Sometimes there are several of these co-operative hand-power creameries in a single commune.

“There is no doubt,” as Dr. J. J. van Ryn says, “that the finest butter, as well as the finest cheese, used to be made on the farm, but since pasteurisation has been introduced butter of the highest quality is made in creameries. The decrease in the number of co-operative creameries since 1906 is accounted for by the erection of larger steam creameries instead of a greater number of smaller hand-power creameries. How rapidly the farm butter industry is decreasing may be gathered from the fact that while in 1903 the estimated quantity of dairy or farm butter made in the Netherlands was about 26,000 tons it was in 1906 only about 16,000 tons.

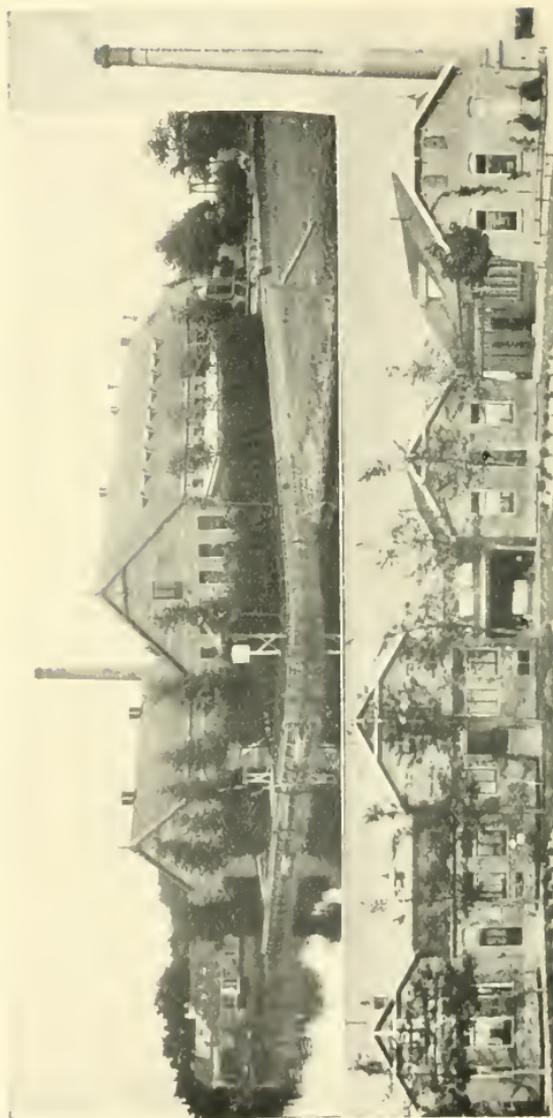
“The size of the creameries depends on the quantity of milk available in their districts. In Friesland where cattle breeding takes such an important place, the great number of cows within a relatively small area caused the erection of large steam creameries. In other provinces where the soil is not so suitable for pasture-land, the number of cows is too small to make large steam creameries a success, with the consequence that hand-power creameries are predominant. On an average these hand-power creameries produce about 13 tons a year, varying from 6 to 30 tons. The average annual production of the steam creameries is about 70 tons, the smallest making about 40 tons and the largest about 300 tons per annum. This explains why, for example, in the province of Limburg, with 137 creameries, only 3,125 tons of creamery butter are made, and in Friesland, with 124 creameries, as much as 15,085 tons.

“There is, however, a strong tendency to erect larger steam creameries instead of hand-power creameries, which accounts for the fact that the actual number of creameries is decreasing, while the output of creamery butter is on the increase. The average quantity of milk used per creamery in 1909 in Friesland was 10,780,000 lbs.”

**Butter and Cheese-making in Friesland.**—The following figures in reference to the co-operative creameries at Marssum and Wirdum, in Friesland, give some notion of the scale on which co-operative butter and cheese enterprises may be conducted:



FARMERS ARRIVING WITH MILK AT A CO-OPERATIVE CREAMERY



TYPICAL CO-OPERATIVE CREAMERIES

	Wirdum	Marssum
Number of members .. ..	76	186
Number of milch cows .. ..	1,648	1,705
Gallons of milk .. ..	1,470,000	1,468,000
Money paid by Creamery to members .. ..	£26,260	£26,456
Butter made .. ..	1,855 tons	2,155 tons
Cheese made .. ..	3,865 tons	3,165 tons
Income from butter .. ..	£19,541	£22,880
"    "    cheese .. ..	£8,538	£5,655
Outgoings .. ..	£2,883	£3,300

The milk comes to these creameries morning and evening and is weighed and sampled as received. The following particulars are given:

Part of the milk is separated by a separator working 440 to 660 gallons per hour. The other part is cooled to about 12 C., and collected in large vats holding about 440 gallons or about 2,000 litres, where it is left for 12 hours. The cream which has risen to the surface is taken off and the partly skimmed milk, so obtained, is used for cheese making.

The cream is pasteurised at 80—85 C. After it has been cooled to about 15 C., and has had pure culture added, it goes to the cream ripening apparatus. The ripening takes about 20 hours, during which period the temperature must be watched. At the end of this period the cream is churned.

**Working of the Creameries.**—The farmers must send their milk twice or once daily every day of the year, Sundays included, ordinarily. When it is sent only once a day the morning and evening milk must be kept separate. I was struck by the condition in which the cans were kept. They are smaller and handier than ours, like those used in Denmark, in fact. They were always shining. Rusty cans are forbidden. The creameries very much resemble those in Denmark. It is impossible to conceive anything cleaner. Sanitation seemed as well considered in building them as in the planning of a hospital. Long experience has also led to the employment of all sorts of labour-saving devices. Occasionally creameries have district separating and pasteurising depôts.

When milk is made into butter the farmers get back free 75 per cent. separated milk and 10 per cent. pure buttermilk; when cheese is made, 70 per cent. of the whey of the milk and also 10 per cent. of pure buttermilk. Here are

the figures of the working of a dairy in 1908-9 with 77 members, who owned 1,676 cows; it made butter and cheese: milk received, 1,424,723 gallons; paid for it, £26,830; fat per cent., 3.14; price per gallon with 70 per cent. of its weight and 10 per cent. of pure buttermilk returned, 4.52d.; working expenses per gallon, .59d.; gross price per gallon, 5.11d.; average supply per cow, 850 gallons; paid for milk per cow, £16 os. 2d. Payments are made weekly.\*

At the Marssum creamery the manager gets £150 a year, with a house and garden. The weekly wages of the other members of the staff may be given as an indication of how wages rule in a small place in Friesland:

Assistant manager, £1 3s. 4d.; messenger, etc., 13s. 4d.; milk control manager £1; assistant, 18s. 4d.; milk samplers (2), each, 10s.; cooper, £1; carpenter, £1; engine and boiler attendant, £1 1s. 8d., and free house; buttermaker, £1, free house and possible bonus; assistant buttermaker, 15s. 10d.; general helper, 15s. 10d.; separator attendant, 16s. 8d., free house and possible bonus; assistant attendant, 16s. 3d.; cheesemaker, £1 1s. 8d., and free house; assistant (2nd), £1; assistant (3rd), 16s. 8d.; cheese helpers (4), 15s. 10d., 11s. 8d., 16s. 8d., 10s.; milk delivery attendant, 19s. 2d.; helper, 8s. 4d.; cold store attendant, 16s. 8d.; milk receiver, 16s. 8d.; general storekeeper, 16s. 8d.

**Condensed Milk.**—An interesting visit was that paid to the "Hollandia" Company's branch works at Bolsward, Friesland. Not only butter but condensed milk was being made there. One got a new idea of the wholesomeness of the latter product at its best, when one followed the processes of manufacture in a bright, airy and scrupulously clean factory. The machinery had surely reached the very highest burnishing point! The company, which has taken a leading part in the sugar-beet campaign in England, not only makes its own sugar, but is the manufacturer of its own tins and boxes. The tins are not soldered, but have their bottoms welded to their sides. From beginning to

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\* Some technical details as to the working of the Dutch creameries, etc., will be found in "Notes on Agricultural Co-operation in the Netherlands," by J. C. Adams and J. Fant, published by the Irish Agricultural Organisation Society, 3d.

end the tins are made by machinery. It is an illustration of the desire which many Dutch folk have to keep their womenkind at home that young men, not girls, were employed in the direction of the machinery. Do not think that this means that cheap male labour can be got. The minimum payment for an unskilled labourer in a cheese factory in the province, I was told at one of them, would be 15s.

## CHAPTER VI

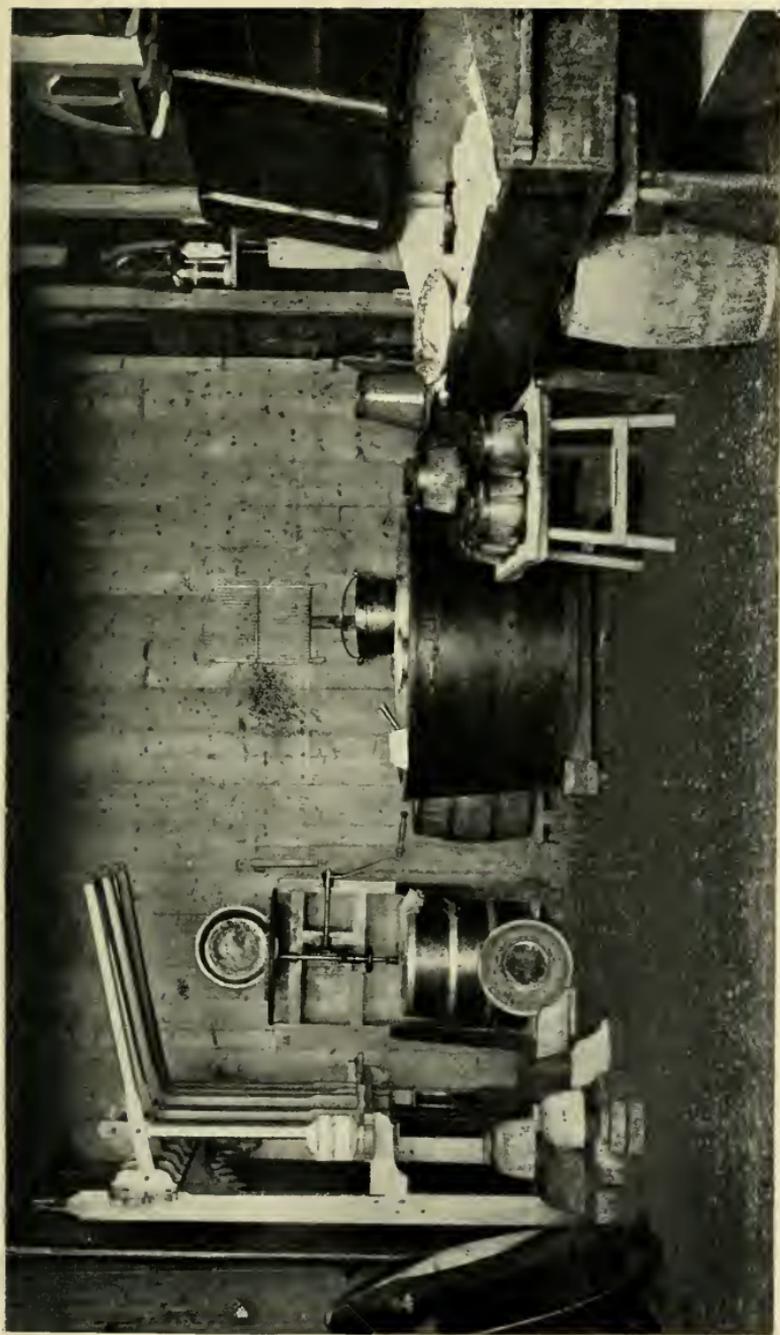
### BUTTER AND CHEESE

**How Holland Lost Her Butter Trade.**—Thirty years ago, as Dr. J. J. van Ryn, the Dutch Agricultural Commissioner in London, told the British dairy farmers when they were in Holland last year, all Dutch butter was made on the farm. “Gradually,” he explained, “we began to lose our reputation, one reason for which being the slackness of some of our farmers in adopting the better and more scientific methods of dairying, with the result that our competitors succeeded in turning out a better product than ours; and the other reason was, that since the introduction of margarine, about 1870, some dishonest men took the opportunity to sell an adulterated article as pure butter, greatly to the detriment of the honest butter-maker. A good deal has been said about this Dutch faking business. Large quantities of adulterated butter may have been exported, but this wholesale butter adulteration was not done by the farmers or creameries, but by a separate class of people.\* Although the amount of adulterated butter was very small compared with the total output, it did a good deal of harm to the honest butter trade.”

Putting aside the difficulty of stopping any fraud by legislation alone, there is, in the case of butter, the additional difficulty of telling when it is pure and when it is not. An analyst can never say with absolute certainty that a butter is pure merely on the strength of a chemical and physical analysis. A certificate of purity can only be given, as Dr. van Ryn said on another occasion, “when the origin of the sample is known and when its chemical composition can

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\* The Dutch Chamber of Commerce in London has done an excellent work in keeping an eye on the operations of butter fakers.



### CHEESEMAKING ON A FARM

Milk strainer in tub. Behind, brass kettle (for heating whey to warm curd). Over kettle, curd cutter. To left, cheese presses. In front, the moulds for the curd and shaping the cheeses.



A FARMHOUSE IN GELDERLAND

be compared with that of a sample made under direct supervision at the same place, and at the same period at which the analysed sample originated." Such is the principle of the famous *Boter Controle* system in the Netherlands.

**The Boter Controle.**—As already mentioned, this system, which is the best in Europe, was not initiated by the Government. It was invented by the co-operative creameries in order to guarantee the purity of their butter. When the system got past its early difficulties and was seen to be as certain as those who devised it declared it to be, the Government threw over it the ægis of an Act of Parliament. The system is still in the hands of eight associations of butter producers. It is for them to deal with undesirable producers; they admit or refuse admission to the benefits of the system, as they like. At the head of each of the eight departments of the Control—Assen (Drenthe), Deventer (Overijssel), Eindhoven (N. Brabant), The Hague (S. Holland), Groningen (Groningen), Leeuwarden (Friesland), and Middelburg (Zeeland)—is a qualified chemist as director, with a staff of analysts and one or more inspectors. The inspectors of the associations are on the road daily, paying unexpected visits to the dairies where butter is made or sold by persons in the Control or to places where butter made or sold by them is on sale. Wherever the inspectors go they take samples not only of butter, but of the materials used in its manufacture. Sometimes they are present when the butter sample is being made.

The analyses of the various samples obtained are carefully registered. The result is, obviously, that the officials of the Control now know what the composition of the butter of each producer is at any time of the year.

The Control stations are under Government supervision, and the members controlled are allowed to use the remarkable Government butter-mark—of which some particulars in a moment—provided always

(1) That the inspection of the creameries is always and in every respect satisfactory, and the creameries are always open to investigation.

(2) That every parcel of butter made or bought is registered as to origin and destination. The name of the buyer of the smallest quantity of butter must be entered.

(3) That members are neither directly nor indirectly connected with the trade in margarine or edible fats or oils.

(4) That the moisture in the butter does not exceed 16 per cent.

**An Ingenious Label.**—The Government mark is printed in blue ink on thin, tough paper by the Government printer. A reprint of it is reproduced here, but the reproduction does not show an essential part of the label—the perforation marks. When the thin piece of perforated



LABEL INGENUOUSLY IMPRESSED  
ON DUTCH BUTTER

paper is pressed on the butter by a special wooden stamp it seems in no way damaged, but if an attempt is made to remove the label it infallibly comes into separate pieces. It is absolutely impossible to take off a label whole and use it again. Apart from the general protection given by the arrangement as so far described, there is the fact that each label has stamped on it a

letter which indicates the name of the Control station issuing it, that it also bears a separate number which makes it possible to trace the precise origin of the parcel of butter bearing the label and the date on which it was made, and that, finally, there are labels of different sizes for different weights of butter. It should be added that there is in force at all the Control stations a compulsory system of book-keeping in reference to the labels issued.

**The History of a Firkin of Butter.**—Let us follow up an actual firkin of butter which on being opened is found to have impressed on its contents a label numbered E37222. We find:

(1) E is the letter of a parcel of 38 kilos.

(2) Books of Leeuwarden Control station show receipt of labels 30,001–50,000 from Government dairy stations June 5, and despatch of 36,701–37,400 to creamery at Deinum, June 15.

(3) Book of sales at Deinum creamery shows sale to Mr. Beck, on July 5, of a cask of butter bearing the number 37,222.

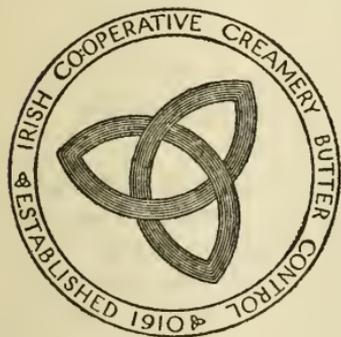
(4) Register of Leeuwarden Control station shows following record of analysis of a sample of butter taken at Deinum Control station June 23-July 8: Volatile acids, 28.9-29.5; refractometer, 44.5-44.7; water, 13.6-15.7.

Therefore a sample of butter of July 5 must give if analysed figures lying between the figures named. That is to say that if the sample had only twenty-six volatile acids it could not be pure.

**Result of the System.**—The Control system has done more than any Margarine Act to stamp out butter adulteration. The value of the Government mark having been realised, the adulterators have been beaten in the foreign market without any direct assault whatever.

It is an offence punishable, not by fine, but by imprisonment only to use the official butter guarantee improperly. In 1910 43,405 tons of butter were made under the Control.

**The Irish Butter Control.**—The Irish Agricultural Organisation Society had a Co-operative Creamery Butter Control, based in some degree on the Dutch model, working satisfactorily last year. The number of participating creameries was 32, and a considerable addition is expected during 1912. The label in use is as shown. It guarantees that the butter to which it is affixed is pure Irish Creamery butter made from pasteurised cream under conditions of absolute cleanliness, and that it contains less than 16 per cent. of moisture. The label can only be affixed on conditions laid down by the Control, which provide for the recording of quantities made and packed, for inspection, and for



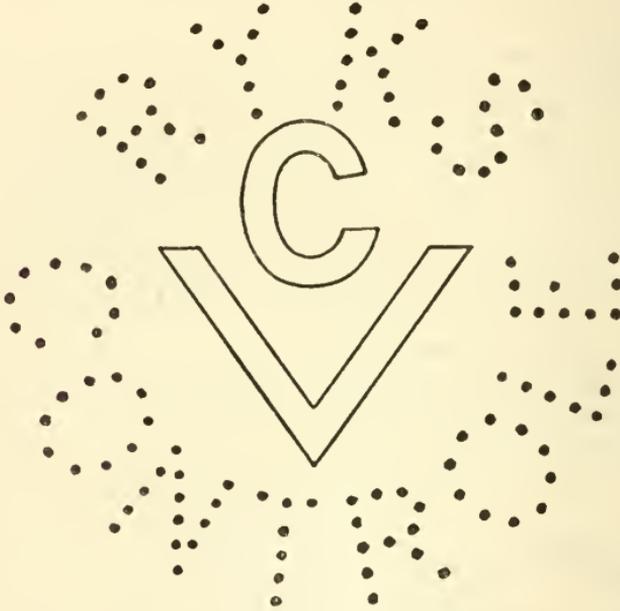
IRISH BUTTER CONTROL LABEL

weekly consignments of samples to the Control, etc.\*

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\* For further particulars, see Regulations of Control Committee—The Plunkett House, Dublin.

**The Cheese Control.**—The Dutch Cheese Control is as ingenious as the Butter Control. There are two marks: (1) a standard mark and (2) a changeable mark. The standard mark is the same design in two sizes, a big one for large Goudas and a smaller one for the Goudas a little more than  $3\frac{1}{4}$  lb. This is the standard mark:

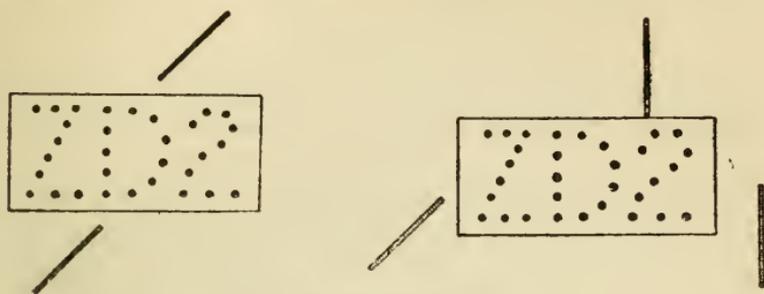


THE NEEDLE-PRICKED CONTROL MARK ON DUTCH CHEESE

The changeable mark is the mark which is adapted to indicate the factory which has made the cheese. The standard mark is a C inside V surrounded by the words "Ryks Controle" in dots. The changeable mark consists of two letters and a figure in dots, all inside a rectangle, and outside that three straight lines in positions varying according to a code.

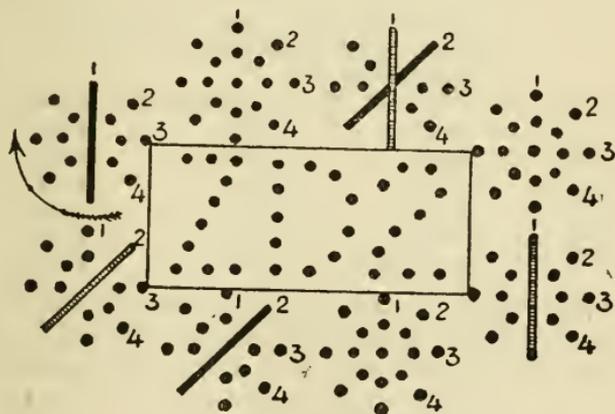
**How the System Works.**—Assuming now that the standard mark reproduced above is on the cheese, so show-

ing it to be a—big or a little—genuine Gouda, we have to take account of the changeable mark of the factory which made it. If it is factory No. 1's or factory No. 2's produce, it will bear one of the following imprints:



SIGNS ON DUTCH CHEESE

The code with which to decipher either of these mysteries is as follows:



KEY TO THE SIGNS ON DUTCH CHEESE

It will be seen that the strokes on the No. 1 and No. 2 cheeses are in some of the eight possible positions shown in the code. Let us take cheese No. 1 first. You begin to count from the stroke on the left hand. At the top of the stroke is "1." Put down "1." Then follows an arrow.

The next stroke is not in the next dotted circle but in the one after, the second one. Count "o" for the blank and "2" for the stroke because it is so numbered. The three next circles are blanks. Add three "o's." Then "2" for the stroke with a "2" to it. Finally an "o" for the blank circle. And the result is

IO200020.

The reader can try the mark of cheese factory No. 2 for himself or herself and will find it comes out as

00101002.

But the letters inside the rectangles: "ZD2"? Z is the key to the name of the Control station with which the factory which made the cheese is affiliated; D reveals the month the cheese was made; 2 tells the very week. Z stands for the Zuid (South) Holland Control station, N for the Noord Holland Control station. Here are possible combinations:

ZB2	=	cheese made in the 1st week of the 1st month (January 1910) at a dairy or factory affiliated to the Zuid-Holland Control station.
Z2B	=	the 1st week of the 7th month of 1910
ZC3	=	" 2nd " " 8th " 1910
Z3C	=	" 2nd " " 8th " 1910
CZ3	=	" 2nd " " 2nd " 1911
3ZC	=	" 2nd " " 8th " 1911
C3Z	=	" 2nd " " 2nd " 1912
3CZ	=	" 2nd " " 8th " 1912

The marks are made—by means of a stamp studded with needle-points—on the crust of the cheeses immediately after they have been pressed and rounded and shortly before they are put into pickle. Keys to the codes are in the hands of those concerned in the importation of Dutch cheese, but those who find the marking of the cheeses too hard to spell out can send a copy of the marking or a thin slice from the crust of the cheese to the Government station at Leyden and a solution will be returned.

Factories may if they please put an additional mark of three groups of two dots outside the circular inscription "Ryks Controle."

## CHAPTER VII

### THROUGH THE CREAMERIES

**The Change in Cow-keeping and Cheese-making.**—The non-co-operative Royal Netherlands Dairy Company, which has factories at Sneek and Bolsward, and three other places in Friesland, is interesting not only because it works on so large a scale, but because so recently as 1882 it was the pioneer of factory cheese-making in the province. By 1889 the company was handling 50,000 gallons of milk daily during the summer. "In winter," it has been said, "these quantities used to go down to one-half and less, till the farmers, accustomed to the new conditions of business, began to change the 'calving time' of the cows. Now part of the calves are born in spring and part in autumn, instead of all in spring as the old custom was, and as a consequence the flow of milk is more regular, the maximum in summer not so high, the minimum in winter not so low as it used to be."\* A thousand of this company's cheeses used

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\* WINTER PRODUCTION OF MILK.—This was written seven or eight years ago. Nowadays, I am informed, quite nine out of every ten cows in Friesland calve in spring. In the south, in Limburg, however, I hear, "they have as many cows calve in autumn as in spring." In Messrs. Fant and Adams' book, the following interesting comparison is made between Holland and Ireland, but the Dutch should have been credited with the production not only of £82,000 worth of bacon, but of £1,300,000 worth of pork.

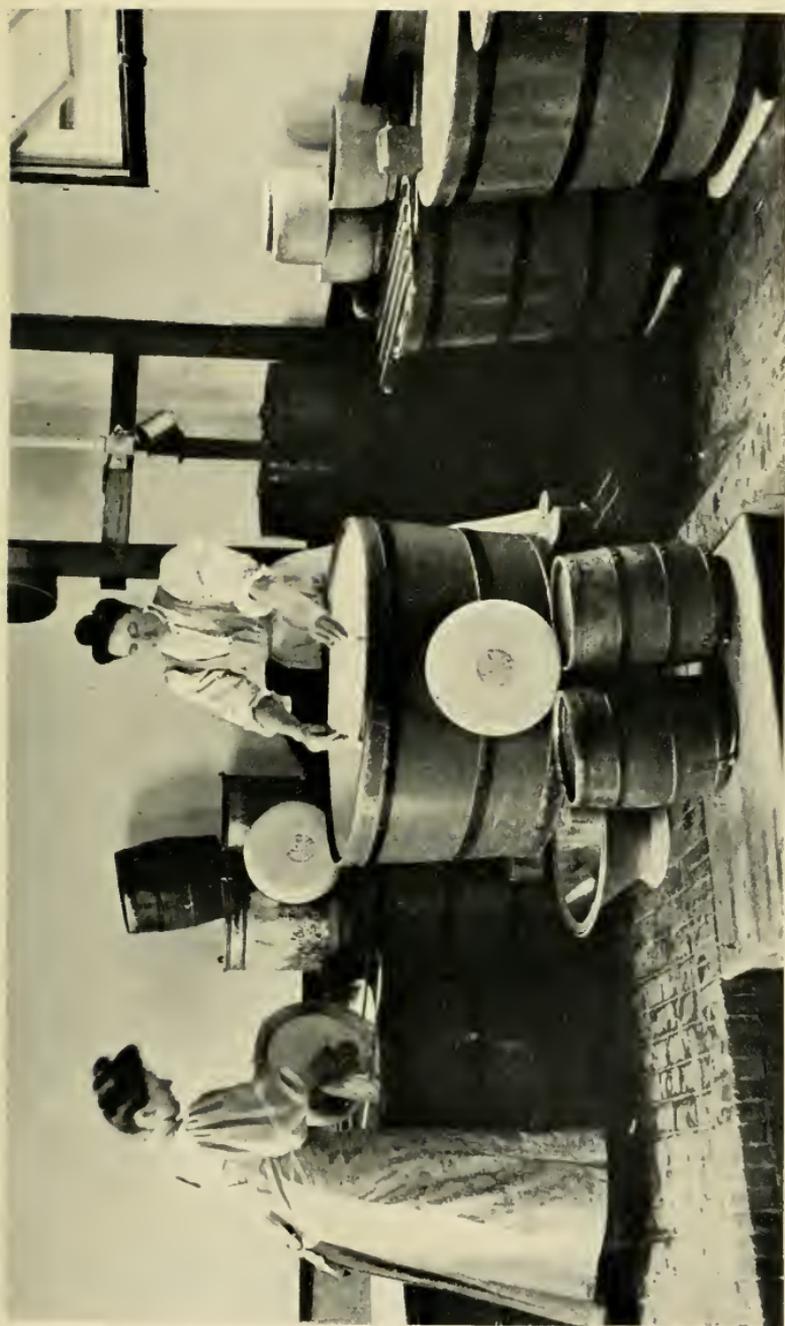
	Netherlands	Ireland
Area .. ..	12,600 sq. miles	32,524 sq. miles
Population (about) .. ..	5,000,000	4,456,546
Exports :—		
Butter .. ..	£3,100,000	£3,625,111
Cheese .. ..	2,300,000	11,443
Eggs .. ..	812,516	2,863,221
Bacon .. ..	82,000	3,562,850
Total ..	£6,294,516	£10,062,625

to be disposed of daily in London, but the bulk now goes to Belgium, Germany and France. As the manager of this big establishment says, "the differences is cheese-making twenty years ago and now are so great that an entirely new system has been evolved."

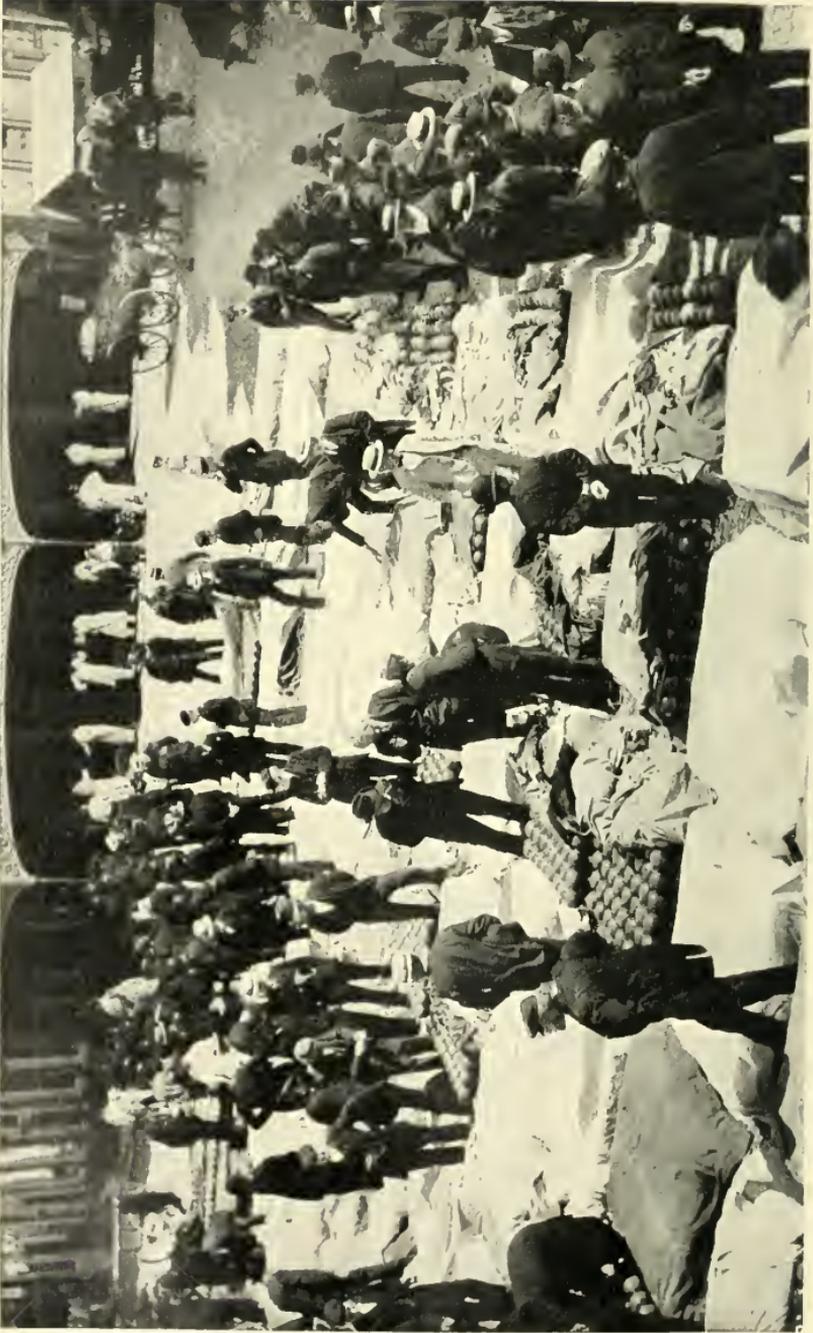
**Edam Cheese.**—Outside Friesland the cheese-making I saw was sometimes conducted in factories and was sometimes going on at farms, but wherever I happened to go, perfect skill, joined to the latest scientific knowledge and the newest apparatus seemed to be exhibited. Gouda, Edam, Cheddar and Limburger cheeses are the kinds I remember seeing made. Edam is a little town in North Holland, and Edam cheeses are cannon ball shape, and weigh some  $4\frac{1}{2}$  lbs., some 9 lbs. and some  $13\frac{1}{2}$  lbs. Originally Edam was made on the farms, and twice a day. Now it is made in the morning, or the milk is sent to the factory. (Note the saving of women's work due to the establishment of butter and cheese factories.) Most of the Edam factories are co-operative. They are of moderate size, dealing with an average of about 175,000 gallons of milk and producing about 70 tons of cheese in the twelvemonth. The farmers, when they bring their milk to the factories in the morning, get the whey from previous deliveries. As a rule, the farmer keeps the evening milk over-night, and when the small layer of cream has been taken off, sends it with the

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The authors suggest that the urban population of the Netherlands being greater than that of Ireland, the consumption of food at home must be greater, and add: "Allowing for the increased value of the cheese exported by the Netherlands, which, of course, reduces the value of butter manufactured from the same milk, we believe the higher figures in the Netherlands are to a great extent explained by the much larger winter production of milk in that country. We draw attention to the fact that the creameries throughout the entire country work at least six days every week and in most cases seven, and it was very instructive to find that even in the grass districts the winter production in the smallest month is estimated to be at least one-fourth that of the highest month in the year. In Ireland the same proportion is estimated to be from 1-25th to 1-40th. The average yield of the cows in the Netherlands is almost double that in Ireland, and this increase may to a very great extent be attributed to the work of the milk testing societies." Similar societies are to be started in Ireland.



GOUDA CHEESEMAKING



THE FAMOUS CHEESE MARKET AT ALKMAAR

Note the official carriers in the background

full morning milk to the factory.\* It takes about 50 lbs. of milk to make about  $4\frac{1}{4}$  lbs. of cheese.

**Alkmaar Cheese Market.**—A well-known sight for tourists is the cheese market at Alkmaar, the most important centre for the disposal of Edam, especially that made in factories. As much as 172 tons of cheese have been sold there in a day. A year's sales come to about 7,800 tons. (The sale begins at ten o'clock on Friday mornings.) Most Edam is disposed of at markets or fairs when it is about a fortnight or three weeks old. The small heaps in Alkmaar market place are farmers' cheeses, the big ones the factories' produce. The piles of the smallest size cannon balls are disposed of first. After sampling, the merchants quote a price per cwt. As sales are made the picturesque carriers of the Corporation—two to a stretcher—take the cheese to the official weigh-house or *Waag*. Each party of two carriers wears a differently coloured hat and takes its cheese to a particular weighbridge. After the weighing by

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\* HOW EDAM IS MADE.—Dr. van Ryn explains that the cheese made from this mixed milk is known as day cheese and contains 40 per cent. of fat in the dry matter. Sometimes the evening milk is taken directly to the factory where it is cooled overnight in running water, about 52 deg. F. The usual method of making Edam is as follows: The mixed milk is brought to the proper curdling temperature 80–84 deg. F., coloured and renneted. Before renneting, at many factories, so called slimy whey is added at the rate of nearly 3 quarts to 42 gallons of milk, and for colouring annatto is used. In the succeeding half hour, the cream is curdled and goes through the ordinary operation of cutting and mixing. A clear whey indicates a satisfactory process. After stirring for about 30 minutes, part of the whey is taken off, heated (not above 110 deg. F.) and added again to warm up the curd so that the temperature is gradually raised to 86 deg. F. The whey is then drawn off and as soon as the curd properly settles it is filled into the cheese moulds and covered over. After about one hour the cheese is turned over in the mould and left for another hour. After having been covered with a fine calico cloth it is pressed for a period of from four to six hours and then taken out of the moulds and pickled by immersing in a strong brine. The cheeses are then rubbed over with a coarse salt, say, twice a day during three to seven days according to the size and then removed to the shelves. Here they are turned every morning, and after about eight days they are soaked in clean water for about three quarters of an hour, well washed, and wiped dry. Before sending to the market, they are washed again and finely rubbed over with a little oil.

a sworn official, the carriers again take up the cheese and deliver it to the warehouses of the merchants who belong to Alkmaar and to the barges of the merchants who do not. The whole charge for carrying and weighing the cheese is a shilling a hundredweight, spot cash. The cheeses are shiny because they are rubbed with linseed oil before being brought to market.

**Gouda Cheese.**—Gouda is in South Holland. It is significant of the degree to which the making of particular kinds of cheeses has spread beyond their original districts that, in a whole page of Baedeker about the town, cheese is not even mentioned. Gouda cheese-making can be seen throughout South Holland and in Utrecht. The pink colour on the rind of Goudas is usually the work of the middleman. The (aniline) dye is supposed to make the cheeses more attractive to the English consumer—though I understood one big producer to say his chief customer was Spain. The Dutch prefer their Gouda undyed.

Unlike Edam cheese, Gouda is chiefly made at the farms. It is a full cream cheese, no cream being taken away. In summer the farmer usually has a making of cheese daily. One sees the milk in large round wooden tubs which hold about 45 gallons.\*

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\* HOW GOUDA IS MADE.—For the following details of Gouda cheese making I am also indebted to Dr. van Ryn. The fresh milk is brought to a temperature of 84 deg. to 89 deg. F., either by adding hot water, or by cooling a part of the milk as may be required. Then Vissers rennet in the proportion of 10 drs. to 20 gals. of milk, cheese colouring in the proportion of 16 grs. to 20 gals. of milk, and cheese nitre in the proportion of 5 drs. to 20 gals. are added. Half an hour after the addition of rennet the curd should be firm enough for cutting. The cutting is done with an American curd cutter, and usually occupies about half an hour. When the pieces of curd are about the size of peas and begin to shrink a little, they are allowed to settle in the whey for five minutes, and the cover is put over the tub. After this a proportion of whey is drawn off, and boiling water is added to the contents of the tub, while the curd is being vigorously stirred, until the temperature is raised to 96 deg. to 98 deg. F. The curd is now left to settle for ten minutes, after which the whey is drawn off, and the curd is kneaded and pressed with the hands and filled into moulds. The moulds are prepared for the curd by being heated in warm whey and lined with a cloth. The curd is put under gentle pressure for fifteen

**Cheese Controls.**—The Agricultural Society of Holland established in 1906 a Cheese Control at The Hague (S. Holland) and at Hoorn (N. Holland) for the protection of Gouda and Edam cheese. As is well known, quite new skim cheese may be made to counterfeit fat cheese. Half meat or half fat cheese, from which a part of the cream has been taken away, is no doubt an excellent food, but it should not be substituted for the full cream article. Therefore the cheese-makers and merchants—the producers again, it should be noted, not the Government—have started the Control stations, the guarantee of which is good for whole milk and not less than 45 per cent. of butter fat in the dry matter. A Bill in Parliament promises the same support for the Cheese Control as the *Boter Controle*.

I have already referred (page 22) to the rapidity of the development of Cheshire cheese-making in the Netherlands. By a voluntary undertaking of nearly all the Dutch makers of Cheshire, their produce is now—"very honourably," says our Cheshire Dairy Farmers' Association—marked "Dutch produce." The Association of Co-operative Creameries in Friesland has organised a system by which members are bound first, to make no cheese of the Cheddar and Cheshire shape containing less than half the fat in the milk, and

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minutes; then it is turned, and the cloth is well wrung through with warm water. It is replaced under press, and pressure is gradually put on up to 100 to 150 lbs. for 17½ lbs. of cheese, or 8 lbs. on 1 lb. of cheese. The cheese is left for twelve hours under press; then it is turned. It is replaced under press for a few hours longer to ensure a good shape. When sufficiently pressed, the cheese is removed to a celler. Here it is soaked in weak brine, at 16 deg. *Beaumé*, for one and a half days, then in somewhat stronger brine for one and a half days, and finally in a saturated brine for two days. It is now taken out of the brine, left for some days to dry, and then carried to a cheese room. A white crust, consisting mainly of salt, forms on the outside of the cheese. This is scraped off, and the cheese is rubbed every day with a wet or dry cloth. After three or four weeks, the cheese is watered (that is, put for some hours into cold well water), then rubbed with a cloth. This removes part of the salt, takes away the crust of salt, and allows of quicker ripening of the outside of the cheese. The outside of the cheese during the ripening period turns yellow. The whole ripening period extends over about five or six weeks. At the end of this time the cheese is sent to market.

second, to mark full-cream and half-cream cheeses with a different mark. With each consignment a written guarantee of the Association is also given testifying that the cheese is full-cream or that it is the other thing containing not less than 1.5 per cent. of fat. Half-meat Cheddar or Cheshire from the Netherlands contains therefore from about 13 to 20 per cent. of butter fat.\*

To return to Gouda and Edam, the Federation of Associations of Co-operative Creameries is working with the Association of Private Creamery Owners, first, to stop the making of Goudas and Edams with less than a certain minimum of fat, and, second, to have each cheese marked according to the real amount of fat in the milk from which it was made.

There can be no doubt that as a result of the establishment of the Butter and Cheese Controls, the Ministerial infliction of a heavy penalty when butter contains more than  $15\frac{1}{2}$  per cent. of water, and the action of the cheesemakers in the direction of establishing marks of quality for cheeses, the reputation of Dutch butter and cheese has been enormously enhanced.

**The Cheese-making Provinces.**—The total quantity of cheese made in the Netherlands in 1910 was 84,000 tons, of which 42,100 tons were the produce of "factories" or

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\* THE CONSUMER AND HIS CHEESE.—"The only point we have to look at from the consumer's point of view as well as that of the maker is that the article is sold for what it is, and that the man of smaller means pays according to the value he gets. On the other hand, it must not be lost sight of that the percentage of fat does not determine the market value of cheese, for there is a good deal of full cream cheese made all over the world which does not come up to a reasonable standard of quality. A well-made cheese of milk from which a small portion of cream is taken off may be better than others made with whole milk, although the finest full-cream cheese will be more delicious than the finest cheese made from milk, of which a little of the cream is taken away. This is clearly expressed in a letter from the Board of Agriculture and Fisheries recently addressed to the Lambeth Borough Council, in the following words:—'The commercial value of cheese stands in no precise relation to its alimentary value, nor, except in a very broad sense, is there any connection between its commercial value and its composition.'"—Dr. J. J. van Ryn

creameries and 41,850 tons of farms. The largest contributor to the 84,000 tons was Friesland, which made 28,875 tons in factories or creameries and only 100 tons on farms. South Holland came next with 18,720 tons made on farms and 1,634 tons in factories or creameries. Next was North Holland with 9,316 tons on farms and 9,840 tons in factories or creameries. Utrecht followed with 13,500 tons on farms and only 76 tons in factories or creameries. No other province got into four figures, but Groningen made 888 tons in factories or creameries and none on farms. Cheese-making is much more confined to certain districts than butter-making. In the eastern and southern provinces practically no cheese is made at all. For Gouda one goes to South Holland and Utrecht, for Edam to North Holland. The half-meat cheese industry is almost wholly confined to Friesland, which being the principal butter-producing province has little milk available for full-cream cheese.

Of the total weight of cheese made in the Netherlands in a year there were :

54,000 full-cream and fat Gouda and Edam ;  
 15,000 different sorts of seed-cheese ;  
 1,200 Cheddar and Cheshire ;  
 29,515 cheese from partly skimmed milk in  
 Edam and Gouda shape.

**Where the Cheese Goes.**—And this is where it went :

Great Britain ..	13,633 tons.	Belgium ..	17,313 tons.
Germany ..	12,912 „	France..	3,887 „

The export of cheese from the Netherlands to Great Britain during the last ten years has been :

1901 ..	17,959	1905 ..	12,166	1909 ..	16,034
1902 ..	16,390	1906 ..	12,839	1910 ..	13,633
1903 ..	17,200	1907 ..	13,300	1911 ..	11,566
1904 ..	13,474	1908 ..	14,567		

This is nearly all cheese of the Gouda and Edam type. The weight of cheese of Cheddar and Cheshire type which has been made for the last three or four years would not

amount to more than about 1,200 tons per annum or about 700 tons of each sort.

It is very doubtful whether many English people have the opportunity of tasting the best Dutch cheese in England. "Half-cream" cheese is unblushingly sold in London as "best Dutch." Let us hope the new arrangements which are being made will put a stop to this. As it is, the demand here for a good quality of Dutch cheese is naturally limited, and the manager of one of the biggest cheese factories in Holland told me that for cheese for which London offered him 42s. per cwt. wholesale, he got 52s. in Germany.

**And the Butter.**—Most of the Dutch butter no longer comes to us. In 1902 we had 14,700 tons out of the 22,869 tons exported, and only 4,731 tons went to Germany and 2,153 tons to Belgium. In 1910, when 32,809 tons were exported, 16,836 tons went to Germany, only 8,288 tons came to us, and Belgium's supply had risen to 6,271 tons. The destination of the butter is regulated by net prices. The average in 1909 was £3 9s. 3d. per cwt.

## CHAPTER VIII

### COW KEEPING AS A FINE ART

Their cattle grazing on the bottom of the sea are the finest in Europe, their agricultural produce of more exchangeable value than if Nature had made their land to overflow with wine and oil.—*Motley*

**Cattle Breeding v. Cattle Keeping.**—The proportion of cows to the acre in the Netherlands is certainly large;\* but the absence of hedges in most districts, the clear atmosphere that is so characteristic of the Dutch landscape, and the well-defined marking of the animals does not make their number appear any less than it is. What rich grass they stand among in the best districts! And a Dutch farmer might rejoin, what an unconscionable weight of manure and what labour it took to grow it! One constantly sees liquid manure carts supplementing the droppings of the cows, or "good short stuff" being pitched from the light dung waggons. There are parts of North Holland where, during the summer, a man may cut his meadow for green feed, then mow it for hay and finally eat it off.

An interesting document I brought away from Holland some years ago was a specimen certificate testifying to a cow's immunity from tuberculosis. The paper, which showed that she was in the national Stamboek (*i.e.*, stem book—compare the line of the old hymn, "Of Jesse's stem the rod") was full of figures testifying to the thorough nature of the test, and in order that there should be no chance of the certificate being appropriated by some other animal, her photograph was pasted on it.

The efforts which are being made in Holland to convert

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\* See page 160.

cattle keepers into cattle breeders, to use the phrase of the active and devoted manager of the Netherlands Herdbook Society, are remarkable, and I propose to give some account of what is being done in the direction of producing pedigree cattle, deep milking cattle and healthy cattle.

**The Three Breeds.**—There are in the country three official breeds of cattle:

1. The black and white Frisian-Holland
2. The black white-headed Groningen
3. The red and white Meuse-Rhine-IJssel

The black and white Frisian-Holland breed, in its ideal representatives, has two white belts round the body, thus dividing it into three well-defined black fields. It is chiefly found in Friesland and North and South Holland, but it is to be seen all over the country. In Friesland it is called the Frisian breed. As, however, the province has a Herdbook of its own, and Friesland is therefore outside the sphere of operations of the Netherlands Herdbook, the real name, Frisian-Holland, is curtailed outside Friesland to Holland.

The second black and white breed, the Groningen (or Hunsingo), has a white head and a black trunk with white below.

The third breed, the red and white Meuse-Rhine IJssel, should be of a "fiery redness."

The Groningen originated in the province of that name; but a well-known breeding district is near Leyden, in South Holland.

The red and white variety is principally bred, as its geographical name indicates, "from the river IJssel in Gelderland and Overijssel and Limburg to the Meuse."\*

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\* THE THREE DUTCH BREEDS.—I. APPEARANCE.—With the *black and white Frisian-Holland* cattle, black predominates. The most typical and sought after disposition of the colours is for two white belts, one behind the shoulder and the other in the region of the hips to divide the body into three black well-defined fields, viz., forehand, back and loins and hindquarters, the belly being white and the legs black above the knees and hocks. The black head shows a white spot on the



BLACK AND WHITE HOLLAND BREED



COW OF THE SAME BREED



BLACK AND WHITE GRONINGEN BREED



RED AND WHITE MEUSE-RHINE-IJSEL BREED

The black and white Frisian-Holland breed is in the first rank for milk production—13,200 lbs. of milk are frequently produced in a year—but it has small aptitude for accumulating flesh and fat. The Groningen ordinarily gives less milk, but can be fattened more easily. The red and white Meuse-Rhine-IJssel is in its qualities half way between the two.

It has been said of the black and white Frisian-Holland from which so much of the butter and cheese of the Nether-

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forehead, whilst the blaze frequently occurs. The entire muzzle is generally slate-coloured. The cows are particularly conspicuous for their broad rumps, affording room for a big square udder. Height, 1.30 to 1.42 metres; weight, 560 to 750 kilos. (Grayish rings marking the transition from black to white, the occurrence of grayish spots on the coronet, hoofs and scrotum, and a yellow spot above the muzzle, though unpopular, are not necessarily a proof of impurity of breed. In some parts of the province of North Holland, the white colour predominates, which when the body with the exception of belly and legs is entirely dotted with small black spots, gives existence to the so-called brindled breed. Beside the black and white colour, the red and white is pretty frequently met with, especially in the province of Friesland. On the whole the red and white colour is on the decrease with dairy cattle, so that now only the black and white representatives of this group are entered into the Netherland Herdbook with a view to the attainment of uniformity of colour.)

See also description in Frisian Herdbook, page 65.

With the *Groningen black whiteheads* the trunk is black, the underline and lower chest being white. The head is either entirely white or shows a black field around the eyes, which field is either detached from or passes into the black neck. The muzzle is generally slate-coloured; the legs are black half way below the knees and hocks or which is preferred down to the pastern (white socks). The posterior part of the udder is black-bordered, being also black at the sides where it meets the floor of the abdomen, but otherwise white. The cod (scrotum) should be black. The cow's trunk is beef type. The body is straight in its lines. The horns, unlike those of the Holland, are nearly always properly set. (Not infrequently we meet with black and white legs, white spots on the shoulder, rump and neck as well as black spots on the crown of the hoof and a white scrotum. These deviations are not desirable but they do not necessarily prove impurity of breed. Entirely white heads are still of frequent occurrence, but they are not in demand as the pure whiteheads are more subject to ophthalmia.)

The *red and white Meuse-Rhine-IJssel* breed is red or red and white, a deep red for preference bordering on auburn, particularly on head

lands is produced, that "it derives from its long and straight back, from its slim, finely furrowed neck, its conspicuous large eyes, and its clean cut face, an elegance and nobility which distinguish it from all other dairy breeds of equal mass."

Something has been done of late years to improve the milk yield of the Groningen, but this has been effected at the expense of its beef-producing powers. The Meuse-Rhine-IJssel is the smallest of the three breeds, but relative to size

and neck, often attended with a scattering of small dark spots the so-called "fiery-red." The light yellow-red colour is disapproved of. The muzzle is generally mottled or entirely flesh-coloured; a small white spot on the forehead is only very rarely met with, but a large blaze on the contrary frequently occurs, especially with the cattle in the so-called "Land van Kuik" in the vicinity of the city of Nymegen. (Some few specimens have white heads and for the rest a colour that reminds one of the roan of English Shorthorns. Undesired are red and white legs, red spots above and about the hoofs as well as a red or mottled scrotum. With these breeds the detached spots on the crown, between the hoofs are particularly disapproved of.)

### 2. Milk v. Beef

Breed	Flesh and Fat production		Milk production
Frisian-Holland ..	..	40	60
Groningen ..	..	60	40
Meuse-Rhine-IJssel	..	50	50

### 3. Sizes

The dimensions of the best and second best full-grown cows and of two year old bulls, reared on clay land, average in centimetres :

Breed and Sex	Length of trunk	Height at shoulders	Height of rump	Depth of breast	Width of breast	Width between hookbones (hips)	Width of pelvis	Length of Group
Frisian-Holland (Cows) ..	168	135.7	138.5	72.9	44.9	56.4	51.3	54.3
" " (Bulls) ..	172.4	142.2	144	75.8	49	54.5	53.4	56.1
Groningen (Cows) ..	165.4	133	135.9	72.2	45.7	56.2	52	54.
" (Bulls) ..	170.8	140.5	142.9	75.5	50	55.7	54.3	56.2
Meuse-Rhine-IJssel (Cows)	163.7	127.8	130.1	70.2	44.3	54.1	48.7	52.1
" " (Bulls)	165.3	134	136.1	72	47.1	52.7	51.7	54.

See also measurements from Frisian Herdbook, page 66.

is the heaviest. The pastures in its districts are much less rich than the meadows of Friesland and North and South Holland, and the animals have a special value on light soil or where cattle have to be kept and fed under cover.

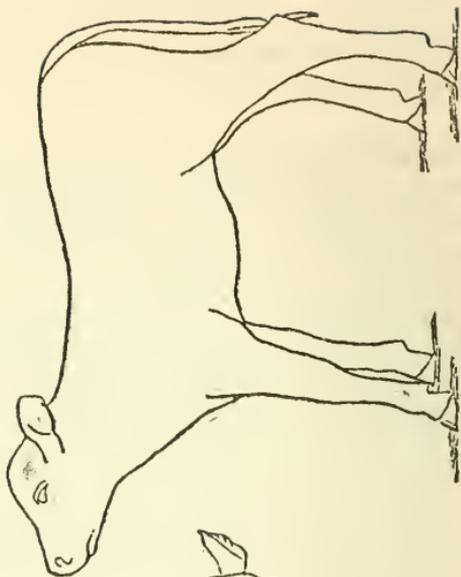
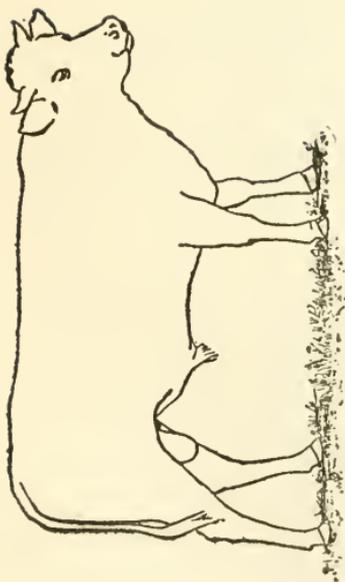
**Cattle Portraiture.**—Before the re-organisation of the Netherlands Herdbook Association in 1907, the Herdbook was little more than a cattle merchants' directory. It now aims at the improvement of the three breeds by breeding according to type. There are genuine red and white Frisian-Hollands as well as black and white Frisian-Hollands; there are red whitehead Groningens as well as black whitehead Groningens, but the first-named variations cannot now enter the Herdbook.

All over the country there are local breeders' societies which act in a measure as local Herdbook associations. They are less exacting in their requirements than the central society. They admit cattle which come up to an average local standard of perfection, but they serve as an excellent winnowing ground from which admission is obtained into the Register of the national society.

It is necessary to distinguish between the Register and the Herdbook of the Netherland Herdbook Society. I shall speak first of the Register. An animal to qualify for the Register must "come up to the real type" and a specified standard of excellence in form and in apparent specialisation for beef or milk production. It is possible for it to be registered if its ancestors are unknown, provided that it is a typical animal.

I have before me a pile of the forms used by the Society. They are of a most elaborate character, but one thing they have in common: each contains a diagrammatic outline of a cow or a bull, as the case may be, right side and left side, as reproduced below. The owner of the animal in regard to which an application is made and the official who inspects the beast are required to make a little picture of it with the assistance of this outline. Happily, the marking of Dutch cattle is so simple that all that is wanted is the putting of patches of ink on various parts within the outlines. Needless to say, this pictorial description of the

OUTLINES ON WHICH THE MARKINGS (1)  
OF A BULL; (2) OF CALVES ARE INKED  
IN FOR THE NETHERLANDS HERDBOOK  
SOCIETY



cattle must be of great assistance in the future in identifying particular bulls or cows. The accumulated sketches also supply interesting data from which hereditary qualities may be deduced.

In 1910, some 3,406 cows were offered for the Register, but only 1,205 were accepted. Of 716 bulls offered, only 235 were registered. In the case of heifers admitted to the Register by inspection, they may after the birth of their first calf prove worthy of entrance to the Herdbook. The promotion of bulls from the Register to the Herdbook depends upon the quality of their progeny.

**The Herdbook.**—Descendants of registered animals may produce offspring suitable for entering in the Herdbook proper. When a registered cow is served by an inscribed bull the owner of the cow must send in a certificate to the Society. There it is seen that the number and name of the cow are in order, that the same is the case in regard to the bull, that the cow is registered as in the possession of the person sending the certificate, and the bull as in the possession of the person countersigning it. When the calf is born the organisation by which the Society makes certain that the newly-born animal is actually the offspring of the indicated dam is set to work. Unless the forms containing the required particulars about the newly-born calf are filed within 72 hours of the birth they are not accepted. Incidentally, of course, there is the making of a portrait.

In a country like the Netherlands where members of a local society live close to one another a rigid control may always be enforced without difficulty. The national society has been able to enforce a closer control than that instituted by the local societies. In connection with the registration of adult animals there are the rigid examinations already referred to. In the case of cows, the exact weight of milk is obtained by the regular visits of the local controller.

Bulls and cows in the Register or the Herdbook have their numbers—R 2746 or S 139 for instance—burnt on their horns.

**Annals of Blue-blooded Cattle.**—In addition to the Register and the Herdbook—in which animals of “controlled pedigree” are alone admitted—there is a new book in which the pick of the pedigree cattle within the sphere of influence of the Netherlands Herdbook Society is being entered. There is a considerable fee for entrance into this book of blue blood; animals must gain almost the maximum points on inspection; cows must have proved themselves good breeders and good milkers; and bulls must have a record of at least eight offspring of merit.

As each of the three breeds requires a register, a herdbook and a picked book, and the cows and the bulls are given a volume apiece, the genealogical volumes of the Netherlands Herdbook Society number eighteen.

Authority is given to the operations of the Society by a subsidy of £1,250 from the Government, without whose permission, by the way, the manager and the inspector-general may not be removed from office.

**The Human Factor.**—How has the Society been able to carry through so successfully a task which touches so many sensibilities and makes a demand on the public spirit of all concerned? Because the farmers had some appreciation and experience of the co-operative principle. As an official pamphlet says:

It would have been a matter of great difficulty to centralise the technical part of the system, if there had not already been private local breeders' societies, societies for the controlling and inspecting of milk and syndicates for the improving of the breed, arrived at a pretty high degree of development. Very little attention would have been given to the principles of straight-breeding, if the breeders themselves had not been convinced that the only manner of improving their stock must be sought in the strength derived from co-operation. What advantage would have been gained by keeping first-class sires if cattle-owners lacked the ambition to co-operate? What would have been the benefit of controlling the milk-yield as is required by the rules of the central institution, if the local breeders had been averse to the idea of bearing the expenses in common for effecting such control? In short, what would have been the result of the earnest desire of the Netherland Herdbook Association to improve the stock, if the small breeders—their number being largest—had been averse to the idea of co-operation?

I was struck in North Holland by the type of peasant

who is doing excellent work in the cause of the black and white breed. As someone said to me, "By educated influence quite ordinary people have been got to use improved methods." I happened to find the milk controller visiting one farm. He was a local farmer retired on his means. Sometimes a controller may be an insurance agent. (The remuneration of a controller, I found when I inquired in a particular case, was 15s. a week.) The record on the farm referred to for 1910 was given to me as: 15 cows; average age, 6.6 years; average milking days, 303; average yield, 4,640 kilos; average fat, 3.13; average receipts per cow, over £24. I discovered local societies giving more than £200 for a good bull.

As for the demand for Dutch cattle from abroad, I was told at the offices of the Herdbook that the countries buying them were, in order of demand, something like this: Italy, Spain, France, Sweden, South Africa, Japan, South America, Russia, Austria, and Norway.

I was also informed in regard to yield, that people had begun to see that we must have first the cow and then the yield. Experts did not care for over 3.50 butter fat. More was to be thought of constitution than had been customary in the past.

**The Frisian Herdbook.**—The headquarters of the Nederlandsche Rundvee Stamboek at The Hague, dignified though they are, are not finer than the offices of the Frisian Herdbook at the Landbouwhuis in Leeuwarden, nor is the system on which cattle are selected as vessels of honour under the auspices of the Frisian Herdbook less elaborate and ingenious. Up in the greatest of the dairying provinces, Friesland, we may look a little more closely, therefore, into what the best kind of Dutch cow can do in the way of milk production.

The Frisian Herdbook is a record, in two separate sets of books, of the choicest red and white Frisian (*see* footnote, p. 58) as well as the better known and more widely esteemed black and white Frisian.\*

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\* DESCRIPTION OF FRISIAN COW.—A soft skin, big eyes, head black with small blaze, the crown not too wide, horns not coarse and bent to

Preliminary examinations of bulls take place at 115 places in Friesland every year. The best animals are afterwards examined at 19 centres. Grants of about 3, 6 and 8 guineas respectively are obtainable for keeping yearling, two-year-old and three-year-old bulls. Bull associations and breeding associations may earn grants up to about 16 guineas.

**Dairy Farming Methods in Friesland.**—The cattle are chiefly on the sea clay and low fen permanent pastures, of which two-thirds of Friesland consists. The province, which is in about the latitude of Lincolnshire, cannot always rely upon its grass, for there are the night frosts in late spring, there is sometimes drought in July, and there is usually a good deal of wet in the late autumn.

the front with a small cavity between the orbits, nostrils wide and open. The neck rather thin then fleshy, widening itself with a smooth bend towards the chest. The chest must be well-developed so that the distance between the front legs is at least 8 inches. The back forms a straight line from shoulder to tail head. The fairly broad rump and the shoulder join without making a corner. The ribs are long and smoothly bent, the loins join horizontal with the tops of the rump, the flanks are not big and fairly closed. Seen from behind a strong square hindquarter is shown. The thighs are fleshy and run in a straight line towards the Achilles tendon. The heels, slightly bent, are strong and elastic like the the shanks. The tail is long. The udder, which is extremely well-developed, is joined with a smooth bend to the belly, the teats are well-developed but not too long. The milk-vein, strongly swollen and very winding, runs well forward along the belly. The hair-marks must be : blaze on the forehead, dark speckled over the body with sharp lines between black and white without ground colour ; four white legs.

The weight of the calf when born is about 90 pounds, and is :

	For cows	For bulls
At 1 year .. .. .	660 lb.	770 lb.
At 2 years .. .. .	990 "	1,430 "
At 3 years .. .. .	1,320 "	1,760 "
At 4-5 years .. .. .	1,430 "	2,000 "

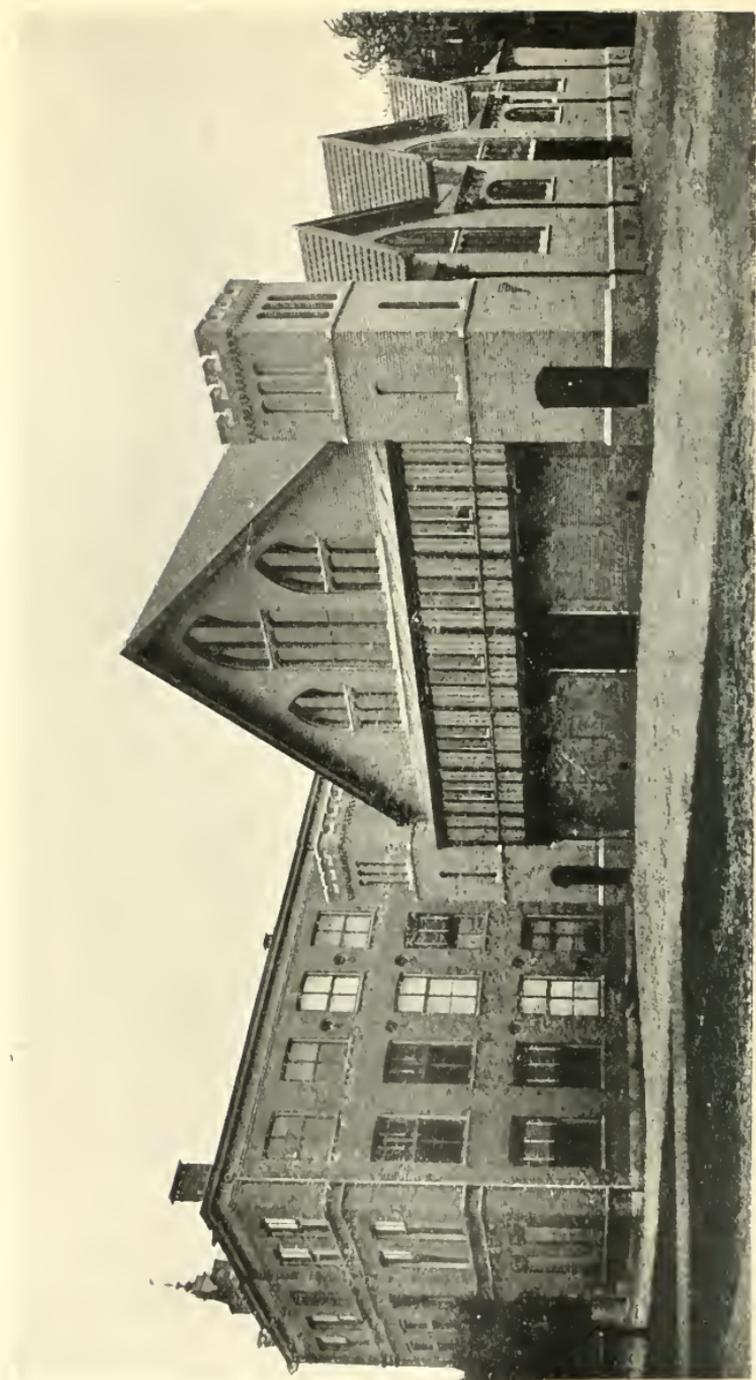
These figures relate to animals in good breeding condition, therefore not too fat. The measurements on the Lydthin system. The measures for average herdbook cattle are for cows :

Length of trunk ..	155 Cm.		Width of chest ..	45 Cm.
Height of shoulders	134 "		" hips ..	54 "
" rump ..	137 "		" pelvis..	49 "
Depth of chest ..	70 "		Length of rump..	52 "

Depth of chest (in per cent. of height of shoulders : 100) 53.7 per



MEUSE-RHINE-IJSEL BREED



STATE VETERINARY SCHOOL AT UTRECHT

It was formerly a barracks

The average dairy farm is about 90 acres in extent, ditches dividing it into strips of from  $2\frac{1}{2}$  to 10 acres. Sometimes the water—most of the province is below sea level—is got rid of by a windmill on the farm; sometimes there is a steam pump for the farms of the polder or waterschap.\*

Usually the farmhouses are under the same roof as the cowhouse and hay barn. The dwelling house is in front the cowsheds along one of the sides and it may be along the back part of the building. All the rest of the structure, including of course the roof, is used for storing hay. Formerly the cows were two by two in a stall—the partitions being about a yard high—and with their heads to the wall. In the modern farmhouses each cow has a stall to itself, and there is a concrete manure channel.

Most of the farms of the province are worked by tenants, "a fact," said a Frisian to me, "to be considered as a real drawback to Friesland."

The cattle are turned out at the beginning of May, or even earlier if hay is scarce. Ordinarily, two-thirds of the grass land is hayed and a third grazed. The weather does not often permit of a second hay crop on the clay. As soon as the hay is got off—by the end of June or the beginning of July—several pieces of the grass land are dunged. In the autumn the ditches are carefully cleaned, and if there is a second crop of grass, part of it is siloed. The cattle come in at the end of October or the beginning of November.

This is a simple kind of farming which gives the farmer plenty of time to look after his cattle; and, with few exceptions in Friesland, he does his work in the best possible way. As on an average a man will not have more than 30 cows, besides young stock, he is in a position to know his animals. This is a great asset of Friesland dairy keeping

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cent. Width of chest (in per cent. of depth of chest: 100) 60.3 per cent. Width of pelvis (in per cent. of width of hips: 100) 91.1 per cent.

The two colours black and white and red and white speckled are strictly separated in the books and mixed colours cannot be registered. No requirements are fixed with relation to the productive power, but those owners who wish figures about milk and butter yield to be recorded in the Herdbook are put under stringent control by the Council of the Herdbook. This is done by nearly all the members.

\* See Chapter XV.

and cattle breeding. As a rule the farmer does part of the milking himself, and usually he does his own feeding.

**Milk Yields.**—As to milk yields, the average in the best herds is given as 860 gallons and over, when all animals, including those which have calved for the first time, are included. On the best soils an average below 645 gallons is not found, but on the sandy soil, of which there is some in the South and East of the province, there may be a lower yield. Cows have given as much as 1,300 and 2,150 gallons. The success of the Friesland cow at the Chicago and St. Louis Exhibitions will be remembered. The average amount of fat has risen in herds in Friesland under scientific breeding within as short a period as five years. Where the co-operative creameries do not pay according to the amount of fat in the milk or the co-operative control of milk yields has only been introduced recently, the amount of fat is about 3 per cent. ; but in the case of herds where analysis has gone on for some time the average amount of fat is said to be about 1.02 higher.

As to the treatment of the young calf, after a fortnight or three weeks the full milk is gradually replaced by buttermilk or by skim milk. After a month or five weeks, buttermilk or skim milk is given exclusively, sometimes with a little linseed meal. The calf now gets out of doors—it is about the middle of May—and in addition to the natural grass, receives whey and butter, skim or full milk as may be possible. When ewe milk is available this is given to the calves, as a rule with a little meal. The young stock goes into the cow houses with the older animals in the autumn and lives nearly all the winter on hay. Heifers calve at two years. Great pains are taken to get the cows dry at each milking, and in order to ensure quiet milking the hind legs are tied together while the milk is being drawn. After calving, cows get from 2 to 9 lb. of feeding stuffs in addition to hay. Most farmers are firm believers in linseed cake. Mangels and sugar pulp are supplied in the districts where there is general farming. In those districts the cows are sold off at four or five years to the other side of the Zuider Zee, or to Belgium, France or Spain.

In the purely grazing districts the animals are retained until between five and seven years old. On dairy farms older cows are sometimes found. Young breeding stock is sold to some 17 different countries.

**A Well-known Farm.**—Everyone who visits Friesland goes to see Mr. K. N. Kuperus at Marssum. The firm is now Kuperus and Sons. The 110 acres of the farm, heavy clay, are all under grass. In the summer there are about 34 milch cows, ten yearling heifers, two service bulls, and two dozen calves, all Herdbook cattle, besides about a score of Frisian pedigree sheep and lambs and three horses. It was on this farm that I was once struck by the size of the udder of a milk sheep, an animal which I have ventured to suggest more than once might have a useful part to play in our own rural districts.\* The original Frisian sheep has now almost entirely disappeared owing to crossing with English rams, mainly Lincolns and Cotswolds.

The milk of Messrs. Kuperus's cows has been weighed and tested for butter fat by a milk controller, morning and evening, once a fortnight since 1897. It is all sent to a co-operative creamery and is paid for according to the percentage of butter fat. The Kuperuses get back from the creamery 70 per cent. of whey and 12 per cent. of butter-milk, and they also buy some extra buttermilk.

The milk controller mentioned is, of course, the local society's official, who is in turn controlled by the head controller of the Frisian Herdbook. In 1897 the herd at Marssum averaged 3.15 per cent. of fat, but there were then in the herd 11 cows yielding less than 3 per cent. By selling these and breeding from the better ones the yield was brought up to the average of 3.52. The percentage has now fallen owing to the firm having been tempted by offers from foreign buyers, and having been unable to obtain by purchase from other farmers, animals with the highest butter fat yield. The records of six of the Kuperus cows are as follows:

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\* See "The Keeping of Sheep for Milk" in my book, "The Case for the Goat." (Routledge.)

Name of Cow	Milk Lb.	Fat per cent.	Butter Lb.	Days milked
Grietje .. ..	14,407	3.47 per cent.	541	300
Jantje .. ..	16,557	3.21 ..	574	300
Roeltje .. ..	14,902	3.80 ..	616	317
Pel XX. .. ..	14,579	3.50 ..	554	300
Tietje IV. .. ..	14,198	3.41 ..	523	318
Maryke .. ..	18,106	3.00 ..	583	329

These cows had no other feed in the summer but good pasturage. When they were taken indoors they had plenty of hay from early-mown grass, early-mown grass ensilage and  $4\frac{1}{2}$  lb. of linseed cake and  $2\frac{1}{4}$  lb. of earthnut cake daily until they were dried off about two months before calving. The milking hours at Marssum are between four and six in the morning and the same time in the evening.

It was a pleasure to meet Mr. Kuperus. He stands six feet or more, and although his hair is grizzled, he is as straight as a grenadier. He wore the plain collarless black coat of the peasant, and carried all his exhibition honours with great simplicity. His parlour is full of show certificates from all over the world, and there is a case containing a large number of medals. He answered my questions most readily, and when I had signed my name in his visitors' book, he showed me an album in which he had pasted the envelopes and stamps, letter headings, and cards of correspondence of visitors from every corner of the world, from Japan to Scotland and Chili to Australia. It had been pleasant work for the winter evenings, he said. Another Frisian cattle breeder, who is reputed to be the richest agriculturist in Holland, received us, like Mr. Kuperus, in *klompen*. By the way, I do not think I have mentioned that Mr. Kuperus's cow, which beat 74 other animals belonging to four different breeds at St. Louis, produced 330 lb. of butter (282 lb. of butter fat) in 120 days.

**Control Societies.**—It will surprise some readers to learn that in the province of Friesland there are as many as

98 control societies, and that milk records are kept in the case of about 50,000 cows, or nearly a third of the milch cows in Friesland. What particularly stimulated the formation of control societies was the publication of the results of a systematic investigation of the milk and butter yield of two Frisian herds. It is worth mentioning that not one of the control societies has failed to make its way, although the cost of maintaining a society of 14 or 15 members is about £1 a week. These societies get no subsidy.

The controller's calculation of the quantity of milk given by a cow during the period of lactation is made by multiplying the quantity of milk weighed on control days by the number of days intervening. The milk given on calving day and for three subsequent days, and the milk which might have been obtained between the last control day and the actual day of drying off, are not reckoned. In calculating butter yield it is assumed that 10.2 per cent. of butter fat is left in the buttermilk, and that the quantity of butter is 1.15 times the quantity of fat in the cream.

**Food and Soil.**—The Frisian farmers have realised that the weight of milk and the proportion of butter fat in it do not depend in the first instance on food or soil, but that the power of a cow to give, in favourable circumstances, more and better milk than other cows of the same herd is hereditary. The investigations made in the province have brought forward no evidence of a more or less regular decrease in supply as a cow gets older, and the opinion of some practical men that young cows give milk with more fat than old cows is not sustained. As the average milk yield of a cow may fluctuate through natural causes, the figures indicating the percentage of fat in the milk are regarded as a much better indication of the value of an animal.

**Rewards of Successful Breeders.**—Mr. Mesdag, the dairy instructor of Friesland, gave the English dairy farmers who visited Holland in 1911 some interesting data, which will be found in the "Journal" of the British Dairy Farmers' Association. They bring out clearly the favourable

influence of bulls which are the sons of good milking mothers. One, Cæsar, whose dam averaged 3.77 of butter fat over a five years period, is the sire of four cows which, over a similar period, averaged 3.89, 3.69, 3.76, and 3.68, respectively. The results in the case of two cows of another herd are equally interesting. The animals were born on the same day; they had the same amount of food on the same soil, had the same health; and they gave about the same quantity of milk; but, owing to the possession of a rich milking paternal grandmother, one cow produced nearly 85 lb. more butter fat than the other.

Some striking figures have been published by the managers of creameries who could not but be impressed by the difference in the butter fat in the milk brought by farmers whose herds were controlled, compared with the milk brought by others who did not receive the visits of that dapper controller, who, as he cycles along carrying his little black bag, is such a well-known figure in the rural districts of Holland. One creamery paid in a twelve-month, on an average, £184 per 11,111 gallons of milk. While one member, whose cows were not controlled, received £16 less than the average, the owner of a controlled herd obtained 10 guineas more than the average!

Yet another case: a farmer whose cows were controlled, obtained in 1909 about 1,320 lb. more butter than in 1901 under similar conditions when his herd was not controlled.

Needless to say, those who are counselling the Frisian farmers in the matter of butter fat production obey the Arnoldian injunction to "nurse no extravagant hope." "Each breeder," says Mr. Mesdag, "is not bound to obtain the best results by keeping proper records. Not everyone is equally fortunate, and not all descendants of cattle with high productive power will answer expectations. It is evident, however, that breeding in the direction of productiveness increases the chance of better productive capacity, provided, however, that it is kept in mind that only a strongly-built cow can answer our expectations, and that the young animals are treated with skill in order to do justice to their hereditary properties."



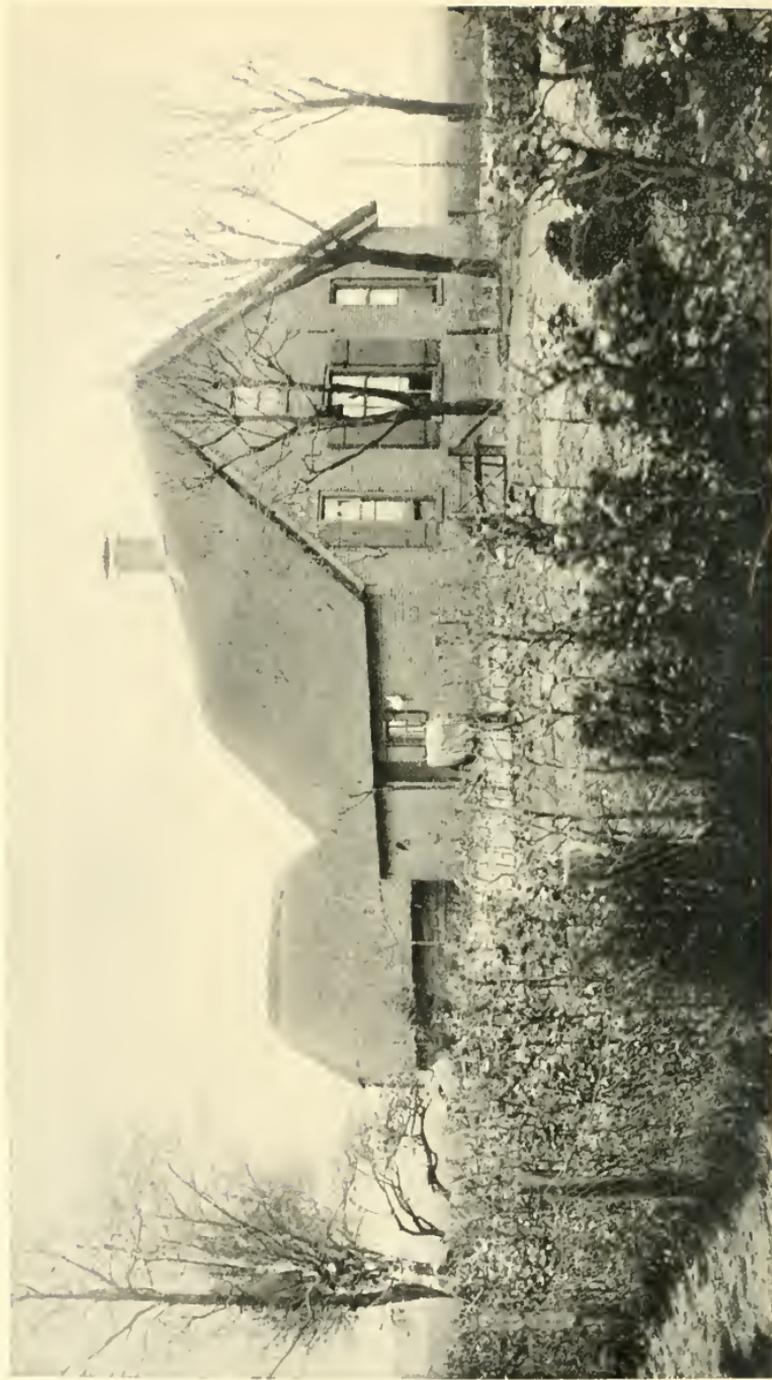
### PEASANTS IN TWENTE, IN OVERIJSSEL

In this house there also live two sons and their families, as is the custom in this district



### STAFF AT A MODEL MILK FARM

“Het Huis ter Aa” is one of the show places of Holland



A COTTAGE ON THE SAND

I inquired in Friesland about the prevalence of tuberculosis, and was assured that "there would come a time when all cows would be tested." At present, I understood someone to say, 10 per cent. of the calves would react and 25 per cent. of the whole herds. It was not feasible, of course, to kill off the affected animals, but there was no reason why the farmers should not separate them from the others.

## CHAPTER IX

### HOW WE STAND IN GREAT BRITAIN

**The English Plan and the Dutch.**—At this point the general reader naturally asks: What work is being done on the same lines in Great Britain? Are we ahead or behind?

Take shorthorns, which the public so generally identifies with milk production. They have been bred in England since 1780, and the 58th volume of Coates's Herdbook is in preparation. In this Herdbook there are registered animals that can show as many as twenty-two generations of breeding.

Any bull may be entered in the English Herdbook provided he has five registered shorthorn crosses, the original dam being herself a shorthorn cow. Females are not eligible for entry, except as produce, until they have produced a live calf. Four pure crosses are required. There is, of course, no inspection or standard of merit required by the Shorthorn Society before entry in Coates's Herdbook. In the Netherlands Herdbook one pure cross is sufficient for entry provided that the dam is entered in the local Register. The great difference between the Dutch and English plan is that no animal is allowed in the local Register or the Netherlands Herdbook Society Register for young cattle or in its Herdbook unless it has been passed by an inspector and has gained the necessary number of points.

Pedigree *dairy* shorthorns are now well to the front in England. During the present year the Shorthorn Society is offering prizes at thirty shows for pedigree shorthorn dairy cows, and the prizes can only be won after a stipulated quantity of milk has been produced in the ring. The Dairy

Shorthorn Association is giving £120 yearly in prizes. This useful Association was started in 1905, and has about 200 members. It has lately appointed an inspector to go round and verify the milk records of members who wish to publish their figures in the Association's journal. Hitherto, in this country, breeders' records have been published on honour. In the Netherlands, as we have seen, this stage has been passed.

**Where We are Behind.**—We are also a long way behind in regard to the number of breeders publishing records. Only two dozen members of the Dairy Shorthorn Association are publishing records in the 1911 volume of the organisation. Of course there are the Ayrshire and Jersey breeders to be taken account of, but when all the records published in a year in Great Britain are added together the total falls far behind that of a country very much smaller than ours.

Undoubtedly we have something to learn from the devotion of the Dutch farmers to record making and the testing of milk for butter fat. On the other hand, it is to be borne in mind that a very large proportion indeed of our milk is not made into butter but is sold as milk,\* and that so long as the public is so ill-informed as to pay the same price for milk whatever its quality, our farmers cannot be expected to spend money on increasing the proportion of butter fat.

With regard to the bull associations which are so numerous in Holland, it is to be remembered that Holland is a country of small farmers. In England a man has not to be a farmer in a very big way before he keeps his own bull, and our large farmers, of course, keep more than one.

Some of these bulls on our English farms are possibly good enough animals for the purpose for which they are kept. Some are not. Many of our farmers admittedly set store by cattle which will fetch a good price from the butcher as well as produce a reasonable amount of milk, so bulls of good milking strains exclusively are not in

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\* Milk now reaches London from the Midlands,

general request. Beef and milk production cannot be obtained in the same animal, however, beyond a certain point, and no doubt much more might be done in this country in the direction of breeding for milk by using general purpose bulls from good milking mothers. As I write I find Mr. Runciman saying that "the premium stallion had been justified and the same necessity existed for premium bulls. It was the intention of the Board of Agriculture to devote a large sum to the encouragement of premium bulls, which would be well distributed over the country."

**English Milk Yields.**—There is some doubt as to the average annual yield of the average farm cow in Great Britain. One authority put it to me at from 400 to 500 gallons; another at about 4,500 lb. As a farming paper said the other day, one needs to be sure whether estimates are in respect of all the cows in the country or of dairy cows. Turning to what cows bred for milk can do, the Kelmscott herd—more than 200 cows are milked—has averaged, for the last two years, about 6,400 lb. Again, when I last saw Mr. Evens, the average of his Lincolnshire Reds was 802 gallons for 48 cows; the previous year it had been 816 gallons for 54 cows. In fifteen years the record had never fallen below 720 gallons. His champion cow gave one year 11,227 lb., or 39 lb. per day. His last year's figures were 854 gallons for 51 cows. Fourteen of the animals gave over 1,000 gallons. At Kelmscott one cow gave 13,903 lb. in a year, that is six and a half tons. At a show this animal once yielded more than 72 lb. in twenty-four hours. Everybody has heard, of course, of what Dr. Watney's and Lord Rothschild's Jerseys have done.

**Development Fund Grant.**—In comparing yields, we have plainly to bear in mind the number of days in milk. The example the Dutch farmers set in arranging for winter calving is excellent. As has been repeatedly shown in Holland and this country, the winter calving cow is longer in milk than the late calver. There is, no doubt, a difficulty

in organising milk records in England owing to the fact that, except in special districts, milk production is not the first object of the farmer. In Scotland, as the work of the late Mr. Speir in organising Ayrshire records shows, there are considerable dairying areas. The Development Fund grant of a thousand pounds a year in aid of milk record keeping in the South-west of Scotland, is an acknowledgment of what has been achieved across the Border.

Still more might be done in England in keeping records. Record keeping is desirable, if only because it would do something to prevent the slaughter of so many deep milking cows. Dairymen near towns too commonly work their animals hard and then sell them to the butcher when dry, thus frequently sacrificing animals which, were they kept and bred from, would bring most valuable milking powers to a herd. The report of the committee appointed by the British Dairy Farmers' Association to consider the question of the encouragement of milk record keeping will be looked for with keen interest by all who wish to see our cattle do their best. Not long ago the "Farmer and Stock-breeder," an excellent authority on such a matter, expressed the opinion that milk records "would raise the general average of milk yields by one-third." As it contended, record keeping is little use without inspection. This journal would like to see a controlling body in every county.

**Strong Points of Both Countries.**—We must admire in Holland the skill and care brought to the work of breeding for milk, and must recognise the high average standard of cleanliness and efficiency in the cow-houses—there are backward as well as progressive farmers in Holland, however. We must also take off our hats to the attitude of the average farmer to science in its various manifestations in the dairy and the creamery. Further, we must applaud the Dutch farmer's intelligent appreciation of the advantages of co-operation and his loyalty in working the different societies. In this country co-operation on the same lines exactly is impossible, for our conditions are very different, but in some of our rural societies less talk and more work would be an advantage. Certainly the attitude of the man

on the land in this country to the new thing does not always compare favourably with that of his fellow in Holland, whom socially no doubt he would not always regard as his equal. As to rural education, something will be written later on.

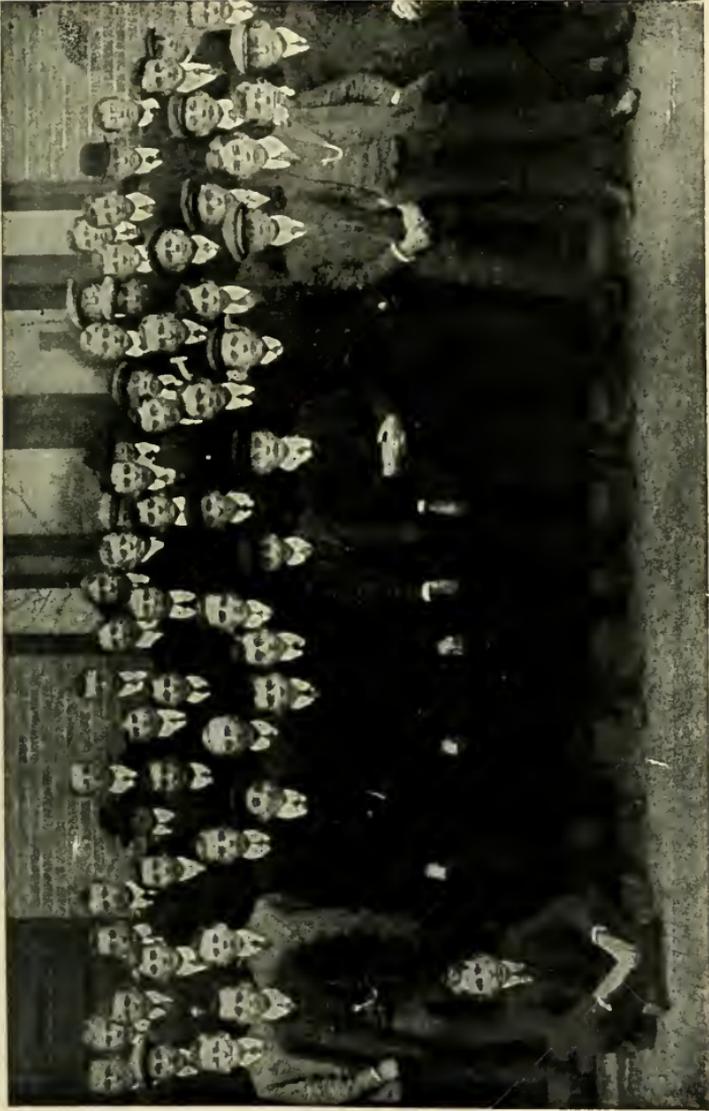
Nevertheless, when all is said, only those who really understand our agriculture are able to appreciate its many good points and its high degree of efficiency. Foreigners know, if some of our facile critics do not, what stage our agriculture has reached. As an agricultural journal asked the other week, "Is our agriculture profitable or are farmers in other countries making more money? That is the real test. The rudimentary mistake that the blue book critic makes is that he does not understand the agriculture of his own country."

On one point we are entitled to congratulate ourselves, that is the healthiness of our herds. An outbreak of foot-and-mouth disease in this country gets a third of a column in the "Times," is the subject of repeated questions in the House of Commons, and figures in the speeches of the heads of the Board of Agriculture. In Holland, as in other countries that might be named, this pest of the cattle keeper and breeder is at present common. I frequently met with animals suffering from foot-and-mouth disease. It is not for nothing that our coasts are walled round with a prohibition against the importation of cattle from abroad.

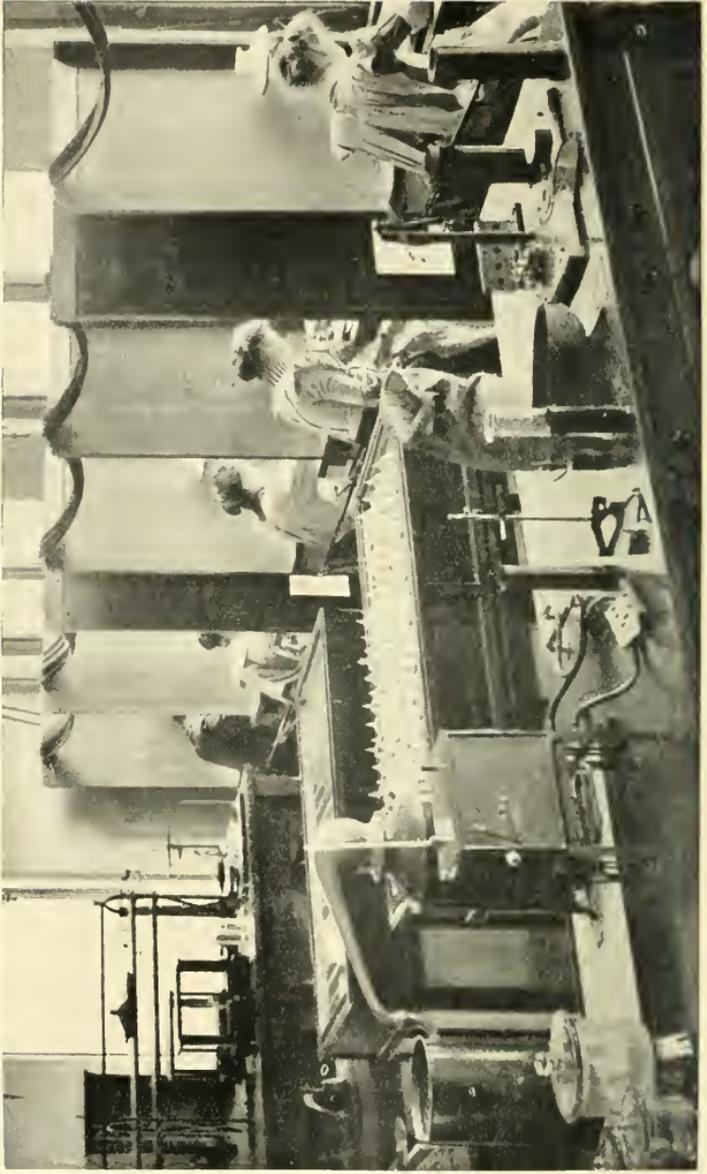
As I have written elsewhere, chiefly in reference to goats, it is a drawback in some directions that "fresh blood" cannot be imported. But when the ravages of foot-and-mouth disease abroad are contemplated, thankfulness may well be expressed for the maintenance of the Board of Agriculture's regulations, and for the fact—which has played so great a part in securing our immunity from disease—that the United Kingdom has no land frontier.\* I should give a very erroneous impression indeed of the condition of things in Holland if I did not pay a tribute to the valiant way in which the fight against foot-and-mouth disease has been carried on. Between six and seven thousand head of

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\* In Holland there has undoubtedly been re-infection from Germany.



GROUP OF SCHOLARS AT GRONINGEN AGRICULTURAL WINTER SCHOOL



IN THE STATE SEED TESTING STATION AT WAGENINGEN

cattle must have been slaughtered, at an outlay of something like £100,000, and so far as the imposition of orders and the instruction of farmers and so on are concerned, the authorities have done everything that could be expected of them. Moreover, the subject continually occupies the attention of the agricultural societies, of Parliament, and of the Press.

## CHAPTER X

WHERE ONLY TWO DOZEN PEOPLE HAVE 500 ACRES

Farmers who till their own ground, and are equal strangers to opulence and poverty.—“*The Vicar of Wakefield*”

**A Country of Small Holdings.**—It is a new sensation to be in a country in which the people who rent or own the land in areas of 500 acres and more number about two dozen, and the total number of holdings over 250 acres is just 216!

A small holding is defined by our Small Holdings Act as less than 50 acres. The number of holdings in the Netherlands from  $2\frac{1}{2}$  acres to 50 acres is 182,011 out of a total of 209,302. If the lowest unit of the tables were not  $2\frac{1}{2}$  acres—that is a hectare—and areas of between an acre and  $2\frac{1}{2}$  acres could be taken into account, the result would show an even more remarkable preponderance of small holdings. Any visitor to the Netherlands can see that the number of holdings below  $2\frac{1}{2}$  acres is very large indeed. As a matter of fact, half the horticultural holdings in the kingdom are between half an acre and  $2\frac{1}{2}$  acres.

Of the 182,011 holdings of between  $2\frac{1}{2}$  and 50 acres, more than half are owned by the men who work them. Taking the whole 205,811 holdings between  $2\frac{1}{2}$  acres and 125 acres, the same is true. Indeed, more than half of the land of the country is *geexploiteerd door den eigenaar*, is worked by the owner.

**Results of the System.**—Undoubtedly one of the causes of Dutch agricultural prosperity is the prevalence of small

holdings, and not only small holdings but small holdings on which the cultivators have had in so many instances—not in the case of owned lands only—a free hand.\* Rural Holland came through the bad years more easily because the land was in the hands, not of a few, but of many. Education and co-operation have made greater headway for the same reason. And the immense rise in production is an obvious result of small holdings.

Between 1888 and 1904 there were 18,000 more holdings between  $2\frac{1}{2}$  acres and a dozen acres in area to market produce than there had been before, and during the years since 1904 the increase in the number of the smallest holdings has continued in the areas particularly suitable for subdivision. In some districts there will soon be nothing but small holdings!

Although the well-equipped student knows that there have been some draw-backs to the increase of small holdings in the Netherlands, the advantages which have accrued are plain. Facts in support of every *cliché* which has been used in Great Britain in setting out the case for small holdings are here in plenty.

In the space to which I must restrict myself need I note any other fact than that, while in our own country we have the rural exodus, in Holland there is the spectacle of a growing population in the villages?

The 1899 census showed that, while for every 100 persons in communes of more than 20,000 inhabitants in 1830, there were in 1899 some 265 persons, the rural population had nevertheless risen from 100 to 169. This happy state of things is due in no small measure to the opportunities the country people have had of bettering themselves. I was impressed in several districts by the number of farmers and horticulturists who had once been labourers.†

The detailed table on the next page is well worth studying.

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\* Intense cultivation has gone with small holdings.

† Possibly the extent to which business men in the cities and towns have their homes in the country may have some effect in maintaining the numbers of the rural population. But it must also be remembered that Holland contains a number of large towns. (See page 155.)

INCREASE IN SMALL HOLDINGS IN THE NETHERLANDS, AND THE PERCENTAGE  
OF HOLDINGS OCCUPIED BY OWNERS \*

Size of Holdings in Acres	Number of Holdings			Increase or Decrease per cent. since		Per cent. occupied by owners		
	1910	1904	1888	1904	1888	1910	1904	1888
2½ to 12½ ..	109,645	92,693	74,589	+ 18.3	+ 47.0	50.3	54.3	59.2
12½ to 25 ..	41,547	34,798	34,088	+ 19.4	+ 21.9	55.6	58.5	61.7
25 to 50 ..	30,819	29,797	30,004	+ 3.4	+ 2.7	52.5	56.7	59.9
50 to 125 ..	23,800	22,005	22,422	+ 8.1	+ 6.1	43.9	46.9	51.8
125 to 250 ..	3,275	3,089	3,558	+ 6.0	+ 7.9	37.4	40.8	44.7
250 upwards..	216	184	217	+ 11.9	+ 0.46	63.4	52.2	58.1
Total ..	209,302	182,566	164,878	+ 14.6	+ 26.9	50.8	54.4	58.5

\* See page 83 for figures for the United Kingdom.

**Small Holdings Increasing.**—In some provinces the advance since 1888 in the number of the smallest holdings—that is areas between  $2\frac{1}{2}$  to  $12\frac{1}{2}$  acres—has been quite startling. In Groningen it has been 86 per cent., in Zeeland 95 per cent., in Drenthe 99 per cent., in South Holland 108 per cent., and in Friesland 132 per cent.!

As to holdings between  $12\frac{1}{2}$  and 25 acres, in Drenthe there are 3,234 where in 1888 there were but 1,942, in Friesland 3,083 where there were 1,788, in Zeeland 1,358 where there were 943. In the two southern provinces, for 11,168 holdings of from  $2\frac{1}{2}$  to  $12\frac{1}{2}$  acres in Limburg in 1888 there are now 14,431, and in North Brabant for 13,987, some 16,028. In Gelderland about 23,000 out of 36,000 holdings do not exceed  $12\frac{1}{2}$  acres. In Utrecht only seven people occupy more than 250 acres, in Drenthe only five, and in Friesland only three.

**Ownership and Tenancy.**—He would be ill-advised, I think, who would press Dutch rural statistics into rash advocacy of ownership rather than tenancy. Although half the holdings in the country are owned by their occupiers, the proportion in 1888 was not 50 per cent., as it is to-day, but 58 per cent. Except in the case of the largest holdings of all, the percentage of ownership is smaller in every description of holding from  $2\frac{1}{2}$  acres up to 250. In

\* SMALL HOLDINGS IN THE UNITED KINGDOM.—The figures for Great Britain are :

	1 to 5 Acres		5 to 50 Acres		50 to 300 Acres		300 Acres and over	
	1911	1910	1911	1910	1911	1910	1911	1910
England and Wales	92,748	90,663	199,740	198,139	128,075	127,977	14,747	14,895
Scotland ... ..	17,848	17,889	34,300	34,446	23,122	23,125	2,079	2,674
Great Britain ...	110,596	108,552	234,040	232,585	151,197	151,102	17,426	17,569

The number of small holdings—1 to 50 acres—in England and Wales, which in 1903 was 290,671, and in 1908 was 287,176, was in 1911, 292,488. Of the total number of holdings in Great Britain 60,217 or 11.73 are owned by their occupiers. Of the 60,217 holdings in question, 43,239 are small holdings—from 1 to 50 acres.

Zeeland, where small holdings between  $2\frac{1}{2}$  and 25 acres have so substantially increased, the percentage of ownership for the whole province is only 26 per cent. against 40 per cent. in 1888. In North Brabant, where of the whole 32,000 holdings, 26,000 are less than 25 acres, the fall in ownership percentage since 1888 is from 68 per cent. to 56 per cent. There is also a fall in Limburg, where the proportion of small holdings is equally remarkable, 14,000 out of a total of 20,000. How useless it is to dogmatise on such a difficult subject as that of small holdings without a close acquaintance with local conditions and requirements is illustrated by the fact that, whereas in Groningen the proportion of holdings owned by their occupants is 65 per cent., in the adjoining province of Friesland the proportion is only 35 per cent.

**Small Holdings, Intense Culture and Profits.**—The law forbidding a father to settle all his land on his eldest son has helped forward small farms and intensive farming. I have a note of 30 cwt. of superphosphate, 20 cwt. of kainit and 6 cwt. of nitrate being used per acre in Groningen on farms where there were no cattle, crops of 16 to 18 tons and 2 tons of oats per acre not being exceptional. I have also heard of Westland market gardeners putting on cow dung to the value of £23 10s. od. an acre. I have quoted Dr. Frost as writing that the production per acre is greater in Holland than in any other European country. He goes on to argue, however, that the farmers do not earn enough. My impression is that he is too sweeping in his conclusion. But it is only elementary students of rural problems who believe that the sub-division of land must necessarily be advantageous. Many little farms in Holland are too small. It must be remembered that there is not, as with us, a decreasing rural population, and that the number of would-be occupants of land raises its price. This is one of the reasons why, in Holland, as shown on page 11, savings do not seem to increase in the same ratio as incomes. Here is also light on the paucity of very rich and very poor people in Holland.

## CHAPTER XI

### THE OTHER MAN ON THE LAND

**Holland in Gardens.**—There are two men on the land in Holland, the farmer and the gardener. Not less than 3 per cent. of the total cultivated area is devoted to one branch or another of horticulture. The industry is obviously much more important than is indicated by this percentage, for in gardening the plots required are relatively small compared with those needed in agriculture.

More than a quarter of the horticultural holdings in the Netherlands range from half an acre to an acre and a quarter. A second quarter ranges between one and a quarter and two and a half acres. Yet another quarter extends from two and a half to five acres. Then an eighth of the whole is from five to seven and a quarter acres.

**Exports of Vegetables and Fruit.**—No complete estimate of the value of the produce raised has been made. We only know for certain what the value is of that portion of the total production which is not consumed in Holland and is therefore exported. The Dutch supply themselves almost entirely with vegetables before exporting any.\* The total value of garden produce sent abroad is about two and a half millions. The latest figures are as follows:

#### EXPORTED FROM HOLLAND IN 1910

Bulbs, roots, etc. . . . .	£865,420
Fresh vegetables . . . . .	546,556
Plants, trees, etc. . . . .	403,914
Fresh fruit . . . . .	215,446
Dried and preserved vegetables . . . . .	461,021
Flower and vegetable seeds . . . . .	50,000

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\*Value of fruit (oranges and lemons included) and vegetables imported in 1910, £150,000.

The private gardens and orchards in Holland are, as might be expected from the tastes of the Dutch, very numerous. The total area of these is more than 76,000 acres. There are not more than 50,000 acres under orchards worked for profit. The kitchen gardens worked for profit occupy more than 38,000 acres. The bulb farms are about 11,500 acres in area. After these come the tree and shrub nurseries, say 6,000 acres, and then the flower nurseries and the gardens for growing horticultural seed.

Germany is the largest consumer of Dutch garden produce. We come next and Belgium follows. Our imports of fruit and vegetables were, as follows in 1911:

Fruit		Vegetables	
Apples ..	£2,329	Onions .. ..	£38,386
Pears .. ..	1,948	Bulbs, roots, etc. .	296,695
Cherries ..	6,908	Cabbage .. ..	2,539
Gooseberries ..	11,113	Cucumbers ..	5,397
Strawberries ..	1,010	Cauliflowers ..	2,261

**The Gardeners' Advantages.**—As the Ministry of Agriculture states, market gardening in Holland is favoured in three ways:

1. The special fertility of the soil in many parts enables two or three crops to be got in a year.\*
2. The dampness of the ground during the summer, thanks to the low level of the ground, is helpful in the case of vegetables, likely to suffer from drought.
3. The numerous canals in many parts of the country makes communication easy and cheap.

**Vegetable Districts.**—Most of the market gardening is done in South and North Holland; quite 73 per cent. of it. The only considerable percentages after that, are Gelderland, 8 per cent.—this is in the Betuwe district; Limburg, 6 per cent.; North Brabant, 4 per cent.; leaving 4 per cent. altogether to the other provinces.

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\* "I do not believe that this is a reason," writes an agricultural authority. "The lighter the ground, the more crops a year. It is the manure that makes the soil fertile. The bulb areas are quite infertile."

The chief cauliflower region is the Westland, the south end of which one enters at the Hook and the north end in a few minutes by tram from The Hague. The cauliflowers come on as early as May. Nearly 9,000 acres must be under early potatoes in North and South Holland.\* The famous district of the Streek, between two of the Dead Cities of the Zuider Zee, is the centre for early potatoes, and, with Broek op Langendijk, also produces cauliflowers. Early potatoes come in large quantities, too, from the Westland.

Cucumbers are a great stand-by with the Westlanders, about a quarter of a million having been disposed of at one centre in a day. The big hard sauerkraut cabbage, which will keep till May, is chiefly grown in North Holland, from one centre in which 12 millions have been sold in a year. Some account of this remarkable cabbage growing, to which some four thousand acres are devoted, will be given later. Three-quarters of the onions exported from Holland come to us. It is a great culture, chiefly carried on in Zeeland and in the islands of South Holland. Onion growing is regarded, however, as a branch of agriculture. There must be altogether some 7,000 acres under onions. The gherkin, which is so much in demand in Germany, is grown in large areas on the site of the pumped-dry Haarlemmer Meer,† in what was formerly the Beemster Meer in North Holland and in Limburg. North Holland, followed closely by the Westland, is the centre for carrots. The "not too French bean" is grown in enormous areas in South Holland.

**Where Fruit is Grown.**—Fruit is produced in all parts of the Netherlands. Some details will be given later on. The great centres are, in order—the Betuwe, Limburg, Zeeland, Utrecht, and South Holland. The strawberry crop probably occupies quite 1,500 acres. In addition to the large quantities eaten at home, more than 2,500 tons are exported to Germany alone. North and South Holland

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\* More than 400,000 acres must be devoted to "early, summer and winter potatoes."

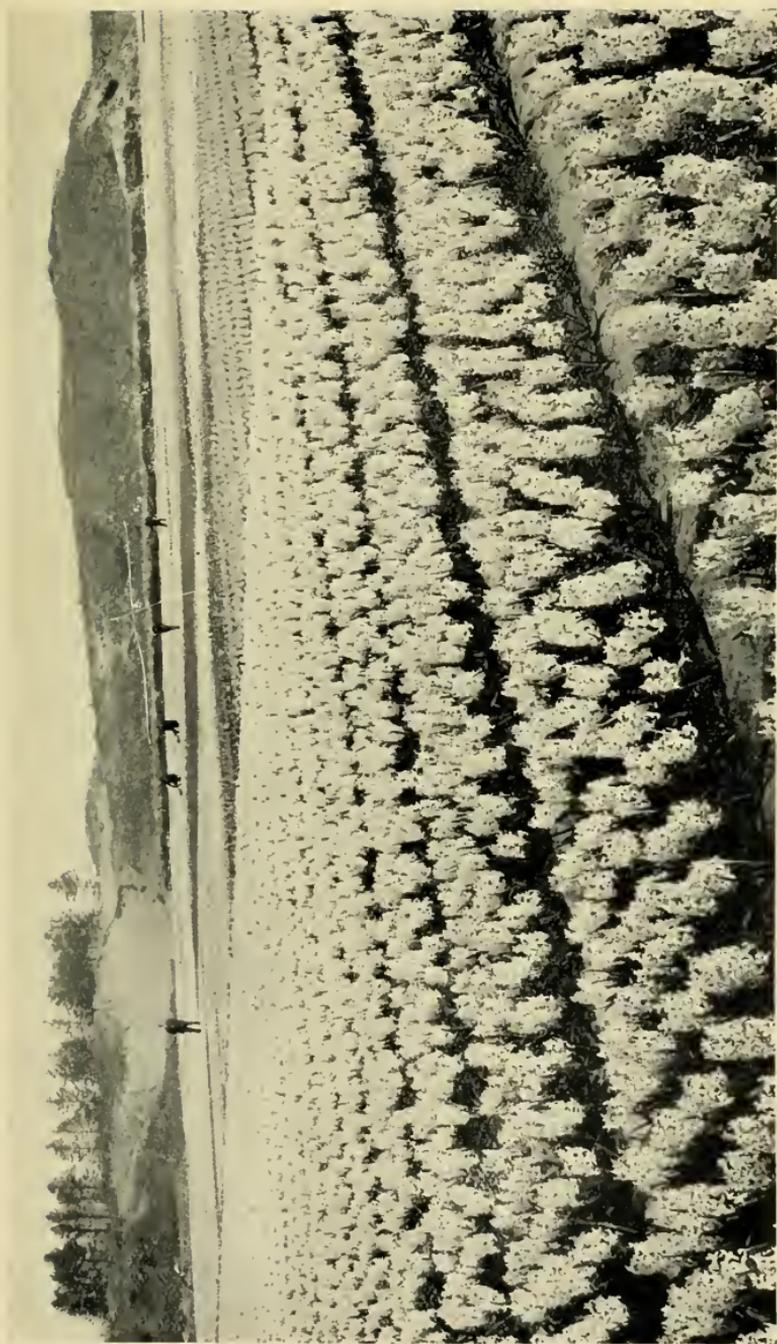
† The fishermen of the Haarlemmer Meer took to gardening when the water was being drawn off.

are the chief growing areas; special strawberry trains, of 40 or 50 waggons, cross the frontier into Germany during the season. The grapes of the Westland are worth going to the Hook to see—a thousand tons must be produced in a year. If the Flushing route be taken, the visitor to Holland will find in Zeeland quite 4,500 acres of hard fruit.

**Bulbs.**—We must not forget bulbs and flower roots, which after all bring in more money to the Dutch gardener than either fruit or vegetables. The bulb land, the best of which is valued at from £320 to £500 an acre, is round and about Haarlem, at the foot of the Dunes. The export has nearly trebled during the last ten years. We are still the best customer for Dutch bulbs, taking 40 per cent. of the exports; 25 per cent. goes to Germany and Austria; the next largest buyer is the United States, which takes about 18 per cent. Although there are only about 200 bulb exporting firms in Holland, there are more than 2,500 bulb growers, and quite 4,000 people must be employed in the bulb industry altogether. The smaller growers sell their bulbs to the exporting firms.

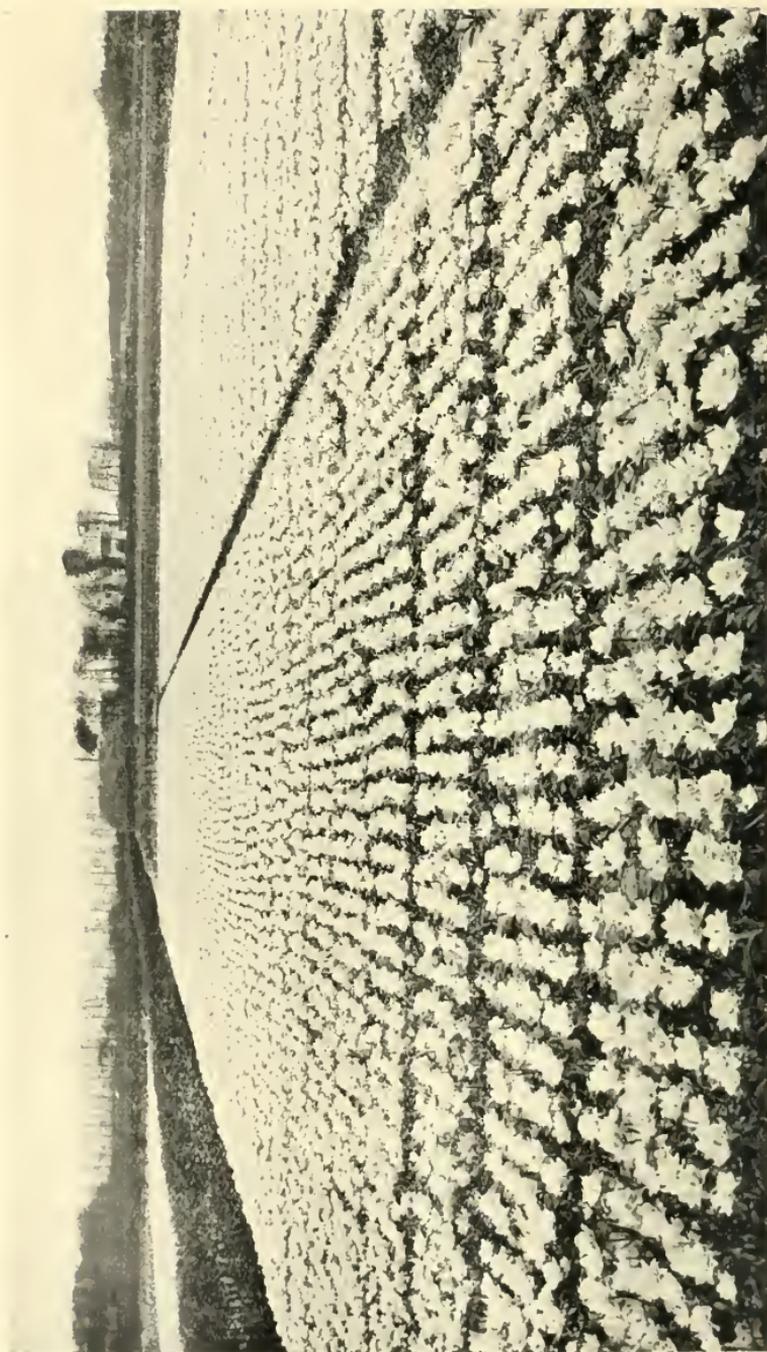
The Dutch bulb trade has always been well organised. The general federation, which numbers nearly 3,000 members, has been in existence for half a century, and has 37 local groups. It publishes a paper twice a week, holds weekly exchanges and has a powerful trade council. In addition to this general federation there is a society for the bulb growers who export and another for those who do not. Tourists who visit Holland when the tulips and hyacinths are in such marvellous bloom too often fail to see one of the most impressive illustrations of the tremendous extent and historical importance of the bulb industry—the great library of bulb literature and museum of specimens possessed by the famous firm of Krelage, the head of which I remember as such a picturesque figure on the occasion of my very first visit to Holland. His son is now the president of the Bulb Growers' Federation.

Promising new varieties still fetch high figures from time to time. As I write this I notice that two pounds weight of bulbs of a new sort of gladiolus have been sold for £1,600.



HYACINTH FIELDS

Observe the Dunes behind, by the cutting away of which the bulb land is made



TULIP FIELDS

**Shrubs and Flowers.**—Interesting though bulb growing may be either in the planting, flowering or storing seasons, and stimulating though the visitor finds the achievements of the Dutch market gardener on land which he has had to make for himself, no one should leave Holland without visiting at Aalsmeer, Boskoop, or elsewhere, the nurseries of shrubs and flowers. The United States is the best customer of the Netherlands for trees, and Great Britain follows. The success of this trade, on which a large number of hands are employed, is plainly due to the suitability of the soil, peaty, alluvial, or sandy, which may range in value from £70 to £320 per acre; to the great skill and efficiency of those engaged in the industry; and to the fact that the grower is at once producer and dealer, has a good knowledge of languages and is in the habit of paying visits to his foreign customers and learning their requirements exactly.

The flower industry can be seen either at Aalsmeer, or on the edge of what was once the Haarlemmer Meer. Dutch plants for export are well known for their large balls of roots. As to cut flowers, two million sprays of forced lilac must be exported during the winter. From what I could see, great advances have been made in different places with early chrysanthemums.

It is many years ago since I found more than a thousand acres of land in Holland under spinach seed, and about 600 or 700 acres under cabbage and beans for seed.

But enough of these figures, on the dry bones of which a little flesh will be put in succeeding chapters as we visit the districts devoted to the different crops.

**Organisation and Marketing.**—I need only add here a few words about trade organisation and marketing. There is a general horticultural union for the whole of the Netherlands, with which 83 federations and societies are associated. The co-operative marketing of garden produce is probably more highly organised in Holland than in any other country. As a general thing, what the grower has to sell is marketed for him by his society. These societies have sale depôts. Sometimes the depôt is a special building; sometimes it is merely a roofed-in area near the market; sometimes it is

a part of the public market itself. The result of having these sale depôts is that the produce is sold by the officer of the society, and buyers have to conform to the rules made on the growers' behalf. Elsewhere I have described the sales by an automatic electric apparatus which carries on the sales without noise or dispute and with absolute certainty as to the price to be paid and the person who is to pay it. The goods are not sold on a co-operative basis; each man receives what his produce makes. The expenses connected with the building and the outlay on salaries or commission to the auctioneer and clerk are met by a *pro rata* assessment on the members according to the value of their produce sold. The first of these co-operative sale depôts was opened in 1887 in one of the villages of the cabbage growing area in North Holland. In ten years there were 15 of them, and now there must be 80 or more. The sale of vegetables and fruit at these co-operative depôts must amount to quite £900,000 in a year.

## CHAPTER XII

### WHERE THE BRAINS COME FROM

**The School Teacher and the Farmer.**—I was driving in a part of one of the provinces where farming is backward, and I saw that some fields were better ploughed than others. "When you see a piece ploughed well," said my guide, "it is the school teacher's influence."

I said that it could never be easy for strangers to understand how farmers, in the matter of the management of their business, would listen to elementary school teachers. These teachers are, however, the men who have qualified to conduct the famous agricultural winter courses. "To some teachers," my companion replied, "the farmers do not listen. It is somewhat a matter of character and tact, as you might expect. But to very many teachers they do listen."

Special pains are taken with the training of the village schoolmasters who wish to qualify for conducting agricultural courses in their districts or in others within bicycle reach. The training is no simple matter. It lasts three years. During each of these years the men must give up three hours of their Saturday afternoons for 40 weeks to listen to the lectures of Rijkslandbouwleeraren and Rijks-tuinbouwleeraren,\* as well as several evenings a week to study. They are then free to sit for their qualifying examination. "It is not easy for many," said someone interested in rural education. "They have been accustomed to study out of books. This agriculture they have to learn with soil and grain and things they have not been accustomed to handle, though some of them, of course, know of them, having come from the land. I believe in the men from the land."

**At a Winter Course Lecture.**—I made a point of going to one of the winter courses in a remote village. It meant

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\* Rijkslandbouwleeraar stands for State agricultural instructor; Rijkstuinbouwleeraar for State horticultural instructor.

a longish drive in the dark, and catching a late train back to the town in which I was staying, and I did not get to my hotel till nearly one in the morning. But I wanted to see really rural teaching. The course was being given in the upper room of the village café, and there were 18 or 20 farmers and farmers' sons in their Sunday clothes sitting round a long table. The average age was perhaps 30. The burgomaster of the village, whose salary is possibly £100 a year, was countenancing the proceedings by his presence. The innkeeper also had a chair and looked as owl-like as possible. The teacher was a middle-aged family man in a country-made frock coat, with a closely cropped head, a fair amount of brains, some common sense, and an interest in his profession. When his superior, the Rijkslanbouwleeraar and I—of Rijkslanbouwleeraarical functions I shall speak later—stepped into the room, entirely unexpected, the address stopped for a few minutes till chairs were got for us. Then the lecturer, a little flustered, proceeded.

He had a black-board, and at his end of the table an assortment of chemicals and a few things of which I could not at first make out the purpose. I discovered that he was giving an elementary account of the mysteries of the barometer, and that he proposed to make one of those instruments under our eyes. In due course, by means of a yard or so of glass tube and some mercury, he constructed a working model, and I think no one in that room will ever have the least doubt as to how a barometer works or as to its being an instrument in the honesty of which a farmer may believe.

When the demonstration came to an end, I thought the evening's work was over, for the proprietor of the café bustled about taking orders, and cigars were lighted all round. Soon beer or coffee was before everybody, and the Rijkslanbouwleeraar gossiped with the burgomaster and said some encouraging things to the dominie. But, when the room was clouded with smoke, the schoolmaster rapped on the table, one or two of the farmers called each other to attention, and the conductor of the winter course began on another lecture. This was about the way in which grain is

fertilised, and the blackboard was soon covered with telling sketches. My impression was that the schoolmaster knew his subjects, that he was respected by his audience—questions were occasionally interjected—and that he was likely to give his auditors a grip of elementary agricultural science, but that he was a little put out by the presence of critics and would let himself go a little more when left to himself. I happened to have with me, and had laid on the table, a well-ripened ear of maize I had been given at a farm, and in the course of the lecture the teacher reached for it and made one of his points by using it as an object lesson.

Alas, I afterwards learnt that this course had been closed, for the attendance fell off to seven. I was also informed that a course would never again be given on licensed premises, but in schools only. "The drinking of beer has been forbidden. It was not a good model of a course."

**How the Courses are Managed.**—The winter courses last for two winters. The youths (over 15) who attend them get about six hours of instruction a week, spread over two or three nights. The cost to them is from nothing to 4s. Each winter course is of about 144 hours duration. The courses for adults (over 21) are from 20 to 24 hours, and generally deal with one subject, *i.e.*, manures or feeding stuffs.

It is very simple agriculture, of course, but it is thoroughly sound as far as it goes, and the great thing, as one of my informants said, is that "it is enough to enable a man to read and profit by an agricultural book." During the drive in the backward province to which I have referred I asked about a farmer whose house and holding I had just been over. "He is an ordinary farmer," was the reply given to me, "but he has been on the courses, and begins to use artificials with some knowledge." And my informant added, with confidence, "all those people who have been on the courses are quite changed."

There are also horticultural courses.

Here is a table showing the agricultural and horticultural courses for young and middle-aged men given throughout the country in the winter of 1906-7:

Provinces	AGRICULTURAL COURSES					
	FOR LADS			FOR ADULTS		
	Classes	Scholars	Subsidies	Classes	Scholars	Subsidies
Groningen .. ..	24	298	f 5,298,24	8	201	442,50
Friesland .. ..	16	234	3,829,41 <sup>5</sup>	12	285	652,50
Drenthe .. ..	12	233	2,656,98 <sup>5</sup>	—	—	—
Overijssel .. ..	22	402	5,181,90 <sup>5</sup>	9	206	474,50
Gelderland .. ..	20	637	9,618,85 <sup>5</sup>	3	80	168,50
Utrecht .. ..	2	28	513,00	1	20	53,50
N. Holland .. ..	17	241	4,258,95 <sup>5</sup>	—	—	—
S. Holland .. ..	14	201	3,305,68 <sup>5</sup>	5	118	276,—
Zeeland .. ..	26	248	6,971,67	16	335	801,10
N. Brabant .. ..	23	448	5,198,56 <sup>5</sup>	3	78	150,—
Limburg .. ..	10	183	2,598,90	5	170	270,—
Total ..	192	3,153	f 49,432,17 <sup>5</sup> (£4,119)*	62	1,493	f 3,288,60 (£274)

Provinces	HORTICULTURAL COURSES.					
	FOR LADS			FOR ADULTS		
	Classes	Scholars	Subsidies	Classes	Scholars	Subsidies
Groningen .. ..	4	56	f 844,76 <sup>5</sup>	—	—	—
Friesland .. ..	—	—	—	—	—	—
Drenthe .. ..	1	9	236,24	—	—	—
Overijssel .. ..	3	46	837,63	—	—	—
Gelderland .. ..	8	113	2,231,06	3	80	232,85
Utrecht .. ..	5	98	1,440,05	2	36	261,—
N. Holland .. ..	8	218	2,376,75	—	—	—
S. Holland .. ..	10	301	2,882,89	—	—	—
Zeeland .. ..	4	51	1,033,86	—	—	—
N. Brabant .. ..	4	62	1,129,07	—	—	—
Limburg .. ..	3	76	780,69	6	161	399,—
Total ..	50	1,030	f 13,793,01 (£1,149)*	11	277	f 892,85 (£74)

\* State subsidies only. In addition the local authorities granted £379 for agricultural courses, and £445 for horticultural courses.

That is, 315 courses in agriculture and horticulture are provided for about 6,000 persons for about £5,616. The last available figures show 530 courses attended by 9,500 scholars, and costing about £8,000.

The remuneration of the teachers of the elementary courses for lads is 1s. 8d. per lecture, one hour, the maximum for each class for the course being £18 15s. A grant, not to exceed £6 5s. od., is made for appliances at the beginning of a course, and another, not to exceed £4 2s. od., on the continuation of a course. The remuneration (in addition to expenses) of the teachers of advanced winter courses for grown-ups does not exceed 4s. 2d. for a lesson of one hour. A grant for further appliances, not to exceed £2, may be made. Additional travelling expenses may be also incurred.

Courses have been given for some winters to the conscripts in a number of garrisons, the Government grant amounting to about £8 6s. 8d. per course.

A number of farriers' courses, started on the initiative of local societies, are also subsidised.\*

**Effect of the Teaching.**—Think what an agency for agricultural as well as personal improvement such a work represents, and note that it has been carried on for many winters, and that every year the courses become more efficient, and there are more of them.

I have a pencilling of someone having said to me in Zealand, "Most scholars have learnt something. Now they read much more than they did and profit of what they read. They go with the times. The courses mean education every way."

Along with the good work of the night courses during the winter is the influence exerted on the rural population by the agricultural and horticultural experimental fields. These fields are usually chosen for their conspicuous position at cross roads or elsewhere, and are gladly lent by the farmers, who profit by the manure expended on the crops.

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\* Various courses receive a subsidy from the provincial authorities.

**The Victory over Adulterators.**—These experimental fields are not to be confounded with the experimental stations, each with a director and a staff of chemists, analysts and clerks. There are half a dozen of these at convenient centres, and in a year as many as twenty-six or twenty-seven thousand samples of feeding stuffs may be examined. The charge to farmers for a qualitative analysis is only 10d., and for a quantitative analysis 1s. 8d. Fees bring in about £4,000 a year, but the expenditure, exclusive of buildings, is something like £14,000. The staff employed numbers, I think, about 120, and they are fairly well paid and entitled to pensions. The directors of these stations not only conduct the experiments usual at experimental stations and make the analyses referred to, but exert themselves to keep farmers from buying useless artificials. They provide model contracts, and suggest that farmers should get these signed when buying feeding stuffs, fertilisers or insecticides. There are two inspectors going about to farms taking samples of fertilisers and feeding stuffs. In view of some criticism of the Board of Agriculture in this country it is worth noting that the inspectors, when they come upon unsatisfactory goods, proceed to warn the firm which has supplied them. If such a warning has no effect the name of the offender is published by the experimental station.

The result of this work is obvious. All the co-operative societies have their feeding stuffs and artificial manures analysed. In consequence only "plain simple feeding stuffs and manures" are sold. The Dutch agricultural papers, unlike ours, are not full of special meals and cakes. Certain English firms who have tried to introduce special feeding stuffs into Holland have found the experiment unprofitable.

**Winter Agricultural and Horticultural Schools.**—The next step in the ladder of agricultural education is the well-equipped winter agricultural and horticultural schools. There are nine agricultural and four horticultural schools, and 318 students at the former and 103 at the latter. Here is the syllabus at the Groningen Agricultural School:

Subjects	Hours per week		
	Class 1	Class 2	
Study of the soil .. .. }	2	..	2
Working of the soil .. .. }			
Improvement of the soil .. .. }			
Manuring of the soil .. ..	—	..	3
Cultivation .. .. ..	2	..	2
Dairying .. .. ..	1	..	2
Cow feeding .. .. ..	—	..	2
Cattle rearing .. .. ..	1	..	1
Judging cattle and knowledge of breeds .. .. ..	3	..	2
Hygiene .. .. ..	1	..	1
Business methods and agri- cultural book-keeping ..	1	..	2
Chemistry .. .. ..	2	..	2
Physics .. .. ..	3	..	1
Zoology .. .. ..	2	..	2
Botany .. .. ..	2	..	2
Dutch .. .. ..	2	..	—
Arithmetic .. .. ..	3	..	1
	—		—
	25	..	25

The qualifications for admission to this winter school are stated in the prospectus as follows:

1. Knowledge of arithmetic up to fractions and decimals.
2. Knowledge of the metric system.
3. Some skill in the reasoned solution of simple problems.
4. Composition of a simple essay on suggested lines.
5. To be able to read and to understand what has been read.
6. The writing of dictation without gross mistakes.
7. Some knowledge of practical agriculture.

I append the official syllabus of a horticultural winter school:

Subjects	Hours per week		
	Class 1	Class 2	
Botany and nomenclature, plant diseases, etc. ..	3	..	3
Zoology .. .. ..	1	..	1
Nature knowledge and Meteorology	2	..	2
Chemistry .. .. ..	2	..	1

Subjects	Hours per week	
	Class 1	Class 2
Manuring .. .. .	—	2
Knowledge of the soil ..	—	—
Cultivation of trees .. ..	2	2
Cultivation of vegetables ..	1	1
Cultivation of fruits .. ..	1	1
Floriculture .. .. .	3	3
Drawing plans of gardens ..	2½	2½
Book-keeping and business methods .. .. .	—	1
Commercial arithmetic ..	2	1
Dutch .. .. .	2	2
German commercial correspondence .. .. .	2	2
English commercial correspondence .. .. .	2	2
Commercial geography ..	1	—
Practice .. .. .	—	—
Total hours per week ..	26½	26½

There is a slight variation in subjects and hours at the different schools.

I am told that there is a scheme to increase the number of winter schools to two dozen or so.

The great point about these schools is that they are not forcing grounds for “stickit” farmers and unwanted agricultural teachers. The students are farmers’ sons who are going to be farmers. I liked the bright wholesome look of these young fellows at whatever school I had the pleasure of visiting. And though some of the buildings of some of the schools are not modern—winter schools have been running in Holland for many years—all the schools I happened to visit were thoroughly well equipped, airy and inspiring buildings, and the teachers were men of a high grade who compared very favourably indeed with the staffs of our much more expensive agricultural colleges.

To go through the sessions of a winter school, I notice from the prospectus of one of them, costs for the two years’ course, 16s. 6d. only. A dozen books to be bought the first year mean an expenditure of 17s. ; four more to be obtained the second year are bought for half a guinea. The students



A WINTER COURSE LECTURE ON IMPLEMENTS AT GRONINGEN

Note the intelligent look of these peasants' sons



MR. J. J. HUISMAN,  
Dairying Instructor at Groningen



MR. I. G. J. KAKABEEKE,  
Rijkslandbouwleeraar for Zeeland  
and Director of the Agricultural  
School at Goes



MR. J. HEIDEMA, Director  
of the Groningen Agricultural  
School

TYPES OF THE MEN WHO ARE DIRECTING AGRICULTURAL EDUCATION  
IN THE PROVINCES

are ordinarily at work from October 1 to April 1, and study from 25 to 26 hours a week.

**Rijksland- and tuinbouwleeraren.**—The principals of the winter schools are usually the Rijkslandbouwleeraren in the case of the agricultural schools. The Rijkstuinbouwleeraren are the chiefs of the horticultural schools. Some of these men have held their posts for ten years or more, and they are all well known in their different provinces. Their scientific and practical acquirements vary somewhat, no doubt, but they all seem well up to their work, and have only got their grade by examination. They have usually seen something of agriculture in other countries than their own, and every one I met spoke French and German, and nearly all of them excellent English. Their task is not an easy one. They have to have the necessary scientific and practical knowledge to act as lecturers and consultants and to manage the work of the experimental fields. They have to have a great deal of tact in dealing with the farmers and local dignitaries. They have to do a lot of work for the Ministry of Agriculture, and they are often being taken away from their duties by strangers who are inquiring into the agriculture of the Netherlands—the number visiting the country in a year is really remarkable. Every one of these national agricultural or horticultural instructors spends some time every day on his bicycle, but they have also first-class railway passes. They begin with £166 a year, rising to £291, and have full expenses. In a country in which one can have a doctor at one's bedside and a bottle of medicine all for 2s. 6d., this remuneration is larger than it may seem to be.

**Dairy, Horticultural and Forestry Instruction.**—Beyond the winter schools there is the dairy school at Bolsward (Friesland), the gardening school at Frederiksoord (Overijssel), and the courses in forestry directed by the Netherlands Heath Society, a praiseworthy organisation with 32 branches. The syllabus of the course at Bolsward is as follows:

SUBJECTS	Total hours per week		
	First Session	Second Session	Third Session
Dairying .. .. .	3 + practical	6 + practical	8 + practical
Bacteriology .. ..	2	1	1
Chemistry .. .. .	4 + practical	3 + practical	2 + practical
Nature Study and Mechanics	4 + „	3 + „	2 + „
Mathematics .. .. .	2	2	2
Feeding and health of the Cow .. .. .	2	2	2
Book-keeping .. .. .	2½	2½	2½
Commercial Arithmetic and Commercial Corre- spondence in Dutch..	1½	1½	1½
French Commercial corre- spondence and Dairy literature .. .. .	3	3	3
German ditto .. .. .	3	3	3
English ditto .. .. .	3	3	3
	30 + practical	30 + practical	30 + practical

**State Agricultural School.**—Between the agricultural winter schools and—at Wageningen, in Gelderland—the *Rijks Hoogere land-tuin-en boschbouwschool*, that is the State High Agricultural, Horticultural and Forestry School, comes the *Rijkslandbouwschool*, or State Agricultural School, also at Wageningen. It has had a three years' course for sons of large farmers and for training for the East Indies. Pupils are taken at 15 or 16. This year the school will be split up and removed from Wageningen. The part devoted to agricultural teaching for Holland will be established at Groningen, and the Colonial part at Deventer.

**Agricultural and Horticultural High School.**—The object of this well known institution is to produce agricultural, horticultural and forestry experts and agricultural chemists. The training is taken by the sons of large landowners, well-to-do farmers and large nurserymen. The

school turns out experts for the service of the State, the agricultural and horticultural schools, and the Dutch East Indies (sugar, tobacco, tea, rubber, etc.). The education is at a high level, and no one is admitted to any examination who has not the qualifications required for admission to a university. The course occupies three years, the students taking different classes after the first year according to the object they have in view. Agricultural instructors stay for a fourth or fifth year, when they study horticulture or agriculture.

An excellent feature of this high school is the special lessons in economical geography. The object is to teach everything possible in connection with the distribution of produce abroad and the practice of agriculture in foreign countries. "It is considered essential for a qualified agriculturist to keep in touch with the best that is being done beyond the frontier." Certainly one is always struck in talking with a Dutch agricultural instructor by his acquaintance with what is going on in other countries. The amount of French and German and English read by these men, and the way in which they go to other countries from time to time to make inquiries, increase their value enormously.\*

The staff of the State school numbers more than three dozen. Three of the professors are at the head of special institutions. One is the large and well-equipped building devoted to the investigation of plant disease, of which nurserymen and farmers make much use. Another building is devoted to agricultural machinery and implements and homestead planning. In the third building is a laboratory for the technology of sugar. There is a small experimental agricultural farm, and I also saw some experimental plots. These areas are used for showing different breeds of stock, different crops, and different applications of manure, etc.

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\* The other day someone wrote to one of the London papers as follows: "Every year the Universities of Oxford and Cambridge offer for competition a large number of scholarships and exhibitions in natural science. How many of the scholars and exhibitioners thus elected are able to read elementary German?"

**Practice and Theory.**—This is, I believe, the only thing in the way of an experimental farm in the whole country. No winter school has a farm. “We do not believe,” an agricultural authority said to me, “in trying to teach farmers’ sons practical agriculture. Their fathers can do it just as well, or better. What we can teach them better than their fathers, is theory, the science on which agriculture rests, and that we concentrate on.”

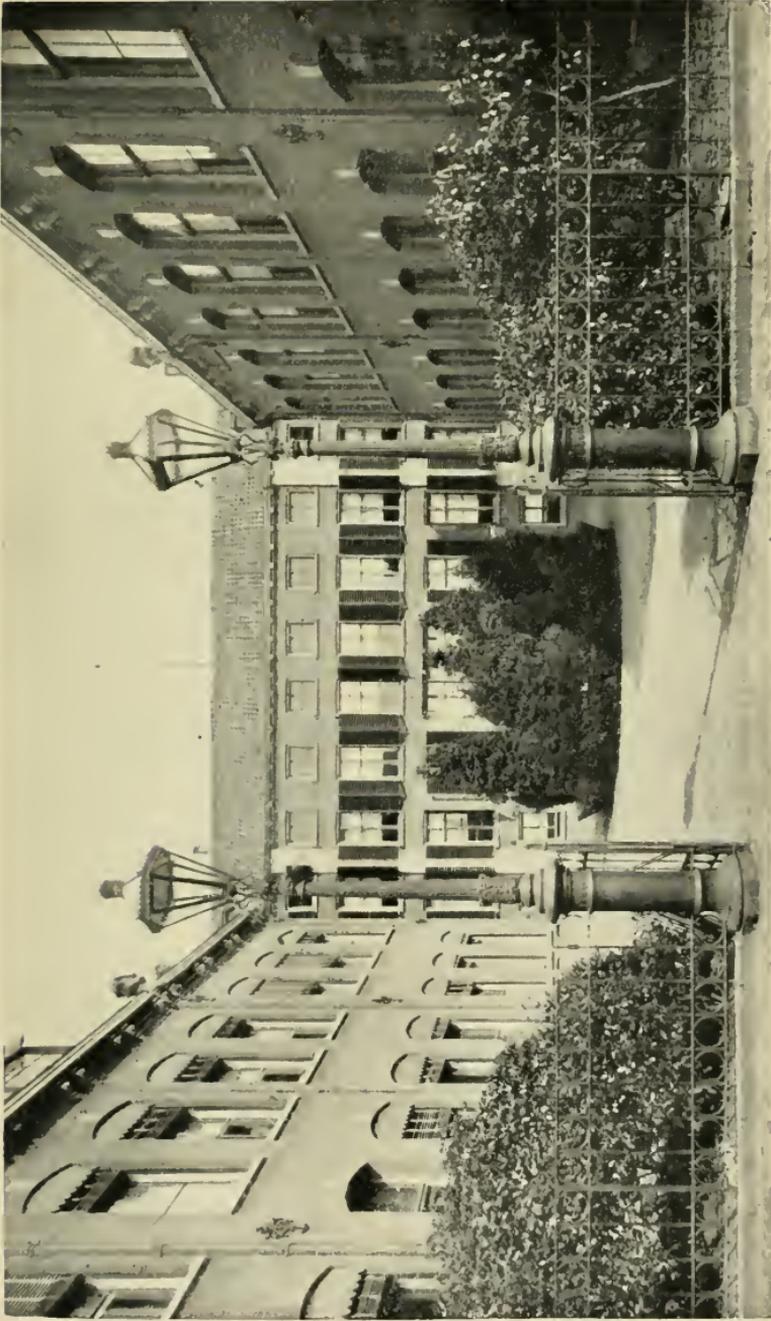
There is nothing in Holland either which quite corresponds with our agricultural colleges. “The winter schools,” as a Dutchman who has studied on English farms said to me, “suit the requirements of a land of little farmers. You may want something not quite the same in England. I do not see, however, that you have it fully.”

**Agricultural Education in England and Holland.**—“Is it not the case,” the same speaker went on, and it is worth recording his impressions, “that only a very few of your farmers’ sons seek instruction in agriculture? One well-to-do farmer I stayed with in England whose sons were on the farm did not think of sending them to study. I believe that in our rural districts, as in our towns, we think more of education than you do. The first persons here are largely the persons who are best educated. Is it not possible that you in England give more precedence than we do to other sorts of people? Everyone here is studying. The sons who do not stay on the farm, study medicine, chemistry, and so on, when the father is well off, that is owns sixty acres.”\*

“It is not only languages, but all sorts of things. When I have been in England I thought that there was in the country, as I am told there is in the cities, too much sport. Sport is good, but you can be healthy and do your work well without so much sport. Is there really time for so much if you are to get on with your work and keep up with foreign competition? Some people do not seem to remember that other countries are always moving, and that

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\* UNIVERSITIES.—Of the total population (men, women and children, 5,898,000) the proportion studying at the universities is more than one per 2,000.



HIGH SCHOOL OF AGRICULTURE, HORTICULTURE AND FORESTRY AT WAGENINGEN



STATE AGRICULTURAL SCHOOL AT WAGENINGEN

when so many countries produce the same things, the country that will be in front will be the one which is best informed and thinks about doing its work best.

“It is exaggerated, perhaps, to say that agricultural education has been neglected in England, but is there not some truth in it?\* You certainly lack something corresponding with our winter courses, and you have something to learn from our winter schools. I should like to know whether we or you use more artificials per acre? All I can say for certain is that the things I heard twenty years ago against artificials I also heard at the Royal Agricultural Show at Norwich. I believe that we get more out of the soil than any other country in Europe.”

Wageningen, though in the centre of the country, is not easy to get to, but now that the State Agricultural School is removing, the High School will probably remain there.

I cannot deal with the National Veterinary School at Utrecht—I give an illustration of it—the organisation of veterinary inspection and horse breeding, and the work done on the State domains, but these things are worth the study of those specially interested.

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\* See page 116.

## CHAPTER XIII

### “HELP U ZELF”

**The Farmer or the Government.**—When all has been said as to the help given to agriculture in the Netherlands by the Government, *Help u Zelf*, which caught my eye one day in a tramcar, is the motto of the man on the land. Nothing is more refreshing to me in Holland than the independent hands-off attitude which the farmer so often displays towards the State.

As we have seen, he did not call on Parliament to suppress butters fakers. He started that marvel of rural ingenuity, the *Boter Controle*. Only when the *Boter Controle* system had proved its worth did the Government take it over. The cheese control system, which has been added to the *Boter Controle*, will be in due course adopted by the Government. Even the dairy instructors of Holland are appointed by agricultural societies, though the Government helps with their salaries. And this is to be changed in some provinces. “That is better,” said a *Rijkslandbouwleeraar*; “they are more independent.”

Nor is the Dutch farmer indebted to the Government for the remarkable cattle-breeding societies which have so much to do with his success in the butter trade. Thousands of his cows, we shall see, have their milking records chronicled, and bulls earn merit, not for their good looks, but by reason of the milking prowess of their maternal ancestors and the yield of their progeny. No doubt some of the smaller societies are stimulated by the Government grant, and the countenance and support given to the Netherlands Herdbook Society have had excellent results. But the amount of good work done for which the State is in no sense responsible is immense.\*

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\* See, for example, the work of the F. N. Z. referred to in Chapter IV.

**Government Money Refused.**—The Government maintains excellent agricultural and horticultural schools, and is ready with money wherever it is needed. *Government money has been more than once refused by Dutch agricultural bodies!*

In England the advice constantly given to farmers is: Organise, and the State will have to help you. “In those provinces of Holland where organisation is strongest,” said a high Dutch agricultural authority to me, “the associations are opposed to financial assistance from the Government.” Some years ago, in order to avoid official insurance for employers’ liability, more than half the provinces started voluntary associations.

Not only practical work, but educational work of the utmost value, as the report of the Departmental Committee on the Irish Butter Industry says, is “initiated and administered by local associations.” “It has been a matter of surprise to us,” says that much-impressed Committee.

**“Self-reliance and Self-help.”**—One also reads in the brochure of Messrs. Adams and Fant, officials of the Irish Department of Agriculture and Irish Agricultural Organisation Society respectively:

Perhaps the feature of the movement which impressed us above all others was the strong spirit of self-reliance and self-help which was so evident in every branch of the work. The organised farmers of Holland control their own industry, and whilst State aid and technical instruction are welcomed, care is always taken that assistance of this kind does not involve Government control. In all our inquiries and in all our interviews this feature was invariably emphasised as one of the fundamental principles of the movement.

**An Official Statement.**—The evidence of the Government’s own representative, the Netherlands Commissioner in London is clear:

That the dairy industry has been able, in a relatively small country, to make such great strides, is (says Dr. van Ryn) partly due to the energy and capacity for organisation of our farmers and partly to the great interest which is taken in its development by the Government. The Government is fully aware of the great importance of the dairy industry, and has been doing very useful work to assist the farmers in their effort to further the interests of agriculture generally, as well

as of dairying in particular. I say "to assist the farmers in their efforts." It has been for several years and is still at present the policy of the Government not to come forward unless the farmers themselves have taken the initiative and have shown that they are fully convinced of the value of the measures to be introduced. The history of the butter as well as the cheese control stations, which were in the beginning institutions without any official character, proves this.

As already stated, the Government assists the dairy industry whenever required, but, in Dr. van Ryn's words, "has no desire to support financially where self-help of the farmers may be considered sufficient to promote their interests." The creamery associations, for example, which do so much useful work, do not get any Government grant :

It is, however, considered the duty of the State to look after education, and this explains why the dairy instructors, although not Government officials, are practically paid by money given by the Government to the bodies who appoint them. The 12 instructors who are stationed in different parts of the country—to assist butter and cheese makers—are appointed by Associations, with the exception of two provinces, where they are appointed by the Provincial States. The Government, however, gives to these Associations an annual grant practically equal to the total costs connected with the appointment of these instructors.

Dairying and cattle breeding form essential parts of the programme of the Government Agricultural School at Wageningen as well as of all lower schools and courses established by the Government all over the country. A Government Dairy School for the education of future creamery managers is found at Bolsward, and the cost of the Experimental Dairy Farm is defrayed by Government money. The Government agricultural experimental stations do a good deal of work in connection with the dairy industry, and the bacteriological section of the Government Agricultural Experimental Station at Hoorn is specially devoted to scientific investigations relating to dairy matters. Last, the Government Dairy Station at Leyden is a central establishment in connection with the control of dairy produce and also for scientific researches in connection therewith, and all butter and cheese control stations receive grants from the Government.

Generally the Government is willing to support financially as well as otherwise, all endeavours to promote the welfare of the farming industry, but has no desire to nurse an enterprise which does not show sufficient vitality to be self-supporting.

**State Serum Institute.**—Mention might also be made, among State organisations, of the State Serum Institute, which I visited at Rotterdam. It is eight years old. Its work is divided into as many as two dozen departments.

About 350,000 animals are inoculated in a year with its vaccines or serums against fourteen diseases of animals and two of birds. Free advice is given, and there is a travelling surgeon from the Institute working in conjunction with local veterinary surgeons. One of the branches of the Institute's work is the free examination of the water available for cattle on farms, and also of abnormal milk. Preparations for the extermination of rats and mice are supplied gratuitously. Another interesting piece of work is the making of analyses of advertised remedies for cattle ailments. “At the examination of these remedies,” says Dr. Poels, the director, “surprising matters are brought to light.” All sorts of strange remedies, such as honey, vinegar, blue vitriol, charcoal powder, vaseline, sulphur, etc., are found to be recommended as infallible cures. We have not yet got as far as State analyses for patent medicines for human beings. Veterinary surgeons from Sweden, Denmark, Great Britain, Germany, Belgium, the United States and the Balkans have studied at the Rotterdam Institute.

**A Minister's Views.**—It is noteworthy, perhaps, as an indication of the extent to which in Holland the farmers' agricultural societies—to parody the Zeeland motto—have jumped and the State has followed, that the Department of Agriculture, Industry and Commerce dates only from 1905.\*

I recall the words I heard spoken by a Dutch Minister of Agriculture: “It is easy for the State to do more harm than good. Farming which is not on a help-myself basis is on an insecure basis. Farmers, if they know their business at all, know more about it than the State can know. We are for a *free farmer in a free State*.”

The hand of the Dutch Government is seen plainly, not in “promoting agriculture,” though it is its very good and liberal friend, not in the control of foreign products, but in the arrangements which have been made whereby the products of Holland shall be worthy of her. “Meat inspected for export according to Royal decree, November 21, 1902,”

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\* Before this, Agriculture belonged to the Waterstaat. The first Director General of Agriculture was appointed in 1898.

says the label on the dead meat landed in England from Holland, and behind the label there stands to the credit of the Dutch agriculturist and his Government the slaughter of 27,000 tuberculous cattle in six years. They were valued at nearly £300,000.

**Humane Slaughtering.**—It is about half a century ago since the Rotterdam shipbrokers established on their own account an examination of cattle intended for export to Great Britain. It was near Rotterdam, at one of the seven stations for the testing of meat for export that I was a witness of the care taken to slaughter properly and humanely, cattle which are to provide meat for abroad. I saw two cows killed by the cartridge and mask. The animals on being led into the slaughterhouse seemed very little concerned. The slaughterman rested the mask against a cow's forehead, tapped the trigger with his small hammer, and the beast fell dead on the instant without fright of any sort. When she dropped on the ground a second slaughterman cut her throat. A meat expert from England declared that a similar practice would not be feasible in the case of the wild imported cattle slaughtered at Deptford. One could wish, however, that some experiments could be made, for whatever may be the ratio of successful blows with the poleaxe to unsuccessful when the slaughterman is under observation, it can hardly be the same in average work-a-day conditions. I noticed a mallet provided for stunning sheep before their throats were cut.

**Slaughter of Tuberculous Cattle.**—To return to the 27,000 cattle slaughtered for tuberculosis, I may mention that the proceeds from the sale of that portion of the flesh considered to be good for food were about £110,000. The animals were taken at market value, and milk yield was reckoned. It is little wonder that plenty of cattle were forthcoming—48,000 were offered against the 27,000 slaughtered! So it was decided that "only the cattle of cattle breeders, particularly of members of cattle-breeding associations," should be accepted, and only if they have agreed:

1. To permit their whole stock to be examined by a Government veterinary surgeon ;
2. To assist in the examination ;
3. To leave all clinically diseased cattle to the State for slaughter, but, of course, after valuation ;
4. To transport the diseased animals to the slaughterhouse ;
5. To clean and to disinfect the places in the cowshed of every animal slaughtered ;
6. To take measures to prevent the new-born calves from being infected ;
7. To buy only healthy cattle, examined by the Government veterinary surgeon ;
8. To repay the expenses of examination if they do not perform their duties mentioned above.

The Department of Agriculture is seriously considering the proposal that a general pasteurising of skimmed milk and whey, as in Denmark, should be introduced.

**The Struggle with Contagious Disease.**—The fight with the infectious diseases of stock is maintained by a staff of nine State veterinary surgeons, who may only accept other offices by special permission, and two hundred deputy surgeons—these latter given their expenses only. The number of deputies may be increased in any emergency. Eleven contagious diseases, including rabies, are scheduled.

There has been in the past a good deal of slaughtering for foot-and-mouth. Dr. Poels, of the Serum Institute, lays stress on the extent to which animals which have recovered from foot-and-mouth, or have never suffered from it, may be infection carriers. “This is especially so with influenza in horses,” he says. “A recovered stallion can infect a mare after several months or even more than two years, he being himself wholly healthy. It is also a fact that special dogs for a long time recovered from distemper can infect other dogs. There is something like this in contagious pleuropneumonia of cattle. There is no doubt that some pigs recovered from swine-fever remain for a long time dangerous to other pigs.”

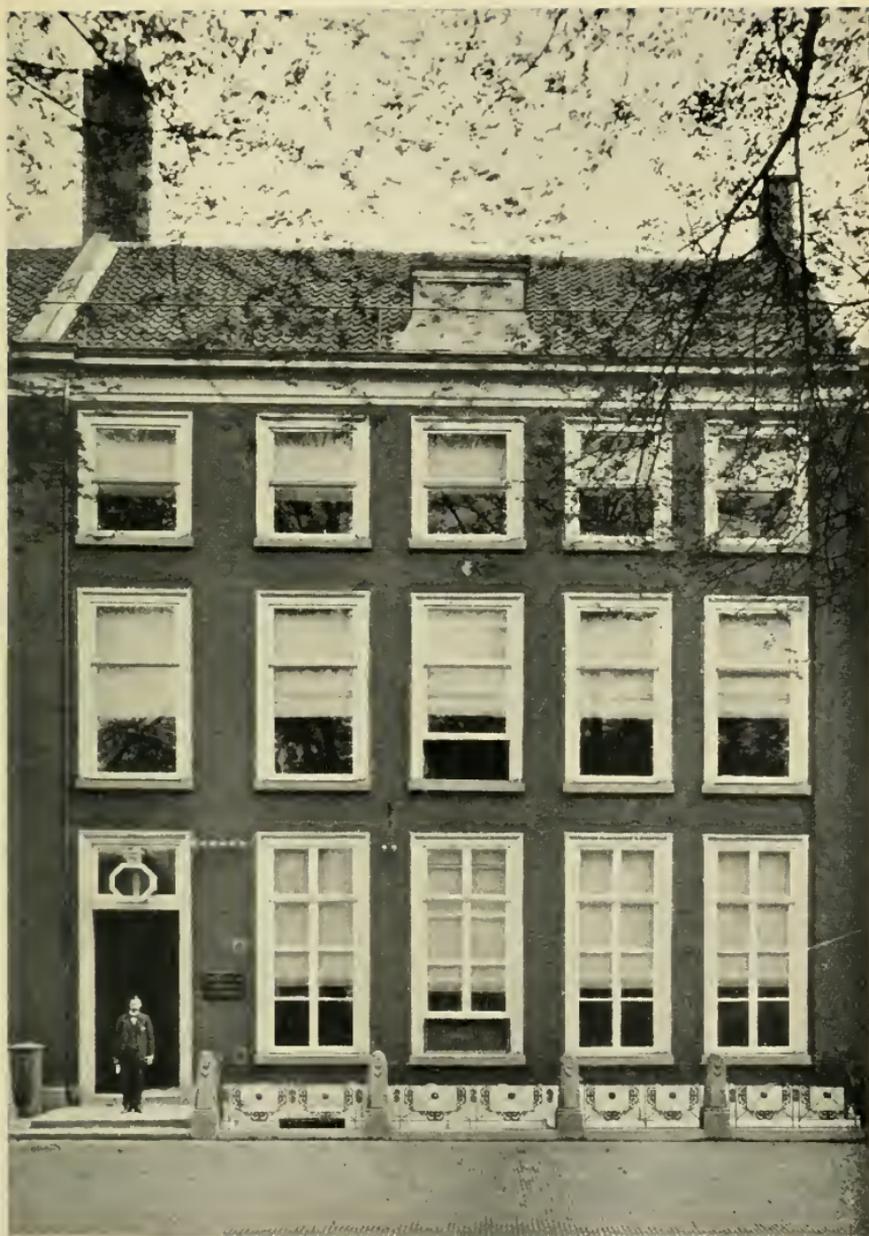
Glanders is stated to have been exterminated in the Netherlands by slaughtering before Mallein was known. “To fight glanders the system of killing has proved in

Holland most decisively to be the safest. Horses suffering from glanders are expropriated by the Government on the half of the value, and if in a special case a horse is killed because it was suspected to be suffering only from this disease, full price is paid."

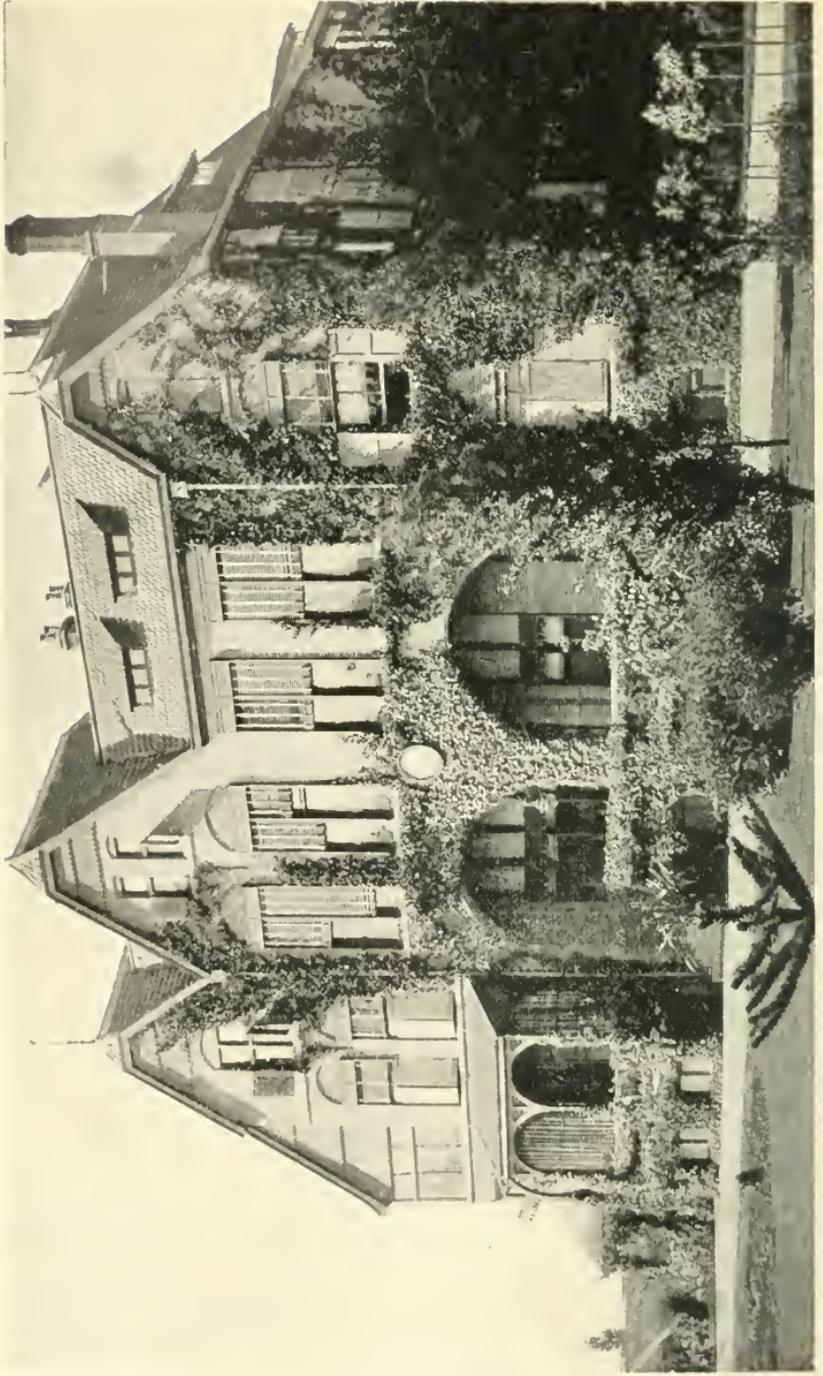
He goes on to say that the extermination of various diseases "has cost the Government a large amount of money, and in that matter it has been supported by the Parliament. If anything is characteristic of the Dutch Parliament it is the fact that it shows a great readiness whenever it is a matter of suppressing contagious cattle diseases."

**The Dour Dutchman.**—But all that is done in the Netherlands in agricultural matters is done at the instance of the man on the land and not of "the men at the green tables." The Dutchman will not be driven. I shall not forget the tenderness with which one high Hollander official, in alluding to the ruling house in conversation with me some years ago, spoke the words "our little Queen"; how he dwelt with quiet pride upon what he had heard of his girl Sovereign's willingness to study and think over the difficult, dry and uncongenial data of statesmanship, and alluded to the patriotic hope of an heir to prevent a difficult decision having to be taken between the succession of a German princeling and the establishment of a Republic. It was the same man, however, who also took pleasure and pride in what he happily called the "loyal resistance" of his countrymen to the monarchy. It is a speaking phrase, "loyal resistance," and surely only those who thoroughly understand it are fit to govern!

Passive resistance has ever been a weapon of power in the hands of the dour Dutchman. This might be borne in mind in relation to the possibility of the aggression which everybody in Holland thinks about but few people speak about. "They may take our country, no doubt," said a Hollander to me, "though, with the most important part of the country under water, they will have a bigger job than they reckon on, but will they be able to keep it? Think of their difficulties only in the matter of raising revenue.



CHIEF OFFICE OF THE DIRECTIE VAN DEN LANDBOUW



INSTITUTE FOR PLANT DISEASES AT WAGENINGEN

As it is, a very large proportion of Hollanders do not pay their taxes till the third time of asking. With the first warning there is a 1d. fine added, with the second a 2d. one, and the final summons costs 1s. 8d. Cunning business men say it pays them to lose the 1s. 11d., for they can be turning over their money the while!”

**State Organisation of Agriculture.**—I may properly add to this chapter some sort of tabular statement showing the official and non-official organisation of agriculture and horticulture in the Netherlands.

Let us first take the work of the State. It may be roughly summarised as below. It will be seen, however, that there is an enormous amount of honorary work represented in the table.

The Directie van den Landbouw is a department of the Ministry of Agriculture, Industry and Commerce. The Directie works in seven departments. Outside its offices—scattered about in private houses like our own Board of Agriculture\*—there are the following manifestations of agriculture as an interest of the State:

**EDUCATION.**—High and State Schools, Wageningen, with Institute for Implements, etc., and Plant Diseases Institute; Veterinary School, Utrecht; Dairy School, Bolsward; Horticultural School, Frederiksoord; Heath Society’s Courses; Winter Schools; Winter Courses.

**EXPERTS.**—State Agricultural Teachers; State Horticultural Teachers; Butter Consultants (one of all three varieties of experts in the different provinces or special districts); Commissioner in London;\* *Provincial Commissions to overlook the subsidised experimental fields*;† Veterinary Consultants; Itinerant Teachers of the Society of Horticulture and Botany; Itinerant Teachers of the Bee Society; Poultry Consultant.

**STOCK BREEDING.**—Horses, State Stallion Colt Dépôt;

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\* Although connected with the Department of Agriculture, the “Rijkslandbouw consulent der Nederlanden voor Groot Britannie en Ierland” is counted as belonging to the Foreign Office.

† The Dutch Parliament has voted £66,000 for a new building.

*Commission on Regulations; Provincial Commissions.\* Cattle, Provincial Commissions.\* Pigs, Provincial Commissions.\* Goats, Provincial Commissions.\**

EXPERIMENTAL STATIONS.—*Advisory Committee, Provincial Committees.*

PLANT DISEASES SERVICE.

VETERINARY SERVICE.—Inspectors and Veterinaries; Serum Institute.

BUTTER CONTROL SERVICE.—Along with this is the State Dairy Institute.

DOMAINS.

As has been already explained, the State does not bear the full cost of all under the heading Education. Neither are all the experts wholly State officials. The members of the *commissions* in italics serve in an honorary capacity. The asterisk signifies commissions through which the Government gives its subsidies and premiums.

**Non-Official Organisation.**—The mere lists and the names of the persons concerned in the foregoing occupy thirty pages in a Government reference book. But a still larger space—eighty pages—is occupied by the names and officials of the various agricultural and horticultural societies and bonds in the country—sometimes the word is *maatschappij*, sometimes *bond*, sometimes *genootschap*, and sometimes *vereeniging*. First comes the Nederlandsch Landbouw Comité (Dutch Agricultural Committee), the Parliament of agriculture in the Netherlands. Thirty-two large organisations are represented in it. Next are two national associations, the Royal Dutch Agricultural Society and the Dutch Boerenbond (farmers' society). The Boerenbond is the head of nine large provincial Catholic boerenbonden, and stands for 55,600 members. There are other large agricultural organisations, but they come under the heading of societies working, not *over het geheele land*, but in one or two provinces or parts thereof. They are therefore arranged in the handbook under provinces. Taking Groningen, there is first the Groninger Landbouwbond, a famous federation of agricultural asso-

ciations, with 4,866 members. Then the Maatschappij van Landbouw, which has 22 branches and 1,934 members. A Veenkoloniale Boerenbond has 2,033 members. A society for the Westerkwartier boasts 266. Finally, there are village societies, 116 of them with 6,523 members. This is for a province not so large as Dorset. And so on through the different provinces.

Next we have all the national and local horticultural organisations with the Nederlandsche Tuinbouwraad at their head.

We have been dealing, however, with purely agricultural and horticultural societies. There are still to be counted all the societies, national, provincial and local, specially devoted to horse, cattle, sheep and goat breeding, not to speak of poultry and bees; the national, provincial and local creamery organisations, the eight butter control stations, and the cheese control stations and societies; educational organisations, national, provincial and local; and associations like the Heidemaatschappij, which come under no heading but their own.

The membership of the provincial and local agricultural and horticultural societies alone is 169,520. Add the membership of all the organisations in the book, and the total would plainly be remarkable.

That is creditable indeed for a country the cultivated area of which is, as has been stated, about that of Essex, Suffolk, Norfolk, Lincoln and Kent. It would be interesting to know how many farmers in Essex, Suffolk, Norfolk, Lincoln and Kent belong to societies.

**Religion and Goat Breeding.**—There is one feature of these lists of societies which is not so pleasing however. Take the table of purely agricultural societies in Zeeland:

Society for advancing Agriculture and Cattle breeding ..	3,189
Roman Catholic Farmers' Society .. .. .	1,084
Christian Farmers' Society .. .. .	304
Local Village Societies .. .. .	5,483
	<hr/>
	10,060

The adjective before the village societies, *zelfstandige*

(self-standing), is fine, but what about this Roomsche Katholieke Boerenbond and Christelijke Boerenbond? In some parts the farmers are even more partial to the Christlike Society—in North Brabant, for instance, out of 29,281 members of agricultural societies in the province, 25,434 give adherence to the Noordbrabantsche Christelijke Boerenbond, in this particular case a Roman Catholic organisation.

I was one day in a town in another province than any of the three named when I came upon an imposing co-operative cattle-cake factory. Its cake, it seemed, was for the cows of Roman Catholics and approved believers of other denominations who subscribe to the triune faith in "God, the Family, and Individual Possessions."\* What is one to think of the fanaticism which can bring into existence a Roman Catholic Goat Breeding Society?—to be found in Limburg. Sir Horace Plunkett's story about the Nationalist solicitor who declared at a co-operative propagandist meeting that butter would be made at Rathskeale on Nationalist principles or it would not be made at all is outdone.

The cake factories of the Boerenbond work for their members, who in one district may be wholly Roman Catholic and in another Roman Catholic and Orthodox. The Bond not only makes cake. It works for "the moral and economical upraising of the countryside." In many villages agricultural lectures are preceded by a prayer or a psalm. In Roman Catholic villages the priest is the local adviser of the Bond and often does excellent work. *Christelijke* (Christian) is the usual name of Protestant societies.

I hardly needed an enlightened farmer to assure me "that it is very harmful for their agriculture that the Roman Catholic farmers are led not to work together with Protestants." By the way, the same speaker expressed the opinion that it was "easier in general to work with the Roman Catholics for their improvement than with the Orthodox; they are more easily led and they are in

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\* I am sorry to say that I have since seen in the papers that the excellent objects for which the cake is prepared have not availed to make its production successful.

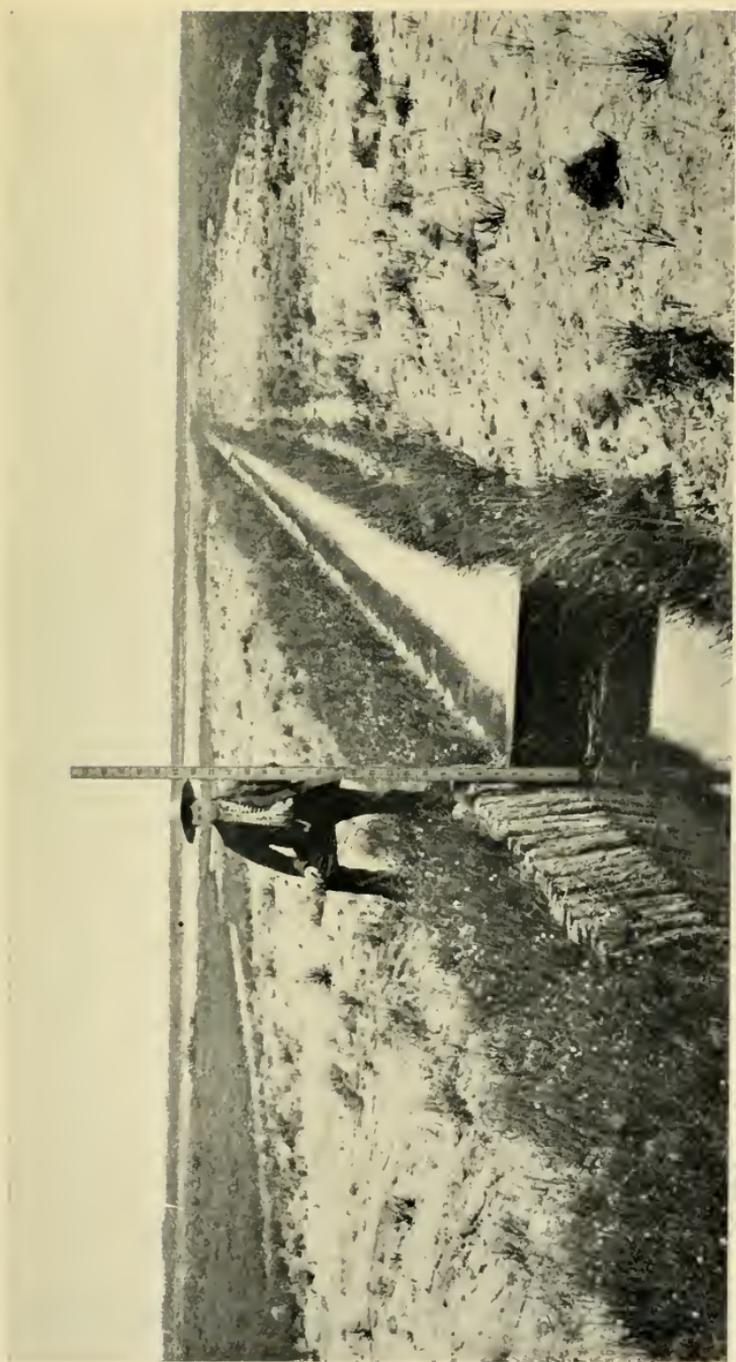
some ways not so conservative.” “But,” as he added, wisely, “it is a question that cannot be discussed in a few words.” A correspondent writes to me, “Yes, the Boerenbond has done many good things. It has made it possible for there to be many co-operative buying associations, co-operative farmers’ banks, etc. Without the Bond there could not have been such rapid progress. In practice, so far as the farmers’ pockets are concerned, the Roman Catholic and Christian agricultural co-operation was not deplorable.” But in rural life there are some other things to be taken account of than pockets.

**Budgets of Dutch and English Agricultural Departments.**—We have got away somewhat from the question of the State and non-State assistance received by the man on the land in the Netherlands. It is interesting to know exactly what the Ministry of Agriculture costs the country. Just as our own Board of Agriculture is concerned with fisheries as well as with farming, the Dutch Department is concerned with trade as well as with agriculture. It takes an expert, therefore, to say precisely how much of its expenditure is properly to be debited to the man on the land. For the following figures as to the expenditures of the Dutch Department and the English Board I am indebted to authorities. Taking first the figures for the Netherlands, they total over £250,000, including the following:

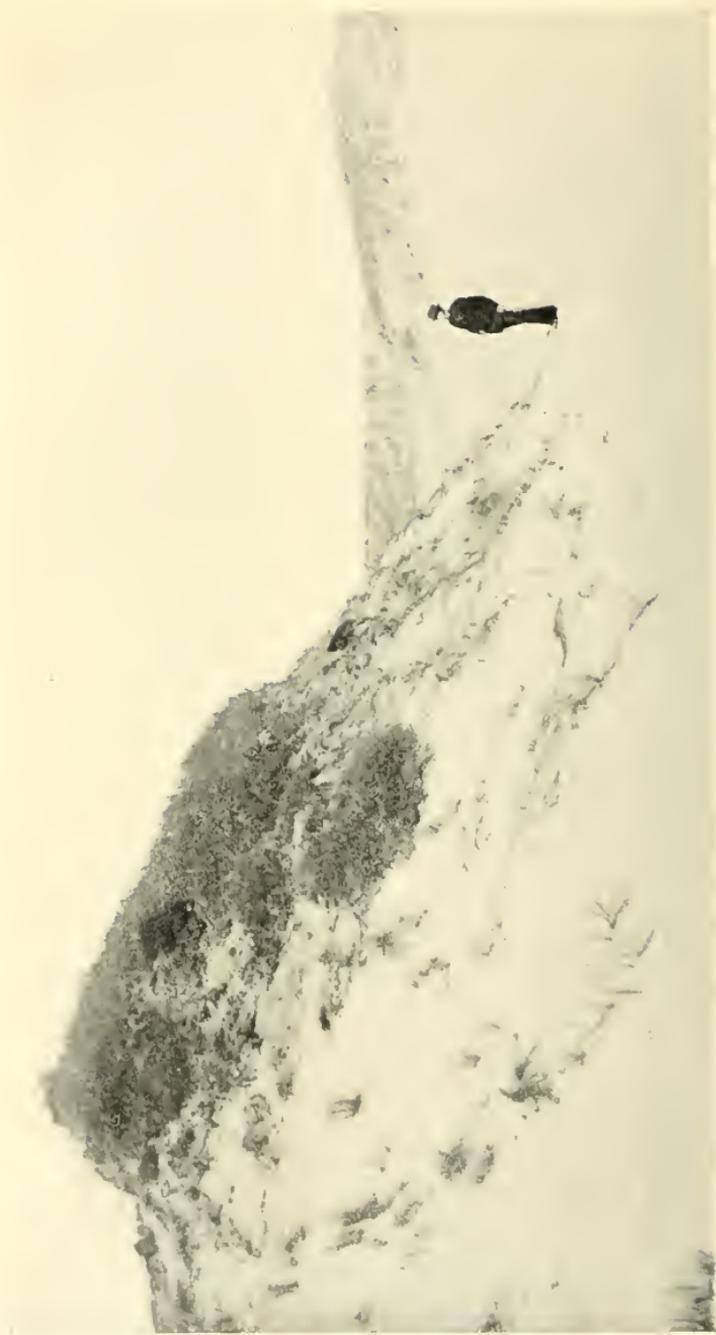
Education :—

Agricultural Schools and Winter Courses .. ..	£59,750
“ Rijkslanbouwleeraren,” “ Tuinbouwleeraren ” butter and veterinary “ Consulenten ” .. ..	15,000
Cattle breeding .. .. .	20,000
Agricultural Experiment Stations .. .. .	14,411
Institute for Plant Diseases at Wageningen .. ..	5,025
Veterinary Service.. .. .	60,411
Butter Inspection and Butter and Cheese Control Stations .. .. .	6,161
Dairy Experimental Farm .. .. .	291
Subsidies to Agricultural Banks .. .. .	1,333
Subsidy to Netherlands Agricultural Committee ..	875
	<hr/>
	£183,257
	<hr/>

With regard to the English Board's expenditure, the figures given in the reference books fall short because, as I took occasion to point out some years ago, they do not include the rental value of the offices occupied by the Board, and they also fail to take account of the fact that the Board's correspondence goes post free. There are similar omissions, however, in the Dutch figures. Reckoning everything, the total sum laid out by the nation on the Board at present cannot be less than £460,000 in the year. Of this, £93,530 comes from the Development Fund, *i.e.*, £34,940 for agricultural research, £40,000 for light horse breeding, £4,700 for the development of forestry, £10,000 for the provision and maintenance of farm institutes, and £5,690 for the development of fisheries. The £460,000 includes the expenditure on the Fisheries branch. My informant very properly says that it is necessary to give a warning against too rigid a use of these figures for comparative purposes. In the case of Holland and Great Britain we have especially to remember the preponderatingly agricultural character of the former country.



DRAINING THE SANDY MOOR



SHIFTING SAND

# THE ROMANCE OF THE LAND THAT WAS MADE

## CHAPTER XIV

### HOW HOLLAND ROSE FROM THE WATERS

**Where Holland Came From.**—Because the agriculture and horticulture of the Netherlands are in a very special degree the product of her physical conditions, it is a pity to make a tour of the provinces without having some notion, however incomplete, of the actual conformation of the country.

“Holland,” someone wrote last year, “is but the end of the valley which declines into the sea on our eastern coast.” The more usual way of looking at Holland is from the Continent to which it belongs. It then presents itself, as it did to Motley,\* as the north-western corner of the vast plain which extends from the Ural Mountains, through Russia and Prussia, to the German Ocean. Undoubtedly, however, Napoleon gave a more vivid impression of the country when he suggested that it was merely the deposits of the Meuse and the Rhine.

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\* **WORKS IN ENGLISH ON HOLLAND.**—This is perhaps as convenient an opportunity as any to remind the reader of Motley that a new edition by a Dutch or an Anglo-Dutch hand—the original was published in 1856—would contain as many emendatory footnotes as Professor Bury’s Gibbon. Picturesque and immeasurably laborious. “The Rise of the Dutch Republic” is accepted by Dutch writers as little more than literary history. The facts are often far other than Motley supposes. That he was a partisan it does not need a student to discover. But that he often gave undue praise is only to say that he fell into the same kind of mistakes as has successively beset Froude, Davies, Rogers, Campbell, and almost every other English author, including no doubt the present writer!

**A Country of Waterways.**—Any map of the Netherlands shows at a glance that it is what it is largely because of its numerous waterways. Holland has communication with the European interior by way of the Rhine; the Maas, which also crosses the kingdom at its widest, enters it at the very end of the peninsula of Limburg; and the islands of Zeeland lie in the mouth of the Belgian Scheldt.\* But no one has ever said that it is the most interesting part of Holland which is controlled by the Rhine and Maas and their tributaries. In fact, many thousands of visitors to the Netherlands see nothing of those rivers but their estuaries. Amsterdam and The Hague are as far away from the Rhine and the Maas as the seat of the bulb and some other famous cultures. In studying the butter and cheese of North and South Holland, the stranger brings away no impression of rivers from his journeyings.

There are large rivers crossing the Netherlands, and waterways play a commanding part in the agriculture, horticulture and commerce of the country, but the mileage of the navigable canals (1,522 miles) is greater than that of the navigable rivers (1,135 miles), and even some of the navigable rivers are canalised. An alternative qualification for a vote in Queen Wilhelmina's dominions is the ownership or tenantry of a boat of not less than 24 tons.

It is, then, in the *water level* of the country that one finds the key to the work of the man on the land.

**The Hills of the Netherlands.**—If from any point on the western or northern coast of the country, or of the eastern frontier, one were to walk to the province of Limburg, which thrusts itself down between Belgium and Germany, one would find at the extreme south of it, on the actual border in fact, a hill 1,048 feet high. It is marked *Hoogste Punt van Nederland*,† that is, "the highest point of the Netherlands." From this hill, on which one stands with one's back to the two countries which share, the one the southern and the other the eastern frontier, the whole of

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\* The Maas is not, like the Rhine and Scheldt, an international highway.

† *Nederlanden*, though in the Queen's title (p. 283) includes Belgium.

the Netherlands slopes away in a north-westerly direction to the sea.

On the sandy moors of the eastern and central area there are, as the map shows, a few hills of billowy sand containing sandstone, but these are the only eminences of the kingdom outside Limburg. The country is highest along the German frontier, and falls, as already stated, as one travels north-west. It falls so much that about half the country is either below or not more than knee high above the level of the sea.

**Rock, Sand, Clay and Fen.**—In the hills of southern Limburg we stand in the oldest part of what is, as to 99.9 per cent. of its area, a young country. On the part of Holland which is not young, the .1 per cent. part, we are on the remains of an epoch the memorials of which are coal and the bones of mammoths, and limestone. Once we move into the rest of the Netherlands—the alluvial and diluvial area—we are, but for the peaklets in the sands of Gelderland and Overijsel just mentioned, in a land of yesterday.

Primevally, then, these Limburg hills, and the smaller ones of the two provinces named, stood out above the waters. The next oldest part of Holland is, perhaps, that sandbank which forms the foundation of the coast line. It is now covered by the shallows of the North Sea and by the Dunes, which lie along the seashore in Zeeland, in North and South Holland, and in the islands which stretch from the Helder to the Dollart. Ages ago the original sandbank had made of part of the German Ocean an inland sea which covered the whole of what is now the Netherlands but its few hills. It was what is approximately the eastern provinces of Limburg, south-eastern Brabant, Gelderland, Overijsel and Drenthe, which came first into view. These tracts were sand—with gravel—the debris brought from the glaciers of Central Europe and Scandinavia. Through them coursed the rivers, depositing within their then wide banks, beds of clay as they narrowed and slowed down.

On the high but still wet country grew moss and heath and

trees, and died. More grew over them, and in the matted growth the rain-water that fell did not get away. In this fashion there came into existence high fen, or high peat, in most places to-day a man's height or more.

Over what was to be the western and more northern provinces, Zeeland, North and South Holland, Groningen and Friesland, the sea got shallower, larger tracts of clay were deposited in the deltas for thousands of years, water plants grew and rotted, and the low fen peat was made, to be afterwards covered, in many areas, by sand.\* The ancient sandbanks behind which all this work went on were of no avail, however, against a sinking coast line—the coast of Holland still sinks at the rate of a millimetre† a year, and many polders are deeper than when first reclaimed—and the sea broke through. Great areas were covered with sea mud (*zeeklei*, sea clay), the rivers were made to shift their channels, and the Zeeland and South Holland islands took very much the form they possessed at the dawn of historic time. When later on the wall connecting Dover and Calais broke, the sea drove in even more furiously.

About 60 per cent. of Holland may be said to be the work of her rivers, or as her neighbours say, the work of her neighbours' rivers, for it was from neighbouring lands that the alluvium was brought. As to the rivers, it has been stated that more solid matter still leaves the country every year than enters it.‡

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\* PEAT IN THE STREETS.—On looking into a cutting for a sewer pipe in a street in Amsterdam, or in most towns of North or South Holland, one may see that below the sand—which is only kept by staging from pouring into the hole—there is peat. In the terrific storms which visited Holland shortly before my last visit, hundreds of old trees in the delightful wood at The Hague were thrown down because their roots were only in the surface sand.

† A twenty-fifth of an inch.

‡ THE FORMATION OF THE SOIL.—This account of the formation of the land is, I need not say, somewhat hypothetical. The subject is highly controversial. No two geological narratives agree. But what I have written will give a sufficient, if an extremely rough idea of the processes—whatever their exact order—which produced so interesting a surface formation as that of Holland. The following translation of passages from A. A. Beekman, the distinguished engineer,

**The First Hollanders on their Mounds.**—The primitive Batavians dwelt in the Betuwe\*—whence the name—within what Virgil calls the “two-horned” Rhine.

The problem of life in a land of inundations was first met by the building of mounds—called *terpen*, *werven* and *wierden*—and the extension of them by dikes. In certain islands where there are no dikes such mounds are still in use at high tide; and wherever there are villages ending in *terpen*, *werven* and *wierden*, we may assume such mounds to

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the author of the valuable “Nederland als Polderland,” now out of print, and of “Polders en Droogmakerijen” (“Polders and Drainages”), the fourth volume of which has still to come out, shows how the problem unfolds itself to a professional student:

“The alluvial deposits were partly brought hither from the south by the rivers Rhine and Maas in an age when these rivers flowed upon a much higher level, carried much more water, coming probably from extensive mid-European glaciers, and ran much more swiftly. Partly they came from Scandinavia. This alluvium consists of sand, gravel (*grint*) cobbles and strata of loam—this loam mostly not on the surface. Generally speaking, these deposits form the southern and eastern parts of the country. In the western and northern coastal parts this alluvium disappears below the diluvial, which forms the surface. The diluvial ground came into existence after the alluvial in the same way as still occurs. It is fen, clay, and, near the coast, alluvial sand.

“As to the origin and real character of the process by which this formation came into being there are, of course, different hypotheses. But the most probable, and at the same time the most useful for the understanding of the country seems to be this one. By the action of the sea and the tides a series of sand-flats formed some distance out to sea from the present coast. These formed a kind of enclosure for a shallow lagoon. Upon these sand-flats or banks, one or two hours’ walk wide, dunes arose. First on the landside (the present inland dunes); then in another row at the seaside. Of these the actual sea dunes are the remains. As the enclosed water grew quieter, first sand and afterwards sea clay (blue clay) was precipitated upon the bottom. At last it came about that in this shallow lake, now largely filled with fresh water [*zoet water*, sweet water as it is called in Holland, in opposition to salt or sea-water] a rich flora developed, and the dead remains of these plants made low fen. This layer became thicker and thicker by a slow but general and continuous sinking of the bottom lower below the water level. [The whole process has been thoroughly investigated and described by Dr. Lorié in his work, “*Les dunes intérieures, les tourbières basses et les oscillations du sol.*”

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\* *Betuwe*, good meadow; *Veluwe*, bad meadow.

have existed.\* One *terpen* island is in the Zuider Zee, which, with that other great inlet of the sea, the Dollart, came into existence as late as the thirteenth century.† In Groningen there are villages on the top of *wierden*, sometimes 15 acres in extent and from 10 to 15 feet high. Think of the labour of those who built the mounds two thousand years ago!

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Contributions à la Géologie des Pays-Bas. Archives Teyler. Serie II. ; Tome III. ; 5 ieme partie.]

“The reader will take note that this is a very rough sketch in outline of the process, and that it was not always and everywhere so simple and continuous. But if this be kept in mind, it may be said that the original lagoon-lake was filled up by a very extensive low fen, which ages ago stretched from Northern France, across Flanders, Zeeland, Holland, Western Utrecht, the southern part of the later Zuider Zee, and parts of Overijsel, Friesland and Groningen. There were gaps, of course, in this fen at the mouths of the rivers Scheldt, Maas, and Rhine, and some other places.

“As to the exceptions to this general process, there are, for instance, in Holland and north western Utrecht two layers of fen, of which the lower is from three to ten feet thick, and the lowest part of it from about twenty-two to nearly thirty feet below A. P. (*see* page 123). It is supposed that after the growing of the deeper stratum of peat the process ceased, either because the lake became too deep by the general sinking of the bottom, or because by enlargement of communication with the sea and the rivers, the water was too much agitated. Upon this first fen came then alluvial sand, and in the North of Holland blue sea clay. In this period the dunes must have risen upon the sea-sand flats. Then, by more closely shutting in the lake, and perhaps by the sinking of its bottom, another fen-layer was formed, which rose somewhat above sea level.

“After this there must again have been a period in which by the widening of the river mouths, and of the gaps made by the sea, large tracts of the fen were torn off and washed out, and large areas of sea clay were again precipitated upon the bottom.” For further details *see* Venema’s “New and Simple Explanations of the Changes on our Coasts, along the Sea, etc.” (Groningen, 1849), and the works of Beekman himself.

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\* HOME.—It is interesting to notice that the nearest word to “home” in Dutch is *heem*, which means both a farmyard and a dike.

Our own Glastonbury lake village, at the time of its discovery, was represented by a cluster of eighty-nine low mounds, rising above the marshes.

† FORMATION OF THE DOLLART.—It came into existence in 1,277, when it is said that thirty-three “church villages,” a little town, two abbeys and some hamlets disappeared.

**Formation of the Zuider Zee.**—Before that time, a narrow stream alone separated Friesland and what is now the province of North Holland. It will be noticed from the map that part of the province of North Holland is still called West Friesland. When the waters of what is now the Zuider Zee burst in, in 1170, they have said to have engulfed thousands of Frisian villages with all their population, possibly 100,000 souls. It was not only the loss of life and land which constituted the disaster. It “spread,” as Motley says, “a chasm between kindred peoples.”

The political as well as the geographical continuity of the land was obliterated by this tremendous deluge. The Hollanders were cut off from their relatives in the East by as dangerous a sea as that which divided them from their Anglo-Saxon brethren in Britain. West Friesland became absorbed in Holland. East Friesland remained a federation of rude, but self-governed maritime provinces, a republic except in name.\*

**If the Dikes Broke.**—The map on page 15 shows at a glance how much of the Netherlands would be above water if her sea and river dikes broke. Of the total area of the country 38 per cent. would be over-run by an ordinary high tide. This means that North and South Holland (except the Dunes), western Utrecht, and most of Zeeland would be under water. Of the 62 per cent. which is more than a metre ( $3\frac{1}{4}$  feet) above A.P. (*Amsterdamsch Peil*, that is, Pile):†

12 per cent. is	$3\frac{1}{4}$	to	$16\frac{1}{4}$	feet above A.P.
12	„	$16\frac{1}{4}$	„	$32\frac{1}{2}$ „
24	„	$32\frac{1}{2}$	„	$81\frac{1}{4}$ „
12	„	$81\frac{1}{4}$	„	$162\frac{1}{2}$ „
$1\frac{1}{2}$	„	$162\frac{1}{2}$	„	325 „
$\frac{1}{2}$	„	325	„	„

There are Dune-protected strips of coast on the North Sea and some short lengths on the Zuider Zee which are high enough to keep out the salt water without dikes.

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\* “At this time,” as Motley writes, “Holland, Flanders and Brabant had acquired a large measure of self government.”

† The general level for the whole of the Netherlands is now N. A. P. (New Amsterdam Pile). It has also been adopted in Germany and elsewhere.

There is even a small part of Friesland which has cliffs. But, for the rest, the whole coast of Holland and its many islands—look at the number in Zeeland and South Holland—is walled in some way against the ocean. (At the Helder, the dike, of Norway granite, goes down 200 feet into the sea; the West Kapelle dike is a full 40 feet wide.) Not only this, the Maas and the two channels of the Rhine are diked on either bank for a large part of the width of the country. The IJsel, for nearly as long a distance, has to be almost as carefully hemmed in. There are as many as 1,500 miles of sea dikes, the cost of which must have been more than twelve millions sterling. The sea and river dikes do not cost much short of a million and a quarter per annum for maintenance.

Dike building, not only to protect tracts of country from inundation, but to take back land from the sea, went on before the eleventh century. But ever storms, seemingly in cycles of years, burst upon the earthen battlements and overthrew them in miles.

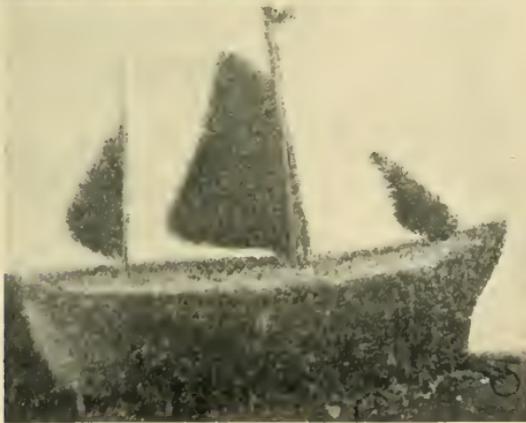
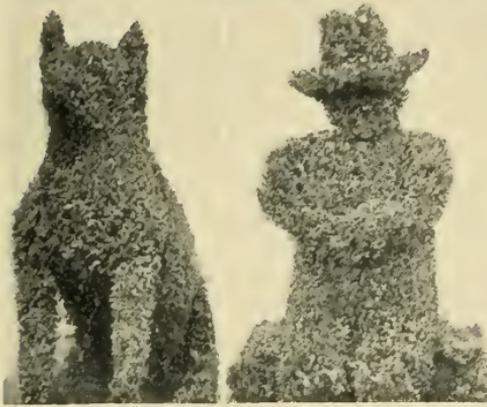
From 1702-1805, it has been computed, there were storms on an average every eleven years. It was not, therefore, only the cost of building the dikes which had to be borne, but the heavy yearly expense of keeping them up.

**How Holland Grew Larger.**—The way in which Holland has grown in size by indiking, within the lifetime of people now living, is one of the wonders of European history. Just before Queen Victoria came to the throne the area of the kingdom was 13,083 square miles. To-day it is 15,274.\*

Holland has grown not only as the result of forcing back the sea and of compelling the rivers to keep their channels, she has extended the area available for agriculture by means of a drainage system made possible by the application in the fifteenth century of the discovery that water could be lifted by means of windmills. Canals were made above the level of the land, and windmill-pumped water from low-lying

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\* The "Encyclopædia Britannica," by a mistake, states that from 1833 to 1877 the area of the country increased from 8,768 to 12,731 square miles!



SPECIMENS OF TOPIARY WORK

At a Nursery made in a mere ("Terra Nova")



HOW SOME MILK COMES TO A HOLLANDIA COMPANY CREAMERY

areas was carried away in these channels. Whenever I see the phrase "the bosom of the deep," I think of the name given to a Dutch drainage canal, *boezem*.

**The Soil of the Country.**—But before going further into the interesting subject of land making, the reader should look at the soil map, and note that however rich some parts of Holland may be, much of the country is of comparatively little use, and some of no use at all.

As much as 46 per cent. of Holland is sand, with some gravel. Of the rest, 35 per cent. is sea and river clay, and nearly 19 per cent. is fen. The following are the details\*—the terms will be explained later :

Low fen ( <i>Laagvenen</i> )	.. .. .	11.7
Bog fen ( <i>Moerasvenen</i> )	.. .. .	2.0
High fen ( <i>Hoogvenen</i> )	.. .. .	2.7
High fen when fen has been removed ( <i>Dalgronden, afgeveende hoogvenen</i> )	.. .. .	2.5
Total fen area ( <i>Veengronden</i> )	.. .. .	18.9
River and sea clay ( <i>Rivierklei en zeelei</i> )	.. .. .	31.1
Brook clay and grass land by streams ( <i>Beekklei</i> [beck clay] <i>en groen gronden</i> [green grounds])	.. .. .	1.9
Old sea clay from which the low fen has been taken ( <i>Oude Zeelei der droogmakerijen</i> )	.. .. .	1.5
Total clay area ( <i>Kleigronden</i> )	.. .. .	34.5
Moving sandhills ( <i>Zandverstuivingen</i> )	.. .. .	2.2
Dunes and mixture of low fen and sand in the region immediately behind them ( <i>Zeeduinen en geestgronden</i> )	.. .. .	2.8
River sand, river dunes, etc. ( <i>rivierzand, rivierduinen</i> )	.. .. .	0.08
Old sea sand	.. .. .	0.7
Diluvial sand and gravel soil ( <i>grint gronden</i> )	.. .. .	4.0
		<hr/> 45.78

**The Best and the Worst of Holland.**—Zeeland is sea clay; North Holland, low fen and sea clay; South Holland, low fen, sea clay and a little river clay. Friesland and

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\* Hartogh Heys van Zouteveen, from the geological map of Staring quoted by Blink.

Groningen are mostly sea clay with hinterlands of low and high fen and sand. Across the centre of the country, along the course of the "two-horned Rhine" and the Maas, is a belt of river clay, shared by the southern part of Gelderland and Utrecht and by the northern part of North Brabant. But most of Brabant and Gelderland and a third of Utrecht are sand—there is a part of Utrecht low fen. Overijssel is three-quarters sand; the rest is river clay and river silt. Drenthe is chiefly sand and high and low fen. Limburg is sand, when one is away from the clay of the Maas, and, in her southern extremity, loess.

The most desirable agricultural districts are clearly therefore the coastal ones, Zeeland, South and North Holland, Friesland and Groningen, with southern Limburg, western Brabant and western Utrecht, and those parts of the remaining provinces which are river clay or beck clay, or fen colony. An intelligent agriculturist who saw a relief map of Holland and noted the course of the rivers and the way their mouths have been blocked by the primeval sand banks would naturally be attracted by the low-lying alluvial marsh which constitutes so much of the west and north-east of the Netherlands.

**Peats.**—If the name of Holland be traceable to Holt-land—Wood-land\*—the time came at a very early stage in her history when she had to find something else to burn than wood. The fuel she used was peat. There are two chief kinds of peat (in Dutch, *turf*, which is produced from fen, *veen*):

1. Low fen (*laag veen*), composed of plants preserved in water, is the best or short peat (*vaste* or *korte turf*). Being below water it must be scooped out. It has been largely obtained in North and South Holland and in parts of Drenthe, Utrecht, Friesland and Groningen. In early

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\* Rapidly though afforestation is proceeding, there were formerly larger areas of wood than now exist. The Leidsche bosch at Amsterdam, the Haarlemmer Hout (wood), at Haarlem, and the Haagschebosch at The Hague are the remains of a great wood. The name of Holland was formerly applied to the country round or near Dordrecht; later to the county of Holland and Zeeland.

spring the suitable pools and lakes in low fen districts are dredged with nets at the end of long poles. The black, muddy substance is spread on straw-covered plots (so as not to adhere to the soil), and is allowed to dry and shrink. In early summer it is made more compact by treading boards, which are strapped to the workmen's boots. It is then sliced and cut up into separate *turven*, which are stacked in a peculiar way to let the wind and sun have the freest play, and then shipped and sold in the early autumn. Of late years machinery has been applied to this very old industry.

2. High fen (*hoog veen*) consists of successive layers of moss, heather and dead bushes and trees, lying above water in Drenthe, and next in point of quantity, in Groningen, Overijsel, Friesland and Brabant. High fen produces the inferior kind of peat, *losse*, that is loose *turf*. It is called long peat from the shape of the blocks. Low-fen peat is square in shape and much harder. A description of the cutting of *losse turf* appears in the pages devoted to Groningen (Chapter XX.).

**Floating Land.**—There is also a kind of fen which sometimes gets loose and floats about. A farmer who finds a piece of this floating bog drags it alongside his land and fastens it down. It still floats, but it cannot float away. Sometimes the ownership of such a piece of *söd* is disputed, and the floating territory may be detached and added to another claimant's holding. Land stealing of this curious kind is not unknown in Holland.

## CHAPTER XV

### THE WINDMILL AND THE PUMP

*Wien water aeert, water keert.* (Those who suffer from the water must fight the water.)

**Draining the Haarlemmer Meer.**—The result of scooping out the short peat was to form lakes or additional lakes in North and South Holland and Friesland. Sometimes the excavated water expanses got joined together in storms. The Haarlem Lake (Haarlemmer Meer) was formed by four lesser meres. Though the lake was only of an average depth of 13 feet, it was more than 70 square miles in extent, and “exposed as it lay to all the winds of heaven,” it was often, Motley says, “lashed into storms as dangerous as those of the Atlantic.” No one can have read unmoved the story of the water fights of the Liliputian fleets on the surface of this inland sea which attended the heroic defence of Haarlem. Before the Meer was drained it had threatened, in time of storm, the security of both Amsterdam and Leyden. At length the draining was set about. This was as recently as the 'forties. It had been proposed, however, so long before as 1650, by the engineer Leeghwater, whose name is commemorated in one of the great Haarlemmer Meer pumping stations, where pumping is likely to go on till Doomsday. The first step was to dig a canal right round the lake to receive its water. This canal was nine feet deep, about 120 feet wide and 38 miles long. From the time of the completion of the preliminary work to the time when the lake was dry was a period of seven years. The cost of securing the 42,000 acres of new land was more than a million sterling, but the sale of land brought in about

three quarters of a million. The thousand million tons of water which had been pumped were raised by engines made in London and Cornwall.

**Lakes which cannot be Drained.**—Not all lakes, however, are worth draining. A good clay bottom rewarded the draining of the Haarlemmer Meer and other lakes of North and South Holland. In Friesland, because the bottom of the meres is sand, they have been allowed to remain for the delight of tourists. A lake may also be left undrained because the bottom, though clay, is not sufficiently strong to resist springs; if drained, it would probably fill again. A percolation of water through the bottom of drained areas takes place in every case to some extent. It is unimportant, however, if it can be coped with by moderate pumping.

The Zuider Zee was largely a low fen area, and it is hoped that when this great lake is drained, a large part will prove as satisfactory as the bottoms of the smaller expanses of water which have been made dry. The peat has been washed out of course by the sea. What remains is partly good clay, and partly, in the south-east, sand.

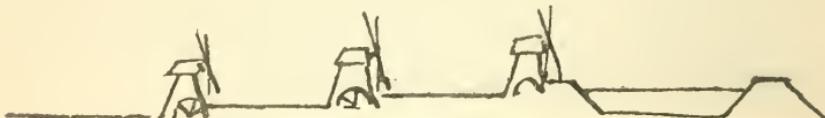
**Polders and Droogmakerijen.**—Into the technicalities of the *polder* and *droogmakerij* (pumped-out lake, plural *droogmakerijen*) there is no need to go. It is almost impossible for a foreigner perfectly to understand them. As a Dutch friend said, "the subject is really bewildering." The latest work on the subject is in four volumes—the excellent "Polders en Droogmakerijen," by A. A. Beekman (The Hague). I gather from his pages that I am not far wrong in the following definitions:

A *polder* is a piece of land surrounded by dikes or the low narrow dikes called *kade* (quays), which shut out the surrounding water and completely enclose the water in the polder, so that the water in it is under control.

A *droogmakerij* (drainage) is the drained area of a lake or mere (*meer*), usually an area of low fen where the peat has been removed and water has gathered in its place. These *droogmakerijen* are usually to be found in North and South Holland within the limits of the great primeval

lagoon or inland sea. It will be seen, then, that though every droogmakerij is a polder, every polder is not necessarily a droogmakerij. Baedeker says: "A polder is a morass or lake, the bed of which has been reclaimed by drainage." Polders are more properly described as tracts—composing by far the largest part of Holland—in which, by means of dikes and pumps, the water is under direct and perpetual control.

**How the Water is got rid of.**—All that the ordinary visitor to Holland needs to know he can almost find out for himself if he keeps his eyes open. He will notice in many districts a series of canals of different levels, by means of which the water is slowly raised from below sea level sufficiently above it to cause it to flow to the sea. Nowadays steam engines are kept in reserve for use if the wind does



WINDMILLS RAISING WATER TO CANAL BY THREE STAGES

not keep the windmills going fast enough; and in some positions they have entirely replaced windmills.

To a stranger the thing which has been done may not always seem to be, at first sight, so very complicated. The wonder of it all will begin to come home to him if he has an opportunity of seeing one of the marvellous maps showing the different levels, the distances and various directions in which water has to be sent, and the way in which the water levels are affected by wind and drought and the condition of the rivers and the sea. The wonder grows when something is learnt not only of the problems of hydraulic engineering, but of all the contracts, agreements and treaties of different polder and drainage authorities with one another, by which, as justly as possible for everybody concerned, and in varying conditions of weather, the water that is not wanted is got rid of without giving any-

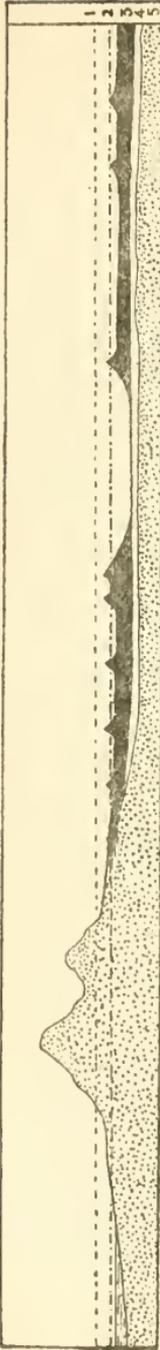
body more than he wants or less than he wants. There are dikes, one part of which is kept in order by this *waterschap*, another part by another *waterschap*. Still other parts are looked after, one by the town, one by the provinces or by the State. Why? Who knows? The system is the growth of centuries.

**Sea Polders.**—Then there are so many kinds of polders. Some tracts are poldered, not because they are in danger of getting under water, but because it is necessary to control the water level in order, for example, to cultivate the soil instead of having pasture. Some polders are a good deal below A.P. and have to be pumped. Others are above and can get rid of their water by gravitation. There are not only inland polders and lakes, but sea polders. Sea polders are at sea level at high tide. Consequently it is only necessary to surround them by dikes, and—provided that the level of the reclaimed land does not sink too much after having been drained—the water to be got rid of can be poured out at ebb tide. But the principal inland polders, those south of Amsterdam down to the dike of the Lek, are low. They can only be kept at the required water level by pumping part of the year and by letting in water in summer time. Most sea polders cannot procure fresh water, because any water from wells would be salt. Some sea polders are so expensive to maintain that they could not be kept up if they did not serve as a protection for inland polders—the owners of which must contribute to the yearly cost of the seaward ones.

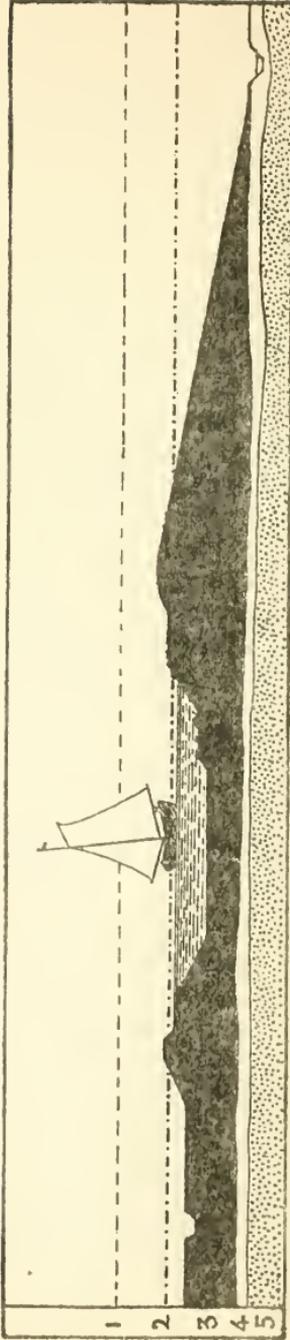
**Windmills and Steam Pumps at Work.**—In South Holland alone there are about fifteen *waterschappen*, the administrative bodies combining a greater or larger number of polders. The best known *waterschappen* in this province are Rijnland, Schieland and Delfland, not indeed *waterschappen* at all, but *hoogheemraadschappen*.\* The polder

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\* *Waterschap* is the generic name for the administrative unity. Just as States may be Empires, Kingdoms or Republics, so *Waterschappen* are variously named, *hoogheemraadschappen*, *heemraadschappen*, plain *waterschappen* or even polders. An administrative polder may consist of several polders distinct hydrographically.



Sea      Dunes      Geestgronden, polders and dikes      Boezem      Droogmakerij      Polders and dikes  
 1—High tide level      2—A.P.      3—Low fen      4—Sea clay      5—Sand



“Old land” Polder      Kade      Ringvaart or boezem      Kade or dike      Droogmakerij  
 1—High tide level      2—A.P.      3—Low en      4—Sea clay      5—Sand

The public road is along the top of the dike (*Kade*)

SECTIONS OF POLDERS AND DROOGMAKERIJEN (After Beekman and Schuiling)

unit averages some hundreds of acres, with one level of water. The inhabitants of the polder endeavour to maintain a different level of water at different seasons. The water they wish to get rid of is lifted into the general reservoir of the *waterschap*, that is the *boezem*. This *boezem* is generally a system of canals and lakes, not necessarily at one level. All the occupiers of land in the polder pay for having the water, the *boezemwater*, discharged, either into the sea or into one of the open, that is non-canalised rivers. It may be discharged by gravitation and sluices or by *bemaling*, that is by milling, either steam or wind.

When the *boezem* reaches a certain maximum level no further discharge of water into it is permitted. Even if the pumping arrangements make it possible to allow of the emptying of the *boezem* in a given time, there is the further restriction that no current must be created which shall damage the banks or hamper navigation, for the *boezem* may be not only a reservoir but a canal.\* The capacity of the *boezem*, and the maintenance of the right level of water in it, are therefore matters to be carefully considered. For example, the draining of a lake generally diminishes the contents of a *boezem*, and the loss of water must be in some way made up. As a rule, water can be let into the polders from the *boezem* as long as the minimum level in it is not reached. The complications of water management are simply unending, and the number of persons in the Netherlands who have a thorough grasp of the subject, technically and legally, in its developments all over the country, may be counted on the fingers of one hand. No one who has studied Holland can be in doubt that the management of the polders and waterschappen of the different districts has been a remarkable education in self-government. A friend who, as a member of the States of his province, regularly meets delegates from out of the way agricultural districts, has been much struck by this.

### Twenty Feet below Sea Level.—I have before me a list

\* The *boezem* is the sum total of water storing accommodation, *i.e.*, lakes, navigable canals and unnavigable canals.

of the polders in South Holland. I see that the Rijnland district alone contains some 350 separate polders, ranging in area from a dozen acres to the forty thousand acres of the Haarlemmer Meer polder. The table shows that practically every one of the polders is below A.P., or as we say, under sea level. There are many which are *more than 16 feet below sea level*. I notice that in Delfland there is a polder, the summer level of which is 21 feet below A.P.

In comparing a polder list of 1884 with an up-to-date one, one notices the great diminution of windmills. Steam engines have taken their place. In the case of deep polders there is often a series (*gang*) of several windmills engaged in lifting water from the polder to the *boezem*. A steam pump can, of course, lift the water at one operation.

**The Wars of the Waterschappen.**—The different *waterschappen* closely watch each other's doings, as, obviously, increased safety for one may mean increased danger for another. There was once a famous lawsuit between two *waterschappen*, one on the north and the other on the south of the canalised river Lek. The south dike had been built lower than the north dike because less harm would be done if the river overflowed on the south than on the north, where the damage would be almost irreparable. But the southerners decided to raise the level of their dike. The northerners went to law, and eventually the High Court condemned the southerners to lower their dike to its former level.\* It is an illustration of the venerable character of the arrangements in existence in Holland for the control of the water, that, in the course of the proceedings, a Charter of Charles V., dated 1530, was quoted and upheld.

**The Waterstaat.**—We must not stray farther into the politics of all the great and little *hoogheemraadschappen*, *heemraadschappen*, *waterschappen*, *polderbesturen* and *dijkbesturen*, and can only take note that above all these bodies, whose official notices are in every inn and in every

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\* A correspondent writes: "The decision was considered just, as the raising of the southern dike meant that the danger on the northern side was increased."

village paper, whose powers in emergencies are so remarkable,\* is that national institution, which is to be found in no other country, the *Waterstaat* (the Water State), the budget of which is more than three millions sterling per annum. Its directory, etc., occupies about three dozen pages in the Dutch Whitaker. It has been called *Een Staat in den Staat* (A State within the State).

"Those who suffer from the water must fight the water." Complications arose when this simple rule could not be adhered to, and dukes and counts, dukedoms and counties (the present provinces), towns and neighbouring polders, waterships and other corporations had to lend a hand to obtain the best solution of the water problems. It is significant, however, that while at the time of the French Revolution, to which the *Waterstaat* dates back, a clean sweep was made of so many institutions and systems in the Netherlands, the *waterschappen* were not and could not be interfered with in the slightest way.†

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\* *Dijkgraaf* signifies Dike Count. In North Brabant the danger signal is given by blowing through a stoneware beer bottle, the bottom of which has been knocked out.

† ORIGIN OF THE WATERSTAAT.—In the sense in which it is nowadays commonly used, the word *Waterstaat* does not seem to occur before 1795, the year of the revolution against the last Stadhouder, William V., when what had been the United Provinces (each of them to a large extent sovereign in its own territory) became a united republic and some effort could be made to put the Waterstate administration upon a kind of national footing. *Waterstaat* means "state of the waters." In this sense Van Egmond uses it in his book (1867) "*Beschrijving* (description) van den *Waterstaat* van Rijnland." Beyerinck again wrote upon the "*Waterstaat* van Delfland." Other writers speak of the waterstatistical situation of the country. (Mr. Joan Roëll, Vice-President of the Council of State, and Regent in case of the death of the Queen, wrote, as a University student (1866), an excellent dissertation on the history of the *Waterstaat*.)

Some uncertainty as to the use of the word may have arisen from the fact that it was also soon employed to denote the body of engineers charged either with the direct management (but this only for a small part) or the supervision of the measures necessary to keep the *waterstaat* in working order. It is as if a body of clerks of the weather was called for short "The weather!"

Here is an illustration of the difficulty of giving in a few words a description of the manner in which waterstate affairs are managed

**Draining the Schermer and the Beemster.**—An excellent object lesson in polder making is to be seen in the case of the Schermer and Beemster polders, between Alkmaar and Purmerend, in North Holland. The names Schermer and Beemster are those of the two lakes out of which the polders were made early in the seventeenth century. The engineer, in the case of the Beemster, was the same Leeghwater whose name is associated with the proposal to drain the Haarlemmer Meer. As *laag* means low and *leegen* to empty, Leeghwater had the right name for a polder engineer and *molenmaker* (mill builder). The soul of the undertaking was a rich merchant, one Dirk van Oss, who was also concerned in promoting the first Dutch voyages to India. The draining of the lake was done in a twelvemonth by twenty-six windmills working at two levels. Alas, the Waterland sea dike broke and the incoming waters threw down the Beemster *ringkade*. It was immediately rebuilt "heavier and stronger." Forty-one mills, working on three levels, were set to work this time, and in 1612 the Beemster was dry a second time.

Then followed the draining of the Purmer (1617-22) and the Wormer (1624-26). The first Wormer dike was carried away by a second break in the Waterland sea dike. By the way, the Wormer dike was destroyed once more so late as 1825, when all the inhabitants of the polder were drowned. The Schermer was a four years' task, between 1631 and 1635. About the same time a dozen smaller lakes were drained. The one finished in 1644 was thought to be "the last indiking in North Holland"; but draining has

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in the Netherlands, where old institutions, rights and customs could not very well be touched without making a tremendous disturbance. The rivers in the kingdom are the property of the State (*Rijk*). But of the containing dikes only small portions here and there are State property. The care of them is generally in the hands of the many bodies, who, as a rule, have also the care of the adjoining polders and *waterschappen*. Consequently the *Waterstaat* has only direct charge of the few portions which are State property. But it has the supervision of everything which affects the condition of the dikes and rivers, and manages the rivers themselves and their beds. On the river side of the dikes no private person is allowed to build or alter anything without leave of the *Waterstaat*.

continued in the province, a small lake being dealt with so late as 1863, and elsewhere in the country, of course, to the present time.

**As they are To-day.**—To return to the Schermer and Beemster as they are to-day. In the case of the Schermer, the tram crosses the *ringvaart*, that is the circle canal or *boezem* which was made round the expanse which was to be impoldered and above its level. The land which has been laid dry, 10,976 acres, is about thirteen feet below the level of the Zuider Zee. Fourteen windmills draw the water into the lower canals; thirty-six take it gradually higher and higher, till it reaches a level at which it will flow by gravitation into the Zuider Zee. For safety's sake, the water is kept half a foot lower in winter than in summer.

The cost of maintaining this polder is 5s. 5d. an acre. The land is cut up into plots of about 26 acres. Each farm has, as a rule, two of these plots, or 52 acres in all. To rent the land costs about three guineas an acre; to sell, from £62 to £68. Cattle for milk and breeding, and sheep for fattening, are kept on the farms.

When the tram leaves the Schermer polder it crosses a piece of low fen or peaty land where there is market gardening. Later it descends into the Beemster polder. This piece of peaty land is very interesting. It is the "old" soil (see map on page 132), the strip of land between the two lakes, and therefore much higher than the Schermer and Beemster. The Beemster lake (drained in 1612) was 17,290 acres in extent. On this polder the pumping of the water is now done not by windmills but by steam engines. The land—excellent clay, as in the case of the Schermer—is devoted to cattle keeping and breeding, and there is also some market gardening. A farm will be from 42 to 66 acres. On one of 66 acres there were from eighteen to a score of milch cows, four heifers, seven or eight calves, fourteen to fifteen store beasts, 130 sheep, and a couple of horses. At one place I noticed, the water contains marsh gas, and most of the farmers were able to do their lighting and cooking with it.

## CHAPTER XVI

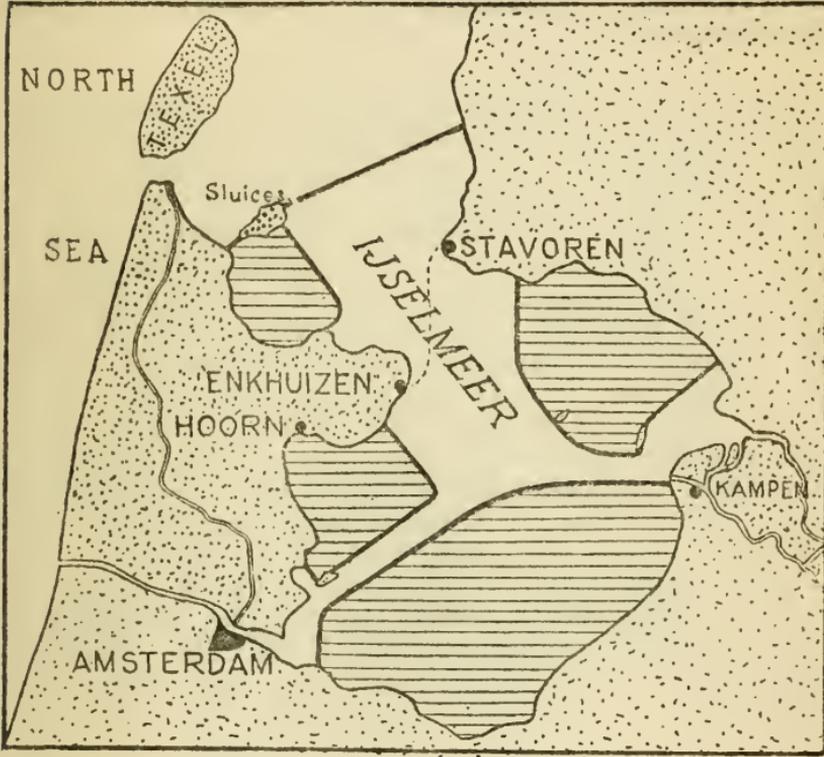
### WITHIN THE DIKES

**How the Water Controls Grass and Arable.**—The water level is, obviously, at the bottom of the distribution of the country into grass and arable. Roughly speaking, you cannot cultivate land which is not a matter of, say, two feet out of the water, and there are large areas in Holland where it is impossible to get the water as low as that. Consequently grass is grown there. That is why South and North Holland and Friesland, and part of Utrecht and Zeeland are so much in grass. All this country can be kept dry enough for pasture, but only in places dry enough for the plough. It is therefore in western Holland, or, with the exception of Groningen, in coast-wise Holland, in the rich grass region intersected by canals and dikes, the country that the tourist sees when he goes from Flushing to Rotterdam, The Hague, Haarlem, Amsterdam, and Utrecht, and makes a trip to Friesland across the Zuider Zee—which will be one day the same kind of country—that cattle are kept in the greatest numbers and butter and cheese are chiefly made. There is grass outside what may be called the natural grass country of the west or there would be no creameries in Brabant, for instance, but the point is that the pastures of the West are pastures because it is not economical to make them anything else.

The best plough land in the country is the sea clay, that is the alluvial marsh soil of Zeeland and Groningen, but the plough works in all formations in Holland where the water level is low enough—with several horses before it on the river clay, and with the minimum of power in such sandy districts as Lonneker and the Achterhoek. In the eastern and south-eastern parts of the Netherlands the

country gets sandier and poorer as it gets higher, until in many places it is mere heather moor. Where, however, the ancient floods of the rivers and streams have deposited tracts of clay there is a soil of substance for a varied culture.

In Groningen, Drenthe and in the Peel of Brabant, in those areas in which the high fen has been hewn away,



HOW THE ZUIDER ZEE WILL BE DRAINED

The dotted part is the present mainland. The lined sections represent the future polders. The remainder of the lake will be known as the IJsselmeer. The dotted line shows the present steamer route, the straight line the big sea dike which is to be built

there are the closely-populated fen Colonies where there is hardly a cow to be seen and potato growing and the manufacturing industries which use potatoes as a raw material, flourish.

The district which may be called the eastern and southern is larger than the western. Taking account only of the land under cultivation, the eastern and southern division is divided about equally between crops and grass. The western district has less than a third under crops, all the rest being pasture. While the east and south has 95 milch cows per 1,000 acres, the western has as many as 211. (The total head of cattle in the east and south per 1,000 acres, is 200 ; in the west, 365.)

**Trouble with Sea Water.**—In Friesland and Groningen there is, in some places, a different drainage trouble from that which exists in North and South Holland. In the north-eastern districts the water is got rid of by gravitation. Thus there is an excellent condition of things in the winter, but in a dry summer so much of the fresh water may go off the land that there is a danger of the salt and brackish water percolating through.\* Sometimes enough fresh water can be obtained for pumping back, but not always. This is one of the many reasons why the emptying of the Zuider Zee would be a good thing. The Frieslanders† would not only save the expense of maintaining a considerable length of sea dike, they would have all the fresh water they wanted and no more. For a salt water Zuider Zee would be substituted a much smaller fresh water Zuider Zee.‡

One complication of poldering or draining is that the level of the drained land sinks, but it is never possible to tell beforehand exactly how much it will fall. Thus it is quite possible for the water level to be made higher than necessary.

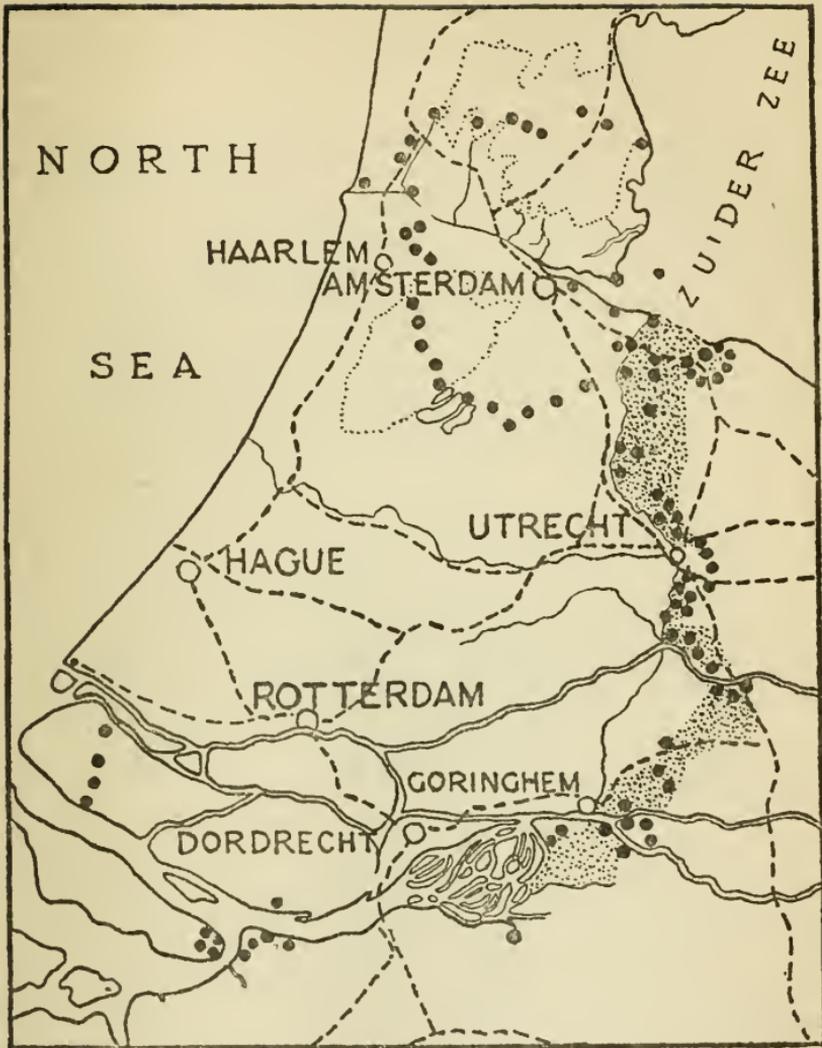
**Defence by Inundation.**—By way of illustrating how draining still goes on in the Netherlands let me give some

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\* Some of the artesian wells sunk for the Friesland creameries have yielded water which is more salty than that of the Zuider Zee.

† North Holland would also economise on the upkeep of sea wall.

‡ In Friesland there is a lack of steam pumps, and when there are continuous western gales the water cannot be got rid of, and serious inundations occur.



#### HOW HOLLAND WOULD BE DEFENDED BY WATER

The mottled surface represents the area which would be flooded in case of invasion, and the line of forts (black dots) commanding that area. The second line of defence round Amsterdam and the sites of the drained lakes are also shown

particulars from an article on "The Draining of the Vecht Pools," which appeared in a newspaper just before Christmas. First note that the problem is so many-sided that it has been discussed back and forward for half a century. One important consideration was the relation of the works to the national defence scheme. In 1629 and in 1672 all this part of the country was inundated against the invaders. (In 1672 it was Louis XIV. who was thus kept off Amsterdam and the heart of the country. Amsterdam, as will be seen from the map of forts and proposed war-time flooding, is still by reason of the national defence inundation scheme one of the strongest military positions in the world.\* The water is not deep enough for navigation, and by reason of the many little canals and ditches which cross the land—the direction of which is hidden under the general flood—too deep to wade.†) It appears that the military authorities

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\* It is an interesting fact that there are no secret War Office maps about the Water line.

† HOW THE SEA AND A FLEET WERE BROUGHT TO LEYDEN.—Motley's account of the flooding of the country in relief of the town of Leyden, when it was besieged by the Spaniards, gives such a vivid impression of the state of things resulting from the letting in of the water and illustrates so perfectly the spirit which inspires such a method of coping with the invader that any reader who has hitherto failed to make acquaintance with this stirring narrative will be glad to read the condensation which I have attempted below. It represents less than a quarter of the text:

"The Prince of Orange had long been convinced that nothing could save the city but to break the dikes. Leyden was not upon the sea, but he could send the sea to Leyden. The Spaniards occupied the coast from The Hague to Vlaardingen, but the dikes along the Meuse and IJsel were in the possession of the Prince. He determined that these should be pierced, while, at the same time, the great sluices at Rotterdam, Schiedam, and Delftshaven should be opened. 'Better a drowned land than a lost land,' cried the patriots. The enterprise for restoring their territory for a season to the waves, from which it had been so patiently rescued, was conducted with as much regularity as if it had been a profitable undertaking. A capital was formally subscribed, for which a certain number of bonds were issued, payable at a long date. In addition to this preliminary fund, a monthly allowance of forty-five guildens was voted by the Estates, until the work should be completed, and a large sum was contributed by the ladies of the land, who freely furnished their plate, jewelry, and costly furniture, to the furtherance of the scheme.

now find it unnecessary to be so exacting in their requirements as to this district. Unfortunately, however, continued experience of draining brings forward difficulties which were not foreseen in 1860 and 1870.

**Disappointments of Poldering.**—It seems that in calculating rainfall minus evaporation, the possibility of water welling up through the drained bottom through the agency of springs was not reckoned with. There is only mud and sand on the bottom, not clay. And the case of the Naardermeer is cited. Drained in the seventeenth century, it had to be drained again in 1884. In 1886 it was abandoned altogether. The company lost all its money, and the Naardermeer, once more a mere, is now a sanctuary for wild fowl. Then there was the case of the drainage scheme, which, after tremendous fights with its neighbours, got

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“On the 3rd of August the Prince went in person along the IJsel,\* as far as Kappelle, and superintended the rupture of the dikes in sixteen places. The gates of Schiedam and Rotterdam were opened, and the ocean began to pour over the land. More than two hundred vessels had been assembled, carrying generally ten pieces of cannon with from ten to eighteen oars, and manned by twenty-five hundred veterans. The distance from Leyden to the outer dike, over whose ruins the ocean had been admitted, was nearly fifteen miles. The flotilla made its way with ease to the Land-scheiding, a strong dike within five miles of Leyden; but here its progress was arrested by several dikes with a chain of sixty-two forts, held by veteran troops of the King.

“The Land-scheiding, which was still one-and-a-half feet above water, having been possessed of by surprise, the fleet sailed through gaps.

“Another long dike, three-quarters of a mile further inward, now rose at least a foot above the water. Promptly and audaciously, Admiral Boisot took possession of this barrier also, levelled it in many places, and brought his flotilla, in triumph, over its ruins. Again, however, he was doomed to disappointment. The sea, now diffusing itself over a very wide surface, and under the influence of an adverse wind, had become too shallow for his ships. The wind, too, was easterly, causing the sea rather to sink than to rise. Fortunately, the wind shifted to the northwest, and for three days blew a gale. The waters rose rapidly, and before the second day was closed the armada was afloat again. The ‘Ark of Delft,’ an enormous vessel, with shot-proof bulwarks, and moved by paddle-wheels turned by a crank, was followed by the whole fleet.

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\* The Hollandsche IJsel.

surrounding polders compelled to contribute to the cost of pumping out the water which, thrown into certain lakes, had caused a penetration of water beneath the dikes of the complaining authority. In the third case, there was similar infiltration from neighbouring waters. And so the article goes on, with speculation as to water draining from the sand hills and from the Zuider Zee, and what not.

**The Storm and the Sea Wall.**—So much to show that the conquest of the water is not merely a matter of dike-building and of erecting pumps and digging canals. As to the question of protection from the sea, the stranger to the art of keeping out the salt water from pouring over the land which is below its level, has no vivid impression of its problems. Think of the difficulties of high and low tides. There may be times when the sea close to the dikes is 90 feet deep. It is a daily fight with currents which keep tearing away at the very foundations of the dikes. And the building of the dikes? They have to be built in a

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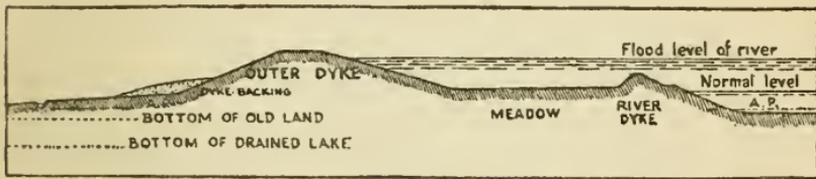
“The fleet was, however, delayed at North Aa by another barrier called the ‘Kirk-way.’ The waters fell to nine inches, while the vessels required eighteen and twenty. Day after day the fleet lay motionless.

“Meantime, the besieged city was at its last gasp. Bread, malt, dogs, cats, rats, were esteemed luxuries. Hides, clopped and boiled, were greedily devoured. The daily mortality was frightful. In many a house the watchmen in their rounds found a whole family of corpses. From six thousand to eight thousand human beings sank before pestilence alone, yet the people resolutely held out. A violent equinoctial gale came storming from the north-west, and then blowing still more violently from the south-west. The waters of the North Sea were piled in vast masses upon the southern coast of Holland and swept with unrestrained power across the ruined dikes. In twenty-four hours the fleet had more than two feet of water. No time was lost. The Kirk-way was now completely overflowed. There was a fierce naval midnight battle, a strange spectacle among the branches of those quiet orchards, and with the chimney stacks of half-submerged farm-houses rising around the contending vessels. The fleet of Boisot swept by and entered the city. Leyden was relieved.”

Later on, when the darkest days dawned for the heroic provinces, William of Orange actually planned to gather together all the vessels of every description which could be obtained in the Netherlands to embark the whole population, and then to burn all the windmills and pierce all the dikes, restoring the country, as Motley says, “for ever to the ocean from which it had sprung!”

country which has no stone. It has to be fetched from Germany and Belgium. No doubt concrete is largely used, but the iron and the cement, and the gravel for the matrix have all to be brought from abroad.

**Forgotten Dikes.**—When the stranger comes ashore from the steamer at Flushing or the Hook, or, up the Maas, at the Boompjes at Rotterdam, it is unlikely that it will occur to him that he is on a dike. When in the interior of the country, say as far away as the vicinity of the German frontier in Gelderland, he is riding along the public road, with the river in its summer bed half a mile or so off, it is also easy for him to forget, till someone gives the road its



[After Beekman and Schuiling]

SECTION OF A RIVER DIKE

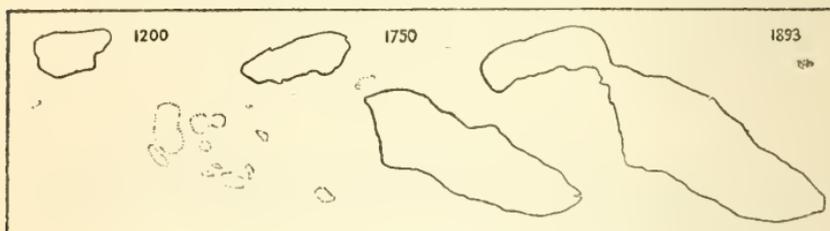
The public road is along the top of the dike

name of *dijk*, that he is journeying along the top of a barrier which in winter is the bank of a river.

One of the most famous indikings is that of the Middel Zee, in Friesland, which at high tide, extended farther into the country than Sneek and Bolsward.\* A Dutch-speaking community surviving among a surrounding people speaking Frisian is a reminder of the part which Hollanders played in the draining of the Middle Sea. In the Dollart region the country is like a great military work with rows of dikes no longer in use, for the attack on the sea has been pushed farther and farther forward. The map overleaf of some changes which have taken place in Zeeland is more eloquent than any print could be.

\* In the Middle Ages.

**Triumphs in Canal Making.**—It is possible, of course, to get between almost any two points of importance in Holland by steamer, and goods make wonderful journeys by barges, now petrol and steam-driven when not horse-towed. Too many people neglect the opportunity of seeing something of the real Netherlands by means of its cheap canal and river steamer services. Some of the most striking achievements of canalisation are those undertaken in order to retain the foreign commercial traffic to Amsterdam and Rotterdam. When vessels grew too large for their owners to care for the long and dangerous route to Amsterdam *via*



[Drawing is after Beekman and Schuiling

#### HOW A ZEELAND ISLAND WAS TAKEN FROM THE SEA

The dates show the size of the island in different years. It is now about seven hours' walk from one end of the island to the other

the Helder and the Zuider Zee, the canal to the Helder was cut at the cost of a million and a half—remember that this is an expenditure incurred by a very small country. When it was found that this waterway was too long and not deep enough for large vessels, the ship canal across the isthmus (*Holland op zyn smalst*, Holland at its smallest)\* to the North Sea direct was made at a cost of three millions and a quarter. Equally noteworthy was the straightening of the Maas between the Hook and Rotterdam at an expenditure of two and a half millions.

**The Problem of Ice.**—The problem of river ice should not be completely passed over. The ice of the upper waters melts and comes down the rivers, but before it arrives

\* Sometimes one hears the punning phrase, *Holland op zyn malst*, Holland at its maddest

the water produced by the melting ice arrives. This causes the river to rise to a great height and to break up the ice of the lower waters. At first the river overflows its inside dike and fills the meadowland reaching to the outer dike. Ultimately the ice floes crowd on one another—they may be half the width of a street—and rise up—the spectacle is something to have seen—tower above the dike, and finally topple over. This is not a serious matter, for the ice splinters and in any case can hardly do any damage. Trouble only arises if the floes, instead of going over the dikes or down to the sea, pile up on one another in the body of the river, and, the mass, extending down the stream for many miles, gradually forms, by growing downwards, a barrier of ice reaching to the bottom of the channel. Then, of course, the dammed-up water rises swiftly and creeps over the dikes. In doing so, it gradually eats away the top, and unless the pressure is relieved, the dike must succumb. It is relieved by charges of dynamite: the ice barrier is blown up and the water is let go. Obviously, it is possible, by noting the rise of the upper river, to intimate with some accuracy, some hours before, when the ice will break up at points lower down.

**The Watchers on the Dikes.**—I see in the records a case of an ice dam on the Waal forcing the water over the dike for twenty hours. Think of the damage that was done. In another case the ice dam was so long that it took more than two hours to walk from one end to the other.

All along the dikes are stores of materials for use in forming coffer-dams along the tops in an emergency. These stores are regularly inspected by the officers of the Waterstaat. When the water begins to rise, watch is set all along the dikes under the direction of the Waterstaat engineers. They are in rapid communication with one another, and, under the direction of the Minister of the Waterstaat, may take the most summary measures for the general protection. When the situation becomes serious the inhabitants of the polders behind the dikes may be warned by cannon.

**The Dunes.**—In later chapters we shall more closely

examine the different soils of the Netherlands. A word, however, as to the sand of the Dunes, and the sand of the eastern and southern provinces. The Dune sand is exceedingly fine, and is the ideal material, in which, in conjunction with peat and cow dung, to produce bulbs. The fineness of the sand of the Dunes is due to its being a sand which has been *blown* upon the ancient sand banks of the coast strip.\* The sand of the eastern and southern districts is of limited value, not only because of its coarseness, but because moisture runs through it. It is otherwise with sand above a layer of clay. This coarse sand is of value, however, to the engineer, who forms of it most of the dikes and railway embankments.

The Dunes range from about 200 yards to more than a mile and a quarter wide. As the accompanying illustration shows, very much the same kind of thing can be seen on the coasts of Cornwall, Cumberland and Norfolk, and in the north of Surrey. The average height is not more than 60 feet, though the High Blinkert,† near Haarlem, runs up to 196 feet. The rate at which the Dunes and coast line have moved inland is shown, not only by the fact that a Roman camp was even two centuries ago sixteen hundred paces out to sea, but by the numerous occasions on which it has become necessary to move back Scheveningen and other seaside places.

**The Size of Holland.**—Holland is smaller than either Switzerland or Denmark, but the united populations of these two countries is not much more than equal to hers. There are only two countries in Europe smaller than Holland—Belgium and Montenegro. Belgium contains a larger number of people than Holland, but the Belgians are a manufacturing people who have to be fed from abroad.

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\* THE DUNES.—“Those wild and fantastic downs, heaped up by wind and wave in mimicry of mountains; the long coils of that rope of sand by which, plaited into additional strength by the slenderness of bullrushes (*Arundo arenaria*), the waves of the North Sea were made to obey the will of man.”—*The Rise of the Dutch Republic*.—Vol. I.

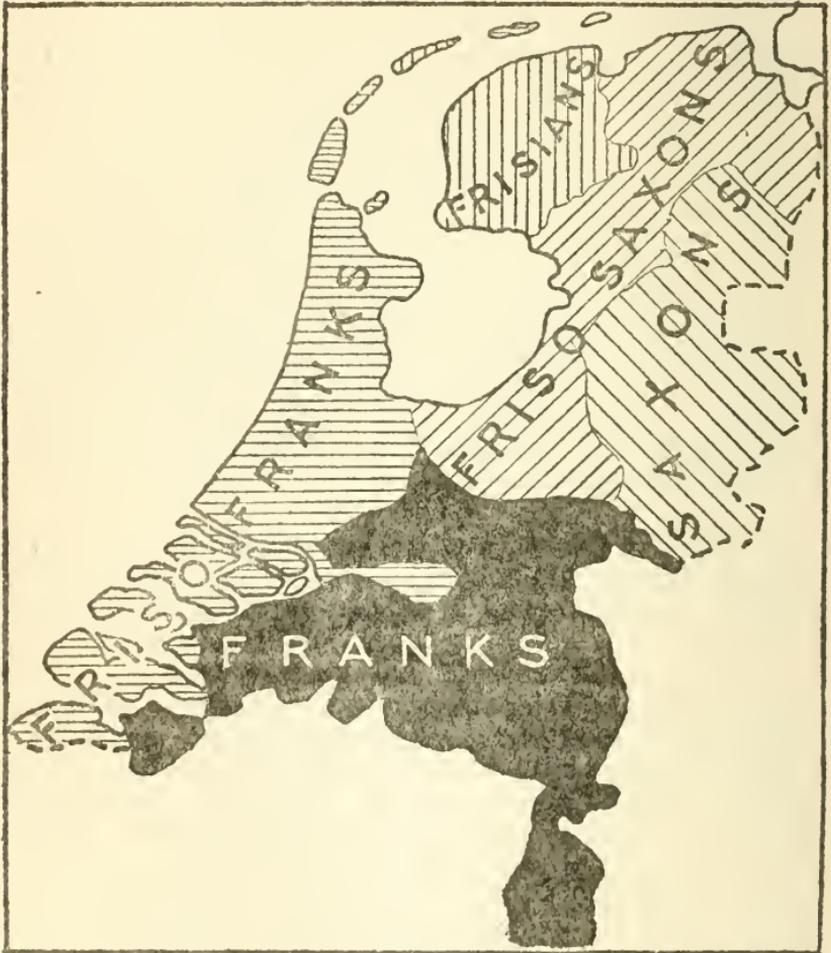
† From *blinken*, to glitter. The shining top of the High Blinkert can be discerned far out at sea.

while Holland is an agricultural and trading country which is a large exporter of food. The density of the population of Holland is twice that of Switzerland and Wales, and about thrice that of Denmark and Scotland. This density is less only than that of Belgium. Compared with Wales, Holland is a large country—twelve thousand square miles against seven thousand, but she is small when set against Scotland, which is thirty thousand square miles in extent.

The northern coast of the mainland of the Netherlands (Friesland and Groningen) lies in the latitude of the Humber. The southern borders of Zeeland and Brabant range with Maidstone, but Limburg runs as far south as the Solent. From the Hook of Holland or Flushing, due east to the German frontier, is about as far as from Bristol to London. The extreme length of the country is only 195 miles—the distance between London and Exeter. Baedeker considers that the Netherlands can be “seen” in a week or a fortnight’s tour—most of which is spent indoors at picture galleries. A tour prescribed for cyclists is of a fortnight’s duration.

**Varieties of Dialect and Breed.**—Small and within easy compass though Holland is, he must be a dull person indeed who goes round it without realising that there is not only a great difference in physical conditions between one part of the kingdom and another, but remarkable differences in the people themselves. They are marked on the ethnographers’ maps, according to their districts, as Frisians, Saxons, Franks—with whom there is a Celtic and Latin admixture—Friso-Franks, and Friso-Saxons. Although railways— and bicycles— have mixed the people of the Netherlands a great deal, there is no doubt as to the unlikeness between the populations of some of the provinces. It is not only the peasant type, but the plan and shape of the farmhouses, the form of the implements and the build of the waggons, which change in the most noticeable way. There is also a difference of costume and of dialect. The stranger has learned to expect the varied costumes, but he must be impressed by the many dialects and by the radical modifications—pointing to the customs

of centuries—in the structure of the farmhouses. The reproductions in succeeding pages from photographs and sketches illustrate leading farmhouse types. As to the



[After Blink

ETHNOGRAPHICAL MAP OF HOLLAND

popular speech, Zeelandish is different from the talk of North and South Holland and Utrecht; Limburg and

Brabant have their own way of speaking; there are dialects in Overijsel and Gelderland; Groningen has a pronounced speech, and Drenthe has something like it; while in Friesland—outside the towns at any rate—there is a distinct language, complete with a dictionary and literature of its own. The educated townsman easily understands the peasants' dialects, though here and there in Zeeland he might have some difficulty. But he could not understand Frisian. The peasants in Friesland are supposed to understand Dutch, but there are sometimes complaints that they cannot follow the proceedings in the Courts. A peasant from Friesland or Groningen would hardly understand a peasant speaking in the dialect of Limburg, but all peasants understand Dutch and speak it more or less correctly, because they have received all their schooling in it.

## CHAPTER XVII

### A CHAPTER OF FIGURES ONLY

**Motley and Dutch Agriculture.**—In setting out, as is done in this chapter, figures and facts as to each province, we are certainly not going into unnecessary detail. In the case of the Netherlands, as, on a much larger scale, in the case of China, it is injudicious to generalise as to the country at large. The kingdom is too much a product of its history before 1795—and of its water level. The water question has been discussed in the previous chapter; as to history, we have to remember that for centuries every province was master in its own house. The different provinces went so far, indeed, as to have their own mints. It is impossible to study even the agriculture of the Netherlands intelligently without having read Motley. In giving an account of the Netherlands, one is only on safe ground when one writes, as is written in the journal in the next chapter, that in such and such a province such and such is the case.

Not only the physical history but the political history of the Netherlands is a miracle. The Union of Utrecht (1579), though it may seem merely to have produced a clumsy aggregation of provinces, all retaining their governing powers, and all suspicious of one another, was a great achievement. And with this unpromising machinery, the people of the Netherlands—originally three peoples, Saxons, Franks and Frisians—were able sometimes to fight half the world and hold their own! And all the time the struggle with the water went on successfully, although every town and the people of almost every parcel of land engaged

in that struggle worked single-handed without any central authority (see page 135). The explanation must be that the Dutch of old had much in common with their descendants of the present day, who habitually take things easily as long as things go well, but, when there is an emergency, pull themselves together and pull through.

The reader is not expected to spend much time on the tables, which are chiefly valuable for reference, but a glance through them, with the map of the Netherlands at the end of the book unfolded, will sharpen, to a remarkable degree, his impression of the physical, social and agricultural condition of the country.

I.—*Social*

**Growth of the Population.**—The growth of the population of Holland is shown in the following tables :

CENSUS FIGURES

1830	....	2,613,487	1869	....	3,579,529
1840	....	2,860,559	1879	....	4,012,693
1849	....	3,056,879	1889	....	4,511,415
1859	....	3,309,128	1899	....	5,104,137*

REGISTER OF POPULATION FIGURES

1899	....	5,139,565*	1905	....	5,591,410
1900	....	5,179,233	1906	....	5,672,232
1901	....	5,263,233	1907	....	5,747,263
1902	....	5,347,190	1908	....	5,825,198
1903	....	5,430,942	1909	....	5,898,429
1904	....	5,509,660	1910	....	5,945,155

It will be seen that the population has doubled since 1840. In Great Britain and Ireland the population has doubled since 1851.

**Retention of Country People in the Country.**—While the ratio of town to country population is undoubtedly rising, the country population increases :

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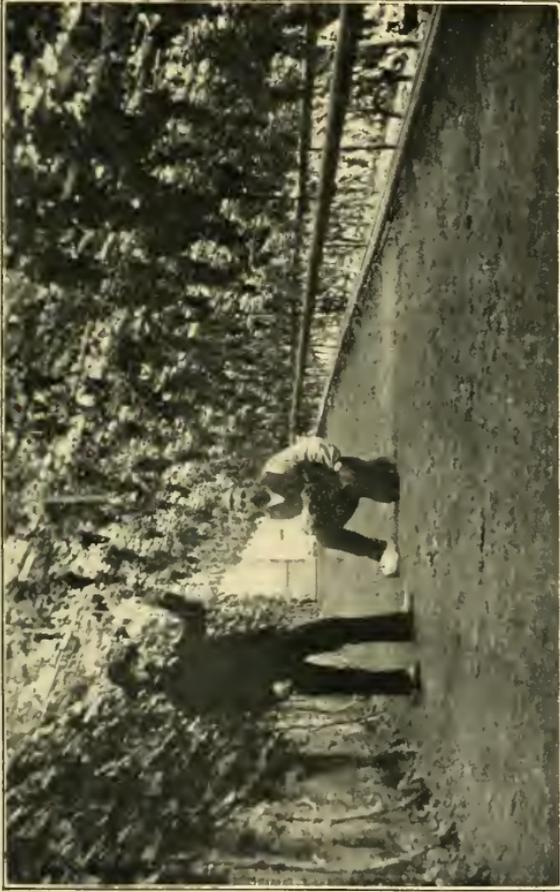
\* There is a slight difference between the figures of the census and the figures of the registers of population.

Year	Population of 24 largest towns	Percentage of total Population	Country Population	Percentage of total Population
1869	936,801	26.1	2,642,728	73.8
1889	1,411,584	31.2	3,099,831	68.7
1908	2,179,446	37.4	3,645,752	62.6
1909	2,210,052	00.0	3,688,377	00.0
1910	0,000,000	00.0	0,000,000	00.0

In the census of 1889, the number of persons under the heading agriculture is 524,624; in the census of 1899, 570,278. According to the census of 1899 as many as 6,458 persons in every 10,000 were residing in the commune of their birth and 1,209 in some other commune of the same province.

**The Provinces Compared in Point of Size.**—By far the largest provinces are North Brabant and Gelderland, but the most closely populated are North and South Holland—owing, of course, to the number of towns in them. The population figures below are for 1909:

IN ORDER OF SIZE IN SQUARE MILES			IN ORDER OF POPULATION		
North Brabant	..	1,980	S. Holland	..	1,390,044
Gelderland	..	1,965	N. Holland	..	1,112,582
Overijsel	.. ..	1,291	Gelderland	..	646,842
Friesland	.. ..	1,282	N. Brabant	..	628,089
S. Holland	..	1,166	Overijsel	..	385,622
N. Holland	..	1,070	Friesland	..	363,625
Drenthe	.. ..	1,030	Limburg	..	340,970
Limburg	.. ..	850	Groningen	..	332,941
Groningen	..	790	Utrecht	..	289,118
Zeeland	.. ..	690	Zeeland	..	233,478
Utrecht	.. ..	534	Drenthe	..	175,118
					5,898,429
IN ORDER OF DENSITY OF POPULATION PER SQUARE MILE					
S. Holland	..	1,168	Gelderland	..	325
N. Holland	..	1,031	N. Brabant	..	313
Utrecht	.. ..	534	Overijsel	.. ..	294
Groningen	..	419	Friesland	.. ..	283
Limburg	.. ..	393	Drenthe	.. ..	167
Zeeland	.. ..	336			460



ONE OF THE MANY GRAPE HOUSES IN THE WESTLAND

The men are probably the horticultural instructor and the owner of the grape house



POTATO LIFTING WITH ONE OF THE HANDS  
PROTECTED BY THIMBLES

The thimbles can be seen on the fingers of the left hand

**Populous Centres.**—The following table shows the provinces in order of the possession of populous centres (1909):

Province	Population	Big Towns	Population	
S. Holland	.. 1,390,044 of which there are in	Rotterdam	.. 417,780	—
		The Hague	.. 270,109	—
		Leyden	.. 58,221	—
		Dordrecht	.. 46,295	—
		Delft	.. 34,234	—
		Schiedam	.. 32,039	—
N. Holland	.. 1,112,582	Gouda	.. 24,587	—
		Amsterdam	.. 568,130	—
		Haarlem	.. 70,299	—
		Helder	.. 28,303	—
Utrecht	.. 289,118	Zaandam	.. 24,575	—
Gelderland	.. 646,842	Utrecht	.. 118,386	118,386
		Arnhem	.. 64,685	—
		Nijmegen (Nymwegen)	55,828	—
N. Brabant	.. 628,089	Apeldoorn	.. 35,838	156,351
		Tilburg	.. 50,326	—
		's Hertogenbosch	35,137	—
Overijsel	.. 385,622	Breda	.. 27,976	113,439
		Enschede	.. 34,564	—
		Zwolle	.. 34,224	—
Groningen	.. 332,941	Deventer	.. 28,221	970,009
		Groningen	.. 76,282	76,282
Limburg	.. 340,970	Maastricht	.. 37,502	37,502
Friesland	.. 363,625	Leeuwarden	.. 36,511	36,511
Zeeland	.. 233,478			—
Drenthe	.. 175,118			—
Population of the Kingdom .. 5,898,429		of which there are in 24 Big Towns .. ..		2,210,052

**Social Progress.**—Now as to the social condition of the various provinces. The figures are for 1909:

ACCORDING TO PERCENTAGE OF INFANTS BORN DEAD

Limburg .. .. 14.53	S. Holland .. 8.91
N. Brabant .. 14.17	N. Holland .. 8.40
Zeeland .. .. 11.28	Drenthe .. .. 8
Utrecht .. .. 10.38	Groningen .. 7.68
Gelderland .. 9.90	Friesland .. .. 6.60
Overijsel .. .. 9.39	

ACCORDING TO PERCENTAGE OF RECRUITS REACHING THE  
MAXIMUM HEIGHT

Friesland .. ..	54.76	Gelderland .. ..	46.26
Utrecht .. ..	51.19	Drenthe .. ..	39.72
Groningen .. ..	50.76	Zeeland .. ..	36.69
N. Holland .. ..	50.68	Limburg .. ..	34.65
S. Holland .. ..	46.42	N. Brabant .. ..	32.38
Overijssel .. ..	44.58		

The highest percentage of illiteracy in Army recruits in 1909 was in Drenthe, 4.5 per cent.

**Religious Beliefs.**—In the following table the population of the provinces (for 1899) is shown according to religious beliefs or none. As Holland is sometimes thought of in England as a wholly Protestant country, I have listed the provinces according to their proportion of Roman Catholics. It will be seen that the two southern provinces, North Brabant and Limburg, are almost entirely Roman Catholic, and that the three most northern provinces are almost entirely Protestant:

Province	Population	Protestants	Roman Catholics	Jews	Others
N. Brabant ..	553,842	60,193	446,531	2,252	635
Limburg ..	281,934	3,774	250,594	1,185	164
S. Holland ..	1,144,448	692,029	229,199	15,277	11,378
N. Holland ..	968,131	522,653	225,652	57,257*	19,974
Gelderland ..	566,549	318,273	185,321	5,243	3,008
Overijssel ..	333,338	207,520	80,740	4,182	2,990
Utrecht ..	251,034	140,682	75,942	1,426	1,423
Zeeland ..	216,295	144,221	50,180	412	4,416
Friesland ..	340,262	282,317	25,848	1,817	25,570
Groningen ..	299,602	237,793	18,467	5,946	10,658
Drenthe ..	148,544	118,211	8,008	2,327	2,150
1899 ..	5,104,137	3,069,132	1,790,161	97,324	132,102
1889 ..	4,511,415	2,727,556	1,596,482	103,988	82,366

\* There were, in 1908, 65,000 Jews in Amsterdam alone.

Note the large number of "Others" in the "advanced" northern provinces of Friesland and Groningen. Of 51,183 persons in prison in 1900, 27,553 were Protestants, 21,988 Roman Catholics, 627 Jews, and 1,015 belonging to other faiths or nothing at all.

## II.—Agriculture

**The Provinces According to Uncultivated Areas.—**

The following figures, being arrived at in a different way from the figures on the next pages, and being for 1909, not 1910, do not appear to agree with them, but serve to give the reader an impression of the physical characteristics of the various provinces:

HEATH, WATER, BOG, DIKES, ROADS, UNTAXABLE GROUND,  
BUILDINGS AND PARKS

Province	Total area	Uncultivated	Of which is Heath	Of which is Water and Bog
N. Brabant .. ..	343,190	144,330	114,833	14,977
Drenthe .. ..	130,280	134,971	123,830	1,541
Gelderland .. ..	371,890	122,322	97,861	5,107
Overijssel .. ..	216,409	116,234	91,858	13,870
N. Holland .. ..	206,049	69,595	27,431	18,964
Friesland .. ..	266,446	65,204	24,266	15,063
S. Holland .. ..	247,066	54,261	27,431	18,964
Limburg .. ..	168,046	52,206	32,517	6,673
Groningen .. ..	194,719	40,555	18,061	11,387
Zeeland .. ..	149,606	27,977	2,850	12,385
Utrecht .. ..	115,165	23,461	6,714	6,760
Areas in hectares ..	—	851,116	548,880	124,008

**Peats.**—Every province but Zeeland and Gelderland produces peats, and the figures of production give some idea of the relative proportions of high and low fen. In 1902 the figures were, in millions of peats:

Province	High peat	Low peat
Drenthe .. ..	827,575	62,581
Overijssel .. ..	197,140	114,927
Utrecht .. ..	38,000	152,078
N. Brabant .. ..	139,905	13,950
Limburg .. ..	127,820	437
Friesland .. ..	54,980	115,208
Groningen .. ..	86,698	39,649
S. Holland .. ..	3,000	67,820
N. Holland .. ..	7,000	55,472
	1,482,118	622,162

**The Provinces According to Percentages of Cultivated Land and Grass to Cultivated Areas :**

CULTIVATED LAND			
N. Brabant ..	81.5	Overijsel ..	32.3
Groningen ..	68.8	S. Holland ..	26.5
Zeeland ..	76.7	N. Holland ..	20.7
Limburg ..	76.6	Utrecht ..	17.9
Gelderland ..	42.7	Friesland ..	16.5
Drenthe ..	41.7		
PASTURE			
Friesland ..	83.5	Gelderland ..	57.3
Utrecht ..	82.1	Groningen ..	31.2
N. Holland ..	79.3	Limburg ..	23.4
S. Holland ..	73.5	Zeeland ..	23.3
Overijsel ..	67.7	N. Brabant..	18.5
Drenthe ..	58.3		

**How Holland is Divided up (1910).**—The figures in the following tables are in hectares, unless otherwise stated:

Permanent pasture .. .. .	1,210,431
Under farm crops .. .. .	867,274
Waste —	
Heath .. .. .	433,110
Dunes .. .. .	37,837
High fen .. .. .	34,944
High fen from which peats have been cut .. .. .	22,973
Sand drifts .. .. .	14,013
	<hr/>
	542,877
Woods .. .. .	260,222
Water and Bog .. .. .	90,203
Untaxable land .. .. .	78,060
Horticulture—	
Private gardens .. .. .	31,396
Market gardening .. .. .	16,335
Seeds .. .. .	466
Fruit .. .. .	21,013
Nurseries .. .. .	2,324
Flowers .. .. .	522
Bulbs .. .. .	4,605
	<hr/>
	76,661
Land built on and parks .. .. .	47,631
Roads and railways .. .. .	32,522
Ground alongside dikes .. .. .	23,966
Dikes .. .. .	20,393
Rushes .. .. .	10,349
	<hr/>
	3,260,589

Here is the same information in percentages:

Permanent pasture	37.12	Untaxable land ..	2.39
Farm crops ..	26.60	Horticulture ..	2.35
Uncultivated		Buildings and	
(Waste)	16.65	Parks	1.45
Woods .. ..	7.9	Roads .. ..	1.
Water and Marsh.	2.77	Miscellaneous ..	1.06

**The Change since 1833:**

	1910	1879	1833
Cultivated land ..	943,935	907,207	802,833
Pasture .. ..	1,210,431	1,153,086	1,153,086
Woods .. ..	260,222	214,630	169,027
Waste .. ..	542,877	—	906,506

**The Gains of the Year 1911:**

High Peat cut .. ..	417
Land from which High Peat has been cut, now got into agricultural condition .. ..	455
Heath and sand turned into—	
Cultivated ground .. ..	2,929
Grass .. ..	2,790
Wood .. ..	974
Woods turned into pasture or cultivated land ..	682
Drained land .. ..	760

**Crops According to the Area Devoted to them in 1910:**

Grain .. ..	459,323	Fallow .. ..	5,117
Roots .. ..	250,476	Industrial Plants ..	26,893
Forage Crops ..	70,405	Seeds .. ..	2,372
Beans and Peas ..	52,688		

**DETAILS**

Winter Rye .. ..	219,956	Winter Wheat .. ..	48,281‡
Potatoes .. ..	162,215*	Clover .. ..	45,494
Oats .. ..	134,140	Peas .. ..	26,141§
Sugar Beet .. ..	56,072†	Winter Barley .. ..	20,475

\* In 1851-60 averaged 95,834.

† 1901-5 averaged 40,760, and in 1861-70, 6,587.

‡ Was as high as 86,451 in 1881-90.

§ 29,949 in 1909. In 1871-80, 16,493.

DETAILS (*continued*)—

Beans.. .. .	20,242*	Winter Rape .. ..	2,595§
Mangels and Fodder		Onions.. .. .	2,403
Beets .. .. .	19,723	Other Industrial	
Other Spring Grain ..	15,395	Plants .. .. .	1,661
Temporary Pasture ..	15,128	White Mustard .. ..	1,247
Sand Buckwheat .. ..	13,160	Brown Mustard .. ..	851
Flax .. .. .	11,748†	Chicory .. .. .	699
Caraway .. .. .	7,693‡	Other Roots .. .. .	540
Spring Barley .. .. .	7,617	Tobacco .. .. .	377¶
Dwarf or Kidney		Oil Plants .. .. .	343
Beans .. .. .	6,305	Canary Seed .. .. .	333
Kohlrabi .. .. .	5,920	Spelt .. .. .	299
Other Forage Plants	5,603	Madder .. .. .	52
Fallow.. .. .	5,117	Hemp .. .. .	34
Lucerne .. .. .	4,180	Hops .. .. .	11
Forage Carrots .. ..	2,852		

## Stock per 250 acres of Cultivated Land :

Provinces	Horses	Cattle	Sheep	Goats	Pigs	Poultry **	Beehives
Gronigen .. .. .	20	55	54	10.5	33	207	7.2
Friesland .. .. .	10	114	62	7.1	37	134	5.4
Drenthe .. .. .	13	81	58	18.4	79	234	4.6
Overijsel .. .. .	12	92	14	11.2	66	318	4.6
Gelderland .. .. .	16	97	20	15.9	92	512	4.5
Utrecht .. .. .	14	138	27	8.1	89	329	3.5
North Holland .. ..	15	103	134	4.8	31	232	2.8
South Holland .. ..	19	127	37	6.9	78	277	1.9
Zeeland .. .. .	22	56	21	5.4	30	303	1.1
North Brabant .. ..	15	80	14	15.	47	290	0.9
Limburg .. .. .	13	81	15	8.8	78	671	0.6
Netherlands .. .. .	15	94	41	10.4	59	312	3.2

\* In 1881-90, 35,438.

† In 1901-5, 14,359, and in 1861-70, 21,293.

‡ In 1871-80, only 1,512.

§ Fallen steadily since 1851-60, when the acreage was 28,658.

|| In 1881-90, Brown Mustard averaged 1,245, and White Mustard 206.

¶ Steadily diminished since 1851-60, when the acreage was 1,760

\*\* Chickens not reckoned.

To every 1,000 inhabitants of Zeeland there are 140 horses, of Friesland 845 head of cattle and 443 sheep, of Drenthe 126 goats 542 pigs and 49 beehives, and of Limburg 2,598 head of poultry.

**Increase in Stock :**

Year	Horses	Cattle	Sheep	Goats	Pigs
1861 ..	246,700	1,335,300	869,600	119,800	281,400
1870 ..	252,100	1,410,800	900,200	136,900	329,100
1880 ..	278,400	1,469,700	847,500	157,700	334,800
1890 ..	273,200	1,532,800	819,400	164,800	578,700
1900 ..	295,000	1,655,700	770,700	179,500	746,600
1910 ..	327,377	2,026,943*	889,036	224,231	1,259,844

In Great Britain there were, in 1909, 32,183,073 acres under crops and grass—12,843,272 acres additional being mountain and heath land used for grazing—and 7,020,982 cattle, 27,618,419 sheep and lambs, 2,380,887 pigs, and 1,552,993 horses (on farms).

**Yields in the United Kingdom and in Netherlands.—**

The following comparative yields, in bushels per acre, I owe to the courtesy of Mr. R. H. Rew, one of the Assistant Secretaries of the Board of Agriculture :

Crop	United Kingdom		Netherlands		Acres under Crop 1909	
	1909	1903-8	1909	1903-8	United Kingdom	Netherlands
Wheat ..	33.85	31.68	31.82	34.56	1,867,096	126,632
Barley ..	37.73	33.81	46.01	48.28	1,827,486	70,178
Oats ..	44.49	41.74	53.67	53.11	4,017,612	349,596

\* Of which 23,309 were bulls, 1,068,361 were cows in milk and in calf, 144,774 fattening animals, and 790,499 stock under a year.

## RIGHT ROUND THE RURAL NETHERLANDS

### CHAPTER XVIII

“ I am going to pass through Holland.”—*Heine*

On my most recent visit to the Netherlands—in October and November, 1911—I had the opportunity of visiting every one of the eleven provinces. The object of the following notes of my tour is to give the reader some notion of the country as a whole.

I shall say very little about South and North Holland, and less about Friesland, the three best known provinces of the Netherlands, because in the preceding chapters there have been continual references to things seen in those provinces.

#### ZEELAND

Population, 233,478. Area, 177,584 hectares. Farm crops, 110,600; grass, 33,973; horticulture, 3,652; woods, 1,372; heath, none; high peat, none; high peat cut, but not yet in cultivation, none; shifting sands, none; dunes, 2,850; dikes, 5,164; water-ways, etc., 19,973.

Chief products: Sugar beet, potatoes, wheat, barley, onions, flax, kidney beans, peas, draught horses, fruit.

**The Fight with the Sea.**—Although this province is so near us, and every visitor *via* Flushing traverses in the train two of its most important islands, Walcheren and South Beveland, it is desirable to write a little more fully of Zeeland than of South and North Holland and Friesland, to which tourists chiefly resort, for I am afraid that most



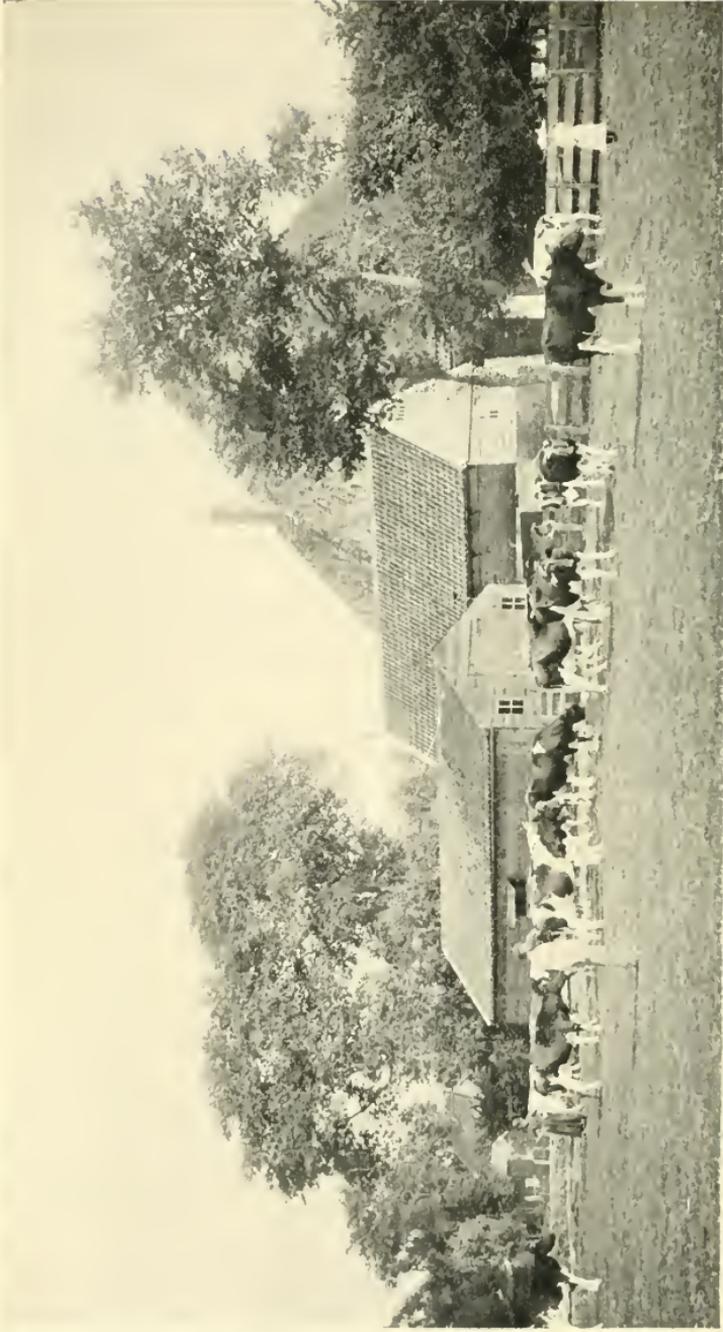
POTATO PULP (dark on the left) and BEET PULP (white)

The Pulp is being unloaded from barges in order to be clamped



A ZEELAND SCENE

The Farmhouse and the Farm Buildings are separate in Zeeland



A NORTH HOLLAND CHEESE FARM AT THE TIME OF THE AFTERNOON MILKING

Note the height of the farmhouse roof in which the hay is stored

visitors, if they stop at all in Zeeland, are content with an hour or so in the old town of Middelburg.

On the page of my Dutch atlas, in which Holland is shown in provinces, it is not without significance that the name of Zeeland is printed, not across the province, as in the case of the other provinces which are shown, but on the blue of the North Sea. In the islands of Zeeland, which have sprung so wonderfully from the sea, we are all the time on the clay upon which the salt water is kept from returning by high dikes. How often the sea has broken through is historical. In Zuid Beveland a few weeks before my arrival in November, the sea, during a great storm, had crumbled away sections of the dike, built with the experience and skill of so many centuries of dike building, and had strewn it contemptuously, as churned-up mud, over miles of cultivated land. I saw battalions of diggers and carriers of earth, like ants which, on disaster overtaking their home, immediately set about the work of reconstruction, indomitably repairing the wreck of parishes. The spectacle of what so lately had been well cared for fields, now slaked with sludge into a sodden waste, is not easily forgotten by a foreign visitor. He does not find it difficult to understand how the desolation wrought by the inundations of the sea has ever stung the Dutch with a sense of insult which can only be wiped out by the subjugation of the waves once more. In 1906 some 9,000 acres were spoilt, and in 1911 the area was 875 acres. The damage done by this last inundation cannot be made good under less than £50,000. In one place I noticed that largish vessels had been lifted by the storm right over the remains of the dikes and dropped in what once were fields. The question was discussed whether these craft could anyhow be got back into the water, or whether they would have to be broken up where they lay.

**Old Costumes and Customs.**—The fight with the sea has made the Zeelanders folk of metal. With the people of North Holland, Friesland and Groningen, they are at the head of the nation in point of intelligence. In Zeeland the population always strikes the new-comer as bright and

friendly. In the islands of Zeeland there has been a sturdy retention of the old costumes, especially by the women, who have not to go to the towns as much as the men; but every year the costumes are less worn. There are five distinct island costumes in Zeeland. The province is the only one, by the way, which keeps up the old sport of archery, still practised in Brabant when I first visited Holland. Along with the retention of picturesque old ways, there is in Zeeland, however, a spirit of enterprise and efficiency which, on arrival in the province from the backward east, almost makes one think one has crossed into a different country.\*

**The Change in Cropping.**—Zeeland was a great wheat growing province, but had the wit to change its ways of farming with the times. There is now no part of Holland with a greater variety of cultures. Such attention has been given to sugar beet production that a large proportion of the province is now under the crop. Plenty of farmers were getting from 18 to 20 tons per acre of beet in this excellent past season for the crop. For evidence of the remarkable enterprise of the Zeelanders in changing their cropping in accordance with modern requirements, look at this table of the apportionment of the land at intervals of twenty years:

In the Years	1870	1890	1910
Winter Wheat	20,788	16,671	11,699
Winter Barley	6,404	9,265	7,345
Oats ..	6,504	7,209	11,115
Caraway Seed	35	470	1,291
Flax ..	3,803	3,558	4,441
Potatoes ..	6,152	8,564	11,639
Sugar Beet ..	4,078	11,845	20,011
Mangels ..	2,287	4,269	5,347
Red Clover ..	5,724	5,772	6,198
Lucerne ..	40	1,779	2,608
Beans and Peas	14,813	17,151	15,647

\* I entered Zeeland from North Brabant.

**Artificial and Small Holdings.**—"The use of artificial manures," said an expert, "has been the cause of a decreasing area with cereals, especially with wheat, and an increasing area with sugar beet, potatoes and oats." The potato crop in 1910 was 127,277 tons, or 1,322 bushels an acre. As for the stock kept, for every 250 acres of the province there are 22 horses, 56 head of cattle, 21 sheep, and 30 pigs. Here is a little table showing the division of Zeeland in different sized holdings and the way in which small holdings have increased :

				1888		1910
2½ to	12½ acres	..	..	2,309	..	4,522
12½	25 "	..	..	943	..	1,358
25	50 "	..	..	1,153	..	1,186
50	125 "	..	..	1,507	..	1,665
125	250 "	..	..	597	..	646
Over	250 acres	..	..	41	..	35
				<hr/>		<hr/>
				6,551	..	9,412
				<hr/>		<hr/>

The area of the province has increased owing to the reclaiming of land from the sea. Most of the labourers rent some land. Their principal crops are potatoes, sugar beet and onions. As to artificials, even five years ago there were about 80 co-operative societies for their purchase, and the total sum laid out in the year was about £142,500. The farmers belonging to these 80 societies were only 4,900 in number. Twenty-five per cent. of Zeeland is owned by Belgians.

**Clean Land.**—In addition to the crops spoken of, mention must not be omitted of onions, large crops of which are grown. Poppies for oil are another crop. The land is very clean. One farmer said to me: "The workmen wanted for keeping the beets clean and for pulling them in the autumn can only be retained by giving them work all the year round, consequently the land is given all the labour it needs." A man of considerable agricultural experience who has been frequently in England said: "Our land in

Holland is not everywhere cleaner than yours, but most of it is, I am sure.\* The sea clay is from one to five feet deep, and, particularly in places, is light and easy working. But, as the speaker just quoted said: "Holland certainly has not, on the whole, better soil than yours. There is not much in some of our land, as you know, but we can buy artificials, and so we put something in. In Zeeland we use more artificials than you because we do not keep so much stock."

"It is not all the truth," this speaker continued, "about the beets keeping the labourers on the land, though we pay £1 an acre for pulling. We have plenty of labour largely



A MOVABLE RICK COVER

because the men have land of their own. We have none of the labour trouble—strikes and so forth—they have in Groningen, which is also so largely arable. There is not so much distance between the farmers and the labourers as in Groningen. We are more friendly together."

**Sugar Beet.**—On a farm of some 170 acres there were

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\* In Ireland a farmer who does not cut down and destroy weeds after notice from the Department of Agriculture is liable to a penalty of £25.



A CO-OPERATIVE BEET SUGAR FACTORY

At Dinteloord. Note the beets piled up in front



A CO-OPERATIVE CAKE FACTORY



AGRICULTURAL WINTER SCHOOL AT GRONINGEN



STUDENTS AT THE AGRICULTURAL WINTER SCHOOL  
AT MEPPEL, WITH AN INSTRUCTOR

eight pairs of working horses. The sheep were wandering about picking over beet leaves. Only a part of the leaves is consumed when fed to sheep or cattle in this way. The rest are muddled and left to be ploughed in. In harvesting the beets poaching of the land is saved on this particular holding by the use of a movable tramway. There were big clamps near the buildings of fine big fodder beets (*demi-sucrières—vert et rose*). Mangels I also saw. The growing of them saved space, it was argued, but sugar pulp was just as acceptable as mangels. The heaviest crops of corn—not of straw, though it is very stiff—are always got after beet. I should mention that what the sheep were eating out in the field were the beet leaves only. The tops had been detached and stored in a barn. Most had sprouted a little. They promised to be an excellent food.

The farm land we were looking at was sea within the memory of many elderly labourers. The value of the land was about £83 per acre. The wheat crop is about  $6\frac{2}{3}$  quarters per acre.

Speaking of harvesting beet, I was reminded by one of those with whom I talked of the fact which can never be sufficiently impressed upon those who contemplate putting large areas under beet in England, that a great deal of labour, and labour of a particular kind, is needed in the work of singling and cleaning. In Zeeland the children of eleven and twelve have from four to six weeks' holiday in May and June to help with the beets. "You must have women and children available," my authority insisted, "if you mean beet growing on any scale in England." Shall we readily get this labour? What will be the attitude of the Education Office? Will the hopper class, which is found to be equal to pulling hops off bines, be good enough for the attention required by the delicate beet? Is the success of the market gardening districts in getting labour a fair criterion of what is possible in other parts of the country where it is proposed to grow beets?

**Polder Farms.**—One of the polders I went over was cut up into six farms of 500 acres, which is exceptionally

large, both for Zeeland and Holland. There are hedges of white thorn, but these are being taken away. "Wire is better," I was told, "for it does not take up so much room and does not take good from the farm." The polder is a little more than a century old, and a seventeenth share—there were 70 shareholders—was originally worth £1,666. In the bad times the value fell to £1,166. Now it is worth more than £2,000. On one farm I noticed 20 ricks. The total acreage, including roads and waterways, is about 3,400 acres, and the capital with which the polder was made was £116,666. There are rails on the polder for a horse tram, which reduces the labour of transporting manure and crops.

The poplars on the dikes here and elsewhere are grown for *klompen*-making only. I noticed many elms also. The dikes do not belong to the people who have the land, and the growing of poplars is a source of profit to the dike owners. These straight single rows of poplars, which are such a characteristic feature of the Dutch landscape, are not appreciated by the farmers owing to the shade they cast and the sustenance they extract. But they suck up a lot of water, they must form something of a shelter for the country from the wind, and they have undoubtedly an æsthetic value. During the recent storm 200 big poplars were snapped in two on a single polder.

On one of the 500 acre farms six ploughs were at work in a field. Fresh from the east as I was, the pigs and bullocks seemed exceptionally large, but the fact is that good prices are paid for animals for breeding, and thus an excellent class of stock is produced. High figures for English pedigree pigs had not been grudged. The yarded bullocks were feeding on beet leaves. The horses, which seemed to be worth very much the prices ruling in England for animals of equal value, were getting maize. Two fine stallions, kept for the benefit of the polder, had their paces shown to us in a spirited way by a *klompen*-shod groom.

**Management of a Polder.**—In the case of this polder, with its half dozen five-hundred-acre farms, the management is in the hands of the company which had made it, or rather of those who now hold its shares. There is a polder director,

who may get about £600 a year and a house, garden, horses, etc., and there are the managers on each farm. Each proprietor of one of the 70 polder shares draws a dividend of about £100 a year, sometimes a little more, sometimes a little less. As the director of a polder is able to farm on a large scale, as he has good stock and business-like methods, and his practice is up-to-date, the general influence of the farming has an excellent effect in the surrounding districts. Probably, however, there are small farmers making more money per acre than is made in big polder farming. I did not meet with any similar company.

The shooting on the polder was let, and last year the bag was between 700 and 1,000 hares, 400 to 500 partridges, some pheasants and a good many ducks, so everything the Zeeland farmer grows does not go into his barn.

**Poldering the Sea Shore.**—The making of sea polders is now undertaken by the Government. It took up the work about half a century ago, coming into the business because private enterprise had indiked all the land that belonged to private persons. Nearly all the land that can be poldered has been taken in hand by the authorities. At almost every desirable spot the polder makers have pushed out into the sea until it is too deep to go farther. In Zeeland only about a thousand acres of sea shore are still available for poldering, though every year the sea keeps piling up more mud on certain shores in the islands (see p. 146). In Friesland nothing is left to polder, but in Groningen there may be 250 acres to be got from the Dollart. The great stand-by of the land makers of the future is the Zuider Zee, of which 76,000 acres might be taken in hand. An agricultural authority told me that he expected to see before he died half of the available land in Zeeland, Groningen, and perhaps 45,000 acres of the Zuider Zee seized upon. His idea was that the diking, draining, and road making involved in the Zuider Zee poldering would cost on the average, and roughly, a little more than £40 the acre. The land should sell, he thought, for about £25 per acre more than that. The work would mean a loan of more than £16,000,000.

**The Polder Tax.**—When land is poldered, that is diked, drained, and provided with roads, it is sown with rape seed, and the freehold is sold with the crop on it. The polder authority sees that the occupants of the land do their duty in keeping their canals, dikes and roads in order, and do not rob one another of water or give one another too much. The management of polders varies of course greatly, and there is all the difference between a sea polder and an inland polder. In Zeeland, for example, it is possible to get the water off the land by gravitation. There are no wind-mills needed for lifting the water. It is another problem, as has been seen, in the case of the inland polders. The polder tax naturally varies with the cost of making and maintaining the polder. In Zeeland I have met with as high a rate as half a sovereign an acre. Sometimes it is much higher, even more than £2. In South Holland I noticed a case in which a man had quarrelled with the polder committee and had allowed the water to cover his land. It was in consequence growing a fine crop of reed and willow.

A gentleman with whom I spoke had been consulted by the Government as to a new sea polder of 662 acres. A hundred acres of it are reserved in  $2\frac{1}{2}$  acre lots for labourers. They pay £5 10s. an acre.

**Onions.**—I have spoken of onions, a well-known import of ours. I was told of a two hundred bushels—"oh those English bushels, and gallons, and pounds!" ejaculated my informant, "when will you be sensible and adopt the metric system, like the rest of us?"—a 200 bushels crop on  $12\frac{1}{2}$  acres. They made more than £84, or the price of the valuable polder land on which they grew. It is possible to have a 300 bushels crop. I noticed that the onions were stored in long narrow shelters of stud and batten thatched.

**Green Manuring.**—A great deal of green manuring is done in Zeeland, vetch being regarded as the best crop for the purpose, though clover is used. Mustard was the crop formerly employed. Great store is also set in the province, where the weather can be very severe indeed, by the benefits obtained by the careful preparation of the land for frost.

"A good frosting is as good as a good manuring, we say, and no doubt you do too," said somebody, "especially with much beets, for riding them over the land makes it very bad if we have a wet autumn. We want a tramway for the transport of the sugar beets along the roads to the railway stations and to the small harbours." I spoke with the owner of four farms totalling 1,500 acres. Beets occupy 273 acres, other cultures 1,012 acres, and pasture and dikes 215 acres. All the year round 130 labourers were employed, but 80 additional hands—women and children—came on between March and November. On this farm the men get an acre of land for potatoes, etc., and the use of the farm horses, the understanding being that on four or five Sundays in the year they shall come to feed the horses. The custom in Zeeland is that on New Year's Day the farmers asks his horsemen if they are staying on with him, and the labourers ask the farmer if they may stay on.

**Climate.**—It should be mentioned that even in a small country like Holland there are marked differences of climate. Zeeland is very mild, like the south of England. Wilhelmina wheat, which resists the frost in Zeeland, cannot do so in Groningen.

**A School and the School Question.**—In one Zeeland village I ventured to enter the elementary school, where I found a very intelligent and competent young woman in charge. The children were bright and well fed, but only one wore the costume of her island. The ventilation was admirable. The building was economically but soundly built, and was well equipped. A feature of the class rooms was the careful lithographs of farm life. There were also pictures showing the different kinds of scenery in the Netherlands. The only picture not of these two series was a portrait of the Queen.

I must not diverge into subjects not directly having to do with rural affairs, but the school question, in a country in the agricultural progress of which education has played and is playing such a great part, demands a few sentences. Not so many years ago one thought of Holland with satisfaction

as a country in which the elementary schools were all Government schools receiving instruction under a uniform system on which all the educational ability at the command of the State might concentrate its efforts. Now, alas! thanks to religious bickering and to party differences, which have given Clericalism its chance, there is a crop of small schools alongside the State schools. Thus in a tiny community I found not only three elementary State schools but an Anti-Revolutionary, a Christian Historical and a Roman Catholic school! Quite two-thirds of the expenses of these sectarian schools are now met in the State.

The result of the dividing up of the children among a lot of little schools is not only to give them a poorer education, it is to put a mark on them which they never lose. Separated as children, they tend to remain separated as grown up men and women; and sectarian, instead of national ideals are cherished. How much the public men of Scotland and its women have gained from their early association with all classes of the community in the common school cannot be easily exaggerated. I should be very sorry indeed to write anything calculated to hurt the feelings of any religious reader of whatever creed, but it is a duty to transfer from my notebook the vigorous protest which I heard in more than one quarter in Holland against what was asserted to be the falsification of Dutch history in the Roman Catholic schools.

**An Experimental Plot.**—While in Zeeland I strolled round a polder's experimental plot for fruit, where farmers look in from time to time for hints for the improvement of their gardens and plantations—a great deal of fruit is grown in the province. There was a fine collection of varieties, all in sturdy growth. The trained cordons and espaliers pleased me very much, some running up to twelve feet. Trees that needed a wall were against a thin barrier of reinforced concrete about seven feet high and not quite three inches thick, which interested me as I have often thought of experimenting with this material in the same way. The Government's little subsidy to a plot like this is about £70 a year, which is, I suppose, about the wages of the gardener in charge. He had trained a tree in the form

of the script capitals of the two initials of the plot's name, and as both letters turned back on themselves he had had to graft one branch on another in two places.

**Bicycles and Rural Morality.**—I was interested in hearing what a trustworthy authority had to tell me of the moral and social condition of the people. I had said that I had seen in my round of Holland only one person the worse for drink. "Yes," I was told, "people drink less than they did. They drink more milk and lemonade. The use of bicycles, of which we have so many, has been very good, because you can't get home at night along a narrow roadway with water at the side if you have been taking a lot of gin. Again, the bicycles have made it much brighter for the young people on farms, for they have made the area wider in which they could visit. As to morality, undoubtedly many marriages are made when they have become necessary. There are many parts of the world, however, in which it has been the custom among a rural population to have some certainty of children before making a final match. It makes a great difference to a man on the land whether he has children or not." One recalls the passage in "Man and Superman":

If you had lived to Ana's age you would have learned that the people who get rid of the fear of poverty and children only have their minds free for the fear of old age and ugliness and impotence and death. The childless labourer is more tormented by his wife's idleness and her constant demands for amusement and distraction than he could be by twenty children; and his wife is more wretched than he.

The old Zeeland method of proposing marriage was for the young man to ask the girl to "go to the fair." After getting her consent her parents' approval was applied for. Without this permission the girl did not go. The fair was held annually and lasted about a week. During the fair the couple lived openly at an inn as man and wife. There was nothing underhand in the matter. After the fair the girl returned home. If it appeared that she was going to give birth to a child, marriage took place. It was not customary for a girl to go often to a fair. If she had been once or twice and was not married, she was not likely to

be asked in marriage. In the Dutch colony of Java there is said to be a somewhat similar custom. In the marriage service the couple are required to reply in the affirmative to a question as to the existence of pre-marital relations. The custom in Zeeland and Java alike dates back to a time when it was considered calamitous for cultivators of the land to be without children, and when the Prayer Book's statement as to an object of marriage was believed.

**Priests and Politics.**—"As to the religious question," the speaker went on; "throughout our country, as you know, we have large numbers of Roman Catholics. We have nothing to complain of as to the character of the priests or of our own ministers, though we think that the best priests are usually sent to districts where the population is largely Protestant. The priests have done a great deal to help forward co-operation, but I am afraid they have not hesitated to use the societies for political purposes." In Limburg I remember a man in a responsible position expressing himself as follows: "The committees of the agriculturists' co-operative societies always have a priest as adviser, and this is natural in a way because the people are not so very well educated, but while we think the priests have done much good for the country by favouring the farmers co-operating, we see that they have not been entirely unselfish, but have, in effect, the farmers more in their control when they are organised. Nominally the Bond is forbidden to mix in politics, but really it leads the politics of the whole countryside when Roman Catholic."

**Sub-division of the Land.**—Returning to Zeeland, I remember I asked there about the sub-division of land. The Dutch law is that real property shall be divided among the heirs, so it is usually sold, the sum which it has fetched being divided. But in Drenthe and on other sandy soils where the land is of less value it is often split up with inconvenient results. In one province I noticed somewhere a survival of the Saxon strip system which still persists in our own isle of Axholme (see Appendix). The result in the Dutch case was that one farmer had five acres in about twenty bits.

## CHAPTER XIX

### SOUTH HOLLAND

Population, 1,390,044. Area, 301,195 hectares. Farm crops, 594,10; grass, 164,126; horticulture, 14,747; woods, 8,546; heath, 987; high peat, 10; high peat cut, but not yet in cultivation, none; shifting sands, none; dunes, 7,530; dikes, 4,557; waterways, etc., 41,192.

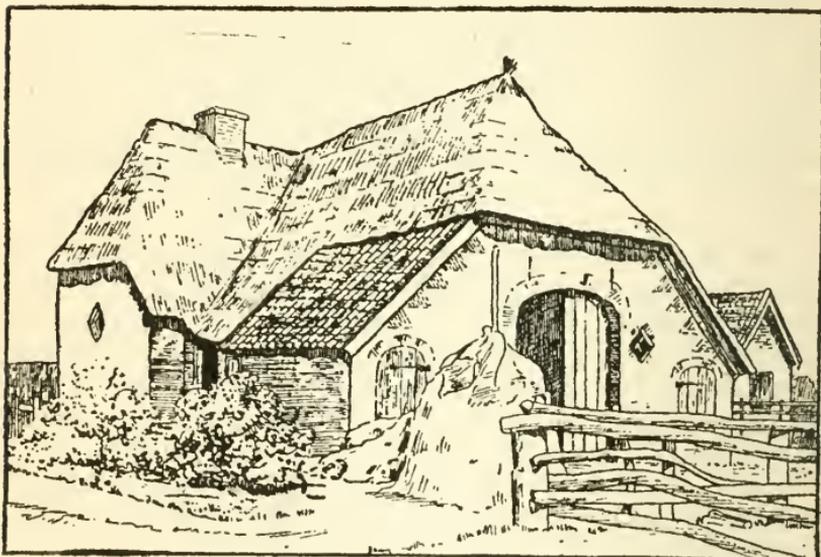
Chief products: Cheese, pigs, cattle, fresh milk, butter, vegetables, fruit, bulbs; nurseries at Boskoop and on the islands resembling Zeeland.

**The Hague.**—Some good Hollanders, when they die, go to Arnhem, but most of them go to The Hague. Everybody knows what a satisfying place The Hague is. (We come nearer to Den Haag than the French with La Haye; Den Haag is, of course, an abbreviation for 's Gravenhage, that is, as a North Countryman would say, 't Count's hedge.) Beautiful streets and historic houses, entrancing pictures, and then, through the beech woods that are in so many of the pictures, to the other side of our North Sea, with Holland along with you, on foot and awheel, in cars, in carriages, on cycles, especially motor cycles; Holland in frock coat, Holland in workman's blouse, Holland in peasant dress, Holland, boer's son and baron's son, in conscript uniforms which fit just as much as conscripts' uniforms usually do, Holland in fisherman's and fishergirl's costume, to the long wide, lungs-filling, formal parade of Scheveningen. How many cities are there where one may enjoy the advantages of a capital, a restful sight of deep green, of rich pasture, old villages and a sky famous the world over, the delights of the woodland and the pleasures of the sea—and the rest of a change of language and minor customs—within so small a geographical compass?

But to the land!

**Some Interesting Prices.**—I had the advantage of seeing the cattle of South and North Holland, on good and average farms alike, under the guidance of Mr. H. Schuurman, the director of that efficient organisation, the Netherlands Herdbook Society. Some account of the operations of that body, which counts for so much in the agricultural life and industry of Holland, appear in Chapter VIII.

I remember that the first thing which attracted the



[After Kloot Meyburg ("Schetzen van Boerenhuizen," Brusse)]

#### SOUTH HOLLAND AND GELDERLAND TYPE OF FARMHOUSE

attention of my travelling companion was the wages on a 110 acre farm near The Hague where 30 or 40 cows were milked. A milkmaid was getting from £15 to £20 and board. It is true the milking begins at 3.30 a.m., a not uncommon hour in Holland when the cans have to be sent some distance. Five men were getting 16s. 8d. a week all the year round, without food. I should estimate the farmer's taxes at about £10 a year on the top of a rent of from £4 to £5 an acre. But he reckoned to get 3½ tons of hay an

acre. I believe he uses hardly any artificial ; only the dung from the byres.

I noticed at this farm, by the way, an ingenious contrivance for the chickens ; they raised the lid of their corn trough by means of their weight on a spring board.

Near this farm I found a market gardener—there are many market gardens in the vicinity—paying £2 10s. in autumn and £3 16s. in spring per boatful of fresh long manure for hot-beds, a boatful according to my guess being from four to five single horse loads.

**Management of the Water.**—The skill with which the water is kept just at the right level in the ditches, or, more properly, the small canals which divide one little rectangular meadow from another, joined to the effects of the liberally and judiciously applied cow dung, is responsible for the rich grass ; but the farmer, no less than the polder committee and the Waterstaat itself, brings skill and pains to the management of the water. Nowhere in the world are ditches more carefully cleaned than in the low lands of Holland. It is as difficult to go through the country without seeing farmers ladling the mud from ditches or trimming their edges, as to escape seeing Dutch housewives turning their kitchens out of doors. This last year, owing to the lowness of the water, little canals of which no one had ever seen the bottom before have been cleansed with a thoroughness which made the hearts of the boers concerned glow within them. Boys have been picking up eels with their hands.

Most of the polder committees require proprietors to clean out their ditches twice a year in the summer, thus clearing them of plant growth or anything which may have fallen in. The sides of the ditches must also be carefully trimmed that the width may not be diminished. If the ditches were not cleaned for two years there would be no room for the water. They would be low fen ! This is the case, of course, only in the low fen districts, where the ditches are shallow—from one to three feet ; in other parts of the country the little canals are deeper. It is all a question of water level. Mud from the ditches is kept till the spring for manure.

**Scarcity of Water in Holland!**—It seems inconceivable that Holland should suffer from drought, but in some places the country has lacked water during the past summer. Of course the difficulty was coped with—difficulties are always coped with in Holland. Farmers, whose business it is in normal seasons to get the water away from their land into the sea, allowed the water out of the larger and higher canals to return into their ditches. Unfortunately, in some cases, the water that had entered the larger canals was brackish, and so the farmers obtained a water which made their cattle sick. One man in Limburg I was told of, rather than have his orchards deprived of the moisture they needed, had a fire pump manned daily by eight men, and obtained water from the Maas, a mile away.

Strange though it may seem, water is scarce in some of the largest towns in Holland! It used to be scarcer. There is, of course, sea water, brackish water, more or less polluted water in the canals, but no one can drink this, and very few people would wash their children in it. It is sometimes hardly good enough for cleaning the streets. Many years ago, but well within the recollection of elderly residents, before water was brought to Amsterdam from the Dunes, the drinking water used in the city was either rain water caught on the roofs and stored in cisterns, or water brought in barges from Utrecht and other places where there were wells. In olden times there may have been sufficient springs or wells in Amsterdam for the use of a small community. In one old house known to me—it is on the *Oude zyds Voorburgwal* (canal before the city wall on the old side)—an ancient well was discovered below the kitchen floor. The oldest part of the city is on a sand bank; the rest is on morass covered with sand. In some parts of the country, where Dunes water is not available, a good deal of rain water is drunk still.

**The Danger of Generalising.**—To return to the farms. I have noted the care which is taken in the distribution of manure. On the North and South Holland farms I visited, I found that the byre manure is brought out daily, and that the manure which the cattle dropped in the fields was

scattered every week, so that there should be no rank places in the grass. Later on, at a farm in Limburg one afternoon, I noticed the farmer's two daughters, big girls in their teens, doing this job, evidently as a kind of light task after the stress of the day's work was over. In Limburg this spreading is done sometimes twice a week and sometimes daily. Here I may again call the reader's attention to the fact that when, in the course of my notes of this perambulation of Holland, I say that such and such a thing is done, it must not be assumed that the practice is common in the whole of the country. In reference to this small matter of the manure scattering, in the course of our round I came into districts in which it is the custom to lead out the dung once or twice a year only. In these parts, however, the accommodation for the cows is not planned in the same way.

The cattle were, of course, in their sacking overalls. They begin to go indoors, however, at the end of October and the beginning of November, and they do not come out again until April.

We made one of our trips from The Hague by the new fast electric railway, between Rotterdam, The Hague and Scheveningen, the track of which is said to be the most expensive in the world. This is due to its being carried on the low fen.

**Eggs for Calves.**—During this outing I found that some farmers were giving their calves eggs as well as milk. These particular animals were of course fattening for veal. There is a great production of veal in Holland, and the victims are usually kept in darkness and in quarters so narrow that they are just able to move. The end comes in three months.

**Hedge Waste Avoided.**—On a farm of 125 acres there were 75 acres of grass. While there the secretary of the local breeders association happened to arrive. He was a farmer retired on his means. Except that he wore the thick-soled leather slippers in which the farmer thinks nothing of moving a considerable distance from home when

he is in his best clothes, he looked exactly like a Methodist local preacher, and was a good fellow. There were two dozen cows in milk, and I found the men were getting up to £1 a week without food. Seeing a man ploughing, I made some remark about the soil, when the farmer said: "Oh, that is another farmer's land." In this part of the country it is impossible for a stranger to tell without investigation where one farm ends and another begins. Nothing separated the field in which I was standing from the field belonging to the next farm but a little canal about a yard wide. One advantage of this system is that there is no waste from shade or from the rooting systems of hedges and hedge timber, and the farmer is able to farm every bit of the land he pays rent for or has bought.

**Foot-and-Mouth.**—On this day's tour we saw two bad cases of foot-and-mouth disease, one being the local society's bull. When one witnesses the ravages of this disease one realises how wicked is the suggestion, which is sometimes made by urgent Free Traders who know nothing about agriculture, that the stern refusal of our authorities to admit live cattle, is a Protectionist subterfuge. What we should have left of our valuable herds if foot-and-mouth ran through the country, it is not easy to say. Our breeders' foreign rivals would obtain a great advantage which they would retain.

#### NORTH HOLLAND

Population, 1,112,582. Area, 275,692 hectares. Farm crops, 38,872; grass, 148,907; horticulture, 11,077; woods, 7,153; heath, 2,250; high peat, 1; high peat cut, but not yet in cultivation, 28; shifting sands, 34; dunes, 25,043; dikes, 3,207; waterways, etc., 39,120.

Chief products: Cheese, sheep, cattle, pigs, vegetables, bulbs, seeds, flowers (Aalsmeer).

**The Dunes.**—In North Holland one extremely interesting day was spent in the Dunes, the range of hills of sand which the sea has raised along the western coast.\* Only at

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\* The area of the shore Dunes is not far short of twenty thousand acres, and of all the Dunes more than a hundred thousand acres, or nearly 5 per cent. of the total waste land of the kingdom, or 1.34 per cent. of the total surface.

two places—for a distance of about three miles near Petten, in North Holland, and for a distance of about six miles near Westkapelle, on the island of Walcheren in Zeeland—has it been necessary to build a great sea wall. The height of the great wall in North Holland against which the sea thunders in stormy weather is about twenty-four feet above high water mark. As a matter of fact, there are three walls with a distance of about 500 yards between them. The arrangement is like a capital D which has two round parts instead of one. The first supplementary wall is called "the waker" and the second "the sleeper." In stormy weather the level of the sea may be seven or eight feet above Amsterdam Pile.

**"Little Switzerland."**—The tumbling hills of tree-covered sand which compose the Dunes near Bergen, where are the Government plantations, have been called about Bergen, "Little Switzerland." Certainly when one finds oneself among these hills one seems to be out of Holland. The illusion is the more perfect because there is no break between the sand hills and the pancake-like flatness of the cultivated land which stretches to the horizon behind them.

What the agricultural investigator comes to the Dunes to see is the means which have been taken to prevent the sand hills blowing themselves still farther over the land. The movement of the Dunes has been stopped by planting them with trees. But this has been a task of extraordinary difficulty. The problem of preventing the blowing sand working in North Holland the havoc which has been wrought by the Sahara in Northern Africa—and is now being wrought in Cornwall, as the accompanying photograph shows—is attacked by putting in couch grass, though sometimes the little firs can be planted right away. In several spots success has been sought by planting a preliminary leguminous crop. Until one has seen it, it is difficult to believe what wind is capable of doing with fine sand. In this exposed part of the country, where even on a fine day the cows' tails are blowing in the wind in a comical fashion, and the sand is of a quite remarkable

fineness, a hill may shift its position or a great hole may be excavated within a few hours.

**Clothing the Sandhills.**—On the roadways which have been made through the Dunes there is strewn dead heather cut in Gelderland; and even on some open spaces this scattering of heather has been the only way to keep the sand still. How the young firs (*p. Montana*, *p. Sylvestris*, and *p. Larizio*) manage to survive the battering of the mitrailleuse of fine sand is a marvel. Of course their growth is extraordinarily slow. Some 15 or 16 years old *Montana* were not so high as one's knee. This variety assumes a brush-like shape, and is admirable for facing the wind. *Larizio* at 15 or 16 years was about my height, and sometimes higher.

As first one spot and then another gets some sort of covering of tree growth, work is possible in their lee. In places there are now woods which are big enough to make it quite enjoyable to walk in them. Some of these trees are even beginning to seed on their own account. Every year more than 60 acres of the Dunes in the district I saw gets planted, and the good work goes on at other spots. Needless to say, the timber is of small value, except for pit props, but the good work has arrested the extension of the Dunes over valuable land, and the children and children's children of some of the patriots who have bent their energies to this work of afforestation in the unlikeliest conditions, will inherit timber-clad hills of no small beauty—they may yet become a favourite site for country residences—and tracts of timber which must eventually prove of some commercial value. Within the lifetime of some of the young men working at Bergen the remaining 3,500 acres unplanted in the district I traversed will be completely covered by trees.

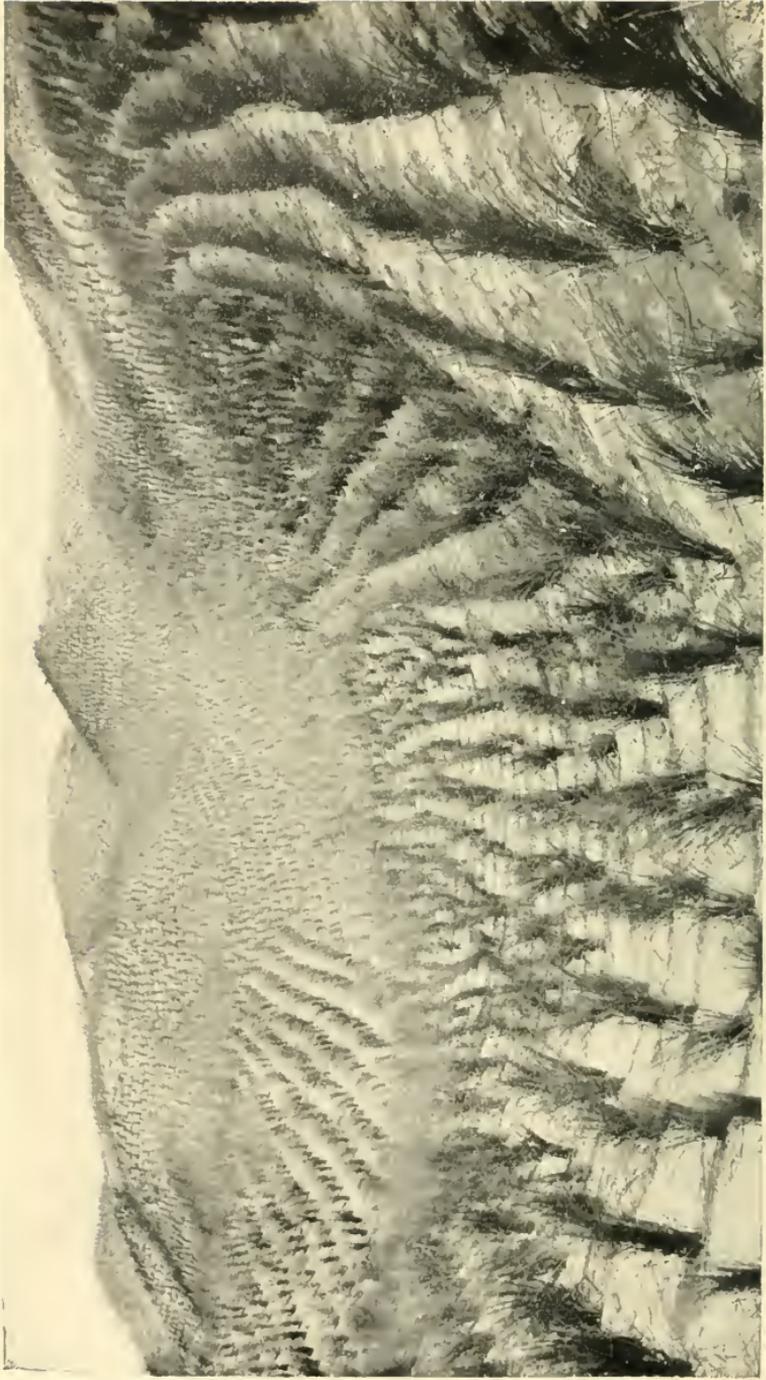
The indomitable Dutch Heath Society undertook the first experiments at the request of the Government; but for the last thirteen years the management has been in the hands of the State Domains department. The Government spends about £2,500 a year in the Dunes of Bergen. The yearly income of the Heath Society, which does such



[From Dr. E. J. Russell's "Lessons on Soil,"

**SAND FROM CORNISH DUNES COVERING UP GRASSLAND**

An almost identical photograph could be obtained behind the Dunes of Holland, except that the movement of the sand has been stopped by planting trees



RUSH PLANTING TO KEEP THE DUNES SAND STATIONARY

good work in other parts of the country in planting and encouraging the planting of desert places, is quite modest. The largest part of the Dunes is in private or municipal hands, not the hands of the Government.

It is important to note that the sand of the Dunes is a very great deal finer than that of the great sandy tracts of Gelderland and Brabant and other provinces. It is almost what we call a silver sand, and the Dutch knew what they were doing when, centuries ago, they set themselves to growing bulbs in this beautiful medium, mixed with the peat of the bogs and the manure of the cow houses. For the bulb culture the sand is removed down to about two feet above water level.

From our Pisgah in the Dunes—they rise from about 100 to 164 feet—we descended to the villages of the green plain, their rectangular fields set within borders of glistening canals.

There is one great advantage which the villagers have over our own, and that is that they have all the milk they need. I never heard of a shortness of milk among the labourers, such as is to be met with in many of our rural districts. When there are no cows, there are goats.

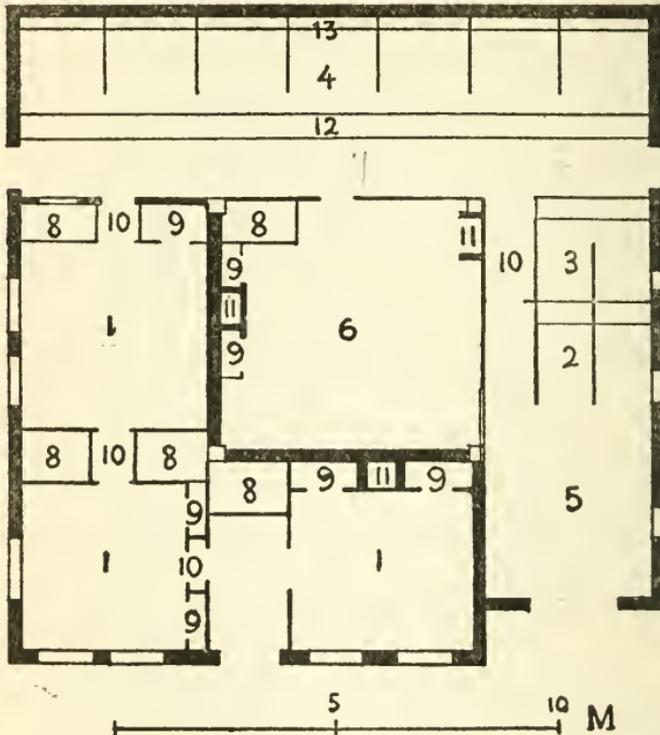
**The Bedecked Cow Houses.**—One of the cow houses we were shown over we had the good fortune to see just before the cows were brought in for the winter. As in the cow houses in nearly every province, we stepped into it out of the house. The walls were whitewashed or blue-washed. The stalls were strewn with sand, not only smooth but stamped into patterns in the same way that a pattern is impressed on butter. There were also big blue and white shells disposed about the stalls. The trough for manure was tarred. The windows were curtained and there was a nice carpet right down the middle of the house.\* Here and there rather striking delf plates had been hung up. And by way of evidence that it is the modern Dutch-woman who has lost none of her taste for having her cow house spick and span during the summer, I may mention

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\* Needless to say all these things are only for the summer ; they are removed before the advent of the cattle.

that there was standing at one end of the cow house an up-to-date lady's bicycle and a mechanical carpet sweeper!

**The Cabbage Country.**—In North Holland we came into the famous cabbage growing districts, where, as in some



[After Gallee ("Het Boerenhuis," Oosthoek)]

**NORTH HOLLAND AND FRIESLAND TYPE OF FARMHOUSE**

- 1—Kitchen and beds, 2—Horses, 3—Calves, 4—Cattle, 5—Threshing, 6—Hay.
- 7—Cattle passage, 8—Beds, 9—Cupboard, 10—Doorway, 11—Sink, 12—Gutter.
- 13—Watertrough.

other parts of the country, water traffic largely takes the place of road traffic. In this particular cabbage district the proportion is about 30 per cent. of arable land to 70 per cent. of water. During the autumn two cabbage trains depart daily from one station for Germany. I heard the

total weight sent across the frontier during the season stated at 35,000 tons. The cabbage farmers' holdings average about 10 acres each. Formerly this part of the country was all grass, but for many years cabbages have been grown. Other produce is cauliflowers, carrots and onions. Rhubarb is being introduced. Great importance is attached to providing new soil for the cabbages, and the ditches are scraped out to a remarkable depth in order to obtain it. Great care is also taken to procure pure seed by protecting seeding plants by muslin or by purchase of seed. Another part of North Holland—the Streek, between Hoorn and Enkhuizen—specially devotes itself to the raising of seeds.

**Horses in Boats.**—It is a most interesting experience to be poled in a cabbage boat through the waterways which divide the never-ending series of cabbage fields. The constant removal of mud from the little canals has so raised the level of the fields that one sees cabbages in a new perspective. The horses which plough the fields go to and from their work, like their owners, in boats. Only animals accustomed to this navigation from their youth could be made to take these trips in boats about 15 feet long. It is only during ploughing that a horse ever tumbles into the water. This, of course, in trying to get the headlands cultivated to the last foot. I noted that every farmer plants his own cabbages, which are handed to him by a boy. Needless to say, as the years go on, more and more artificial is used.

Undoubtedly this is very special clay soil for cabbages at Broek op Langendijk and Noord Scharwoude. There is none to beat it in Holland. But the skill employed, the pains taken, and the hard work put into the culture by the farmers are held in great respect by outsiders, and strangers do not rashly undertake the culture. What may one not expect from farmers whom one sees cycling about their narrow roadways in *klompen* (wooden shoes)?

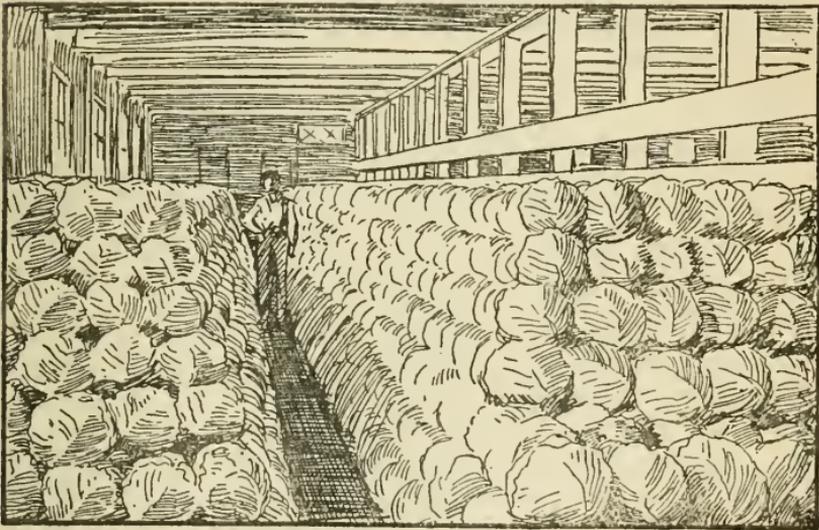
**Prosperity and the Reasons.**—The price quoted to me for land was close on £7 an acre to rent, or £200 to £230

to buy! The farmers who came into cabbage growing had from 50 to 70 acres of land, but they soon found that 10 acres was the profitable area for cabbage growing, in which so much depends upon personal attention. One could not but be impressed in these cabbage Venices with the intelligence and prosperity of the people. Every house was modern and well looking. The two villages, which had run into one another, contained four Dutch Reformed and one Roman Catholic church, all considerable buildings.

The man we had hoped to seek out to give us information was dead, but a young cabbage grower who told us this happened to be his son-in-law, and kindly invited us to his house, gave us tea, then took us for an hour's boat excursion, and finally insisted on our coming home and having coffee. He was clear that the success of the cabbage growers was due, in the first place, to their suitable soil; second, to the intelligence of the farmers, and, "doing everything themselves"; third, to the co-operative auction mart, of which a word in a moment, and, finally, to Free Trade. Not only the Dutch agents, but German buyers themselves, come to the men's co-operative auction mart, where the cabbages are knocked down to buyers with the celerity I have described in the case of the Loosduinen auction mart. Both Broek and Noord Scharwoude have marts.

**Fivepenny Cabbages.**—The skill of the men is shown not only in their growing and marketing, but in their cabbage storing. Only half the crop is sold in the autumn. The other half is retained as a speculation for a rise in price. In one of the special cabbage sheds which each grower has attached to his house, 30,000 or 40,000 cabbages may be stored. These immense cannon ball-like cabbages, stripped of every possible piece of exterior leaf, are something which is hardly to be seen outside Holland. They have been peeled—there is no other word for it—with the utmost care, and are very carefully lifted from the boats into the stores. They are graded into sizes and piled up with much ingenuity, so that it is just possible to edge one's way down between the four banks of cabbage. Usually there is another lot of cabbage in a second storey. Remarkable to

relate, these cabbages are examined one by one every fortnight, or it may be twice a week or even daily. It all depends upon the prevailing temperature. Any decayed piece is deftly cut away in a special fashion which is best calculated to prevent the injury spreading. The average loss in storing is 10 per cent. Bright, freezing weather is naturally what the growers like. One notices a thermometer fixed outside the stores. A damp winter is bad. I found one quality of white cabbage weighing 10 lb. apiece.



HOW CABBAGES ARE STORED DURING WINTER

Thousands of cabbages had been sold last year at 5d. apiece! There seems to be no such cabbage for sauerkraut as that of Broek and Noord Scharwoude, for it keeps and travels so well. It is bought, not only for Germany, but for France, Russia, Hungary, Spain, Portugal, and Italy. It goes into Germany against a duty of about twelve guineas a car load. The small inferior red cabbages come to us, which is no doubt due to the fact that our only use for red cabbage is for making pickles.

I noticed that the cabbage leaves removed in the fields

were being mixed with peat moss litter to make a manure for potatoes. Some of the growers are of opinion that the land has had too much cabbage, and with characteristic enterprise are trying new crops, such as rhubarb and scorzonera. The onions, by the way, are stored through the winter in the open in little sentry-box-like structures of battens and reeds. The reeds are a special culture. I should not forget to mention that the ditches not only supply mud for the cabbages, but wonderful quantities of fish, 10 tons being sent out of one village to Germany in a week. The water of the canals which form the traffic ways of these villages and cabbage farms has certainly a nutritious look.

## CHAPTER XX

### FRIESLAND

Population, 363,625. Area, 331,704 hectares. Farm crops, 42,469 ; grass, 215,001 ; horticulture, 1,871 ; woods, 7,529 ; heath, 17,412 ; high peat, 638 ; high peat cut, but not yet in cultivation, 2,772 ; shifting sands, 1,216 ; dunes, 1,872 ; dikes, 1,404 ; waterways, etc., 39,520. Chief products : Butter, cheese, cattle, pigs, potatoes.

**A Chimney-Studded Landscape.**—Until the reign of our King John only a river divided North Holland from Friesland. One day as narrow a waterway may again be all that separates the two provinces. Since the inbreaking of the Zuider Zee, a flood, sometimes turbulent enough, has rolled between which it takes the excellent steamer an hour to cross. Friesland, one of the most progressive, if not the most progressive, of the Dutch provinces, is, of course, a country of butter and cheese. Creamery chimneys dot her landscape. To the tourist the province is chiefly known for the delightful trips that may be made among her meres. As in our earlier pages so much has been written about Frisian butter and cheese, Frisian cattle and Frisian farms, we cannot spend much time with our fine, clean-limbed connections. Does not the couplet say?—

Bread, butter, and green cheese  
Is good English and good Fries !

In Dutch the first line would be :

Brood, boter en groene kaas.

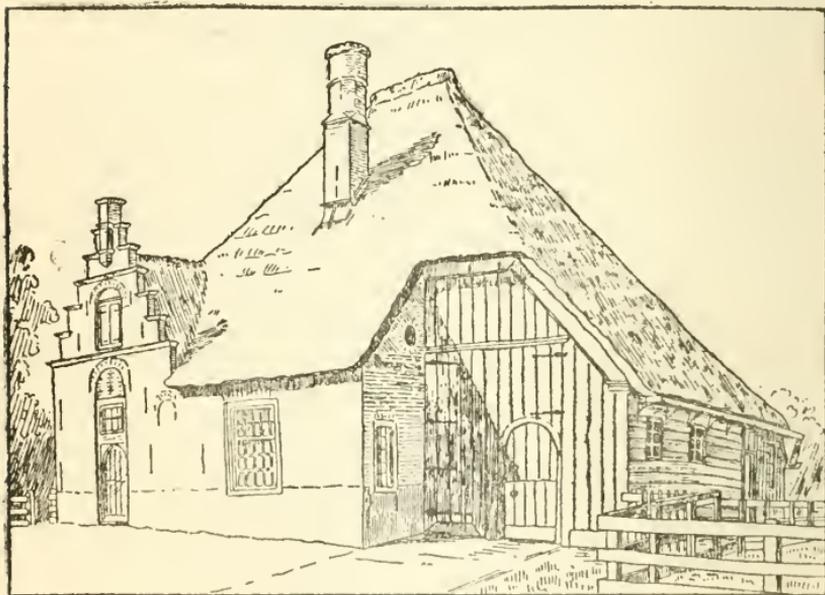
In Frisian it is :

Brêad, bûtter en griêne tsjûs.

The word for cows in “When the kye come hame” is perfect Frisian.

**Draught Dogs.**—Before pushing on to Groningen, however, I should note that we saw a show of about 450

bulls of excellent quality in the capital, Leeuwarden. We also saw two or three overworked draught dogs, but such sights are common in other corners of Holland. The use of dogs for draught purposes is regulated, however, under an Act of the year before last. It may be said in excuse for the practice of employing dogs for draught that the class of animal used is often of large size and considerable strength. On the other hand, most of the animals looked as if they could do with more liberal feeding, and we wondered about



[After Kloot Meyburg ("Schetzen van Boerenhuizen," Brusse)

#### NORTH HOLLAND AND FRIESLAND TYPE OF FARMHOUSE

the state of their pads. Most of the animals seemed to take life too seriously for us to venture on an examination. One day in the province of Groningen I saw a man sitting on a free-wheeling bicycle, which was hauled by a dog. The rider carried a switch and was smoking a pipe. I picked up one day at The Hague a philanthropic booklet containing diagrams showing the most humane way of harnessing dogs. Few strangers in Holland who animadvert

on the use of draught dogs remember that the Bill forbidding the use of draught dogs in the Metropolis was not passed until Queen Victoria had been two years on the throne, that it was fifteen years more before the law was extended to the provinces, and that it was argued that the dog was the poor man's horse and source of livelihood, and that "if nature had not made the dog perspire at the tongue, and thus display an apparent distress it did not feel, nothing would have been heard about the cruelty of so using it."\* Further, Holland is flat.

No one can pass through Friesland without being braced by its "caller air," its thriving, wideawake character, and its traditions of education and freedom. Friesland never had a feudal system, and its ancient book of statutes, which even Charlemagne did not dare to alter, is still preserved. "The Frisians," one reads therein, "shall be free as long as the wind blows out of the clouds and the world stands."

#### GRONINGEN

Population, 332,941. Area, 235,641 hectares. Farm crops 130,472; grass, 59,766; horticulture, 4,215; woods, 1,094; heath, 12,600; high peat, 4,199; high peat cut, but not yet in cultivation, 563; shifting sands, 40; dunes, none; dikes, 1,612; waterways, etc., 21,070.

Chief products: In Fen Colonies, potatoes. On the clay, cereals, caraway, beans, peas, flax, sugar beet, carriage horses.

**No Manure for Forty Years!**—In Groningen, as in the undulating lanes through the Dune hills, we were in a part of Holland which is unfamiliar to the usual visitor to the Netherlands. The fields had often large shelter hedges. The grass was poorer, though still good useful grass, and the farms were bigger.

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\* Other persons marvelled at the inconsistency of the Legislature in preventing the use of dogs in drawing carts in London, before it stopped the employment of children in "hurrying" coal. Yet its conduct only illustrated the old adage, that the eye produces more impression than the ear on the brain. Every one could see the dog working in daylight in the streets of London; few persons saw the poor child working in the dark galleries of a coal mine; and protection was, in consequence, accorded to the one before it was extended to the other.—*Walpole's History, IV.*, 404.

From the capital we made a trip right out to the north coast, through a heavy sandy clay loam, where there was strong young wheat and winter barley—"looking remarkably well," said my companion—and men were ploughing 14 or 15 inches with pairs of light-legged horses. Large crops of beet were being collected, and the roots were easily pulled in such a soil. No doubt, too, such land would very soon be put right by the frost after the heavy traffic involved in carting off the beet. By the roadside we noticed the beginning of a clamp of sugar beet leaves and pulp. The fields were divided by ditches.

We were impressed by the prosperous look of things along our route. Always dignified farmhouses and good farming. Some of the coastwise land is marvellous stuff. It is actually the case that on some of the Dollart polders no manure has been given for forty years! But all Groningen is not like that, and we confined ourselves to average samples of soil.

**On a Sea Polder Farm.**—A farm we visited was on one of the sea polders on which the sea had returned in 1875 and 1877. The farmer had 200 acres under plough and only about three acres in pasture, but he had a lot of rough grazing land by the sea and on the dikes. There were 150 sheep and 15 head of cattle. Clover, rape, barley, oats, wheat, beans and peas, caraway and other seeds are grown. Immense though the barn is, only half the harvest is accommodated, the other half being threshed in the fields. The Frisian farm building is an immense structure, in this case quite 100 yards long. The sheep, as in other parts of Holland, come in at night in winter. The cows' drinking trough had a lid to keep out dirt. The animals find out in a day that they can get water by nosing up the lid. I found a good labourer getting £33 a year. He would pay about £3 a year for rent, and he would have with his house an eighth of an acre of land, which might cost him about £2. We had the pleasure of visiting the delightful home of Mr. and Mrs. L. H. Mansholt, where for the first time in our lives we heard a practical farmer and his wife acknowledge themselves "Social Democrats (Marxist)"!

**Market Gardening for Germany.**—Market gardening, the produce being exported to Germany, is making great progress in Groningen. I had some interesting talks with the men who have gone into the business. One man who had been in England thought the English nurseries he was acquainted with were too large. In growing, he said, the small man has the advantage, and in selling, the big man, but in Holland the small man is able to co-operate and therefore to sell well. Which is the whole truth about co-operation.

One man I noticed went in for glass houses and another for glass frames. A grower was frank, as so many other men on the land in Holland are, as to the valuable lessons of English horticulture and agriculture. "In 1903 we had started cucumbers in houses, but we lost the market to England, so we began again, learning from you, and we have got back much of the trade."

There is more open culture in Groningen than in the Westland, because the land is cheaper. Undoubtedly, low wages are a factor in profitable production in the Groningen market gardens, but food is cheaper in Holland than in Germany. The labourers are largely vegetarian, except for the consumption of lard. They eat potatoes mashed with greens and, for nitrogenous food, beans and peas.

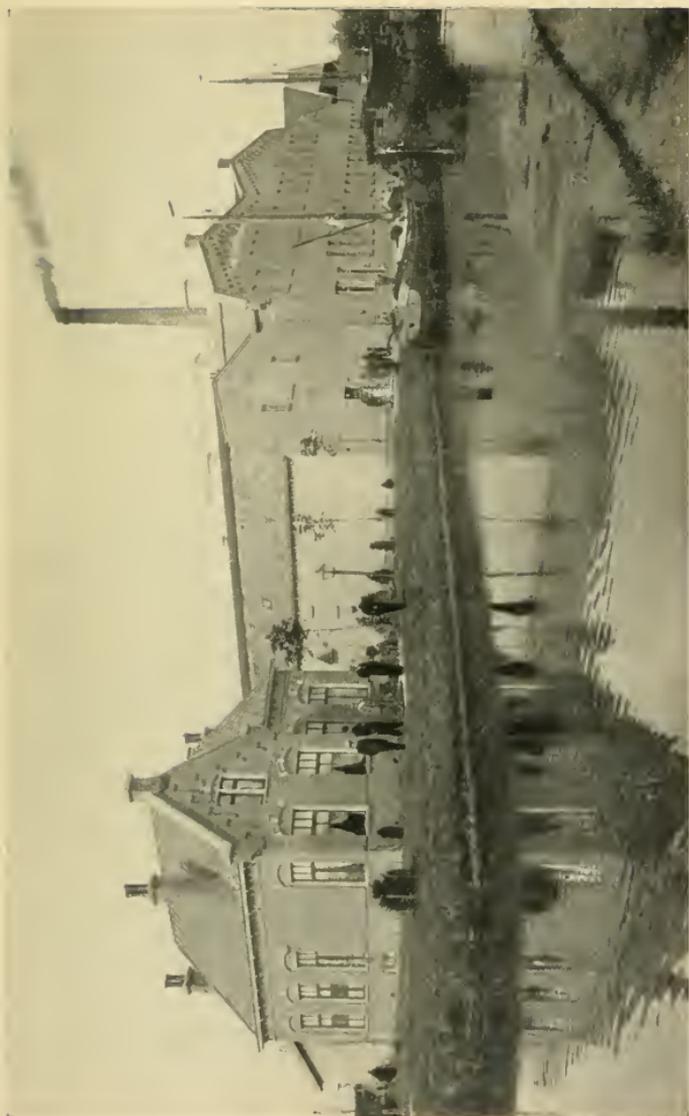
**English and Dutch Labourers.**—A grower who had worked near London, was full of praise of some of our market gardening methods and produce, but he thought that in England the best working men were in factories. The foremen in the nurseries were all right, but the ordinary men were not so bright as Dutchmen doing the same work. "Our common men are better educated than your common men, I think. In your men's talk there is too much 'bloody.' They have a very good knowledge of sport and the Navy, but they do not know some other things. At fifteen our boys can go to a winter gardening school, and it will cost them nothing hardly. The English workman has perhaps a better life than ours in gardening, but our men seem to want to stay more in their homes than your men. As to our wages they will become higher through organisation."

**Socialist Agricultural Labourers.**—Perhaps the most interesting thing, or one of the most interesting things in Groningen, is the large number of agricultural and horticultural labourers who are Socialists. In one place I was assured that half the agricultural labourers were Social Democrats. When I mentioned this to a market gardener, he shrugged his shoulders and said that he had an Anarchist working among his men and he was a very good workman!

**A Co-operative Potáto Flour Factory.**—To creameries and cheese factories I usually gave a wide berth on this journey, having seen so many of them during earlier visits; but I spent some interesting hours in one of the co-operative potato flour factories that the farmers have built. Long before you get to such a factory you suspect its presence through seeing on the canals such a number of large barges piled high with potatoes.

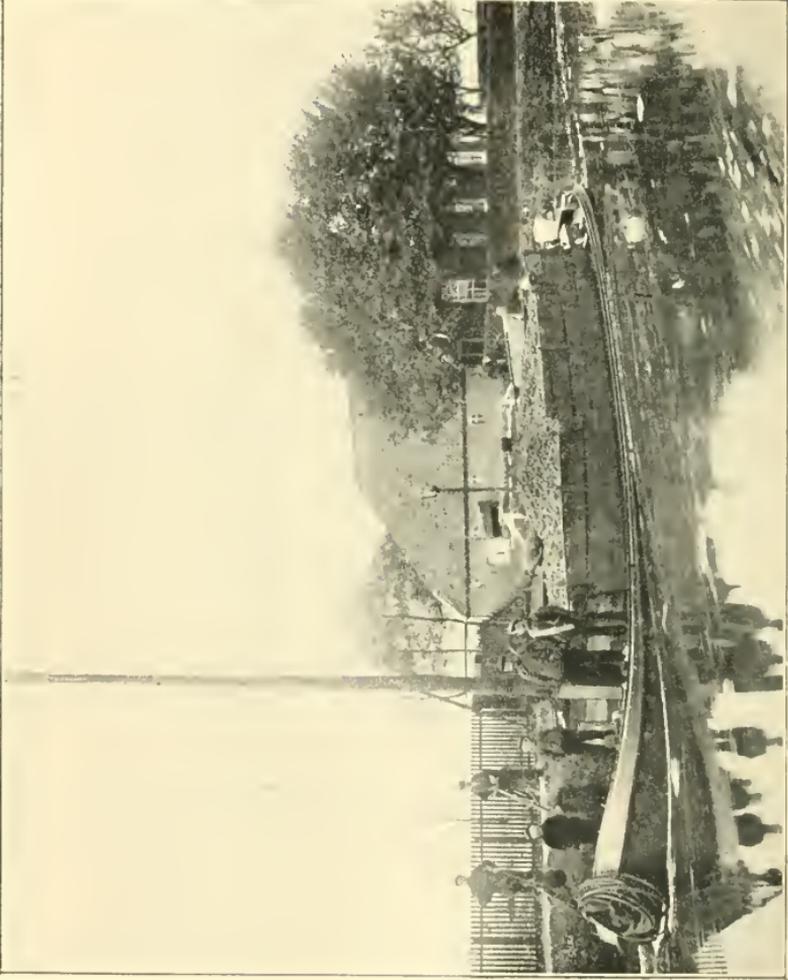
The first process through which the potatoes go resembles that to which beets are subjected. The *aardappelen* are washed clean, for the potato factory, like the sugar factory, pays only for net weights. Like the sugar factory, the potato factory also works all night. A potato factory is undoubtedly the sloppiest of all factories. There is water everywhere, and only by wearing *klompen* or goloshes is it possible to examine the processes in any comfort. A few weeks after I visited this particular factory a whole party of visitors had a bad fall.

After being cleaned and weighed, the potatoes are rasped to pulp. The pulp is sieved through silk, and, in regard to the resulting farina, the task of the factory is to clean it ever more and more thoroughly. This is done by repeated washing and by another sieving. As the farina sinks to the bottom of the shallow troughs it looks not unlike chalk. When sufficiently clean, the wet flour has most of the water flung out of it by being centrifugaled. It is completely dried on unending canvas rollers. After being sifted and granulated, it is the first quality flour ("prima"). There are three grades. For the two inferior grades the pulp or refuse, belched into wide shallow concrete settling tanks in the open air, is dealt with after being kept for about four



ONE OF THE FACTORIES IN WHICH RURAL DUTCH CO-OPERATORS TURN  
THEIR POTATOES INTO FLOUR

Note the great load of peat on the further barge. No coal is used.  
The factory is in one of the Fen Colonies.



POTATOES ON THE WAY TO THE CO-OPERATIVE FLOUR FACTORY

months. The result is the second quality flour ("prima secunda"). The pulp from this product is kept for about four months in the settling tanks and is then used in the manufacture of third quality flour ("secunda").

The factory we visited dealt with about 33,000 bushels of potatoes in 24 hours. The price of the flour per ton at the factory last year was £8, and is this year £15. From about 137 lbs. of potatoes some 20 lbs. of first quality flour,  $4\frac{1}{2}$  lbs. of the second quality, and about a pound of the third quality are made.

A good deal of the flour goes to Italy and South America for macaroni. The flour is also used for starch, and in the facing of linen and cotton and the production of glucose. A special kind of potato is grown for the factories, and this year 1,100, 1,375, and even 1,500 bushels per hectare ( $2\frac{1}{2}$  acres) were produced on the excellent potato land of Groningen.

Shareholders in the co-operative factory may sell potatoes for consumption, but not to another factory. Some 250 farmers—on an average of about 50 acres apiece—and some ex-farmers compose the shareholders, and for every share of a value of £8 4s. od., 687 bushels of potatoes must be delivered. The price paid this year has been from 1s. 6d. to 1s. 10d. per hectolitre ( $2\frac{3}{4}$  bushels). The dividend is restricted to 4 per cent. The cost of the factory was little more than £40,000. The campaign lasts thrice as long as the beet sugar campaign or about 200 days and 200 nights.

**A Farmers' Strawboard Factory.**—Within a few hours of leaving the potato factory I visited a strawboard factory, another co-operative effort of the farmers. It was called "Ons Belang" ("Our Interest"). There are seven co-operative strawboard factories, and 13 co-operative potato factories in the Netherlands—nearly all in the same province, Groningen. The capital of "Ons Belang" cannot be much less than £84,000. The factory is only fifteen months old and is quite an imposing structure. There are 325 farmer shareholders and from 65 to 70 people are employed all the year round.

Although strawboard making means a very large factory

and expensive machinery, the process of manufacture is a comparatively simple one. The straw is first put through a giant chaff-cutter and boiled in lime for four hours in immense, extremely forbidding-looking revolving boilers. As the boiling is done under pressure, and each boiler is big enough to weigh twenty tons, the scene at the unscrewing of the lid of one of them, and the emptying out of the scalding contents as the boiler turns slowly over, is as exciting as the drawing of a blast furnace on a dark night. Two big locomotives blowing off steam together in a small shed could not make more noise or a more appalling steam. When at last things had cleared sufficiently for us to see our way a little, we groped our way to the part of the factory in which what may be called the straw mash goes through a beating process, first in a dry and then in a wet state. The resulting product is led over a sieve, and then between wire mesh, the effect being to drive out more and more water. The pulp continues its journey through tighter and tighter presses until, at the final stage, it no longer passes over wire meshing, but travels over canvas, and is strawboard, albeit in a somewhat doughy state. All that remains is for this unending strip of strawboard to dry itself over cylinders more and more highly heated. It is then cut and trimmed, by means of guillotines, to the desired sizes. The kind of strawboard which is white or red on one side is made by white or red paper being caused to adhere to the strawboard by means of potato flour starch.

The relative usefulness of the different kinds of straws in strawboard making may be fairly indicated by the prices. A ton of rye straw is 1s. 8d. dearer than a ton of wheat straw; there is the same difference between wheat straw and oat straw; and oat straw is in turn about 3s. 4d. dearer than barley straw.

**Why the Factories are Started.**—The farmers started both their strawboard and potato factories, just as they started their beet sugar factories, because of the low prices paid by the manufacturers. "Now," said one man to me "we have the advantage of having the latest machinery in our factories, because they are the most recently built."

If what strikes the eye outside a potato flour factory is the pulp spouting into the settling tank and when one approaches a sugar factory the great piles of beets, what is unusual to the novice as he nears a strawboard factory is the immense piles of straw—in steam pressed bales of about a hundredweight. In one of the stacks at “Ons Belang” there were 500 tons of straw. Some 18,000 tons are used up in a year. To make a ton of strawboard about one ton six hundredweights of straw are required. All the materials for the ton of strawboard cost about £2.

Most of the strawboard comes to England, but a considerable quantity goes to Germany. Holland sends probably from 3,000 to 5,000 tons of strawboard to England alone. It is an interesting circumstance that Holland should be able to send strawboard in such quantities to Germany when the Dutch factories have first to import all the necessary lime, wire meshing and lining paper, and most of the machinery from Germany.

The strawboard factory, like the potato flour factory, has a fixed dividend of four per cent., everything above that being divided among members. Whether we shall see many beet sugar factories in this country remains to be seen, but there is certainly not much prospect of a potato flour or strawboard factory enterprise. All the potatoes we are likely to be able to grow we can eat, and with our straw making £3 10s. a ton in London, and Dutch strawboard to be had there at £5, there is no opening for profit in strawboard manufacture.

**The Attack on the Peats.**—Friesland, as already shown, is largely a grass province, and Groningen largely an arable one. Both are mostly sea clay with a hinterland of peat and sand. Before we left Groningen, however, we were to make acquaintance with what is called high peat (*hoogveen*, high fen) and the impressive work which has been done for centuries past to bring the wild into cultivation. On coming within sight of the strawboard and potato flour factories there are noticed great black stacks of peats as big as churches. There were three of these immense stacks at the strawboard factory. No coal is used in the furnaces,

only peats. Some 1,094 acres of high fen are cut up into peat in the Netherlands in a year;\* and, in the provinces where there is plenty, the most economical means of obtaining it has been closely studied.

Some dozen miles from Groningen one comes on the first of the Fen Colonies, and they reach out for nearly forty miles within the province. The Fen Colonies are the by-products of peat cutting. The attack on the peat was made from the town of Groningen by digging a canal, the Stadskanaal, to where the peats were to be had. Year by year the canal and its offshoots have been extended into the peat country until now there must be some forty miles of the main canal and more than ninety miles of the subsidiary canals running at right angles to it.

While the low peat is about water level, the high peat may be lying so high as, when cut into, to reach to a man's height and more. It is a sight one can never forget, the stolid mathematically straight canal cut through the black peat barrier. On either side of the canal, at first, the peat wall is hewn down only far enough back for the roadway to be formed. Once the peat is cut beyond the distance at which the blocks, when dry, may be conveniently taken to the canal boats, the digging of an auxiliary canal at right angles to the parent canal is set about.

**The Fen Colonies.**—One rides for miles along the roadway by the side of the Stadskanaal with the subsidiary canals running into it, and houses and farms arranged as on the accompanying plan. At first, as far as the eye can see from the canal-side roadway, the peat has been attacked and completely vanquished. There is no peat in sight. Just a wide expanse of cultivated land, such as one sees in the low fen areas of North and South Holland, with small

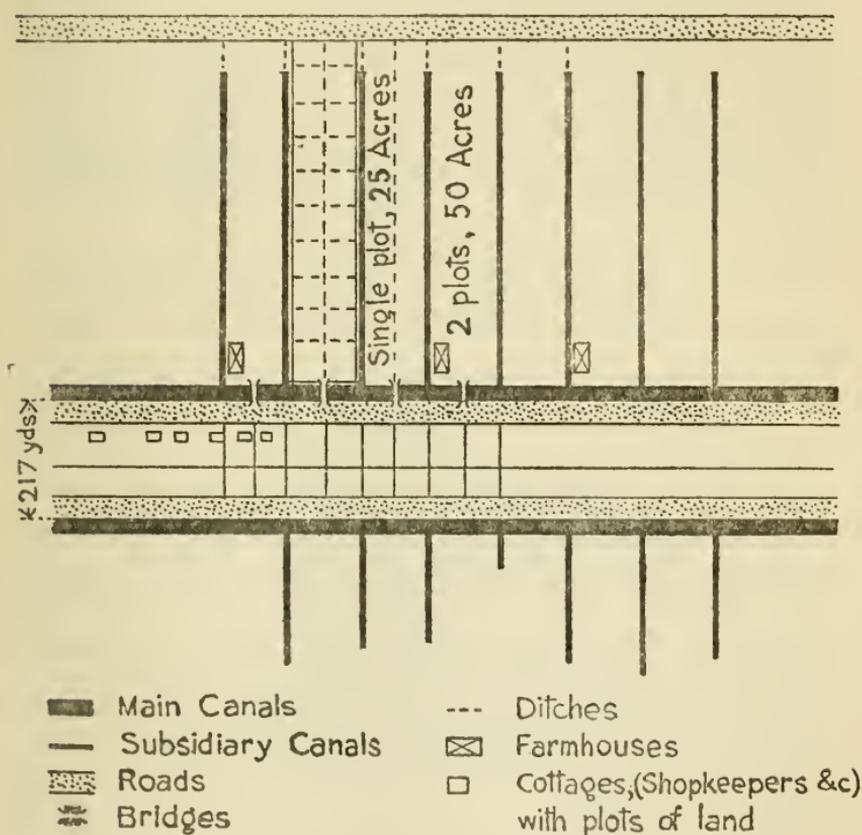
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\* HIGH FEN CUT UP INTO PEATS.—The figures for 1910 are :—

Groningen	..	365 acres	N. Brabant	..	85 acres
Friesland..	..	28 „	Limburg	..	33 „
Drenthe ..	..	485 „	S. Holland	..	3 „
Overijsel	..	95 „			
			Total	..	1,094 „

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farms and neat villa-like, single storey cottages, with roofs of shiny tiles, the main industry being the production of potatoes, which are so conveniently and cheaply carried off by the canals to the potato flour, yeast and spirit factories, or to Germany, England, France and Belgium. In Gronin-



THE DOUBLE CANAL FEN COLONY SYSTEM

gen there must by now be 62,500 acres in which the high peat has been cut away, and prosperous farms are cultivated on what was once *hoogveen*. In the Netherlands as a whole there may be as many as 250,000 acres in which the transformation has been wrought.

So much for the areas in which the peat is no more. But, as one jogs along by the Stadskanaal, districts are reached in which peat may be discerned in the distance. The single storey cottages, farmhouses and shops look newer and newer. Very soon the black wall of still unhewn peat begins to close in, and the buildings by the canal side are brand new. Another mile or so, and bricklayers and carpenters are still at work, or there are no buildings at all. Finally we reach water head, where the canal is being carried into the wilderness. There can be few more desolate sights in Western Europe than this wide expanse of shelterless high moor, before the indomitable Hollanders fling themselves upon it and make cultivable land in its place.

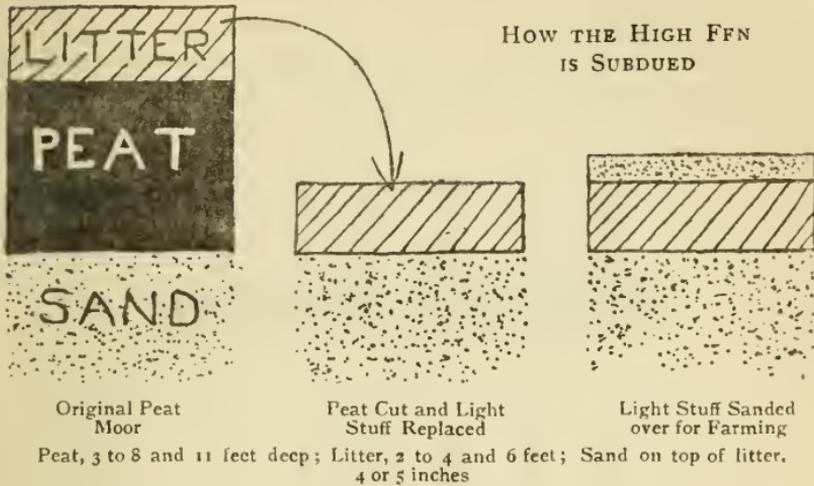
**The Plan of Campaign.**—The method of attacking the fen varies somewhat in different conditions, but is roughly this :

First we have the canal. It is the means of access to the peat, and the means of bringing it away. It is also the means by which the water with which the moor is charged is drawn off. Nothing can be done till the water is got out. If one were to try to cross a piece of high moor in winter before it had been drained, one would be liable at any moment to step on a place in the mushy surface in which one might eventually sink to the waist or to the neck. So the first step is to cut the trenches which drain off the water through minor canals to the large canal which is penetrating the wild. The quantity of water which pours out of the fen is so large than one wonders how such morass can ever be turned into dry peat. The fen loses about a third of its volume by draining.

But once the water has gone—in about two years from the digging of the trenches—the work of slicing out the peats by hand or by machine, and stacking them to dry is set about. The high level of skill to which the peat cutting has been brought is noteworthy, and it is little wonder that the picturesque labourers who work at it in an exposed country from April to July, get comparatively high wages (from 23s. to 24s. a week). The miles of stacks

of the black peats, right away to the horizon, make an ineffaceable impression.

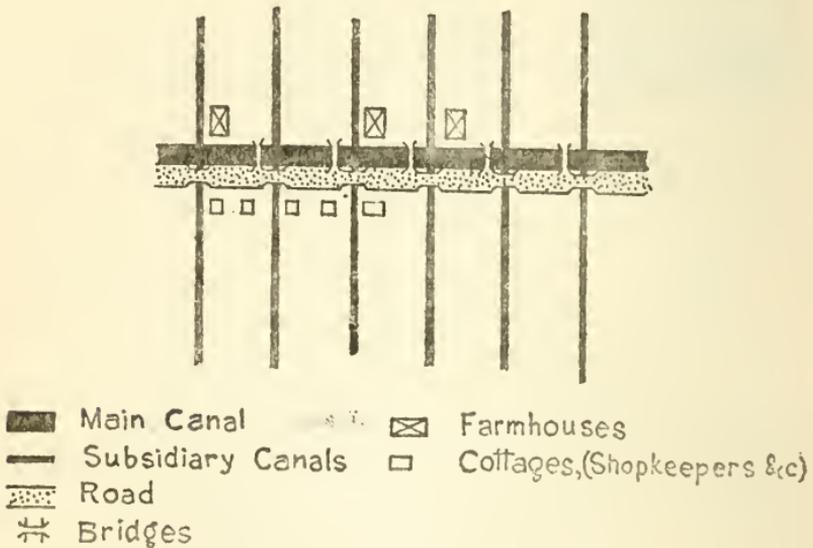
This diagram illustrates roughly the plan by which high fen becomes farm land :



**First Stages of the Fen Colony Farm.**—When the peat has gone, the topping of spongy or moss litter peat which has been moved, and now rests on the sand, is springy, but no longer soppy, for when rain falls the moisture which the peat cannot hold goes into the sand below and into the canals. The rectangular, canal-bordered plots, now to become farm land, look, when the peat cutters have left them, rather like low, wide wharves or quays in a virgin part of a Colony—which indeed they are—on which bales of peat moss litter happen to have been broken up and thrown about.

These areas need levelling to begin with, for the sand underneath moss litter peat goes up and down. When the peat is eventually levelled, sand—which is dug out of the canals—is carted over it and spread to a depth of four inches. Then the surface obtained is ploughed just sufficiently deep to mix a little peat among the sand. The result is a kind of soil to make glad the heart of a gardener who has suffered all his life from a chronic inability, owing

to the stickiness of his soil, to "get on the land," for what has been obtained is an easily-worked peaty soil with plenty of water within reach of the roots of the crops. From time to time, of course, the plough is set a little deeper, and thus more and more peat is gradually united to the sand and the humus brought to the top spit by cultivation. For a few years the farmers' horses wear wooden over-shoes, which, acting on the same principle as snow-shoes, make possible



#### SINGLE CANAL FEN COLONY SYSTEM

This necessitates a bridge over each subsidiary canal. The cottages are also cut off from one another

easy movement over the springy surface. At length, however, the land gets sufficiently solidified for these foot-guards to be dispensed with.

It is not easy to give a general estimate of the cost of turning high fen into farm land, for the conditions naturally vary a great deal. From the first assault on the morass, to the cutting and complete removal of the peats, we may say, perhaps, somewhere about £130 per acre. Then comes the preparation of the farm. Levelling and sanding may cost about six guineas per acre, and the farmhouse and

buildings other six guineas. This is about £143 per acre. Against this are to be set the receipts from the peats, the value of which can never be quite the same in two places. We may perhaps say from £200 to £260 per acre for the peats.

**The Colonising of Holland.**—The work of turning morass into agricultural land is done by “water companies” —properly so-called, as the new waterways are the basis of the whole operation. To the town of Groningen, however, is due the chief honour for the production of farm crops where once were snipe and dank wilderness. As someone said to me, “She was the first who made a successful beginning.” Her Fen Colonies (*Veen Kolonien*) constitute one of the notable triumphs of Dutch pluck, and the visitor to the Netherlands has an imperfect impression of the country and of its people until he has been in the clusters of villages, the names of which so often end in *veen*. The population of the various Fen Colonies in Groningen, in the neighbouring province of Drenthe and in other Fen Colony districts must now be something like 125,000.\*

As fast as the peat can be taken away and the new land can be prepared for occupation there are farmers eager to obtain it. The rate at which the colonising of Holland, as this reclaiming of *hoogveen* truly is, can be pushed on, is limited only by the known consumption of peats. Germany has coal to burn, and we have also, so Holland must burn practically all her own peat, as indeed, the well-known conundrum suggests:

*Waar is het gelukkige land  
Waar het kind zyn moêr verbrand?*

**Generous Use of Artificials.**—The rotation in the Fen Colonies is: factory potatoes, factory potatoes a second time, and then rye and clover or black oats. £4 per acre a year is no unusual sum to spend on artificials, more of which are used in the Fen Colonies than anywhere else in the

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\* Those who read Dutch and desire further details as to “Hoogveen Ontginning,” should see a work under that title by an expert on this subject, Mr. J. Elema, of Assen

world. One large farmer got a yield of from 32 to 39 tons of potatoes per hectare. Two-thirds of his land was under potatoes every year. It is twenty years since his farm of 250 acres\* was made. He had a dozen horses—I saw on a rubbish heap the now no longer used wooden shoes—and half a dozen cows. He had ten hands all the year round and 100 in October for potato digging. On the peat land he owned he had some score of moor men at work. The potato diggers got £1 a week, his regular hands 15s. or 10s., if they lived in. He mentioned that all the artificials in the district were bought co-operatively, his own society purchasing £16,000 worth a year!

**Water Carriage.**—One of the advantages which a large proportion of Dutch farmers possess is particularly evident in this district—their convenient and cheap water carriage, which saves so much in cartage and—but there must be thousands of farmers who know nothing of these directly—railway charges. Potatoes were being taken by the canal boats half a day's journey for 1s. 8d. per ton. Similarly, the large supplies of artificials are delivered cheaply and literally at the farmer's very door.

These potato districts are so little given to cattle keeping that a farmer may have only a single cow or, sometimes, only a half share in one. (Milk is at The Hague prices.) By the way, experiments are being made here with a potato lifter which carries the tubers up into the cart.

**Social Conditions.**—I spoke about social conditions with an old retired farmer who was rich entirely by his own efforts. He had worked himself up from peat cutting. I tried to scare him with the bogey of some of the agricultural labourers being Socialists—think of the portent of a Socialist Hodge in Essex! But my capitalist did not turn a hair. He only smiled, looked out of the window, and murmured, "If we were labourers we should also be Socialists!" He told me that drunkenness had undoubtedly decreased, though casual labourers and the men

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\* Most Fen Colony farms are about 50 acres.



THE CANAL ADVANCING INTO THE WILDERNESS



THE LAST COTTAGE OF THE FEN COLONY



CUTTING THE LONG PEAT



THE LONG PEAT IN STACKS

who hired themselves out with their horses to draw canal boats drank too much. But drink was not now a serious matter among a mass of the men, and it was a rare case when a man who got a girl into trouble did not marry her. He thought education was making its mark on the people, and that great good had come, particularly through the training given to the girls at school to make them more competent housewives. As to the future, it was necessary to "make the living better," to "make it so that the men should have more time to themselves, and to study about voting, and such things."

**The Triumph of Artificials.**—Before I leave Groningen I should refer to an interesting article by Mr. D. R. Mansholt, which I came across in an odd copy of "De Economist." In it he speaks of the remarkable difference in the progress of the different provinces. Groningen was ahead, and Friesland, North and South Holland, Zeeland, and (for most products) Drenthe came next. Why was this? Mr. Mansholt suggests that in the year 1908, Overijssel, Gelderland, Utrecht, North Brabant and Limburg might have produced £1,872,000 worth more grain than they did, not to speak of straw! Why did they not do it? Why is Groningen always ahead every year? Better soil? Relatively, Groningen has, as he says, better soil than, say, North Brabant and Utrecht. But does better soil account for the disproportionate rise in Groningen's production per hectare? The light soils of the South should have specially benefited by the use of artificials. Was the cause better agricultural instruction? Half the pupils receiving it certainly belonged to Groningen, but was it the fault of Groningen if she appreciated scientific training more than other provinces? As to Gelderland, however, the State agricultural high school is within its borders. Does the peculiar system of hereditary land tenure in Groningen, *beklemrecht*, help to solve the problem of the more rapid progress of the northern province? Apparently not, for Friesland, which has fewer proprietors to the thousand farmers than Overijssel, Gelderland, Utrecht, North Brabant and Limburg, comes after Groningen in the scale

of increased production. Is transport a reason? Surely not, for Groningen is the worst off in respect of railway and tram service. As to canals, the Government did not make them, yet look what it spent on the waterways of the other provinces—more than half a million in a twelvemonth. Was it *versnippering*, too much parcelling out of the land? It has still to be shown that small holdings usually yield less than medium-sized and large ones. In any case Utrecht, which has most middle-sized and large holdings is low in the table of production. Is it agricultural societies? Groningen has fewer than any province, except Utrecht, and the fewest members of the societies per head of the population. The same is true as to banking facilities. There remains the matter of the relative purchase of artificials. It is seen at once that *Groningen uses more artificials than several provinces put together*. Here are the comparative figures (in guilders) for the co-operative purchase of artificials per hectare:

Year	Groningen	Overijssel	Gelderland	Utrecht	N. Brabant	Limburg
1904	9.—	1.95	1.50	0.07	1.65	1.20
1907	14.50	2.75	1.95	0.62	4.20	3.80

In the matter of the possession of agricultural machinery the figures are equally disproportionate between the provinces named. As a further reason for the advance made by Groningen, Mr. Mansholt attaches importance to the "difference in the intellectual character of the agricultural populations" of the provinces. Incidentally he notes that it is the provinces of the north and along the sea that are the most progressive—they have, of course, generally speaking, the best soils:

Provinces on the Open Sea	Provinces with a side to the Zuider Zee or Estuaries	Provinces away from salt water altogether
Groningen Friesland North Holland South Holland Zeeland	Overijssel Gelderland Utrecht North Brabant	Drenthe Limburg

The author concludes a paper, which is certainly calculated to minister to the satisfaction of Groningen and to



AT THE CANAL HEAD



SANDING THE CLEARED PEAT GROUND  
FOR FARMING



SCOOPING OUT PEAT MUD FOR SHORT PEAT



TRAMPLING THE MUD FOR SHORT PEAT

promote the use of artificials, by saying, that, though he does not want to trench on politics, he would like the reader to note that while Utrecht, Overijsel, Gelderland, North Brabant and Limburg are represented in Parliament (with the exception of one district) by Clericals, and the sea coast provinces by deputies of mixed politics, the rural districts of Groningen return Liberals!

I need hardly add that while, as the figures given elsewhere in this book show, Groningen still maintains a most honourable agricultural position, and still rejoices the hearts of the managers of the factories of artificials, the other provinces have pulled up a great deal.

“**Beklemrecht.**”—It is impossible to write about Groningen without saying something about its old custom of *beklemrecht*, which was translated for me as “catching a very tight hold of.” Long ago an owner of land would give a tenant, in return for a certain fixed rental, a kind of perpetual lease (*beklem*), to last as long as the tenant’s family did not die out. As the value of money has changed so much, a *beklem* farm’s rent is now very low indeed—a matter of shillings against the pounds payable in the case of a holding under a short lease. As those who enjoy *beklemrecht* have little to pay for their land, and are able to farm as they have a mind, Groningen farmers are, as a class, rich. The system has its drawbacks, however. It was started to give the small man a chance. But the small man has grown into a big man. The large farmers have the soil in *beklem*, and labourers and others who want land cannot get it. And so I see in the papers a manifesto of young men who cannot get farms. They demand a graduated land tax for the big holders of land, and they ask that these people should be made liable for rates wherever they hold farms. They want a modification of *beklemrecht*, and they wish farmers to continue to be, as at present, free of income tax. They urge the need of encouragement for market gardening, of more technical instruction, of compensation for farm improvements, of the extension of ordinary leases to nine years, and also of labour exchanges.

## CHAPTER XXI

### DRENTHE

Population, 175,118. Area, 265,250 hectares. Farm crops, 49,557 ; grass, 68,882 ; horticulture, 1,220 ; woods, 11,555 ; heath, 94,578 ; high peat, 21,099 ; high peat cut, but not yet in cultivation, 4,898 ; shifting sands, 2,305 ; dunes, none ; dikes, 37 ; waterways, etc., 11,119.

Chief products : In the Fen Colonies, potatoes. On the sand, pigs, butter, cattle and potatoes.

**A Different Kind of Holland.**—From Groningen we got into “poor Drenthe,” and, if anything, the poorer part of it. But because this was the only province in which we were pulled up by a toll gate, this is not to say that tolls do not survive elsewhere. In Drenthe there are numerous Fen Colonies. One I saw had 4,000 inhabitants. Ten years ago the place where they lived was high fen.

Drenthe is wholly high fen and sand, or more correctly, sand and high fen. For the first time in our round of the country we were in a province where we were completely away from the clay. There are, however, narrow low fen strips by the sides of the little rivers.

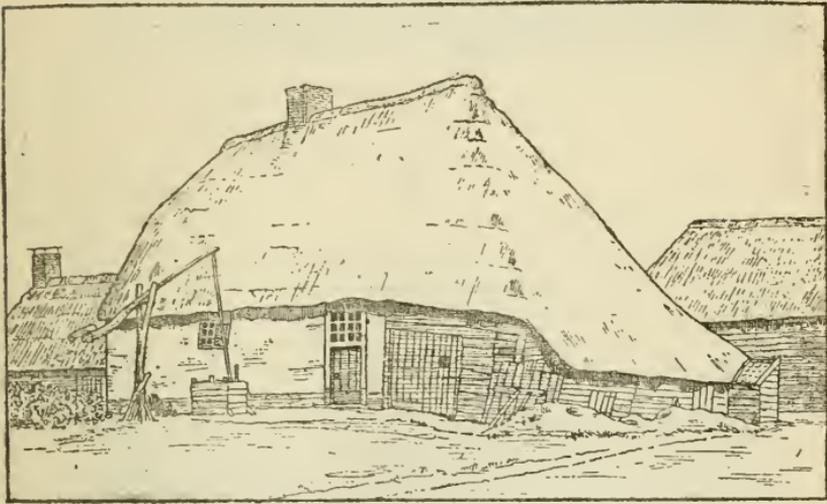
In Drenthe we were also at a higher level above the sea than we had been. All things are relative, and the “high veld” of Drenthe, never more than 80 feet or so above sea level, seemed very high indeed.

We had also left behind the Holland of canals. There are, of course, canals of communication and canals where there are large areas of high fen. But it is possible to travel for miles and miles without seeing a single canal.

What can be done in a region so largely sand, and not fine bulb sand like that of the Dunes, but just ordinary common sand—sand, sand, sand, till you hate the very sight of sand? It is a rather hopeless outlook, it might

be thought. But, stay, here and there on the heather moor are clumps of trees, natural timber, as at Aldershot. The future of sandy Drenthé will no doubt be a future in which manful efforts in afforestation will be made. Many promising plantations are already to be seen.

On this high sand everything was different, as I have said, from what is regarded as characteristic Holland. Instead of canals and stiff canalised rivers, were streams meandering through brakes of natural oak and birch, small



[After Kloot Meyburg ("Schetzen van Boerenhuizen," Brussel)]

PRIMITIVE TYPE OF FARMHOUSE

of course, for the wood is cut as soon as it is of any use. The cattle on the cleared tracks were undersized, and, when we went by steam tram—or rather light railway, for it had a luggage car or two—it was stopped by one of the wandering flocks of sheep, with occasionally goats. Away from the Fen Colonies, where everything was new and flourishing, the farmhouses of this bleak country were no longer the trig and substantial buildings we had always met with, but poor, tumble-down, stud and plaster cottages, such as one sees in Morland's pictures. In most places the sandy

land seemed poorly tilled. Frequently, however, there was a promise of a good crop of rye. From someone I had the explanatory phrase: "Groningen and over in Holland good soil; Drenthe not good soil. We make him good." Reference has been already made to the remarkably large quantities of artificials used in Drenthe. Buckwheat used to be largely cultivated in the wilder parts of Holland on the top of the high fen, the surface above the actual peat being loosened with forks and set fire to in April and May. In the resulting soil the buckwheat was sown. This method of cultivation has almost disappeared. Buckwheat is indeed a diminishing culture in the Netherlands.

One of the many illustrations to be found in Holland of the astonishing variety in its life and conditions, is the custom of the farmers in one part we visited to live in villages as our forefathers did, their farms being perhaps half a mile away. In Drenthe the villages, when they are not Fen Colonies, are usually to be found by the streams where the narrow strip of fertile land by its banks is taken advantage of for grass growing.

Drenthe has no geographical centre such as Friesland possesses in Leeuwarden, or Groningen in its capital of the same name. Assen, the capital of Drenthe, is away in the north-east. In one local centre, Meppel, I had the opportunity of looking into Mr. Voorthuis's circular "Hygienic Dairy." The animals, which are tuberculosis-free, face the centre of the house and are never taken outside. Each cow has a separate supply of water.

#### OVERIJSEL

Population, 385,622. Area, 332,677 hectares. Farm crops, 61,337; grass, 131,760; horticulture, 2,685; woods, 20,252; heath, 79,055; high peat, 6,011; high peat cut, but not yet in cultivation, 7,129; shifting sands, 70; dunes, none; dikes, 813; waterways, etc., 23,565<sup>1</sup>

Chief products: Pigs, butter, cattle, hay.

**Among the Becks.**—Between Meppel and Zwolle the land is liable to inundation when there are heavy rains and the north-west wind keeps the water from getting away

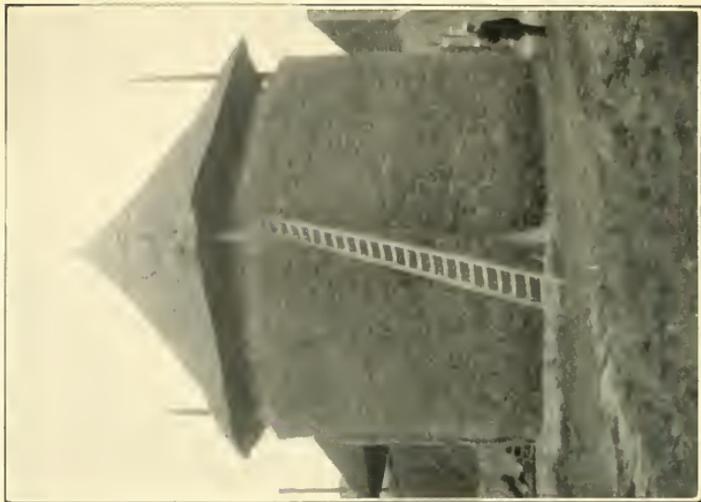


ON THE SAND IN OVERIJSEL

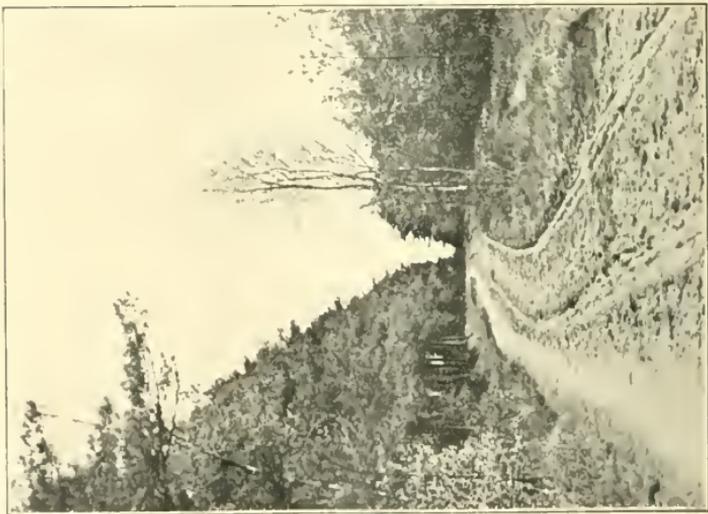


HEATH IN OVERIJSEL

A PART OF HOLLAND WHICH THE AVERAGE  
TOURIST NEVER SEES



RICK WITH MOVABLE ROOF



A TYPICAL SAND ROAD IN THE EAST

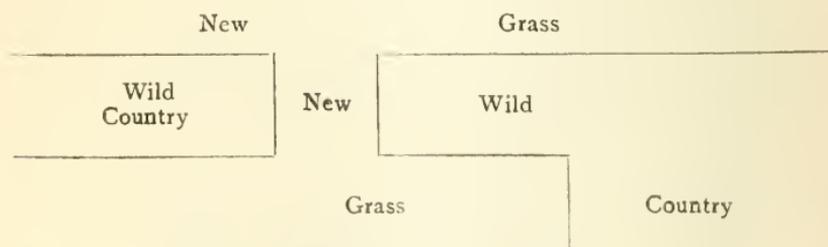
into the Zuider Zee. By the rivers we are once more in a country of dikes. The trees get bigger on the clay on the tracts on either side of the IJsel. From Zwolle to Deventer we noticed the green silt lands of its tributaries; for the rest, Overijssel, which lies almost entirely to the east of the IJsel, is largely sand and high moor. The silt land along the tributaries is a formation which is characteristic of the province, though examples of it are to be found in Gelderland and Brabant. The silt is called *rivierbezinking*, and along the streams, *beekbezinking*. "Beek" is, of course, our North Country word "beck," so *beekbezinking* is the silt which has been deposited along the streams. One may go for miles through a sandy country and then unexpectedly descend into these strips of silt from the undiked streams.

**A Large Cow House.**—Just within the border of Overijssel we had some interesting hours with Baron van Dedem, the president of the Netherland Herdbook Society, whose large farm is worked for profit. The cow house in which the beasts were fattening contained more than 200 stalls. The manure was removed by a tram waggon, and was run out to the particular field requiring it on lengths of readily movable lines, costing about 1s. 8d. per yard, without labour. Water came along a concrete trough before the cattle, and there was also a vigorous water supply for expeditiously sluicing out the other concrete trough into which the cattle's droppings fell. The concrete floor on which the cattle stood was hollowed out, as in many houses we saw, below their fore feet, and the space was filled with sods. The cows are milked by a machine driven by electric power, the plugs of which were at convenient distances. On the ceiling there were also within reach rings to which the cord holding up each animal's tail was tied. In this cow house I noticed that the cord, at the end at which it was fastened to the tail, had a leather loop attached. This is placed over a piece of the tail which has been plaited a little with straw for the purpose. This carefully thought-out plan, for preventing the cows fouling themselves—and their milkers—with their

tails, seems well worth adoption at home by large dairy keepers.

**Potato Pulp.**—In walking round the farm we saw some hundred and fifty well doing pigs—there are a million and a quarter pigs in Holland.\* Later, we came on barges unloading the khaki-coloured potato pulp, as well as beet pulp, for the use of the stock. The potato pulp costs 4s. and the beet pulp 5s. per 2,000 lb. delivered. Both were being stored in immense clamps.

**From Heather to Pasture.**—But the most interesting thing on the estate was the close view we got into the process which we noticed going on in the heath country of converting the sandy heather and brushwood tracks into good grazing land. "Everywhere," said Baron van Dedem, "we try to make more grass land." In twenty-five years he alone has made, out of absolute wild, a hundred acres of grass land. Ten per cent. of all the grass land in Overijssel is not more than thirty years old. On Baron van Dedem's estate it was most impressive to cross land in which strips of good grass lay side by side with the original wild country of heather and brush wood. Here is a rough pencilled diagram from my note book :



The wilderness is subjected in two ways. Fir plantations—which, of course, make valuable shelter—may be

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\* BACON FACTORIES.—But as yet, as in England hitherto—one has just been opened in one of the Eastern Counties—no co-operative bacon factories. A farmers' factory was started in Holland but came to grief. It was the old difficulty, an irregular supply of pigs. There is a great export of fresh pork from Holland.

planted among the heather after the natural trees and brush wood have been cut. Usually the stumps of the trees are left to rot, which they seem to do very quickly in the damp soil. In the winter, however, Baron van Dedem has no difficulty in getting stumps taken out by local men who are glad to dig them for burning, and receive a few shillings from the Baron for their labour. When the firs which have been planted are cut for pit props, their stumps in turn can be pulled out and allowed to rot, and grazing cattle soon make excellent grass land of what had been the plantation.

In the pieces of heather and brush wood which it is not desired to plant with timber, all that is done is to cut down the brush wood and fence the lot in. Cattle are then turned upon it. They eat off the heather so thoroughly that it is killed. The ground benefits not only by the droppings of the stock, but by the manure mixed with sand from the cow houses, where, as already explained, a good layer of sods lies below the peat litter.

The interesting thing is that it is not necessary to sow grass seed for this reclaiming work. The manure from the cow houses is so full of hay seed that there is a sufficient crop of natural grass. My skilled companion was greatly struck by the excellent quality of this natural pasture. It is indeed an arresting thing that, in from two to four years, it should be possible, by means of the browsing of the cattle and by means of the manure from the cow houses, to produce a grass of such a quality that four cows can live on ten acres of it throughout the summer. Agricultural land in Overijssel runs, on the average, from £27 to £30 per acre; Baron van Dedem's grass is worth about £36! "To make new grass land has been a kind of sport with well-to-do men," said one of my informants. "But the small farmers slowly bring in an acre or two of heath now and then and do not count their labour, but the trouble with most of them is probably that they have too large areas already."

The attack on the sand, in order to convert it into grass land, must be slower than in the case of the advance on the high fen. Where the Fen Colonies are being established there is a preliminary return from the peats.

**Always the Zuider Zee!**—There is a little low fen in Overijsel, and more of it will come into cultivation as the water is drawn off. The reclamation of the Zuider Zee would have an influence in hastening the advance of agriculture on the low fen of Overijsel and Drenthe—there is not much of it in Drenthe—because the low-lying country would dry more quickly when the pump has removed the great sea lake. The reclamation of the Zuider Zee has therefore to be regarded not only as a means of adding a province to the Netherlands, but of making much of the area of existing provinces more valuable. It is deeply to be regretted that the circumstances are such that a small country like Holland, instead of setting about a promising public work like emptying the Zuider Zee, and so providing herself with new territory which she could turn to such excellent account, should be compelled to devote some millions sterling of her small yearly revenue to non-productive expenditure.

In one place on the sand in Overijsel where new land was being made I happened to notice that the labourers had each a nice enclosure for grass and also ground for potatoes, and kept two cows or so, which the wife looked after, the husband getting one or two days off from time to time to do his share of the work of the holding. A good labourer here was getting in money 13s. 8d. per week.

**Colonies for Out-o'-Works.**—Right up in the north-west corner of Overijsel are the well-known philanthropic colonies of Frederiksoord and Willemsoord, the work of which began shortly after Waterloo. I found that the society to which the colonies belong, provides, at Frederiksoord, families, which are in straits, and are recommended by subscribing branches, with a cottage, an acre of land, and the loan of a milk sheep at a weekly rent of 8d. If taken care of, the animal is finally handed over. The husband and sons are given work on the Society's land, part of their wages being kept back, if possible, towards paying rent and providing for any needed doctoring.

If, in course of time, the family is considered equal to the management of more land, its head is promoted to the

position of a "free farmer," and is allowed to rent, with the assistance of the society, seven and a half acres of its land. During the first year he is also helped with labour, given a year's credit for manure, and provided with a cow, to be paid for in annual instalments of 12s. 6d. Some "free farmers" have four or five cows; the least successful possess one or two.

It is admitted that useless persons have been admitted to the colony, but great store is set by the opportunity of giving good compulsory education in various trades to the children. There are no fewer than five Government schools for a population of 2,000. About 250 pauper children are living as boarders with some of the worthiest colonists at the charge of boards of guardians. The settlement covers 5,750 acres, of which 3,000 are plough and pasture land. Some 750 are as yet uncultivated, and 2,000 have been planted with trees. The timber is beginning to bring in a profit, and gives work to many colonists.

The farms of "first settlers" and "free farmers" number 400. The society has two large farms left, and five under its own control at which colonists are employed. There are also chair and basket making shops. A co-operative creamery and a credit bank do good work, and a cookery and housekeeping school for girls is to be provided. The visitor is impressed by the well-cared-for look of the place. The inmates of one of the "free farmer's" cottages which I entered struck me as promising and deserving people. In a cottage of a "first settler" I found a less hopeful case—the typical townee with the gift of the gab; and I learned afterwards that he did not shape well as a worker.

An even better known colony is that at Veenhuizen, in Drenthe, for beggars. "In the last years," a fellow passenger in the train said, "there are much less people there."

There happens to be a well-known horticultural school at Frederiksoord. Not far from Frederiksoord is Giethoorn, one of the many pretty places in Holland laying claim to the title of "the Dutch Venice." Giethoorn is, of course, on the low fen; the reformatory colonies are on the sand, where it is rather high and bracing. All the agricultural and personal locomotion of the Giethoorners—they produce

a considerable amount of hay for England—is by water and by some thirty wooden bridges.

**Red and White Cattle.**—In Overijsel, where we were on the river clay, we saw, for the first time in any number, cows of the third Dutch breed, the red and white cattle. On this IJsel clay were many orchards; for example, one farmer had 15 acres of his pasture under apples—his holding was 87 acres in all. By this cropping of pastures with fruit the farmers do exceedingly well, particularly when, as is now very frequently the case, suitable varieties are being grown. The apples from the 15 acres sold for £215, and the merchant probably made double that. The fruit is sold on the trees in July, and the merchant takes all risks. This year things were very much in his favour.

**Farmhouse Gossip.**—The wages on this farm were from about £30 to £35. “The men live very well,” I was assured, “and eat bacon and pork if not beef.” I think it was in Overijsel that in a smart farmhouse we had an interesting talk with a successful agriculturist who had been in South Africa. He had carefully brought with him a sample of the soil of some land out there he had thought of buying, and of this he had had an analysis made on his return. He happened, I remember, to speak with approval of the lady lawyers and lady doctors in Holland, and mentioned that a day or two before he had seen in the paper that a clergywoman had obtained a church in Friesland.

It was hereabouts also that someone sought to enlighten me as to the difference between a peasant, a *boer*, and a *heereboer*. “A labourer or a *boer*, or a member of the Chamber, may be a peasant, but a *boer* is a peasant who is a farmer, not a cottager. A *heereboer* is a gentleman farmer. A *boer* can be a Heer, but a *heereboer* may not be a Heer!” In another province the distinction insisted upon was that a tenant was a farmer (*pachter*) and a boer a proprietor (*eigenaar*).

It was a very pleasant and well cultivated country round Deventer and to the south on the now widening strip of

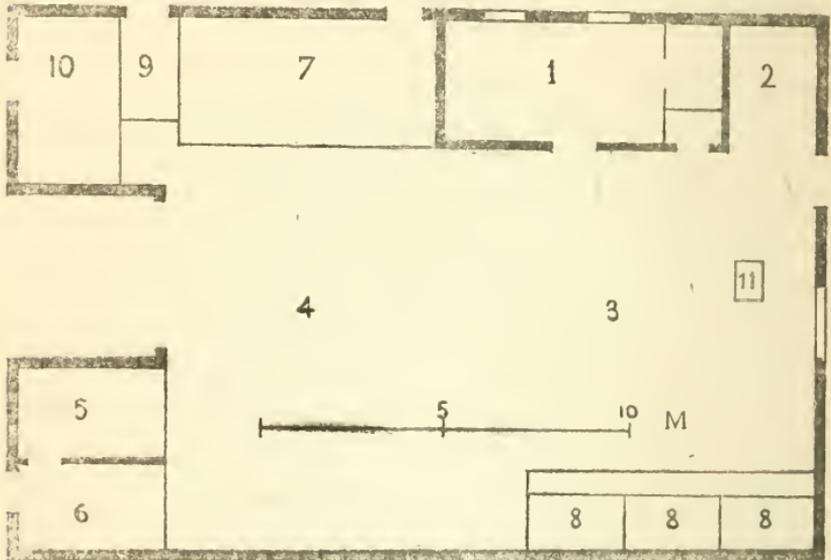
river clay, and the cattle looked well. On the sandy soils, it was explained, "we give the crops to the cattle and buy much cakes, selling butter and pigs, some straw, and eggs."

In the sandy Twente, the well known part of Overijssel which juts out into Germany, great areas of the grass land were heath fifteen years ago. Trees were planted in the brushwood; three years since they were cut; and now there is pasture in their place.

**The Dutch Manchester.**—One of the places visited in Twente was Enschede, near the frontier, in the sandiest sand of the province, a town which is always a surprise to the stranger. It is not only its cotton manufacture—it is possible to count from one spot about sixty factory chimneys—which suggests Manchester. There are the efficient hotels and brisk shopkeepers, the factory buzzers and bells, and the clap-clank of the wooden shoon of Cottonopolis. The manufacturers, though Napoleon had something to do with the coming of the first of them, were attracted to this remote corner of Holland by the cheapness of the land and labour, and possibly by the immediate vicinity of Germany, which is only a few minutes stroll away. Enschede is one of the many frontier towns of Holland the inhabitants of which go for high wages to Germany but come back every night for the cheap living and housing of their own country. The politico-economic aspects of Enschede, in so far as they bear on the agricultural problem, are discussed, however, in Chapter XXVI.

**Artificials again.**—The district round Enschede is called Twente, and there is a typical development there of agricultural co-operation. At Lonneker we saw the imposing building of the Central Bureau for artificials and feeding stuffs, which does *nearly half the trade of artificials in Holland!* Consignments to co-operative customers in 1910 filled 11,450 railway waggons. It also sold to them 1,800 waggon loads of feeding stuffs. In the same building is an agricultural bank. Adjoining the premises is one of the best co-operative creameries I have seen anywhere. It

is a convenient situation for the creamery, for, as one saw, the farmers are able to take away their feeding stuffs and artificials in the light waggons in which they have brought their cans of milk. A co-operative savings bank with £20,000 of savings paid in, and cattle and other societies are associated with the agricultural bank and creamery.



[After Gallée ("Het Boerenhuis," Oosthoek)]

PLAN OF PRIMITIVE TYPE OF FARMHOUSE TO BE SEEN IN THE TWENTE DISTRICT OF OVERIJSEL.

- 1—Room. 2—Milk. 3—Living room. 4—Threshing. 5—Horses. 6—Pigs.  
7—Cows. 8—Beds. 9—Calves. 10—Pigs. 11—Hearth.

**The Primitive Farmhouse.**—We made some excursions into the sand which breeds the stalwart co-operators of the district, and could have wished to have photographed some of the primitive types of wooden farming implements with which they work their extremely light soil. Here are also some of the earliest types of farmhouse building. In one, as in the old type to be seen in Schleswig, the building inside was a simple rectangle. At one end, at

either side, were the cattle facing one another, beside them were the pigs, and above them was the hen house, to which the birds got access by a ladder from the ground outside. The farmer and his family lived at the other end of the building without any barrier from the stock at all. An open fire burned there. On one side of this part of the building was the recess for crockery and cooking utensils. On the other side were the beds of the household in recesses or cupboards, as in the fashion surviving in old Scottish farmhouses and cottages and kitchens. The family of husband and wife, son and his wife, and their children, and granfer, were having the coffee to which so many rural families in Holland seem to be equal to sitting down four times a day.

This was a primitive type of house of which there cannot now be many examples. In the case of another farmhouse, built two centuries ago, we saw Evolution at work. The families here—consisting of the active old father and mother, shown in the photograph, and their two sons and their wives, and the children of each—were housed in neatly kept, partitioned off rooms composing one half of the building, the stock being housed face to face in the remainder of the structure. Side by side, in the kitchen by the fire, a small child of each wife had each an old unpainted rocking horse and was placidly rocking itself. These patriarchal domestic arrangements appear to work comfortably enough.

The women of this part of the country, who are a fine type, and have a strongly marked character, appear to have a curious custom of flattening their chests, which strangely emphasises the naturally chaste look of women who work hard and live sparely. I was assured that the flattened appearance is obtained artificially, but a friend in another part of the country said to me: "I doubt whether the women really flatten their chests. Once I was with French ladies in the island of Marken, in the Zuider Zee, where you see the same. One of these French ladies told me to ask the woman who spoke to her what they did to be so flat. She answered simply, 'We have not.'"

## CHAPTER XXII

### GELDERLAND

Population, 646,842. Area, 495,352 hectares. Farm crops, 118,675; grass, 159,753; horticulture, 13,996; woods, 81,579; heath, 8,6751; high peat, none; high peat cut, but not yet in cultivation, 157; shifting sands, 8,869; dunes, none; dikes, 1,026; waterways, etc., 23,726.

Chief products: On the sand, butter, cattle, pigs, eggs. On the clay, sugar beet, potatoes, carriage and draught horses, cattle, pigs, fruit.

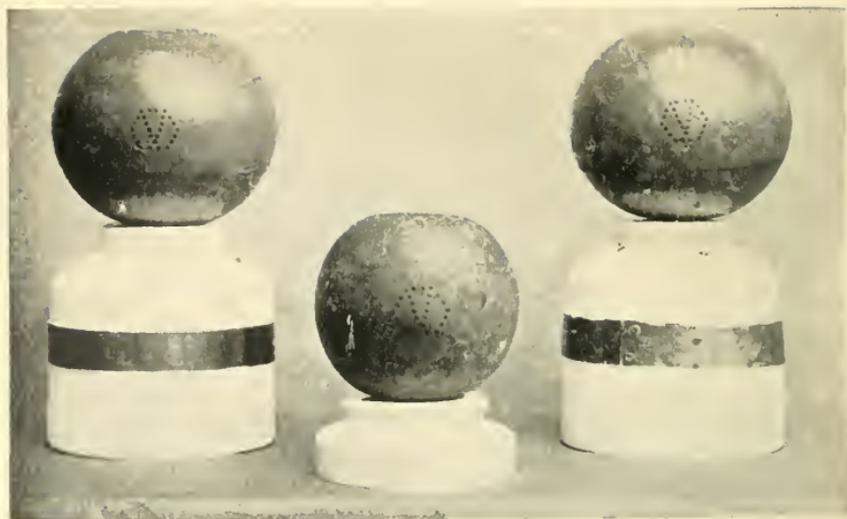
**The Betuwe.**—From Deventer to Zutphen we were no longer "Over," that is on the other side of the IJssel, but in the big province of Gelderland. Divided in its northern part from Overijssel by that wide tributary of the Rhine, the IJssel, Gelderland lies on either side of it in the south. From Zutphen to Arnhem the river clay area widens still farther, till, between Arnhem and Nijmegen we were in that extensive river clay region, which, running out of Gelderland to the east reaches, through Utrecht and South Holland and the extreme north of North Brabant, right across the Netherlands from the German frontier to the North Sea. The famous Betuwe, as a large part of this considerable tract is called, is a countryside in remarkable contrast with that other district for which Gelderland is also famous, the high and sandy Veluwe. The heights of the Veluwe we had better approach, however, like many other visitors to Holland, *viâ* Utrecht. As to the Betuwe, the reader will hardly need to be reminded that in all the river clay area from the entrance of the Rhine from Germany and its division into the Nether Rhine, IJssel and Waal, and from the appearance of the Maas in Holland, until in the east the sea dikes are reached, we are in a country which has to be protected by river dikes.



COTTAGES IN THE FREDERIKSOORD COLONY



A FARM CART



CONTROL MARK AND SHAPES OF DUTCH CHEESE

1, 1a, 1b, 1c, 1d, Gouda ; 2, 2a, 2b, Leyden (a Seed Cheese) ;  
 3, 3a, Frisian ; 4, 4a, 4b, 4c, Edam ; 5, Derby

**Farmers' Orchards.**—The most of the Betuwe is grass and fruit—apples, cherries, currants and gooseberries—and market gardening is extending, but it is the apple and cherry studded pastures which make the visitor's impression of the district. It is well worth noticing what a stand-by these well chosen fruit trees, growing in their grass land, are to the farmers, and how independent they make them. To the dismay of the somewhat easy-going Betuweans, rents and the prices of farms are going up, for not a few enterprising Zeelanders and North and South Hollanders are entering in to possess the land. To the sturdy folk of the sea-diked west it is no drawback that in the non-pasture areas in some places in the Betuwe three or four horses, as I noticed, have to be put to a single furrow plough.

Most of the apple orchards are twenty or thirty years old, but new ones are continually being planted. As this is after consultation with the experts of the local Fruit Society or of the Government, only two sorts are put in, and, as a result, the crops are of marketable proportions. During the last twenty years a great deal of land has gone out of the behind-the-times corn culture into apple-planted meadows.

When the heavy land not under grass is let, as is common, to the labourers of the brick yards and factories, they have to pay at the rate of £5 per year per acre, but they are able, nevertheless, to make more out of it than the farmer. The men work in the evenings and get every Friday off from their brick-making. Most of the beet raised in the Betuwe is cultivated by these small men and by farmers with one or two cows or none.

One farmer, wearing the black front and black tie of his district, had been in Kent, and he expressed the opinion that his countrymen had nothing whatever to learn in fruit culture from the areas round Maidstone, Canterbury and Tunbridge Wells, and he added that he found the land in Normandy not so clean as in the Betuwe. He was speaking, of course, of the small fruit land of his district.

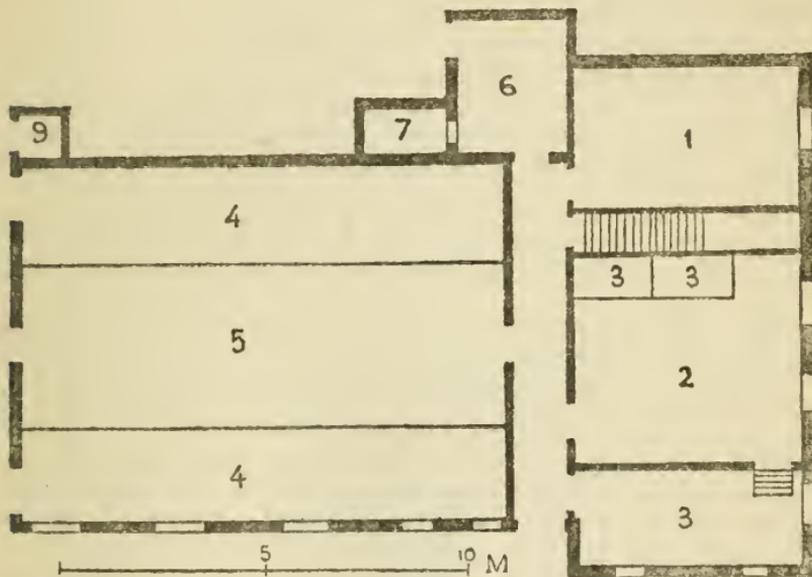
**Trouble with the Water Level.**—As to the farmers' land—I saw in places some dirty fields and poor crops—

an undoubted authority said to me: "The farmers in the Betuwe like very much breeding horses"—we saw some excellent sires and mares—"and often go to markets, and have no time to control the general round of their farms, and when the harvest is in the barn they are in no hurry to begin ploughing. Then they should cultivate not once, but twice or three times over. The land is not clean enough. A great thing which is wrong is that the level of the water is too high. Much water is good for grass, but for cultivated land less water is wanted. With so much water as we have now it is impossible to clean the land thoroughly. Orchards, too, need a lower level of water, and it is so easy to get that lower level if the farmers would open their ditches more; from Elst to Arnhem we have in seven or eight kilometres (about five miles) a fall of more than three feet." The difficulty of obtaining a lower water level is to get the persons concerned to agree. Some who wish to grow grass are content with the level as it is; others who want to cultivate their land demand a lower level of water.

**Tobacco.**—In the garden of a labourer I saw tobacco, the stumps of the year's plants, awaiting destruction at the digging-over of the ground. The seed is raised under glass in February and the little plants are set out with a screen of runner beans planted round the plots. The crop which was drying in the peasant's barn goes to Germany, Austria, Norway, Belgium and other countries for pipe and chewing tobacco. It is not good enough for cigars in a country rendered as fastidious as Holland has become owing to the cheapness of good tobacco.

**Klompen.**—One of our visits was to Baron van Voorst, a dignified and kindly figure, who apologised for putting on *klompen* in order to take us round his place. I assured him that I was now wearing at home my second pair of *klompen*, and that I found, as he did, that wooden shoes are not at all a bad thing for wear when taking a round of the garden or the orchard in wet weather. They are always perfectly dry, are warm and are easy to slip on, and if one has to go on the soil they do not do so much damage as heavy boots.

Habit soon gives some degree of ease in managing *klompen*. I have seen men, who were wearing them, show off the points of stallions at the fastest pace at which it is possible for men to run with horses. Baron van Voorst pulled on over his socks an extra pair of grey worsted ones before putting on his *klompen*, and this is perhaps considerate to those who have to do the darning, for wooden shoes are a little hard



[After Gallée ("Het Boerenhuis," Oosthoek)

PLAN OF SOUTH HOLLAND, GELDERLAND AND LIMBURG

TYPE OF FARMHOUSE

- 1—Cheese room. 2—Winter kitchen. 3—Room. 4—Cattle. 5—Open place.  
6—Scullery. 7—Boiler. 8—Beds. 9—E.C.

on one's socks. One notices that goloshes (*overschoenen*) are often worn when visiting the country in Holland. A pair I had to buy before I got home, owing to the hotel maid having burnt a hole in one of my boots, was made, I noticed, in Russia.

**Fruit in Grass.**—We admired the Baron's excellent hackneys—in charge of an Irish groom—and we saw a small

consignment of about forty bushels of apples and pears going off to the co-operative auction mart. The Baron expected to receive about a penny apiece. The pruning of his trees, which were in good order, is done by the apple society's expert.

In all, there must be about 14,000 acres of orchards in Gelderland. Remembering Mr. Pickering's talk to me against planting fruit trees in grass, I noted with interest that only a proportion of the trees in the Betuwe seemed to have been kept reasonably clean about the roots, and then only for the first two years. The Betuwean farmer sets against his loss in quantity or quality, his saving in labour and his gain in grass. Still a great deal of planting now going forward is done in ploughed ground. When this plan is adopted there is a crop below of bush apples and pears as well as currants and gooseberries. The standards are looked to chiefly for cooking fruit or for second class eating fruit.

The old Betuwe way of growing currants close together as hedges dividing the garden into small squares or strips in which fine vegetables may be grown in the shelter afforded, still continues. On the walls of farm buildings, houses and cottages, there are peaches and apricots, with now and then a pear, an apple, a vine or a morello between. Most of the morellos are grown as half standards. At the sides of the ditches one often sees medlars and quinces.

About 5,500 tons of apples are grown in the Betuwe in a year, and more than 1,800 tons of pears, and the same quantity of cherries. Plums, currants and gooseberries together do not fall far short of a third 1,800 tons. The produce reaches London, Berlin, Dresden, Leipsig, Hanover, Bremen and Hamburg in twenty-four hours.

Generally speaking, as has been indicated, fruit culture is part of the farming system of the district, but it also goes with vegetable and flower growing, and every year there are more plantations exclusively devoted to fruit, vegetables and flowers.

**A Co-operative Mart.**—At Elst there was last year a National Fruit Exhibition, at which gold, silver, and bronze

medals, some given by the Queen, the Prince Consort and the Queen Mother, were offered in nearly a hundred classes. The show was noticeable for the high praise given by the jury, not a Dutch but a representative International one. It is to be noted that the fine samples of fruit exhibited were not shown in mere platefuls, but in quantities of 5 lb., 22 lb. and 55 lb.

Here I visited the large co-operative auction mart. Since 1903 its members have increased from 93 to 900, and such has been the attendance of dealers that a large hotel has had to be built adjoining the mart for them to sleep at. A fruit commission agent well known at Covent Garden, Mr. Vink, gives his service as auctioneer for 5 per cent. from each grower who markets produce. He had in the loft of the mart the biggest store of baskets I ever remember to have seen together. He once laid out £1,400 on one particular size of basket only. Members pay 1s. 8d. a year for membership in the society. To infringe the auction society's trade mark—which guarantees that the produce is what it professes to be—means a £50 fine, some months in gaol, and the payment of compensation to the society. In order to insure against topping, two members, who are sworn for the purpose, examine their fellow members' produce and bring them to book if necessary. Three men have been turned out of the society in seven years.

**A Fine Garden.**—One of the growers who sends to the mart, and has done much to help it forward, is Mr. van Lennep, a fruit gardener of an unusual stamp. Of a distinguished Dutch family, he was sent into the Army. From his youth, however, he had been interested in fruit growing, and he was eventually allowed to shape his own career. He ground his way through all the outdoor work of fruit growing from bottom to top; then he got the best scientific instruction obtainable in his own country and abroad. Now he has a fruit garden—for the arrangement is so delightful that it does not give a right impression to call it a plantation—containing about 7,000 apples and pears, and perhaps 10,000 bushes of soft fruit. Of cordon pears there are alone 2,400. The sword this devoted fruit grower wore as an

officer hangs in his office near a life-size portrait of the Queen, who, a few weeks before my inspection, had delighted him with an appreciative visit. I would gladly have spent a whole day among the beautifully-trained fruit trees, and have heard their owner's further wisdom on cross fertilisation in its commercial aspects and on other problems to which every market grower, who tries to walk hand in hand with science, is applying himself. There are also nurseries in the Betuwe I should like to have visited.

**Landlords.**—The Achterhoek is one of the most picturesque parts of the Netherlands. There are extensive woods and picturesque old country houses. The soil is partly sand of good quality, better than that in Lonneker. Agriculture is thriving, and there are plenty of co-operative societies and creameries. By the employment of artificials the production has doubled in value. "A drawback there is, however," I heard an agricultural authority say, "that in some places the landlords are almighty, an exception in Holland, happily!"

#### LIMBURG

Population, 340,970. Area, 220,270 hectares Farm crops, 90,950 ; grass, 28,193 ; horticulture, 11,164 ; woods, 38,372 ; heath, 26,953 ; high peat, 1,023 ; high peat cut, but not yet in cultivation, 3,768 ; shifting sands, 161 ; dunes, none ; dikes, 27 ; waterways, etc., 19,659.

Chief products: Pigs, butter, cattle, draught horses, potatoes, wheat, eggs, fruit.

**A New Formation.**—South of the clay belt, which runs with the divided Rhine and the Maas across Holland, the country, with the exception of Zeeland, is almost entirely sand. But on either side of the Maas, which enters the Netherlands from the extreme south of the peninsula of Limburg, there is a narrow strip of clay. The railway to that province, so remote from and so unlike the Holland of the tourist, follows very much the course of the Maas. But I did not go south to look to this *rivier klei*. What drew me to southern Limburg, which pushes itself down between Belgium and Germany, was that there alone in Holland is

one on the tertiary and secondary formations, in other words, in a stone country. Limburg, which has only been Dutch since 1648,\* contains, outside its capital of Maastricht, only a few canals; it has hill scenery such as one sees in Germany; and at its farthest south it rises to a greater height above the sea than is to be found in any other part of the Netherlands. A large part of southern Limburg is composed of that formation which is known to the schoolboy student of China as loess. "Loess," as someone said to me, "is not to be found all around, but at some places there are real loess grounds. The yellowish-grey clay is loess mixed with river clay and weathered soil."

**Fine Cherry Orchards.**—The country round the historic town of Maastricht, from which one steps into Belgium or Germany, sends to us and to Germany £15,000 worth of cherries in two months. Upon the spring beauty of the cherry orchards on the Maas clay and mixed loess areas I need not dwell. How the trees flourish may be realised from the photographs, and from the fact that when I measured two, seven and twenty years old respectively, about five feet from the ground, I found one eighteen inches and the other forty-six inches in circumference. A third tree, five feet round, was twenty-three years old. Large trees may bear from half a ton to a ton of fruit.

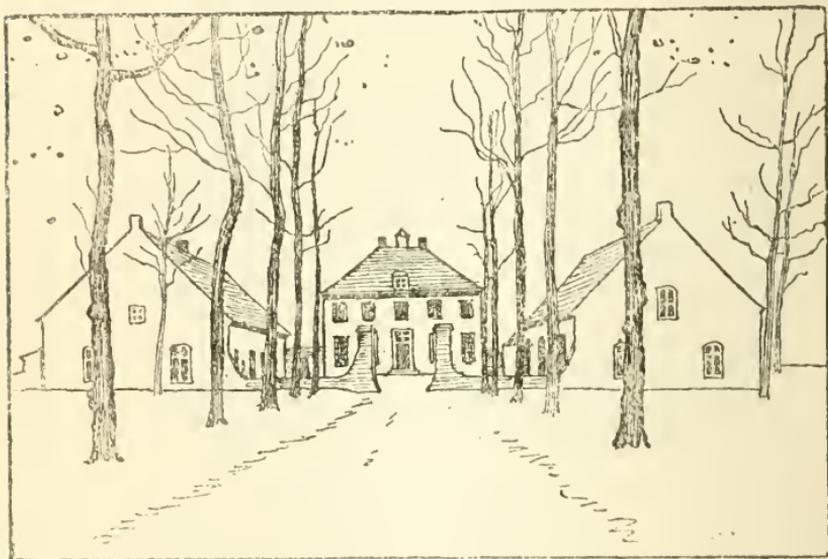
**Reminders of England.**—The farm buildings, and to some extent the farmhouses, were not unlike what may be found in some parts of England. The country resembled that near Maidstone. So up and down were the roads that the driver had frequently to apply both brakes to our carriage, and sometimes we had to get down to ease the horses uphill. In one place we passed a quarry, and, after all the sand and fen and clay, it was quite exciting to behold the prehistoric rock from which fossils are continually forthcoming. In parts, southern Limburg is a wild country where even a stray German wolf may be occasionally seen in a severe winter—one was noticed last year. Wild boars

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\* The other half of Limburg is in Belgium, where also is South Brabant.

sometimes cross from Germany into northern Limburg, North Brabant and Gelderland.

We went some way into Belgium, and although Limburg is itself preponderatingly Roman Catholic—the shrines by its roadsides are almost a little startling in the twilight—the number of churches and religious houses—and cafés\*—seemed to be greater across the frontier. The houses did not look quite so cheery and clean as in the country we had left, and the roads seemed fouler. I doubt, however,



[After Gallée ("Het Boerenhuis," Oosthoek)]

SOUTH LIMBURG OR ROMAN VILLA TYPE OF FARMHOUSE

whether there is actually much difference between adjoining Holland and Belgium. Holland near Maastricht does not by any means reach the standard of trimness set in the northern Netherlands. The Limburg standard is often that of many an English country district, tidy enough to serve, that is all.

\* In Limburg, as in Belgium, a number of cafés under religious auspices have been opened in the interests of temperance.

Between the different holdings there were quick hedges, or barbed wire on rough stakes. The hedges in some lanes were twelve feet high, and when grown on banks, as in Devonshire, fifteen feet.

**Apples.**—Apples as well as cherries are a great crop near Maastricht, and on one farm—the population into which its land was divided was about twelve acres of meadow to ten of arable—the apples were lying out in the open to colour. In a piece of garden there had been set upon end strips of boarding with a backing of stakes, and the apples were lying a foot deep in the enclosure. There might be four or five cartloads. It might be thought that the apples, though they were reddening famously—in reason there is, of course, something to be said for the system—would be poor eating at the end of the month in which they were to prepare for market. But there is a Dutch saying that “an Englishman eats with his eye and not with his mouth,” and the same is popularly believed to be true of the Germans, who now take the bulk of Dutch fruit and vegetables. In other provinces I had found big cabbages, big potatoes and big cucumbers to suit the German market.\*

**A Limburg Homestead.**—One farmer, whose holding I saw, had 96 cows in winter and 110 in summer, and 39 pigs. He made cheese and a little butter. I visited the cheese cellar and made the second attempt of my life to develop a liking for Limburger. There were 50 hectares of meadows, half of which contained young fruit trees. The labourers numbered five. It is somewhat illustrative of the cosmopolitan character of the Limburg peninsula that this man, after speaking in Dutch, changed to French and German.† His house, which his efficient wife and he were kind enough

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\* I am sure, however, that great efforts are put forth in Limburg and elsewhere in Holland to produce fruit and vegetables with a fine flavour as well as a fine exterior.

† I found that he was from Belgium, a Walloon; but most of the frontier farmers speak a second language—in the South, French; in the East, German.

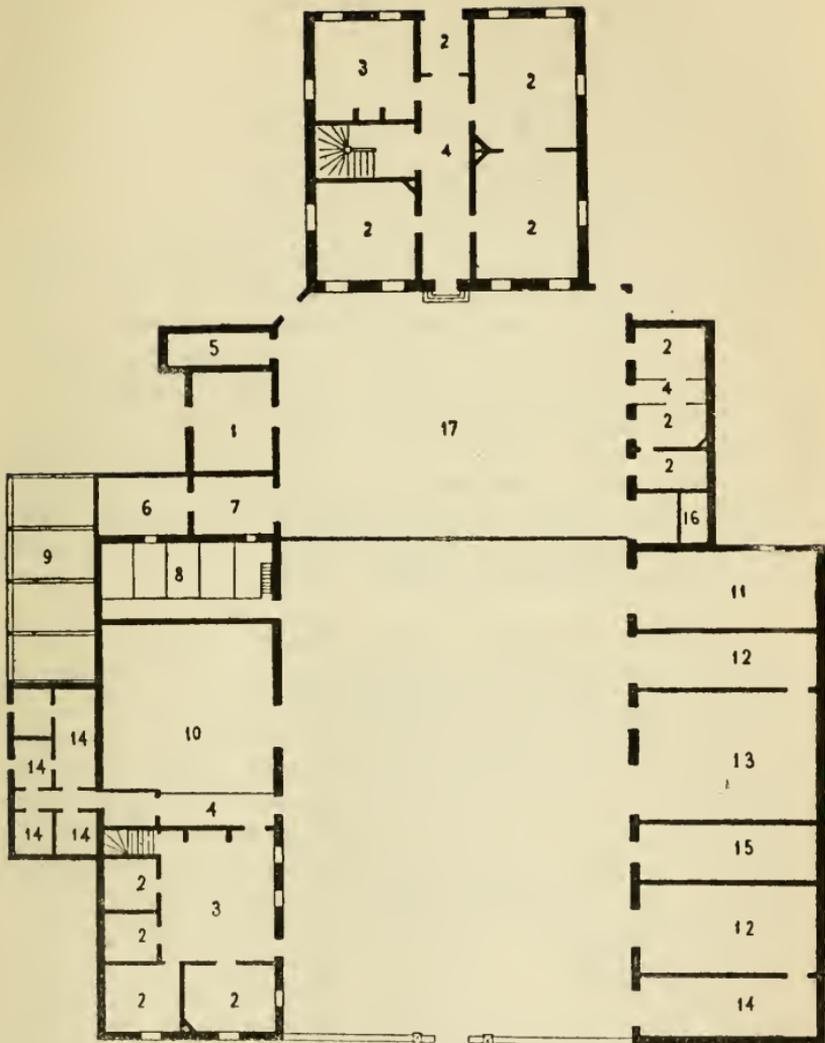
to show me, although the roads were muddy, was sufficient, but Spartan.

His stove and its piping were particularly ingenious in their conservation of heat until the room had got the largest possible proportion of it. From an artistic point of view the substitution of stoves throughout Holland for fires on the hearth in the tile-backed, open fireplace is regrettable, but there is this to be said for the stoves, that they inculcate thrift. In poor men's and in well-to-do people's houses alike, I was struck by the economical design of the stoves and their piping. The way in which heat was retained by curling the chimney about—in one case, for all the world, as a piece of rope would curl if its ends were rolled in opposite directions—compelled attention. Our perpetually closed stoves, now largely manufactured in Great Britain on German models, are far from as economical in heat saving as they might be. As to the fireplaces and the ranges in many agricultural labourers' cottages, the less said of them the better.

**Cherry Culture.**—Returning to cherries, one could wish that the spectacle seen in so many corners of Holland of the farmer doing some fruit growing were commoner in our countryside. Not a few of our farmers working their own land have yet to hear the counsel, "Be aye stickin' in a tree ; it 'll be growin' when ye're sleepin'." They do not understand how trees which are cared for as well as stuck in grow into money. Of course there is no profitable market now-a-days for the fruit of neglected orchards. Round Maastricht the landlord plants the trees, as many an English landlord would be glad to do if he were sure they would be looked after. I know one case, however, in which an English landlord put in fruit trees and most of the trees have now suckers running to half their height!

While a meadow without trees may rent near Maastricht for 28s. an acre, a good meadow with big trees, say of twenty years' growth, would find a tenant at £8. Of course both figures would be lower in taking a whole farm.

The cherries are ready for market between the early and late varieties in England, and this is the growers' chance.



[After Gallée ("Het Boerenhuis," Oosthoek)]

**SOUTH LIMBURG OR ROMAN VILLA TYPE OF FARMHOUSE**

- 1—Cattle feeder. 2—Bedroom. 3—Kitchen. 4—Passage. 5—Oven. 6—Calves.  
 7—Harness room. 8—Horses. 9—Waggons. 10—Cattle. 11—Room. 12—Barn.  
 13—Sheep. 14—Pigs. 15—Bullocks. 16—Wood and peats. 17—Grass plot.

Mr. Sprenger, the Rijkstuinbouwleeraar, has studied our cherry growing methods and has gained some reputation by his examination of the causes of some varieties grown in Limburg not yielding a profitable crop. The difficulty has been met, as shown in the accompanying reproductions of photographs he was kind enough to give me, by the introduction of bees and by cutting out trees here and there in orchards, and by substituting other sorts.\*

A novel sight on the brick earths near Maastricht was builders saving carriage on the bricks they were using, by making them on the sites of the houses.

As we returned north from Maastricht to Venlo we had a closer look at the narrow strip of river clay, broken through in places by the sand of the back country. "A nice loamy clay; later a sandy loam," I have on my notes. The holdings were small, a dozen to fifteen acres in area perhaps. As the line got farther north it was curious to see right along the wild heath, strips which had been brought into excellent cultivation. On the higher sand there were usually clumps of natural wood.

**Cucumbers, Chestnuts and Acorns.**—Round Venlo, familiar to travellers to Germany, there is not only market gardening, but farming cum market gardening. This year, a specially good one for the crop, no doubt, a farmer had obtained more than £130 an acre for cucumbers. The growers do so well in their open-air culture that it is only this year that one of them has been persuaded to put up some glass. Talking about vegetables, in Venlo and in Zeeland the word for potato is reminiscent of our "pertaters," *petatten*. The Dutch word is like the French word, earth apples.

I noticed that one farmer had a great many established Spanish chestnuts and some lines of young trees. From 200 trees he had sold about 8,000 lb. of nuts, for, I understood, £30. In his farm yard he had a large pile getting rid of their prickly coats by heating. Having lately planted a

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\* Those who are interested in the subject of cross fertilisation, etc., at which English investigators are working, should see his brochure "De Onvruchtbaarheid der Kersen in Zuid-Limburg."

Spanish chestnut I was interested in the assurance the farmer gave me that I might expect nuts of a small size when the tree was fifteen years old. As I was informed when I planted a walnut that I should receive nuts ten years afterwards, and as in the tenth year five actually arrived, I am inclined to believe what I am told in such matters.

This farmer had the floor of a spare bed room in his house covered with acorns. He had purchased two tons from lads. He used them for his sheep. Two cows he had bought in at a month or so from calving had cost him a little more than £40 the pair.

**Co-operative Auction Marts.**—At Venlo station, near which is the co-operative auction mart, where eggs and poultry are sold after the Loosduinen manner, I noticed waggons of stable manure from Germany for the horticulturists who send their produce in such quantities across the frontier. There is a flourishing co-operative auction mart for butter at Maastricht, and the largest egg auction in the province at Roermond.

That is one side of Limburg. I have, however, a note of meeting in the train one day a Limburger who expressed himself as follows about this province: "Agricultural co-operation would have been impossible without the priests, and much good has come of it; and the church has, of course, her advantage in a firmer hold on the farmers. Unless some energetic person had moved there would have been little done co-operatively in some districts. The more south you come in Limburg, and the heavier and better the soil, the less the people work, and so they are not forward. There is little enlightenment; there is little development in their minds."

**Best Districts for Different Cultures.**—We may say, I think, that in the Netherlands the best fruit growing is in Zeeland, the Betuwe (Gelderland), Limburg, along the river IJssel (Overijssel), and between the Dead Cities of the Zuider Zee (North Holland); the best glass culture in the Westland (South Holland), the best cabbage and cauli-

flower production near Alkmaar (North Holland), the best shrubs and flower culture, apart from bulbs—for the region near Haarlem (North Holland) is of course supreme in bulbs—at Boskoop and Aalsmeer (North Holland), and the best vegetables for pickling in South Holland and in Limburg. '



Variety of Cherry (Abbesse de Moulande) which never gives a crop when planted alone

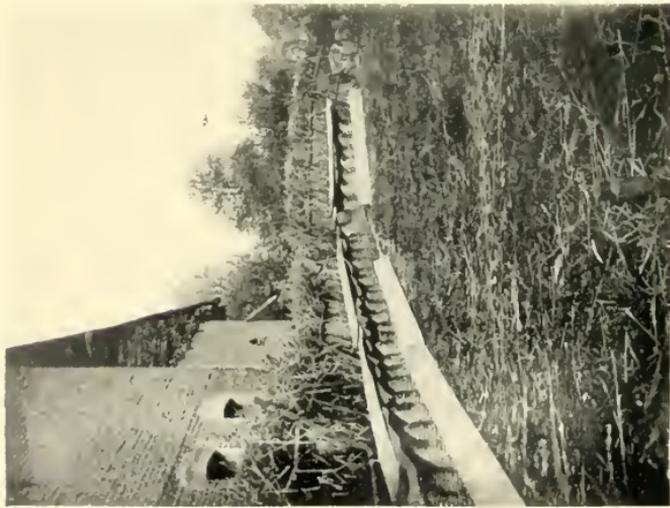


New variety introduced, by grafting, into an orchard of Abbesse de Moulande

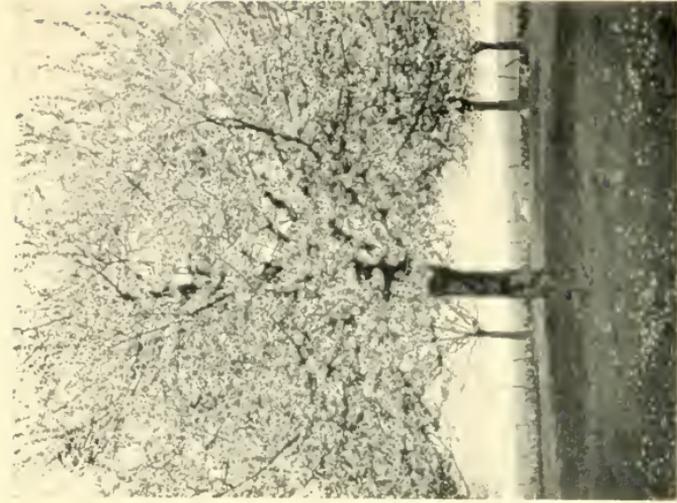


Brown Walloon, the position of which, owing to its late flowering, must be carefully chosen

#### COPING WITH CHERRY FERTILISATION PROBLEMS IN LIMBURG



Bees which brought a good crop of Cherries  
to an orchard which had yielded badly



In a 30-year old orchard which did not bear  
well till the coming of the Bees

## CHAPTER XXIII

### NORTH BRABANT

Population, 628,089. Area, 487,421 hectares. Farm crops, 148,975; grass, 125,981; horticulture, 6,729; woods, 62,902; heath, 105,868; high peat, 1,960; high peat cut, but not yet in cultivation, 3,652; shiftings ands, 1,303; dunes, 520; dikes, 1,755; waterways, etc., 27,776.

Chief products: Pigs, cattle, butter, potatoes. On the western clay, sugar beet, grain and onions, as in Zeeland.

**Peat and Clay.**—When we took train at Venlo, and instead of returning north, struck out west in order to cross the sandy moor of which the big province of North Brabant mostly consists, we passed Helenaveen in that long, high peat strip of the Peel which stands out so conspicuously in the surrounding sand, where it is so rare to come upon a village. On this well-known *hoogveen* there were the black stacks of dry peats as far as the eye could see. One great stack, which had been reared near a station, was twice the size of the church in my village. We also noticed the factory of a peat moss litter company. Where the canal had crept into the peat country there were the new shiny cottages and spick and span farmhouses of the growing Fen Colony. One got the impression that there was a spirit of hope and resolution at work here that was not to be found on the sand, or, at any rate, most of the sand.

On the sandy heather country agriculture was advancing, as we had seen in Drenthe, under a Birnam wood of young fir, early plantings of which were in places already cut for foreign pit props, that pasture might be made on the sites. Except in the north of the province, where there is a strip of river clay along the Maas, and in the north-west, where

there is sea clay, as in Zeeland, Dutch agriculture is not at its best in Brabant, but is more and more successful owing to the use of artificials and to increasing efficiency in the credit banks. What matters a great deal in North Brabant is the industrial development at places like Tilburg—where nearly 50,000 people find their main interest in a prosperous woollen manufacture—and in a lesser degree at Eindhoven, Geldrop and Breda.

**Railway Progress.**—When at length we got off the sand and touched the sea clay at the well-known junction of the Flushing route at Rosendaal, we were at the edge of a district particularly suitable for, and much devoted to, sugar beet and the accompanying beet factories. Sugar factories cluster in the area a little north of the town. It is a rural district full of soot-capped chimney stacks. As the train slowed down we found beets and pulp under transportation by rail and road. The mean station of a few years back has been replaced, as at Nijmegen and other towns in Holland, by a surprisingly palatial structure.

**Co-operative Sugar Factories.**—We drove for an hour to Dinteloord to see one of the two co-operative sugar factories. The outskirts of Rosendaal are somewhat in contrast with the splendours of the station building. It is plain that one is still in backward Brabant. The sugar factory we were going to see was quite new. Sas van Gent, the first co-operative factory in the kingdom, is in Zeeland, but it seemed more important to visit the new Dinteloord establishment. Here, however, are some Sas van Gent figures: In 1909-10 it worked up 47,600 tons of beets, and in 1910-11 some 53,000 tons. It paid 23s. 1d. per ton in the former campaign and 24s. 2d. in 1910-11. The sugar percentage in the one campaign was 16.27, and in the other 17.16. The beets handled daily averaged, for 1909, 780 tons, and for 1910, 800 tons. As to the factory's capital, there are 1,000 shares, of about £33 each, on which about £8 is paid—practically all held by farmers. The minimum quantity of beets that may be sent in per share is 15 tons, and the maximum 30 tons.

Dinteloord's figures are as follows:

	1909—10	1910—11	1911—12
Beets handled in campaign ..	65,000 tons.	87,000 tons.	119,000 tons.
Do. daily	1,038 tons.	1,333 tons.	1,400 tons.
Price .. ..	21s. 8d. per ton.	25s. 1d. per ton.	28s. 4d. per ton.
Members ..	644	704	720
Shares .. ..	3,150	3,368	3,430

Some 300 of the members have only a single share each. In 1909-10 the quantity of beets received per share was 21 tons, in 1910-11, 26 tons, and in 1911-12, 34 tons—maximum, 35 tons.

The order for the factory was given to the contractors on January 9th, 1909, building began in February, and the factory was making sugar on October 13th.

On the original 3,000 shares the farmers paid £8 4s. per share, total £25,000. Four per cent. must be paid on this. The cost of the factory was £135,000. The balance was found by means of "shares, mortgages, bankers and members."

**Details of Working.**—On the sea clay where beet and sugar factories flourish, the land is below the level of the North Sea, and so it was no surprise to learn that the co-operators had had to drive some 200 piles, from 33 to 42 feet long, on which to rest their £2,000 chimney stack. The farmers were justifiably proud of their up-to-date factory. Its manager is the son of the late manager of the biggest sugar factory in the country, the premises of which, by the way, adjoin the co-operative enterprise. The factory is to be enlarged, at a cost of from £10,000 to £14,000, to a total capacity of 1,700 tons daily. If the neighbouring joint stock factory does not go one better, Co-operation will then be able to boast of having the biggest sugar factory in Holland.

I found about 3,000 tons of beets piled up outside the factory, the stacks reaching as high as the houses that had been built for the accommodation of the director, the chemist, the accountant and the engineer, for in a campaign which goes on day and night every responsible person must

be on the spot. One of the three electric cranes is alone capable of transferring 400 tons of beets in a day from the barges to the concrete slopes of the storing place. There were convenient facilities for weighing both the railway and the farm waggons of beets, before and after their loads were shot out. The weight of the barges is also taken before and after unloading—by calculating displacement. In order to estimate a consignee's sugar percentage a sample is taken of every four tons lifted out of the barges, of every single waggon load when the beets are received by rail, and of every eight when they arrive by road.

As the novice never realises the quantity of water needed by a big sugar factory, I may mention that at Dinteloord they use up 1,200 tons a day. The daily consumption of lime is 42 tons. Coals cost 43 cents per ton of beets. The campaign staff—about 500 for day and night shifts—takes away about £5,600 in wages. This does not include the pay of the heads of the factory or the office staff. As it is seldom that one hears of an estimator of the cost of an English factory saying anything about the expense of keeping the place in order when it is officially closed, it is worth noting that at Dinteloord, without counting head officials and the office staff, there are sixty men on the place while no campaign is in progress.

The shareholders are receiving wet pulp. Most of them are close at hand, so they prefer wet slices to dry, but the factory tries to squeeze out as much water as possible.

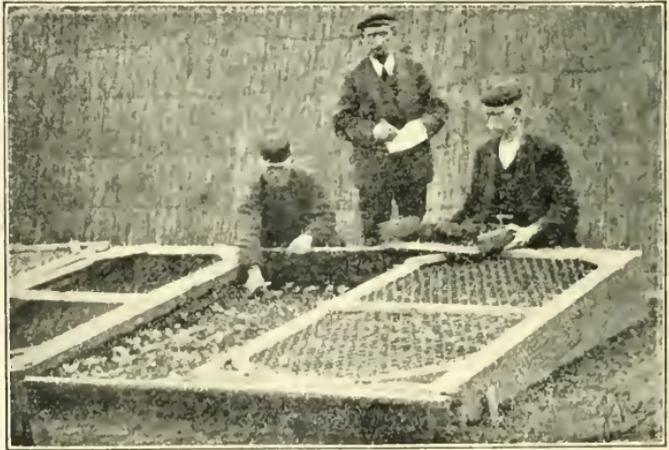
**Hints for England.**—I was assured that only three out of the twenty-five joint stock sugar factories in the Netherlands pay for beets according to the percentage of sugar, as the co-operative ones do.

After the campaign of 1910-11 Dinteloord paid off more than £10,000 of indebtedness. As a result of the 1911-12 campaign it will probably carry more than £20,000 to reserve. The members will be paid in respect of this last "campaign" about 8s. 4d. more per ton for their beets than they would have got, I was informed, from the joint stock companies.

Seeing that I have already fully described the process of



NORTH BRABANT FARMHOUSE AND BUILDINGS



WORK ON ONE OF THE EXPERIMENTAL FIELDS  
WHICH HAVE DONE SUCH USEFUL WORK

beet sugar manufacture, I need not go into details here.\* The co-operative factory struck me as frugally but efficiently planned, and "frugally" is meant for praise only.

The co-operators reduce the amount of their machinery by contenting themselves with the production of an unrefined white sugar. It is thought that this is more profitable than going the length of refining. Refining means increased capital, paying a higher excise, and finding trade customers. Everyone who has thought about these considerations attaches weight to them, though an experienced sugar firm may well find a great advantage in refining as well as in simply making sugar.

Dinteloord has been happy in the time of its starting. After Sas van Gent was started sugar prices went down; since Dinteloord's first campaign prices have kept going up. The chairman laid the greatest stress on the help this had been. If old hands in sugar beet culture, not unacquainted with sugar manufacture, attach importance to such a piece of good fortune, how necessary it is that English factory promoters should be far-seeing and cautious. "When we erected co-operative factories," said one shareholder to me, "we knew all about the crop and how the factories worked, and all their ways, for we had dealt with them for years and fought them." When I went over the Dinteloord factory most of the sugar had already been sold at good prices in advance of manufacture.

I was interested to know that there is talk of co-operative sugar factories in South Holland and Groningen. From the farmers' point of view, as I have always written, the co-operative factory is no doubt the ideal way of going to work: the agriculturist gets his profits as a beet grower and his dividend as a sugar manufacturer.

The managing director of the enterprise I have been describing, who has large farming interests in Zeeland, told me that he would have 43 tons of beets per hectare ( $2\frac{1}{2}$  acres) over an area of 118 hectares. He reckoned, in

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\* A full account of the processes of sugar manufacture and beet culture in Holland and elsewhere is to be found in "Sugar Beet: Some Facts and Some Illusions; A Study in Rural Therapeutics." By 'Home Counties.' London: Horace Cox. 6s. Illustrated.

fact, that his crop would be over 5,000 tons. The analysis of his first cargo to arrive at the factory reached the high sugar percentage of 19.3. In later cargoes he had touched 17 and higher, but "now the rain has come I may be down to 16 per cent." The English farmer who reads this should carefully remember that this is experienced culture on highly suitable land. Mr. Kakebeeke, who is a member of the provincial council of Zeeland and a brother of the Rijkslandbouwleeraar for that province, said that he got the highest sugar percentage after wheat and the least after clover and green manure.

#### UTRECHT

Population, 289,188. Area, 138,623 hectares. Farm crops, 15,957; grass, 73,989; horticulture, 5,305; woods, 19,868; heath, 6,656; high peat, 3; high peat cut, but not yet in cultivation, 6; shifting sands, 15; dunes, 22; dikes, 791; waterways, etc., 16,011.

Chief products: Cheese, butter, pigs, cattle.

**A Holiday Country.**—The west of this province, being clay and low fen, resembles South Holland, and is a cheese and butter country. In the east there is sand. South and south-east of the capital, Utrecht, there is river clay, and more cultivated land. Only woods make a break in the wide sandy tract which stretches eastward from that city of beautiful canals into Gelderland to the line of the river IJssel and the towns of Deventer, Zutphen and Arnhem. This great expanse of sandy moor rises in places to some height. The Gelderland part of the tract forms the well known Veluwe, which is higher than the part within Utrecht. Utrecht and the Veluwe are therefore favourite places for country seats. The Queen has her palace at Het Loo in the Veluwe. The half-pay officers from the Indies and other retired functionaries, who live in the delightful and somewhat Paris-like town of Arnhem, may climb the Galgenberg, not to speak of the Signaal, which rises to the height of about 350 feet.

**Wooden Machinery.**—But a well developed agricul-

ture and holiday scenery are not usually found side by side, and the Veluwe has no place and Utrecht no conspicuous place in the annals of Dutch farming. In some parts of the Veluwe, however, the farming is not at all bad—in Lunteren, for instance, the cattle are quite creditable when the kind of soil is borne in mind. To a considerable extent Utrecht is a province of estates;\* the farmers work on a small scale and are somewhat backward. I saw in use more than once gear for horse-power wholly constructed of wood, and a wonderfully clever piece of mechanism it was. Another interesting survival, at one farm only, was a machine for chopping green maize, actuated by the bull of the farm, who had been persuaded to tread an unending stair in the contrivance. The farm waggons in the district where I saw the bull getting into hard condition by the agency aforesaid, were braked by the driver pressing his feet against the horses! I saw the same kind of waggons elsewhere. They have a diminutive pole and are very handy for changing horses. We have had these waggons in England.

It was in Utrecht that I saw charlock for the first time in Holland; I also noticed particularly here the shallowness of the ploughing, common also in the Betuwe.

In this province, as in other parts of Holland, the farmers have a summer and a winter house. I thought the farm-houses and yards were not so trim in Utrecht when we got off the clay on to the sand, but the young men and young women in the families I visited were of an excellent type.

There have been orchards on the river clay of Utrecht for a century or more, and a good deal of fruit growing is now being done on that formation in newly-planted areas. Remarking the quantity of artificials given on an area within river dikes—but I hardly think this can have been in Utrecht, for the clay part of the province is one of the worst in Holland—I was told that “our land costs too much for us to grow poor crops.” I noticed at the same time that potatoes were being preferred to beets. “They give a better return,” I was told, “but are more risky. I have seen

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\* “We call 125 acres large here,” writes a correspondent.

them yielding 495 bushels per acre, which means nearly the price of the land." But not many potatoes or beets are grown in Utrecht. On the sand farmers cannot easily make much money. "They live well enough, and they occasionally put something by," somebody said; "but they don't get rich." Talking of small farms, it was remarked how much they were to be valued, but they had forced up the value of land.

## CHAPTER XXIV

### THE ECONOMIC POSITION AND EDUCATION OF THE FARMER AND LABOURER

So long as new worlds of labour exploitation can be called in by foreign investments to redress the balance of wages in our own world, so long will English wages tend to the general level of wages. Hence the cry of the internationality of labour, remote enough from practical politics at present, but testifying to the dim appreciation of the ultimate extent of the problem. Until it is made impossible (and it never will be) to employ any labour in any part of the world at less than a high minimum rate of wages, wages in general will lead to the subsistence level of the least exigent of labourers in any part of the world.—*New Age*, Jan., 1912.

**Questions on Rents and Wages.**—It is very easy, in noting down particulars of agricultural and horticultural rents, wages, etc., to misunderstand the information given, or to suppose that the information which is furnished applies to a wider district than that in which it is obtained. On my return home I accordingly sent the following questions to half a dozen representative provinces—North Holland, Groningen, Gelderland, Limburg, Zeeland, and Utrecht—in order that I might have a body of absolutely trustworthy data :

1. Value of land per hectare ( $2\frac{1}{2}$  acres) to buy and to rent ?
2. Wages per year of farm labourers doing the best kind of work ?
3. Cost of labourers' cottage and land ? Please say if these and any other advantages are included in wages ?
4. Hours worked in summer and winter ?
5. Wages per year of women who milk and are otherwise employed on the farm ?
6. Are farmers in your opinion spending too much or mortgaging too freely ?

7. In what direction or directions are agriculture and horticulture making most progress in your province?

8. In what direction or directions do you think there will be most change in your provincial agriculture and horticulture in the future?

9. Is the average farmer and horticulturist doing well, that is to say, is he reasonably prosperous?

10. How many agricultural and horticultural winter courses have you this season in your province? Attendance?

11. Please give figures as to winter schools.

12. What proportion of the requirements of the farmers and horticulturists of your province is bought through co-operative societies, and what proportion is sold through co-operative societies?

13. Having been frequently in Germany, do you think that the men of the various grades working on the land in your province—employers and employed—are superior in education to men of the same classes in Germany? \*

The replies—with the exception of those to questions 10 and 11, for which I am indebted to Rijkslanbouwleeraren—have been furnished to me by friends occupying various positions, who are so placed as to be specially well informed on rural matters in the provinces in which they live.

Instead of printing the replies from each province as received, I have divided them up under the different questions, 1, 2, 3, and so on. The reader has thus before him at once all the data referring to any question in which he may be specially interested.

### 1.—*What is the Value of Land to Buy and to Rent?* †

**North Holland.**—The purchase and rent values of land in our province vary greatly, and it is therefore very difficult to give special figures. The purchase value of grass land varies between about £125 to £250 per hectare, ‡ and the rent value between £6 5s. od. and £12 10s. od. Plough land: purchase value, £83 6s. 8d. to £208 6s. 8d.; rent value, £5 to £10 8s. 4d. In places where the cultivation of

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\* I suggested a comparison with Germany because I found many of my informants seemed to have a wider knowledge of German than of English rural districts.

† Except where otherwise stated, the prices and rents given include, as in England, farmhouse and buildings.

‡  $2\frac{1}{2}$  acres.

vegetables is increasing or already forms the main source of livelihood, the prices are much higher—up to £500 per hectare. The proximity of towns has not very much influence on the value.

These prices all include farmhouses and buildings.

**Groningen.**—The best and richest clay soils near the Dollart: to buy, £191 to £216; to rent, £8 6s. 8d. to £11 13s. 4d. The sandy clay soils in the northern part: to buy, £150 to £183; to rent, £8 6s. 8d. to £10. Very heavy clay: to buy, £91 to £116; to rent, £4 3s. 4d. to £6 13s. 4d. The best sandy soils: to buy, £100 to £133; to rent, £6 13s. 4d. to £8 6s. 8d. The poorer sandy soils: to buy, £66 13s. 4d. to £100; to rent, £5 to £6 13s. 4d. The poorest sandy soils (in cultivation): to buy, £33 6s. 8d. to £50; to rent, £1 13s. 4d. to £2 10s. 0d. Fen Colonies, old land: to buy, £166 to £200; to rent, £6 13s. 4d. to £10; new land: to buy, £83 6s. 8d. to £100.

For grass land in general: to buy, £16 13s. 4d.; to rent, £1 13s. 4d. more than arable.

For land near the towns the prices are higher than as above-mentioned. Generally the rent figures are proportionally higher than the figures to buy, because there are more men who are financially able to rent the land than to buy it.

**Gelderland.**—Farms on the clay: to rent, £5 per hectare; to buy, £150. Farms on the sand (good sand bottom): to rent, £3 6s. 0d.; to buy, £87. Farms on the sand (of inferior quality): to rent, £2; to buy, £54.

Good sandy moor for clearing (which involves labour, artificial manure, ditches and enclosure) costs, to buy, £23.

Small farms are relatively more expensive than large ones. For instance, a good sand bottom farm of  $7\frac{1}{2}$  acres might cost £158 per hectare.

The cost of a farm of 75 acres on the clay (66 per cent. grass) might be, for a farmhouse and buildings, £1,083; for the ingoing, £19 per hectare. Then £166 of free capital would be needed.

**Limburg.**—Sand.—Everywhere in the province where there is land to be opened up, the price of land already in

cultivation is about £83 6s. 8d. per hectare ; rent, £2 18s. 4d. to £3 6s. 8d.

Where there is old land, the price is about £116 13s. 4d. to £165 13s. 4d. ; rent, £3 6s. 8d. to £4 3s. 4d. It usually makes a great difference if land is sold in large acreages or small. The first-mentioned price is for large acreages, the second for small. In the case of large farms the house is included.

Clay.—Price to buy, £166 13s. 4d. to £242 per hectare. In places where there are mines, the price increases greatly, as there is a shortage of arable land. The price for grass land planted with fruit trees goes up to about £600 per hectare. The rent of a farm (ground and house) is £4 11s. 7d. to £5 per hectare.

**Zeeland.**—£166 to £208 per hectare to buy ; £6 13s. 4d. to £8 6s. 8d. to rent. These are the prices of ordinary farms. For from about  $1\frac{1}{4}$  to 5 acre holdings the rent is much higher, going up to £16 13s. 4d.

During the last few years many farms in the vicinity of towns have been divided into smaller holdings for labourers. The landowners make more money and the men do pretty well. They raise principally sugar beet, potatoes and onions. For the labourers it is rather hard work. Early in the morning and late in the evening they work their own land, and during the day time they go to the farmers. When the labourers have land, the farmers often say that they come to have a rest when they work on the farmer's land, so over-fatigued are they sometimes.

**Utrecht.**—On the more desirable land: £4 3s. 4d. to £7 10s. 0d. to rent ; £125 to £166 and more to buy. On the sand: £2 10s. 0d. to £4 3s. 4d. to rent, and £50 to £108 to buy.

2.—*What are the Wages of Labourers doing the best kind of Work?*

**North Holland.**—£37 10s. 0d. to £45 16s. 8d. per year.

**Groningen.**—£33 6s. 0d. to £39 3s. 0d. In some parts

of the country the labourers receive over and above this, one-sixteenth hectare for cultivating potatoes for their own consumption. The farmer gives the land, manure and horse work, and the labourer gives his labour in his free time. The value of this culture of one-sixteenth hectare is assessed for rating at £2. In some cases the pasturage of a sheep or the grass or the hay of the dikes is given.

**Gelderland.**—Man, with board and lodging, £13 6s. od. Wife, with board and lodging, £10. Labourer, without board and lodging, £29.

**Limburg.**—Men living in, £15 to £16 6s. 8d. per year. Casual labourers, 1s. 8d. to 2s. 8d. per day without food, or 1s. to 2s. with food. The harvest is very often done by contract, and then the wages amount to as much as 5s. a day. In the south part of Limburg the wages are a little higher than in the north. In very many cases the labourers rent a little house with some land so that they can keep a cow and can grow something. Then they work for a lower wage with the farmer, 1s. 2d. without food or 1s. with food, on the condition that the farmer lends them his horses to work on their own land. Garden labourers earn from 12s. 6d. to 16s. 8d. per week.

**Zeeland.**—£29 3s. 4d. to £33 6s. 8d. per year.

**Utrecht.**—£33 6s. 8d., the good ones, with a little newly-made garden. Wages of labourers, a year, £20 16s. 8d. to £41 13s. 4d.; most £25 to £29 3s. 4d. No advantages in addition. Per day, 1s. 4d. to 2s. 6d., sometimes more.

### 3.—*What is the Cost of a Labourer's Cottage and Land?*

**North Holland.**—The house of a farm labourer costs about £83 6s. 8d. to build. If he rents lands with it, he pays the usual rent for the land; the area, however, is always very small, for instance, one-twentieth to one-fortieth of a hectare.

The wages mentioned in answer to the previous question include all advantages or emoluments. The wages in money are therefore so much less if there are advantages to deduct, or if there is a free house or free lodging.

**Groningen.**—Rent in general, £2 10s. od. to £5 per year; in many cases, £5 16s. 8d. to £7 10s. od. Rent is not included in wages. There is usually 5 to 10 ares of land belonging to these cottages. When the labourers wish to have more land they have to rent it at 1s. 8d. to 3s. 4d. per are. (An are is four rods, or 121 square yards.)

**Gelderland.**—Cost of a cottage, £66.

There is a great difference in the area of land with the cottage; 8 ares is perhaps the average. When the labourers rent the house with the ground they pay about £4 per year. A little more than £2 a year may be put down for some advantages.

**Limburg.**—Rent of a labourer's cottage per month, without land, 10s. to 11s. 8d.

**Zeeland.**—£50 to £100, without land. The greater part of the labourers rent a cottage; they pay £3 6s. 8d. to £5 a year. Usually the cottages are without land. The labourers rent land at some distance from the cottages they live in. These and other advantages are not included in wages. The only advantage to the labourers is that they get some land at a low price from their farmer for potatoes for their own consumption. The farmer ploughs the land.\*

**Utrecht.**—Rent of land for labourers, £16 13s. 4d. to £21 13s. 4d. a hectare. Small plots cost more than large ones, and price also depends on the quality of the soil and the distance from the towns and villages.

#### 4.—*Hours Worked?*

**North Holland.**—Summer, 11 to 12 hours; winter, 8 to 9 hours.

**Groningen.**—Summer, 10 to 11 hours; winter, 7 to 8 hours.

In some parts near the Dollart they work in summer only

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\* See an interesting report, "Verslag betreffende den toestand der Landarbeiders in Zeeland," by I. G. J. Kakebeke, Rijkslandbouwleeraar, for illuminating particulars as to the condition of the farm hands and small holders in Zeeland.

8 hours for the farmer. Their remaining time they work on hired land for themselves, except in the harvest time, when the labourers work the whole day for the farmer. The wages are then high, 3s. 4d. to 5s. a day.

**Gelderland.**—Servants, 12 to 14 hours. Farm labourers, in spring, 10 hours; in summer, 12 hours; in winter, 8 to 9 hours.

**Limburg.**—Sometimes as long as it is light. Summer, 4 a.m. to 12 noon and 2 p.m. to 9 p.m. (or 3 p.m. to 9 p.m., with two half hours' rest for coffee). Winter, 6 a.m. to 12 noon and 1 p.m. to 5 p.m. The garden labourers start in summer generally at 5.30 a.m. or 6 a.m., and work till 7.30 p.m. or 8 p.m. in the evening. In winter they work as long as it is daylight.

**Zeeland.**—In summer from 6 a.m. to 11.30 a.m. and from 1 p.m. to 6.30 p.m., with a rest between 8.30 a.m. and 9 a.m. and 3.30 p.m. and 4 p.m. In the winter from 7 a.m. to 11.30 a.m. and 1 p.m. to 5 p.m.

**Utrecht.**—Summer, 11 to 12 hours; winter, 7 to 8 hours.

#### 5.—*Wages of Women who Milk and are Employed on the Farms*

**North Holland.**—Women do not work on the farms. For help at milking they receive 8d. to 10d. per milking; time about 2½ hours.

**Groningen.**—The women only work in summer at weeding, drawing out the flax, binding and setting up the sheaves of corn and beans, and at digging potatoes and sugar beet. At this work they can make £8 6s. 8d. to £10 8s. 4d., in some cases £12 10s. 0d., per year.

The wages of maid-servants are £8 6s. 8d. to £12 10s. 0d. per year, besides board and lodging.

**Gelderland.**—Women milk as well as the men, but on the ordinary farms we have no hands specially for milking.

**Limburg.**—Milkmaids, ½d. to 1d. per cow per milking.

**Zeeland.**—Unmarried women living as servants on the

farm, who milk, £6 13s. 4d. to £8 6s. 8d. per year. The married women work in the fields from March to December and their wages are about £8 6s. 8d.

**Utrecht.**—£10 to £15.

*6.—Are the Farmers Mortgaging too Freely?\**

**North Holland.**—The increase in production and the increase in the value of the land does lead to greater expenditure. I should not like to say, however, that too much is spent or that there is too much mortgaging.

**Groningen.**—In my opinion farmers don't spend too much; but the farm buildings are too luxurious, and for these the mortgages—they are on the land—are often relatively high. In general, farmer families are living at a greater expenditure.

**Gelderland.**—No! I should like to see many small farmers spend more on useful things. Said a teacher once: "I have spoken to a man on the need of spending more on the cow house or artificials, and he has said, 'Surely, I will do it.' But the next morning it was quite another story. We know whose influence that was. Therefore we must also teach the women."

**Limburg.**—In the south the farmers are rather wasteful; there are many mortgages. This is less the case in the north.

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\* MORTGAGES.—The total amount of rural mortgages was, in 1910, £5,161,948. It has risen as follows (florins—a florin or guilder is, 1s. 8d., say, 12 to the £1):—

1901 ..	41,677,604 f.	1906 ..	46,274,679 f.
1902 ..	44,233,736 f.	1907 ..	47,175,775 f.
1903 ..	44,978,218 f.	1908 ..	56,161,644 f.
1904 ..	45,084,643 f.	1909 ..	57,700,853 f.
1905 ..	44,210,745 f.	1910* ..	61,943,787 f.

\* Estimate.

Here is the indebtedness shown in provinces :—Groningen, 6,528,209; Friesland, 4,215,998; Drenthe, 2,131,441; Overijssel, 2,865,423; Gelderland, 6,714,628; Utrecht, 3,590,825; North Holland, 11,675,821; South Holland, 15,459,453; Zeeland, 3,665,976; North Brabant, 3,104,450; Limburg, 1,991,563. Private advances stand for 37,315,086 f.; mortgage banks, 8,171,515 f.; other banks or institutions, 16,457,186 f.

**Zeeland.**—No.

**Utrecht.**—They do not spend much ; are very economical—sometimes too economical. You have seen that they do not go out much and live very simply. Mortgaging too freely happens, of course, but is not general.

The people work hard. The girls milk and work ; mother and girls make cheese ; the sons work hard all day long. The father milks too when he is not old, or if he has not enough children to do it. Even the farmers who are chairmen of the village societies, the most enterprising men, milk, etc.

When prices are going up, mortgaging is not a serious matter ; when prices are falling— In times like the present, when prices are going up, some farmers may mortgage too much, but Heaven only knows if they will eventually suffer. In general, mortgaging is good. It gives the farmer, for a low rate of interest, money to buy the things he needs.

7.—*In what respects have Agriculture and Horticulture made Progress?*

**North Holland.**—Near the Langendyk, between Alkmaar and Schagen, the cultivation of vegetables increases very much, especially cabbage ; in the neighbourhood of Enkhuizen and the Streek the cultivation of early potatoes and cauliflower increases, and also horticulture near Purmerend. One must also speak of the progressive cheese factories and the advance of bulb growing.

**Groningen.**—The agriculture of this province has made most progress in the last twenty years by using artificial manures. By this means the manuring has become more efficient and the yields have become much higher. Partly this is a success of the organisation of agricultural instruction.

Other progress has been made in better draining of the lands ; in the culture of the most productive crops, such as flax on the sandy clay soils, and sugar beet and caraway on all clay soils ; of more potatoes on the sandy and the

Fen Colony soils; in the culture of more productive varieties of cereals, especially wheat, oats and rye, and of potatoes and sugar beet; in selling hay and straw owing to the extensive use of artificial manures; in co-operative buying of manures, feeding stuffs and seeds; in co-operative production in dairy factories and potato-starch and straw-board factories; in carefully adapting the agricultural instruction particularly to the needs of farmers of small means.

Horticulture is going forward, especially in the direction of growing for the foreign market. (From 75 per cent. to 95 per cent. of the products for export are sent to Germany.)

Intensive culture—culture in greenhouses and frames, and during the two past years under the so-called “French cloches”—is making most progress. But horticulture has not long been established here.

**Gelderland.**—There is better draining and a greater use of artificials.

**Limburg.**—See reply to next question.

**Zeeland.**—In not following an unvarying rotation, but raising the crops that are making the best prices. The general use of artificials has made the farmers totally independent of the rotations of years ago.

**Utrecht.**—They begin to use artificials, to control the production of their cows and to buy co-operatively. Apple orchards are also largely planted.

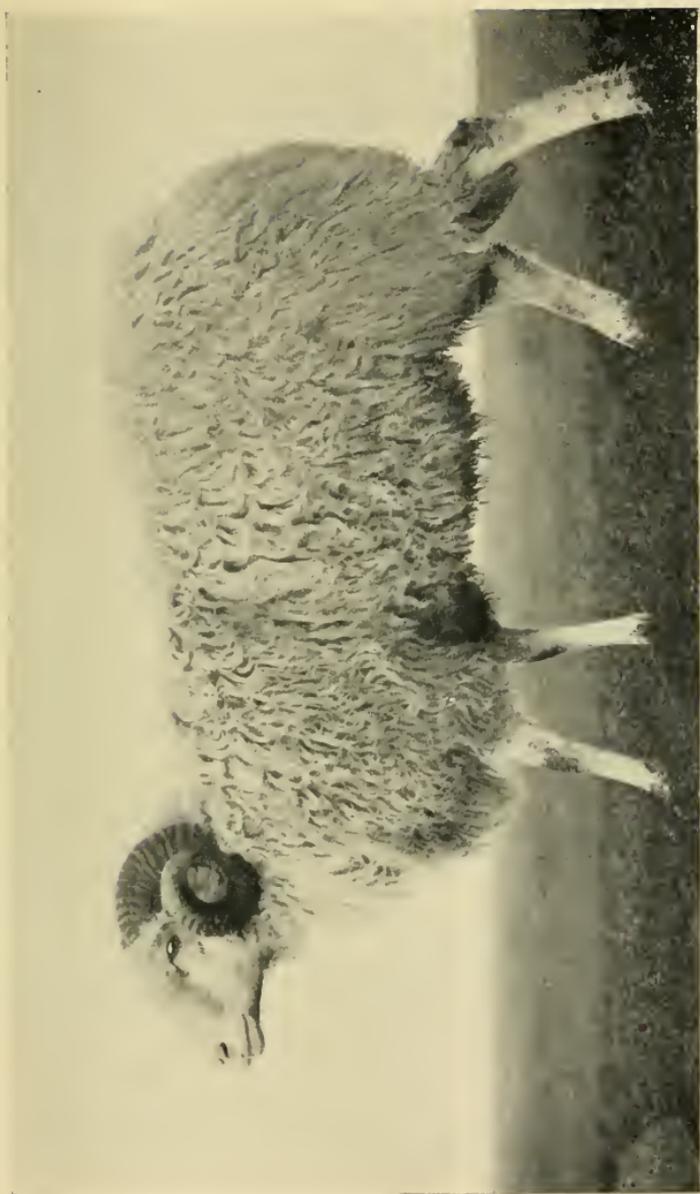
8.—*What Directions is Progress likely to take in the Future?*

**North Holland.**—In the places named in answer to the previous question the prospect of further extension is very great for the future; also everywhere where the land lies near a tramway\* or a railway.

**Groningen.**—The greatest change in our provincial agriculture will be in improving all the things mentioned in answer to the preceding question, and in improving the horses, cattle, sheep and pigs.

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\* TRAMS.—Trams—usually carrying goods, sometimes in a special waggon or waggons—go everywhere in Holland.



DRENTHE HEATH SHEEP (RAM)



PEASANT AND SHEEP (EWE) OF THE VELUWE

I believe also that the culture of special seeds for horticulture will be extended.

Our gardening must become more intense, and it is the Government's business not to make our progress difficult, albeit, I believe we should be able to keep up our export to Germany even in the face of a higher Tariff.

**Gelderland.**—There is the prospect of a better draining of the land in places, deeper working of the land, and greater use of artificials, and more technical instruction for farmers and horticulturists on the clay; dairy farmers are likely to give still more attention to breeding for butter fat, and with the sand farmers there will be a greater production of straw and potatoes. Horse breeding will also improve. On the clay this branch has had a good name for some time, but not on the sand. There, however, the farmers begin to import Belgian stallions. There will be more co-operative fruit and vegetable auction marts. The Government model gardens for showing the best way of producing fruit and vegetables will probably increase. In later years more and more large farms are divided into small ones, and, largely convenient to Germany as we are, there is a prospect of a further development of horticulture if we are not bothered with retaliatory action for this new Tariff the Government insists on giving us.

**Limburg.**—The small farmers will occupy themselves with horticulture, especially with growing vegetables, whereas the big farmers will be concerned mainly with cattle breeding.

The horticulturists just starting go in for open air "full soil" cultivation, but the older established ones are more and more going in for growing under glass. I don't think that in future any alteration will take place here.

**Zeeland.**—I don't know. One cannot tell with a Tariff hanging over us.

**Utrecht.**—Better cattle will give more milk. Cheese, made here on the farms, will be made in factories. Horticulture will be more to the fore.

9.—*Are Farmers and Horticulturists Prosperous?*

**North Holland.**—The farmers, cattle breeders and horticulturists are prosperous.

**Groningen.**—The average farmer is doing well; he is reasonably prosperous. But progress made has raised the cost of land to buy and rent. The landowners have profited the most by the progress of agriculture. So has the tenant farmer, of course, when he has had a long lease. As leases fall in, the rents are raised, and so almost all the profits of the prosperity have run or are running into the pockets of the landowners.

A young man who wishes to have a farm of his own has always to pay a high price or a high rent. The result is, as a farmer said to me, "he has ever a difficult and troublous life, except when the times are progressive."

The average horticulturist is doing well; I dare say very well. A little market gardening business yields a good living here.

**Gelderland.**—Yes. By the way, it is worth your notice that the man on the sand does better than the man on the clay.

**Limburg.**—The farmers and horticulturists are doing well generally; there are still some parts where the farmers are the victims of their conservatism.

**Zeeland.**—Yes.

**Utrecht.**—They are doing well, especially last year.

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In 1906 there was a Government Inquiry into the condition of agricultural labourers in the Netherlands. In connection with the Report issued, Mr. L. H. Mansholt, of Westpolder, a farmer, contributed to "De Nieuwe Tijd" (1910)\* the following budget of the expenses of an agricultural labourer with a wife and three children. It does not

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\* The monthly organ of the Social Democrats.

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correspond with the high prices of last year and this year, but I understand that its correctness for 1910 has not been impugned:

WEEKLY BUDGET OF AN AGRICULTURAL LABOURER FOR A WEEK

	f.		f.
House rent .. ..	1.	Brought forward	8.22
Fuel .. ..	0.50	Clothes .. ..	1.
Petroleum .. ..	0.27	Tobacco .. ..	0.20
Milk (f. 0.07 p. L.) ..	0.50	Contributions (church, or- ganisation, etc.) ..	0.15
Potatoes .. ..	0.75	Physician and fund for medical aid .. ..	0.15
Rye bread .. ..	0.52 <sup>5</sup>	Tools and repairs.. ..	0.10
Butter .. ..	0.75	Newspapers and writing materials .. ..	0.15
Coffee and chicory ..	0.30	Cleaning materials ..	0.02
American lard .. ..	1.37 <sup>5</sup>	School-money (particular school) .. ..	0.20
Washing necessaries (soap, soad, etc.) .. ..	0.15	Meat .. ..	0.00
Beans, groats, rice ..	0.50	Bacon .. ..	0.00
Sugar .. ..	0.25	Physician for the children	0.00
Vegetables (cabbage, etc.)	0.15	Books .. ..	0.00
Cheese .. ..	0.15	Amusement .. ..	0.00
White bread .. ..	0.20	Embellishment of the house .. ..	0.00
Meal, mustard, pepper, etc.	0.10		
Furniture .. ..	0.25		
Shoes and wooden shoes ..	0.50		
Carried forward..	8.22	Expenditure per week ..	110.04 (say—16s. 9d.)

Mr. Mansholt then adds the table—to be found on the next page—the information in the first three columns of which is derived from the Report of the Inquiry. In the fourth column he enters what he contends is the deficit in the annual budget of his labourer on the basis of his wages. As a matter of fact, of course, the man has no deficit at all. His income is supplemented by working in his own time—or as Mr. Mansholt argues, by over-work—and by the labour of his wife and children. I have no knowledge as to the degree to which Mr. Mansholt's conclusions have been accepted. It is well to remember in looking at the table that while the annual wage of the average farm hand in England and Scotland is nothing like £49 3s. 8d., that is the figure to which extras from his master of various sorts bring it up.

1 PROVINCE	2 Total wages yearly		3 Number of hours worked daily for that sum			4 Deficit in a small family yearly		OBSERVATIONS
	£ s. d.	£ s. d.	Spring and Autumn	Summer	Harvest time	£ s. d.	£ s. d.	
GRONINGEN—								
Zuid Westertwartier	20 16 8	25 0 0	...	...	...	22 10 0	12 1 8	<i>a</i> In winter there is about an 8 hour day.
Oldambt	25 0 0	31 5 0	...	8—9	12—14	12 1 8	18 to 19	3 4
Hunsingo	33 6 8	38 6 8	10—11	11—12	11—12	10 0 0	10 0 0	
DRENTHE (Sand)	16 13 4	30 0 0	10	12—14	...	13 6 8	8 to 27	1 8
" (Moor)	23 15 0	33 6 8	9	10	...	10 0 0	0 to 19	11 8
OVERIJSEL (Sand)	20 16 8	25 0 0	10	12—13	13—14	19 3 9	9 to 22	10 0
Elsewhere	21 13 4	33 6 8	12	13—14	18—19	10 0 0	0 to 21	13 4
GELDERLAND—								
Veluwe	...	About 20 16 8	...	<i>e</i>	<i>d</i>	...	About 22 10 0	0
Along the Rhine	27 1 8	...	...	...	...	16 5 0	...	
Betuwe	22 18 4	25 0 0	10	12—14	14	19 3 4	4 to 20	8 4
UTRECHT	16 13 4	33 6 8	10	11—12	...	10 0 0	0 to 26	13 4
NORTH HOLLAND—								
Noorderkwartier	33 6 8	41 13 4	10	12	14—15	1 13 4	4 to 10	0 0
North, from the North Sea Canal	25 0 0	50 0 0	10—11	11	14—15	7 0 0	0 to 19	3 4
South	29 3 4	50 0 0	10	12	...	7 0 0	0 to 14	3 4
SOUTH HOLLAND—								
Polders	33 6 8	41 13 4	10—11	14	...	1 13 4	4 to 10	0 0
Westland	25 0 0	33 6 8	9½—10½	11½—12½	<i>h</i>	10 0 0	0 to 19	3 4
Goeree and Overflakke	20 16 8	27 1 8	8—9	10½	12	...	...	
ZEELAND—								
Islands	20 16 8	29 3 4	9—11	10—12	...	14 3 4	4 to 22	10 0
Zeelandish Flanders	20 16 8	25 0 0	9	10	...	19 3 4	4 to 22	10 0
NORTH BRABANT—								
West Part	20 16 8	33 6 8	8—10	10—12½	13	10 0 0	0 to 22	10 0
Sand in the South	...	About 22 10 0	...	12	13—14	...	About 20 16 8	8
Mid and Eastern	...	About 22 10 0	...	12	13—15	...	About 20 16 8	8
LIMBURG...	16 13 4	31 5 0	9—10	10—11½	12—13	12 1 8	1 to 26	13 4

There is as yet no national old age pension or insurance system for accident or invalidity.

#### 10.—*Winter Courses*

**North Holland.**—28 winter courses for boys and 12 for adults, attended by 540 persons.

**Groningen.**—28 winter courses for young men not younger than 15, attended by 323 scholars, *i.e.*, 11 to 12 per course; and eight courses for adults not younger than 21, attended by 153 scholars, *i.e.*, 19 per course.

Seven winter courses in horticulture with 171 pupils, averaging from 24 to 25 per course.

#### **Gelderland.**—

50	courses for young men from 15 to 23	..	attendance	790
21	,, farmers more than 23	..	..	526
2	,, soldiers from farms in garrison..	..	..	46
2	,, young women (272 hours)	..	..	43
4	,, women (10 of 2 hours)	..	..	120
2	,, farriers .. .. .	..	..	24

The courses for young men are for two winters for about 300 hours. The courses for farmers are a dozen gatherings of two hours each.

**Limburg.**—For Limburg and north-east Brabant: 17 agricultural courses, and 13 elementary and 18 more advanced horticultural courses; number of pupils, 20.

**Zeeland.**—33 agricultural courses for lads (15 to 20) and 25 for farmers, the farmers' courses not being so long as those for the lads. Average attendance: boys, 10; farmers, 20. Also five horticultural courses, with an average attendance of 20.

**Utrecht.**—Eight courses, average attendance 15.

#### 11.—*Winter Schools*

**North Holland.**—One agricultural and one horticultural winter school. The students at the agricultural school number 36.

**Groningen.**—Two agricultural winter schools. The attendance at one is 67, at the other 33.

**Gelderland.**—One agricultural winter school with 43 students over 15. The lessons are given daily, with a total of 26 hours in a week.

**Limburg.**—One agricultural winter school with 30 students.

**Zeeland.**—One agricultural winter school, with 16 and 22 in the two classes. Term for each of the two years, end of October to middle of April.

### 12.—*Development of Co-operation*

**Groningen.**—Some 15 co-operative starch factories in the Netherlands deal with about two-fifths of the harvested potatoes, and 17 non-co-operative ones with about three-fifths. Of these factories there were, in 1910, seven co-operative and 17 non-co-operative ones in this province alone.

From the harvested crop of 1908 the five co-operative strawboard factories in the Netherlands have handled 217,500 tons of straw, and the 14 non-co-operative ones 166,500 tons.

Of these factories, in 1910, five co-operative and 13 non-co-operative were in Groningen and one co-operative one in Drenthe. All these factories are thus in these two provinces.

Nearly all manures are bought co-operatively.

**Gelderland.**—A great deal of artificial manure and feeding stuffs are bought co-operatively. Now and then, also, straw and coal. And, of course, stallions, bulls and goats. When the farmers or co-operative societies make purchases they can make use of the Government testing stations, and the prices paid generally depend upon the reports given. The same is the case elsewhere. The most important article manufactured and sold co-operatively, is butter. On the clay half the milk goes to the creameries; on the sand practically all the milk. About forty years ago farmers on the sand sold a great deal of corn. Creameries

have very much raised the quality of butter in the sand districts ; farm butter cannot be compared with it. Most of the sand farmers had in the corn-growing time too much land under the plough\* in relation to the available supply of manure. But then artificials came, and when we see what great quantities are used, we feel we are wrong in always saying that the farmer is conservative. With artificials he has made sand moors into fertile meadow, and bad meadows into good ones. The number of cows kept has become higher in consequence, and the farmer has also more manure from the cow house for the ploughed land, on which he can now cultivate beets and turnips, which are of great importance in feeding cattle well and cheaply. Almost all the creameries are co-operative. Now, also, no corn is sold ; all goes to the cow houses, and there is every year much feeding stuffs to be bought in addition. Pigs are an important stock here, and the prices of bacon go higher. Large quantities of fruit and vegetables are sold co-operatively at the three auction marts in the province. We have also a co-operative society for selling tobacco.

**Zeeland.**—Only artificials and feeding stuffs are bought through co-operative societies. There are sold co-operatively only sugar beets and sugar, fruit (apples, pears and soft fruit), eggs and vegetables.

In 1907 the farmers in Zeeland bought through the co-operative societies in the villages £142,500 worth of artificial manures. That means for every 250 acres arable land over the whole province more than £96. In 1911 the amount is much higher. Every village has its own society for buying feeding stuffs and manures. There are credit banks in most villages.

13.—*Is the Education of the Rural Population Superior to that of Germany?*

**North Holland.**—It appears to me that our education is of a higher order.

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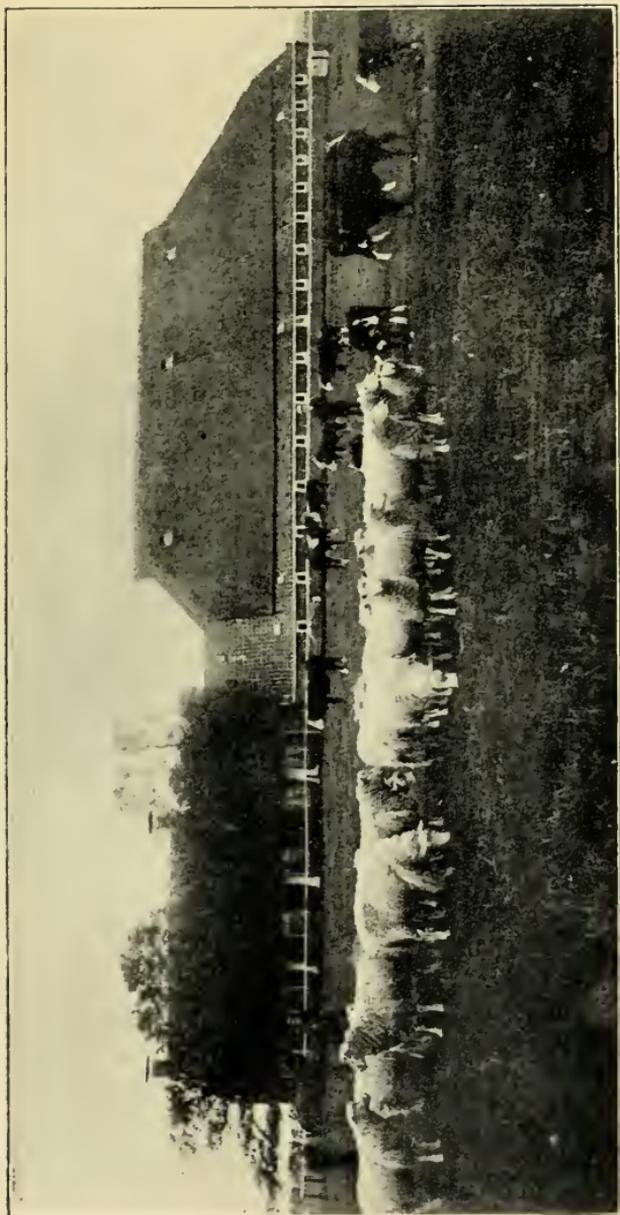
\* The phrase is the same in Dutch.

**Groningen.**—The difference between the education of our people and those of West Germany may not be perceptible, but the people of the eastern parts of Germany are much inferior in education to ours.

**Gelderland.**—Dr. Frost, after being two years in Holland, said he must take off his hat to the superior knowledge of our farmers, even the small ones.

**Limburg.**—Not much difference.

**Zeeland.**—About the same.



LINCOLNS ON A GRONINGEN FARM



STATE AGRICULTURAL EXPERIMENTAL STATION

The Seed Testing Department in this Building is shown  
in another Illustration

## CHAPTER XXV

### A RURAL PREDILECTION FOR FREE TRADE

There is occasions and causes why and wherefore in all things.—*Fluellen*.

**The Two Hollands.**—To the various causes of the prosperity of rural Holland it is now my duty to speak of the factor so repeatedly impressed upon me—Free Trade.

Among all the country people with whom I discussed the agricultural and horticultural Netherlands during my last two visits, there was not one, I believe, whom I did not press for his frank opinion on the question of Free Trade versus Protection. I now propose to set down a scrupulously fair sample of the statements made to me.

For the purposes of controversy, it is necessary to distinguish between Butter-cheese-vegetables-fruit-eggs-and-bulb-and-plant-exporting Holland, and Grain-growing Holland.

The men who produce butter, cheese, vegetables, fruit, eggs, bulbs and plants, and transport them, are unmistakably for Free Trade.

There are some grain growers who want, or have wanted, Protection.

The first-named class, which stands for most of the business done, is for Free Trade, first, because it pays, and, second, because any other arrangement seems unnatural. It is not easy to give an impression of the extent to which Free Trade is regarded as in the natural course of things.

**Views of Market Gardeners.**—“When you directly view our gardens”—I report verbatim the speech of a peasant president of a South Holland co-operative marketing society

—"you shall see how we use the products of your land at our cultivation. We make use of many English implements at our work. The hothouses are warmed by boilers from your land, and are burnt with English coal in the form of cokes. Where your land then takes our produce there is a change of products on a sound basis, profitable to both."

"Every land," said a market gardener in another part of the country to me, "has to product the things that it products the best. We don't want tariffs to make us product what it is not sensible for us to product."

A third man saw in tariffs only "higher wages, dearer houses, and counter tariffs, and for all the disadvantages no single advantage." "We must admit," he went on, "that one of the reasons of the success of our market gardening in the north-east"—he was a Groninger—"may be low money wages; other are canals and water, Free Trade, a good climate, good soil, and workmen of good education and character. Thus wages need not remain low, for when they shall be raised all the other advantages will remain with us, so we are still ready to compete with foreign countries."

A fourth opinion was: "Free Trade is the fair way; you can never harmonise a tariff to be fair to all in a country, but Free Trade is fair all round."

**The Farmers' Tonic.**—In Drenthe, which is not a province given to illusions about the realities of rural life, I was told that agricultural prosperity in Holland was due to "(1) artificial manure, (2) co-operative creameries, (3) co-operation in all ways, (4) the education courses in the winter, (5) the force of circumstances—we must, (6) Free Trade." On very few occasions did I ask for a list of the causes of rural prosperity in Holland—and I asked in all the provinces repeatedly—without finding Free Trade included.

In Overijssel someone said: "During the times when we had bad years, in other countries there were some farmers sleeping-rich, but we had to labour hard because of Free Trade not giving us a shelter, and that was good for us, because we learnt things that were good for us."

A Hollander who knows his country well said to me:

"Surely you see that only in a Free Trade atmosphere would our people have tried all sorts of things as they have done and become the efficient producers they now are."

**Germany and Holland.**—A cattle breeder in the Betuwe said that I must be aware that "because of Protection the German farmer is not so much developed." "Our farmers at one time," he continued, "went very much on the markets and drunk much, but Free Trade pulled them up; they work better now and do not sleep. Our yield over the whole country per hectare is double what it was thirty years ago. Other things have helped as well as Free Trade, but Free Trade much. The Betuwe is still too conservative, but we should become more conservative still if sheltered with a tariff."

"People must be Free Trade in Gelderland," runs my note of a remark heard in that province, "for they have to buy a great deal."

"Disastrous," was a fruit grower's word on Protection. "Everything would be much dearer," he said. "Surely," he went on, "the resolution passed by the Netherlands Horticultural Society, which has 18,000 subscribing fruit, vegetable and bulb growers, meant something?" He wanted to know why the Germans, with the same soil about Dusseldorf and the Rhine as he had, did not produce the fruit he sent to them.\*

I spoke to a man in the wholesale fruit and vegetable trade. "Agricultural Holland is prosperous," he said,

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\* **DUTCH AND GERMAN VEGETABLES.**—An expert in the Dutch vegetable trade with Germany said to me: "The German nurserymen say they cannot compete with ours, but this is not quite true, although in 1911, the German vegetables, owing to drought, were inferior to Dutch. If the Germans raised their duties in the dry years the Germans would pay the duties. In wet years the tariff would be unfavourable to Holland because the vegetables would be grown pretty well in Germany. Even in wet years Dutch gardeners might not be hurt much for Germany cannot grow enough for itself, so she cannot do without us. In any case the tariff must be to the disadvantage of the German people because the produce would be higher in price even in wet years. In Germany, during 1911, there have been many voices against the tariff because of the poor German vegetable crops. There is a demand in Germany for cheaper carriage."

“because of climate and soil, modest living and Free Trade. People say Protection benefits because it brings high wages. I knew labourers in one district of Germany twenty years ago. I have just been to that district again. They have higher wages, but they are not better off. There are factors in our cost of production which give us an advantage on the market, and Protection would do away with this advantage.”

**The Trade with Germany.**—A high authority on the butter trade spoke thus: “Six years ago, when we were sending Germany 20 per cent. of our butter, she put 10s. per cwt. on it. Freight, please remember, is lower to England than to Germany. What would the ordinary man expect to happen? Certainly not what did happen. We increased our export to Germany some 50 per cent.! Germany wanted good butter, and insisted on having ours. We sent it. Her people, not ours, paid the 10s. per cwt.”

A responsible agricultural official said: “The thing is in a nutshell; we prosper and have no Protection.”

Again, I have on my notes from somebody: “Free Trade, of course; we can buy where we like in the cheapest markets.”

Yet another man holding a prominent position in the agricultural world: “Our cabbage growers were afraid they would not be able to export to Germany. As a matter of fact, Germany now takes more of our cabbages than ever she did before the high tariff, and the German pays the difference.

I had the following question asked me again and again: “Without Free Trade how should we get cheap food for our cattle?”

“The duty imposed on our plants on the German frontier?”—I am quoting a big nurseryman—“Well, we don’t pay it.”

“Too late in the day to be Protectionist,” was the opinion of another man in the same trade.

“Free Trade makes,” said someone in Utrecht, “that we can buy the cheapest machines of the world.”

“The dry weather helped the anti-tariff propaganda,” was

a statement made to me in Limburg; "people saw the tariffs of Germany were paid by the Germans."

It was the same story right round the country. I never met a man belonging to the Butter-cheese-vegetables-fruit-eggs-and-bulb-and-plant-exporting Holland who was dissatisfied with Free Trade.

**Attitude of the Grain Growers.**—A word now as to the grain growers of, first, the arable north-east, and, second, the "Dark South" who want, or have wanted, Protection.

"Years ago," said one of the men I spoke with in the north-east, in Groningen, "our men round the Dollart saw higher prices got for grain in Germany by Protection, and wanted Protection too. There are not many now who want it. Most acknowledge that times are now very well for the farmer. Also the agricultural labourers have more voice, and see their bread and butter dearer if Protection came. The proof of the present feeling is that out of the 8,000 farmers of our province who belong to agricultural organisations of any sort, 5,000 are represented in our Groningen Agricultural Society, and it has passed a strong resolution against a tariff, although it is a society of men of all political views."

It was in Groningen, I remember, that we met our first Protectionist. But though we tried hard we could not make out the reasons for the faith that was in him. When we spoke of this to a farmer, whom I had understood was a Protectionist, he said, "After these good seasons you don't hear so much from Protectionist farmers; I am not at these prices a Protectionist."

A trustworthy informant threw some light on the grumbling of certain farmers. "Those farmers," he said, "who, in the cheap times, bought land which has now almost doubled in value, are obviously in a good position; but those who have bought at the present high figures, or who are tenants of farms the rent of which is based on what land now fetches, have a difficulty in making 4 per cent., after meeting expenses of living." It was possible, of course, my informant admitted, that some farmers were spending too much. Some had built very large houses. But,

he said, the thing for people to note, who were interested in Free Trade and Protection from an agricultural point of view, was the much better farming in Groningen than on exactly the same class of land across the frontier in Germany. The grit and the education of the people, along with the Free Trade on the Dutch side of the border, made a considerable difference.

"Free Trade," he said, "has made the farmer put thought into his farming; the farmers have done all they had it in them to do because they had to do it. As they could not have duties on their produce they had to do all that was possible to ameliorate their methods of production. Free Trade sharpened them. Look at the situation across the Groningen border in Germany. The German farmers are lax. They have the same soil and the same opportunities, but you find there quite another level of agriculture than ours. When prices were so low here we learnt to work. The Germans had duties, and did not, and so they suffered by them in their farming. But still they are not satisfied and want more duties."

**Lesson of the Strawboard Factories.**—I mentioned the allusion to 4 per cent. to a man in an exceptional position to know a large number of farmers. He asked whether 4 per cent., when the farmer had put down every conceivable item of expenditure, including his daughters' holidays, against the farm, was not well worth having.

"Have you thought anything about the strawboard factories?" he asked. "There were several in a particular district in Germany. They got their straw not only from their own country, but from Holland. In consequence of the high German import duties and the high cost of living in Germany every one of those factories is dead, and our Dutch factories have the trade and buy much straw from Germany! Protection does not enable a country to have the production of an article."

Often inquiring as I did for Protectionists, I was told one day in a different part of the country that, at a farm near, the tenant was against Free Trade. I found on visiting him that he was an elderly graint farmer whose system was

so out of date that a modern culture had already requisitioned some of his fields. When next I go to Holland I certainly expect to find that all his land, situated as it is, is to be put under fruit and plants.

**Action of the Dutch Agricultural Committee.**—I was assured by men intimately concerned that the Dutch Agricultural Committee, which may almost be ranked with our Royal Agricultural Society,\* would to-day pass in practically the same term the resolution to which it agreed in 1895, stating that “imports on corn would not bring agriculture into a sounder state because

1. It would slacken the energy of the farmers ;
2. A duty on a single product would drive agriculturists into corn instead of dairy farming ;
3. Protection would lead to more Protection, and not only to import duties for agricultural product, but on agricultural machinery, etc. ;
4. It is not proved that in Protectionist countries agriculture is better off than here.”

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\* The Dutch Agricultural Committee is a national federation, composed of representatives of different associations.

## CHAPTER XXVI

### THE WORKERS AT THE FRONTIER

**Testimony from Germany.**—It is unnecessary for me to transcribe further from my notes, for the whole question of the political position of the Dutch farmer who grows grain has been dealt with in the most cogent way in the most authoritative work on Dutch agriculture (“Agrarverfassung und Landwirtschaft in den Niederlanden”), written by a German specially appointed by the German Foreign Office to inquire into the subject, and published by the German Agricultural Society.

“If it were desired to help the Dutch farmers by imposing import duties,” says Dr. Frost, himself a strong Protectionist, “the only thing that could be done would be to put a tax on corn; the raising of a duty on corn would be an unquestionable advantage to farmers who sell grain in large quantities.” But this writer goes on to say:

The number of Dutch grain growers in the case of which the sale of grain plays a large part in their business is not great. Apart from the Groningen district, the moor colonies and certain polders in Friesland and Holland, the grain production in the Netherlands is inconsiderable.

But even where corn growing plays a comparatively larger role, success does not depend in any degree on the price of grain. Besides grain, there are simultaneously straw, potatoes, (“beets, peat and seeds,” interjected a high agricultural authority to whom I read the passage), and commercial produce for sale, forming a considerable part of the business.

No single farmer in the Netherlands can work his farm by means of corn growing alone. Those farmers who would gain considerably from a rise in the price of grain form a very small portion of the whole number of Dutch farmers.

It is certainly to be expected that with a rise in the price of corn, there would be an increase in corn production. Many a meadow would be turned again to corn growing purposes, and many a bushel of grain which is now used for feeding purposes, would be sent to market.

This return to corn growing would not, however be general or on a very large scale. Dutch agriculture has now been worked up to such an intensive degree that an increase in corn growing would mean the reverse of an increase in intensity . . . . . No one with any knowledge of the Netherlands can hesitate to admit that, judging as a whole, Dutch agriculture and its two sisters, horticulture and afforestation, are in a very satisfactory condition. . . . .

Under these circumstances it is easy to understand the argument of Dutch economists that a duty on corn might be the means of limiting the scope of Dutch agriculture.

The chief argument which has been raised against agrarian Protection in the Netherlands is that by raising the cost of food, the majority of the nation would suffer more harm than the higher price of grain could benefit the farmers.

**Prices of Food in Germany and Holland.**—Has not another German Protectionist written?—"In Holland one buys for 1s. 8d. as much as one gets in Germany for 3s."

But to continue my extract from Dr. Frost:

Thanks to the Dutch Free Trade policy, the prices of a number of the most important food stuffs are lower in the Netherlands than in Germany.

On the border between Germany and the Netherlands, labourers nearly always live in the Netherlands and go to work in Germany. One even finds whole villages which on account of the cheap food are on the Netherland side of the border, but all the inhabitants of which year in year out, cross the border to work.

**Movement of Workmen on the Frontier.**—I looked into this matter at several points along the frontier, and notably when at Enschede, in Overijsel.\* A firm which had a cotton factory there had got round the German tariff by building a second factory not much more than pea-shooting distance across the German border. Out of the 700 people working in that mill, 640 choose to come back into Holland every night to eat and sleep. More than this, nearly 4,000 Dutch people employed in German mills in the vicinity similarly return to Holland at night. The picture of that great stream of men and women pouring into Enschede and its suburbs after dark, on foot, on cycles, in the trams, or by "the *klompen* train," is one which is not easily forgotten. Between Enschede and Gronau (the

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\* See page 217.

German district just across the frontier) the Dutch village of Glanerbrug, with schools and churches, has come into existence in ten years wholly for the housing of some of the Hollanders who earn their wages in Germany, but see it is to their interests to spend them in Holland.

**Dutch and German Prices.**—Make all the allowances for other reasons accounting in part for that steady stream of workpeople into Holland every night; assume that these men and women are so much drawn to the place of their birth that they cannot bear to live even as far away from it as Gronau; note that their children cannot learn Dutch in the German schools, that military service is less attractive in the German army—I wish to take every circumstance into account: do all this and the following figures make it clear that it is the fact that it is cheaper to live in Glanerbrug than in Gronau which determines the migration across the frontier every night:

ARTICLE	COST AT GLANERBRUG*	COST AT GRONAU*
House hire per week .. ..	1.95	2.10
Water per cubic metre .. ..	.16	.095
Duty on income of 650 guilders and upwards .. ..	3.75	14.85
Potatoes .. ..	.03	.03
Wheatmeal per lb. .. ..	.09	.11
Wheat bread .. ..	.09	.10
Rye bread .. ..	.05	.08
Milk per litre .. ..	.08	.09
Margarine per lb. .. ..	.46	.42†
Pork .. ..	.36	.48
Beef .. ..	.42	.45
Bacon .. ..	.40	.54
Lard .. ..	.42	.60
Butter .. ..	.70	.72
Cheese .. ..	.16	.24
Sugar .. ..	.25	.15
Coffee .. ..	.60	.72
Tea .. ..	.90	1.30
Tobacco .. ..	.30	.78
Petroleum .. ..	.08	.12
Matches .. ..	.07	.15

\* Prices are in florins or guilders, 1s. 8d.

† Quality worse.



**FACTORY WORKERS WHO, THOUGH THEY WORK IN GERMANY, PREFER TO  
HAVE THEIR HOUSES AND BUY THEIR FOOD IN HOLLAND**

The crowd is coming across the frontier to Glanerbrug and Enschede. The photographs are taken within a few minutes of one another—as indicated by the cart standing opposite the German

Custom House. The bridge is the international boundary



VESSELS BUILT FOR GERMANY IN HOLLAND WITH  
GERMAN STEEL, ETC.

Schooner by Messrs. Bos. Tug by Messrs. G. & H. Bodewes.  
Motor schooner by Messrs. Niestern. (*See page 289*)

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ARTICLE	COST AT GLANERBRUG*	COST AT GRONAU*
Doctors's help per member ..	1.00 ..	2.70
Chemist, per year .. ..	1.60 ..	2.40
Bricks, per thousand .. ..	12.00 ..	13.00
German iron .. ..	7.31 ..	7.86
Engines and machinery ..	12 $\frac{1}{2}$ % less than Gronau	
Factory per unit of cost ..	25.00 ..	29.50
Working cost to a Factory :—		
German coals .. ..	4 % lower than in Gronau	
Repairing .. ..	12 $\frac{1}{3}$ " " "	
Leather, per 100 kilos ..	f. 30. " " "	
Packing paper .. ..	f. 0.75 per 100 kilos cheaper in Holland	
Engine packing .. ..	f. 27. " "	
Oil .. ..	f. 4.20 " "	
Interest on money borrowed ..	15 % lower than in Gronau†	
Depreciation .. ..	15 " " "	†
Profit on articles sold .. ..	50 " " "	
Freight, per 100 kilos ..	25 " " "	

**Views of a Manufacturer on the Frontier.**—I had an interesting talk with Mr. B. W. ter Kuile, principal of the firm which has a factory on each side of the frontier, and he vouches for the correctness of the above figures. He said a mill costs 15 per cent. more in Germany than in Holland, and as the difference between Continental prices for export is very small, the additional expenditure entailed on a cotton manufacturer in a Protectionist country is enough to give the advantage to Holland and Great Britain, seeing that they sell for a small margin. Being fresh from an international cotton conference, at which eighteen countries were represented, he had all the latest comparative figures at his finger ends. He said that his German mill had no advantage over German competitors in the vicinity in the matter of low-priced labour, for there was competition between them for the labour. Dutch weavers had 60 per cent. of their yarn from England, "because you can work cheaper than Protectionist Germany." He drew attention to the fact that Free Trade enabled an agricultural country like Holland to have 35,000 looms to a population of 6,000,000. England and Holland had more looms per

\* Prices are in florins or guilders, 1s. 8d.

† With higher building costs.

1,000 inhabitants than the Protectionist countries. Dutch weavers, through being able to buy their raw materials cheap, could compete in supplying the cheap articles consumed by the masses in the Far East.\*

The reader will observe that I have only been led so far into what is largely a commercial subject because of Dr. Frost's demonstration of its close relation to the question of Free Trade for agriculture. My inquiries leave no room for doubt that those who wish to go farther into the matter, and seek information at Maastricht, Roermond, Sittard, or Venlo (in the province of Limburg), and at Elten and Zevenaar (Gelderland) will find, as stated by the German authority on Dutch agriculture, that, at a number of points along the frontier, there are "whole villages on account of the cheap food on the Netherlands side of the border."

As to the argument that the German system must be the best because people living in the Free Trade country get their employment in the Protected one, the answer made to me was as follows: "This is not to say that there is not plenty of employment in Holland. Look at the flourishing of Enschede and Tilburg. Look at the fact that while German agriculture has to be helped by foreign labour, we import none. All that the movement across the frontier means is that a limited number of work people are fortunate enough to receive the higher German wages and to be able to spend them in the cheaper country. You should not fail to take note of the fact that the real progress of the cotton industry dates from the establishment of Free Trade."

About 40,000 Dutch workpeople earn their living in Germany. "Protectionists who think this an argument for Tariffs," I recall Mr. ter Kuile saying, "should remember the half million foreigners from protected countries working in Westphalia. But their presence has not really much to do with Free Trade or Protection. Rich coal and iron

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\* The following data were obtained by me as an ordinary visitor to the mill and before I had met Mr. ter Kuile. Wages, men, 28s. and 21s. ; women 20s. and 16-17s. ; boys and girls, 10s. Boy and girl half-timers are admitted at 13 and 14 years respectively. Each half day they must have at least a quarter of an hour in the open air. Adults' time off for meals, 2 hours.

deposits, enterprising capitalists and up-to-date banks all help towards providing more work than in less happily situated countries. In any case Protection cannot do the harm it would do in a country a tenth the size. We have to keep our costs low. How would it be in Germany if all its States and provinces had tariffs one against the other?"

**A Dairy Expert's Views.**—This inquiry as to the attitude of the man on the land to Free Trade may be concluded with the following passages from a letter from one of the heads of the Dutch dairy industry :

" I have thought about this all my life, and I have had many opportunities of studying the question here and abroad. Is it not the case that the average brain and capital available for commercial and industrial purposes—a part of the brain and capital of a country is of course devoted to art, science, etc.—will under Free Trade be put to the most economic use? Under Protection, on the other hand, may not part of it be expected to be artificially lured into a less remunerative channel to the detriment of things that would have been better worth attention? For instance, some time ago in South Africa it was proposed to put a duty on rennet, so that it could be made out there. When it was shown that to make rennet would deprive the country of valuable calves it was realised that it might be advantageous rather than disadvantageous to buy foreign rennet.

" In Holland we once nearly killed our herring industry by too much coddling. The Free Trade system permits capital and intelligence to go to the industries which are most likely to reward our efforts. While under Protection we might be unduly fostering some industries, other desirable openings might be overlooked.

" It may well be that England, a country with plenty of coal and iron, is right in keeping manufactures to the fore. It is not for you, like us, to throw the most of our industrial energy into agriculture. In our country, nature requires of us that agriculture shall be our greatest industry, and I am sure that it is impossible to find instructed men in Holland, men who really know what our farmers and horticulturists are doing, who believe that the working of the land is other than prosperous or that it is in any need of Protection.

" When Englishmen consider what is done on the land in Holland and what is done on the land in England, they have to beware of false analogies. What we may do is not necessarily what you should do. In your position we should do very probably very much what you do. There may be, or may have been lessons to be learnt by your agriculturists over here, but the greatest of all that they have now to learn from us is that agriculture and horticulture have flourished and do flourish with us without Protection in geographical and social conditions not unlike yours."

## CHAPTER XXVII

### THE INTRODUCTION OF THE TARIFF BILL

**Is Holland a Free Trade Country?**—The impartial reader will agree, I think, that the fairly collected evidence in the preceding chapters of this book appears to establish two facts:

1. That agricultural and horticultural Holland is prosperous, and
2. That it does not ask for Protection.

But, if this is the actual situation, how does it come about that the Dutch Government has introduced a Tariff Bill, and that there is at least some chance of its passing into law?

I shall endeavour to meet the open mind which the reader does me the honour to bring to the perusal of these pages with as candid an account of the situation as I am capable of.

Is Holland a Free Free Trade country?

I was once assured in writing by a prominent and responsible English Tariff Reformer that it is not. It imposes duties, I was told, "not only for revenue, but for Protection."

There is every excuse for misunderstanding. British Protectionists and Dutch Free Traders alike are loth to see a country which is not technically a Free Trade country posed as a genuinely Free Trading one. Dutch Free Traders, in their desire to see a purely Free Trade system in operation, have sometimes styled the existing state of things a "slightly Protective" system.

**The Facts of the Case.**—The facts are simple enough.

Admittedly, as a result of an increasing disbelief in Protection—agriculture and industry were alike suffering—the Dutch tariff was reduced by stages in 1862 and 1877.

Since 1877 it has not been touched. It imposes on partly finished industrial goods a duty of only from 2 per cent. to 3 per cent. of the value, and on manufactured goods a duty of not more than 5 per cent. ; but all the prime necessities of life, including grain and flour, and most raw materials for agricultural and industrial purposes are imported free.

The only things to eat or drink enumerated in the list of "principal imported articles" on which duty is payable (page 300 of the State "Year Figures"), are honey, confectionery, dried fruit, nuts and spices, meats,\* tea and intoxicants. Jams, marmalade, syrup, treacle, sugar, dried and preserved fruit, chutney and condensed milk, tea and intoxicants, are, of course, all mulcted by our own Customs.† With regard to the Dutch duty on fresh, dried and salted meats, as mutton and pork come in free, and the whole income from fresh, salted and dried kinds together is only £1,600—the import is 384 tons against an export of 35,400 tons—it is no great matter. On the other hand, coffee and cocoa,‡ on which we levy duty, are admitted free, and manufactured tobacco comes in at the nominal rate of 10s. a hundredweight. What is foregone by this free admission—or admission at a nominal rate, in the case of tobacco—may be estimated from the fact that our own Customs receives £14,000,000 from these articles. It may be added that the Excise in the Netherlands is levied on beef, salt, sugar and intoxicants. The Dutch are as near a "free breakfast table" as we are.

To sum up, whatever benefit Dutch manufacturers may or may not receive from the Customs it is plain that agriculture and horticulture have nothing to thank it for, and

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\* "Because," as a correspondent writes, "there is an excise duty on all cattle slaughtered for food." But not on swine.

† The list on which we levy duties occupies eighteen double columns in "Whitaker."

‡ CUSTOMS DUTIES IN GREAT BRITAIN, A "FREE TRADE" COUNTRY : Jams, marmalade, etc. 1s. 4d. per cwt. ; molasses up to 1s. 2d. per cwt. ; sugar 1s. 10d. per cwt. ; fruit up to 7s. per cwt. ; chutney and condensed milk 10d. per cwt. ; tea 5d. per lb. ; wine up to 3s. per gallon ; beer and spirits up to 15s. per gallon ; coffee and cocoa 2d. per lb. ; tobacco up to 7s. per lb.

that the farmer, the market gardener and the nurseryman are justified in regarding their country as Free Trading.\*

No Dutchman has any other idea than that the Netherlands is a Free Trade country.

The duties at the ports are almost negligible. The highest import leviable only means that an imported umbrella, worth a sovereign, pays a shilling. (The rate is  $2\frac{1}{2}$  per cent.). The component parts of an umbrella pay 5 per cent., which, as a Dutch economist said to me, sufficiently shows that the protection of manufacturers was

\* IS THE DUTCH GROWER PROTECTED AT COVENT GARDEN?—I have heard it suggested that the Dutch grower who sends his produce to Covent Garden is, in effect, protected because he has cheaper carriage than the English growers who compete with him. I have looked into the matter in Holland, and, with the kind assistance of the railway managers in England.

Here are typical rates per ton for typical produce on English railways—asterisked figures are for over a ton.

Railways	Miles	Apples and Pears	Ripe Fruit	Gooseberries	Vegetables
		s. d.	s. d.	s. d.	s. d.
G. E. R. ...	154 (Ely—Manchester)	{ 22 11 21 8*	{ 34 2 {	{ 26 8 25 10*	{ 26 8 25 0*
L. & S. W. R.	250 (Plymouth — London)	{ 24 7 22 1*	{ 32 6 29 2*		{ 25 10 21 0*
G. W. R. ...	150 (Cardiff—London, 156).	{ 25 10 23 4*	{ 34 2 30 10		{ 25 10 23 4*
	300 (Penzance — London, 325).	{ 28 9 26 3*	{ 38 4 35 0*		{ 28 0 26 3*

These rates seem to cover collection and delivery within a reasonable distance.

The Dutch market gardens nearest to Covent Garden are those in the Westland. I was told there that soft fruit, tomatoes for instance, were delivered at Covent Garden for 47s. 6d. per ton, onions for 36s. 3d., and potatoes for 34s. 3d. In Brabant the figure given me for strawberries was 65s. The cherries of Limburg and the Betuwe pay 75s. 3d. and 69s. 6d. respectively, but this is for 5-ton lots. Apples and pears can be got to Covent Garden for 49s., but this is also for 5-ton lots and by slow train. On these comparative figures it is certainly difficult to see where the English grower has any grievance. The Dutch produce has to be longer on the journey than the English produce and it has to stand transshipment from railway to steamer and from steamer to railway. Even had it an advantage from the rates charged, this would not be unfair because, owing to co-operative marketing, a large proportion of it is put on rail and steamer in big consignments.

never the object of the tariff.\* The total Customs receipts were, in 1908, no more than 7.28 per cent. of the total income of the State. (In the period of 1845-50 they were 9 per cent. annually.) They were, in fact, less than a million a year, against Customs receipts in our case of twenty-nine millions.

The Dutch Customs do not give Protection in any effective sense, for this reason, that, in Holland, it is not by the home market that the people on the land, the people in factories, the crews of the canal steamers, and the clerks and dockers of the ports get their living. Dutch agriculture, Dutch horticulture and Dutch industry are working chiefly for export.

**The Various Tariff Bills.**—A Tariff Bill is not heard of for the first time, however, in Holland. An earlier proposal by the Kuyper Ministry (the Harte law, with which some play was made by British Tariff Reformers during our General Election of 1905) was introduced only to be speedily abandoned. It was followed by the plan of Minister Kolkman to increase existing duties by 30 per cent. This was also abandoned; and an Official Report of the "very Conservative" Upper Chamber stated that it had been "noted with much pleasure" that the Government had withdrawn the plan, also that the Finance Minister alluded to "the happy circumstances which made it possible to take back the proposal."†

In the Speech from the Throne in the autumn of 1910, the present Heemskerk Ministry undertook to formulate

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\* It is possible to argue, of course, that when, as is the case nowadays, commerce and industry are based on the principle of small profits and quick returns, even the most moderate duty may have a Protective effect. In 1862 and even in 1877, a duty of 5 per cent. was not considered to be any barrier whatever against imports; nowadays even a smaller duty may have an appreciable effect.

† The existing tariff being an old one, is now, as a merchant said to me, "full of injustices." "These we can stand so long as the tariff remains low. But to increase by 30 per cent. would make it unbearable. The duty of 5 per cent. on some articles would be raised to 6½ per cent. while other articles of the same character would be admitted free. The Bill had no chance of passing."

another proposal of Tariff Reform, but the admission in the Royal Speech that "the state of agriculture and horticulture cannot be called unsatisfactory," clearly shows that, for whatever purpose it was brought forward, it could hardly be proposed in the interest of agriculture! And it is with the relations of the Man on the Land to Free Trade that this book is concerned.\*

Last year, on April 1st, the promised Bill was formally produced. The proposed measure has not only a fiscal but a Protectionist character, because, as a Free Trade leader said, "the object is to fill the empty coffers of the State and to give Protection to *national industry*."

**What the Last One Proposes to do.**—The "Tarief Wet" may be conveniently referred to in our own Board of Trade's fivepenny translation, in which the list of 429 articles enumerated extends to 38 foolscap pages. It will be sufficient here to summarise an impartial account of the Bill which appeared in the City pages of the "Times" (August 2nd, 1911):

#### THE RANGE OF DUTIES

In the explanatory memorandum attached to the Bill it is stated that, gladly as the Government would embrace the principle of Free Trade, they nevertheless consider that the pursuance of this ideal cannot but lead to the stagnation and retrogression of Dutch industry. Home manufacturers are held to have suffered, although the supporters of the new tariff do not deny that of recent years considerable industrial progress has taken place—and in the classification of duties the desire to assist the Dutch manufacturer has played a large part. Though secondary to the fiscal aims of the project, protection is, therefore, none the less an intrinsic part of the scheme. At the same time the farmers—somewhat paradoxically perhaps—insist that it must not be regarded as a step "in a direction which must lead to a commercial policy such as is at the present moment applied throughout almost the whole world"—namely, the restriction of foreign goods. The rates which have been fixed—the *maximum ad valorem* rate is 12 per cent.—are, it is believed, sufficiently low, on the one hand, not to make impossible the importation of articles from abroad, and, on the other hand, not to favour the formation of rings and trusts at home. Further, it is hoped that the tariff, as revised, would form a more effective weapon in the hands of

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\* Later on, however, I shall deal as far as is necessary with the commercial and manufacturing aspect of Free Trade in Holland.

the Dutch Government for negotiation with foreign countries or, if necessary, for retaliation.

As compared with the tariff in force at present the revised tariff would raise the *maximum* rate from 5 per cent. to 12 per cent., and would increase largely the list of dutiable imports. It must, however, be borne in mind that the project is still in its initial stage, that it is meeting with great opposition, and that, even in the event of its acceptance, many modifications—and not least in the method of rating—are to be expected.

#### THE SYSTEM ON WHICH THEY ARE IMPOSED

Generally speaking, the principle on which the classification is based is that raw materials are to enter free, while manufactured articles are to be subject to duties varying in accordance with their degree of completion. Not only raw wool, cotton, ores, coal, hemp, flax, corn, skins, and timber in the rough come under this heading, but also casting metal, sheet iron, salted hides, sawn timber, and paper pulp.

For semi-manufactured goods—*e.g.*, planed wood and rough metal castings—the lowest rate is 3 per cent. to 6 per cent.

In the next category, for which a duty of 10 per cent. is provided, fall what are termed “mainly manufactured articles,” in so far as they are not suited for immediate use, but still require further preparation—*e.g.*, doors and chassis of motor-cars.

Finally, wholly manufactured goods, ready for immediate and independent use, are subject to a duty of 12 per cent. For machinery, implements and parts of machinery, however, which have hitherto, for the most part, entered free, the highest rate mentioned in the new tariff is 6 per cent. A difference is also to be made in the rates for finished articles according as whether they are packed for retail sale or not. Thus for colours the rates are 12 per cent. and 3 per cent. respectively.

#### FOODSTUFFS

The principle of the free admittance of raw materials has been, in general, likewise adhered to with regard to articles of food. Thus corn, rice, coffee, and cocoa in the natural state, crude salt, fresh and salted fish, fresh vegetables, and live cattle are not dutiable. On the other hand, the existing rate on meat, on which an excise is levied, is maintained, and the duty of 4d. per cwt. on flour from cereals, which was in force up to 1877, has been replaced. While milk will continue to enter free, a duty of 8s. 5½d. per cwt. is fixed for butter and margarine, while that for cheese is raised from 4s. 2¾d. to £1 1s. 2d. per cwt.

#### TRADE AND FOREIGN COUNTRIES

The cities of Holland are, above all, commercial centres, and therefore trade interests cannot be disregarded. For this reason the existing duty—or absence of duty—will be maintained with regard to leaf tobacco and coffee respectively, for both of which articles the Netherlands have become one of the principal markets of Europe. But while

leaf and roll tobacco will continue to pay, as heretofore, a duty of 7d per cwt., that upon cut tobacco, cigarettes, and cigars will be raised. In the case of certain fruits, such as oranges, lemons, figs, and currants, the fact that there is a considerable transit trade in those goods necessitates the maintenance of freedom of movement and, consequently, low rates;—although, not being necessities, they might be taxed as luxuries.

The measure only concerns the mother country. The rates of import duties in the Dutch colonies would be in no way affected by its acceptance, nor would any Colonial products as might be subject to duty be granted in preference.

**Criticism of the Measure.**—But why bring forward a measure of Tariff Reform at all (1) when the preponderating industries in the country say they do not need it, and, (2), when the reception which the measure will receive—see, for example, the following extract from the “Times” article already quoted—is in some doubt?—

An outcry is being raised that the increased duties upon manufactured articles will inevitably harm the trade of Holland. Those who fear that their interests will be adversely affected do not appear to share the optimism of the Tariff Reformers, who profess to believe that any decrease in the importation of finished goods will be compensated by the increase in raw materials.

In the forefront is placed the objection that the cost of living must necessarily be increased, since the cost of production in consequence of the duty on semi-finished articles will rise. Home industries, the opponents affirm, are well able to take care of themselves, as the progress which has been made of recent years proves. Further, it is pointed out, if revenue is the real object of the revision, either the Exchequer will benefit, in which case Dutch manufacturers will be where they are at present, or home industries will profit, in which case the required revenues will not be forthcoming.

“The real object of the revision” shall be discussed in the next Chapter.

## CHAPTER XXVIII

### WHY?

**Social Reform.**—There are two reasons why the measure has been introduced:

The first is that, as someone put it to me, “politics in the Netherlands has the unsound basis of religion.”

The second is, the Government is hard pressed to find money for the long promised and long over-due social reforms—old age pensions and the like. Of the total revenue from the proposed tariff, estimated at about £1,910,000—compared with the £1,100,000 produced by the present system—£708,333 is ear-marked for meeting “expenses arising from legal measures for granting pensions to workmen.”

**Politics and Religion.**—The Netherlands are so closely associated with Protestantism in the mind of the average Briton that it is very easy for him to forget a basic fact of Dutch politics, that two out of every five persons in the kingdom are Roman Catholics.\* During my last visit to Holland I was only twice offered a paper in the street (Dutch people obtain their papers by subscription or at kiosks)—one was the Dutch Salvationist “War Cry” and the other was a popular Roman Catholic journal.

There is to be found in the Netherlands an extraordinary product of political mechanics, and a strange spectacle indeed for the shades of the Reformers, a Clerical Government kept in power by a coalition of Protestant Orthodox and Roman Catholics! (The Protestant Orthodox are in

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\* The author of the “Jansenist Church in Holland” (1858) was rash enough to prophesy that by 1900 the whole kingdom would be Roman Catholic

two parties, Dr. Kuyper's "Anti-Revolutionaries" and Jonkheer Savornin-Lohman's "Historical Christians.")

A Government on such a basis is not likely to exhibit an eagerness to make the comfortably off contribute directly to the solution of social problems. The Opposition would make them contribute by means of succession duties and an increased income tax.

The Progressives are in Opposition because they are split up into three kinds of Liberals and two sorts of Socialists. Dr. Kuyper has boasted that a Liberal Government will not be seen in Holland for a generation.

**Politics in the Chambers and the Country.**—The Government faces the Opposition with 59 votes against 41 in the House of Commons (*Tweede Kamer*, Second Chamber)\* and 32 against 18 in the Upper Chamber (*Eerste Kamer*, First Chamber). A General Election for the House of Commons will not take place till 1913.

A distinguished publicist in Holland once told me that there are no Conservatives in that country. That is, of course, apart from religion. The attempt made a few years ago to form a reactionary party failed conspicuously. In a "country of educated people," as the Netherlands has been aptly called, in a country with freedom in its bones and marrow, everybody is a Liberal of some sort. (For that matter, where are the real Tories in England?) Religion apart, Hollanders are only divided, as the editor of the "*Nieuwe Rotterdamsche Courant*" has written, "concerning the means by which the established freedom of the citizens is to be strengthened and developed."

The real difference between the Right and the Left is, then, a religious difference.

**A Struggle over Schools.**—It came about through that religion-in-the-schools controversy, which seems to have plagued every civilised nation. Church and State had been completely separated in Holland. To a country which had

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\* Of the 100 members, 9 are elected by Amsterdam; Rotterdam sends 5, The Hague 3 and Utrecht 2. All the other constituencies have one member apiece.

suffered so much in past ages from warring creeds, a policy of thorough seemed the only right one. And for a time the land had peace. Soon, however, the organisation of public instruction on the basis of an efficient social teaching, inoffensive to all beliefs, became the object of denominational animosity. Orthodox and Roman Catholics eventually proceeded to set up their own schools. But as they had to keep them going, the number was limited. A demand for State endowment of denominational schools inevitably followed. And for many years Dutch politics was a fight over "Godless" schools and the other kind. At length the Orthodox and Roman Catholics, banded together for denominational schools, prevailed at the polls, and subsidies for non-State schools were obtained.

**The Rally of the Orthodox.**—The political alliance between the Orthodox and their religious adversaries had been so serviceable that there was a natural reluctance to abandon it, or, at any rate, entirely to abandon it. It suffered severe strains from time to time, but it survived in varying degrees of effectiveness. Then came the evangel of Dr. Kuyper. In 1901, that able ex-parson and ex-divinity professor, fervid political orator, wily Parliamentarian and editorial preaching friar, loudly summoned all religious people, Protestant and Ultramontane, to the common banner of Faith and Revelation, there to make an electoral stand against a "Pagan," that is a Liberal Government! The voice was heard, and the "true Christians," the anti-Papal and the Papal, possessed themselves of the Ministerial armchairs at the long green table in that plain little Chamber at The Hague where laws are made to be counter-signed by "Wij, Wilhelmina, bij de gratie Gods, Koningin der Nederlanden."

**Political Parties.**—It is true that at the General Election of 1905, the Progressives, helped by the Clerical Government's angling with Protection, returned 52 members, including seven Socialists, against a Religious *bloc* of only 48. But they could not command a working majority, and gave up the struggle in 1908. In the election

of 1909—the country goes to the polls every four years—the figures were :

Anti-Revolutionary (Anti-Revolutionair) .. ..	21
Historical Christian (Christelijk Historisch) .. ..	12
Roman Catholic (Katholiek) .. ..	26
	<hr/>
	59
	<hr/>
Old (or Free) Liberal (Vrij Liberaal) .. ..	4
Liberal Unionist (Liberale Unie) .. ..	21
Free Democrat (Vrijzinnig Democraat) .. ..	9
Socialist (Sociaal Democraat) .. ..	7
	<hr/>
	41
	<hr/>

Briefly, the Old Liberals may be distinguished by their pronounced individualism. The Liberal Unionists and the Free Democrats realise the disadvantages under which the people labour owing to their exceptional economical dependence, and believe that the intervention of the State is necessary for the economically weak to have their full chance of development. The Free Democrats are the old Radicals, and were the section of the Liberal party which first favoured universal suffrage as a means of giving to all classes a share in the government of the country.

But it must be borne in mind, as I said before, that Liberalism of sorts is the wear of most Dutch politicians. Among the Clericals there are, along with extremely Conservative Liberals, not only some strong supporters of social reform, but some adherents of universal suffrage. On the cardinal point of the association of Religion and Politics,\* however, the Right is firmly united against the Left.

\* "I know on good authority," writes a correspondent to me, "that under the present Government, high officials (provincial governors and cabinet ministers) openly put two questions to candidates for Government posts: (1) Do you belong to the Church? (2) Do you go to church every Sunday? As there is no Established Church in Holland, 'the Church' must be the Church of the party now in power."

The fact that an Orthodox correspondent occupying a responsible position writes that this is "not true," and another correspondent who also occupies a responsible position, but is not Orthodox, writes:

It will be seen then that when a Government, entrenched as the Clerical Government is entrenched, introduces a Tariff Bill, it is apparently in a position to pass it into law.

**Protectionist Malgre Lui?**—Why should it do so?

In the first place it is to be assumed that the Bill is, in part, an honest attempt to find in indirect taxes the money necessary for social reform. The Clericals' political economy may be sound or unsound, but the Ministry is clearly in need of money. If it has no stomach for raising it by the Progressive prescription of a succession duty and a higher income tax, it must get it some other way. And there can be no doubt that the nation demands that money shall be spent on social reform. The Government represents itself, with some truth, as Protectionist against its will. It is not so much a belief in tariffs as the needs of an exchequer, intent on ameliorating social conditions in a particular way, which have produced a Tariff Bill.

**Position of the Roman Catholic Church.**—But there can be no doubt that behind the Bill there is some real Protectionist feeling.

The Roman Catholic Church, which has so strong an influence in the Ministry, has toyed with Protection. Especially in the more easy-going and backward,\* and largely Roman Catholic part of the southern Netherlands, bordering on Belgium, where a considerable amount of corn

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“Yes, this is perfectly true, and it is a shame for our country, which exports freedom on a large scale,” will illustrate for the sympathetic reader the difficulties of a foreign author who desires to be impartial! I may say that I had my information from a relative of the candidates concerned; but that Official Holland is largely Church-ridden or Church-ridden at all no one in his senses believes.

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\* A Roman Catholic correspondent says this is “not just,” and I will substitute “less progressive.” If the South is not the most progressive part of the Netherlands, no one who knows it can deny that an enormous amount of hard work is done there. To the rest of the Netherlands most of the country south of the Maas is usually “the Dark South,” “the Dutch Ireland,” and so on. But such phrases, and such a phrase as “poor Drenthe,” are sometimes used by people unconsciously influenced by the old provincial jealousies, and

growing, in competition with more favourably situated countries over sea, has survived after the more enlightened part of the agricultural population has abandoned it, or cut it down heavily, there was, until prices improved, a marked desire for Protection; and it has not yet been entirely extinguished. The Roman Catholic Church went with the political inclinations of its flock. A popular explanation I met with was something like this: "The Roman Catholic religion is an expensive religion, and the priests do not want more taxes, particularly succession duties. One cannot overlook the fact that with a Clerical Government firmly in power and posing as the farmers' friend, there is a *quid pro quo* that the Church might ask in a country in which Roman Catholicism has been somewhat held in check by the two-thirds of the population which are outside the Church. But with agriculture and horticulture as prosperous as they are, the demand for Protection in the corn growing districts is not at all what it was, and it is on the plea that a *little* Protection would be good for *shopkeepers and manufacturers* that the Clericals' argument for a tariff is almost wholly based."

But as a well-known commercial man, with connections all over the country, said to me: "Even an informed Dutchman finds the question difficult. No doubt the southern provinces felt the effects of the Belgian, French and German tariff walls. For two reasons. There is their geographical situation, and there is the fact that cheap water communication with the rest of Holland is not so well organised in the south as elsewhere. But, as manufactures are also a great interest in the south, competition with Dutch corn cannot have been the only influence in promoting tariff propaganda. I attach more importance to the self-interest of the wealthy and influential manufacturers of the southern provinces, who are Protectionists and would lead the clergy their way."

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knowing no more of their "Ireland" than some of us know of ours. The words read harshly, and may give a false impression to those who are unfamiliar with the gallant efforts now being put forth in the backward provinces, backward chiefly owing to conditions for which they are only in a degree responsible.

## CHAPTER XXIX

### HOW DOES COMMERCIAL AND INDUSTRIAL HOLLAND FARE?

**Agriculture, Commerce and Industry.**—One of the best known statesmen in the Netherlands, himself a bulwark of the Tariff Reform Government, assured me most positively, twice over, that "*agriculture does not require any State help* from Protection"; but the reader will agree, I think, that it is unnecessary to add one word more on this branch of the question.

As to factories and shops, it is out of place in a book which is concerned with agriculture and horticulture, to devote more space than is absolutely necessary to industry and manufacture, particularly when, as we have seen, it is neither industry nor manufacture but the cultivation of the land and foreign trade which Nature and Art have made the preponderating interests of the Netherlands. The industrials who need iron and coal in a country which contains practically no useful iron and only a few pits of awkwardly placed coal, stand on another footing from those producers whose chief raw materials are soil from which to raise their crops and waterways by which to market them. The soil is below the cultivator's feet; the waterway is at his back door.

When we look at the case of the industrials and shopkeepers in Holland we see that their success must be, to begin with, bound up with the prosperity of the farmers and market gardeners. They depend on them for cheap food, and, as a prosperous agriculture means a large rural population, for a supply of labour. In a small country, however, the manufacturers are likely to cultivate a foreign trade, to work, that is, largely for abroad.

**The Man on the Land as Manufacturer and Exporter.**—But in seeking their profits largely from abroad how are they in a different case from the producers of butter, eggs, cheese, fruit, bulbs and shrubs? Do they not do the same? Of course they do. And as in the Netherlands the agriculturist runs many co-operative steam creameries and cheese factories, and potato, strawboard and cake factories and grinding mills, he is something of a manufacturer also.

The Dutch Free Trader argues that the man on the land and the manufacturer are in very much the same positions; that they are equally well acquainted with foreign tariffs and are equally affected by them. They both know very well whether their goods cost the foreigner more when he has to get them over a tariff wall, as in Germany, or when, as in England, his door is standing open for them. Therefore Dutchmen are in no doubt as to how a tariff wall round their own country would work. Things wanted by the Dutch people from the other side of the tariff wall would cost more.

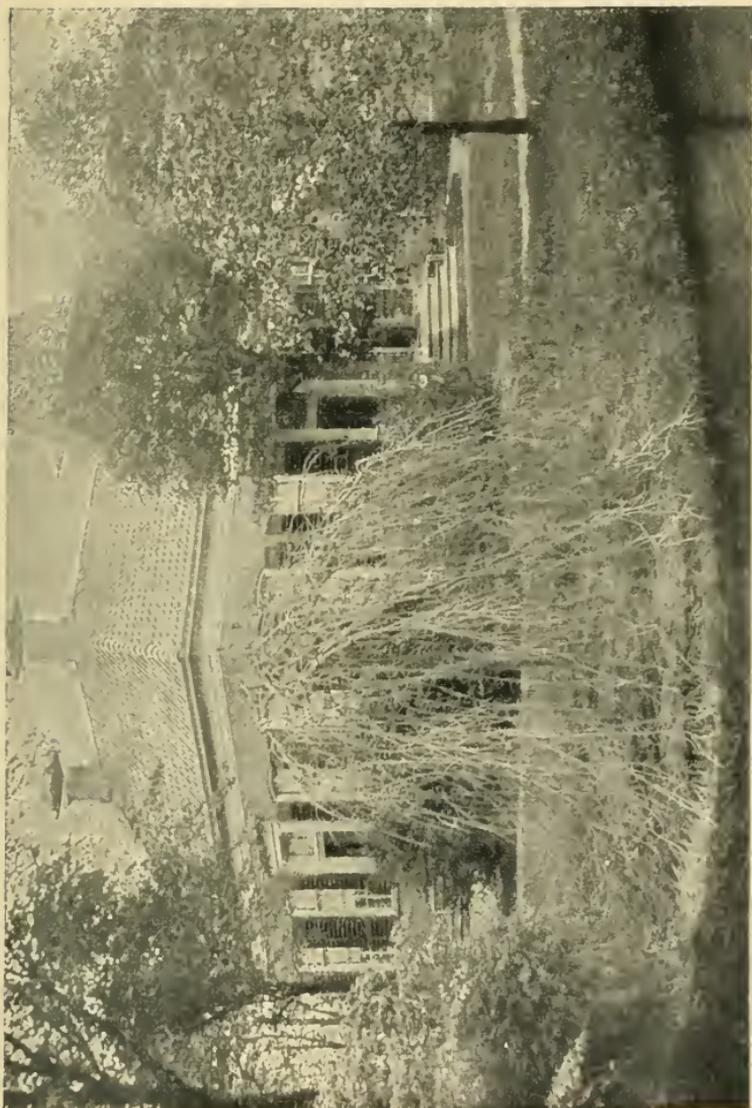
How is it that foreign countries are willing to involve themselves in additional expense in having goods over the tariff wall from Holland for themselves? Because they must have them.

Why must they have them? Because they cannot themselves supply their requirements so cheaply.

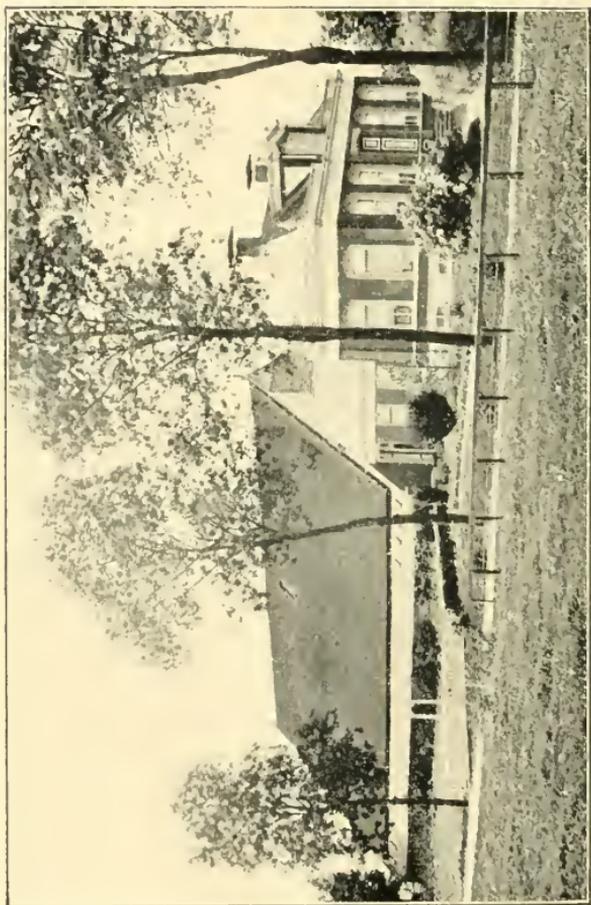
Why cannot they supply themselves so cheaply? Partly, because, having plenty of minerals, many of their people are occupied more profitably; chiefly, because their people are not able to produce the things wanted from Holland at so low a price as they are produced in Holland.

Why are they not able to produce them at so low a price as in Holland? Because a higher cost of living is forced upon them by their tariff, and is not offset by the vaunted higher wages; whereas the Dutch, having no tariff, have a lower cost of living, and are not hampered in any way in utilising to the full the natural advantages which their country offers for the production and marketing of certain articles.

**The German Ships Built in Holland.**—Some figures



A FARMHOUSE IN GRONINGEN



BUILDINGS OF THE SAME FARMHOUSE

showing the lower cost of living in Holland than across the German frontier are already before the reader. So is the fact that Germans, though their tariff has made them pay more for their Dutch goods, are driven by necessity to obtain these goods.

I will reduce additional industrial considerations within the narrowest limits.

Parts of Groningen, which had been accustomed to build ships for Germany, have taken to market gardening for Germany instead, because the vessels grew too large to be passed through the canals. Where, however, there are means of delivering the vessels, this ship-building for Germany prospers. Yet the craft—which are sold at prices 20 per cent. below the prices at which the Germans can themselves build them—are made out of plates bought from Germany! From one small district about 100 vessels are built in a year for German firms. Similarly, as already shown, potato flour and strawboard are made for Germany by Dutch factories by means of machinery and straw largely obtained from Germany! (See page 197.) As to the building of the ships in competition with Germany, in Groningen and elsewhere in Holland, here are extracts from letters I have received from shipbuilders:

“As far as the cost of materials is concerned we are in a better position than German shipbuilders.”—*Messrs. Willon's Engineering and Shipbuilding Co., Rotterdam.*

“Between Rotterdam and Dordrecht there are a great number of yards specially equipped for the construction of the so-called *Rijnlichters* (Rhine barges), built of German material cheaper than in Germany.”—*Messrs. A. F. Smulders, Engineers and Shipbuilders, Schiedam.*

“We build cheaper because Germany gives an export premium for iron and steel imported into Holland and all that is to be used for a ship, as sails, etc., etc., are free of duty here in Holland. Every year we make 15 or 20 vessels for Germany. We send you a photograph of a tug built for Hamburg owners.”—*Messrs. G. and H. Bodewes, Shipbuilders, Martenshoek.*

“We mail you a photograph of a three mast schooner built in our yard from steel made in Germany. Our Government proposes an import duty on different materials we use, also steel, which will heavily handicap us.”—*Messrs. Bos Bros., Shipbuilders, Groningen.*

**Arguments of Industrials.**—Said one with a special

acquaintance with commercial Holland: "It is no argument for a tariff that our export trade is in manufactures as well as in the produce of the land. If you have a tariff you raise the cost of living, you raise wages, you raise the cost of building. That means you lose a great deal of your profit, for foreign customers do not pay more because the cost of production to the manufacturer has become higher." An owner of an important factory made the same point to me.

Yet another prominent industrial said: "Suppose industrial Holland were not prosperous just now, we have to remember that the conditions change yearly, so how could Protection be in any case a scientific remedy to apply? Look at myself. I say, under Protection we manufacturers would lose our spirit. Under Protection I would say to myself, 'Why should I buy these new machines? Why should I have a good new man for dyeing? I make my profits all right as it is.'"

In that province of the "Dark South," North Brabant, the prosperity of such Roman Catholic towns as Tilburg, from which Protection was so loudly preached some years ago, must make its impression on the impartial inquirer. Within a few years the population of Tilburg has doubled, and its woollen industry, which was said to be in need of a tariff, because it was nearly dead, is now flourishing. The prosperity of the leather trade in the same province is as obvious as the prosperity of the cotton industry in Twente already referred to.

One of the best known commercial men in Holland, who occupies all sorts of responsible posts in a great port, said: "When you make acquaintance with the Netherlands of commerce you find that the country is not to a large extent an industrial country, but in as far as we are an industrial country we are an exporting country. Now, how can an industry which exports have any benefit from Protection? Margarine-making and sugar manufacture, textile manufactures and ship-building have no interest in Protection. Just the reverse."

**The Shopkeepers.**—I asked what was the speaker's

views about the relation of the shopkeepers to a tariff. "The shopkeepers have an association of 20,000 members. At a representative conference at Utrecht it declared against the Tariff Bill by 150 votes against 6. The shopkeepers are perfectly right. First, because, if people are taxed by a tariff they will buy so much less. Second, because a large proportion of the goods your shopkeepers sell, and ours very much more, must always be foreign goods; and from the moment importation is made more difficult the shopkeepers have to sell more home-made articles. In other words, their area of choice in selecting goods is lessened, and so those who belong to the same trades are largely selling much the same articles. One of the advantages which the shopkeeper seeks in his trading is to sell different articles from his rivals. There is no profit out of rice or sugar or common cotton, because all shops sell alike. The profit is on fancy or special goods where there is an element of choice or taste."

"To return to your industrials," I said; "after all, you cannot expect industries of great value in a small country with no raw materials of importance but beets and other crops."

"Nor can they benefit by Protection," was the reply. "Even theoretically, duties can only benefit in regard to the home consumption, and that must be negligible when we are only 6,000,000 all told."

**The Remarkable Case of Rotterdam.**—The latest volume of the bulky annual reports of the Rotterdam Chamber of Commerce—more than half the imports into and the exports out of the Netherlands pass through Rotterdam—may well be turned over by those who seek any further evidence as to the difficulty of making a case for tariffs out of the commercial condition of the kingdom. In twelve months the sea-going tonnage at the port increased by nearly a million tons and inland tonnage by more than a million tons. The total sea-going tonnage was greater than that at Havre, Dunkirk and Bremen together. Whereas the sea-going tonnage at Hamburg increased by 1 per cent. only, the increase at Rotterdam was 7 per cent.

The weight of goods exported showed an increase of over 2,000,000 tons. Taking tonnage as the standard, Rotterdam, as the British Consul says, is "the second Continental port and the fourth in the world." It is "not improbable," that authority states, "that the city may attain even higher rank."

"Why have we at Rotterdam an advantage over Antwerp?" one of its citizens asked me. "Largely because of Free Trade. The long lines of steamers you see in the river came here, in part, because they can turn out their cargo and leave it lying on the quay free for a certain number of hours. They also come because the river lighter traffic is so well organised—how many motor barges and motor boats have you on the lower Thames compared with our numerous motor barges? It is some time since there were 6,000. Look at the wonderful *rijnaken*, the tremendously long barges we have for going up the Rhine! Some of these run up to 3,000 tons. Look at our cheap labour, which means low wages in handling cargo! But at the bottom of all the attractions of the port—the cause of the cheap living and the cause of the cheap boats—is Free Trade."

**The Dutch Notion of "A Normal Year."**—As I pass the manuscript of this chapter for the printer I read in the City page of the "Times" (January 22nd) a commercial report from its Amsterdam correspondent on business in Holland in 1911:

The general economical situation of the Netherlands during 1911 may be called satisfactory (he writes). Most of the industries have worked favourably. An important measure was the introduction of the eight-hours day in the diamond factories at Amsterdam.

The shipbuilding industry could not supply the demand, and several steamers for the Netherlands merchant fleet were ordered in England.

The Nederland Steamship Company (Amsterdam-Dutch East Indies) ordered two ships in Port Glasgow. The Royal Packet Navigation Company ordered a steamer in Hull for its Java-Australian Line; another for the same Company was launched. A steamer was also recently launched for the Rotterdam Lloyd's Line to the East Indies. The Royal Holland Lloyd of Amsterdam ordered two steamships in Port Glasgow for its service to South America, and two more

for the Royal West India Mail ; and the Holland America Line have just ordered a 32,500-ton passenger steamer in Belfast and two cargo steamers of 10,000 tons each in West Hartlepool.

Besides all this the Dutch yards are all fully occupied. Sailing vessels in the coasting trade are being replaced by ships with their own propelling power. Numerous motor-boats have recently been built.

The shipping entered and cleared at Ymuiden (for Amsterdam) during 1911 was about 2,400 vessels, with a net tonnage of 2,500,000 tons : while at the Hook of Holland (for Rotterdam) 10,000 ships passed with a net tonnage of about 12,000,000. These are the two principal ports of Holland.

And the "Times" correspondent heads this record "A Normal Year"! (By a coincidence, as I read the proof of this Chapter I notice a telegram in the "Times" stating that orders for two 9,000-ton steamers have been placed at West Hartlepool "owing to the fact that the Dutch shipyards are overwhelmed by work.")

**Position of the Working Classes.**—There remain the working classes in a kingdom of big towns. What is their attitude to the Tariff Bill? I remember one reply I got: "Look through the list of members of the Chamber and notice how many Free Democrats, Social Democrats and other Progressive Party men pledged to Free Trade have been returned by the masses of the towns. Out of the 17 members returned by Amsterdam, The Hague and Rotterdam, 13 are Liberals or Socialists."

## CHAPTER XXX

### GERMANY AND SOME OTHER MATTERS

**Practical Men v. Politicians.**—The reader who has brought an open mind to the consideration of the problem discussed in this book, must feel that one of the most trustworthy commercial authorities in Holland appeared to have some justification in saying to me that “the Tariff Bill is only defended by politicians; it is not defended in a practical way, but only theoretically.”

“If there is, as I maintain,” the speaker went on, “no defence for this measure in the commercial condition of the country any more than in its agricultural and horticultural conditions, and the Bill is brought forward with no excuse whatever but that of wishing to raise money, which we suggest sound statesmanship points to the advisability of raising in other ways, then how unjust it is to propose to protect industry and not the cultivators of the land, who are the backbone of the country? Why should they support a tariff for the benefit of industrials? Think of a Tariff Bill without first and foremost help for grain growing! Ours is surely the first country in the world in which such a thing has been heard of! But if our politicians protect agriculture they put the working classes against them even more than they are now.”

#### **The Parliamentary Committee and Public Opinion.**

—The position of the Tariff Bill at present is that it has been referred, according to the legislative custom in Holland, to a Parliamentary Committee. This occurs before any discussion of the measure takes place in Parliament.

The Committee is composed of three Tariff Reformers, three Free Traders and a Chairman who, “though a Clerical,” someone said to me, “is an impartial man.” When I was in Holland he was said to be “exceedingly

undecided," but could certainly be relied upon not to accept the Bill as it stands. As the "Times" article already quoted says, "many modifications are to be expected."

As to emendation, although half a loaf is better than no bread, the Dutch Free Traders are not sure that half a Tariff Bill is necessarily better than a big one. For, obviously, a small Bill has more chance of passing than a more considerable measure! As one economist said to me, "The danger is that they may make concessions and get through a smaller tariff, but still a real tariff, and once we have such a thing how are we to get rid of it?" A sturdy manufacturer said to me that of course the Liberals would get rid of it when they got back to power, but I do not remember anyone else so hopeful. "Once we have Protection," said someone, "we cannot alter it. The money brought in by the tariff will have been assigned to certain purposes. The Liberals, on coming in, will have their own measures, all costing money, to bring forward, and to dispense with the tariff, for which, after all, they had repudiated responsibility in the strongest terms, will not be practical politics."

"It is very easy to talk of getting rid of a tariff," said somebody else, "but look at the tight place the rural Free Traders are in in Germany. You know what food prices are there. Yet the whole economy of the countryside is based on the present situation. Abolish the duty, and there would be an enormous crisis, for the value of land has been raised by Protection, and with Free Trade it would have to be sold wholesale."

"In Holland," another man said, "laws when passed always stop there. We are ever very slow to take decisions, but when we do take them we do not change in a hurry. If you once have your commerce and factories and financial schemes adjusted to a tariff, you cannot expect to have them all altered."

**Germany and the Bill.**—A danger in connection with the Tariff Bill, which dozens of people spoke to me about, was the danger of trouble with Germany. If this Tariff Bill passes, Germany will probably raise her tariff wall—

already a considerable nuisance to Dutch traders—still higher against the Netherlands. And with a tariff established on the Dutch frontier and likelier to be raised than lowered—and a case of arrested growth in a tariff is not common in fiscal pathology—a German tariff war with the Netherlands should be a possibility. *Could Holland hold her own?* Tariff trouble between two Powers is ever a costly and anxious matter. It is a graver matter still when one nation is powerful and the other weak, when the longest frontier of the weak one faces the territory of the strong one, and when for years the weak nation has been left in no doubt as to concessions, policies and attitudes which would be valued by her big neighbour, but which to concede would vitally affect the most important interests of the small kingdom. *I wonder whether the Government of The Hague is in a position to give assurances that Germany has not already discussed the Tariff Bill with it.\** (See page 299.)

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\* HOLLAND'S NEIGHBOURS AND THE TARIFF.—Goods which enter the Netherlands merely for transit to other countries—and it is to business of this nature that Rotterdam owes much of its prosperity—will not be touched by the new tariff. For this reason the exports from Great Britain to Holland will not be affected to anything like the same extent as those from Germany and Belgium, since the bulk of the commerce between the two countries is in goods for forwarding and transhipment. There is, however, a certain importation trade with England in machinery, metal articles, cotton and woollen goods, and manufactured articles of food which would be hit by the proposed tariff. But for Belgium its introduction would have serious consequences. Shut off from the markets of its eastern and southern neighbours by high tariff walls, Belgian industry has hitherto found an easy outlet towards the north. The possibility of an increase in the Dutch Customs duties has therefore aroused serious misgivings among Belgian manufacturers, some of whom, it is stated, contemplate the establishment of factories on Dutch soil. The imposition of higher duties will, it is feared, inevitably lead to the erection in other countries of Customs barriers against Dutch exports, while, in some cases, injury to the international position of the Netherlands is apprehended. Thus the possibility that Germany might conceivably use the proposed duty of 3s. 9½d. per gallon on bottled wine, which has hitherto entered free, as a lever in the question of the Rhine tolls, is cited.—*Times*, August 2nd, 1911.

THE RHINE TOLLS.—The question of the Rhine tolls should be an illustration of the weakness which may overtake a country in a nominally strong position when tariffs are in question. Legally, Germany needs the consent of the Netherlands as much as that of

**Expert Official Opinion.**—I have heard that the Minister of Finance himself is by no means enamoured of the Tariff Bill, but feels that there is no other way of raising the money. I am also entitled to record what I heard said by one who has taken great pains to gather opinion in Holland and is entitled to speak with no ordinary authority: "I should like to see the whole of the staffs of the Ministries of Finance and Agriculture polled on the subject of the Bill. They know all the pros and cons if anyone does; I have no doubt whatever that they would reject the measure by a sweeping majority. At the Ministry of Finance they know very well the real position of the country. They know that every year more money comes in. At the Ministry of Agriculture they know how well everybody who has to do with the land is doing." In another part of the country a capitalist said to me: "What nonsense to propose a tariff for this country when every month the revenue has been surpassing that of previous years!"

**Addresses Against the Bill.**—When I was in Holland the number of representative petitions or addresses against the Bill was understood to be about 250,\* which is an immense number for a small country in regard to a measure not at the time nine months old. The object of referring a Bill to a Parliamentary Committee, as is done in Holland, is, as was explained to me, "to hear people who have difficulties under the proposed laws; the Committee sends the faults of the measure to the Minister responsible for it, he replies, and then the whole is published." The 250 addresses must have made some impression on the Committee. One address was signed by 600 bulb growers, and

Austria in order to raise the tolls. But the Germans have Customs' tariffs and Railway tariffs—to speak of no other influences—at their command in order to dispose the Dutch to look at matters from their point of view; and Holland, though her position seems firmly based on an International Treaty, may be glad of all the strength she has at her command in order to hold her own. If Germany can prove so difficult to deal with in a matter in which the rights of the case are apparently so clear as that of the Rhine tolls, what stresses may not be felt when Germany and Holland are trying tariff reprisals with one another?

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\* At the time of correcting my proofs the number has reached 350.

400 of them are normally supporters of the Government. "It must not be forgotten," said a man influential in the commercial world, "that the majority of these addresses came from really practical people—chambers of commerce, organisations of manufacturers and such-like organisations." I was assured that "all the representative organisations of trade, industry and horticulture have addressed against the Bill."

"If it really be the case that by this Tariff Bill there will be danger to our export trade," said a member of Parliament to me, "we may depend upon it that the Committee will not dare to report favourably on this law." Well, I summarise the arguments in the address from that important agricultural organisation, the Bond of the enlightened (grain-growing) agricultural province of Groningen:

"There will be new or increased taxes on articles which are necessary for agricultural tools, machinery, etc., and for building sheds, barns, and farm produce factories. Agriculture has become in Groningen particularly more and more a factory industry which works for export. The strawboard, potato flour and beet sugar are exported in ever increasing quantities.

"Further, not only direct but indirect cost of production will be increased. Taxes on flour, clothes, furniture and doors, window frames, and glass will increase the cost of living, and will lead to a demand for higher wages, and the increases of wages will not help those who receive them.

"In the third place, protection of industries which work for the home market will lead to a demand for labour which will raise wages so that labour will be attracted from the country to the towns. If the country districts also raise wages the cost of production will be raised without getting it back from consumers for agriculture works for export. The expected advantage to some branches of industry will be nullified by the ill effects on exporting agriculture.

"Finally, the article of the law which gives the Government a right to institute reprisals, risks the raising of foreign countries' duties against Dutch agricultural produce where it is most sensitive. Reprisals meant to hit the foreign buyer will be borne by the inland consumer, and the inland producer will lose part of his market. It is so difficult to retain a market and so much knowledge and perseverance are needed to increase national exports that the Government does not seem entirely up-to-date in thus exposing business to great danger."

A minority reporter to the Bond conference did not differ in essentials from his fellow reporters. He drew attention to the situation in Germany:

"There agriculture is protected as much as industry, yet during the last 25 years, through the high wages of the towns, the labourers

have been so drawn there that the further extension of agricultural production has been impossible in Germany through lack of labour. In many places, farmers have to be satisfied with female, child and foreign labour. We may point with pride to the fact that Dutch agriculture, though intensive and scientific, is conducted wholly by home labour. In spring and summer, nearly every day, strangers come from abroad to admire the high standard of our agriculture. Will that continue? Our standard is endangered if the Tariff law is accepted. It means not only rural depopulation, but that the intensity of our agriculture, the production of flax, beet and seeds, which require much labour, will no longer be carried on."

**Foreign Countries and the Bill.**—I add these impressive words addressed to me by a high official: "Our Tariff Reformers say, 'We have now no weapons against the foreigner; but the Bill will give us one.' Our Free Traders say, 'Not at all; the situation will be worse.' Practically, we have only to do with Germany. See what a large proportion of our market garden produce, butter and cheese goes there. Wide districts are absolutely dependent on the export of fruit and vegetables to Germany; and Germany knows it. In 1917 the German commercial treaties with seven foreign countries are renewed. Suppose our Tariff is then at work and Germany takes occasion to put some disagreeable duties on our vegetables. *According to our Tariff Reformers, we are then to abolish our commercial treaty with Germany and put 30 per cent. on German produce. I may safely say that no Government will accept the responsibility for such a step. Therefore the Tariff is of no value as a weapon.* Already German market gardeners are demanding high duties on Dutch vegetables, and say that the German Government should not hesitate now that Holland is going to tax German produce. Already, too, American millers are agitating for duties on Dutch bulbs in retaliation for our proposed duty on American meal."

Coming back to the Chamber, I am informed that no amendments are likely to be accepted there. The emendations agreed to by the Government will be those made in the measure as the result of the Parliamentary Committee's representation.

But if the Committee should report favourably on the Bill, and the Government should put it to the vote in Parliament, the measure may be expected to go through.

## CHAPTER XXXI

### WILL THE BILL GO THROUGH?

**The Church and the "Pagans."**—Let us turn from the situation in the Chamber to the situation in the constituencies. I spoke with a distinguished Roman Catholic landowner. A little to my surprise he was against Clericalism in politics. "Our bishops and priests are good men, but what do they know about secular affairs?" he asked. "I do not see why we should abandon Free Trade." I fear, however, that when polling day comes in that constituency, and my friend has to make his choice between a Christian Tariff Reformer and a "Pagan" Free Trader, there is a chance of his voting Tariff Reformer, though he will believe he is voting Christian. Take the enterprising Roman Catholic clay farmers of Zeeland. They believe in Free Trade, but at the call of the party whip many of them will rally to the Kuyperian cry of "God, the Family and Individual Possessions." "And this," said someone, "though no agricultural produce is protected by the Tariff, and farmers have only minus interests in it."

"It is not so much that the Clericals want Protection," said someone to me, "as that they must go with the Government when it says it must have the money."

"The majority in the nation is for Free Trade, indubitably"—I have a note—"but the supporters of the Government must side with the Government."

"The majority of the Clerical voters," I heard someone say, "speak as the leaders speak, and if the leaders are for this Bill they are too." And confirmatory of this a peasant I asked about the issue said laconically, "I don't split my head about Protection." "After all," said another man, "even under a tariff we should go on living."

"At the last Election," one voter said to me, "it was not Free Trade or Protection we had to vote for, but 'Are you for or against the Church dominating the State?'"

"The Clerical and Orthodox voters want that this Government does not go away," was another speech. "They are very glad that they have now the might in their hands to do as they think good for this country. That is just where the matter is. To them 'For God' is more than for 'For Free Trade.'"

Here are the views of a professional man who thought agricultural Protection an unmixed evil, but wanted a duty when Germany gave a premium on the export of nails into Holland: "I fear the duties will come, because without them social laws are merely words." "Certainly," he said, "there is still a good deal to be got from income and capital tax, but the Government does not propose that. The *bloc* does not pre-occupy itself with the question whether the method of raising the money is really good—only whether it looks the easiest one. The real question for them is that social laws are necessary for their political existence. There are, however, enough Roman Catholics who see far enough not to like at all a tariff, knowing it is a double-edged sword, but what can they do when the four bishops have decided, and the Roman Catholic party policy is in their hands? A member who does not act as they wish is thrown out. I do not see where help is to come from except that some Orthodox Protestants may not all remain true to the *bloc*."

If the members of Parliament, who are presumably the pick of the voters, always vote at the party's call and never think for themselves at all, shall we blame the mass of the voters for doing the same?

I showed the foregoing opinion to a man of great political experience, and he said to me, "It is a pity, but it is so. There is always some hope that the Conservatives will not all remain true, and it wants only some votes to upset the Bill. The country can also make still more noise, and the Government may be frightened by this. But if the Cabinet actually proposes Tariff Reform it is a question of life and death for Ministers to get it accepted, and they may get reckless when nearly dead."

**The Laodiceans.**—In judging the final attitude of the nation at large towards the Tariff Bill, the fact must not be overlooked that not a few people are neither in party politics nor greatly interested in party politics. Some years ago, I remember, a Hollander of some distinction once had to confess to me that, though he happened to know who the Minister of Home Affairs was in Great Britain, he had forgotten who held the portfolio of the Home Office in Holland!

Again, although the districts exporting butter, cheese and eggs, market gardening and nursery produce, meat and live cattle have nothing to gain from Protection; although the great centres of population prosper by reason of the cheapness of food; and although Free Trade is vital to the exporter—and the canals make all Holland a port—there is a section of the industrial world and a proportion of what may be called the retired classes—a large population in Holland—which might not think it worth while vigorously to resist a tariff which was not glaringly Protectionist. At any rate, these people, before taking effective action, might wait until the ill effects of the re-adjustment were felt. There is no small class of substantial business men in Holland which is not greatly impressed by the power of politicians to do much harm to a country so well off, and, in its judgment of public affairs, so shrewd as is Holland.

**“Voorloopig.”**—The plea that the tariff adjustment is only a little one has been pressed, and will be pressed. It is perfectly true. As a well-known Free Trader said to me: “Between ourselves, it is not so very bad. The *ad valorem* rate is 2 per cent., 6 per cent., or 12 per cent., but never more than 12 per cent. We shall be getting from the Customs no more than 23,000,000 guilders (£1,916,666) out of a total State revenue of 202,000,000 guilders (£16,833,333)—our Customs bring us at present 13,000,000 guilders.” Reuter, in summarising the measure, said: “The new tariff in no way follows the lines of the commercial policy of other States, but is of a very moderate character in comparison with foreign duties.” Certainly the measure is drawn with some cleverness. A Ministry which could use the word *voorloopig*

in regard to a proposal of Tariff Reform is worth watching. *Voorloopig* may mean either temporary or a first step. The Free Traders have no doubt that the *voorloopig* proposal will be the first step.

**1862 and 1912.**—What, no doubt, predisposes some business men in favour of the Bill is that there is something to be said—from a technical point of view—for a revision of the existing tariff. It dates from 1862, and since then goods have come on the world's markets to which half-century-old classifications and fixations of value cannot apply. One of the firmest Free Traders in the country said to me: "It would be a great commercial convenience if the existing tariff were overhauled. But we must not say so, for it is always difficult to raise an old and cumbrous tariff, while a modern and easy working one can be raised easily."

The reader must not conclude, however, that the new Bill is technically an improvement. "This," said a well-known commercial man to me at Rotterdam, "can only be the opinion of people who never come in direct contact with the Custom House. The technical side is the weakest point in the whole tariff, and I know that my opinion is backed by the principal Custom House authorities. The tariff has already been called in Parliament a technical mis-baking. It is the technical side of the Bill which more and more attracts attention, and makes it plain that, if we have to submit to Protection, it cannot be under this tariff."

## CHAPTER XXXII

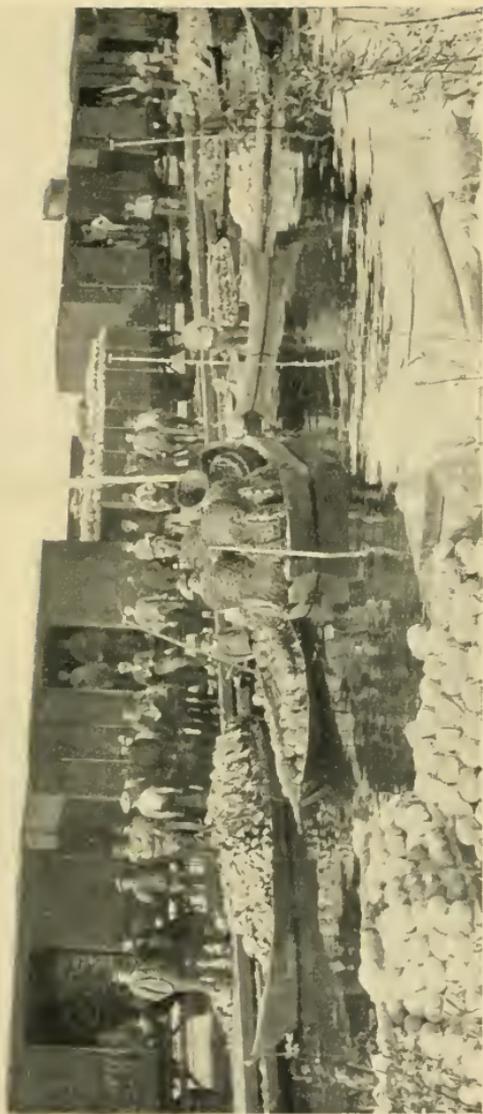
### THE OUTLOOK IN HOLLAND

**Minority Government.**—How long an electorate as intelligent as that in the Netherlands will continue to be ruled by a Government of the minority remains to be seen.\* Whether a measure of Tariff Reform be desirable or not, no one can pretend that it represents the “settled convictions” of the Dutch people.

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\* **THE ROMAN CATHOLIC STRENGTH.**—The Protestant scare in Holland over the “*Motu Proprio*” is an indication of the unnatural character of the Orthodox and Roman Catholic alliance, and shows how easily a rift might come. The Roman Catholics have undoubtedly increased in the Netherlands of recent years, largely owing to immigration of monastery and convent inmates from Germany and France. Taking the figures for 1869 and 1899, the increase of Roman Catholics is 37 per cent., and of Protestants, 39·93 per cent., or of Protestants, when persons without religious belief are included, 45·61. The combination between Calvinists and Catholics has no doubt led to a certain strengthening of the position of the Roman Church in the Netherlands. This is indeed one of the Liberal criticisms of it. But, as a Dutch correspondent says, “the Catholics must be very prudent not to arouse Protestant fanaticism. But whether they can be very prudent is another matter. We do not easily object to persecuted people coming to the Netherlands. It has been part of our broad and far-seeing policy for ages. But it is possible that it might be considered that the proportion of Catholics was growing too large, or that too much of the scarce arable land was being taken out of circulation, as it were, under the operation of the dead hand. Those who were hit by this might grumble. There is always talk of a Dutch Legation at the Vatican. It is something the Catholics might seek, but it would raise a storm. The storm might be precipitated if the authorities in Rome acted on an imperfect knowledge of the real strength of the Catholic position in the Netherlands, that is believed themselves stronger than they really were. But all this is in the future, I think.”

**THE FREE TRADE AND TARIFF REFORM PARTIES.**—The members of the Free Trade Club number 1,135, of the Tariff Reform club, 75.



DUTCH CABBAGES ENTRAINING FOR GERMANY AGAINST A DUTY OF  
18s. PER CWT (See page 184)



NURSE'S COTTAGE AT THE FREDERIKSOORD COLONY

I have heard Dutch Liberals say that, in the present divided state of the Progressive forces, they could wish that a moderate measure of Protection might be carried through by their opponents, for it would lead to such a manifestation of feeling in the country as might heal the breach in the Opposition and make it once more its natural strength in the State! The present ineffectiveness of the Progressives is unmistakably the most valuable asset of Tariff Reform in the Netherlands.

**“Moderne Personen” and Others.**—Is it out of place to suggest that that impotence may well be pondered by politicians the world round! So long as the rivalry of large parties furnishes, on the whole, the best system of civilised Government, does it not seem to be the plain duty of the majority in a party constantly to labour to understand the point of view of its younger and more advanced members and to make every possible effort by moving with the times to avoid divisions? It is not for nothing that the Church, realising the extent to which Providence is on the side of large battalions, has ever magnified the sin of schism. There is no country in which the Dissidence of Political and Religious Dissent may be studied to greater profit than in Holland. Satisfaction in personal liberty and impatience of party bonds are manifested with their ancient keenness in a nation which, with a population less than that of Greater London, ranges itself, in its politics, in five parties, and, in its religion, in two kinds of Roman Catholics and half a dozen Protestant sects, not to speak of a large number of *moderne personen*\*—a phrase often used to me in Holland—who give their adhesion to none of them.

Meanwhile, though the division among the Progressives may indicate a laudable intellectual activity, it has given the Clericals for the time a majority in Parliament, and they can undoubtedly pass their Tariff Bill if they have a mind to do so.

Not long after this book is published we shall know if

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\* Who, in Holland, have also their churches—on an extremely liberal basis, of course.

the Bill is to be persisted in. It must be introduced by August at the latest, or it must be dropped. The long delay which has taken place in introducing it is held to be of good augury for its withdrawal. The opposition it has excited has been greater than was expected, and the Ministry may well find it expedient to withdraw a measure which people of such various political sentiments have criticised and so many different interests have demonstrated to be unnecessary. The high food prices prevailing all over the Continent during the past year may be reasonably supposed to have some influence on that decision.

The fact that all the chief newspapers in the country are for Free Trade is also a factor against the Bill.

**The Agitation.**—When all is said, however, the Parliamentary majority remains. The Free Traders keep on working with discretion as well as vigour. They hold their demonstrations, and they present their petitions, but they attack principles, not party. They try not to put the Government on the defensive. The Free Trade policy is to delay the measure till it is too late for it to be conveniently passed through Parliament, in which circumstances the Government may withdraw it. In 1894, in 1897, in 1901, and in 1904 disaster has successfully overtaken tariff proposals. It is hoped that the present measure may also come to a sudden end. "But if it passes into the Chamber, and the Chamber is forced by the Government to take a vote, then," as I was assured by those having authority, "the measure must pass."

**Dr. Kuyper Again.**—Just before Christmas, Dr. Kuyper, who had not spoken in the Chamber for a long time, broke silence with an ultimatum to the effect that Old Age Pensions, with its corollary, Tariff Reform, must be produced in 1912, that is before the year of the General Election, or the Government could not count on the support of his legions. While the working classes are getting restive in regard to the long-delayed Old Age Pensions, the Minister of Agriculture is apparently inclined to give precedence to other social laws—perhaps less costly ones—and

is beginning to be a little doubtful as to the popularity of the Tariff Bill! We shall see.

It may be thought that a possible plan of the Government may be to put the measure to the country in 1913. It is always impossible to tell for certain what a Government may or may not do in a year's time, but no one with whom I spoke seemed to think that the Ministry would go to the country on the Bill. It would be much too risky. The Free Traders, at any rate, ask nothing better. They believe, however, that the Bill has already done its inventors all the service it can as a *parade paard* (show horse), and that when the Clericals ask for a renewal of the country's confidence in 1913 they hope to have a varied assortment of political wares to attract the attention of the public. (See page 310.)

**Holland and England.**—It remains to be said before we leave the subject that it is not only that the present agricultural and commercial situation in the Netherlands points to the sufficiency of Free Trade. The history of the country, it is pointed out, is one long argument against Protection. We in Great Britain may believe in Free Trade; Holland has puffed out her blood and guilders for it—against us!

I suggested in my first chapter that if the Netherlands abandoned Free Trade one of the most serviceable arguments against Protection in England in the interests of agriculture would be gone. Account should certainly be taken of the extent to which the agitation for Tariff Reform in Great Britain has helped the Tariff Reform advocacy of the Dutch Government. Many persons with whom I conversed were firmly convinced that there was more than a possibility of Protection in our country. "If England is going to abandon Free Trade," I was asked, "how can you expect a little country like Holland to be equal to bearing the whole brunt against all the world?"

It is beyond question that if we adopt a tariff we should take some strength out of the Free Trade position in the Netherlands. "We shall have to become Protectionists too," more than one Dutchman said to me. It is only necessary to visit Holland in order to realise what a serious

matter the adoption of Protection by Great Britain would be considered to be on the Continent.

But I am bound to confess that I met several Dutchmen, who, to my inquiry what Holland would do did Great Britain abandon Free Trade, answered in almost the same words: "Why, I am sure it would be the finest thing in the world for us. I trust we should have the courage and the statesmanship to throw down instantly every scrap even of our little tariff for revenue, and make of our whole country one great free port. Then we should see Holland once more the free port of the world!"\*

**And Scotland.**—On my last day in Holland I was at The Hague and strolled into the Witte, the famous club which is distinguished no less for its friendliness to strangers than for its large supply of foreign newspapers and periodicals. I picked up the "Quarterly Review," and could not but be struck by the fact that in the article at which it opened I shortly read:

The greater part of Scotland's contribution to human progress could not have been made without the Union. The Union set the kingdom free from the fiscal disadvantages from which it had hitherto suffered, and enabled it to gain that commercial stability which is the first requisite for national fullness and life. At first it seemed as if things were to be worse instead of better. English goods now came freely over the border, and Scotland, never very rich at the best, and recently impoverished by the Darien disaster, could not compete with English wealth. It was natural that the Union should be blamed, but those who saw furthest into the heart of the matter understood what free access to the English and Colonial markets might mean for Scotland. They set themselves to foster Scottish industry and perhaps the most important event of the first half of the century was the establishment of the Board of Manufacturers. Glasgow, a town of 13,000 inhabitants began to grow with great rapidity till in 1801 its population was over 77,000, and at the present day it is the home of more than one million people.

**Object Lessons on a Steamer.**—In the afternoon I went to the boat. So large was the cargo that we were kept more than an hour late. Dutch produce not only filled the

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\* "This is a general feeling among organised Free Traders," notes on my proof one entitled to speak for them in Holland.

holds, it was piled on the fore and after hatches. "A splendid cargo, Captain," I said. "As much as we can carry," he replied. Then he asked me if I knew that enough to make another cargo had been left behind. I said that it was clear that his country's trade and commerce was in a bad way, and that there was nothing for it but a Tariff Bill. "I haven't patience to talk about it," he burst out. "I pass half my life ashore in Holland and half in England, and how any educated man, who really knows something of the actual conditions and position of these countries can be other than a Frée Trader is more than I can understand. It seems so simple. Do people never ask themselves why they should buy dear when they can buy cheap, if in buying cheap they can be perfectly served in every way?"

In walking the deck a Dutch passenger asked me to "consider the elements of political economy," as he put it: "Surely in every country one sees that in particular parts they do some thing better than other things. In those parts they have an advantage of materials or of skill, or of climate. So they do those things there. It is simple, then, that a country cannot economically do what is not favoured by natural conditions of one sort or another. Each country will act economically which works at the thing for which it has an advantage, natural, acquired or temporary. So I think tariffs which seek to divert people from doing this are unscientific and not according to the time of day."

In the morning the Customs' officers came aboard, and we had some inkling of what the world's hourly struggle in the swaddling bands of tariffs really means. Every bit of luggage and every bundle, bale, crate or box of merchandise on the big steamer went through their hands. I remember how they ran their hands through the women's trunks, and how, having donned blue jean overalls, they descended with bull's eyes and jemmies, to the hold.

**And Ashore.**—I also remember how at another English port, I had, on one occasion, to return, after all my fellow passengers had departed, to the great shed where our portmanteaus and bags had been inspected. The steamer's commercial cargo was now being examined by the Customs.

Great boxes of drapery, such as are piled up on the railway drays that block up Cannon Street and St. Paul's Churchyard, were being broken open by men trained to the job, and the curtains and laces, table cloths and underclothing, were being turned over, none too carefully, by the impassive Customs.

These were scenes, however, in a Free Trade country, with a Customs' tariff for revenue only. I recall a scene I witnessed while standing at the German frontier post near Enschede. A young workman, cycling, from Enschede to Gronau, got off his machine beside me. I thought he had a puncture. No, that was not it. Turning to his carrier, where his dinner was done up in newspaper, he proceeded to untie the parcel—the bit of knotted string had done service before. Then he humbly took his "goods passing the frontier" into the official building of the Deutsches Reich.

"Free Trade," I remembered Lord Courtney of Penwith once saying, "is not a guarantee of international peace, which really depends upon the tempers and wills of men, but it remains one of the best promoters of good temper and of goodwill."

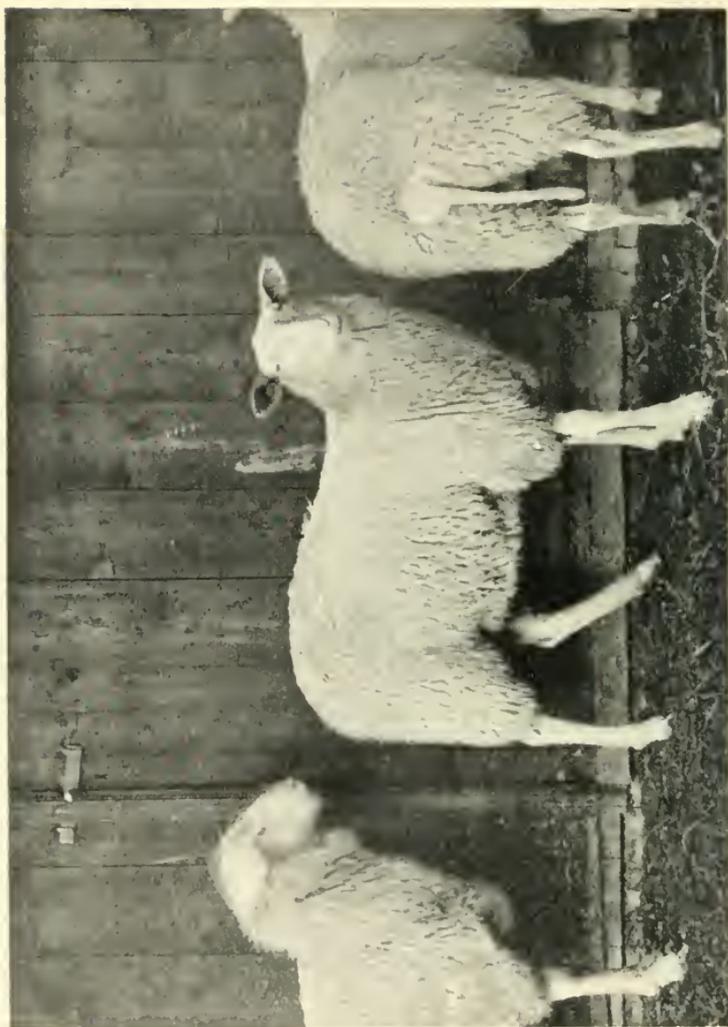
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**Postscript.**—As I pass these pages for the press a well-informed correspondent at The Hague tells me that "the Tariff Bill will not be withdrawn, but that everybody is convinced that it is impossible to get it through Parliament before the Election of 1913." Seemingly, therefore, the Liberals will have the opportunity of making good their prophecy that if the Bill comes before the electors there will be an end of it.



A PEASANT GIRL (NORTH HOLLAND)

From the painting by Thérèse Schwartz-van Duyl, in the possession of  
Fraulein Anna Langen, Bonn



LAMBS OF THE VARIETY OF SHEEP KEPT FOR MILK

## CHAPTER XXXIII

### THE DIVIDENDS OF THE SIMPLER LIFE

**Efficiency.**—I once asked an Englishman who had been over a Dutch sugar beet factory—he has a manufactory of his own—what struck him most. He said: “Its extraordinary efficiency.” The man on the land in Holland is prosperous in the degree to which he is efficient. He succeeds because he knows his job.

“I worked in England at a nursery,” said a grower to me, “and if 5,000 plants were grafted they reckoned 3,000 might be good. You see 25,000 grafted here and nearly all good.” And truly it was a thing to remember, these myriad rows of young plants in the houses and young trees in the open, and hardly a dead one. How is it done? “Just by taking trouble.” In going through the grounds of the big firm of Van Nes and Co.—what a show their azaleas and hydrangeas were!—I came on a remarkable illustration of taking trouble. Over young spruces I discovered great rough frameworks of battens. “What on earth are those for?” “Oh, we put them on for about three weeks in the year to save the spruce from frost.” “On hardy spruce?” “Yes, even people here laughed at us at first. But if we save a good lot of stuff instead of losing it, why mind the bit of trouble?” I was glad to see the son of a well-known English florist working away in that nursery picking up ideas.

“**This 'ere Science.**”—One cannot but note the degree to which the attitude of armed neutrality towards science and education on the part of the man on the land has passed into one of grateful and respectful appreciation. Laboratories and creameries in the rural Netherlands are

not always things which have come from without, but are very often, one finds, farmers' property, maintained with satisfaction and pride. I have heard men in blouses and *klompen* speak of bacteria, temperatures, decimals, and serums in a tone which is not that of some farmers I know when they are honouring "this 'ere science" with their notice. It is true, as a friend writes against the foregoing sentence, that these men in blouses and *klompen* were not labourers, but farmers. I am comparing them, however, with farmers. I once received at Rothamsted in harvest time an ear or two of wheat from that famous wheat plot which has not received any manure for more than sixty years. Meeting a farmer whom I knew very well—a man who owns a fair acreage and farms more, and occupies various local positions—I showed him the ears of wheat. I said they were altogether the most interesting ears of wheat in the district that evening. He didn't think so much of them, he said. No, I said, but he would admit that they were very fair ears. Yes, he said, they were not so bad. "Well," I said, "they are from a famous plot of ground which belongs to scientific men, and on that plot no manure has been used for more than sixty years. The fact is well established by incontestable records, known all over the world. Wheat has been grown continuously on it all the time. Nothing has been given to the land but good cultivation and good hoeing; I picked the ears myself, no manure whatever. What do you think about it?" "What do I think about it?" he said; "I don't believe it." At one time, at any rate, Rothamsted was quite as much visited by foreigners as by Englishmen.

"**Weetgierig.**"—One has now and then evidence of an anxiety for learning with which one is more familiar in Scotland and Wales than in England. It is not without significance that the Dutch language has a special word, *weetgierig*, meaning "desirous of knowledge."\*

On my last visit to Holland I took a bicycle and rucksack with me so that I might be able to go anywhere on occasion,

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\* Also *weetgierigheid*, desire of knowledge.



ON THE ISLAND OF TEXEL



VILLAGE CHILDREN IN NORTH HOLLAND  
SCHOLARS AT GOES WINTER  
AGRICULTURAL SCHOOL



A SOCIAL DEMOCRAT FARMER AND  
HIS FAMILY  
Mr. and Mrs. Mansholt, of Groningen

independently of trains and carriages. One day at Rotterdam, early in the morning, I had to wheel my machine from the station to the river. By taking short cuts I missed my way a little, and a schoolboy put me right. He insisted on coming all the way with me "in order to practise my English." I wonder whether one would readily find an English schoolboy anxious to go out of his way with a stranger, about eight o'clock in the morning, in order to practise his French? Yet a Dutch friend once said to me, "I would our boys were more like yours."

**"The World is Wide."**—The man on the land in Holland is broad-minded. All our English agricultural deputations have been shown and told every detail of cheese and butter working they cared to ask about. A Dutchman who might be expected to speak with some authority told me, I regret to say, that this frankness had not always been reciprocated when Dutchmen had sought information on this side of the North Sea.

He is also open-minded. Holland is a small country, and the people—can it be due, in the case of some of them, to the influence of trains and steamboats continually passing through to places abroad?—are always looking beyond their frontiers. "We always travel round," said the head of one rural firm, "to see what we can learn, and also what people want and the openings there are." "We push not what we grow or make," said another, "but what is wanted." A third grower said, "The world is very large. We go about and always find a customer or two. May you not be too local in England in spite of your splendid record as a colonising Power?" The nurserymen's shrubs and fruit trees, and the mountains of butter and cheese, vegetables and fruit, are produced, as we have seen, almost wholly for the outer world. (Margarine, usually of excellent quality, is largely eaten at home instead of butter.) In two villages I received from growers well-prepared catalogues in English, French and German. In one place I found that the two largest firms had not a single customer in Holland. In 1910 there were 118,000 telephone messages between Holland and Belgium, and 375,000 between Holland and

Germany, and communication will shortly be opened with London and Paris.

**“Going Abroad!”**—One market gardener in a smallish way expressed his opinion that “the little man is not so well instructed in England.” This particular horticulturist had rough hands, and sat in his house in his shirt sleeves, and his wife had probably been a servant on a farm. But he had worked in the north-west and the south of France for three years, in Switzerland for six months, in Germany and England for eight months each, and he had been in Italy. “I learn also the language what I can,” he said, “better later for doing commerce.”

I remember how, on another day, one with whom I chatted spoke with amusement of the English phrases, “going to the Continent” and “going abroad,” to signify crossing to Holland, France or Germany, “as if that were an adventure, or anything but the most ordinary thing for a practical man to do any day.”

**Grit.**—The man who works on land which he has made is a man with grit. “Our people do not sit down before a difficulty,” someone said; “they fight it.” “At Boskoop and Aalsmeer,” was another remark made to me, “there is a people so energetic that when one branch of horticulture fails they try another, and in a few years they are again ahead.” Then I recall the remark of a leading man in the Betuwe: “We are what we are in agriculture and horticulture because we are Dutchmen. We have learnt from father and son for ages not to be beaten.” On walking through the older parts of Amsterdam on one occasion I noticed that some of the finest houses were built by serene Dutchmen during a period when the nation, even now numbering not quite six millions, was fighting England, France and Germany (that is the Elector of Cologne and the Bishop of Munster) together!

**Simple Living.**—The Hollander is not only a man of solidity and nous, he is a man of simple life. He is sparing in his food and drink—do our English farming deputations

ever notice how little their generous hosts eat and drink themselves? I recollect that an official I was seeing at midday said, "I have had only some bread and cheese." (See footnote, page 322.)

There is much visiting of friends in Holland, but people do not expect to be invited to meals. They go to each other's houses to talk, not to eat and drink. There may be something corresponding to a glass of sherry and a biscuit, but that is all. This system is undoubtedly misunderstood at times by visitors to Holland. It must be astonishing to many English people to notice what frugal and unpretentious lives notable folk are leading. I once noticed a diamond-shaped patch of dust on the middle of the back of a stout general on his way to a review, the reason being, no doubt, that he was his own valet, and when he brushed himself his arm could not quite reach over his uniform! The impressive thrift and frugality of Holland, which is quite another thing from parsimony, give her agriculturists and horticulturists not only an equal mind but a commercial advantage.

**Appearances.**—Nor does the best of rural Holland put on its back what it has the wisdom to refrain from forcing upon its stomach. "Even if a farmer is rich," said a close observer, "you do not see that he is rich." This is certainly the case. One finds well-to-do farmers, as I have said, in blouse and *klompen*. The agriculturist, however successful he may be, seems content to be known as a peasant.

There is small regard for appearances. Two men in their shirt sleeves planting shrubs at a nursery were, I learnt, travellers of the firm, who spoke three languages; having returned from their German and Italian rounds they were filling up their time in the open.

"Yes," said a man who knows England and Holland well, "we work harder, we are more economical, and we try more than you do, I think, to meet the market, and I think we value education more. I don't see that conditions are different in your country from ours, but, yes, the people are different."

**“We Work Harder.”**—Read the following from Dr. Frost’s work, and say whether it is the kind of thing to be expected in a foreigner’s book on our own countryside :

This zest for work, and the cause of it, must be appreciated if one would form a true picture of Dutch agriculture at the present day. Those who put down the delight which the young farmers take in their work, and the keenness with which they take over their own farms, as the result of favourable industrial conditions and fiscal progress, as so many do, are forming a superficial judgment, and miss the truth that is hidden beneath a deceptive outward appearance.

**Economy.**—“We are more economical.” The southern Englishman who finds himself in Cumberland or the Lowlands often thinks the people are mean, because, belonging to a countryside from which money is obtained with difficulty, they are moderate and careful in their expenditure. They cycle instead of taking the train, they carry food with them when they go out for a day’s outing, they are patrons of excursion trains even when they have attained to the dignity of membership in the Town Council. It is the same in Holland. The word for savings bank is *spaarbank*, spare bank; the people are sparing. But to be sparing is a very different thing from being niggardly. Salaries are low; those who have to live by selling can command only moderate prices for their goods: accordingly living must be on a careful scale. But the people are no less happy for their economical habits. Their economical habits give them, indeed, at a relatively early age a sense of security and personal dignity. As the whole nation is intent on living economically, life is not less full through being based on a carefully regulated financial outlay. The means of education, culture and recreation, the expenses of travelling,\* are much less expensive in Holland than with us.

**Education.**—“We value education more.” I was speaking with the captain of a mail boat. “In your opinion,” I

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\* The cost of railway travelling third class comes to about  $\frac{1}{3}$ d. a mile. It is possible to economise by buying a 500 or 1,000 kilometre book. The first hotel advertisement I turn up in “Pyttersen” offers, in Rotterdam, beds with good breakfast, and English, French and German, at from 2s. 1d. to 2s. 9d.!

asked, "what is the most noteworthy difference between the Dutch and the English people?" "If I may speak candidly," was the reply, "I think we are, as a whole, much the better educated. I have no doubt whatever that my two nephews of twelve and fourteen are much better instructed than boys of their age in England. But that is not all. One is able to talk with them in a way which one is unable to do with English lads of their ages. The stock of information here is much wider. We are, as a rule, better informed than you are. Here is a test. You know how new Esperanto is? Not much more than a fad to most people. Do you know that you will find it spoken in many of our cigar shops?" "Do you speak it?" "No, I do not, but I am learning." "And you speak German and French?" "Not French so very well, but German as well as I speak English. Why, we think nothing of learning a language. Did you notice the stars on the lapels of some tram conductors? It means that they speak Esperanto.\* Why should they learn it? When do they do it? Think of the hours they work? Sometimes I hear a passenger on the boat say, when the talk turns on languages, that the Dutch have a facility for learning languages. Stuff and nonsense. We learn them as everyone else does, by meaning to and by sticking at it. One would think that at this time of day intelligent people knew what nonsense it is to talk of picking up a language."

**The Disadvantages of Prosperity.**—"Perhaps it is," the speaker went on, "that your people have been saved somehow, possibly because they are on an island, from feeling the hard—how do you say it?—as we have. We have always had to keep our wits about us. If we had not, we should have gone under. One cannot come up London river without wondering about you. There is, first, the narrow range of information of so many English passengers.

"If one looks from the deck to the water one wonders why your London that you think so up-to-date is drifting its goods up and down with the tide, while we have more

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\* I never noticed any starred tram conductors, but most of these men speak a little English and German.

than 6,000 barges fitted with petrol motors. I doubt whether you have 60. I have not seen six. Petrol and benzine motors for barges are in the ordinary course of things with us.

“If one lifts one’s eyes from the water to the land one wonders why you do not use all the low land of the estuary for feeding London. Our prosperous Westland is just the same land. Why have you never straightened your river as we have straightened the Maas,\* and made it at once easier for vessels and easier to dredge? What is the meaning of all these dredgers—there is No. 18—taking all that mud out to sea that would be good for raising the level of the low land?† It must be that you have had too good a time. If so, then, as the product of a good time, there must be some things lacking in you that we have.”

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\* The improvements proposed by the Port of London Authority will cost something like £14,000,000.

† During January of this year alone, enough material was dredged by the Port of London Authority to raise eighty acres of land three feet high!



PART OF A NURSERY WHICH WAS MADE BY  
EMPTYING SOIL INTO A MERE



TYPICAL SAND ROAD IN THE EAST



THE FARM BUILDINGS ATTACHED TO MR. MANSHOLT'S FARM (GRONINGEN)



STRAW AT THE STRAWBOARD  
FACTORY

PEAT FOR THE FACTORIES

## CHAPTER XXXIV

### THE OTHER SIDE OF THE PICTURE

Do not blame me if any know better than I, for every man must say what he says according to his ability.—*Ælfred*

**Labour.**—What is the other side of the picture?

The reader must be reminded that this book is not a study of the Netherlands as a whole. I have dealt with the problems of the countryside, but the problems of Amsterdam and Rotterdam, and of many other towns, remain. I have praised the Boter Controle, but I have made no reference to certain woollen factories. I have mentioned Leeuwarden and its fine bulls and butter and cheese, but I have said nothing of the number of men who work in a factory there at half a sovereign a week or less. The visitor to Holland who does not go there to study agriculture and horticulture must recall other things than marvellous collections of pictures, beautiful old streets, and the triumphs of municipal government. He remembers, for instance, many pale faces in the streets, crowds of tired work-people returning home after dark. But pale faces and weary workers are not to be found in Holland alone.

With regard to the country districts, it has been impossible to carry our study of the life of the people very far. All the problems of rural existence are not solved because co-operated farmers pay so much less for their superphosphate and get so much more for their milk, and most labourers who deserve small holdings can have them. "Man shall not live by bread alone." But we have certainly seen in Holland a fine groundwork for that Rural Civilisation towards which those who have thought most deeply about country life are bending their energies.

**Cleanliness.**—What is to be said about the world-famous Dutch cleanliness? While in Holland I came

across the following passage in an article written by an eminent Dutch publicist in a foreign newspaper\* :

In foreign countries Holland has a certain reputation for its cleanliness and extraordinary neatness. A few years ago when showing a party of French scientists round Leyden, Holland's oldest and best known university town, I had the opportunity to show them what Dutch cleanliness really means. It happened to be on a Saturday, the day specially selected in Holland for a general 'clean up,' and wherever we went, the servant girls were hard at work with their brooms and soap. They scrubbed and cleaned wherever they found an opportunity, the gables of the houses, the perrons, and even the pavement, which caused much laughter among my lively party, and when I assured them that there are parts in our country where even the trunks of the trees along the road are painted bright, in order to give the landscape a neat and clean appearance, their gaiety rose to the highest pitch. And yet no one, who knows the Dutch people well, will consider cleanliness to be its chief characteristic feature. On the contrary, among the lower classes in the towns it is hard to find any inclination for cleanliness at all.† I have been told that in this very university town, which is at the same time a manufacturing town of some importance, it is a fact that the average middle-class man does not do much in the way of cleaning himself apart from washing his hands and face, except once a year after the country-fair festivities. No, in typifying the character of the Dutch it is not the desire for cleanliness but the desire for freedom that must predominate. For all citizens whether high or low have in common, more than anything else, a repugnance to any interference, under whatever pretence, with their freedom.

Whether the Dutch or ourselves wash the more completely is not a matter on which the wise man will express too rash an opinion. It is, seemingly, several points in our favour that there is a higher percentage of bathrooms with us than with our neighbours.‡ On the other hand, a clever woman, who knows nothing whatever of my interest in

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\* Mr. G. G. van der Hoeven, editor of the "Nieuwe Rotterdamsche Courant,"—in many ways one of the best, if not the best paper in Holland—writing in the "Politik och Kultur" of Helsingfors, 1907.

† Compare the "Nation," April 13th, 1912:—Page 45, "The Imperial Race": "The sickening smell that not only pervades an English crowd but hangs for two or three days over an open space where the crowd has been." Page 62, "The Charwoman's Daughter": "Her mother seldom washed at all." So dangerous is it to indict a nation! A correspondent writes: "Leyden is not an average. It has had a linen and woollen industry for centuries and the people are degenerate. Nevertheless all is true."

‡ We have a dirtier atmosphere in our cities.

Holland, recently wrote to me in connection with another subject altogether, as follows :

From some writing one would imagine that the future of the race depends on the number of bathrooms. This is amusingly typical of the English race—which is not to be compared with the German or Dutch races for cleanliness—and their utter incapacity to accomplish anything unless they have the conventional machinery. The three cleanest, most brilliantly intellectual and most highly developed women I have ever known had never used a bath in their lives, had never lived in a house possessing a bathroom, yet they bathed every day in the real sense of the word, and two of them were beautiful and fine creatures physically as well as mentally high, and they were of three different races.

If it be the case that early Victorian prejudices against complete ablutions after summer is gone do linger among a considerable proportion of the population, it is no doubt fair to place some of the responsibility on the moist atmosphere of Holland in the autumn and winter.

**Sanitation.**—Whatever may be the exact truth about Dutch cleanliness, there would appear to be some foundation for the stranger's belief that Dutch rooms are often stuffy. The fear of draughts in Holland is almost a national obsession. If many of our servants and work-people have something to learn from the Dutch passion for scrubbing things and for order, if our utensils and possessions generally are not always so clean as they would be if they were in Holland, if our working people's clothes are not always so carefully mended as the clothes of quite poor Dutch folk—I have heard that the Salvation Army, when it first came to Holland was puzzled to know, because of the decent appearance of its applicants for assistance, whether they were really deserving of help—we may sometimes breathe in our houses and public buildings a cleaner air. The stuffiness is probably due to an excessive dread of "damp," a little pardonable in a people, so many of whom live below the level of the sea. But revolutionary young school teachers are indomitably opening windows in their class-rooms, and in ten years time there are likely to be changes.

When I first went to Holland, the sanitary arrangements

in good hotels were of an amazingly elementary description. Last year, while I came across outcroppings of an earlier civilisation in establishments with a very large supply of waiters, I also found in some hotels in the provinces as good arrangements as the best in London.

**The Health of the People.**—On my first visit to Holland my vegetarianism was held to be so remarkable that it was discussed in print; there are now a dozen vegetarian hotels or restaurants up and down the country, and, whatever may be thought about meat-eating or non-meat-eating, this spread of the non-carnivorous cult is at least an indication of an interest in hygienic questions.\* Like the rest of us, the Dutch are a bundle of opposites. But the Dutch bundle is specially puzzling to the visitor to Holland, for he has a feeling that in so small a country things should be easier for him to understand. These contradictions of life and character frequently lead the casual observer very much astray. Against the close rooms in Holland there is to be remembered, for example, a delight in walking and in sitting in the open air. Even in October and November there are chairs and tables outside restaurants and hotels and the hospitable club in *Het Bosch*. The percentage of bicycles is higher than in any other country, and everyone knows the Dutch proficiency and delight in exercises on and in the water and on the ice. As a young man, a Dutch friend of mine was accustomed in the winter time to skate to his daily swim! The foreigner may think that the physique of the people would be better on the whole if less Hollands were drunk† and there was much less

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\* The organisation of the public sanitary service is a better indication.

MEAT CONSUMPTION PER HEAD PER YEAR.—U.S.A., 189 lb.; United Kingdom, 123; Germany, 119; Holland, *seventy-four*.

† DRINK CONSUMPTION.—In the last issue of the "*Jaarcijfers*" there are some tables of drink consumption in the Netherlands and in other countries which are somewhat surprising. The figures are in terms of absolute alcohol, Dutch beer being reckoned at  $4\frac{1}{2}$  and ours at 6 per cent., German and Swiss wine at 10 per cent., ours at 15 per cent., and other countries at 12 per cent. Spirits are taken at 50 per cent. On this basis the consumption of absolute alcohol in 1905 was as follows:

smoking. The tobacco in the Netherlands is not of a heavy sort, but the number of cigars that many men smoke in a day is appalling, and the youthful age of many of the smokers must seem deplorable to every one who knows the precise effects of narcotics on young people. It is possible, however, that there is not quite so much youthful smoking as there used to be. But a doctor friend doubts this.

**Social Progress.**—Holland has been shaken up of late years in more ways than one. Some of her admirers may think that there are directions in which she could still, perhaps, receive a little more shaking with advantage. Her Progressives of sorts, her Socialists, her suffragists and vegetarians, are no doubt doing their best to give her the shaking. Certain of the manifestations of these uneasy folk have probably the effect of causing some of the old-fashioned to hug their traditions all the tighter. The strength of the Anti-Revolutionary and the Christian Historical parties is due to some extent, I think, to honest steady-going people being badly scared by the forward people. That is the worst of the children of light; they are always so much less tactful than the children of this world!

An illustration of the contradictions in the Dutch character\* is to be found in the relations of classes. In

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*Netherlands* 5.20, *Germany* 9.22, *Denmark* 10.27, *Great Britain and Ireland* 10.09, *Belgium* 12.29, *Italy* 10.89, *France* 23.36. A Dutch correspondent writes to me that he should have "thought the consumption of absolute alcohol greater in Holland. I am afraid these figures give us too favourable a position." The "Times," of April 15, gives our consumption per head of beer, wine and spirits in 1911 as 32.24 gallons, which, reduced to absolute alcohol according to the "Jaarcijfers" ratios, works out as 9.04 litres. A litre is  $1\frac{3}{4}$  pints.

\* CONTRADICTIONS IN THE DUTCH CHARACTER.—The most individualistic of peoples is a nation of co-operators. A race of idealists attaches its affections closely to material things. Fiercely loyal to their sovereign, they are at heart Republicans. Democrats, they live in rings. Citizens, theirs is the only written Constitution which mentions a nobility. Scornful of rank, they are punctilious about titles. Sticklers for the right of private judgment, they fix their faith upon the expert in authority. The country of the Higher Criticism is governed by ministers committed to the literal interpretation of Old Testament

such a small and intensely democratic country, one may be easily led to expect a disappearance of social stratifications that is out of human nature. It has been wickedly said that in one provincial capital there are thirty-three classes of society, arranged according to amount of taxes paid!\* I have been amused sometimes at the way in which my Dutch friends have deprecated my travelling third class when I have become tired of the two classes, the occupants of which are pretty much the same in all countries. On the other hand, everybody rides in the trams.

“**Deftig.**”—A foreigner can only judge of a country and a people by what he happens to see and hear and what he may be able to read. Dutch people are to him the Dutch people he has met or heard about. I remember how a Dutch friend on a visit to England had got the impression that all Englishmen were burlier than Dutchmen because the English porters he had noticed happened to be bigger than the Dutch ones he knew. When he found himself in the Potteries he was quite surprised to see a number of short people. But what is it possible for a foreigner to write about a country if he does not write his impressions?

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Scripture. A man or a woman under thirty may not marry without their consent, but children are taken from incapable or neglectful guardianship into that of the State. The influence of women is great, for life concentrates in the home; but she plays no part in public affairs, and legally her status is barbaric. Theology enters into every question in life, and alienists test for the credibility of witnesses with the problems of the schoolmen. Yet the churches are preached empty. And in this most contradictory of countries, the profession of High-Calvinism is *ton*. . . . Like the gaudy bonnet pitched upon the gold *oorijzer* of the North Holland woman, the new is everywhere superimposed upon the visible old. The middle ages jostle the twentieth century, as the old model wagons the automobile on the dike. The Utrecht farm-hand lays down his flail, and mounting his cycle rides off to see Mr. Wynmalen fly. The Limburg *knecht* gives his team of oxen a holiday while he visits the Exhibition at Brussels.—“*Home Life in Holland*,” by D. S. Meldrum.

\* The thirty-three classes are at least possible, but I doubt whether they are arranged in order of income. That would surely be more characteristic of England! The Dutch aristocracy is not recruited from successful industrials.

I should mention the untranslatable word *deftig* in connection with my thwarted attempts to travel third. One has an abiding impression of the Dutch as *deftige menschen*. There are things which are *deftig* and things which are *niet deftig*, but the reader must get his impressions of these distinctions as best he can from the definitions of the admirable Ten Bruggencate: "*Deftig*, grave, dignified, portly, genteel." The dictionary's effort is praiseworthy, but it is, none the less, a failure.

**Drawbacks of a Small Country.**—The word provincial may, no doubt, be applied to some things in a country of only six million people. It is not wholly and entirely because the Netherlands is a small country that some Dutch artists, literary men and merchants are found living abroad. If there are, as may not be doubted, high moral and intellectual advantages in belonging to a small nation, there are admittedly drawbacks. It is even possible for a foreigner to understand a little of the feeling of those who have thought that worse things might befall the Netherlands than that she should establish some self-respecting connection with a neighbouring Empire. I only say, however, that it is possible to understand such a point of view. I abate nothing of my belief that, in the present state of European civilisations, there are no conceivable conditions in which such an arrangement could be effected without its being other than a misfortune of the gravest kind for the Dutch people and for European progress.

Home is where you know everybody. In a small country like Holland everybody knows everybody else. Such a state of things is characteristic of village life. But, is it not suggested nowadays that what our civilisation is in need of is more and more village? The life of some of the towns in Holland is narrow, but this is the character of small towns everywhere. And there are large towns in Holland, for while it is a rural country, it is also a country of large towns. Granted, however, that much of the life of Holland is the life of the village, what then? There is formality and just a little self-satisfaction; and there are unlovely religious bickerings.

**The Strength of Holland.**—On the other side, however, we have the dependability of the Dutch, the quality, above all others, that wears well. And the Hollanders are still, as Motley found them, a "jocund and energetic people." Again, when the Orthodox are most dreary, we do well to remember with gratitude that enlightened reading of the Scriptural writings which has characterised Dutch churchmen. Further, one of the most provincial nations of Western Europe is also one of the most accomplished. A good deal has been said of mere language learning that is derogatory, but no impression which one brings away from Holland is stronger than that to the mastery of more than one foreign tongue, which distinguishes so large a percentage of the people, is due that intelligent and sober outlook on the world which must constantly be remarked by the stranger in the Netherlands. Against any provincialism there may be in Holland must be set the fact that there is little of what one may call, for lack of a better word, insularity.

A great deal is written and said in England about the revival of village life. If it is to be revived, not in an artificial but in a lasting way, we may go to Holland for many lessons in how to introduce reality and zest into rural existence. Holland has still country problems to solve, but she has attacked and dealt with some which we have not yet approached with much confidence.

The gross belief in big combinations will not retain its hold on the imagination of mankind for ever, and, when it passes, the part which the small nations play in the world will be valued at its worth. In forecasting the fate of a nation it is the easiest of mistakes to forget that the strength of a country is not in its armed thews alone. It was not by brute strength, but by intelligence, pluck, patience, foresight, and the wider view that the Dutch mastered the might of Spain. It is intelligence, pluck, patience, foresight and the wider view which distinguish Holland to-day; and these qualities have been nowhere more conspicuously displayed than in the development of her rural life and industry.

**The Higher Cosmopolitanism.**—Holland, by the folly of its big neighbours, seems compelled to waste millions\* on military and naval preparations which are obsolete in a generation, and at their newest are of small value. But the nation, as a whole, has a wit too shrewd, a use of arithmetic too ready and an historical memory too vivid to be militarist, to feel any stirring of megalomania, or to have thoughts running on a more desirable place in the sun than she has now.

The plainest dressed of Western peoples has passed through the stage of finding a supreme satisfaction in making a noise in the world. It is a people too middle-aged for "side" or for walking in a vain show. It thinks less than its neighbours do of soldiers and fleets, and more of education, of religion, of art, music and the drama, of commerce and the life and work of the countryman. It has come to realise Europe not as something alien outside Holland, but as an entity to which Holland belongs. Intensely national, as appreciative of its own value as it is cognizant of its short-comings, it has attained to a remarkable degree to the cosmopolitan view.

Of the ten or eleven million Dutchmen in the world only six millions live in Holland. The movement of the people abroad and home again means continued changes and a steady importation of new ideas. In a remote village one may find a typical Hollander sitting on his *stoep*. He looks

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\* THE ZUIDER ZEE.—One of the things to which the Dutch could apply the money would be the Zuider Zee draining, by which they would obtain a twelfth province. If the land below the water of this great arm of the sea should prove to be as good as that in North Holland, the draining would pay well. No one really knows exactly, of course, what even the building of the sea-wall would cost. One interesting result of the draining would be almost to extinguish fisheries of some value, and join to the mainland islands the inhabitants of which have in costume and customs kept themselves apart from the rest of Queen Wilhelmina's subjects. It might also have some effect on the political balance of power. As to the fisheries, 42,791,000,000 herrings were landed in the principal communes of the Zuider Zee littoral in 1909. Every year the number gets smaller; in 1905 it was 114,493,000,000. In 1909 the catch of anchovies was 34,000 ankers, an anker containing from 1,500 to 4,000 fish. There seem to be about 3,000 vessels of different sizes employing 6,500 men at work in the Zuider Zee fisheries.

as if he had never left his farm. But he may have spent half his life abroad. This coming and going of the Dutch people is common to all classes, from the highest to the lowest, and must have its effect on the spirit and soul of the nation.

But to let one's pen run on like this is, after all, a little idle. In such writing one can reach no more than approximations to truth. The foreigner, be he never so painstaking, receives his impressions from a restricted number of facts, from a few scenes of life and character, from the tiniest and a casually encountered percentage of the whole population. When he tries to study good and bad points, his guides, however informed and worthy, insensibly take him to the best and the worst. It is not in human nature to point out the average when the large and the small are more striking and more easily found.

As to the average where the people are concerned, is there after all any typical average among educated people in Western Europe? The educated classes of Great Britain, France, Germany, Holland, Belgium and Denmark are much the same in very many particulars. Take national conceit. In some Hollanders the stranger remarks a certain complacency, not personal but national. The very same complacency is surely to be found in English and French people, in Germans, in Belgians and in Danes.

Although there are still outstanding national characteristics in Holland, and there are notable differences between the Dutch and ourselves, not a few of the differences are on the surface, or they are paralleled in some way by characteristics of our own. There is, of course, some infusion not only of German, Belgian and French, but of Scots and English blood in the Dutch.\* At the census of 1899 there were found to be among a population of 5,104,137, as many as 31,865 Germans. There were also 14,903 Belgians, 1,307 English, 1,018 French and 3,626 of other nationalities.

To conclude, it is only too plain that the stranger cannot merely by taking thought arrive at knowledge. There are things even at his elbow which are hid from him. He sees,

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\* The editor of "De Economist" is Prof. Dr. C. A. Verrijn Stuart. Our Lord Reay is in Holland Baron Mackay.

however eager his gaze may be, as in a glass on which only a little light falls. He can but guard himself against his predispositions no less than his prejudices, count no burden of questioning too hard to put himself into the way of truth. He must fall into errors not a few, but if the spirit in which his inquiries are made and his pages are written be sympathetic and humble, he cannot work entirely in vain. The ideal of those who write about other countries than their own must be to be "ministers not of the letter, but of the spirit, for the letter killeth."

## CHAPTER XXXV

### CONCLUSIONS

TO the two questions asked at the beginning of this book it is now possible to furnish answers. I asked in the first place:

I.—Is Rural Holland, the conditions in which, in essentials, so much resemble Rural England, prosperous?

I answer: Yes, unmistakably.

I add that nothing I saw or heard, and nothing I have read in the course of my investigations has led me to believe that any other reply could possibly be given by any fair-minded man with regard to Commercial Holland.

As to Industrial Holland, having regard to the fact that the country is without an effective supply of coal, and possesses no other minerals that matter, and is chiefly fitted for agriculture, horticulture and commerce, and not for industry, her success is remarkable.

II.—What are the causes of the prosperity of Rural Holland?

That prosperity is due, in my opinion:

I. To the geographical situation of the Netherlands

(a) In relation to the countries with which she is able to deal in the exchange of her own produce or the produce of other countries,

(b) In respect of climate.\*

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\* One Dutch agricultural authority argued that the climate in England was better than that of Holland, "You can grow winter oats and beans," he said; "we cannot."

2. To her soil, largely of her own making, which in many parts of the country is excellent, and in some parts\* not to be bettered anywhere in Europe.

3. To her abundance of water, which she has so cleverly controlled as to make of it not only

(a) A cheap means of transport,† but

(b) In the best agricultural and horticultural districts, a guarantee against drought.

4. To the grit, industry, "intelligence and adaptability of the people, their "instinct of self-government,"‡ deep-seated love of freedom, and the courage and endurance taught by the struggle with Nature, the hard times of the Spanish domination and the wars with the world at large.

\* In Zeeland, North Holland, and Groningen. "But," as someone said, "there is prosperity also in Gelderland and Twente on the sand." I was assured by one authority in Gelderland that "the sand farmer is better than the clay farmer."

† DUTCH AND ENGLISH CANALS AND RAILWAYS.—We have to remember that the rivers have been canalised, the canals have been dug. We have more inlets of the sea than Holland. Railway freights are about a third of ours; canal freights a fraction of the railway ones. The traffic by water is more important than the traffic by rail because water traffic is cheaper and nearly as quick as by goods trains. The canals are State-owned. The question of State control of the railways has been met by a compromise: a powerful State railway is in competition with a powerful private one. "You do not seem to have any railway system in your country," said a Dutch friend; "you have merely a conglomeration of railways."

‡ DEMOCRACY.—Those who remember their Motley have some conception of the degree to which the provinces and cities of the Netherlands have gone their own gait. Democracy is in the fibre of the people. As the historian says, the people of the Netherlands were "marked during sixteen centuries by one prevailing characteristic, one master passion, the love of liberty and the instinct of self-government." *Vide* pp. 123 and 133. "Always keep in mind," said a Dutch friend to me, "that our country before the revolution in 1795, was never a unity, like your country or France. They were the United Provinces. But every province was sovereign and had its States. We revolted against Philip II. But he was not our king; he was king of Spain, but Duke of Gelderland, Count of Holland and Zeeland, and so on, and reigned by means of Stadholders, who continued to govern for him, under a legal fiction, that they governed for the misinformed king."

5. To high prices,\* of which the utmost advantage has been taken by co-operation in the purchase of requirements and the manufacture of butter, cheese and other articles, and in sale, and in the business-like study of foreign markets.

6. To a high level of general education, which made agriculturists and horticulturists accessible to and understanding of new agricultural, horticultural and commercial ideas, ready to learn from abroad, and appreciative of the advantages of travel.

7. To long, skilful and painstaking agricultural and horticultural practice, due in part to the fact that minerals have played no part in the development of the kingdom.

8. To a very large use of artificial manures.

9. To an admirable agricultural and horticultural education, laboriously adapted to the different classes for which it was provided.

10. To the discerning activity of the Department of Agriculture—as displayed particularly in the labours of ex-Director-General Lovink† and his successor, Director-General van Hoek (who organised the agricultural instruction)—in providing or helping in the provision of agricultural and horticultural instruction *of all kinds*, and in judiciously encouraging rural self-help *in every possible direction*.

11. To the degree to which the nation, realising that the main work of the country must be supplying agricultural and horticultural produce to the foreigner, has concentrated its attention on the task, and while resisting the temptation to coddle and enfeeble by too liberal financial assistance, has granted large funds to the Department of

\* Not, of course, higher than in England.

† In a decade he made almost as great a mark on rural Holland as Sir Horace Plunkett has made on rural Ireland. He is now Director of Agriculture in Java.

Agriculture as cheerfully as it has passed the Budgets of the Waterstaat, or of the Army and Navy.\*

12. To low expenses, due in part to the simple and frugal but by no means parsimonious habits of the people in the towns as well as in the country.

13. To low-priced labour—but on the whole, not cheaper than our own, everything considered—and attributable principally

14. To the low cost of living, due chiefly

15. To Free Trade, which

(a) Has enabled the agriculturist and horticulturist to buy cattle food, implements and other requirements inexpensively, to market a large proportion of their produce in a friendly market, to live cheaply, and

(b) Has kept producers up to the mark by exposing them to the bracing influences of foreign competition.

*And all these advantages, or others of equal value, we ourselves possess or have it in our power to obtain.*

As a friend writes from Holland, "*English Farmers are Free also and live in a Free State.*"

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\* Some of our own Colonies have gone to work on the same lines. The annual vote for agriculture in South Africa must be about half a million for a country of a million and a half white inhabitants. One of the Australian States, realising the possibilities of dairying within its borders, allocated an immense sum for its development.

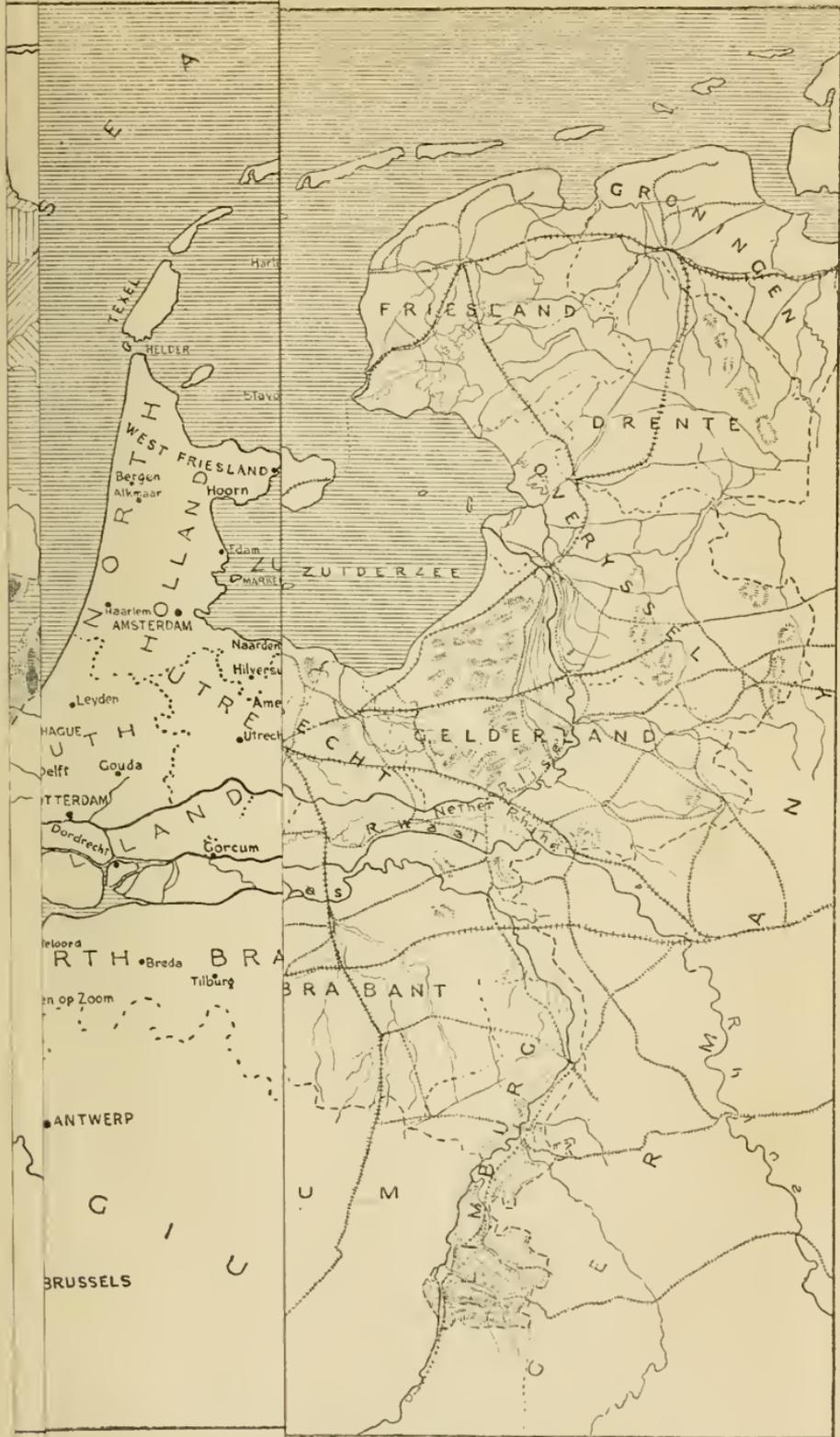
## APPENDIX

### HOLLAND IN ENGLAND

The author of that instructive "Pilgrimage of British Farming," which appeared in the "Times," has an interesting account of the Holland in England to be found in the Isle of Axholme. "We found ourselves," he writes, "in a region of straightened river courses and drainage channels like the Fens, mostly below high water mark and covered with a deep silty soil similar to that occurring between Wisbech and Boston. This is classic ground in the history of embankments and drainage, for here Cornelius Vermuyden was at work in the time of Charles I., and here, when authority was relaxed during and after the Civil War, the angry marshmen rose and destroyed pumps and sluices, letting in the tidal waters until the haunts of the wildfowl were re-established. It required repeated efforts and the ruin of many adventurers before the land was finally won from the sea, only within the last half-century by the aid of steam and of the centrifugal pump has it been possible to unwater the land regularly and with certainty.

"The memory of Vermuyden is preserved in the name of the Dutchman's Drain carried by a large channel to the north of Epworth, but drainage is not the whole of the work here necessary in order to make the new land. The further process is called warping, and consists in building up a deposit of tidal silt several feet thick on the wet and valueless marsh. The unimproved land forms a wide area of 'moor' wet peaty bog covered with a vegetation of tufted grass, bracken, heather, and stunted birches and pines, practically without value for agriculture. A company is engaged in digging the peat. It passes through a disintegrator and the coarser part of the result is pressed up into the well-known bales of peat moss litter. The dust and smaller fragments are reduced to a still finer powder and used as an absorbent for molasses in order to make a cattle food.

"These Yorkshire litter works had been founded on Dutch models, and were for a time largely worked by Dutch labour, but the labourers first brought over, like the drainage adventurers two centuries ago, have been merged in the country population and the workers are now English enough. After the peat has been cut out a bank is built round the area to enclose about 200 acres and a connexion is made with the warping drain, a straight channel which leads to the estuary, with powerful sluice gates at the entrance. At high tide the sluices are opened



CITIES AND PRINCIPAL RIVERS, CANALS AND RAILWAYS

Canals are shown, and nothing of the remarkable P. stand for the sites of the Haarlemmer, , now farm and market garden land

# SKETCH MAPS

1111P

## NETHERLANDS

The extreme length of the country is about 140 miles from London to Exeter. The distance from the Hook to Germany about the same as from the Metropolis to Bristol.



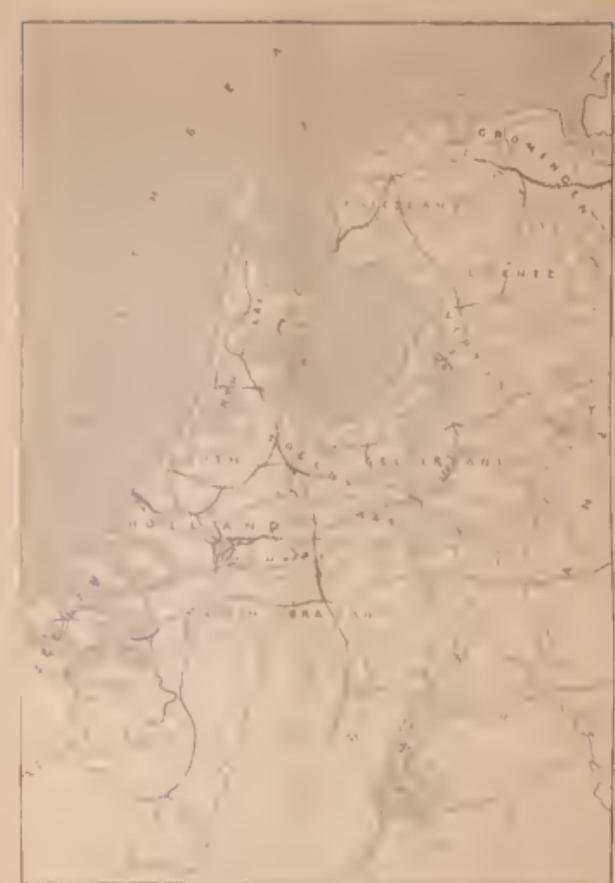
FELT BELOW AND ABOVE SEA LEVEL



VARIETY OF THE SOIL



PROVINCES AND PRINCIPAL TOWNS AND RIVERS



DRAINAGE BASINS, RIVERS, CANALS AND RAILWAYS  
 Water-gates, locks, sluices, etc., are shown, including also the important water-shedding system. H. and P. stand for the sluice of the Hollandsche Schelde and Turner Sluice, new farm and market garden land.

and the thick muddy estuarine water pours up the channel and floods over the embanked area, where it is left to stand for three or four hours until the tide has fallen, when the sluices can be opened once more to allow the water to run back into the open river. Meantime, while at rest the water has deposited a portion at least of its burden of silt, and there is left upon the excavated peat a paper-thin layer of fine sand and mud. Tide after tide this process is repeated, the strong springs carry more silt than the slower moving neaps; but, in three years about four feet of soil can thus be built up. Finally it is given a little time to dry and a shower of rain to wash out the salt, before being sown with clover and rye grass, which are left down for two years while the ground consolidates. It is then firm enough to be drained and receive a little levelling, after which it passes into general cultivation and can be let at £2 an acre or thereabouts. Sometimes the land settles so much after it has been in cultivation, through the decay or consolidation of the underlying peat, that the warping is repeated and another foot or two of soil is added. Roughly the capital outlay is considered to be about £20 an acre, at which cost the waste moors possessing only a nominal value become worth £40 to £50 per acre.

"As the river bank is approached a very complicated system of drainage canals is seen at various levels and of all sizes. The maintenance of these canals and the pumping stations is met by a rate. The result is a stretch of land of great fertility, a curious country traversed by great waterways on which barges, almost worthy to be called ships, sail high above the land, traversed too by many railways bringing Yorkshire traffic to and from the port of Grimsby."

#### DUTCH HISTORY

- 1795. Collapse of United Provinces
- 1795-1806. Batavian Republic
- 1806-10. Kingdom of Holland (Louis Napoleon)
- 1810-13. Incorporated with French Empire by Napoleon
- 1813. Return of the Prince of Orange
- 1815. Belgium united to Holland by the Powers as the Kingdom of the Netherlands, the Prince becoming William I
- 1830. Revolt of Belgium
- 1831. Kingdom of Belgium constituted under Leopold
- 1839. Final Settlement with Belgium
- 1840. William II
- 1849. William III
- 1890. Wilhelmina

#### DUTCH AND GERMAN PRICES

It may be mentioned that the figures given on pp. 270-271 were collected in December, 1910. In Holland, as in other countries, food prices are now, of course, higher.

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