THE RURAL ECONOMY OF THE WEST OF ENGLAND:
INCLUDING DEVONSHIRE;
AND PARTS OF SOMERSETSHIRE, DORSETSHIRE,
AND CORNWALL.
TOGETHER WITH MINUTES IN PRACTICE.
By Mr. MARSHALL.
IN TWO VOLUMES.
VOL. I.
LONDON:
Printed for G. NICOL, Bookfeller to His Majesty, Pall Mall;
G. G. and J. ROBINSON, Paternoster Row;
and J. DEBRETT, Piccadilly.
M, DCC, XCVI.
A FEW particulars of modern practice, that have been recently introduced into this part of the Island, especially into the South Hams, have not deranged the long-established system of Danmonian Husbandry; which is still firmly rooted, in the several Districts of this Department; and remains as distinguishable from the ordinary management of the body of the Island, as if the Peninsula, they form, had been recently attached to it.

Moreover, it will appear, in the following pages, that, although the Danmonian practice has many defects, it has likewise its excellencies, by which the British Husbandman may greatly profit; and very many peculiarities, by which the mind of an attentive reader will be enlarged, and its prejudices be relaxed.
I therefore consider it as one of the most fortunate circumstances, that have attended the execution of my undertaking, that I was led to the pure fountain of this distinguished practice.

London, May, 1796.
CONTENTS
OF THE
FIRST VOLUME.

THE
WEST OF ENGLAND.

Introductory Remarks on surveying a Country.
Division of this Department of England into Districts, 5.

DISTRICT THE FIRST.
WEST DEVONSHIRE,
&c.

Introductory View of this District.

Sect. I. Its Natural Characters, 8.
I. Situation, 9.
II. Extent, 9.

Vol. I. a III. Ele-
Contents.

III. Elevation, 10.
IV. Surface, 10.
V. Climature, 11.
VI. Waters, 12.
VII. Soils, 13.
    Species.
    Quality, 14.
    Depth.
    Absorbency.

VIII. Subsoils, 15.
    Slatey Rock.
    Rubble.
    Whittaker.
    Analysis of the Substrata.

IX. Fossil Productions, 18.
    Blue Slate.
    Slatestone.
    Freestone.
    Moorstone.

X. Minerals, 19.
    Tin.
    Copper.
    Lead.
    Silver.

Sect. II. Its present State, as a Part of the National Domain, 20.

I. Political Divisions, 21.
   County.
   Militia Districts.
CONTENTS.

Hundreds.
Manors, 21.
Townships, 22.

II. State of Society, 23.
1. Its principal Towns, 23.
2. Villages, 24.
   Moral Reflections concerning them.
5. Food, 27.

III. Public Works, 29.
   Embankments.
   Drains.
   Inland Navigations.
   Canals.
   Made Brooks, 30.
   Public Mills.
   Ferries.
   Bridges.
   Roads, 30.
   Their recent Improvements.
   Inclosures, 31.
   Reflections on their probable Origin.

IV. Its present Productions, viewed in a political Light, 34.
1. Produce of its Waters, 34.
   Sea Fish Pilot Fishery, Salmon.
   Gen. Obs.
2. Produce of its Soils, 37.
   Vegetable.
   a 2

Note
CONTENTS.

Note on Dwarf Furze. Animal, 38.
General Remarks on Mining.

V. The Face of the Country, viewed as a Part of the Demesne Lands of the Empire, 40.

Sect. III. Its present State, as private Property.

I. Possessory Property, 43.
Life Leafes, 43.
Their Nature.
Their Operation.
The Means of Annihilation, 47.

II. Abstract Rights, 48.
1. Manorial Rights, 49.
2. Tithes.
3. Poor's Rate.
Effect of Village Manufactures on the Poor's Rate.

THE
THE RURAL ECONOMY OF THIS DISTRICT.

Analysis and Division of the Subject, 53.

DIVISION THE FIRST.

LANDED ESTATES, AND THEIR MANAGEMENT.

Sect. I. Estates, 57.

Sect. II. Management of Estates, 58.

1. Laying out Estates, 59.
2. Laying out Farm Lands, 60.
III. Farmeries, 60.
   Situations.
   Water, 61.
   Plans, 61.
   Materials of Building, 62.
   Covering Materials, 64.

IV. Fences, 65.
   Description.
   Origin, 66.
   Age.
   Raifing, 67.
   Advantages.
   Disadvantages, 68.
   General Remarks, 69.

V. Disposal of Farms, 69.
   Occupying, 70.
   Selling for Three Lives, 71.
   Letting for a Term certain, 73.
   General Remarks on LETTING FARMS
   by AUCTION.

VI. Forms of Leaves, 77.
   Remark on the Devonshire Form, 80.

VII. Rent, 82.

VIII. Removal, 82.

IX. Manor Courts.
DIVISION THE SECOND.

WOODLANDS,
THEIR
PROPAGATION AND MANAGEMENT.

Sect. I. Woodlands, 83.
   I. Species of Woodlands.
   II. Species of Timber Trees, 84.
   III. Species of Coppice Woods.
   V. Their Eligibility, in a general View.

Sect. II. Propagation, 86.

Sect. III. Management, 87.
   I. Management of Timber, 88.
   II. Management of Coppice Wood, 90.
      1. Training Coppice Woods.
      2. Age of Felling, 91.
         Note on Cider Cask Hoops.
      3. Disposal, 92.
      4. Method of taking down, 93.
      5. Conversion, 95.
      6. Consumption.

III. Management of Hedgewood, 95.

IV. Markets for Bark, 96.

Remark on the Process of Tanning.
DIVISION THE THIRD:

AGRICULTURE

Sect. I. Farms, 98.

I. Natural Characteristics.
   Climature, 99.
   Surface.
   Quality of Soil.
   Quantity of Soil.
   Subsoil.

II. History of Farm Lands, 100.

III. Their Present Application, 101.

IV. The Sizes of Farms.
   General Observations on the Gradation of Farms, 102.

V. Plans of Farms, 104.

Sect. II. Farmers, 104.

Description.
Qualification, 105.
Property.
Education, 106.
Knowledge.
Spirit of Improvement.
Sect. III. Workpeople, 107.

I. Laborers.
   A Remark on the Effects of a Lowness of Wages.

II. Servants, 108.
   Manner of Hiring, 109.
   Wages.
   Treatment, 110.

III. Apprentices, 110.
   General Remarks on their Treatment, and their Value in a Political Light, 111.

Sect. IV. Beasts of Labor, 113.

   Introdutory Remarks.

I. Pack Horses, 115.

II. Oxen, 116.
   The Usual Plow Team.
   Mode of Working.
   Style of Driving.
   Breed, 117.
   Age of Throwing up.
   No Spayed Heifers.

III. Cart Horses, 117.
   General Remark, 118.
   Hours of Work, 119.

Sect. V. Implements, 119.

I. Waggon.

II. Cornish Wain, 120.

III. Dray or Sledge.

IV. Gurry Butt, 121.

V. Fur-
CONTENTS.

V. Furniture of Pack Horses.
    Crocks.
    Short Crocks, 122.
    Pots.
    Bags, 123.
    Packfiddle.

VI. Plow, 123.
    Its Singularities of Construction.

VII. Harrows, 125.

VIII. Roller.

IX. Drudge.

X. Yoke.
    Its Admirable Construction, 126.

XI. Tools, 127.
    The Pointed Shovel Particularized.
    Gen. Obs. on INSTRUMENTS OF HUSBANDRY, 128.

SECT. VI. The Weather, 129.
    Prognostics not attended to.
    The Advantages of attending to the Barometer and Setting Sun.

SECT. VII. Plan of Management, 130.
    I. The Objects of Husbandry, 133.
        Crops, 134.
        Livestock.
    II. Course of Practice, 135.
        Remarks on the Devonshire Husbandry.
        Succession of Crops, 136.

SECT. VIII. Management of the Soil, 137.
    State of Tillage Deficient, 138.
    Reclaiming the Soil from Obstructions.
CONTENTS.

Reclaiming it from Weeds, 140.
An Instance of Practice, with respect to the Wild Oat.
Sodburning, 141.
The Devonshire Practices.
Handbeating.
Spading, 142.
Velling, 143.
Skirting, 144.
Burning Beat, 145.

GENERAL REMARKS ON SOD-BURNING, 146
Its Operation on the Soil.
Its Uses in Husbandry, 151.
— Political Agriculture.
Its Action on Private Property.

Sect. IX. Manures and Management, 153.

I. Dung, 153.
Species.
Raising.

II. Sea Sands, 154.
Species.
Analysis of their Qualities.

III. Lime, 156.
Introduction.
Species of Stone.
Limekilns described.
Separating the Ashes.
Preparation, for Manure, described.
Methods of Spreading, 159.

GENERAL REMARKS ON THE APPLICATION OF LIME, 160.
Proposed Improvement, 163.
 CONTENTS.

Sect. X. Semination, 164.

Sect. XI. Management of Growing Crops, 164.

Deestroying Weeds.
Species of Vermin, 165.

Sect. XII. Harvesting, 166.

Prefatory Remarks on the Growth of the present Practice.

I. Hewing Wheat, 168.
II. Setting up Shocks, 170.
III. Arrish Mows or Field Stacklets, 171.

Method of Making, 172.
IV. Turning Corn Swaths, 173.
V. Binding Corn Swaths, 174.
An Improvement suggested, 175.
VI. Carrying Sheaf Corn on Horseback, 176.
VII. Pitching Corn Sheaves, 177.
VIII. Form of Stacks, 178.
IX. Method of thatching Stacks.

General Remark on the Devonshire Harvest, 179.

Sect. XIII. Management of Harvested Crops, 179.

I. Housing Stacks by Hand, 180.
II. Thrashing Wheat, &c. in the Devonshire Manner, described, 181.

Thrashing Barley, &c. 183.
III. Winnowing with the Natural Wind! 184.
CONTENTS.

Sect. XIV. Markets, 185.

Sect. XV. Wheat and its Management, 186,
   I. Species.
   II. Succession.
   III. Soil.
   IV. Soil Processes, 187.
   V. Manure.
   VI. Seed Processes.
      The Singularity of the Devonshire Practice.
      Time of Sowing, 188.
      Seed Plowing.
      Hacking over the Land!, 189.
      Quantity of Seed.
      Method of Sowing.
      Covering.
      Adjusting, by Hand!
      General Observation, on this Practice, 190.

VII. Produce of Wheat, by the Acre, 191.

Sect. XVI. Barley, 191.
   I. Species.
   II. Succession, 192.
   III. Soil.
   IV. Tillage.
   V. Manure.
   VI. Sowing, 193.
   VII. Weeding.
      Produce.
Contents.

Sect. XVII. Oats, 193.

Sect. XVIII. Turnips, 194.
   I. Species.
   II. Succession, 195.
   III. Tillage.
   IV. Manure.
   V. Sowing.
   VI. Hoing, 196.
   VII. Expenditure.
       General Observations, 197.

Sect. XIX. Potatoes, 198.
   Prefatory Remarks on their Introduction.
   I. Species, 200.
   II. Succession.
   III. Planting.
   IV. Cleaning, 201.
   V. Taking up.
   VI. Preserving.
   VII. Farm Expenditure.

Sect. XX. Cultivated Grasses, 202.
   Introduction and proportional Quantity.
   I. Species, 203.
   II. Succession.
   III. Sowing.
   IV. Application.
   V. Duration, 204.
Sect. XXI. Grasslands and Management, 204.

I. Species of Grasslands.
   1. Meadow Lands.
      Note on Meadow Plants: the Foxtail wanting!
   2. Grazing Grounds, 205.
   3. Temporary Leys.
   4. Rough Upland.

II. Management.
    Watered Meadows, 206.
    Conjectures on their Origin.
    Proportional Quantity, 207.
    Management.
    Effect of the Slate Water, 208.
    Remarks on the Analyses of Waters, 209.
    Hay Harvest, 209.
    Mowing.
    Carrying Hay on Horseback.
    Aftergrafs, 211.

Sect. XXII. Orchards and Fruit Liquor.

I. Orchards, 213.
   1. Their Introduction into the District.
      Note on the Orchards of Cornwall.
   6. Raising
CONTENTS.

   Extraordinary Way of Training them.
   Setting out.
   Mode of Planting, 219.
   Guarding.
8. Aftermanagement, 220.
   Meliorating.
   Remarks on the CANKER.
   Pruning, 221.
   Cleaning.
   The MISLETOE unknown?
   A Censure of the Devonshire Practice.
   Note on Fruit, as the Food of Swine.

II. Fruit Liquor, 223.
   Prefatory Remarks.
1. The Manufactory, 224.
   Mr. Stapleton's Pound House, 225.
   Cider Rooms of Buckland Place, 226.
2. Fruit, 226.
   Species.
   Gathering, 227.
   Maturation.
   Pounding by Hand.
   Horse Mill, 228.
   Hand Mill.
4. Pressing,
CONTENTS.

4. Pressing, 228.
   Presses described.
   Method of Pressing, 230.
5. The Moss or unfermented Liquor, 231.
6. Fermenting, 231.
8. Quantity of Produce, 233.
   General Observations, 233.
   Cider profitable in Devonshire.
   Interferes with Farming.
   Promotes Immorality.
   The Devonshire Colic described,
   The proper Estimation of Orchards, 237.

Sect. XXIII. Horses, 238.

Sect. XXIV. Cattle, 239.

I. Breed, 240.
   General Remarks on the native breed of this Island, 241.
   North Devonshire Breed, 242.

II. Breeding, 243.
    Ill conducted.

III. Rearing, 245.
    An extraordinary Routine of Practice.

IV. Fatting, 246.
    Remarks on slaughtering cattle, 247.
CONTENTS.

Sect. XXV. Dairy Management, 248.

I. Calves.
   Rearing.
   House Calves:
   Grass Calves, 249.
   Note on their Provincial Name.

II. Butter, 249.
   Method of clouting Cream, 250.
   Conjectures on its Origin, 251.
   Its Advantages.
   Its Disadvantages, 252.
   Reasons assigned for its Continuance.

III. Skim Cheese, 254.

Sect. XXVI. Swine, 255.

I. Breed.

II. Rearing.
   Food.
   Age kept to, 256.
   A new Breed introduced.

III. Fattting, 257.
   Place of Fattting!
   Materials of Fattting, 258.
   On boiling Hog Food.

Sect. XXVII. Sheep, 259.

I. Breed.

Conjectures on the ancient Breed of the Western Mountains.
The House Lamb Breed, 261.
South Down and New Leicestershire Breeds, 262.
Flock of Buckland Place.

II. Breeding, 264.
Selection.
Time of Lambing.
Treatment of Ewes and Lambs.
Time of weaning the Lambs, 265.
Conjecture on the House Lamb Breed.

III. Store Sheep, 266.
Shepherd ing—and Dogs.
The Use of Pens superseded.
A Practice peculiar to this Peninsula.
Summer and Winter Keep, 268.
Omit to wash, previous to the Shearing.
Conjecture on this Practice, 269.

IV. Fatting Sheep, 270.
Description of Sheep.
Materials of Fatting.

Sect. XXVIII. Rabbits, 271.

Sect. XXIX. Poultry, 272.
Reflections on the Fecundity of Fowls,
with Respect to Eggs.
CONTENTS.

DISTRICT THE SECOND.

THE

SOUTH HAMS

OF

DEVONSHIRE.

Introductory Remarks, 275.

GENERAL VIEW of this DISTRICT.

I. Situation, 277.
II. Extent.
III. Elevation, 278.
IV. Surface.
V. Waters, 279.
VI. Soils, 280.

Ivybridge to Kingsbridge.
Kingsbridge to Totnes, 281.
Environs of Totnes.
Totnes to Ivybridge.
Environs of Ivybridge.
Sherford Estate.
General Observation.

VII. Sub-
The AGRICULTURE of this District.

I. Farms, 292.
   Characteristics.
   Size.
II. Farmers.
III. Beasts of Labor, 293.
   Plow Team.
   Road Team.
   b 3
IV. Imple-
CONTENTS.

IV. Implements, 204.

V. Management of Farms.
   Comparison with West Devonshire.
   Crops of the South Hams, 295.

VI. Management of Soils; 296.
   Similar to West Devonshire.
   The Operation of "Tormenting" described.

VII. Manures, 297.

VIII. Wheat.
   A new Variety of this District.
   Succession.
   Time of Sowing very late.

IX. Turneps, 299.

X. Grasslands.
   Species.
   Management.

XI. Orchards, 300.
   Prefatory Remark.
   Quantity of Orchard Grounds, 301.
   Disposal of Apples by Number.

XII. Cattle, 302.
   Breed.
   Breeding.

XIII. Sheep.
   Breed, 303.

RETROSPECTIVE
RETROSPECTIVE VIEW OF SOUTH DEVONSHIRE.

Preliminary Observations, 305.
State of Husbandry.
Aggregate Produce, 306.
The District and its Management similar to that of West Devonshire.
The present Rate of Rent, and State of Husbandry, reconciled, 307.

Improvements suggested, 303.
The Form of Farm Yards.
Forms of Leafes.
Application of Lands, 310.
Management of Timber.
Use of Wheel Carriages.
Turn wrest Plow, &c.
Succession of arable Crops.
General Remarks.
Management of the Soil, 311.
General Remarks.
Two-Ox Plow-Teams, 312.
Farm Yard Management.
CONTENTS

Early Sowing, 313.
Setting up Wheat Sheaves.
Harvesting Barley and Oats.
Winnowing Mill.
The Turnep Crop.
Management of Ley Grounds, 314.
Watering Grasslands.
Orchard Grounds, 315.
Manufacturing of Cider.
Breeding Livestock, 316.

Hint submitted to the Society for promoting Agriculture, in South Devonshire, 317.

A

LIST OF RATES

IN

WEST DEVONSHIRE, 319.

PROVINCIALISMS

OF

WEST DEVONSHIRE, 323.

ADVER
A PERIOD of almost six years has elapsed, since the publication of the Rural Practice of the Midland Counties. The prosecution of the General Work, of which that publication makes a part, has not, however, been neglected, during this lapse of time. The Practices of the more Western Counties have been registered, and are here offered to the Public. And those of the Southern Counties have been examined and collected *.

I have,

* And will be digested, and published, with suitable dispatch,
I have, therefore, at length obtained a General View of the Established Practices of England. And, altho' I have had a partial View of those of Scotland, it is not my intention to extend my Remarks to that part of the Island, or to Wales, until I have, in some measure, rounded my plan, with respect to England.

Since the Publication of the Rural Economy of the Midland Counties, a Board of Agriculture has been appointed, and a Plan of Survey, similar to my own, has been adopted: circumstances which caused some apprehension, in my friends, and a degree of alarm, in my Booksellers, left the Reports of the Board should supersede the use of the Registers I had published, and should render abortive an undertaking, on which I had expended the most valuable part of life.

I confess,
I confess, that when I ventured to recommend to public attention, the Establishment of a Board of Agriculture *, it did

* In the following passage, published (in 1790) in the Rural Economy of the Midland Counties, i. 222.

"I have already said, in the course of this work, that it is not my intention to obtrude my sentiments, seemingly, on National Concerns; but possessed of the mass of information, which, in the nature of my pursuit, I must necessarily have accumulated,—no man, perhaps, having had a similar opportunity,—I think it a duty I owe to society, and an inseparable part of my present undertaking, to register such ideas, whether political or professional, as result, aptly and fairly, out of the subject before me: and, in this place, I think it right to intimate the probable advantage which might arise from a Board of Agriculture;—or, more generally, of Rural Affairs; to take cognizance, not of the state and promotion of Agriculture, merely; but also of the Cultivation of Wastes and the Propagation of Timber: bases on which, not Commerce only, but the political existence of the Nation is founded. And when may this Country expect a more favorable opportunity, than the present, of laying a broad and firm basis of its future prosperity?"

Here, I find my pen forcibly arrested, and bent from the public service, towards my own gratification. And it may be pardonable in a man, who has labored long and hard in the service of the Public, and this, too, with but few
did not occur to me, that such an institution would, in any way, interfere with my own undertaking,—and much less, that it would become a valuable source of information, most happily calculated to promote it.

But finding the measure of provincial surveys adopted, and seeing the public benefit it was capable of producing, I was among the first to comply with the request of my honorable Friend, the President of the Board, — whose public spirit entitles him to every attention,—and to furnish few gratifications, except what have occasionally risen from his own reflections, to indulge himself, for once, in suffering his reflections to force their way into public notice—and to suggest—that had the General Bill of Inclosure, which he earnestly recommended, in 1788 (see the Rural Economy of Yorkshire, Vol. I. Page 101.), been presently passed into a law, and had a Board of Agriculture been instituted, in 1790, and Duly Encouraged, it is more than probable, that the distressing scarcity, which this Country experienced, in the summer of 1795, would not now have lain a reproach, on the Political Economy of the Island.
furnish my quota of information; by presenting to the Board a Report of the Central Highlands of Scotland; where I was resident, at the time of its establishment: and this I did, under the natural impression, that I was, in effect, working in my own field, and with fellow laborers, who were jointly employed, in collecting facts, that could not fail of proving useful, to the General Work, which has ever been the eventual Object of my Undertaking.*

It did not, however, strike me, at that time, as it has done since, that the Board's Reports may be rendered more immediately serviceable to my Work, in assisting to fill up the vacant interstices of my Registers; and thereby to make them more worthy, than otherwise they would have been, of the

* See the prefatory Advertisement to the Rural Economy of Norfolk, for the outlines of this Undertaking.
the title I wish them collectively to deserve; — namely, AN AUTHENTIC REGISTER OF THE RURAL ECONOMY OF ENGLAND, AT THE CLOSE OF THE EIGHTEENTH CENTURY.

To my valuable and lamented friend, the late SIR FRANCIS DRAKE, whose virtues were best known to those who were best acquainted with his private character, I am chiefly indebted for the opportunity of forming the Register, which is now under publication.

In the Summer of 1791, I made my first journey into the WEST of DEVONSHIRE, to examine into the state of his Rural concerns, in that part of the County; and, in the Autumn of the same year, returned,
turned, to endeavour to retrieve them from the disgraceful state, in which I had found them. In the succeeding Autumn, I made a third journey, to the same quarter; and, in the Summer of 1794, I went over the whole of the Drake Estate, lying in different parts of Devonshire.

It will perhaps be said, that the Valley of the Tamer, is too confined, and is of too little importance as a District, to be suitable for a principal station. Indeed, it is more than probable, that had I chosen my station, it would not have been that which circumstances assigned me.

But (thanks to the Disposer of Circumstances),—now, when I am acquainted with the several Districts of this Department of the Island, I am convinced, that there is no other situation, which could have been
been made equally favorable to my views, as that in which I was placed—as it were providentially. There is no other individual station, in which I could have commanded, so well, the two Counties of Devon and Cornwall, and, at the same time, the fertile District of the South Hams,—“the Garden of Devonshire,”—of which distinguished District the Valley of the Tamer forms, in reality, a part.

Beside, in the Valley of the Tamer, and on the magnificent Farm on which I resided,—the very first in the Country,—I possessed the most favorable opportunity, that either circumstances or choice had to give, of studying the Danmonian practice, in all its branches, and in its almost pristine purity.*

A few

*Danmonian,—an epithet derived from Danmonia, the antient name of part, or the whole, of this Western Peninsula of Britain.
Introductory Remarks.

This popular appellation is usually given to the four most Western Counties; namely, Cornwall, Devonshire, Somersetshire, and Dorsetshire.

But, in examining a Country, like England, with a view to the existing state of its Agriculture, and the other branches of its Rural Economy, the arbitrary lines of Counties are to be wholly disregarded. For if any plan was observed in determining the outlines of Provinces, in this Island, it certainly had no reference or alliance whatever to Agriculture; unless it were to divide, between opposing claim-
INTRODUCTORY REMARKS.

ants, the natural Districts, which require to be studied separately, and entire. Natural, not fortuitous lines, are requisite to be traced; Agricultural, not political distinctions, are to be regarded.

A natural District is marked by a uniformity or similarity of soil and surface; whether, by such uniformity, a marsh, a vale, an extent of upland, a range of chalky heights, or a stretch of barren mountains, be produced. And an agricultural District is discriminated by a uniformity or similarity of practice; whether it be characterised by grazing, sheep farming, arable management, or mixed cultivation; or by the production of some particular article, as dairy produce, fruit liquor, &c. &c.

Now, it is evident, that the boundary lines of Counties pay no regard to these circumstances. On the contrary, we frequently find the most entire Districts, with respect to Nature and Agriculture, severed by political lines of demarcation. The Midland Districts, for instance, a whole with respect to soil, surface, and etc-
established practice, is reduced to mere fragments, by the outlines of the four Counties of Leicester, Warwick, Stafford, and Derby *. Again, The Fruit Liquor District of the Wye and Severn includes parts of the Counties of Hereford, Gloucester, and Worcester †; and the Dairy District of North Wiltshire receives portions of the Counties of Gloucester and Berkshire within its limits, and extends its practice to the Eastern margin of Somersetshire ‡.

Hence, it may be truly said, to prosecute an Agricultural Survey, by Counties, is to set at naught the distinctions of Nature, which it is the intention of the Surveyor to examine and describe; and to separate into parts the distinguished practices, which it is his business to register entire.

Such a mode of procedure is not only an impropriety in theory, but in practice. It destroys that simplicity of execution and perspicuity of arrangement,

* See Rur. Econ. of the Midland Counties.
† See Glo. Econ.
‡ See as above.
INTRODUCTORY REMARKS.

ment, which alone can render an extensive undertaking pleasurable to him who prosecutes it, and profitable to the Public.

Another practical objection, which lies against surveying by Counties, beside the repetitions or references it requires, is the unnecessary labor it incurs, and the superfluous volumes it necessarily gives rise to. For it is not the practice of every township or farm, which can be registered, nor that of every hundred or county, which requires it.

It is the superior practices of distinguished natural districts, in different and distant parts of the island (thus separating its more distinct practices), and these only, that are necessary to be fixed; as a firm basis, on which to raise future improvements, and still more enlightened practices. The intermediate lands either partake of the management of these distinguished districts, or are subjected to methods that are less eligible; and are therefore not requisite to be registered.

The
The Districts of the West of England, which require to be described or noticed in this register are,

First, West Devonshire, or The Valley of the Tamer: including the Western Margin of Devonshire, and the Eastern parts of Cornwall.

Second, The South Hams. A contiguous District, which forms the Southern point of Devonshire.

Third, The Mountains of Cornwall and Devonshire.

Fourth, The District of North Devonshire.

Fifth, The Vale of Exeter.

Sixth, The Dairy District, which includes parts of East Devonshire and West Dorsetshire;—and,

Seventh, The Vale of Taunton, in Somersetshire.
DISTRICT THE FIRST.

WEST DEVONSHIRE;

INCLUDING

THE EASTERN PARTS

OF

CORNWALL.

Introductory View of this District.

BEFORE we enter into a detail of the several branches of the Rural Economy of the District of West Devonshire, &c. it will be requisite to take a comprehensive view of the District itself; and to endeavour to mark its distinguishing characters.

First, As a production of Nature.

Secondly, As part of the domain of the realm.

Thirdly, As the property of individuals.
SECTION THE FIRST.

NATURAL CHARACTERISTICS OF WEST DEVONSHIRE, &c.

In taking a cursory view of the Natural History of this District, I shall attend to such particulars, only, as have an immediate connection with Rural Economics; conformably with the plan which I have hitherto found it requisite to pursue. These particulars are,

I. Its situation in the Island.

II. Its extent.

III. Its elevation with respect to the sea.

IV. The conformation of its surface.

V. Its climature as it affects Agriculture.

VI. The waters which occupy its surface.

VII. Its
VII. Its prevailing foils.

VIII. The subfoils most prevalent.

IX. The useful fossils found in its sub-strata.

X. The minerals it contains.

I. The SITUATION of this District is within the South-western limb of the Island, which separates the two seas—the Irish and the English Channels.

Its natural boundaries are Dartmore, an extensive and elevated tract of mountains, on the East; Hingstone, and other mountains of Cornwall, on the West; with Plymouth Sound, and the estuaries branching out of it, on the South. The Northern boundary is less evident. Brent Tor and the heaths around it may be said to separate this District from North Devonshire.

II. The EXTENT of this secluded tract of country is not inconsiderable: It is about twenty miles from North to South, and about ten miles from East to West.
West. But within these limits some barren lands are included.

III. Its ELEVATION above the sea is less than the eye may estimate. The tide flows to its center. The vallies of course lie low; but the hills rise abruptly; and much of the cultivated lands may be deemed hill; all of them upland. No part of the District can be strictly called vale; nor is there any extent of flat meadows, or marshlands, within it; though, here and there, a narrow bottom or "coombe" is observable; these meadowy slips, probably, having been formed by the waters which now skirt them.

IV. The SURFACE is various in the extreme: not only from the number, narrowness, and depth of the larger vallies, whose sides generally rise steeply from the banks of the streams that divide them; but from the hills, or wider spaces between those vallies, being rent and broken, in the manner peculiar to the South-western extremity of the Island: a style of surface which takes place at the Western termination.
nation of the chalk hills of Dorsetshire, and continues to the Landsend.

V. The CLIMATURE of West Devonshire is particularly marked. The situation of the District between two seas; its immediate exposure to the main ocean, in the direct passage of the South-west winds, and the elevated summits of the mountains, which surround it, arresting the fleets of vapours as they arrive heavy laden from the Atlantic, unite in rendering this portion of the Island liable to an excess of rain; this, to a coolness of climature, and a lateness of season. Though situated in the most Southern climate of the Island, its harvests are comparatively late; but vary in a singular manner with the season.

In 1791, wheat crops in general were green, the first of August, and hay harvest was, then, barely at its height. The twenty-fifth of August, corn harvest was in forwardness, the weather having recently been dry and hot. Nevertheless, at that time, much corn still remained green; especially on
on the skirts of the Cornish mountains, where wheat is not unfrequently harvested after Michaelmas. In 1792, barley harvest did not close, even on the comparatively forward lands of Buckland Place, until the beginning of October: the season wet. On the contrary, in 1794, a very dry season, wheat harvest commenced the last week in July.

Taking the par of years, we may fairly place West Devonshire ten days or a fortnight behind the Midland District, which lies more than two degrees of latitude—namely, about one hundred and fifty statute miles—farther North. A proof that climate and climature have not an immediate connection.

VI. WATERS. This District, notwithstanding the steepness and elevation of its surface, is singularly well watered. Every description of water may be said to belong to it, except the lake.

The sea and its estuaries fever it to its center. Its rivers are the Tamer, the Tavy, and the Plym; whose various brooks,
brooks, rivulets, and rills, furrow the sides of almost every slope; frequently issuing from near the summits of the hills.

But I have met with no instance of collected waters, among the Western mountains; such as frequently occur in the Northern parts of the Island. Dusmary Pool, a small lakelet, which lies among the mountains, between Bodmin and Launceston, is the only one I have seen.

It is among complex ranges of mountains that lakes are generally found. Those of Cornwall and Devonshire form only one chain, except in the part where this pool occurs.

VII. SOILS. The species of surface soil is remarkably uniform, and singular in its component parts. It does not class properly with any of the ordinary descriptions of soils, namely, clay, loam, sand, or gravel; but is rather of a silt nature. Perhaps the principal part of the ordinary soil of the District is perished slate-stone rubble; or slate stone itself, reduced by the action of the atmosphere to its original silt or mud: among which, however, a portion
portion of loamy mold is mixed, in various degrees of quantity.

Hence, though the species of soil may be said to be the same, the quality varies, and in some instances, very greatly. There are small plots of land, upon the upper branches of the Tavey, equal in quality with the best-soiled Districts of the Island; deep rich land; grazing ground of the first quality.

The prevailing depths of the soils of the ordinary cultivated lands of the District are, from five to ten inches. But they are seldom free from rocks or large stones to these depths: and they are generally mixed plentifully with loose fragments of similar rocks and stones: of which, under the next head.

Other observable circumstances of the soils of West Devonshire respect their absorbency, and their being in a manner free from tenacity. For, notwithstanding their smoothness, and apparent undisturbedness while wet, they presently become dry and clean, after the heaviest rain: excepting after a long continuance of
of winter rains, when, the subsoil being surcharged, the soil, especially in particular plots, remains perhaps, for some length of time, in a state of mud; yielding to the foot in walking over it; a mere quagmire; horses and cattle reaching the rocky substratum every step. This evil quality, however, is narrowly limited, both in respect to extent and continuance; and might be removed, by draining.

Upon the whole, the natural properties of this singular species of soil is such, as to render it highly favorable to the purposes of Husbandry; as being, under proper treatment, productive either of corn or grass.

VIII. SUBSOIL. This is universally of a stony nature. I met with no beds of clay, loam, sand, or gravel; such as we find in other Districts. The prevailing substratum is a soft slatey rock; which, in some places, rises to the soil; in others intervenes a stratum of rubble, or unhardened slate; which, in quality, partakes of the firmer and purer rock; the relation of the two being analogous with that which

sub-
district.

fissilts between limestone and the rubble, with which it is frequently covered *.

Intermixed with the soil, and often united with fragments of slate rock, is found, in blocks and fragments of various sizes, a species of crystal, or quartz—provincially "whittaker;" which, in colour, is mostly white, sometimes tinged with red, or rust colour.

Observing, in several specimens of this fossil, some resemblance of gypsum; and also remarking the fertilizing quality of the waters which filter through these slaty rocks: and moreover finding them insensitive to the marine acid, used as a test; I was led to the idea, that they were of a gypseous nature.

To endeavour to ascertain the component parts of the slate rock, of which the hills of the cultivated parts of the District may be said to be formed, I subjected different specimens† of it to an extended course of

† These specimens were the ordinary building stone of Buckland Place, and the covering slate of a quarry
of experiments; which I prosecuted with greater solicitude, as I had been informed, by an authority which I conceived to admit not of doubt, that the Westmorland slate contains a considerable proportion of calcareous earth in its composition, and I was desirous to ascertain whether the slate of Devonshire, whose appearances are similar, were not likewise similar in component parts.

All that requires to be said, in this place, respecting these experiments, is, that the slate rock of West Devonshire appears, from their several results, to be void of calcareous earth, in a state of gypsum, and that the proportion it contains of this earth, in a state of chalk, is very small.

It may, however, be right to add here, that, on extending the experiments to the rubble, and the crystal, above-mentioned, they appear to have been formed from the same materials with the rock itself.

a quarry in its neighbourhood. They appear to be only varieties of the same species of fossil; and might, no doubt, be traced, by connected gradations, into each other.
itself. The former contains the ingredients of slate, in a loose impure form: and the latter, part of the same ingredients, in a purer state.

IX. FOSSILS. Blue slates of the first quality, for covering houses, are raised in different parts of the District. Slate stones, for walling, are formed in most parts of it.

A singular species of freestone is found near the center of this District. It has formerly been distributed over the West of Devonshire, and a great part of Cornwall; having been used most especially for sculptural purposes, in the Gothic ornaments of churches and other buildings. It appears to have received its immediate formation from fire; though evidently not the production of a volcano, in the situation in which it is now found; being scattered, at present, in detached rocks. It is called "Rooborough stone," from the name of the common pasture on which it is more particularly or principally found*. Moorstone

* It is insensible to the marine acid.
STONE or QUARTZOSE GRANITE is plentifully found, on either side of the District.

X. MINERALS. Mines of TIN, COPPER, and LEAD (containing a portion of SILVER) are still worked in the District; whose surface is defaced, and for ever rendered unprofitable, for the purposes of agriculture and cultivation, by these intolerable pests. The stannary laws, if any such laws can really be said to exist, ought to be forthwith abrogated, and some rational regulations be struck out;—such as men of common sense may understand, and under which industry may be protected, from the rapine of adventurers; who, not unfrequently, do irreparable injury, without obtaining any counter advantage to themselves or the community: throwing away that attention and labor, which, if bestowed on the soil, might remain an everlasting benefit.
SECTION THE SECOND.

THE PRESENT STATE OF THE DISTRICT AS A PART OF THE NATIONAL DOMAIN.

In viewing what may be termed the political economy of this district, it may be proper to confine ourselves to the following branches of that subject.

I. The political divisions of the district.

II. The present state of society within it.

III. The public works it possesses.

IV. Its present productions, as they may be viewed in a political light.

V. The characteristic features, or the present appearance of the face of the country, viewed as a passage or part of the demesne lands of the Empire.

I. POLI-
1. POLITICAL DIVISIONS. The County of Devon ranks among the largest of the English Counties.

In regulating the Militia, it is divided into three Districts; namely North, East, and South Devon; this Western part being included in the last.

The subdivisions are termed Hundreds; some of which, I understand, have, or lately had, their Courts;—held principally, I believe, for the recovery of debts under forty shillings.

Hundred Courts, or Courts peculiar to the subdivisions of Counties, were formerly prevalent; and might not a revival of these antient inquests, with regulations adapted to the present times, be rendered serviceable, in matters of embankment, common drains, extensive inclosures, roads, and public nuisances, not peculiar to any particular manor.

The Manors of the District are many of them small; frequently, more than one being included in the same township. The Courts are regularly held, and well attended; the rents of the lands appropriate to
to the manor being usually paid at the Courts.

It must not be omitted to be mentioned here, that, by the custom of this country, the inquests of manors have cognizance of the weight of bread, within their respective precincts: an admirable custom, which might well be extended.

The revival of Manor Courts, throughout the kingdom, (or the establishment of other rustic tribunals of a similar nature,) could not fail of producing the happiest effects. They are the most natural guardians of the rights of villagers, and the most prompt and efficient police of country parishes.

I have formerly suggested the benefits which would probably arise from manorial inquests *, and the more my observations are extended, the more I am convinced of the numerous advantages which would arise from them.

The townships are mostly large. Many of them have formerly been monastic.

WEST DEVONSHIRE. 23

nastic. A sufficient evidence, this, of the amenity and natural fertility of the District.

II. The STATE OF SOCIETY. The particulars to be noticed, under this head, are

1. The towns of the District.
2. Its villages and hamlets.
3. Its inhabitants.
4. Their habitations.
5. Their ordinary food.
6. The fuel most used.
7. The employments of working people.
8. Provident Societies.

1. The chief town of the District is Plymouth; which, with the new town adjoining to the dock-yard, and familiarly called Dock, together with the village of Stonehouse, which now nearly unites the new and the old towns, may be said to form, at once, the port and the market of the District.

Tavistock, however, in point of situation, and heretofore, perhaps, in that of respectability,
pectability, might rank high among the market towns of the kingdom. It is situated in the Northern quarter of the District, among its richest lands (though beset with wild mountain scenery), and was formerly famous for its monastery. At present, though meanly built, it is a tolerable market town; and is the only inland town, in the District, now immediately under survey.

2. The villages of West Devonshire are few and small; farm houses, and many cottages, being happily scattered over the areas of the townships. Nevertheless, near most of the churches, groups of houses occur; with here and there a hamlet.

Within one of its townships, are found the remains of a borough—Beer-Alston: in which, however, not a single voter, at present, resides.

3. Inhabitants. Those of Plymouth and its environs are not objects of this survey. They have been drawn together, by war and commerce, from various quarters.
The natives of Devonshire are mostly of good person; tall, straight, and well featured. Many of the women are of elegant figure.

In the habitues and manners of the middle class, we find little which marks the inhabitants of this Western extremity of the Island, from those of the more central parts of it; except such provincial distinctions as are observable in almost every District; and except what arises from an over-rated estimate of themselves.

This endemic habitue, which is not obvious to strangers only, but which the Gentlemen of the country, who mix with the world, are the first to remark, may perhaps be accounted for, without bringing any violent charge of personal vanity, or want of natural sagacity, against the present inhabitants.

The coast of the English Channel, especially its more Western part, was, in much probability, the first part of the Island which was resorted to by civilized Foreigners; and its inhabitants, of course, took the lead in the early stages of civilization in England;
land; and were far advanced, perhaps, in urbanity and useful knowledge, while the inhabitants of the more central and Northern Districts remained in a state of barbarity and ignorance. Hence, in those days, they not only felt, but really possessed, a well grounded superiority.

But, through a series of subsequent circumstances, which it would not be difficult to trace, the inhabitants of the body of the Island have long since gained the lead, in what relates to the useful arts, and modern improvements: a fact of which the mere Provincialists of this extremity of it do not appear to be yet sufficiently apprised; or, somewhat unfortunately for their country, cannot yet allow themselves to acknowledge.

I endeavour to place this circumstance, in what appears to me its just light, the rather, as it has tended, more than any other, perhaps, to prevent the country from profiting by modern discoveries.

Indeed, of late years, the spirit of improvement has not slumbered more composedly, in the Highlands of Scotland,
than it has in this part of England: and with respect to civilization and moral conduct, among the lower classes of society, the Highlanders are very far superior to the Miners and Mountaineers of Cornwall and Devonshire. A spirit of riot and outrage may be said to distinguish them from the other inhabitants of the Island.

4. The habitations of the District, immediately under notice, are superior to those of most other parts of the Island; owing chiefly, perhaps, to the materials of building being plentiful and good. Stone is almost everywhere abundant; and slates of the first quality for covering are procurable at a small expense; and lime for cement is also a cheap article. Even the cottages are mostly comfortable, and sometimes neat. The farm buildings are generally substantial and commodious, compared with those of many Districts, for farms of similar size.

5. The food of working people is somewhat below par. Barley bread, skim-milk cheese, and potatoes, are principal articles of food, among laborers and small working
working farmers. Formerly, barley bread was prevalent at the tables of the middle classes of society. The beverage is chiefly cider; or, during a scarcity of this, beer: the liquors are a base kind of spirit drawn from the lees of cider, and smuggled French brandy.

6. The fuel of farmers and cottagers, in the inclosed country, is invariably wood; on the skirts of the mountains, peat, or turf, is in use. Lime is burnt chiefly or wholly with Welch culm, and Plymouth has a supply of Newcastle coals.

7. The employments of the District are chiefly those of husbandry. The little mining which has lately been done, has been carried on chiefly, I believe, with miners from the Western parts of Cornwall. At Tavistock, is a Serge manufactury, but not, I believe, of any great extent, and the spinning of worsted employs, of course, some of the female villagers in its neighbourhood. Much worsted yarn, however, is sent out of Cornwall, to be woven in Devonshire; where women are employed in the weaving of serge.

8. Pro
8. Provident Societies, or Box Clubs. These valuable institutions were introduced into this District, about thirty years ago. In Tavistock and its neighbourhood, there is one or more, I understand, for single women (mostly serge weavers); and some of the Men Clubs, I am told, make a provision for widows.

The encouragement of these Clubs is a National object of the first magnitude. Not more with a view to lessen the present heavy burdens of the poor, than to instil, into the lower classes of society, a principle of frugality, and a sense of social duties, which these Meetings, under suitable regulations, cannot fail of producing.

III. PUBLIC WORKS. The natural abruptness of the country renders public embankments, and drains, unnecessary; and inland navigations difficult. So far as the tide carries up the vessels, so far navigation goes; but no farther, at present. Nevertheless, a navigable communication between the two seas is most desirable; as will be shewn in the course of these Volumes.
The "Leat," or Made Brook, which supplies Plymouth with water, is one of the most useful and striking works of the District. An account of it will appear in the Minutes.

Public corn mills are usually supplied with water, by means of similar leats. These most antient of public works still remain, here, in their pristine state. The poor take their own corn to the mill, and there dress it, themselves; the miller finding them dressing sieves; and the farmer of whom it is purchased, a horse, to take it and the female who dresses it, to the mill. Customs which mark very strongly the simplicity of manners, that still prevails, in this remote part of the Island.

"Passages," or public ferries, across the estuaries, are numerous.

The bridges are few, and, in general, mean.

The roads of West Devonshire are, at present, most remarkable for their steepness. Less than half a century ago, they were mere gullies, worn by torrents in the rocks; which appeared in steps, as staircases,
cases, with fragments lying loose in the indentures. Speaking with little if any latitude, there was not, then, a wheel carriage in the District; nor, fortunately for the necks of travellers, any horses but those which were natives of the country.

At length, however, good turnpike roads are formed, between town and town, throughout this quarter of the Island; and most of the villages have carriage roads opened to them; though many of these by roads, as yet, are narrow, and abound with steeps. In Devonshire, as in other mountainous countries, the first inhabitants crossed the hills, on foot, in straight forward paths. When horses came into use, the same tracks were pursued; and some of them have been continued, in use, to the present time.

Inclosures. This District has no traces of common fields. The cultivated lands are all inclosed; mostly in well sized inclosures; generally large in proportion to the sizes of farms.

They have every appearance of having been formed from a state of common pasture;
ture; in which state, some considerable part of the District still remains; and what is observable, the better parts of those open commons have evidently heretofore been in a state of aration; lying in obvious ridges and furrows; with generally the remains of hedgebanks, corresponding with the ridges; and with faint traces of buildings.

From these circumstances, it is understood, by some men of observation, that these lands have formerly been in a state of permanent inclosure, and have been thrown up again, to a state of commonage, through a decrease in the population of the country.

But from observations, made in different parts of Devonshire, these appearances, which are common, perhaps, to every part of the county, would rather seem to have arisen out of a custom, peculiar perhaps to this part of the Island, and which still remains in use, of lords of manors having the privilege of letting portions of the common lands, lying within their respective precincts, to tenants, for the purpose of taking one or more crops of corn, and then sufering
fering the land to revert to a state of grass and commonage.

In the infancy of society, and while the country remained in the forest state, this was a most rational and eligible way of proceeding. The rough sides of the dells and dingles, with which it abounds, were most fit for the production of wood; the flatter better parts of the surface of the country were required for corn and pasturage; and how could a more ready way of procuring both have been fallen upon, than that of giving due portions of it to the industrious part of the inhabitants, to clear away the wood, and adjust the surface; and, after having reaped a few crops of corn, to pay the expense of cultivation, to throw it up to grass, before it had been too much exhausted to prevent its becoming, in a few years, profitable forward? In this manner, the country would be supplied progressively, as population increased, with corn and pasturage, and the forests be converted, by degrees, into common pastures, or hams.

Vol. I. D The
The wild or unreclaimed lands being at length gone over in this way, some other source of arable crops would be requisite. Indeed, before this could take place, the pasture grounds would be disproportionate to the corn lands: and out of these circumstances, it is highly probable, rose the present inclosures.

IV. PRESENT PRODUCTIONS.

In registering the present produce of the District, we will observe the same order, in which its natural characters were reviewed; and enumerate,

1. The products of its waters.
2. The produce of its soils.
3. The productions of its substrata.

1. Of its waters. The sea, which washes the Southern skirts of the District, is singularly productive. The market of Plymouth has long, I believe, been esteemed the first in the Island, for the abundance, variety, and excellency of its sea fish. Of late years, however, this market
market has been the worse supplied, as the prime fish, caught by the fishermen in its vicinity, have been contracted for, by dealers, for that of Bath. And some share of the finny treasure, which these shores produce, is sent, I understand, to the London market.

In a political view, however, the Pilchard Fishery of Cornwall is the most worthy of attention. In some seasons, the quantities that are said to be caught are almost incredible; employing many vessels and men in taking and curing them; and affording an article of foreign traffic, of no mean consideration.

The produce of the rivers of the District is chiefly Salmon: which resort to them, in great abundance; though not in such numbers, as they do to some of the rivers, in the Northern parts of the Island.

There is a remarkable circumstance regularly takes place, with respect to the time at which Salmon enter the two rivers ---the Tamer and the Tavey. They usually begin to go up the latter, in the month of February; but are not found in
the former, until some two months or more afterward; and this notwithstanding the distance of their junction from the sea; and notwithstanding the Tamar is the larger river.

The natural history, and habits, of this most valuable of river fish, is a subject of enquiry, not unworthy of public attention. Beside throwing into the market a considerable supply of human food, this species of produce brings in an income to individuals of many thousand pounds a year: public and private advantages, which might, in much probability, be doubled, by judicious regulations and laws, respecting the preservation and encouragement of this source of national produce; which occupies no part of the lands, nor consumes any part of the produce of the soil; furnishes a considerable increase of nutriment, without incurring any counter diminution; and is obtained at little expence of labor or attention.

It is a practice, in every District of the Island, perhaps, for the dissolute part of those who live near the sources of rivers,
to take Salmon in the act of spawning: a crime for which scarcely any punishment can be too severe. In destroying one, at this juncture of time, the existence of hundreds, perhaps thousands, may be prevented.

Some particulars; relating to this article of produce, will appear in the following Minutes.

2. The present produce of the soil is in a considerable proportion, wood; which fills the dells and narrow vallies; and hangs on the rugged sides of more insulated hills; and which grows in great abundance, upon the extraordinary fence mounds, which will be hereafter described.

The rough open pasture grounds bear little wood, strictly speaking. But the Dwarf Furze *, and the Heathfs,

* The Dwarf Trailing Furze. This plant is common to the more Western and Southern Counties. Its appearances and habits are so perfectly different from those of the ordinary species of Furze, and it preserves those distinguishing characters so perfectly pure and permanent, when intermixed as it frequently is with the tall upright species, that they may well be considered as distinct plants.
occupy no small portion of their surfaces.

Of the inclosed lands, in a state of agriculture, a large proportion is grass—perhaps two thirds of the whole. The rest is occupied by arable crops, and orchard grounds.

The animal productions of the District are the ordinary domestic animals of the rest of the kingdom.

Viewing these several productions of the soil of this District, in a political light, we find them to exceed its consumption; and to afford some supply to the national demands. A considerable portion of the wood goes to the supply of the King's ships, brewery, and bakehouses, at Plymouth. Much barley is, I understand, some years, sent out of the District; and numbers of cattle, every year, travel Eastward, on their way to the markets of the metropolis; by the route which will hereafter be described; and, of sheep, some few may be drawn towards the same center. Beside, it is observable, that, of the sheep, swine, poultry, and a variety of vegetable productions which find a market within the
the District, much goes to the supply of the dock yards and ships of war. We must not, however, omit to remark, at the same time, that the population of the District itself is much below par. The inhabitants, which it at present contains, are chiefly employed in raising the productions of which we have here spoken.

3. The products of the substrata have been enumerated; as stones, slates, tin, lead, silver, copper. Yet, notwithstanding the natural treasures with which the District has abounded *, and which has been drawn from its bowels, during a succession of ages, we do not find it either richer or happier, than other Districts of the Island, to which Nature has been less bountiful of subterranean

* Formerly, this District was the principal scene of mining: but, of later years, little had been done; until very lately; when the advanced price of tin induced the adventurous to re-open some of the old mines, and to try their luck in new ones: to the annoyance of the country; and with little profit to themselves.

The Mines, which are worked at present, are chiefly in the Western parts of Cornwall.
ranean wealth. On the contrary, we here find civilization, and the arts, in the rear.

This, perhaps, is a natural and inevitable consequence of mining; which not only immerses the lower class in the most abject employment, and buries them in the depths of ignorance; but, by exciting a spirit of adventure and speculation in the middle and upper classes, draws off their attention from the more regular and certain advantages, which accrue from agriculture, manufacture, and the other useful arts of life.

Viewing the subject in this light, it appears to be found policy in the Chinese Government, to suppress mining, and to direct the industry of its myriads of subjects to THE CULTURE OF THE SOIL, AND THE MANUFACTURE OF ITS PRODUCE.

V. THE FACE OF THE COUNTRY.
The infinite variety of surface which this District affords, the irregularly winding estuaries, and the rapid torrents, by which it is intersected, and the wild coppices that hang on the sides of its hills, down perhaps to the immediate margins of the rivers and estuaries,
estuaries, exhibit scenery the most romantic and picturesque. But the views generally want lawn to give them softness and beauty. When the meadows of Buckland, and the meek grounds of Mar士tow, blend their lawny surfaces with the wood and water, scenes the most delightful are formed.

The broader views that frequently present themselves are not less interesting. The grandeur of the distant mountains of Dartmore and Cornwall would give effect to less picturable foregrounds. Plymouth Sound, partially hid by Mountedgecumbe (a prominent and striking feature seen from every knoll), form another charming distance. A globular hillock, seated on the Eastern banks of the estuary of the Tamer, below the church of St. Budix, commands a circle of views, equal in richness and variety of visual effect, to any other this Island possesses. To the East, the church of St. Budix, with the sweetly wooded scenery of Tamerton Foliot, backed by the savage "Tors" of Dartmore. To the West, the estuary of St. Germains, lying as a lake,
a lake, among the cultivated rising grounds of Cornwall. To the North, the estuaries of the Tamer and the Tavey, terminated with bold broken woody heights, and backed by the Cornish mountains. To the South, the lower part of the same estuary, including Hamoze, with the ships of war in ordinary; the church of Plymouth and the prominent features around it; the Sound, with ships under sail, screened on the left with the cultivated hills of South Devonshire, on the right by Mountedgecumbe. 'A more interesting subject for a Panorama painting could not well be conceived.
SECTION THE THIRD.

THE PRESENT STATE OF THE DISTRICT AS PRIVATE PROPERTY.

The species of property attached to land separates, in this as in other districts, into two orders: namely,

I. Possessor property in the land itself.

II. Abstract rights arising out of it.

I. POSSESSORY RIGHT, or LAND-ED PROPERTY, puts on an appearance, here, very different from that which it wears in other parts of the kingdom. The fee-simple is principally in the possession of men of large property. But instead of letting out their lands to tenants, at an annual rent equivalent to their value, they are
are sold, in small parcels or farms, generally for three lives named by the purchaser, or ninety-nine years, provided any one of the parties, named, survives that period: reserving, however, a small annual rent, together with a heriot or other forfeiture, on the death of each nominee, similar to those attached to the copyhold tenure; which this species of tenancy, or tenure, very much resembles: it being usual to put in fresh lives, as the preceding ones drop off; receiving a fine or adequate purchase, for the addition of a fresh life, or lives.

This state of landed property, which is common to the West of England, forms one of the many striking features, which Rural Economy at present exhibits, in this part of the Island.

The advantages of this state of landed property are few; its disadvantages many: It is a satisfaction to the purchaser to know; that, during his own life, and perhaps during that of his son, the land whose temporary possession he has thus purchased will remain in his family; and theory suggests that, with such a hold, the improvement and
and enriching of his own estate— for as such it is ever estimated— must of course become the great object of his life. But unfortunately for himself and his family, as well as for the community, he has laid out his whole on the purchase, and has not a shilling left for improvements: nay, has perhaps borrowed part of the purchase money; and has thus entailed on himself and his family lives of poverty and hard labor. Whereas, had he expended the same money, in stocking and improving a rented farm, he might have enriched his family, and have thrown into the markets a much greater proportionate quantity of produce. Beside, the possession depends, perhaps, on his own life, and he has a wife and a young family of children. He dies, and of course leaves them destitute: while, to add to their misfortunes, the bailiff of the manor, in the hour of their distress, deprives them, perhaps, of the best part of the pittance he has left them.

Another evil tendency of life leaves is that of exciting a spirit of speculation and gambling, and of alienating the minds of men
men from the plain and more certain path of industry. Purchasing a life lease is putting in a stake at a game of chance. An instance fell within my own knowledge, in which two sets of lives have ceased, and of course the estate has been twice sold, while a woman who was excluded, through a mere circumstance, from being one of the nominees in the first purchase, is still living. And, on the other hand, there is a well known instance, in which the lessee, at the expiration of the term of ninety-nine years, tendered his lease, in person, to the descendant of him, from whom his ancestor had received it.

To the proprietor of an estate, this is, in many respects, a disagreeable species of tenancy. His income, as has been shewn, is exceedingly uncertain; and, what to a man of sentiment is worse, it literally arises out of the deaths and distresses of the inhabitants of his estate: beside the unpleasant and unprofitable circumstance of having his lands in everlasting bondage. Let them lie awkwardly for the tenants, or intermixed with the lands of others, or in farms
farms of improper sizes, he has no opportunity of adjusting or altering them. He can have no hope of two or three adjoining tenants dying at the same time. Nothing less than the plague, pestilence, or famine, can assist him in a measure so salutary, both for himself and the community.

These disagreeable circumstances have induced several men of property, to suffer the life leases of their estates to drop in; and, afterwards, to let their lands for an annual rent, agreeably to the practice of the rest of the kingdom.

This desirable change, however, can only be effected by men whose incomes are not wholly dependant on this species of property. Nevertheless, any man who is possessed of such property, and is not in distressed circumstances, may release the smaller farms from this unprofitable and impolitic state; and, in the course of two or three generations, the whole might be set at liberty, without sensible inconvenience to the proprietors.

It is observble, however, that there is some-
sometimes an inconveniency arises to a proprietor of life leases, in suffering his farms to drop into hand; especially when the last life happens to linger. In this case, the land is exhausted, and the premises stripped: for the property changes with the last breath of the dying nominee.

But, fortunately for both parties, there is an effectual mode of preventing this evil; namely, by granting the lessee, or his representative, a restrictive lease, for a term of three or more years, to commence on the death of the last nominee: a liberal and wise regulation, which some few men make, and which common prudence requires. The interests of the landlord, the tenant, and the public, are thereby jointly benefited.

II. ABSTRACT RIGHTS. Of the numerous claims to which the lands of this realm are liable, three only will be noticed, here: namely,

1. Manorial rights.
2. Tithes.
3. Poor's rate.
1. MANORIAL RIGHTS. There are two species of property attached to the manors of this District, which belong not to English manors in general. These are mines and fisheries.

The profit arising from mines is either a sum certain, paid by the miner to the lord of the soil, for suffering him to break, encumber, and for ever destroy it; or some certain proportion of the mineral produced; as every fifth, tenth, or twentieth "dish."

Of the Salmon fishery of the District, some accounts will appear in the Minutes.

2. TITHES. It is, I believe, the universal practice, in the District under survey, for the Rector, whether lay or clerical, to send valuers over his parish presently before harvest, to estimate the value of his tithes. If the owner of the crop approves of the valuation, he reaps the whole of it: if not, the Rector gathers his tithe in kind: a circumstance, however, which, I understand, seldom takes place.

This mode of settlement is certainly more
more eligible, for all parties, with respect to the existing crop, than that of collecting tithes in kind. But, with respect to the discouragement of improvements in Agriculture, they are precisely equivalent.

3. Poor’s rate. It is worthy of remark, that, notwithstanding the wages of the country are low, as will hereafter appear, the parish rates are moderate. In Buckland, and the contiguous parishes, the poor’s rate, on a par, is not more than two shillings in the pound, rack rent.

This fact, perhaps, may be the best accounted for, in the circumstance of the wool, which the country produces, being manufactured within it: not, however, in public manufactories, by the dissolute of every age and sex, drawn together from all quarters, as if for the purpose of promoting dissoluteness, debility, and wretchedness: but in private families; by men, women, and children, who, by this employment, are kept at their own houses, are enured to habits of industry, are enabled to support themselves, at all seasons, and are always at hand, to assist in the works of husbandry,
bandry, whenever the production, or the preservation, of the necessaries of life requires their assistance.

Manufactures carried on, in this rational manner, are highly beneficial to a country: while those which are prosecuted by detached bodies of people, in towns, or populous manufactories, may be considered as one of the greatest evils any country can be afflicted with.

Many substantial reasons might be adduced to shew, that AGRICULTURE AND MANUFACTURE SHOULD GO HAND IN HAND.
THE

RURAL ECONOMY

OF

WEST DEVONSHIRE;

AND THE

EASTERN PARTS OF CORNWALL.

RURAL ECONOMICS comprise three subjects, distinct in their more essential parts, but closely connected in their ramifications, which blend, in such a manner, as to unite the whole in one connected subject, and form the most useful branch of human knowledge:

The human species receive their subsistence from the soil,—are, in reality, themselves a produce of it. In the more advanced states of population, their existence may be said to rest on the right application and management of the lands, they collectively hold in possession.
Landed possessions, in a state of accumulation, become too extensive to be profitably occupied by individual possessors; who, therefore, parcel out their respective lands, among a plurality of occupiers, to whom a species of temporary possession is given, and they, in return, give a suitable consideration for such temporary occupancy.

But before a landed estate can be disposed of, in this manner, with due propriety, it is necessary to assign the lands it contains to their proper uses: as to separate those which produce, and are fit for producing wood, from those which are adapted to the purposes of Agriculture; and, this done, to separate the latter into suitable parcels, or farms; agreeably to their respective soils and situations. The farms thus laid out require buildings, fences, roads, &c. &c. suitably adapted to each. These arrangements and operations, added to the appreciation of the several parcels, the choice of proper persons to occupy them, the regulations and restrictions necessary to be understood by the parties, together
together with the unremitting care and superintendance, which an extensive estate and its occupiers require, form a separate and very important branch of Rural Management.

Again,—Woodlands, which were formerly committed to the care of farm occupiers, who reaped the undergrowth, as a produce of their holds, the timber being reserved for the owners of the lands, are now generally, and very properly, detached from tenanted lands, and placed under the care and superintendance of woodwards, acting as assistants to the managers of estates; the whole produce, whether of timber or undergrowth, being reaped by the proprietor of the soil.

This management of grown woods, is in itself an employment of some consideration, and, when united with the propagation of woodlands, whether by planting or by seminal cultivation, forms the second subject of Rural Economy.

The last is Agriculture; or the cultivation of farm lands; whether in the
occupation of proprietors, or their tenants: a subject, which, viewed in all its branches, and to their fullest extent, is not only the most important, and the most difficult, in Rural Economics, but in the circle of human Arts and Sciences.

From this analysis it appears, that *Rural Economy* comprizes three separable subjects; namely,

First, Tenanted estates, and their management.

Second, The production and management of woodlands.

Third, Agriculture, or the management of farm lands.

Nevertheless, viewed in the synthesis, they form a distinct branch of knowledge, with which it is incumbent on every man whose fortune is vested in landed property, to be familiarly conversant.
WEST DEVONSHIRE.

DIVISION THE FIRST.

LANDED ESTATES,

AND THEIR

MANAGEMENT,

IN

WEST DEVONSHIRE, &c.

I.

ESTATES.

THE species of landed property, that prevails in this District, has been noticed.

The sizes of estates are various. There are a few of considerable extent.

The proprietors are the Duke of Bedford, who has a large estate lying round Tavistock; the Earl of Mount-Edgcumbe has now a considerable property, on both sides of the Tamer. The Drake
Drake Estate, now Lord Heathfield's, is extensive. Mr. Heywood has a good property in the District. Mr. Ratcliffe, Mr. Elford, and other smaller proprietors, are in possession, or have the superiority, of the remainder.

2.

THE MANAGEMENT OF LANDED ESTATES.

In a District where landed property is clogged with so cumbrous a burden as that of life leases, a general superiority of management cannot with reason be expected: nevertheless, it will be proper to examine the present practice of the District; which is not wholly under that encumbrance: beside, it is often as serviceable to the practitioner, to expose defects, as it is to point out excellencies of practice.

The divisions of this subject, which require to be examined, on the present occasion, are,

I. Lay-
I. Laying out estates into woodlands and farm lands.

II. Laying out farm lands into distinct tenements or farms.

III. Farm buildings, &c.

IV. Fences.

V. Disposal of farms.

VI. Forms of leases.

VII. Rental value of land.

VIII. Time of entry and removal.

IX. Manor Courts, and the receipt of rents.

I. LAYING OUT ESTATES. In the distribution of lands to their proper uses, as into woodlands and farms, little perhaps has been done, since the original laying out of townships, in the manner already suggested. The steep sides of the hills have been suffered to remain in wood, the flatter, and more easily culturable parts, being converted to the purposes of husbandry. This, however, is not, at present, invariably the case: the tops, as well as the sides, of some of the swells,
swells, are still occupied by wood; and though it may frequently happen that, where this is the case, the land is equally as well adapted to that species of produce, as to cultivation; yet this is not always the case: and something, though not much perhaps, still remains to be done in this department of management.

II. LAYING OUT FARM LANDS.
In the distribution of culturable lands, into distinct holdings, the District under view may claim some merit. The farms, though of different sizes, are many of them small; perhaps too many of them are of this description; but, in general, they lie well about the homestead; or rather, we should say, the homesteads have been judiciously placed within the areas of the lands; not in villages; as is too often the case, in many parts of the Island.

III. FARMERIES. The situations of homesteads, or farm buildings and yards, are generally well chosen; as the side of a valley, or near the head of a coomb or
or dell. A suitable shelter, and a rill of water, appear to have been principal objects, in the choice of farmsteads.

In situations destitute of natural rills, "LEATS," or made rills, are cut, and have been time immemorial employed, in bringing what is called, in the pure language of simplicity, "potwater"—to farm houses, and hamlets of cottages, in upland situations: an admirable expedient, which is applicable in many parts of the Island: yet which, until of late years, in Yorkshire*, has never been practised perhaps out of this extreme part of the Island. How slow has hitherto been the progress of rural improvements!

The PLANS OF FARMERIES, here, have nothing to engage particular attention. The barns are small; and the cattle yards furnished mostly with open sheds—prov. "linhays," with troughs or mangers in the back parts, to hold fodder.

Sometimes these linhays are double: the same span roof furnishing two ranges of sheds.

sheds, and serving two yards, separated by a fence partition, running along the middle of it. A species of farm building, which might be adopted in many cases. These open sheds are used for cows, and young cattle; oxen being generally kept in houses or hovels, provincially "shippens," during the winter.

The materials of farm buildings are chiefly stone; mostly the light blue slate stone, which has been described. For farm offices, earthen walls—prov. "cobb walls," are common.

Indeed, in situations, where stone is not at hand, "cobb" is a common material of farm buildings, throughout the West of England. Not only houses and offices, but yard walls, and even garden walls, are commonly built with it; and endure for a length of time; provided they are kept dry. Single walls are coped; generally with thatch.

In building these walls, straw is mixed with the earth, in a state of paste, and incorporated with it, by treading or otherwise, in a way similar to that used in making the clay-
clay floors of Norfolk *. The walls are carried up, in courses of eighteen inches, to two feet high, and fourteen inches to two feet thick; the preceding course being suffered to stiffen, before the succeeding one be set on. I have seen, in different parts of the West of England, cottages two stories high, with no other support for the joists and timbers, than these earthen walls.

In situations exposed to Westerly winds; the walls of dwelling houses of every material are frequently guarded with slates, put on scale-wife, as upon roofs, to prevent the "sea air" from penetrating the walls, and giving dampness to the rooms. In towns, the shells of houses are not uncommonly built of wood; lathed; plastered; and slated.

Houses fronted with well coloured slate, put on neatly, and with "black mortar" (namely cement, among which pounded forge cinders have been freely mixed), are not unsightly. But smeared, in stripes or patches,

* See Norfolk Econ. Vol. II. Page 24.
patches, with white mortar, ouzing out of the joints, and spreading partially over the surface, the appearance is filthy.

In the use of rough-cast, or "flap-dash," the Devonshire workmen are proficient. They render it pleasing to the eye and durable. It is sometimes formed with a species of shining gravel, found upon the moorlands, which gives it, when the sun shines upon it, a splendid effect. It is usual to draw cross lines over the surface, to give it the appearance of dressed stonework. Not only the practice, but the theory of rough-casting is here understood; as will appear in the Minutes.

The covering materials of the District are slate and thatch—prov. "reed," namely, unbruised straw; the grain being separated from the straw without breaking it; in the manner which will be hereafter described; a practice common, I believe, to the West of England. Straw thus preserved makes a neat and durable covering; and, when no other species of covering can be procured, it is certainly preferable to threshed straw; which, being less durable,
rable, tends still more to the impoverishment of the lands that are robbed of it.

IV. FENCES. Nothing marks the rural management of this extremity of the Island more strongly, than the construction of its farm fences.

The bank or foundation of a Devonshire "hedge" is a mound of earth, eight, ten, or more feet wide, at the base, and sometimes nearly as much in height; narrowing to six, seven, or more feet wide, at the top; which is covered with coppice woods, as Oak, Ash, Sallow, Birch, Hazel. These are cut, as coppice wood, at fifteen or twenty years growth, and at more, perhaps, than twenty feet high, beside the height of the mound; together forming a barrier, perhaps thirty feet in height.

A stranger, unaware of this practice, considers himself as travelling perpetually in deep hollow ways; passing on, for miles, perhaps, without being able to see out of them; though the most delightful scenery may have accompanied him.
The origin of these extraordinary fences may not be difficult to assign. By clearing the forests, in the manner which has been suggested, the natural fuel of the country was, of course, materially abridged; and, where the general face of the country was tolerably level, the sides of the vallies were too few, and insufficiently extensive, to supply this necessary of life. And it appears to me most probable, that these coppice fences were adopted to supply this defect of fuel; and they have proved, perhaps, the best expedient that could have been struck out. Many farms have no other woodland, nor supply of fuel, than what their fences furnish; yet are amply supplied with this; beside, perhaps, an overplus of poles, cord wood, faggots, and the bark of oak, for sale. Hedgewood is looked up to as a crop; and is profitable as such; beside the benefit received from the mounds and stubs, as fences.

The age of most of these fences is great beyond memory. Nevertheless, they are continued to be formed, to the present day.
day. Indeed, it may be said, there is no other method of raising a live fence in use, in the District.

I have met with several instances of raising fences in this way. One, to which I paid some attention, was formed seven feet wide at the base, and about seven feet high; the sides being carried up with sods, and battered somewhat inward. The cost of it, about two shillings a yard in length: namely, eighteen pence for labor, and six pence for gathering plants, in the woods, to set upon it. I have seen plants as thick as the leg, with stems left two or three feet high, set on the top of these mound fences: a practice, however, which is evidently improper; as not only the labor of collecting, carriage, and planting, is greater, but the probability of success is less, than they would be, if younger plants were used.

The advantages of coppice fences are those of being an insuperable barrier to stock;—of affording extraordinary shelter and shade to pasturing animals,—of giving
a necessary supply of fuel, in a country where no other fuel than wood can, at present, be compassed by farmers,—and of being, with ordinary care in repairing them, everlasting. Instead of mouldering away, and growing less as they increase in age, the swelling of the roots, the falling of leaves, and decayed boughs, and the shovellings of their bases thrown upon their tops, with fresh sods brought from a distance, perhaps, to make good accidental breaches, tend to increase, rather than to diminish, the mounds; so that the bulkiness of some of the old hedges may be owing to time, rather than to the original formation.

The disadvantages of the Devonshire hedges are their first cost, and the quantity of ground they occupy, and injure, by their drip and shade, and by the soil used in their formation: Five and twenty feet is the least that can be reckoned, for the width of waste. The injury they do to arable crops, in preventing a free circulation of air; and their being liable to be torn
torn down by cattle, when the adjoining field is in a state of pasture, are other dis-advantages.

But every species of fence has its disadvantages, and whether, upon the whole, that under consideration is preferable to the ordinary live hedge of the kingdom, I will not attempt to decide. In an Upland District, and where the fields are of a good size, coppice fences are more eligible, than they would be, in a low flat country, with small inclosures; and much more eligible in a District, where wood is the only fuel, than they would be in a coal country.

To the sportsman, these fences are unfriendly; and, to an invading army, they would be most embarrassing: an extent of country, intersected by such barriers, would be, in effect, one immense fortification.

V. The DISPOSAL OF FARMS in this District may be said to be threefold; namely,

Selling them for lives,
Letting them for a term, and
Occupying them in husbandry.
The last, namely the practice of men of fortune occupying some considerable parts of their estates, appears to have been, until very lately, a prevailing fashion among the great proprietors of Devonshire. There is an instance of one noble family having kept in hand fourteen or fifteen hundred acres, for some generations past; and of another family having occupied seven or eight hundred acres, for more than two centuries; and, in these two instances, the lands, I believe, still remain in hand. But many other proprietors, finding little income arising from lands thus employed, and some one or more, it is asserted, having been brought into debt by their managers (I speak here of farms lying at a distance from the principal residences of their owners), such farms have been wisely let or sold, to men who have a personal interest in their management.

These domains were probably kept in the occupation of their proprietors, with a view to set an example to the tenants of their respective estates, in the infancy of husbandry: and the state of management, in which
which we now find the District, may have arisen out of this circumstance. But men of fortune appear to have abandoned, long ago, this original intention, if such it were; and to have taken for granted, that their lands were in a state of perfect management.

The selling of farms for three lives, nominated by the respective purchasers, as it was the antient, and once perhaps the universal, practice of the District, comes next under consideration.

At present, one half, or two thirds of the lands of the District, probably, are under this species of tenure, or tenancy, or hold: the remainder being occupied by proprietors, whether men of fortune or yeomanry; and by tenants, for a term certain, or from year to year.

The disposal of farms for three lives is generally by what are provincially termed surveys; a species of auction; at which candidates bid for the priority of refusal, rather than for the thing itself; a species of sale common to every species of property. If the highest bidder does not
reach the feller's price, the bidding is inconclusive: the feller names his price, and the highest bidder has the first option of choice, or refusal. If he refuse, the next highest bidder takes his choice, and so of the rest: a species of sale, which is very convenient to the feller.

The estimate value of lands, for three lives, is about eighteen years purchase of the neat rental value, or about fourteen years purchase of the gross rent and taxes, which last life lesees usually engage to pay; together with a small annual rent; and generally a heriot, forfeitable on the death of each nominee, as has been mentioned.

The purchaser has the right of transfer, and of letting the premises to farm, from year to year, for a term of years, or during the term of the life lease. Thus becoming a sort of middle man, between the proprietor and the occupier.

The lessee for lives keeps up the buildings, fences, gates, &c. (the proprietor finding timber,) or is liable to pay for dilapidations. All coppice wood and under..
underwood, as well as fruit trees and other trees, except Oak, Ash, and Elm, are, entirely, or under certain regulations, at the disposal of the lessee; and cannot be cut down, by the proprietor of the land, during the demise.

On the expiration of a lease for lives, the lessee is allowed, by custom, a few days for clearing the premises of livestock, and forty days, for dead stock—as grain, furniture, &c. but he cannot touch a bough, or a fixture, or remove straw, dung, &c. after the moment of extinction of the last life.

The letting of farms, for a year, or a term of years, is similar in method of disposal, to that of selling them for lives: so forcible would seem to be the tide of custom!

In selling a farm, an auction is a suitable medium of disposal: the seller receives his price or security, before he delivers up possession; and the lessee, himself, being generally one of the nominees, is, in some measure, done with.
But the case is very different with a man, who is to pay his rent half-yearly, and to conform with a variety of covenants and regulations, which are necessary to the species of tenancy, now under consideration. In this case, it is not more the rent, than the man, that is to be looked to, and chosen. Among candidates, at auctions, for letting farms, are generally adventurers, who want judgment, and men of desperate fortunes, who want a temporary subsistence; and these men will ever be the highest bidders; will ever outbid men of judgment and capital; such as will pay their rent, keep up their repairs, and improve the land; and such as ought ever to be, and ever are, the choice of judicious managers of estates. There is a fair market price for farms, as for their produce; and no man is fit to be entrusted with the management of an estate, who cannot ascertain the value of its lands, and who, having ascertained this, does not prefer a man of judgment and capital, to any nominal rent, which speculation can offer him. It may
may be said, with little latitude, that, in the end, it is equally detrimental to an estate, to overrent it, as it is to let it beneath its fair rental value. This is an axiom of management which is well known to every man of landed property, who has persevered in paying attention to his own affairs; and which has cost some men no small share of property, respectability, and peace of mind, to come at the knowledge of.

The practice of letting farms by auction, in this District, is not difficult to be accounted for. It has grown in part out of the custom of selling farms by auction, as abovementioned; and is in part owing to the circumstance of the immediate management of estates being in the hands of country attorneys; who are, professionally, unacquainted with the value of the lands they have to let, and who have valuable interests in the holding of surveys.

Another singular trait, in the management of estates, in this District, may be proper to be mentioned. The agent, instead of receiving a salary adequate to his fer-
services, makes an exorbitant charge, upon the tenants, for their leaves; each estate having its established impost.

This regulation is evidently founded on fallacious principles. The interest of the agent ought ever to be connected with that of his principal. Whereas, by the practice now under notice, as well as by that of letting farms by auction, in the manner which has been mentioned, they are estranged from each other. Instead of its being the interest of the agent to promote that good order, punctuality, and spirit of improvement, which ought to be solicitously cherished on every estate, his best interests are connected with the beggary and shifting of tenants; and, of course, with the confusion and eventual injury of the estate: and this without any adequate counter advantage. Farmers are not so inattentive to their own interests, as to omit to calculate the expence of the lease, while they are bargaining for the farm; and it is well known to those, who are conversant in the business of letting farms, that nothing
nothing more disgusts a good tenant, a man who can have a farm anywhere, than an exorbitant charge for his lease.

VI. FORMS OF LEASES. In the construction of leases, it would be unreasonable to expect to find anything superiorly excellent, in a District where the letting of farms may be considered as, in some measure, a modern practice. For although it must ever have been in use, between middle men and under tenants, yet it must ever have been a secondary and subordinate branch of the management of estates; and as such, indeed, it still remains. Beside, the forming of leases, being left to men who are unacquainted with the required covenants and regulation, necessary for promoting the interest of an estate, is another bar to excellency of construction.

The following are the heads of a lease, under which one of the first farms in the country was let, a very few years ago.

Landlord grants the use of the premises
premises for twenty-one years, at a fixed annual rent.

Landlord reserves the privilege of holding Courts (this being a manor farm) with the use of a parlour, bed room, and stable, one day and night, for the customary fee of two shillings; also the usual dinner and liquor, for the Court tenants, at one shilling each.

Also all mines, quarries, &c.

Also timber, game, &c.

Also the liberty of sowing the third crop of grain with eaver (raygrafs) and clover, to be provided by the tenant.

Also a right of viewing the state of repair of buildings, &c. and, if necessary repairs are not executed within two months after notice given, the landlord may execute them at the tenant's expense.

Also the power of re-entry on non-performance of the agreement.

Tenant agrees to pay rent, taxes, &c.

Also to do all repairs; the landlord first putting the premises into tenantable condition.
Also to do suit and service at the Lord's Courts.

Also to lay on fifty double Winchester bushels of stone lime, or seventy sacks of sea sand, an acre, the first year of breaking up; to be mixed with mold, in a husband-like manner.

Also to take three crops of corn, for such dressing, and no more! these crops being Wheat, Barley, and Oats, in succession! and to sow grass seeds with the last crop.

Also to keep up orchard grounds; the landlord first stocking them properly with trees: the tenant afterwards having the decayed trees for filling up vacancies.

Also to repair the mounds of hedges every time the wood is felled; and not to cut them under seven years growth; nor to cut rods, &c. but when the hedge is felled.

Also to the following

Restrictions. Not to break up meadow grounds, under the penalty of ten pounds an acre.
Also not to pare and burn the surface of other lands, under the same penalty *
Also not to grow Rape, Hemp, Flax, Woad, Weld, Madder, or POTATOES!! unless for the use of his own family.
Also not to fell Hay, Straw, or Turneps; nor to carry manure off the premises.
Also not to pasture orchard grounds with horned cattle.
Also not to fell, lop, or top, any timber tree, under the penalty of ten pounds; nor any maiden tree or sapling, under that of five pounds.
Also not to assign the lease, without consent, &c.

Those who bind tenants to such a base system of management, as the tenant of this charming farm is bound (for eighteen years to come!) are entitled to pity, rather than to cenfure: they copy leafes from musty forms, left them by their predecessors, as they copy black letter precepts out of Jacob and Burn.

The

* This farm lies somewhat to the Southward of this District; being within that of the SOUTH HAMS.
The heads of a lease of a smaller farm, within this District, runs thus:

**Landlord** agrees to repair, &c.

**Tenant** to lay on a hundred bushels of lime, or one hundred and twenty seams (or horseloads) of sea sand, mixed with one hundred and twenty seams of dung, an acre, on all lands broken up for Wheat after Ley or Grass. And not to take more than a crop of Wheat, a crop of Barley, and a crop of Oats, for such dressing; but to sow over the Oats twelve pounds of Clover and half a bushel of Ever, an acre; and not to mow the Clover more than once.

Also not to cut hedges under twelve years' growth; and then when the adjoining field is broken up for wheat: and to plash the sides (or outer brinks of the mounds), and shovel out the ditches (or hollows at the foot of the bank), throwing the mold upon the mound, to encourage the growth of the hedgewood.

Also to preserve orchards: to keep them free from horned cattle: landlord agreeing to find young trees; tenant to fetch and plant them, and to carry two

Vol. I.  G  seams
feams of dung or fresh maiden earth to set each plant in: being allowed the old trees for his trouble.

Also not to sell Hay, Straw, &c. except "Reed (or unthrashed Straw).

Also not to assign over, &c. &c. &c.

VII. RENT. The rent of the larger arable farms, on which husbandry is the principal object, is from ten shillings to twenty shillings an acre; according to the quality of the soil, its situation, and attendant circumstances. Small farms, with a large proportion of orchard ground lying to them, pay higher rents.

VIII. REMOVAL. Ladyday is the accustomed time of entry and transfer.

IX. MANOR COURTS. These Courts, as we have already intimated, are regularly held. Conventionary or life-lease tenants are considered in the light of copyholders; and, by the custom of the country, freeholders attend Manor Courts; which, however, are principally held for the receipt of rents, whether conventional or predial.
WOODLANDS,
THERE
PROPAGATION AND MANAGEMENT.

I. WOODLANDS.

THE SPECIES OF WOODLAND, which is most prevalent in this District, is that which comes emphatically under the denomination of Woods; namely a mixture of Timber and Underwood; the ancient law, which requires that a certain number of Timberlings shall be left standing, in each acre of Coppice-wood cut down, being here, more or less complied with; though it were only that
such standards should be taken down at the succeeding fall of Underwood, and others left in their stead. In consequence of this evasion there is, in effect, much Woodland in a state of Coppice. And there is some little in a state of Timber, with but little Underwood.

The Hedgerow Wood of the District is invariably Coppice; with some few Pollards growing out of the sides, or at the bases, of the mounds; which are probably too high and narrow to support Timber Trees upon their tops,—were the tenants to suffer them to rise.

II. The SPECIES OF TIMBER TREES are principally the Oak and the Ash, with some Elms on the deeper better soils; also the Beech and the Sycamore. But the Oak may be emphatically termed the Timber Tree of the District.

III. The SPECIES OF COPPICE WOODS are the Oak, the Birch, the Sallow, the Hazle, the Ash, the Chestnut, which last is found, in wild recluse situations.
situations, with every appearance of being a native. The Wild Cherry, too, is found in Coppices: but little or no Hawthorn; which does not appear to be a native of the country!

IV. The HISTORY of these Woodlands is unknown: tradition is silent on the subject. They are, undoubtedly, the aboriginal produce of the soils they now occupy. They have no appearance of cultivation; except near habitations: and even, there, unless in a few instances, Planting does not appear to have been, at any time, the practice or fashion of the District.

V. The ELIGIBILITY of the present Woodlands, in their present state, has been mentioned: some small portion of them ought, perhaps, to be converted to Farm Lands; though, in the ordinary modes of conversion, they might not pay for the alteration: and there are considerable extents of unproductive high lands, which ought to be converted to Woodland.
THE SPECIES OF WOOD, proper to be raised on the bleak barren heights, which are here spoken of as being eligible to be converted into Woodlands, appear to me evident. On the sides of vallies, sheltered from the cutting winds of this District, the Oak is undoubtedly the most eligible species of Wood. But, upon exposed heights, the Oak, even as Coppice wood, shrinks from the blast; and, as Timber, makes no progress after a certain age; becoming stunted and mossy. The only Oak Timber, I have observed in the District, of any size, grows on the lower skirts of the hills. Whereas the Beech flourishes, even as Timber, in very bleak exposed situations. And, I am of opinion, that, for Coppice wood, on the bleak barren heights under notice, the Beech and the Birch
Birch would be most eligible: and that, for Timber, in such situations, the Larch, alone, is eligible.

I speak, however, from a general knowledge of this valuable tree, in the soils and situations in which I have seen it flourish. For it does not appear to have been tried on the bleak barren soils of this District. Yet, seeing the extent of such soils, which it contains, and its situation with respect to the ship yards of Plymouth; and seeing at the same time, with almost moral certainty, that the Larch, in times to come, will be a principal article of Ship building, in this island, it is highly probable that whoever now propagates it, will exceedingly enhance the value of his estate;

3.

MANAGEMENT OF WOODLANDS.

TO convey a comprehensive idea of this department of Rural Management, in the
District now under view, it will be proper to speak separately of

I. Timber.
II. Coppice wood.
III. Hedge wood.
IV. Bark.

I. THE MANAGEMENT OF TIMBER. The chief produce of Woodlands, here, being Coppice wood, rather than Timber, less is required to be said, under this branch of management. Indeed, judging from what has fallen under my notice, respecting the treatment of Timber, in this District, little more than censure can be fairly attached to it.

To the training of Timber, little if any attention appears to be paid. I have seen Oak woods irreparably injured, and for ever rendered incapable of producing large Timber, for want of timely thinnings.

And in the only instance of FELLING Oak Timber, on a large scale, which came under my observation, the management, or rather mismanagement, was such as ought
ought not to be suffered. Instead of clearing the ground, or of removing the underling and stunted or full grown trees, to make room for those which were in a thriving profitable state, the latter, only, were hewn down! Many of them in the most luxuriant state of growth; throwing them, heedlessly, among the standing trees! thus adding crime to crime, and causing double destruction. Acts like these should be punishable; for it is not a waste of private property only; but, in the present state of Ship timber, and in the immediate vicinity of a dock yard, such waste becomes a public loss.

Enquiring into the cause of this outrage, I was told (and probably with truth, as nothing else could well account for it) that so many hundred trees had been sold, at such a price, the choice of them being left to the purchaser; who had a wide extent of Woodland to range over; and who, guided by the exorbitant price of Bark, chose of course, the full topped fast-growing trees; as affording the most bark and of the best quality.

II. MANAGE-
II. MANAGEMENT OF COPPICES.

This forming a prominent feature in the Rural Management of the District, it requires to be treated of in detail; under the following branches.

1. Training.
2. Age of Felling,
3. Disposal,
4. Mode of Cutting,
5. Mode of Converting,
6. Consumption.

1. The training of Coppice woods is not, I believe, attended to farther, than to keep them free from brouzing stock, during the first stages of their growth. However, considering the advanced age at which Coppice wood is cut, here, much faggot wood, and perhaps other inferior wares, might be taken out with advantage to the riling Coppice. The Birch and the Sallow, quick growing woods, ought certainly to be checked, so as to prevent their overtopping and cramping the growth of the Oak. The great object in training Coppices
Coppices is to give evenness and fullness to the whole. In a district, however, where stakes, edders, and wicker hurdles are not in common use, the less profitable would be the thinnings of a Coppice. In the more advanced stages of growth, hoops are, here, a profitable article.

2. The age of felling Coppice wood, in the ordinary practice of the District, is twenty years. The bark of the Oak is a principal object, especially at present; and this does not acquire, much sooner, a sufficient substance and maturation of juices, to fit it properly for the use of the tanner. It is oftener, I believe; suffered to stand until it be more than twenty years growth, than it is felled under that age. From eighteen to twenty-five years may, perhaps, be set down as the ordinary limits.

3. The

* Hoops for Cider casks. The principal wood is Ash; but Chestnut and Wild Cherry are reckoned nearly as good. The price, in the rough, about 8d. a hundred weight. The time of cutting, December and January: the time of bending, May and June. The Coopers charge is half a crown a dozen.
3. **The Disposal of Coppice Wood.**

The common medium of sale is the survey or auction: the proper vehicle of disposal, in all cases where large allotments of wood, of every kind, are to be disposed of, in the gross; provided men of property and common honesty can be drawn together as bidders *. But, in this District, where the bidders at such sales are, many of them, men without property or principle, public auctions become a hazardous mode of disposal; as most men of property, in the District, I understand, have experienced.

This class of purchasers are chiefly working woodmen, who unite themselves into companies or sets, in order that they may compass, the better, the parcel on sale; afterwards, sharing it out among themselves; and each employing assistants to take down his own share.

The prices of Coppice wood, by the acre, are various; according to the age and quality; and have lately had a rapid rise, on account of the high price of bark; and the great demand for wood, which the war

war has occasioned. Formerly, (within memory) four or five pounds an acre was reckoned a good price for wood of a middle quality, and twenty years growth. Within the last ten years, or less time, ten pounds an acre was esteemed a full price for such wood. Now (1794) it is worth fifteen pounds an acre; the purchaser, paying tithe; which is usually 2s. 6d. to 3s. in the pound, upon the gross amount of sale.

4. The method of taking down Coppice wood, in this part of the island, is singular. The ordinary woods being cleared away, previous to the Barking season, the Oak is peeled standing; all the hands employed continuing to peel during the spring run of the Bark. When a check takes place, the woodmen employ themselves in cutting down the peeled wood; until the midsummer run calls them again to the operation of peeling; which, indeed, may be said to last, with little interruption, throughout the summer; the wood being chiefly converted into saleable ware, during the winter months. This
This unusual mode of proceeding gives a piece of Woodland, undergoing these operations, a striking appearance to the eye of a stranger, travelling through the country, in the summer season. The purchaser's shares are marked out in square patches; and these divided again into stripes of different colours: one white, with barked poles lying along upon the stumps! another brown,—the leaves of the early peeled poles, yet standing, being already dead, and changed to this colour: a third mottled, having naked stems, headed with yet green leaves; while perhaps the remainder of each patch, reserved for another year's fall, appears in its natural green.

This method of taking down Coppice wood, however, has been practised, time immemorial; and, where Firewood and Bark are the principal objects of produce, a more eligible method would be difficult to strike out. The practice of suffering the peeled stems to remain upon the roots, in the first instance, as well as that of afterwards letting them lie upon the stumps, is theoretically bad. The fact however is, this
this practice, though it may have been continued for centuries, has not destroyed, nor materially injured, the woods; which, though not equal in thickness and evenness, to the Sussex and Kentish Coppices, are upon a par with those of the rest of the Island.

5. 6. The conversion and consumption of coppice wood is, here, into poles, for uses in husbandry, as the roofs of sheds and hovels, rails, &c. &c.; cordwood, mostly for the use of ships of war; faggots of different sorts, for fuel, and for the use of the King's bake-houses, &c. at Plymouth.

The ordinary price of cordwood, in time of peace, is about ten shillings a cord, of 128 cubical feet (namely 4, 4, and 8) and the poles and faggots in proportion *.

III. The MANAGEMENT OF HEDGE WOOD. This department of management

* Formerly, Cordwood was sold by weight; a practice which is not, yet, altogether obsolet. The price about 18d. a seam, or 6d. a hundred weight.
management is so exactly similar to that of Coppice wood, that it does not require a separate detail. The brush wood is cleared away, in early spring, and the Oak peeled standing, in the barking season.

IV. The MARKET FOR BARK, after the tanneries of the country are supplied, is Ireland; to which it has, for some years last past at least, been shipped in great quantities. This appears to be a principal cause of the exorbitant price, which this useful article of manufacture has risen to of late years; and which bids fair to reduce to a state little short of annihilation, the Oak timber of this island, fit for Ship building.

Remark.

The process of tanning is peculiarly entitled, at this time, to the attention of the Chemist. The bark of the Oak, it is probable, acts principally as an astringent, on the texture of the hide; and might, perhaps, be equalled, or excelled, by
by other astringents, natural or prepared, if duly sought for, and attentively applied.

To export Oak Bark, under the present circumstances, must surely be a political error.
DIVISION THE THIRD.

AGRICULTURE.

THIS most extensive branch of Rural Economy requires to be examined, in detail; agreeably to the plan which I have hitherto found it requisite to pursue, in registering the practices of other Districts; and conformably to the analytic Table of Contents, prefixed to this Volume.

I.

FARMS.

1. THE NATURAL CHARACTERS of Farms appear, in a great measure, in what has been said of the Natural Characters
acters of the District; and only require to be adduced, here, in order to bring them into one point of view, with the adventitious properties of Farms, at present observable, in this extreme part of the Island.

The Climate is very uncertain, in an agricultural point of view. In a dry summer, the harvest is early, on account of the southerly situation of the District. But, in a moist season, it is sometimes very backward; owing to incessant drizzling rains, added to the coolness of the sea air. See Climate, page 11.

The surfaces of Farms, notwithstanding the uneven surface of the country at large, are less steep and difficult to work, than the Farms of many other hilly Districts; owing to the circumstance of the steeper sides of vallies being chiefly appropriated to wood.

The quality of the soil has been described, as being of a slaty nature; mostly abounding with fragments of slate rock and other stones; and generally mixed with a portion of loam.
The Quantity or depth of soil is greater than the par of upland soils; varying, from five or six, to ten or twelve inches.

The subsoil is a rubble, or broken slatey rock; absorbing water to a certain and great degree; but an excess of wet weather sometimes causes a temporary surcharge; during which, the soil, in some particular spots, becomes wet and poachy. It may be said, however, in general, the soil and subsoil are absorbent, clean, and sound.

II. The HISTORY of Farm Lands, in this District, has been hinted at, as having passed from the forest or unoccupied state, to a state of common pasture, through the medium of at least a partial cultivation; and, from the state of common pasturage, to the predial state, in which it now appears. But these suggestions arise, principally, from the present appearances of the surface, and from the other circumstantial evidences, mentioned above. These circumstances, collated with the different surveys
surveys that have been made, at distant periods of time, might bring this matter to a greater degree of certainty, than either of them, taken separately.

III. The PRESENT APPLICATION of Farm Lands. Viewing the District at large, Farms in general are in a state of MIXED CULTIVATION; comprizing arable land, temporary leys, water meadows, and orchard grounds: GRASSLAND being the more prominent characteristic, as will more fully appear in speaking of their management.

IV. The SIZES OF FARMS are, as they ought to be, extremely various. BARTONS (a name which perhaps was originally given to demesne lands, or manor farms, but which now seems to be applied to any large farm, in contradistinction to the more common description of farms) are generally of a full size; as from two or three to four or five hundred acres of culturable lands. Ordinary farms run from ten to a hundred pounds a year.
General Observations.

THE humiliating situation in which this country is placed, at present (1795), through a misguided attachment to SPECULATIVE COMMERCE, and thro' a neglect, not less to be lamented, of the PERMANENT INTERESTS of the country,—has given us an opportunity of seeing the utility which arises from a GRADATION OF FARMS; and from having farmers of different degrees and conditions, to furnish the markets with a regular supply of grain.

Were the whole of the cultivated lands of the Island in the hands of small needy farmers, unable to keep back the produce from the autumn and winter markets, it is highly probable that the country, during the past summer, would have experienced a scarcity, nearly equal to a famine; and would, every year, be at the mercy of dealers or middlemen, during the spring and summer months.
On the contrary, were the whole in the hands of men of large capitals, a greater scarcity might be experienced, in autumn and the early part of winter, than there is under the present distribution of farm lands.

I do not mean to convey, that the present distribution of farm lands is perfect, or precisely what it ought to be, in a political point of view. Nevertheless, it might be highly improper, in Government, to interfere in the disposal of private property. It is therefore to the consideration of proprietors of estates I beg leave to offer the following principle of management, in the tenancing of their respective estates: namely, that of not entrusting their lands, whether they lie in large or in small farms, in the hands of men who have not capital skill and industry, taken jointly, to cultivate them, with profit, to themselves and the community; nor of suffering any man, let his capital be what it may, to hold more land, than he can personally superintend; so as to pay the requisite regard to the minutiae of cultivation.
V. The PLANS OF FARMS have been spoken of as being generally judicious, in respect of having the farm-stead, or buildings, placed within the area of the lands. The fields too have been mentioned, as being well sized; but sometimes, perhaps, too large, or out of proportion, on the smaller farms; owing to the expensiveness and closeness of the fences in use: and, owing, perhaps, to the same circumstance, private lanes, or driftways, are in some cases wanted. On the whole, however, the District is above par, with respect to the plans of its farms.

GENERAL OBSERVATION. From this Analysis of Farms, it is plain, that West Devonshire has many advantages, natural and fortuitous, as an AGRICULTURAL DISTRICT.

2.

FARMERS.

The SCALE of OCCUPIERS, in this Western District, is singularly extensive; reaching
reaching from the largest proprietor, down to the farm servant, or parish prentice; who having, by his temperance and frugality, saved up a few pounds, and, by his industry and honesty, established a fair character, is entrusted with one of the small holdings that are scattered in every parish; and who, perhaps, by persevering in the same line of conduct, ascends step after step, to a farm of a higher order.

The qualifications of professional occupiers, including small proprietors, lifeleaseholders, and tenants, will not be found, on a general view, at present, equivalent to the natural and adventitious advantages of the District, nor such as are likely to give effect to those advantages; so as to raise the Rural Management of this extremity of the Island, to a par with that of less favored parts of it.

The property of occupiers of this class is absorbed in life leaseholds. If a man can purchase a farm he will not rent one; and, in purchasing, he incapacitates himself from occupying his purchase, properly.
perly. There are, no doubt, many exceptions to this general position.

Their education is another bar to improvement. Many of them, as has been intimated, have risen from servants of the lowest class; and having never had an opportunity of looking beyond the limits of the immediate neighbourhood of their birth and servitude, follow implicitly the paths of their masters.

Their knowledge is of course confined; and

The spirit of improvement deeply buried under an accumulation of custom and prejudice.

There are, however, some few individuals, in the District, who are struggling to break through the thick crust of profession, under which the country seems to have been long bound down. But they have not yet obtained, sufficiently, the confidence of the lower class of occupiers. Their exertions, however, may convince the latter that the established practice of the District may be deviated from, without danger.
3.

WORKPEOPLE.

NO inconsiderable share of farm labor is done by farmers themselves, their wives, their sons, and their daughters. On the larger farms, however, workpeople of different descriptions are employed. They are either

I. Laborers,
II. Servants, or
III. Apprentices.

I. The LABORERS of the District are below par: many of them drunken, idle fellows; and not a few of them may be said to be honestly dishonest; declaring, without reserve, that a poor man cannot bring up a family on fix shillings a week and honesty. In addition, however, to these low wages, it is pretty common for farmers to let their constant laborers have corn, at a fixed price; and endeavour to give
give them piece-work,—to be paid for, by measurement, or in gros.

Nevertheless, the wages of the District, seeing the great rise in the price of living, appears to me to be too low; and what the farmers save in the expense of labor, they probably lose by pillage, and in the poor's rate. All ranks of people, FARM LABORERS ONLY EXCEPTED, have had an increase of income, with the increase of the prices of the necessaries of life; or, which is the same thing, with the decrease in the value or price of money. This may, in a great measure, account for the increase of the poor's rates, in country parishes, without bringing in the degeneracy and profligacy of the present race of working people, compared with the past; though some part of it, I believe, may be fairly laid to the charge of that degeneracy, which, if the talk were not invidious, would not be difficult to account for.

II. SERVANTS. The most remarkable circumstance, in the economy of farm servants, in this part of the Island, is that of
of there being no fixed time or place of hiring them: a circumstance which, I believe, prevails throughout the West of England. They are hired either for the year, the half year, or by the week; the last a very unusual method of retaining house or indoor farm servants. When a servant is out of place, he makes enquiries among his acquaintances, and goes round to the farm houses, to offer himself.

In the Rural Economy of the Midland Counties, I made some observations on this subject (see note, page 19, Vol. II.) before I had any knowledge of the practice of this District. What I have since seen of it inclines me to decide in its favor. It is certainly more convenient to the farmer: and it is less degrading to the servants, than the practice of exposing themselves, for hire, in a public market; though it may not, perhaps, be so speedy and certain a way of getting into place.

The wages of servants, as those of laborers, are low, compared with those of most other Districts. The yearly wages of men run
run from six to eight pounds; of women three pounds or three guineas.

The mode of treatment of farm servants, here, may be said to be a judicious mean between the extravagance of the Southern counties, and the opposite extreme of the Northern provinces.

III. Apprentices. It is a universal and common practice, throughout Devonshire, and, I believe, the West of England in general, to put out the children of paupers, boys more particularly, at the age of seven or eight years, to farmers and others; and to bind them, as apprentices, until they be twentyone years of age; and formerly until they were twentyfour! on condition of the master’s finding them with every necessary, during the term of the apprenticeship.

This is an easy and ready way of disposing of the children of paupers, and is fortunate for the children thus disposed of; as enuring them to labor and industry, and providing them with better sustenance,
than they could expect to receive from their parents. To the farmers, too, such children, under proper tuition, might, one would think, be made highly valuable in their concerns, and, in the end, would become very profitable.

The contrary, however, is generally the case: an unfortunate and indeed lamentable circumstance, which arises, in a great measure, I apprehend, from improper treatment. Instead of treating them as their adopted children, or as relations, or as a superior order of servants, whose love and esteem they are desirous of gaining, for their mutual happiness, during the long term of their intimate connexion, as well as to secure their services at a time when they become the most valuable, they are treated, at least in the early stage of servitude, as the inferiors of yearly or weekly servants, are frequently subjected, I fear, to a state of the most abject drudgery: a severity which they do not forget, even should it be relaxed, as they grow up. The ordinary consequence is, no sooner are they capable of supporting themselves, than
than they desert their servitude, and fill the provincial Papers with advertisements for "runaway prentices."

There are, no doubt, circumstances under which it were difficult, or impossible, to render this class of servants, either pleasantable or profitable to their masters; such as the naturally bad disposition of the servants themselves, and the more reprehensible conduct of their parents, in giving them bad counsel. Nevertheless, it strikes me forcibly, that much might be done by a change of principle, in their treatment.

When the unfortunate offspring of unfortunate parents fall into the hands of men of sense and discretion, they frequently turn out well, and become most valuable members of the community.

A more natural seminary of working husbandmen could not be devised; and the progress in life, that some individuals of this class have made, is a recommendation of the practice; which, under the proper treatment of farmers, the encouragement of landlords, and the protection of Magistrates, might be profitably extended to other
other Districts; and become a prolific source of the most valuable order of inhabitants a cultivated country can possess.

4.

BEASTS OF LABOR.

Introductory Remarks.

THE District under survey may be said to be undergoing a change, with respect to this department of its Rural Economy: a change which has been going on, slowly, for the last twenty years; but which has, as yet, made little progress.

Formerly, carriage of every kind was done entirely on the backs of horses; except in harvest, when sledges, drawn by oxen, were sometimes used; also heaps of manure, in the field, were dragged abroad in small cart sledges, either by oxen or horses. Twenty years ago, there was not a "pair of wheels" in the country; at least
not upon a farm; and nearly the same may be said at present. Hay, corn, straw, fuel, stones, dung, lime, &c. are, in the ordinary practice of the District, still carried on horseback.

This, to a stranger, forms a striking feature of management. Before the invention of wheel carriages, these modes of transfer were of course universal throughout the Island, and the reason of its being continued so long, in this District, has no doubt been, in part, the unlevelness of its surface. But there are other Districts, the cultured parts of whose surfaces are much steeper than those of Devonshire (for reasons already given); and the continuance of the practice, here, has been in a great measure owing to a want of judgment in laying out roads; or a want of spirit in executing them; arising from a backwardness, in all matters of improvement. There are farms of some hundred acres, lying perfectly well for wheel carriages; as level as farms in general throughout the Island; yet have not a wheel carriage belonging to them.
It would be unfair, however, not to observe, that there are many farms in the District, on which the use of "PACK HORSES" ought never to be laid wholly aside. And, in many other Districts, the same mode of conveyance might be partially adopted; for the dispatch made, by pack horses properly used, is such as no one, who has not seen it, would readily apprehend *. Nevertheless, the practice, compared with that of wheel carriages, in situations which will admit of them, is altogether ineligible; and the prevalence of it at present is a strong proof of the

* In an instance noticed, in which a stout lad with two pack horses, and two men with three horses in a waggon, were carrying faggots nearly the same distance (the road of the one somewhat steep, of the other more level), the comparative dispatch stood thus: Each pack horse carried nine faggots (twelve are a full seam), and made eight journeys a day; thus transferring twelve dozen. The waggon carried eight dozen at a load, and made six journeys; and consequently transferred just four times the number. But if the grasst horses and the boy are calculated at sixpence each, and the stable horses and the men, at a shilling each, the disparity of expense will not be found very considerable.
backward state in which husbandry still remains, in this remote part of the Island.

II. OXEN have ever been the plow team of the District: sometimes with horses before them; but more generally alone: four aged oxen, or six growing steers, are the usual "plow" of the District.

Oxen are universally worked in yoke; yet are remarkably tractable; and step out with a pace, which a Kentish clown would think a hardship to follow, with his high-fed horse team.

The style of driving an Ox team, here, is observable; indeed, cannot pass unnoticed by a stranger. The language, though in a great degree peculiar to the country, does not arrest the attention; but the tone, or rather tune, in which it is delivered. It resembles, with great exactness, the chantings, or recitative of the Cathedral service. The plow boy chants the counter tenor, with unabated ardour through the day; the plowman throwing in, at intervals, his hoarser notes. It is under-
understood that this chanting march, which may sometimes be heard to a considerable distance, encourages and animates the team, as the music of a marching army, or the song of the rowers. Let this be as it may, I have never seen so much cheerfulness attending the operation of plowing, anywhere, as in Devonshire.

The native breed of this District are somewhat too small, for heavy work. But, in the North of the county, they are larger, and fitter for the yoke; and are, indeed, on the whole, the best working cattle I have anywhere seen. These breeds will be spoken of, more fully, under the head Cattle.

Oxen are here worked to a full age: sometimes to ten or twelve years old.

I met with no spayed heifers in the District. The art of spaying does not appear to be known in the country.

III. CART HORSES, since the introduction of wheel carriages, are beginning to creep into the District. They are mostly of the black, heavy-heeled, unprofitable
fitable breed. However, in the steep pulls of this country, a true-drawn, steady kind is required; but the hardy active breed of Suffolk appears, to me, to be better calculated for the soil and surface of this country, than the sluggish fen sort, which is insinuating itself into it.

But, in a country where draught oxen are of so excellent a quality, and where the drivers of ox teams are so expert, and at present so partial to them, it were pity almost to introduce any other animal of draught; unless under particular circumstances *. It would be as direct an affront to a steady good servant, in this District, to "ordain" him to go with a team of horses, as

* I have seen a pair of young steers, rising three years old, put before, as leaders, the second or third day after they had been broken into yoke; and, in a few days more, made perfectly tractable, in this intellectual capacity.

The goad is the instrument used in driving, when oxen are used alone. But if horses are used before them, a strong kind of whip—a thong tied to the end of a pliant goad is the ordinary instrument—the identical "gad" which is used in Yorkshire, when oxen and horses are worked together, in a similar manner.
as it would be to a Kentish plowman, to order him to take the charge of a team of oxen; and it might be a crime to do away so valuable a prejudice.

The hours of work are well regulated. The plowteams make two journeys a day, as in Norfolk: they go out before eight in the morning, and return at twelve. Go out, again, before two, and return before fix: working about eight hours a day.

5.

IMPLEMENTS.

IN a District whose Rural Management is far behind that of many other parts of the Island, and whose present system of practice is probably of very antient origin, we must expect to find a peculiarity, rather than an excellency, in its Implements of Husbandry.

I. The WAGGONS which have been introduced, are of the West-country con-
struction; with the outer rail bending over the hind wheel; in the same manner as that of the Cotswold waggon*: a peculiarity of construction, which, I find, reaches from Gloucestershire to the lands-end; and which, in much probability, has been originally copied from a two-wheel carriage, that is still in use in Cornwall, and which may, possibly, have been here-tofore common to the more Western counties.

II. The CORNISH WAIN is among the simplest of wheel carriages. It is adapted either to oxen or horses. It is a cart without a body; at least without sides; saving only two strong bows, which bend over the wheels, to prevent the load from pressing upon them. This Implement will be mentioned again in the Minutes.

III. The DRAY, or SLEDGE, of this District, is likewise found in the lowest rank of simplicity. Merely two side pieces, joined

joined together with cross bars. It is large, strong, and useful, on many occasions.

IV. The "GURRY-BUTT," or DUNG SLEDGE, of Devonshire, is a sort of sliding cart, or barrow; usually of a size proper to be drawn by one horse: sometimes it is made larger; I have seen four oxen drawing compost upon a fallow, in one of these little Implements; which might, anywhere, be made useful, on many occasions; especially in moving earth, stones, rubbish, or manure, a small distance. The sides and ends are about eighteen inches high, and are fixed; the load being discharged by overturning the carriage.

V. The FURNITURE OF PACK HORSES varies with the load to be carried. Hay, corn, straw, faggots, and other comparatively light articles of burden, are loaded between "crooks;" formed of Willow poles, about the thickness of sithe handles; and seven or eight feet long; bent as Ox bows; but with one end much longer than the other. These are joined in
in pairs, with slight cross bars, eighteen inches to two feet long; and each horse is furnished with two pair of these crooks; flung together, so as that the shorter and stronger ends shall lie easy and firmly against the pack saddle; the longer and lighter ends rising, perhaps, fifteen or more inches, above the horse's back, and standing four or five feet from each other. Within, and between, these crooks, the load is piled, and bound fast together, with that simplicity and dispatch, which long practice seldom fails of striking out.

Cordwood, large stones, and other heavy articles are carried between "short crooks;" made of four natural bends or knees; both ends being nearly of the same length; and, in use, the points stand nearly level with the ridge of the pack saddle.

Dung, sand, materials of buildings, roads, &c. &c. are carried in "potts;" or strong coarse panniers; flung together, like the crooks; and as panniers are usually flung; the dung, especially if long and light, being ridged up, over the saddle.

The
The bottom of each pot is a falling door, on a strong and simple construction. The place of delivery being reached, the trap is unlatched, and the load released.

Lime is universally carried in narrow bags; two or three of them being thrown across a packsaddle; which is of wood, and of the ordinary construction.

VI. The plow,—provincially "sewl," pronounced "zewl,"—resembles, in general appearance, the old-fashioned plows of other districts; but has three notable peculiarities of construction. It has no rice or west; the mold board standing some inches above the level of the chip, head, foal, or keel of the plow. This, in turning whole ground, is sometimes an advantage; but, in a loose fallow, such a tool rather makes a rut than a furrow; half the soil, perhaps, remaining unstirred.

Another variation in the construction of the Devonshire plow is still more singular. The sheath, breast, or stem is not fixed in the beam; but serves as a regulator to the depth.
depth of the furrow; and is made longer or shorter, at the will of the Plowman; who fastens it, in the required position, with a wedge, driven into a notch, made across the end of the tenon, above the beam.

The third peculiarity of construction lies in uniting the principal handle to the foal, chip, or keel. In most old Plows, this handle is tenoned into the foal. But, here, the foot of the handle is crooked; shooting horizontally forward, in a line parallel with the foal; to which it is strongly fastened, by two thick wooden pins driven through them.

In cases, where the old fashioned foal is used, this is an admirable way of joining the handle to it; giving great strength and firmness of construction. There is some difficulty in finding pieces of wood, fit for this sort of handle; but, in converting top wood, the eye of a good Plowwright is ever on the watch for them. For further remarks on this Implement, see the Minutes.

VII. The
VII. The rough HARROWS of this Country---provincially "Drags"---consist of two parts; each of three beams; hung together with hooks and eyes; and drawn by the corner of the foremost. They hang remarkably steady behind the team.

VIII. The ROLLER of this District has not yet been furnished with shafts, or a pole, to check it in going down-hill; notwithstanding the unlevelness of surface!

IX. The "DRUDGE" is an implement peculiar, I believe, to this part of the Island. It is a long, heavy, wooden-toothed rake; with the teeth broad, and set with the flat side foremost; drawn by oxen or horses, and used to collect the fragments of sward, loosened by the plow and harrow; for the purpose of burning it, in the manner which will be hereafter described, under the article SODBURNING.

X. The YOKE of Devonshire is of too valuable a construction to be passed without
out notice. It is by far the best I have anywhere seen. It is at once light, and easy, to the animal. The operative part of the woodwork; that which rests upon the withers of the Ox, is broad and gently convex on the under side, to fit easy; and hollowed out, above, to give it lightness. To prevent this thin part from being split by the action of the bows in work, rivets are or ought to be run through it, horizontally, close to the outer sides of the bow holes. The species of wood is chiefly Alder, sometimes Elm.

Another most admirable part, in the construction of this Yoke, belongs to the Draught Iron; which, instead of having, as is usual, a single staple or eye, to receive the ring; the crown of the staple is enlarged, and is divided into three compartments or notches, like those of the draught iron of a plow; in order to give the weaker Ox the requisite advantage. An admirable thought; and equally good in theory and in practice.

The bows are invariably, I believe, of Elm; being brought from the Exeter quarter
quarter of the County, into this District: selling, here, at about 18d. a pair: while the neighbourhood abounds in Ash and Sallow, with which the farmers might make their own bows, or have them made, at much less expense.

XI. Some of the TOOLS of this Country are not less peculiar, than are many of its Implements. The shovel is pointed, in the manner of the hay spade of the North of England; resembling the marks on the suit of spades, in playing cards: a circumstantial evidence, this, that the tool under notice was once the common spade or shovel of the Island at large *. In this part of it, it still supplies the place of both spade and shovel: there being no such tool as either a spade or a shovel, of the ordinary construction, in the hands of farmers or their laborers. I have traced this tool as far eastward as Wiltshire. In Dorsetshire, it is common.

It is furnished with a long, strong, crooked

* Or are both Cards and pointed Shovels of French origin?
crooked handle, the back of the bend being turned upward; and, in using it, the hollow of the bend is rested upon the thigh, which is usually guarded with a shield of strong leather, bound upon it.

This tool has many good properties. It enters any substance much easier than a broad-mouthed shovel or spade; and answers, in the hands of a Westcountry man, every purpose of the shovel, the spade, the yard scrapper, and the dung fork of other Districts. As a substitute for the last, however, it is less eligible, than it is for the three first:

There are various other peculiarities, in the shape and dimensions of Tools; but none of them are sufficiently excellent, or striking, to be noticed here. Some of them may, nevertheless, be mentioned, in treating of the operations to which they belong. Those which are here brought forward are sufficient to shew, demonstrably, that the Rural Management of this quarter of the Island has either had a separate origin, or has not partaken of the improvements and changes which that of the rest
rest of the kingdom has undergone. Implements and utensils of husbandry, as of war, are among the best evidences of History.

6.

THE WEATHER.

THE CLIMATURE, or general state of the weather, in this extreme part of the Island, has been already spoken of. And with respect to PROGNOSTICS, or a foreknowledge of the weather, at any time or season, I have gained no information, here. The BAROMETER appears to be little attended to; and, indeed, all thoughts about the weather, even of the morrow or the passing day, are considered as useless; until the misty summit of some oracular mountain announces approaching rain.

It may be true, that, in this peninsular situation, the weather is less certain, than in the more central parts of the Island; yet, from the observations I had an opportunity of making, I found the BAROMETER,
and the setting sun to be of the same or a similar use, here, in forming a judgment of the weather, as I have ever found them, in other places; though, in this country, which may be said to be situated within the region of rain, the changes from fair to foul weather are, no doubt, more sudden, than they are, in more easterly and central situations. Nevertheless, I am clearly of opinion, that a due attention to the barometer and the setting sun, in the summer months, would amply repay the occupiers of lands, for the time and attention they might have occasion to bestow upon them.

7. PLAN OF THE MANAGEMENT OF FARMS.

Prefatory Remarks.

An account of the rise and progress of agriculture, in the several districts of
of the Island, would form an interesting part of its history.

That the Rural Managements, now found in different Provinces, have had distinct origins, or have been raised to the states in which we now severally find them, by very different circumstances, is most evident. But whether the obvious distinctions, which now appear, have arisen from the circumstance of the first settlers of the Island having migrated from different countries; or from that of subsequent conquerors having introduced their respective systems; or that of improvements having taken different routes, in different Districts,—is by no means a question that can be promptly answered.

By comparing minute details of the practices of different Provinces, with the minutiae of practice, observable in the several Countries of the Continent, something might be determined respecting this subject.

That the outlines of Management, in different parts, have arisen, in some measure,
s embedded, out of the nature of soils, and the state of occupancy in which they have happened to be placed, is probable, from the striking fact, that the general Plan of Management, now practised in the District under view, is, in outline, the same as that of the Midland District, situated at two hundred miles distance, and severed from it by Districts pursuing contrary practices: Both of them have been some length of time in a state of inclosure; both of them are productive either of corn or grass; and both of them have fallen into that routine of Management, which, viewed in the outline, will not, perhaps, admit of much improvement; namely, that of subjecting the lands in general to an alternacy of corn and grass; but preserving the bottoms of vallies and dips, in a state of perennial grass or meadow land. And, what is remarkable, these lands, in both Districts, have been watered, time out of mind: but with this still more remarkable difference, the one was wholly overflowed, and kept covered with stagnant water, the other irrigated.
gated with running water,—agreeably to the practice of the South of Europe.

From this and other circumstances, which will appear in the course of this Survey, it is probable, that the Rural Management of the West of England is of French origin.

To assist us in gaining a general idea of the Plan of Management of this District it will be proper to view

I. The present Objects of its Husbandry.

II. The Course of Practice, whereby these Objects are attained.

I. The present OBJECTS of Husbandry in West Devonshire; those from which the Farmer expects to draw rent, labor, and personal income;—are

Corn, and, of late years,
Potatoes,
Fruit Liquor,
Dairy Produce,
Cows,
Oxen,
Sheep,
Swine.
The crops, at present in cultivation, are principally,

- Wheat, and
- Barley; with some
- Oats; a very few
- Peas; some
- Turnips; many
- Potatoes; with at present much
- Clover and RayGrass; together with
- Meadow Grass,
- Pasture Land Produce, and
- Fruit.

The livestock of the District are

- Working Horses; --- a few
- Rearing Horses,
- Working Oxen,
- Dairy Cows,
- Rearing Cattle,
- Grazing Cattle,
- Swine,
- Breeding Ewes,
- Store Sheep,
- Fatting Sheep,
- Rabbits,
- Poultry.
II. COURSE OF PRACTICE. Left it should be said that the Practice of a Country, so far behind the rest of the Kingdom, in Rural Improvements, as that which is now under view, cannot be a fit subject of minute description, it may here be proper to remark, that the Subject of Agriculture, viewed to its utmost limits, is not only extensive, but abstruse; and that no ESTABLISHED PRACTICE can be so inconsiderable as not to furnish useful ideas, if fairly discussed. Beside, we have seen that the outline of its Plan of Management is in some measure right, and, by due investigation, we may be able to detect minute practices, which will throw fresh light on the general subject.

It has been mentioned, as the Practice of this District, to keep the cultured lands, alternately, in ley grasses and arable crops. The latter have long been fixed and invariable; but the number of years allowed for the duration of the former depends on circumstances, and the judgement of individuals. Speaking generally of the District, more than half of its cultured lands are in
temporary ley: besides the perennial leys or meadow lands; and beside the rough pasture grounds that are not under regular cultivation.

Dividing the arable lands into ten parts, five of these parts may, in giving a general idea of their arrangement, be said to be in ley or pasture grounds, one under preparation for wheat, one in wheat, one in barley, one in oats, and one in ray grass and clover; following each other in the succession, in which they are here set down: namely,

- Pasture,
- Partial Fallow, or Beat-burning,
- Wheat,
- Barley,
- Oats,
- Herbage.

This has been the ordinary Course of Management, during the last fifty or sixty years; during which length of time, I understand, herbage has been, more or less, cultivated: a circumstance which does credit to the Rural Management of the Country.
About twenty years ago, the cultivation of the potatoe was introduced into this District; and turneps have been more or less cultivated, for a much longer time; but not in a manner which redounds any honor on their cultivators.

These two crops, being grown on ley grounds, have broken in upon the prior system of Management: so that, at this juncture, the District may be said to be without any regular Course of Management; and it must remain in this predicament, until turneps and potatoes shall be introduced after wheat or oats, as a fallow crop for barley and ley herbage.

8.

Management of the soil.

In this department of the arable Management, the Husbandry of West Devonshire
shire is very defective. The lands, in general, are foul and out of tilth. The leys are many of them covered with fern and thistles, a few years after they are laid down to grass, as if they had been, for ages, in a state of commonage; and, when broken up, are equally disgraced by myriads of seed weeds.

This foul state of the Soil is not more owing to the small number of plowings it receives, than to the defect, which has been mentioned, in the construction of the plow, and the injudicious manner of using it. The plit, or plowslice, is carried too wide; the share is narrow, and the stern of the plow without a wrest to force open the furrow. Hence, in plowing broken ground, half the weeds are left uncut, and the lower part of the soil left almost wholly unstirred; the moldboard only sliding off the upper part; thus covering up the uncut weeds, and giving the land the appearance of having been plowed. The consequence is, the weeds soon break through their thin covering, and take again full possession of the surface. I have seen turneps, after a fallow
fallow of three or four plowings, overshaded with fern a foot high, before the turnep plants were fit for the hoe.

Another cause of imperfect tillage, in this District, is the unclaimed state in which much of its arable lands remain, with respect to large stones, and rocky obstructions of the plow; and which want nothing but spirit and industry to remove them; so as to give an even and sufficient depth of furrow.

The Devonshire Plowmen, however, have hit upon a much easier way of saving their plows from destruction and themselves from injury, than that of clearing the soil from stones. Instead of using an iron bolt, to fasten the draught chain to the end of the beam, a wooden pin is substituted. When the share strikes against a stone, the pin breaks; and by this simple contrivance the neck of the plow and the teeth of the Plowman are freed from danger.

It is probable that, formerly, much has been done towards clearing the ground from obstructions of the plow; as a very ingenious method of freeing
freeing the soil from large hard detached stones has been introduced into practice: namely, that of s\textit{inking} them below the soil; so as to give free range for the plow, above them. This is done by digging pits beneath them: an operation, however, which is somewhat dangerous, and requires a degree of care and circumspection.

\textit{Cleansing soil from seed weeds.}

I must not omit to mention, here, an incident of practice, which was related to me, in this District, by a friend of the farmer in whose practice it occurred. A field, particularly \textit{subject to wild oats}, was effectually freed from them, by dunging it well, while under fallow, and by working it afterwards, so as to mix the soil and dung intimately together. The consequence of this was a full crop of oats; which was mown for hay; and the soil ever after freed from these troublesome weeds.

This incident, though not, perhaps, accurately stated (it is not probable that, with the imperfect tillage of this country, every individual seed should be brought at once into vegetation) shews the utility of working.
Working a dugged fallow, before the crop be sown: a practice I have ever found highly eligible.

Sodburning. The most noticeable particular of Management, in the Soil Process of this District, is that of "burning beat," as it is provincially termed; answering to the paring and burning, or more technically, sodburning—of other Districts.

This operation in Agriculture has been practised, in this Western part of the Island, from time beyond which memory nor tradition reaches. It has probably been imported from the opposite shore of the Continent.

In an old tract which I saw, some years ago, in the British Museum, this operation is termed devonshiring, and it is to this day called Denshiring, in different Districts.

There are, at present, three distinct methods of separating the sward or sod; provincially the "spine"—from the soil. The one is performed with a "beating axe"—namely a large adze—some five or six
six inches wide, and ten or twelve inches long; crooked, and somewhat hollow or dishing. With this, which was probably the original instrument employed in the operation, large chips, shavings, or sods are struck off. It is still used in rough uneven grounds, especially where furze or the stumps of brushwood abound. In using it, the workman appears, to the eye of a stranger at some distance, to be beating the surface, as with a beetle, rather than to be chipping off the sward with an edge-tool. This operation is termed "hand beating."

The next Instrument in use is the "spade," resembling the paring spade, or breast plow, of other Districts: with, however, in some instances at least, a notable addition: namely a moldboard! fixed in such a manner, as to turn the sod or turf, as a plow turns the furrow slice: thus becoming literally a breast plow; a name which has probably been given to the Implement in this state; and continued to be applied to the spade or share, after the moldboard was laid aside. 
In working with this tool, the laborer proceeds without stopping to divide the sods into short lengths; this part being done by women and children; who follow, to break the turf into lengths, and set the pieces on edge to dry.

The price for "spading" is about three halfpence, a square perch, of 18 feet, or sixteen or seventeen shillings a statute acre.

Formerly, it is probable, this instrument was much in use; but, at present, it appears to be chiefly in the hands of small farmers.

The instrument at present used, for separating the spine or grassy turf from the foil, by farmers in general, is the common TEAM PLOW, with some little alteration in the size and form of the share; according to the fancy or judgement of the farmer or his plowman; there being two different ways of performing the operation. The one is termed "Velling," the other "Skirting," or "Skirwinking."

For velling, the share is made wide, with the angle or outer point of the wing or fin turned upward, to separate the turf entirely from the soil.

For
For skirting, the common share is used; but made, perhaps, somewhat wider than when it is used in the ordinary operation of plowing.

In this mode of using the plow, little more than half the sward is pared off; turning the part raised, upon a line of unmoved turf; as in the operation of ribbing, rice-balking, raftering, or half plowing. The paring of turf in this case is from one to two inches thick, on the coulter margin, decreasing in thickness to a thin feather edge, by which it adheres to the unmoved sward.

Having lain some time in this state, to rot or grow tender, it is pulled to pieces with rough harrows, drawn across the lines of turf; and, having lain in this rough state, until it be sufficiently dry, it is bruised with a roller; and immediately harrowed, with lighter harrows; walking the horses one way, and trotting them the other; to shake the earth out more, effectually from among the roots of the grass; going over the ground again, and perhaps again, according to the season, and the judgement of the
the manager; until most of the earth be disengaged.

The "beat," or fragments of turf, being sufficiently dry, it is gathered into heaps of five or six bushels each; either with the "drudge," mentioned under the Section Implements, first into rows, and then, drawing it along the rows, into heaps; or is pulled together with long-toothed hand rakes, adapted to the purpose. The former is more expeditious, and requires fewer hands; the latter gathers the beat cleaner,—freer from earth; which is liable to be drawn together by the drudge.

The "beat burrows," or heaps, being rounded, and shook up light and hollow, a wisp of rough straw,—a large handful,—is thrust, double, into the windward side of each heap: and, a number of heaps being thus primed, a match or flambeau is formed, with "reed" or straight unthrashed straw; one end of which being lighted, it is applied, in succession, to the loose ragged ends of the wisps of straw; which readily communicate the fire to the heaps.
The center of the heaps being consumed, the outskirts are thrown lightly into the dimples or hollows, and the heaps rounded up, as at first; continuing to right up the burrows until the whole of the beat be consumed, or changed, by the action of the fire.

The produce of the first skirting being burnt, and spread over the surface, the operation is sometimes repeated; by running the plow across the lines of the first skirting: thus paring off the principal part of the spine; again dragging, rolling, harrowing, collecting, and burning, as in the former operation.

General Remarks on Sodburning.

HAVING formerly spoken, at some length, on the subject now under notice, the less is requisite to be said in this place*. Nevertheless, the practice of this country (to which I was a stranger when I wrote the remarks above referred to), tending to confirm the ideas which are there offered; and

and this District being, in all probability, the fountain and source of the practice, in these kingdoms, it would be improper to dismiss a topic, which is of considerable importance to the rural concerns of the Island, without taking a retrospective view of the practice, in this quarter of it.

There needs not a better proof, that the practice, under the guidance of discretion, is not destructive to soils, nor any way dangerous to Agriculture, than the fact, so fully ascertained here, that after a constant use of it, during, perhaps, a long succession of ages, the soil still continues to be productive; and, under management in other respects much below par, continues to yield a rent equivalent to that drawn from lands of equal quality, in more enlightened Districts: and there appears to me strong reason to imagine, that, under the present course of management, sodburning is essential to success. Indeed, instances are mentioned, and pretty well authenticated, in which men who stood high in their profession, and of sufficient capitals, having been injured or brought to poverty, through
their being restricted from this practice; which may be said to form a principal wheel in the present machine or system of the Devonshire husbandry. For it is observable, that the Wheat crops of this District, after the burning, liming, and one plowing, which will be mentioned in describing the culture of that crop, notwithstanding the accumulated foulness of the soil, already described, are, in general, beautifully clean: and this, though the succeeding crop of Barley may be foul in the extreme: a circumstance, perhaps, which would be difficult to account for, in any other way, than in the check which the weeds receive, from the burning. The imperfect tillage, of one plowing and a chopping, cannot be allowed to have any share, in producing this husbandlike effect.

Let it not, however, be understood, that any facts, which are here brought forward, are intended to shew the necessity of sod-burning, in this or any other District. To three fourths of the Island, the practice may be said to be unknown; yet in many parts of this unburnt surface of country, if not through-
throughout the whole of it, the present state of husbandry is preferable to that of Devonshire; and, whenever clean fallows, and suitable fallow crops, shall be introduced, here, and judiciously mixed with the grain crops, agreeably to the practice of modern husbandry, burning beat will certainly be no longer required.

In fact, the upland soils of this country are not adapted to the practice. The soil under ordinarily good management, is, in its nature, productive of clean sweet herbage; and, under a proper course of husbandry, never would become coarse and rough skinned, so as to require this operation; which is, as has heretofore been remarked, peculiarly adapted to old coarse tough sward, whether of dry land or wet, light land or stiff; and, in much probability, to cold retentive soils, as often as a suitable rotation of crops will permit *

That burning the grassy sward of land acts as a stimulus to the soil is everywhere observable: in this District, I saw a

striking instance of it. A meagre thin-soiled swell, never worth half a crown an acre, has, by burning and liming, been stimulated to throw out, part after part, ample crops of wheat: which, however, were found to exhaust the soil, so completely, that no after crops of grain were attempted; but the land was suffered to lay down again to rest, and yet remains in a state of still less value, perhaps, than it was in, before it was broken up for wheat.

This, however, is not an evidence against the operation of sodburning; but the reverse. The value of the wheat, thus produced, was probably equal to that of the see simple of the land it grew on; which, if a grateful return, of part of this value received, had been made, would probably have been put into a much better state than it was in, before it underwent this profitable operation.

Does not lime, when used alone, act as a stimulus? Does not tillage act as a stimulus? Yet will any one assert that calcareous earths and tillage are unfriendly to agriculture?

From
From what I have seen, in this country, of the effects of sodburning, I am more and more convinced, that, in many cases, and under discrete management, it forms a valuable part of British husbandry; and may become an instrument of real improvement, in places where it is not, at present, known; especially in bringing the waste lands of the Island into a proper course of cultivation*.

Political Agriculture appears to me to be highly interested, in the continuance of this practice; which men, who farm in closets, seem desirous to extinguish. But let them theorize with caution; and go forth into the field of practice, before they venture to draw inferences, which may prove subversive of the public good they doubtless intend to promote.

Men of landed property, however, ought to regard this practice, with a watchful eye. Through its means, a tenant has it in his power to enrich himself.

self, at the expence of his landlord. And although, while he is doing this, he may be enriching the Public; yet proprietors, considered as such, have an undoubted right to guard their property. But let them not, by an ill judged and narrow-minded policy, injure, at once, the Public, their tenants, and themselves. It may be prudent to restrict tenants, in certain cases, from the use of this practice; but to debar them from it, in all cases, would be equally impolitic, as to restrict them from the use of calcareous earths; or, as is too often the case, to debar them from the use of the plow, where the application of it would be beneficial to themselves, to their tenants, and to the community. This is, in truth, laying up their talents in napkins.

In every case, in which a landlord gives up special advantages to a tenant, he ought to be paid down a reasonable consideration for such advantages; or the tenant should bind himself to pay, during a suitable term, an equivalent rent.
MANURES
AND
THEIR MANAGEMENT.

THE manures, at present in use, are Dung, Sea sand, and Lime.

I. DUNG. This is either YARD DUNG, or PLYMOUTH DUNG; the latter arising from the scrapings of the streets, with dung and offal of every kind, which populous towns afford, and which, when applied to lands that have not been accustomed to additions of that nature, never fail of producing the most favorable effect.

In regard to the RAISING OF DUNG, in this District, I have met with nothing com-
commendable. Farm yards are without form, and unguarded from extraneous water; nor are they supplied with mold or other absorbent substances, to imbibe and retain the superfluous juices of the dung.

II. SEA SAND. This has been a manure of the District, beyond memory, or tradition.

There are two species still in use. The one bearing the ordinary appearances of sea sand, as found at the mouths of rivers; namely, a compound of the common sand and mud. The other appears, to the eye, clean fragments of broken shells, without mixture; resembling, in colour and particles, clean-dressed bran of wheat.

By analysis, one hundred grains of the former contain about thirty grains of common siliceous sea sand, with a few grains of fine silt or mud; the rest is calcareous earth, mixed with the animal matter of marine shells.

One hundred grains of the latter contain eighty-five grains of the matter of shells,
shells, and fifteen grains of an earthy substance, which resembles, in colour and particles, minute fragments of burnt clay, or common red brick.

These sands are raised in different parts of Plymouth Sound, or in the harbour; and are carried up the estuaries, in barges; and from these, on horseback, perhaps five or six miles, into the country; of course at a very great expense: yet without discrimination, by men in general, as to their specific qualities. The shelly kind, no doubt, brought them into repute, and induced landlords to bind their tenants to the use of them; but without specifying the sort; and the bargemen, of course, bring such as they can raise, and convey, at the least labor and expence *

But the use of sea sand has been for some time

* It is probable that the specimen first mentioned, is above par, as to quality. I have seen sand of a much cleaner appearance, travelling towards the fields of this quarter of the country: and, near Biddeford, in North Devonshire, I collected a specimen, under the operation of "melling" with mold, which contains eighty grains percent of clean siliceous sand!
time on the decline in this quarter of the county, and is now in a great measure superceded, by

III. LIME. This species of manure, I understand, has been more or less used, here, for about sixty years: a proof that, heretofore, the West of England stood forward in Rural Improvements.

The only species in use is burnt from a variegated stone, or marble, raised near Plymouth; and carried up the different estuaries; along the banks, and at the heads of which there are kilns; in which great quantities are burnt, by men who make a business of burning it.

The lime kilns of Devonshire are large, and of an expensive construction; some of them costing not less than thirty or forty pounds each. But their duration is in proportion: one which has been built thirty years is still firm and sound on the outside. The walls are of extraordinary thickness; wide enough, on the top, for horses to pass round the kiln, and deliver the stones.

The
The body or inside of the Devonshire kiln is not well formed. The sides are too straight: the cavity is not sufficiently egg-shaped,—is too conical,—too narrow in the middle,—the contents, of course, hang,—do not settle down freely and evenly,—as they do in a well shaped kiln. The rim is guarded with a curb of large moorstones.

The stones are brought up from the water side, on horseback, or upon asses; and, being distributed round the top of the kiln, are there broken, and thrown into the kiln with shovels; without the extra trouble of carrying them in baskets: a saving, probably, which counterbalances the apparently extra expence of carrying up the unbroken stones, on horseback, instead of in carts: so that we have, here, as in many other instances, in Rural Management, two roads, of similar length and expediency, leading to the same end.

The Fuel chiefly, or wholly, Welfb culm.

Lime is separated into two sorts, at the kiln. Those who carry it to a great
distance, on horseback, take only the clean knobs, or "stone lime;" the ashes and rubbish being sold, at a lower price, to those who have lands at a shorter distance from the kilns, under the name of "lime ashes." This is a very accurate practice, when lime is carried to a great distance.

Upon the whole, the manufacturing of lime may be said to be well conducted, in this country; and the preparation of it, for manure, is entitled, at least on the score of industry, to still higher praise, and to a minute description.

Previous to fetching the lime, "earth ridges" are formed in the field; either with mold hacked from the borders of it, or with the soil of the area, raised with the plow. The earth thus raised is broken into small fragments, and formed into long narrow beds. Upon these earth ridges the stone lime is laid; and covered up with the outskirts of the beds.

When the lime has burst the covering, and is found to be sufficiently fallen, the ridges
ridges are "melled;" the earth and lime are intimately mixed together; in a very ingenious and effectual manner. The workman begins at one end of the ridge; and, with a hack or single-ended mattock, hacks down the heap; mixing the whole intimately, by beating it with the side of the hack; raising it up again with the point, and again hitting it sideway, with a slight and dexterity to be acquired only by practice. When the two ingredients are sufficiently blended, the compost is thrown back, with a shovel, and formed into a roof-like heap; still continuing to burst any lumps the hack had missed, with the back of the shovel, and to mingle the parts as evenly as possible.

In these ridges the compost remains, until the time of spreading.

Lime compost is spread from the ridges, or angular heaps above described, by means of gurry buts, or of wheelbarrows. When the latter are used, it is proper to harrow and roll the surface, before the operation commences.

GENERAL
General Remarks on the Application of Lime as a Manure.

The right application of lime to the soil, has long appeared to me a subject which deserves the strictest investigation. In Norfolk, marl being the prevailing calcareous manure, I paid the less attention to lime. In Yorkshire, lime has long been depended upon, as a principal agent, in the production of arable crops. In that District, therefore, I paid much attention to the subject *. In Gloucestershire, it can scarcely be said to enter into the list of manures. But, in the Midland Counties, it has, for some time past, been in full estimation; and some considerable attention is paid to its application; especially in watering and turning over the load heaps, before they are spread out upon the soil †.

In the application of lime to soil, as a manure, the perfection of management appears

† See Mid. Econ. Vol. I. P. 201.
appears to be, from what is at present publicly known on the subject, the incorporation of the two substances, into one homogeneous mass; or, at least, to mix the Lime, in a state of powder, with some portion of soil, in order to separate its particles, and prevent their adhering in lumps, and returning, in this form, to a state of chalk or marl: for although Lime reduced to that state may not be lost to the soil, as a manure, it probably does not act as Lime, but as Marl; and, of course, a given quantity of Lime, laid on in whole stones or large fragments, will not produce the same effect, in a given time, as it would have done, had it been more evenly distributed,—more mechanically assimilated with the soil.

There are two widely differing methods of effecting this mechanical union. The one is to reduce the soil to a fine tilth; to spread the Lime evenly over it, in a state of powder; and to mix them together, with the roller and harrow, until the whiteness of the Lime disappears: suffering them to remain in this state, if
the season will admit of it, until a fall of rain has still more intimately united the two substances.

The other method is to mix the Lime, by hand, with a certain portion of foil collected for that purpose; agreeably to the practice of the District under review.

In a favorable climate; in the summer season; and where a sufficient quantity of Lime can be readily collected; there can be no doubt as to the superiority of the first method: it is more expeditious, much less expensive, and infinitely more complete.

But, in a less certain climate and season; and where the business of fetching Lime goes on slowly, — continuing, perhaps, through the summer months, the Devonshire practice, unless the Lime were lodged under cover, until the land were ready to receive it, is certainly the most eligible. The great objection to it is the labor and expense which it incurs. The "hacking of vorrage" — the forming of "earth ridges," the "melling," and "setting about lime and earth" may be said to employ
employ a set of laborers the summer through.

Experiencing the tediousness and inconvenience of these operations, and seeing the wetness and uncertainty of the climate, with respect to "burning Beat," it struck me that much time would be saved, and a degree of certainty gained, by uniting the two operations of preparing Lime and burning Beat: namely, by burning the Beat with the Lime; and by mixing the Lime with the ashes and soil of the Beat: thus saving, on either hand, much labor; setting the season, as it were, at defiance (for the wetter the Beat the quicker would be the operation of the Lime); and, at the same time, destroying the roots and seeds of weeds, with the eggs of insects and animalcula of various kinds, and this perhaps with less injury to the vegetable matter of the Beat, than by the ordinary process of combustion. Strongly impressed with these ideas, I set about carrying them into execution. The result will appear, in the Minutes.

M 2 SEMINATION.
IO.

SEMINATION.

I gathered no general information, respecting this department of the arable Management, in the District under view. Every thing is sown broadcast. A modern drill made its appearance some years ago; but it has been laid aside.

The method of seminating the Wheat crop, here, is singular. It will appear in its place; under the head Wheat.

II.

THE MANAGEMENT OF GROWING CROPS.

The Management of Crops during their Growth, is confined to hand-weeding, which is performed with ordinary
ordinary care. The hoing of Field Crops has not yet been introduced: not even for Turneps! as will appear under that head.

The VERMIN of ARABLE CROPS are below par, in number and destructiveness. Game is kept within bounds: there are few Hares, and no Pheasants.

Pigeons are not numerous.

Rooks, in some places, are evidently too numerous.

Sparrows are in considerable number; and require to be checked: a business which rests with Farmers; who can have no color of complaint against Gentlemen for encouraging Rooks, while the more injurious Sparrows are suffered to remain in force.

Wild deer were formerly common, in the woods of this District, and were found very injurious to the verging crops. But, through the good offices of the late Duke of Bedford, the country is now nearly free from them.

M 3 HARVESTING.
THE Harvest Management, at present established in the District, has evidently risen out of the practice of carrying home harvest produce on horseback. For although this practice has in some degree been laid aside, the operations of Harvest (that of carrying excepted) are the same as they were, before the introduction of wheel carriages.

Every article of corn produce is bound; even the rakings of barley and oats that have been mown! But this, in the horseback husbandry, was perfectly right. Sheaves, or bundles of any sort, are not only much fitter for loading between crooks, but are handier to be pitcht, or rather flung, from the ground or floor; to the top of the rick or mow, in the manner that will be described, than loose corn.

I have
I have seen rakings wasted; because there was not time to bind them, before the rain set in; though waggons were standing by, to receive them.

Formerly, it seems, loose corn, which had been cut with the scythe, was "led" in "trusses,"—or large bundles, each a horse-load, bound together with two ropes, and laid across a "pannel" or pad saddle, and steadied or "led" by a woman or youth, from the field. This was called "truss leading" or "leading"—a term which is common at this time, in the North of England, and in Scotland, for carrying, hauling, or drawing hay, corn, or other article, on a carriage; and which, perhaps, owes its origin to an obsolete and forgotten practice, of a similar nature, in those provinces.

In a general view, the Harvest Management of this District is below that of many others: nevertheless it differs, in various respects, from that of every other part of the kingdom; and certainly merits a place in a register of the present state of English Husbandry.

The
The particulars which require to be detailed are these:

I. Hewing Wheat, and Raking the Stubbles.

II. Setting up Shocks.

III. Making Arrish Mows.

IV. Turning Corn in Swath.

V. Binding Oats and Barley out of Swath.

VI. Carrying Sheaves on Horseback.

VII. Pitching them to the Mow or Stack.

VIII. Form of Corn Stacks.

IX. Thatching Corn Stacks.

I. HEWING WHEAT. This is a kind of mowing with one hand. The "Yowing Hook" is formed much like the common sharp-edged "hand reaping hook" of this and other places; but somewhat larger every way—longer, broader, and stouter; with a hooked knob at the end of the handle, to prevent its flipping out of the hand.

With this instrument, the corn is struck at, horizontally, and almost close to the ground,
ground, with the one hand; while the other hand and arm strike it, at the same instant, about the middle of the straw; thus driving it, upright, against the standing corn: the workman taking a sweep, round as much as will form a sheaf, and collecting the whole together, in the center, into a sort of leaning cone; finally striking the hook under its base, to disengage it entirely from the soil; but still supporting it, with the left or loose arm and the leg, until the hook be put beneath it, to lift it, horizontally, to the band.

In variation of this method, I have seen the hewer force his way up one side of a narrow ridge, against the wind, and back on the other side; thus collecting half a sheaf; and then fetching another half sheaf in the same manner.

This practice is not peculiar to the West of England: it has long been in use, in the Southern Counties of Kent and Surrey: where, however, it is considered as a slovenly and bad practice. If a crop of wheat be free from weeds, and stand well upon its legs, this method of cutting is expeditious
expeditious and eligible enough: but, if the corn be lodged or ravelled, or foul at the bottom, with green succulent weeds, it is altogether improper: indeed, in the former case, it requires expert workmen to make good work.

A sithe, in good hands, will make equal or better work, and is still more expeditious.

To secure the scattered corn, which this loose method of cutting leaves upon the ground, women or boys collect and set up the sheaves; and are followed by women with rakes, to draw together the loose corn: gleaning being seldom permitted, until the shocks be out of the fields *.

II. SHOCKS are here formed of ten sheaves, set up in an extraordinary manner. Nine of them are crowded together in a square, of three sheaves every way, and

* Another distinguishing trait of the Devonshire Husbandry is marked, by the Harvest Holla,—which is here given when the cutting of wheat is finished; and not, according to the ordinary custom of England, when the last load of Corn is drawing home.
and the tenth is put over them, as a cloak or hood; the whole forming a sort of cone or pyramid.

This is evidently a bad practice. The close posture of the sheaves prevents a circulation of air among them; the center sheaf being wholly excluded from it. And, in most cases, the covering is very imperfect; one sheaf, unless very large and the straw very long, is not sufficient to secure the rest from rain water; but rather serves to conduct it into the centers of the upright sheaves.

Shocks of ten sheaves, with eight set up in a double row, and with two inverted as hoods or thatch, are much more secure and eligible. For the method of setting up Shocks of this description, see Mid. Econ. Vol. II. page 160.

III. "ARRISH MOWS"—or Field Stacklets. In a late harvest, and in a moist climature, like that of West Devonshire and Cornwall, especially after a wet summer, which seldom fails of filling the butts of corn sheaves with succulent herbage,
herbage,—securing the ears from injury, and at the same time exposing the butts to the influence of the atmosphere, is, self-evidently, an admirable expedient.

The size of Arrish Mows varies. Those which I have observed, generally contained about a waggon load of sheaves. But they may be made of any size from a shock of ten sheaves to a load.

The method of making them is this: a sort of cone, or rather square pyramid, being formed with sheaves set upon their butts, and leaning towards the center, the workman gets upon them, on his knees; an assistant putting sheaves, in their proper places, before him; while he crawls round the "mow;" treading them, in this manner, with his knees, applied about the banding place; and continuing thus to lay course after course, until the mow be deemed high enough: observing to contrast the dimensions as it rises in height, and to set the sheaves more and more upright, until they form, at the top, a sharp point, similar to that of nine sheaves set up as a shock; and, like this, it is capped with an
an inverted sheaf, either of corn or of "reed"; the principle, and the form when finished, being the same in both; namely, a square pyramid: a form which would seem to have been taken from the pyramidal shock *

Where corn is put up into these little stacks it is considered as safe, and is suffered to stand some weeks in them. I have seen sheep feeding in the stubble, while the corn was standing in these piles.

The only disadvantage, perhaps, of this mode of harvesting, which is applicable to oats or barley as well as to wheat, is that of mice being thereby liable to be conveyed from the field to the barn.

IV. TURNING CORN SWATHS.
This I have seen done by hand. The Corn, being gathered up carefully in the hands and arms, the turners face about, and spread it evenly upon fresh dry ground. This is an accurate mode of turning; and a good preparation for binding. But the turning

* Have not these practices been imported from the Continent?
turning of Corn Swaths is more generally done with slender poles, cut out of the hedges, six or eight feet long, about the size of a flail handle, and somewhat crooked: a tool which I have seen used in other Districts. It is peculiarly well adapted to the purpose of lifting over Swaths; and ought to be everywhere in use.

V. BINDING CORN SWATHS. In general, however, the Harvesting of mown Corn is done in a slovenly manner. The mowing is roughly performed, and the binding executed in a still coarser manner. In harvesting Oats, which had stood too long before they were cut, I have seen one fourth, if not one third, of the crop left shed upon the ground. In common practice, a very considerable share of the crop is harvested in the form of rakings; so much being left on the ground, after the sheaves

* I have elsewhere assigned my reason for descending to the Minutiae of the Harvest Management. (See Mid. Econ. Vol. II. p. 231.) The task of registering the Manual Operations of Husbandry is irksome in the extreme. And nothing but a full conviction of its utility could induce me to perform it.
Sheaves are removed, that it requires to be raked both ways; namely, to be gone over twice; the second raking being at right angles to the first.

In binding, the Swaths are rolled into "skoves," with short rakes; the band stretched over the bundle; the ends, one in each hand, forced beneath it; the bundle lifted up, turned over, and the twisted ends of the band tucked in.

If the crop be short, "reed" is used for binding it: it was with the utmost difficulty I got a field of barley, which, through the thinness of the soil and the dryness of the summer, was too short for bands, and which was clean, and in the highest order for stacking,—carried to the stack in wagons, without the expence and trouble of tying it up in bundles.

In a climate so uncertain as that of West Devonshire; and most especially in a late harvest; setting up mown corn in singlets, agreeably to the practice of the North of England, would, I am convinced, be the most eligible practice. For the method of setting up corn in this manner, see York. Econ. Vol. I. page 390.
VI. In CARRYING SHEAF CORN ON HORSEBACK, the Sheaves are packed in between the crooks, head to tail, with the butts outward, and carried up even; piling the load considerably above the horse's back. The lower part of the load is laid in by hand, the upper part piled up with a fork; which being set firmly under one of the cross bars of the crooks, a rope, previously thrown over, is pulled down tight and fastened; the fork being a stay or purchase to pull against.

A string of horses being thus laden, a boy travels them soberly to the barn or rick yard; where they are unloaded, by pushing back the upper part of the load with the fork, throwing it over the tail of the horse to the ground, or upon a cloth laid to receive it; the crooks being cleared, by hand, in a somewhat immechanical manner.

The whole string unloaded, the boy mounts, and, standing upright between the crooks, trots or perhaps gallops his horses back to the field; frequently, to the no small dismay, or perhaps injury, of peaceful travellers. A somewhat uncivilized practice.

VII. PITCHING
VII. PITCHING CORN SHEAVES.
The Sheaves being thus left upon the floor or ground, without any advantage from a carriage, where the mow or stack rises to a height above the reach of an ordinary fork, an expedient has been struck out, and brought, by practice and the emulation of young men, to an extraordinary degree of flight and expertness. They are flung, provincially "pitched" from the point of a prong, formed very narrow in the tines, over the head of the pitcher; a boy placing the sheaves fairly before him. I have seen a man thus pitching sheaves up to the roof of a stack above the ordinary height, throwing them several feet above the reach of his fork.

The spring is got by the arms and the knee jointly; or is done at arms length. When the height is very great, or the sheaves heavy, two men's exertions, it seems, are joined: one man placing the tines of his pick under the "stem" or handle of the other! Much probably depends on the forming of the tines of the prong: they contract upwards to an acute angle: the sheaves,
sheaves, of course, part from them with a degree of spring, given by the straw compressed between them.

VIII. The FORM OF STACKS. The stem is usually carried up square, and high; but the roof very flat, and hipped, or sloped on every side; so that the roof, which in many Districts contains nearly one third of the contents of the stack, does not here, perhaps, contain a sixth of it. The difficulty of pitching from the ground, and the excellency of "reed" as a thatch, may have assisted in fixing this prevailing fashion.

IX. The METHOD OF THATCHING STACKS, in West Devonshire, is very judicious and effectual. The "reed" is spread thinly and evenly over the roof, and is fastened with "spars" or hazel rods, pegged down to the butts of the sheaves, and covered by the next course of reed, in the manner that reed roofs are laid, in Norfolk.

But, in Cornwall, I saw the reed fastened on
on with straw ropes, stretched horizontally, within a few inches of each other; as in the Highlands of Scotland!

General Observations. Upon the whole, the business of Harvest, except in as much as relates to the Field Management of mown Corn, and the forming of Wheat Shocks, may be said to be well conducted, in this District. It is true, that corn in general is here allowed less field room, or time between the cutting and the carrying, than it is in most other places; but, seeing the uncertainty of the climate, in this peninsular situation, the deviation is evidently on the right side.

I3.

THE MANAGEMENT OF HARVESTED CROPS.

The Homestead Management of this Country, varies so little from the ordinary practice of the Kingdom at large, as scarcely
to require particular notice. There are, however, two or three peculiarities of Management which require to be registered.

I. HOUSING STACKS BY HAND is not uncommon. Under the horse-and-crook system, it is perfectly eligible; and, where carriages are in use, it is comparatively more expeditious, than an East-countryman would readily allow. In an instance noticed, five men housed about eight loads of wheat, in seven or eight hours. Two men, upon the stack, bound the sheaves, in bundles of ten each, with ropes, and let them down, upon the shoulders of other two men, who carried them to the barn, from thirty to forty yards distance, and handed them up to the fifth man, on the mow. This piece of a stack would have broken deep into the day's work of a team; and, in a busy time would have cost twice the money the wages of these five men amounted to; which, at a shilling a day, was not more than three or four shillings.
II. The method of THRASHING WHEAT, in this District, and throughout the West of England, is too singular to be passed without notice. While straw continues to be used as thatch, the practice is highly profitable.

The object of this method of Thrashing (which is applicable to RYE, as well as to WHEAT), is to extract the grain from the ear, with the least possible injury to the straw. To this end, the ears are either thrashed lightly with the flail, or they are beaten across a cask, by hand; until the grain be got pretty well out of them. If the corn is smutty, the latter is the more eligible method.

The next operation is to suspend the straw, in large double handfuls, in a short rope, fixed high above the head, with an iron hook at the loose end of it; which is put twice round the little sheaflet, just below the ears, and fastened with the hook's laying hold of the tight part of the rope. The left hand being now firmly placed upon the hook, and pulling downward, so as to twitch the straw hard, and prevent
the ears from flipping through it, the butts are freed from short straws and weeds, by means of a small long-toothed rake or comb. This done, the rope is unhooked and the "reed" laid evenly in a heap.

A quantity of clean straight unbruised straw, or "reed," being thus obtained, it is formed into small sheaves, returned to the floor, and the ears thrashed again with the flail, or is again thrashed by hand over the cask, to free it effectually from any remaining grain, which the former beating might have missed.

Lastly, the reed is made up into large bundles — provincially "sheaves" --- of 36 pound each; with all the ears at one end; the butts being repeatedly punched upon the floor, first in double handfuls, and then in the sheaf, until they are as even, as if they had been cut off smooth and level, with a sickle, or other long edgetool; while the straws lie as straight, and are almost as stout, as those of inferior reed, or stems of the Arundo.

It is not for the purpose of thatch, only, that the straw of wheat is carefully preserved from
from the action of the flail; but for the purpose of litter also; it being found to last or wear much longer, in this capacity, than softly bruised straw; which may be said to be already on the road of decay, and to have passed the first stage toward the dunghill.

Women sometimes assist their husbands in the work of thrashing wheat, in this manner; as in beating it over the cask, or in raking out the loose straw, as well as in making up the reed.*

In thrashing barley and oats, the opened sheaves are piled on one side of the floor, and drawn over, heads-and-tails, to the other; the thrashers of the Western, as well as of the Northern extremity of the Kingdom, keeping stroke;—and, here, this

* In one instance, I saw a frame, for beating the ears over, instead of a cask; the construction somewhat resembling that of a very wide, short, crooked ladder, supported nearly horizontally, with its convex side upward; the cross bars being set edgeway, and a few inches from each other; and with an angular piece of wood running lengthway through the middle of the frame, and rising above the cross bars,—to separate, and spread with greater ease, the ears of the corn; and thereby to render the strokes the more effective.
animating practice is sometimes extended to four thrashers working in the same barn; performing a peal, which, though monotonous, is not displeasing to the ear.

Fodder straw is here bound in very large, long, two-banded trusses; no doubt that it may be the more easily "led" to the place where it is wanted. And where carriages are in use, the practice is continued.

III. The last particular of Practice, noticeable under the present head, is that of WINNOWING WITH THE NATURAL WIND. Farmers of every class (some few excepted) carry their corn into the field, on horseback, perhaps a quarter of a mile, from the barn, to the summit of some airy swell; where it is winnowed, by women! the mistress of the farm, perhaps, being exposed, in the severest weather, to the cutting winds of winter, in this lavish, and truly barbarous employment. The obsolete practice of the Northern extremity of the Island, in which farmers loaded their wives and daughters with dung, to be carried to the fields on their backs, was but a little
a little more uncivilized. The machine fan, however, is at length, making its way into the Western extremity.

I4. MARKETS.

Plymouth, and its environs, form the metropolis of the District, in which its various products may be said to concenter. The consumption, there, depends much however upon the circumstances of War and Peace.

Tavistock, nevertheless, has a good corn market: a large flour mill, in this place, is conducted with judgement and spirit.

The stock fairs of the District are chiefly those of Tavistock; where very great numbers of lean cattle, bred in Cornwall and West Devonshire, are bought up, by
186 MARKETS.

by Somersetshire and other East-country Graziers. There are, however, several village fairs, in this, as in other parts of the Island.

15.

WHEAT,

AND ITS

PARTICULAR MANAGEMENT.

IN registering the minutil Management of this and the other crops of the District, I shall follow the same Plan of Arrangement, as I have, on every other occasion, found it right to pursue.

I. The SPECIES of Wheat usually cultivated is the common white Wheat.

II. SUCCESSION. It is universally sown on ley ground.

III. SOIL. It is grown on every fort.

IV. The
IV. The SOIL PROCESS is mostly that which has been described, under the general head, Management of the Soil: namely, that of cutting or tearing off the sod, and burning it. But this is not invariably the practice: sometimes the Ley is broken up by a full depth plowing; which, I think, is called "rotting the spine." To this succeeds a sort of rough bastard fallow; the roots and rubbish, which harrow up, being burnt, if the weather be favorable.

V. MANURE. Formerly, sand and dung were in use. Now chiefly lime, with perhaps a small portion of dung. The method of liming has been described. See page 158.

VI. SEED PROCESS. This is one of the many operations, belonging to the established practice of the District under survey, which have so little resemblance to the established practice of the Island at large, that they can scarcely be considered as belonging to British husbandry.

A mere Provincialist of the central, or
the Northern parts of the Island, might travel through all the countries of Europe, and not find practices less foreign to his own, than those of Devonshire.

The time of sowing Wheat is late; the seed time continuing, from October to near Christmas. The reason given for late sowing is, that "early sown crops are liable to weeds." This precaution, added to the burning and the lime (as before mentioned), account more fully for the cleanness of the Wheat crops of this District, notwithstanding the foulness of the soil with respect to weed seeds. But in a backward and uncertain climature, late sowing cannot be altogether right.

The seed plowing, which, in the ordinary practice of the District, is the only full-depth plowing given for Wheat, takes place immediately previous to the sowing. The soil is, I believe, invariably, laid up in narrow lands; and, in general, diagonally across the field! The usual width is four bouts, or eightplits; one plit, or narrow balk, being left standing in each inter-furrow.

Pre-
Previous to the sowing, the entire surface of the field is hacked over, by hand! with large heavy hoes or hacks: each man taking two plits; which, in the seed plowing for Wheat, are plowed of a narrow width, and which, in this operation, are cut into square clods, the size of spits or spade bits: and, it is very probable, the practice has grown out of the hand culture, which, in every country, probably, preceded the use of the plow.

The quantity of seed from two to two and a half Winchester bushels.

Sown in separate ridges, and at one cast.

Covered, with light harrows and two horses.

Adjusted, in an extraordinary manner. Until very lately, the interfurrows were universally hacked and shovelled out, by hand. The unplowed slips, having been reduced to fragments with hacks, were thrown over the ridges, or into hollows or vacancies, by the sides of the furrows, and the surface otherwise adjusted, with shovels. Now, it is become the more general practice, to open the furrows with the plow; a double
double mouldboard plow being used by some farmers. The rows or ridgets of soil and clods, forced up by the plow, on either side of the furrow, are afterwards pulled upward, and the surface in general adjusted, with "haul-to's"— or three-tined dung drags; giving the ridges, with this rude tool, a degree of finish.

**General Observations.** It need not be remarked, that the setting about, and the spreading of lime and earth, — hacking over the ridges, and finally adjusting them, require a great supply of hand labour. Ten acres of Wheat put into the ground, in the manner of this District, take up more manual labor, than fifty acres sown in the ordinary way. Nevertheless, the labor is not all lost; the land, beside receiving additional tilth in the operation, is more evenly feeded, and with a less quantity of seed, than it would require without it; and, in a country where labor is plentiful and cheap, it might be wrong to withhold any part of it, so long as the present system of management shall be pursued.
The other operations, respecting the culture of Wheat, are sufficiently explained, under the General Heads.

VII. The PRODUCE OF WHEAT, by the statute acre, is estimated at twenty Winchester bushels.

16.

BARLEY,

AND ITS

MANAGEMENT.

AFTER what has been said, in describing the General Operations of the Arable Management, little remains to be added, here.

I. The SPECIES of Barley grown is chiefly, or wholly, the common long eared
Eared kind. Other sorts, it seems, have been tried; but have been given up for this.

II. The SUCCESSION. Barley succeeds Wheat, or Turneps, or sometimes Barley itself: the last of the three grain crops, which the present system of aration requires, being in this case Barley, instead of Oats.

III. The SOIL. Barley is grown on all the better lands; which, indeed, are the best adapted to this grain. On the thinner soils, towards the Moorsides, Oats are more generally cultivated.

IV. TILLAGE for Barley. After Wheat, two plowings, or rather one plowing and a half: after Turneps, one plowing; the charlock and other weeds being previously burnt!

V. MANURE. Seldom any used, I believe, for Barley.

VI. SOW-
VI. SOWING. **Time of sowing**—April. **Quantity of seed**—four bushels and upward! **Method of sowing**—broadcast, above.

VII. WEEDING. Universally, I believe, hand-weeded.

For harvesting, thrashing, &c. see the General Heads.

Produce of Barley—from thirty to forty bushels an acre. It is, of course, a profitable crop; and ought frequently to be grown on lands, which are forced to produce Wheat.

17.

**O A T S.**

The species mostly black; as being less liable to be discoloured in this moist dirty climate. **Tillage**, one plowing. **Time of sowing**, February and March.
Quantity of seed, five or six bushels. Produce, not registered.

Indeed, the culture of this crop being in a considerable degree confined to the Moor-side farms, I paid the less attention to its culture.

18.

Turneps.

Notwithstanding the unhusbandlike manner, in which Turneps are still cultivated, in this District, it is more than half a century since they were introduced into field culture: —a strong evidence of the supineness of the Devonshire husbandmen.

I. The Species, various; but not excellent. The proper method of raising the seed
feed does not appear to be understood, or is not attended to *

II. SUCCESSION. Turneps are invariably sown on grass land. There never, perhaps, had been an acre of turneps grown in the District, after a grain crop; until I introduced the practice. Some account of the attendant circumstances will appear, in the Minutes.

III. TILLAGE, &c. for Turneps, is the same as for Wheat. Namely, velling or skirting; burning; and one plowing.

IV. For MANURE, the Beat ashes are chiefly depended upon; and without them, it has been believed, no Turneps could be grown.

V. The SOWING is done chiefly, in July. The quantity of seed, one to two pints.

O 2

VI. The

* For the Norfolk practice, in raising Turnep seed, see NORF. ECON. Vol. I. P. 278.
VI. The HOING of Turneps has not yet found its way into the ordinary practice of the District. In Autumn, the Turnep grounds are as yellow, as Mustard Fields in May; and, in winter, as white with the opened pods of the Charlock, as stubbles in Autumn: the silvery pods and withered branches of the weeds, shading and nearly hiding the green tops of the Turneps: not in the immediate District of the station only; but in other parts of the County. This phenomenon struck me most forcibly in travelling between Exeter and Plymouth, in the latter end of December 1791.

Many individuals, it is true, attempt to draw the weeds, by hand; piling them in heaps, upon the ground. But the whole crop, I apprehend, is rarely if ever got through, in this way. And what is done, is probably done at a much greater expense, than hoing would have incurred.

VII. The EXPENDITURE of Turneps is judicious. They are chiefly drawn, and thrown upon ley grounds, to cattle and
and sheep; or carried to stalls, for fatting cattle; agreeably to the Norfolk practice!

**General Observation on the Turnep Culture.**

It is not fitting, nor likely, that this part of the Island, alone, should remain much longer a disgrace to British Agriculture, in respect to the culture of this valuable crop. And yet, if I may judge from my own experience, the hand hoing of Turneps cannot readily be introduced. For although, by personal attention, I succeeded equally to my expectation; yet, whenever that attention was called off, a relaxation or neglect of the operation took place; so rooted, and difficult to eradicate, is the custom of half a century.

If I were to venture to recommend any practice, to the Gentlemen who are now evincing a desire of rousing their countrymen to a sense of their delinquency, it would be to change, entirely, the present mode of raising Turneps; and to adopt that which has been lately struck out, in the South of
Scotland, and which is now making its way, very rapidly, into the North of England: namely, that of sowing them on narrow ridges, similar to those in which potatoes are sometimes raised, in the District under view: a method that appears to me singularly adapted to the shallower soils of Devonshire; which, in general, are well suited to the Turnep culture.

19.

POTATOES.

THE HISTORY of the Potatoe crop, as an object of field culture, in this Western District, furnishes another instance of the respect which its cultivators have long borne to established customs. It is not more than twenty-five years, if so much, since the entire Country, including, I believe, the markets of Plymouth, was supplied with Potatoes from the neighbourhood
hood of Morton Hampstead, at the opposite end of Dartmore, and at not less than twenty miles distance from the center of this District, nor less than thirty miles from Plymouth and its dock yard! The film of prejudice, however, being at length seen through, Potatoes were found to grow, and to produce their kind, at the West end, as well as at the East end, of Dartmore; and, now, the District raises enough to furnish its own consumption, and to supply the markets in its neighbourhood; though the population, probably, has much increased, during the lapse of five and twenty years.

It is reasonable to suppose that the people of Morton, while they monopolized, and practised as a mystery, the culture of Potatoes, during a length of time, would not be inattentive to the minutiae of cultivation; and it is equally probable, that the knowledge they acquired travelled Westward, with the operation. Let this be as it may, the culture of Potatoes is, at present, well understood, here; and, in one particular, at least, deserves to be copied.

O 4 — I. The
I. The SPECIES of Potatoes, here as in most other places, are various; not only in shape, colour, and farinaceous quality, but in the nature of their growth; the different sorts requiring different times of planting: a circumstance which is not, perhaps, sufficiently attended to, in other Districts.

II. SUCCESSION. Potatoes succeed, invariably I believe, Ley herbage;—broken, sometimes at least, by two or three plowings; but no BURNING is used for this crop.

III. PLANTING. Time of planting—March, April, May, or even June; according to the varieties or sorts which are cultivated: it being found that each has its favorite season of planting: and it is probable that, were attention paid to the varieties of every other District, similar propensities might be discovered.

The method of planting varies. Sometimes they are planted in alternate furrows, and covered with DUNG. In other instances, they are planted in slips or beds;
beds; narrow ridges of mold being left between them, to earth up the plants, in the lazy-bed way.

IV. The CLEANING of Potatoes is well attended to. They are hoed; and I have seen those planted in alternate furrows, earthed up, in a husbandlike manner.

V. VI. Potatoes are TAKEN UP, in November, and December; and PRESERVED in pits.

VII. The FARM EXPENDITURE of Potatoes is chiefly, or wholly, on Swine. And, from the restrictive clause in Leases, see page 80, it is probable that even this is a modern mode of expenditure.
CULTIVATED HERBAGE.

It has been already mentioned, that the cultivation of herbage is of more than half a century standing, in the District under survey. From this circumstance, and from the cultivation of Turneps, and the use of Lime as a manure, having been introduced about the same time, it would seem that, about sixty years ago, a stage of improvement took place; since which time the practice appears to have been stationary; and it is, of course, now fully prepared for another step.

The proportional quantity of ley, in the inclosed country, is full two thirds of the arable lands, or lands occasionally plowed, considered as distinct from meadows, grazing grounds, and rough up-land.
land pastures. But, on the skirts of the moors and commons, which serve as summer pastures, the proportion is much less.

I. The SPECIES of herbage which is here cultivated are chiefly red Clover and Raygrass—provincially "Eaver:" but white Clover, and Trefoil, are occasionally sown.

II. SUCCESSION. In the ordinary practice of the country, cultivated herbage succeeds Oats, after Barley, after Wheat! A practice which we have seen, bad as it is, enforced by restrictive clauses in a modern lease.

III. SOWING. The usual time is between the sowing of the corn and its coming up. The quantity of seed 12lb. of Clover, and half a bushel of Raygrass.

IV. APPLICATION. Mown the first year: afterwards pastured.
CULTIVATED HERBAGE.

V. DURATION. Six or seven years, in the inclosed country; less, by the sides of the commons.

21.

GRASSLANDS,

AND THEIR MANAGEMENT,

I. SPECIES OF GRASSLANDS.

THE GRASSLANDS of this District may be classed under

1. Meadow lands, or cool and frequently rich bottoms, or dips; as well as more upland sites, over which water can be spread; and which are kept in a state of MOWING GROUND *.

2. Gra-

* Meadow Plants. I collected most of them; but not with sufficient accuracy, as to their proportional quantity, to entitle the list to publication.
2. Grazing grounds, or rich uplands, over which water has not been conducted; and which are kept in a state of pasture.

3. The temporary leys, just mentioned; which are used as mowing ground, the first year; and afterward, as pasture grounds. And

4. Rough uplands, which sometimes, though not frequently, occur on private property, and are kept in a state of coarse pasturage.

II. MANAGEMENT OF GRASSLANDS. In the management of pasture

The species, found in the meadows of Buckland Place, are the ordinary species of meadow lands, in most parts of the Island; with, however, one remarkable difference: the meadow Foxtail (*Alopecurus pratensis*) is wanting!

The late accurate Botanist, and amiable man, Mr. Hudson (Author of *Flora Anglic*) had some seeds of this Plant collected, in the neighbourhood of London (at the request of our mutual friend the late Sir Francis Drake), and sown over these meadows; but without success. In the summer of 1794, I examined, with some attention, the part over which they were sown; but could not discover that any of them had taken root.
TURE GROUNDS, I met with nothing noticeable; except the extraordinary foulness of many of the Leys; which has been already noticed, under the head—MANAGEMENT OF THE SOIL. I shall therefore confine my remarks, under this head, to MOWING GROUNDS, and more particularly, to

WATERED MEADOWS. The origin of the practice of watering Grasslands, artificially, in this District, cannot be reached by memory; nor does tradition, I believe, attempt to ascertain it. There is a striking instance of the antiquity of the practice observable, on the farm of Buckland Priory. A hedge, in appearance some centuries old, winds by the side of a water course, evidently formed by art, for the purpose of conveying a rill, along the brow of a swell of rich Grassland, which bears no mark of having ever been in a state of aration. From the winding direction, and the regular descent, or almost levelness, of this artificial rill, there is every reason to believe, that it was formed prior to the Hedge; which may seem to have since been run along the upperside of it. From the circumstance of this
this farm having been monastic, one is led to conclude that the practice was introduced under the auspices of the Church: or, if we go still farther back, we may conjecture that it was brought over by the first settlers, or by future Colonists, from the South of Europe; where it has been, for ages past, in use.

But this by the way: History, ecclesiastic or profane, may perhaps furnish those, who have leisure to look for them, with better lights.

The quantity of watered lands, in this District, is, in some townships, considerable; while, in others, where the vallies are narrow, and their sides wooded, little watered ground is seen. There remains, however, much to be done in this respect. Perhaps, not half the quantity of the lands, capable of receiving this admirable improvement, enjoy it at present; and

The management of those which are subjected to the practice, whatever it may have been heretofore, is, at present, far from being accurate. The soil is imperfectly drained, and the water imperfectly spread over
over it. Presently before my going down into the District, a person of the first practice in it had been employed, to conduct the water over the meadows of Buckland Place; which had previously lain in a state of neglect. Nevertheless, I found them still in such a state, as induced me to have the whole laid out, afresh, under my own directions.

Yet, the effect of the water, notwithstanding the low ebb at which the watering of lands is found, at this day, is such as I have nowhere observed; except in the neighbourhood of chalk hills. It gives a greenness and grossness of herbage, nearly equal to that of the meadows of Wiltshire and Hampshire.

This led me to conceive that the slaty rock, out of which the most efficacious of these waters filter, contained some considerable proportion of calcareous matter. But, from the experiments already mentioned, the proportionate quantity of calcareous earth, contained in these slaty rocks, appears to be small.

Nevertheless, it might be dangerous to
conclude, from this, that the waters under consideration do not contain a sufficient quantity of the calcareous principle, to enable them to produce the effect which we are desirous to account for. Indeed, it is not a knowledge of the component parts of the filtering stratum, but of those of the waters themselves, which is most desirable.

Accurate analyses of waters, whose effects are known, as manures, are very much to be desired. That different waters are as various, in their effects on vegetation, as distinct vegetable and animal substances are, must be evident to every one who has made extensive observations on these effects: And Chemistry cannot bestow on Agriculture more valuable assistance, than in prosecuting enquiries of this nature.

The Hay harvest of West Devonshire has little to recommend it, as a pattern to other Districts.

The mowing is, in general, ill done. The sith is short, and laid in, too near the handle. The unavoidable consequence is, the work goes on slowly, or a line of uncut

Vol. I. P herbage
herbage is left between each stroke. I have seen worse mowing, both of grass and corn, in this District, than in any other. This censure, however, does not apply to the country in general. I have also seen good work in it.

The Hay-making of the District stands in a similar predicament. Some I have seen vilely managed; others conducted on the best principles of the art: namely, spread, turned, cocked in small cocks, re-spread, turned, recocked, or carried.

But, in these operations, a principal tool, the prong, is ridiculously too small; fitter for the hands of a Cook, than a Haymaker: the tines, even of those used for loading carriages, are not longer than those of a Man of War's beef-fork. But they were fashioned under the Horse and Crook husbandry, and when carriages are used, they still remain unchanged.

The carrying of Hay in crooks I have seen done in a neat and secure manner. The ends or faces of the load are carried up straight, and appear in folds, like those formed at the corners of waggon loads, in some
some Districts. This gives firmness to the load, and prevents its being scattered by the

way.

The aftergrass of meadows is, here, judiciously managed: it is suffered to grow to a full bite, but not to be overgrown, before stock be turned upon it.

I have seen cattle put into a meadow immediately after the Hay was got out of it, “to pick about the hedges:” — an accurate minutia of management. For the herbage, which is then succulent and edible to store cattle, would, before the aftergrass were ready to be pastured off, become unpalatable, and be altogether neglected by cows or fattening stock, with fresh succulent herbage before them. It would be evidently wrong, however, to suffer such cattle to remain in fresh mown grounds, after they have performed the principal intention.

See Mid. Econ. Vol. II. P. 130. on this subject.
THE MANAGEMENT OF
ORCHARDS AND FRUIT LIQUOR
IN WEST DEVONSHIRE, &c.

AFTER the ample detail already given of the management of Orchards and Fruit Liquor in Herefordshire, &c. * little may seem to be requisite, on the present occasion. But when, on examination, we find the practices of the two Districts, especially with respect to Orchards, so widely different, as to appear pretty evidently to have had separate origins, the propriety of registering the management of Devonshire, in detail, will be readily admitted.

* See Glo. Econ. Vol. II. p. 239.
In examining the practice of this District, I find it requisite to follow nearly the same steps which I took in going over that of Herefordshire; and to examine

First, Orchards.
Second, Fruit Liquor.

I. ORCHARDS. The particulars which present themselves, on viewing this branch of the subject, in the present case, are
1. The introduction of Orchards into the District.
2. The quantity of Orchard grounds it contains.
3. Species of Orchard fruits.
4. The situation of Orchards.
5. The soils of Orchards.
6. The method of raising Orchard trees.
7. Planting Orchard trees.
8. Aftermanagement of Orchards.
9. The application of the ground of Orchards.

1. The first introduction of Orchards, into this District, appears to be pretty well ascertained. One of the Orchards
chards of Buckland Priory is said to be the oldest in the country, and this is spoken of as being about two hundred years old.

Nevertheless, this Orchard is still fully stocked, and in full bearing! A fact which the Orchardmen of Herefordshire will not readily credit. A fact, however, which is perfectly reconcilable, when the practice of this District is explained *.

2. The aggregate quantity of Orchard ground, in this District, is considerable. For though the Orchards in general are small, compared with those of Herefordshire, &c.; yet the Farms being also small, and each having its Orchard, the number is of course great. Nevertheless, the proportional quantity of Orchard grounds to culturable lands, is much less, here, than in the Mayhill District †.

3. The

* This particular, with many others relating to the present subject, I had from Mr. Stapleton of Monk's Buckland; who may, I believe, be said to have a more accurate knowledge of the management of Orchards and Cider, than any other man in the country.

† Orchards of Cornwall. The Cider country, I am well informed, does not reach more than half the length
3. The species of fruit is invariably the apple, when liquor is the object.

For the fruit markets, cherries, pears, and walnuts, are raised in great abundance; especially in the township of Beef Ferries; which is said to send out of it a thousand pounds worth of fruit (including strawberries) annually.

4. The situations of orchards are chiefly in vallies, and dips or hollows, near houses; not spread over the arable land, and pasture grounds, as in Herefordshire and Gloucestershire. Nevertheless, there are grounds, not only well adapted for arable crops, but for water meadows, which are at present appropriated to orchards. On the Barton of Buckland there are twenty or thirty acres of land of the last description,

---

length of the county. Below that, the sea air is injurious to orchards; the land growing narrower, and there being fewer vallies to shelter them, in the Western extremity of the county, than there are in the Eastern parts, and in Devonshire.

* The soil, perhaps, is not adapted to the pear tree, which affects a cool strong soil. See Glo. Econ. Vol. II. P. 263.
tion, encumbered with Orchard trees, which have never paid for planting and land room; and which ought forthwith to be disorcharded: and there are other Orchard grounds in the same predicament, on different parts of this Estate: not arising so much, perhaps, from locality, as from aspect.

Part of the Orchards, here under notice, lie bleakly exposed to the North: part in the opening of a deep valley, in the current of the Southwest wind.

Much of the success of Orchards depends on situation. The Orchards which succeed best, in this District, are situated in dips or hollows, which are neither exposed to the bleak blasts from the North East, nor to the sea winds, from the West and Southwest. Deep narrow valleys, whose sides are precipitous, and neither fit for corn nor meadow, and which are not liable to the winds here noticed, as they blow across them, are singularly eligible for Orchard grounds; and there are many such, probably, which have not yet been planted. While, it is equally probable, much of the ground,
ground, at present in a state of Orchard, might be converted to a better purpose.

5. Soils. The richest deepest soils appear to have been chosen for Orchard grounds. It is probable that the shallower soils of this District are unfit for fruit trees; but, where situation will admit, such as are encumbered with large stones, with good intervening soil, are singularly eligible; and, in some cases, I have seen them chosen.

6. Plants for Orchards are raised, either by nurserymen; or by farmers, for their own and their neighbours' use; or by cottagers for sale; or by landlords to supply their tenants.

In the management of nursery plants, the most remarkable circumstance is that of training them, with stems, not more than three or four feet high! A practice which is so different from that of other fruit-liquor countries; indeed, from that of every part of this Island, Devonshire and Cornwall excepted; a stranger is inclined to condemn it, at first sight, as being guided by ignorance or folly of the lowest class.

Whether it has been adopted, originally,
to avoid the ill effect of the winds, or to bring the fruitbearing wood near the ground, and thereby to gain a more genial atmosphere, for the fruit to mature in; or whether it may have arisen out of the practice of gathering crab stocks in the woods, and rough grounds, where they frequently take a low shrubby form, may now be difficult to ascertain: at present, the practice appears to be followed, merely, as an established custom.

The disadvantages of low fruit trees will be mentioned, in speaking of the Application of the Land of Orchards.

7. In the planting of Fruit Trees, the Orchardmen of West Devonshire excel. A stronger proof of this need not be produced, than the circumstance of their keeping the same ground in a state of orchard, in perpetuity. As the old trees go off, young ones are planted, in the inter-spaces, without any apprehensions of miscarriage.

In setting out Orchards, the practice of Devonshire is not less unique, than it is in training the plants. A statute rod, namely five
five yards and a half, may be taken as the ordinary distance between the plants! Some I have measured at not more than four yards apart: some few at six yards.

The most approved mode of planting is to remove the soil down to the rock, which seldom lies very deep, and to cover this, eight or ten inches thick, with a compost of fresh earth and sea sand. Upon this compost, in ordinary cases, the inverted turf is laid; and upon this the young tree is set; and its roots bedded in the best of the excavated mold; finally covering them with the ordinary earth raised in making the pit. A method which is altogether judicious.

The usual guard are faggots of brambles, brushwood, or furze; letting them remain to rot at the foot of the tree. No stakes, I believe, are used. Indeed, the plants are generally so low as not to require them: especially in filling up old Orchards; as the old trees shelter the young ones from the wind. And the planting of new Orchards does not appear to be, at present, much in practice.
practica. I have not observed it, in more than one or two instances.

8. The aftermanagement of Orchards is confined to supplying the trees with fresh brambles, furze, and thrift—straw and weeds—to rot on their roots: not over the pasture of the feeding fibers, but round the stem (in such a manner however as not to touch it). Yet it is believed, by men who pay attention to these matters, that the growth and fruitfulness of the trees are much promoted through these means. Does the dead matter, by destroying the living herbage, become the means of a supply of air to the larger roots, and thus assist the sap in its ascent? The popular idea is, that these substances "find their way down to the roots". *

It will not be improper to relate, that I have heard the canker (the great enemy of modern Orchards) set at naught! Not, however, by a man on whose judgement I have a sufficient reliance, to become a voucher

* For an instance of inverting the sward of an Orchard, by way of meliorating the Trees, see the Minutes.
voucher for the truth of his opinions. "A zeam of zand" applied to the root is an infallible remedy. "Common river sand, or the sand of Rooborough Down will do."

The canker, he believes, is owing to too much "dressing," or additional substances applied to the roots; or to too great richness of soil, which he thinks the sand corrects or qualifies.

I register these ideas the rather, as they accord with my own theory of the canker: and in evidence of the truth of the theory, and the justness of the practice, the true Redstreak, or an apple, which, as well as the tree that bears it, resembles the Herefordshire Redstreak, formerly of so much celebrity, is still cultivated, here, with great ease and certainty.

The pruning of Fruit Trees, appears to be little attended to; after they are planted in the Orchard.

With respect to the cleaning of Fruit Trees, I have neither seen, nor heard, of any traces of such a practice. During the winter months, a West Devonshire Orchard,

* But see forward.
by reason of the lowness of the trees, perhaps, and the humidity of the climate, appears as if hung with hoar frost; owing to the white mist which hangs in ribbons from its boughs. The Mistletoe is not known to this District, nor I believe, to any part of Devonshire or Cornwall.

9. The application of the land of Orchards. Here lies the great objection to the Devonshire Orchard. The use of the land is in a great measure thrown away. Horses are suffered to run through them, in winter, and calves are kept in them, in early spring; but grown cattle and sheep are, at all times, prohibited from entering: while fruit is on the trees, the very swine are carefully kept out of them; even small pigs; left they should gather the fruit as it hangs on the boughs! which, in a bearing year, bend to the ground, and perhaps rest upon it; while weeds, three or four feet high, shoot up among them, and, of course, overshadow the fruit.

Previous to the gathering season, the weeds are cut down with the scythe, and thrown to the roots of the trees; that the fruit
fruit may be found: an operation, however, which is too often neglected until the first windfalls have rotted on the ground; and a double destruction of hog food has taken place.*

II. FRUIT LIQUOR. Where the consumption of any article lies chiefly within the District of Manufacture, there is the less stimulus to excellency of management, than where a common market creates an emulation among those who supply it. From the Southern Parts of Devonshire, more or less Cider is sent to the London market; but very little from this Western District. Nevertheless, I have tasted Cider of a superior

* An idea prevails, here, that apples are not nutritious to hogs. It is very probable that apples, alone, would not be so; but considering the nature of the hog, with respect to the heat and dryness of his habit, and the well known effect of acidulating his beverage; and seeing the avidity with which he devours fruit of every kind;—it is more than probable, that suffering swine to pick up the early windfall fruit, previous to the first grinding, is much more eligible than letting it waste among the weeds and grass; which, if likewise thrown open to store swine, would have been a farther source of profit to their owners.
Management of Fruit Liquor.

Superior quality, made in West Devonshire. Indeed, its climature, in a moderately dry summer, seems to be much better adapted to the production of this species of Fruit Liquor, than is that of Herefordshire or Glocestershire.

In taking a view of the West Devonshire practice, it will be proper to examine, separately, the following particulars.

1. The Manufactory.
2. The Fruit.
4. Pressing.
5. The Must.
6. Fermenting.
7. The Liquor.
8. Produce.

1. The ordinary place of manufacture, provincially the "pound house,"—is generally a mean shed or hovel, without peculiarity of form, or any trace of contrivance. On the larger Bartons, or where the Orchard grounds are extensive, appropriate buildings are fitted up, in different ways. The
The only pound house, I examined, which has any claim to merit, in respect to plan, is that of Mr. Stapleton of Monks Buckland; which, though not on a large scale, is perhaps, in the arrangement or general economy of its more essential parts, as near perfection, as the nature of a Fruit Liquor Manufactory will admit of, or requires.

The building is a long square, standing across a gentle descent. Behind it is a platform or flooring of loose stones, (the rubbish of a slate quarry) to receive the fruit, as it is gathered, and to give it the first stage of maturation, in the open air. The ground floor, of one end of the building, contains the mill and press. Over this part, is a loft or chamber, in which the apples receive the last stage of maturation, and from which they are conveyed, by a spout, into the mill. The ground floor of the other end of the building is the fermenting room, sunk a few steps below the floor of the mill and press room; a pipe or shoot conveying the liquor, from the press, into a cistern in the fermenting room.

Vol. I. Q Thus
Thus far, the plan may be said to be compleat. If, over the fermenting room, an empty cask loft were fitted up; and, on a stage below it, a keeping room or store cellar were set apart for the fermented liquor: and, further, if a contiguous room, fitted up with a boiler, were made to communicate, equally, with the fermenting room, and the empty cask room, for the conveniency of coopering and scalding the casks, such premises might be said to be compleat in all their parts.

On principles similar to those which are here suggested, I made such alterations in the cider rooms of Buckland Place, as the situation of the buildings would admit of, without great expence. They are on the largest scale of any I have seen; and are probably, in many respects, the first suite of private cider rooms, in the kingdom.

2. Fruit. The species, as has been said, is solely the apple, whose varieties are, here, numerous; though not so endless, as they are in Herefordshire; the propagation of kernel fruits being less frequent, in this District. Many of the sorts are of
an old standing. The Golden Pipin, however, is going off; "it cankers and will not take;" so that the identity of the Redstreak may be doubted. See above, page 221.

In the gathering of fruit, there is nothing either excellent or peculiar; except in the circumstance of fruit being gathered wet or dry: a circumstance which may have arisen out of the moistness of the climate, and out of the closeness and rough woody state of the orchards; in which, it were next to impossible, to collect dry fruit; unless in a remarkably dry season.

The maturation of the fruit, in the ordinary practice of the District, is carried on in large heaps, in the open air, or in the pound house, or other covered situation*; where they remain, until they be sufficiently "come;" that is, until the brown rot has begun to take place.

3. Breaking. Formerly, this operation

* Preparing a flooring of rough stones, as mentioned above, is very judicious, when apples are matured in the open air; not only as keeping the base of the heap dry; but as communicating, perhaps, a supply of air, to the lower and central parts of the heap.
ration was performed by hand: a practice which is still continued, I understand, in some parts of Cornwall. The apples being thrown into a large trough or tub, five or six persons, standing round the vessel, "pounded" them *, with large club-shaped wooden pestils, whose ends are guarded, and made rough, to lay hold of the apples the better, with the heads of nails.

At present, the ordinary horse mill of Herefordshire, &c. is in general use, here: and it has the same objectionable point in its manufacture, as that noticed in the Gloucestershire mills: namely the coarseness of the stone work. The grinding is of course imperfectly done †.

Lately, I understand, a hand mill has been introduced into this county, and is making its way fast into practice; but it did not fall in my way to examine it.

4. Pressing. The old Presss of the District, and which, I believe, is still much in use,

* Hence, no doubt, the epithet "pound" is applied to the house, &c. in which the whole business of cider making is performed.

† See Glo. Econ. Vol. II. P. 333.
use, by the smaller growers of cider fruit, is very ingenious and beautifully mechanical. It is an improvement of the simple lever; by adding a rider, or lever upon lever; at the end of which a weight is suspended. By this simple contrivance the acting lever is kept hard down upon the cheese, and follows it as it sinks! an advantage which no skrew press possesses.

As an improvement upon this (and with respect to power it certainly is such) a skrew is made use of to pull down the loose end of the lever; the other end of it, in either case, being moveable; and is fixed higher or lower, according to the height of the pile of pomage to be pressed: lowering it as the pile is lowered by pressing.

The last stage of improvement, or refinement, of the lever press; for such it still is, in principle; is to furnish each end with a pulldown skrew; first the one end and then the other being worked, in the act of pressing; a small plummet being hung in the middle, to assist the eye of the workmen; left, by acting too long upon one end of the lever, they should injure the worm of the skrew.

Q.3 These
These skrew lever presses are made of an enormous size, whether with one or two skrews: large enough to press four, five, or six hogsheds at once! the lever being equal in size to the deck beam of a man of war. Altogether an uncouth, unwieldy, monstrous instrument.

The method of pressing is invariably that of piling up the pomage or ground fruit, in "reed" (unthreshed straw) in layers; those of pomage being some three or four inches thick, the reed being spread thinly over, and then another thin covering is spread across the first. Under the gigantic presses above-described, the pile is four or five feet square and nearly as much in height. On the top, a broad strong covering of wood is laid; and, upon this, the lever is lowered.

A pile so large, and of so frail a construction, requires to be pressed with caution, in the outset: a circumstance which renders the operation extremely tedious: one of the enormous "cheeses" of the larger presses taking two days to compleat the pressing!

The pile having acquired sufficient firmness, the outsides are pared off, square, with a hay
a hay knife; cutting off all the loose spongy parts which evaded the pressure, and piling them upon the top of the cheese, to receive the immediate action of the press: or are reserved for "beverage;" being watered and pressed separate *

5. The must, or expressed liquor, which comes off, from this mode of pressing, is extremely foul, compared with that, which is strained through hair cloths. It is, therefore, placed in large vessels or cisterns, for its seculencies to subsive, before it be put into casks.

6. In the fermenting of Fruit Liquor, nothing of superior excellence, I believe, is to be learnt, from the ordinary practice of this District. In the fermenting room of a farm, which has long been famous for its cider, I have seen an experienced manager, who has for several years had the care of this cider,—racking "one side of the house today, and the other side to-morrow," under a full conviction that it "would do them all good."

good.” Under management like this, it must, of course, be mere matter of chance, if a cask of palatable liquor be produced. But cider of a superior quality being produced, as it were accidentally, under this ignorant treatment, it shews plainly how much might be done (indeed has been done *) by knowledge and attention. However, while the consumption remains with the District, and while strength is the great recommendation of the liquor, such knowledge and attention might, in some measure, be thrown away.

7. The fermented liquor is laid up in hogsheads, of sixtythree gallons each; or in pipes, or “double hogsheads.”

8. The quantity of produce is not more than supplies the consumption of the District; of course,

9. The markets for sale cider are the towns; and the public houses of the District; the farmer’s own consumption being supplied by windfall fruit; by the washings of the “mock,” or pomage, in scarce years; and by inferior cider.

* Particularly by Mr. Stapleton.
The price of marketable cider, on a par of years, has been fifteen shillings a hogshead (of 63 gallons) for the must or unfermented liquor; and a guinea for fermented cider; which sometimes rises to two or three guineas a hogshead: and on the other hand, some years the must has been sold at five shillings, a hogshead, at the press.

**General Observations on Orchards and Fruit Liquor.** These prices, considering the smallness of the measure, compared with that of Herefordshire, make cider a more advantageous article of produce, here, than in the Mayhill District; and, in suitable situations, as on the rugged sides of vallies, sufficiently sheltered from more cutting winds, there can be no dispute about the superior profitability of Orchard Fruits, in a pecuniary point of view, to any other species of produce; and most especially to a small farmer, who attends personally to the whole business, and whose wife and children are his assistants.

Nevertheless, on larger farms, where the management is left much to servants, and where
where cider, under any management, is but a secondary object, the business of making it interferes with the more important concerns of husbandry: even the business of harvest, and still more the cleaning of turnips, are too frequently neglected, to give place to fruit picking; and the breaking and pressing are, afterwards, not less inimical to the saving of potatoes and the sowing of wheat; which, as has been shewn, requires all the hand labour the farm can afford. Besides, the "dressing" which ought to be applied to the arable lands, it is to be feared, is too frequently bestowed on the Orchard Grounds—for "how can dressing be bestowed to so good a purpose."

Again, the drunkenness, dissoluteness of manners, and the dishonesty of the lower class might well be referred, in whole or in great part, to the baleful effects of cider; which workmen of every description make a merit of stealing: and, what is noticeable, the effects of cider, on working people, appears to be different from that of malt liquor. Give a Kentish man a pint of ale, and
and it seems to invigorate his whole frame: he falls to his work again, with redoubled spirit. But give a Devonshire man as much, or twice as much cider, and it appears to unbrace and relax, rather than to give cheerfulfulness and energy to his exertions.

Another more flagrant evil, which is laid to the charge of cider, is the *Devonshire colic*, analogous with the colic of Poitou. This violent disorder has been ascribed to the circumstance of the mills and pressles, of Devonshire, having lead made use of in their construction: and, under this idea, one of the pressles, I had an opportunity of examining, was scrupulously formed without lead; the joints of the "vat" or bed of the press, being caulked with wool and cow dung, which is found to be fully effective, in this intention. But, in evidence of the improbability of lead being the cause of this mischief, a mill, which had been constructed a century at least, and which is cramped together by means of lead, being examined, it was found that no corrosion of the lead had taken place; even the marks of the hammer remained perfectly distinct.
This fact I do not speak to from personal examination; but I received it from an authority, on which I have every reason to rely.

From two or three striking cases of this disorder, to which I had an opportunity of paying some attention, it appeared to me to be the joint effect of cider, and of a vile spirit which is drawn, by the housewives of Devon, from the grounds and lees of the fermenting room. These dregs are distilled (of course illegally) by means of a porridge pot, with a tin head fixed over it, and communicating with a straight pipe, passing through a hogshead of water; the liquor being passed twice through this imperfect apparatus. It, of course, comes over extremely empyreumatic; and is drank in a recent rate, under the appropriate name of "necessity."

The patient having brought on, by an inordinate use of rough corrosive cider, and by the quantity of acid thrown into the habit, a fit of the ordinary colic, has recourse to "necessity," in order to remove the complaint. The consequence is an obstinate
obstinate costiveness, which generally continues for several days, attended with the most excruciating pain: and, though the first paroxysm is seldom fatal, repetitions of it too frequently are: first bringing on a loss of the use of the limbs, particularly of the hands, and, finally ending in the loss of life; if the deprivation of life can be said to be a loss, under circumstances so distressful.

Notwithstanding, however, the accumulation of evils arising from the production, use, and abuse of cider, the men of Devon are more strongly attached to it, even than those of Herefordshire. Their Orchards might well be styled their Temples, and Apple Trees their Idols of Worship.

It is not my intention, or wish, to depreciate the Devonshire Orchards below their real value; but to endeavour to fix them at a proper standard: to lower them so far, in the estimation of owners and occupiers, as to prevent their interfering too much with the more important operations of Agriculture. I wish to see them confined to unculturable sites, and to have them considered,
considered, as they really are, a subordinate object of husbandry; in order that the occupiers of lands may bend their attention, with greater energy and effect, to the arable and grassland managements: more especially to the watering of meadows; and, of course, to the removal of many of the present Fruit Trees: changing them for a more certain, and, on a par of years, a more profitable species of produce.

23.

H O R S E S.

THE native BREED, which are still seen on the mountains that overlook this District, are very small: much resembling the Welch and Highland Breeds; and like them are valuable for particular purposes. The "PACK HORSES," or ordinary fort found in the inclosed country, are of a similar nature; but larger. The SADDLE HORSES, at present in use, are chiefly, I believe,
believe, brought into the District, from the Eastward. Of cart horses, no breed can yet be said to be established. See beasts of labor.

The breeding of Horses does not enter much into the practice of this District; except on the skirts of the mountains.

24.

C A T T L E.

This species of livestock are entitled to every attention, in a Register of the rural economy of the west of England. The breed of Devonshire is, in many respects, the most perfect breed of cattle in the island.

The breed,
Breeding,
Rearing, and
Fatting, of cattle,
will require to be spoken of in detail.

I. In
I. In BREED, they are of the MIDDLE-HORNED Class. There are numberless individuals of the Devonshire Breed so perfectly resembling the Breed of HEREFORDSHIRE, in frame, colour, and horn, as not to be distinguishable from that celebrated Breed; except in the greater cleanness of the head and fore quarters; and except in the inferiority of size. The Cattle of Devonshire resemble those of SUSSEX; except in their greater symmetry of frame, and their being much cleaner in the fore-end, and every where freer from offal, than the ordinary Breed of Sussex. The Devonshire Cattle resemble very much, in color, horn, cleanness, and symmetry of frame, a few of the more perfect individuals of the native Cattle of NORFOLK; but exceed them greatly in point of size. They are a mean between the Norfolk and the Herefordshire; some individuals approaching towards the former, others towards the latter; but, taken in general throughout the county, they approach much nearer the Herefordshire than the Norfolk, with respect to size: being similar, in this and other
other respects, to the breeds of Gloucestershire and South Wales.

These several breeds I conceive to have sprung from the same stock. Their colour apart, they perfectly resemble the wild cattle which are still preserved in Chillingham Park, in Northumberland; a Seat of the Earl of Tankerville: and it appears to me, that the different breeds, above noticed, are varieties, arising from soils and management, of the NATIVE BREED OF THIS ISLAND. A race of animals, which, it is highly probable, once ranged it, in a state of nature; as the buffalo does, at this day, the savage regions of North America. The black mountain breeds of Scotland and Wales appear to me, evidently, to be from the same race; agreeing in everything, but colour, with the red breeds that are here adduced.

The short horned breed, it is well known, were imported from the Continent; and the long horned, it is more than probable, might be traced from Ireland.

The Devonshire breed of cattle vary much,
much, in different Districts of the County, both in size and mold. **North Devonshire** takes the lead, in both these particulars; and its breed are, in both, nearly what cattle ought to be. In size, they are somewhat below the desirable point, for the heavier works of husbandry; but they make up for this deficiency, in exertion and agility. They are beyond all comparison the best workers I have anywhere seen.

If they are to be still improved, as working cattle, it is by breeding from the largest of the North Devonshire, or the cleanest of the Herefordshire breed.

As dairy cattle, the Devonshire breed are not excellent. Rearing for the Eastcountry graziers has ever, or long, been the main object of the cattle farmers of this county. Nevertheless, I have seen some individuals of the breed, which evinced the practicability of improving them, as dairy stock.

As grazing cattle, individuals, in every part of the county, shew the breed to be excellent.
In West Devonshire, the breed is considerably smaller, than in the Northern District; and their quality, in every respect, is lower.

In Cornwall, the breed gets coarser; with somewhat larger and more upright horns*: bearing a similar affinity to the true Devonshire breed, as the Shropshire cattle do to those of Herefordshire: a striking and interesting fact, to those at least who find gratification, in observing the different varieties, and affinities, of this valuable species of domestic animals.

II. The BREEDING OF CATTLE.
I had no opportunity of attending to the practice of North Devonshire, in this respect. It is highly probable that a considerable share of attention has been paid, for some time past, to the choice of males, if not of females, also; as it is not probable that accident should have raised them to their present excellency.

* Resembling, in the turn of the horn, the wild cattle of Northumberland.
The Moorside farmers have little to answer for, in this respect; most of the calves, they rear, are purchased; either from the "In-country" farmers of their respective neighbourhoods, or are fetched from a distance: the calves of the dairy farms of East Devonshire and even Dorsetshire, are, I understand, bought, in great numbers, by the farmers on the skirts of Dartmore. The few which are bred, by these farmers, are, as far as my own observations have gone, of a small, clean, hardy sort; adapted to mountain pasture.

In *this* District (West Devonshire) the business of breeding cattle is conducted on the worst of bad principles. If a calf, which otherwise would be reared, discover symptoms of a fattening quality, it is "bullied;" suffered to run with the cow, ten or twelve months, in the manner of the running calves of Norfolk *; and is then butchered. If a calf of this description fortunately escapes so untimely a fate, but should show an inclination to get fat at two

* See Norf. Econ. Vol. II. Page 121.
two years old, it is indulged in its propens-.

It follows, of course, that the indi-

viduals which reach the stage of maturity,

and from which new generations are to be

raised, are, as to fatting quality, the mere

refuse of the breed: and nothing, but a

strongly rooted inherent excellency of qua-

lity, could preserve them in the ordinary

state, in which they are at present found.

III. In the REARING OF CATTLE,

I collected nothing, in this District, which

is entitled to especial notice. The first

year, the calves are kept within the in-
closures; but, the next, are generally sent
to the commons and hill pastures. Hei-

fers are brought into milk at two and a half
to four years old; according to circum-
stances. And steers are broke into the

yoke, at similar ages; according to their

size and keep.

What steers the Moorside farmers do

not want for their own work, are sold to
the In-country farmers, who work them
sometimes to eight, ten, or twelve years
old. When thrown up, they are princi-
pally fold to jobbers, or graziers, from the Somersetshire side of the county.

Thus a calf, dropt in the dairy District of East Devonshire or Dorsetshire, may be nursed at the foot of Dartmore, and reared on its hills; worked in West Devonshire or its environs; and driven back, through his native country, to be finished on the marshes of Somersetshire, for the London market.

IV. FATTING CATTLE. A portion, however, of the cattle reared in this country are fattened in it, or rather brought forward in flesh, for its own consumption. I did not see what in Smithfield would be called a fat bullock, in the country; except some two or three which were finished, by a spirited individual, with the commendable view of appearing at the head of his profession, both as a grazier and a butcher; and his praiseworthy exertions showed, plainly, what the cattle of Devonshire are capable of, under judicious and spirited management.

West Devonshire, however, is not a grazing
grazing District. Except some of the lands of Mylton Abbots, Lamerton and Tavistock, and these are confined within a narrow compass, the soil is too weak for grazing. Its lands, in general, are better adapted to the purpose of bringing cattle forward, for aftergrasfs, turneps, or oilcake, than for finishing them for market.

A peculiarity of practice in the slaughtering of cattle, in this District, must not be left unnoticed. In most parts of the Island, it is customary for butchers to bleed calves, previously to their being killed. And a similar custom prevails, here, with respect to bullocks. Enquiring, of an experienced and intelligent butcher, the motive for so extraordinary a practice, he gave a satisfactory answer. It assists in giving that desirable brightness of colour, which attracts the eye, in purchasing beef on the shambles; and what is of much more advantage to the purchaser, it makes the beef keep better, in warm or close weather; so that it operates as an advantage, both to the buyer and the seller. And it is highly probable, that, in the summer season,
season, and for ill fleshed bullocks at all seasons, the practice might be found eligible, in other places. The trouble and difficulty of the operation, seems to be its greatest objection.

25.

THE DAIRY MANAGEMENT OF WEST DEVONSHIRE, &c.

THE OBJECTS of the Dairy of this District are

I. Calves.
II. Butter.
III. Skim Cheese.

Swine.

I. CALVES are either reared; or are fatted, in the house, for veal; or are turned
turned abroad with the cows, as "busses" or grass calves*: the last, a particular of practice, which generally pays amply; especially when the most promising calves are chosen for this purpose. But the mischievous tendency of the practice, in a general view, has been pointed out; and, conducted on the principles, on which it is here carried on, it cannot be too severely reprobated.

II. BUTTER. The only particular of management, which requires to be noticed, in the Devonshire Butter Dairy, is the singular method of raising the cream; a practice which is, or lately was, common to Devonshire and Cornwall. This peculiarity consists in employing culinary heat, to assist in forcing up the cream, with

* Perhaps originally bosses, or wood calves (in contradistinction to house calves); namely, calves suffered to run with their dams, in the woods, or forest lands; —the practice and the appellation having probably originated, while the country was in the forest state, and have both of them been continued, since the present state of inclosure took place.
with greater rapidity and effect, than simply depositing the milk in open vessels in the ordinary way, produces.

The milk having stood some hours, in broad pans or vessels, either of brass or earthen ware, it is placed in these pans over a gentle heat;—generally, over the wood embers of the ordinary hearth; but sometimes over charcoal, in stoves fitted up for that purpose;—and remains in that situation until it approaches nearly to boiling heat: the proper degree of heat being indicated by pimples, or blisters, which rise on the surface of the cream. The smallest degree of ebullition mars the process; which is therefore properly termed "scalding;" and the cream thus raised is termed "scalded cream," or "clouted cream;" probably from the tough cloth-like texture which it acquires by this process.

The cream, thus raised, remains on the milk,—which is rendered very sheer lean and blue by the process,—until the dairy woman wants "to make the butter:" another singular operation, in the Devonshire
shire dairy. The clouts or rags of cream being thrown into a large wooden bowl, they are stirred about, by a circuitous motion of the hand and arm, until the butyraseous particles unite; leaving a small quantity of thick creamlike matter, or serum; answering to the churn milk of the ordinary butter dairy. In "scald cream dairies," no churn is in use.

The origin of so peculiar a practice may, perhaps, be traced back to the forest state. After the arts of producing butter and cheese were discovered; yet while, perhaps, each family was possessed of no greater dairy than two or three cows; any process which enabled the proprietor of such a dairy to manufacture those valuable articles, with a degree of certainty, was embraced as eligible: and how could a more fortunate process have been struck out, than that of securing the milk and the cream from their natural propensity of entering the different stages of fermentation, than the application of fire; which, at once, secures the milk from acidity, and the cream from putrefaction; until a sufficient quan-
quantity of each can be laid up, for the purposes to which they are particularly appropriated?

But the disadvantages of this pristine practice are such as to render it ineligible, in the present state of cultivation. If, in the ordinary practice, the embers prove too weak, and an additional heat is required, fresh fuel is applied; and, if a scrupulous attention is not paid, the fatal ebullition takes place; and, in consequence thereof, the cream is too frequently mixed with the ashes. While over the fire, especially if fresh fuel be added, the surface receives the more volatile parts of the fuel, and perhaps a portion of foot; and after the pans are taken off the fire, while they stand in the kitchen or passages to cool, before they be returned to the dairy, the cream is liable to the depredations of domestic animals; and to receive, in a variety of ways, additional dust and dirt.*

* I am here speaking of the ordinary practice of farmers,—such as I have seen in the District: Gentlemen, and some dairy farmers, as has been before noticed, have stoves fitted up for this operation, which render the practice much more tolerable.
In West Dorsetshire, and the Eastern confines of Devonshire, where the scalding of cream had been in use time immemorial, the practice has lately given way to the ordinary method of raising the cream and churning it; owing to the circumstance of the butter of that District having found its way to the London market; as will be particularly mentioned, in speaking of the Dairy District.

In different parts of Devonshire and Cornwall, "raw cream dairies" are here and there scattered. Gentlemen, especially strangers who settle in the country, prefer "raw cream butter." That made from scalded cream has frequently a smokey flavor, and wants the even waxlike texture, observable in well manufactured butter.

Two reasons may be assigned for the natives of these counties persevering in the practice of clouting cream. Prejudice, or the attachment to established customs, may be considered as one. The other is their attachment to "scald cream," as a delicacy, or article of luxury; in forming the "juncates," for which this country is cele-
celebrated; and as a favorite addition to pastry of different sorts; which is usually served up with clouts of cream. And, if the West of England farmers prefer the pleasures of the palate to the profits of the dairy, it might be extremely improper, in any one, to censure them, for continuing their present system of dairy management.

Skim cheese. I remarked nothing, in the manufacture of this article of the Devonshire dairy, which induced me to register the minutiae of practice. In the dairy which I had the best opportunity of observing, the cheese was not genuine. However, from general ideas which I gathered on the subject, it is evident, that scalding the milk is not unfriendly to cheese; and it may be worth the trial, whether scalding skim milk in general, previously to its coagulation, would not be eligible.

26. SWINE.
SWINE.

I. THE BREED, in this extremity of the Island, is the same long, thin-carcafed, white kind, which has, pretty evidently, been once the prevailing, if not the only, breed of the Island *.

II. In the REARING of Swine, the most remarkable circumstance is that of letting all the females remain open; and for a very sufficient reason: there is not a Spayer, even of Pigs, in the District of West Devonshire!

The food of rearing Swine, while young, is the refuse of the dairy, with turneps, clover, and even grass, or ordinary herbage, boiled! A new idea, in the management of Swine. The food of larger store Swine is

is chiefly grass: they being not unfrequently driven to the same pasture with the cows, and brought home with them, at milking hours: and are kept on, in this way, until they be two, or perhaps, three years old, before they be put to fatting! under an idea that the bacon of old hogs goes farther, than that made from young ones; not calculating the expence of keeping them to that extravagant age.

The native breed of the country, it is true, do not fat kindly, under eighteen months or two years old; but, through the attentions of the late Sir Francis Drake, the District is, at present, in possession of the first breed of Swine in the Island; namely, the best variety of the Berkshire breed: and it remains with the farmers to choose whether they will persevere in their present unprofitable breed, or adopt one which will leave more profit, by fatting, at nine months old, than their old sort will, at three or four times that age.*

III. The

* I have heard an objection raised against this breed of Swine, on account of the thickness of their skins, compared
III. The method of fattening swine, in this District, forms another of the many singular practices which shew, that the Devonshire husbandry is not of English growth. They are shut up in a narrow close hutch, in which they eat, drink, and discharge their urine and faeces; which are formed, of course, into a bed of mud, to sleep in; their bristly coats being presently converted into thick coats of mail: in which filthy plight, they remain until they are slaughtered.

This extraordinary trait of practice is not to be ascribed, wholly, to neglect and slovenliness; but, in part, to a principle of management, which, it is highly probable, has been drawn from experience. "Fat pigs should lie wet; it keeps them cool: they are of a hot nature, and if they lie on dry warm litter, it melts their fat!" And, when applied to pigs shut up in a close coop, without an aperture, perhaps, at

Vol. I. 8

pared with those of the old white fort; but this objection, while the hide of the hog remains a favorite article of human food, has no weight.
which to draw in a little cool fresh air, there may be much truth in this theory: which, however, would be ridiculous, if applied to hogs fatted in the ordinary practice of the Island; in which fattening swine have a close room (be it ever so mean) to lie dry and sleep in, and an open one, or little yard, to eat, drink, discharge, and breathe in. The advantage of raising a larger quantity of dung is, alone, a sufficient recommendation of the latter practice.

The materials of fatting are Potatoes, with Barley or Oats ground, or Barley boiled. If fuel be cheap, and the mill at a distance, boiling the Barley may be as cheap and as little trouble as having it ground.

The boiling of hog food, which makes a part of the established practice, in this District, forms, at least, a fit subject of experiment, in others. Where fuel is cheap, the practice may perhaps be found profitable.
I. BREED. The established breed of the Country, whether we examine it on the mountains of Devonshire and Cornwall, or in the cultivated Country which lies between them, is uniformly of the middle-wooled class.

What is observable, however, in describing a breed of Sheep, their heads are variously characterized: those of some individuals are horned, others polled, or hornless — provincially "notts;" and between these there are, of course, individuals bearing a mongrel deformity of head, as if they were really a mongrel breed, of recent debasement.

Nevertheless, they have been, beyond memory, what they appear to be, at present. And what strongly corroborates the idea
idea of their being a distinct breed, they are found, on the Northern skirts of Dartmore, about Okehampton, of a diminutive size: not much larger than the heath Sheep of Norfolk. Yet, in uniformity of wool, in disparity of head, and in their general appearance, their size apart, they perfectly accord with the larger variety of what may well be considered as the Antient Breed of the Country.

It is observables, that, in the different varieties of this breed, there are many individuals which bear so strong a resemblance to the present breed of Dorsetshire, as to leave little doubt of their having a natural alliance. And it appears to me most probable, that the horned Sheep of Dorsetshire, &c. have been originally drawn from the antient breed of the Western mountains; by breeding from a selection of the horned individuals. While a polled or hornless breed, now seen in the South Hams, may well seem, from their resemblance, to have been raised, by a similar selection, from the hornless individuals of the same antient flock. The encrease of carcase and wool,
which they have acquired, is such as would naturally arise from mountain Sheep being transferred to the rich soils, and genial climature, of South Devonshire*.

The true Dorsetshire (as they are called), or House-lamb breed, are found, at present, in great purity, in the Vale of Exeter, in East Devonshire: of which breed

* It may, with great show of probability, be said, that the Sheep of this Country are a mixture of the two breeds abovementioned. But from whence, it might be asked, were these pure breeds imported? Where are the mother flocks? Supposing them to have been imported, and set down on the spots they now severally occupy, it must necessarily have been some centuries ago, to give time to their mongrel progeny to mold themselves to soils and situations; and it is very improbable, that, during the dark days of Agriculture, the two breeds should have been preserved distinct and pure, as we now find them; especially the horned variety. Besides, it will presently appear, that the idea of their having been brought to their present state, by selection, is not only probable, but practicable.

Let it be understood, however, that what is here suggested, respecting this interesting part of the History of Agriculture, in this Island, is intended to agitate the subject, rather than to settle the point,
breed there are a few flocks, in this District; but not of the purest kind.

The flock I found, at Buckland, were of this description: but were in a state of neglect;—reverting fast back to the native breed of the country, both in carcase and head! But there being still a sufficiency of the true breed left, to recover the flock from its degeneracy, it was thought more adviseable to improve them, as the House-lamb breed, than to change them for either of the more popular sorts, that are working their way, even into this remote part,—namely, the South Down and the New Leicestershire.

I must not omit to mention, by the way, a circumstance attending the improvement of the Buckland flock; as it farther corroborates the idea of the horned sheep of Dorsetshire, &c. having been originally drawn from the antient mountain stock. In 1791, the flock, viewed in the aggregate, bore a much stronger resemblance to the ordinary breed of the District, than to the Dorsetshire breed; especially in head,—a considerable
A desirable portion of them being polled, or nearly so. Nevertheless, by a selection of females, and by employing males of the established horned breed of East Devonshire, there was, in 1794, scarcely a horned individual left, in the flock of five hundred: and, in that short space of time, a similar alteration of carcase took place.

The two breeds above mentioned, are at present spreading, in all directions, over the face of the Island; and, in consequence, other breeds will probably be neglected or lost: and although, in many respects, these two breeds may excel the Dorsetshire; yet they are neither of them suitable for the House-lamb farmers; who may hereafter find it necessary, to give extravagant prices, for the only breed which will suit their purpose; and which may, therefore, turn out highly profitable, to those who now preserve it, in its purity.

Besides, the House-lamb breed, distinctly from that peculiar excellency, is, as grazing stock, a valuable breed of Sheep. The wethers, of the best sort, fat perfectly well, at two years old; and pay, perhaps, in a mid-
middlefoiled upland situation, equal, as Graziers stock, to any other breed *.

II. BREEDING SHEEP. From what has been said respecting the heterogeneous state, in which the ordinary flocks of this Country now appear, it is not probable that much attention has lately been paid to the selection of either males or females; and, yet, no Country in the Island would repay such an attention, better, than Devonshire; a principal part of whose lands are peculiarly suitable for Sheep.

The time of putting the rams to the ewes is very early, compared with that of most other Districts. In the in Country, the middle of July is the ordinary time; the lambs, of course, beginning to drop, about Christmas; the month of January being the principal time of lambing.

In the treatment of Ewes and Lambs, I met with little observable, in this District:

* These remarks are not intended more to explain my own motives, for preferring an old-fashioned breed, than as hints to those who have similar flocks in their possession.
WEST DEVONSHIRE. 265

strict: kept grass is chiefly depended upon, as the food of suckling Ewes. Turneps are sometimes given to them: but it is found, here, as in other places, that although Turneps furnish a flush of milk, and are beneficial to the Lambs, they do not, at the same time, afford sufficient nourishment to the Ewes; which never fail to sink in flesh, when fed on Turneps alone. If, however, a small quantity of hay were added, to correct the lactescent quality of the Turneps, this objection to them, as the food of suckling Ewes, would no longer lie.

The usual time of weaning Lambs is May or June; except for the late dropt Lambs, whose dams did not take the Ram in due season. These are suffered to run with the Ewes, and, if dropt very late, as in April, are generally consigned to the Butcher.

Quære, May not a long continuance of the practice of breeding from the early dropped Lambs, and killing off those which are lambed later in the season, have assisted in giving the remarkable propensity or habit, peculiar
peculiar to the Sheep of this quarter of the Island, of admitting the male, at a time when the other breeds it contains are indifferent to the intercourse of the sexes?

III. STORE SHEEP. In the shepherding of sheep, the particular which most merits observation, relates to the skill of the Devonshire Shepherds in the training of their dogs: and something perhaps may depend on the nature or breed of these useful animals. Let this be as it may, I have not observed so much sagacity, activity, and subordination, in the Shepherd’s dog of any other District.

This breed of dogs are somewhat shaggy, tall on their legs, and have very short tails; the colors are various; but mostly grizzled; some are of a sort of dun color;—others—a larger smoother kind,—I have seen of a black color, marked with white.

The excellency of these dogs renders sheep pens, in a degree, unnecessary. If Sheep require to be looked over, or examined, as to be handled by the Butcher, or to be dressed, or cleaned, though it may require
require an hour's confinement, they are driven into a corner, and kept pent up there, by one or more dogs, until the business be completed.

If an experienced Shepherd wish to inspect his flock, in a cursory way, he places himself in the middle of the field or piece they are depasturing, and, giving a whistle or a shout, the dogs and the sheep are equally obedient to the sound; the one flies from him, with their swiftest speed, while the other, from every quarter, draw towards him in considerable haste, long before the dogs have time to approach them. The stragglers are driven in, by the circuitous route of the dogs; which keep flying round, from side to side, until the flock be gathered round the Shepherd, close enough, not only to be seen, but to be laid hold of, by him, if any thing wrong be suspected *

An objection would be raised against this practice, by the Shepherds of heavy, long-wooled Sheep; as tending to alarm, disturb, and injure the Sheep; but little of this is in

* Are not these practices French?
in fact produced; for, being accustomed to it, from their earliest age, no alarm appears to take place. They will even follow the Shepherd about, as if they were sensible of his care and protection. Such being the effects of habit, over almost every species of the animal kingdom, when it is early induced, and when it is brought on by the example of parents, or intimates of riper years.

The summer keep of Sheep, in the ordinary practice of the District, consists chiefly of the commons and rough pastures of the low country, or of the hills of Dartmore; to which Sheep are driven, in the summer season, from a considerable distance. Even some of the larger flocks are sent thither; especially, in a dry season, when the cultivated upland leys are burnt up. In winter, they are of course brought back to the inclosures; and to such keep as the Farmer can find for them. Snow seldom lying long, on the lower grounds of this District, very little hay, I understand, is given to store Sheep.

A striking feature in the management of Sheep,
Sheep, throughout Cornwall, and in the Western Half of Devonshire, is that of omitting to wash them, previous to the shearing!

This practice, like many other practices in husbandry, has its advantages and disadvantages. In this case, the wool weighs heavier; but the price is lower, for "wool in the yolk," than it is for washed wool; so that it probably makes little for or against the grower; and, to the manufacturers, though it may require somewhat more labor in cleaning, there is a saving of soap, which more than makes up the loss of labor. Wool which has been washed on the Sheep's back, requires soap, to cleanse it properly for manufacture; but in unwashed wool, the "yolk," or yellow egg-colored matter which is lodged among it, precludes the use of any additional detergent. Thus it becomes to the manufacturer a matter of no great importance, whether Sheep be washed or not.

It is observable, however, that wool shorn in the yolk, is liable to take a considerable degree of heat; a circumstance which, if made
made the most of, may be highly serviceable to the farmer; but the process of fermentation having ceased, it is probable, that not only the weight decreases very rapidly, but that the quality of the wool, loaded with so much dirt, likewise decreases. Beside, if the place of growth and the place of manufacture, be, as they too frequently are, distant from each other, the additional weight is an objection to the practice under notice: which, though it may be perfectly right, in a District which manufactures its own wool, cannot perhaps be generally adopted, with propriety.

IV. FATTING SHEEP. Little is required to be said on this subject.

The description of Sheep, fatted, includes wedders, aged ewes, and common sheep, bought in for this purpose, by the in-country farmers.

The materials of fatting are grass,—particularly the aftergras of young leys,—turneps, &c. The market, chiefly Plymouth and its environs.

RABBITS.
RABBITS.

I observed only one Rabbit Warren in this District, which is now stocked, with a small one, that has been diswarrened. Nevertheless, there appears to me to be much land in the West of Devonshire, &c. which would pay better in a state of Rabbit warren, than in any other state of occupancy. I mean the higher weaker lands, and where the sides of the hills have a sufficiency of loose rubble for the Rabbits to burrow in. The markets of Plymouth, and its Dock, would not fail to take off the produce.

An objection to Rabbits, in or near the inclosed country, lies in their being destructive to the large hedge mounds of this District; in which they burrow, and become a species of vermin, difficult to extirpate;
tirpate; scooping out the inside; where they make their lodgements; generally with an entrance on each side, and a third or perhaps a fourth, on the top. But if warrens were sufficiently fenced in the Yorkshire manner, and the fences properly attended to, this objection would lose much of its weight. The warren I saw, on the skirts of Dartmore, had no sufficient fence to prevent the Rabbits from straying.

29.

POULTRY.

THE only circumstance that struck me, in Devonshire, with respect to this petty article of Livestock, was the scarcity of Eggs, compared with the number of Fowls. The markets of Plymouth, I understand, are supplied with eggs, in some considerable part, from the North of Devonshire; from whence they are sent, twenty or thirty
thirty miles, by land; and this while, to common appearance, there are a sufficient number of Fowls kept, within ten miles of it, to supply all its wants of this article.

This circumstance did not strike me, until I had spent some time in Scotland; where, from no greater appearance of Fowls, the quantity of Eggs consumed in the country, and the extraordinary quantity sent, especially from Berwick, to the London market, is almost incredible.

These extraordinary facts led me to a closer investigation of this subject, than I had, theretofore, thought it entitled to; and it evidently appears, that the whole disparity of produce may be traced to a disparity of management.

In Scotland, Fowls in general roost in the warm smokey cottages of their owners; are nurtured, and forced in a hot house. The consequence is, they produce Eggs in every season; and, generally speaking, the year round. The Gentlemen of Scotland, seeing the superiority of the Cottage Fowls, in their productiveness of Eggs, have removed the comparative sterility of their own,
own, by keeping them, literally, in hot houses;—built on a similar principle to those in which exotic plants are conserved: flues being formed in the walls; with niches or small recesses, on the inside, for the Fowls to lay and breed in: with roofs for them to rest on at night.

The same sort of fecundity is well known to be produced, by the warm livery stables of London.

On the contrary, in Devonshire, Fowls roost in the cool open air; frequently in trees; in a state of nature.

The Fowl, in its native woods, probably, bred only once a year; and, of course, produced Eggs at no other season; and, I think, we may fairly infer, that the nearer they are suffered to approach that state, the less fruitful they will prove.
DISTRICT THE SECOND.

THE

SOUTH HAMS

OF

DEVONSHIRE.

Introductory Remarks.

THE knowledge which I gained, of this District of the West of England, was collected in passing through it repeatedly, in my journeys to and from West Devonshire; in an excursion purposely made, in the autumn of 1791, to examine into its Natural Characters, and to mark how far its Rural Management differs from that of the District, which circumstances had assigned me as my principal station; and in viewing a part of the Drake estate, which lies within the South Hams.

T 2

The
The EXCURSION was made from IVYBRIDGE, a rich and romantic situation, at the foot of the Dartmore mountains, to MODBURY, and KINGSBRIDGES; thence to TOTNESS and its fertile environs: from thence returning, by a different route, to Ivybridge.

In describing the Natural Characters, and the Outlines of Management, observed in this District, I shall, here, as on other occasions, pursue the method which Nature and Science dictate.
GENERAL VIEW
OF
THIS DISTRICT.

I. SITUATION. The South Hams form the Southernmost point of the Department of Country, which is the subject of the present Volumes. Its natural boundaries are Dartmore and the Heights of Chudleigh, on the North; Plymouth Sound, on the West; and Torbay, on the East;—the English Channel sheathing its Southern point;—its outline, or figure, being nearly triangular.

II. EXTENT. Estimating the base of the triangle at thirty miles, and its perpendicular at fifteen miles, we have an area of two hundred and twenty-five miles; but if we include the rich valley of the Dart, which
which runs up towards Ashburton, we may set down the extent of the South Hams at two hundred and fifty square miles, or one hundred and sixty thousand acres.

III. ELEVATION. The tide flows up the estuaries,—with which the District is deeply indented on every side except the North,—a considerable way within its area: nevertheless, the tops of the hills, of which the District may be said to be composed, are elevated considerably above the Sea. Viewing it with regard to Agriculture, it is truly an Upland District. The bolder swells, towards the center of it, might be termed Heights; although, in comparison with the Mountains that overlook them, they are Hillocks of a pigmy order:

IV. SURFACE. Viewed from even the midway stages of the Dartmore Hills, from whence almost every acre of the South Hams is distinctly seen, the Surface appears flat, or barely furrowed with water courses,—a broad flat of marshes, or an extent of low vale lands.
But in crossing the country, the Traveller finds endless difficulties, arising from the great inequalities of surface. It is billowy in the extreme. Some of the swells are nearly semiglobular. The South Hams are the Stroudwater Hills of Glocestershire, without wood,—or the most billowy passages of the Chalk Hills of Kent or Surrey, intersected with hedges. Round Totnes, the ground is most strongly featured; being there divided by deep rivered vallies; and between this and the feet of the hills, a similar style of ridge and valley is observed, corresponding with that of the more Western District.

V. WATERS. The Hills of the South Hams, as those of West Devonshire, are well watered. Springs are seen to pour forth their limpid rills from the sides of the swells, and frequently from near their summits. The waters from these springs collect in the vallies, and form rivulets and minor rivers; five or six of which have their estuaries, advancing some miles within the area of the District.
The Dart is a stream of considerable magnitude. The rest mere brooks, at dead water; but swell into rapid torrents, in the times of floods. The Yalm, at Ivybridge, is a mountain torrent of the first rank.

VI. SOILS. To convey the best idea, I am able, of the soils of this fertile District, I will adduce the remarks which were made, at the different times of examining them.

Ivybridge to Kingsbridge. The Soil uniformly fertile. The tops of some of the hills are rich grazing ground! Other hills are leaner and less productive. But I observed not a field worth less than ten or fifteen shillings, an acre. The whole ride is worth twenty shillings, on a par! much of it forty shillings, an acre, to a Farmer. The hill sides are excellent corn land;—the bottoms rich meadows. Some little red soil is seen, in this ride.

Kingsbridge to Totness. The nature and appearance of the country are much like those observed, between Ivybridge and Kingsbridge;
Kingsbridge; excepting a high swell or swells, the soil of which is much inferior to any, in the foregoing ride:—The produce furzey, inclinable to heath: one of the Chudleigh Hills thrown in here. Much red soil appears in this ride. The water of the road, in some places, red almost as blood.

*Environs of Totness.* The soil of these Hills is rich in the extreme,—even to their very summits! most rich grazing ground. Autumnal grass, near a foot long, now reclining on the ground; as grass, and as darkly green, as the autumnal herbage of the Vale of Berkley.

*Totness to Ivybridge.* The soil similar to that of the central and more Southern parts of the District; but, on the whole, not so good.

*Ivybridge.* A rich plot of ground to the East of the Yalm:—a deep loam on a sort of gravel: worth, to a Farmer, thirty or forty shillings, an acre.

*Sherford Estate.* The Country is at present so completely burnt up, with the
inveterate drought of this summer (1794), that no accuracy of judgement can be formed of it. The soil, in general, is evidently of a superior quality. But judging from the present parchedness of the crops, some parts of it are as evidently too shallow: a defect which appears to be common to most of the lands of the South Hams.

**General Observations.** From the sum of these particulars, it is evident, that the South Hams, with respect to soil, ranks high among the fertile Districts of this Island. There are very few, of equal extent, to place in competition with it.

**VII. SUBSOILS.** In the South Hams, as in West Devonshire, slatey rock, and slate-stone rubble, are the prevailing Subsoils: with, however, a few variations in the former, which are not observable in the latter. A vein of limestone runs along the Northern margin of the South Hams; and, in different parts of its area, a deep red ochery loam is observable; and, at the foot of Dartmore, a sort of gravel is met with. But these variations
variations are only incidental; and it may be said of this District, as of West Devonshire, that its lands are clean and sound, adapted either to corn or grass; — inclining towards the extreme of absorbency, rather than to that of retentiveness.

VIII. TOWNSHIPS. Some of those on the Northern margin of the District, at the feet of the Dartmore Hills, are very extensive: a circumstance which has probably arisen from the unreclaimed state of their lands, at the time they were distributed into Townships. But the more remarkable circumstance of the lands of the area of the District — of lands so dry, rich, and habitable as those of the South Hams — lying in Townships above the ordinary size, may be more difficult to be accounted for. Perhaps, the best reasons that can be assigned for it are, their having been kept long in a state of open pasture, as their name would seem to import they were; and, in course, their present state of inclosure and cultivation being of comparatively modern date.

IX. TOWNS,
IX. TOWNS, &c. PLYMOUTH and its Environs have the same influence on the Western point of the South Hams; as they have on West Devonshire. And the sea port of DARTMOUTH draws off some part of the produce of the Eastern quarter.

The more inland market Towns are TOTNESS, PLYMPTON, MODBURY, and KINGSBridge; with several considerable Villages.

X. INLAND NAVIGATION. The Estuaries, which have been mentioned, afford convenient passage to small vessels; and, perhaps, preclude the use of Canals, while the Country remains in its present state. From Kingsbridge, considerable quantities of corn and cider are said to be shipped off. Small mast vessels reach Totness. And Auston Gifford, a finely situated Village, has its Estuary; which, however, like the rest, is shrinking from the spot, where in much probability, it formerly gave rise to the Village or Town, which it has now deserted. But some rich marsh lands, which it has left in its stead, more perhaps than recompense the loss.

XI. ROADS.
XI. ROADS. On the Roads, as on the Soils, of the South Hams, I will transcribe the extemporary remarks which I find in my journals.

EXETER TO PLYMOUTH. The Road, though generally too narrow, is in many parts exceedingly well formed, and well kept. The materials blue marble, and a hard rust-colored stone. In some places, the barrel of the Road might be termed the segment of a marble cylinder. But the lofty hedges, on either side, are not only intolerable nuisances to the Traveller, whom they seclude; but, in many parts, are injurious to the Road. The Magistrates have, therefore, a double motive for enforcing the law; so far, at least, as to strike off the side boughs which contract the lanes, and overshadow the Road; and, in suitable parts, as at the more abrupt bends, to keep the brushwood down to the banks;—at once to let in currents of air, to dry the road when wet, and to blow off the dust when dry; and, at the same time, to disclose the beauties of their Country to those who travel through it. Beside, by obliging their tenants to prune
prune the hedges of the Roads, they might see the utility of the practice, and might be induced to extend it to Farm fences in general.

Ivybridge to Kingsbridge. The Roads are most intricate; numerous, narrow, and crooked; and rendered similar in their appearance, by the same tall banks, and taller hedgewood, which are common to the District; and this without guide posts to assist the stranger: especially in the bye roads, where they are the most wanted. They are likewise most unlevel,—braving the steep, where side-long roads would be equally near.

Environs of Totness. The private Roads, to grounds, how steep! straight in the face of the steepest part of the hill! First, no doubt, foot paths; still horse paths. Some of them too steep, even for sledges.

Totness to Ivybridge. The Roads much better laid out in this, than in the other rides. They frequently lead along the tops of the hills, and wind across the vallies. There is much level road, and little

* See the Minutes on this subject.
little that is steep. This is a proper pattern for the other Roads of the South Hams; though it could not be followed in all. The materials stone; beaten tolerably small,—and covered, when fresh laid on, with earth or rubbish, to soften and bind the rough materials. The almost only instance I have met with, in common practice, of this most eligible method.

XII. STATE OF INCLOSURE. The entire District, some small plots excepted, is in a state of permanent inclosure; and mostly in well sized fields, with straight fences; except against public lanes; which are in general winding; as if they had been formed to inclose such fortuitous roadways, as we see deviating across forests, and other open commonable lands: a fact which renders it highly probable, that the District was inclosed from a state of common pasture; or from a state of pasture lands intermixed with temporary arable inclosures; such as have been already particularly noticed.*

XIII. HEDGE-

* See Page 32.
XIII. HEDGEROWS. The Dan-monian Fence is common to the South Hams. High mounds surmounted by Coppice wood. Not a Hedgerow Tree or a Pollard in a hundred square miles! As naked of Hedge Timber, as the recently inclosed lands of Leicestershire. Perhaps the sea air is an enemy to Hedgerow Trees. Or the high mounds of this Country are not fit to receive them. Or the life-leaf tenure has an interest in preventing their rising.

XIV. PRESENT PRODUCTIONS. Along the Northern margin of the District, and on the steep rugged banks of the Dart, Plots of Woodland are observable. But speaking generally of the South Hams of Devonshire, they may be said to be destitute of wood; except what grows on the Hedge banks. Yet the fuel of the Country is wood; and it is, I believe, abundantly supplied with that necessary article, from its Hedges: a circumstance which would no longer appear extraordinary, if we were to calculate the proportional quantity of the lands of the District, which they occupy.
The Produce of its Farm lands varies in different parts of the District. Not only the bottoms or coombs, in every part, are kept in a state of permanent grass; but, in some parts, the sides, and even the summits, of the swells, particularly about Totness, are preserved in the same state. Although I observed no extensive plots, of such lands, as there are about Mylton Abbots and Lamerton; yet, perhaps, taking the District throughout, the proportion of permanent grassland, in the South Hams, is equal to that, in West Devonshire.

XV. THE APPEARANCE OF THE COUNTRY. Notwithstanding the extraordinary beauty of the ground, or natural surface, of this District, it is far from being rich in picturable scenery. Square fields, and straight lines of Hedgewood, how profitable soever they may be to the Farmer, and pleasurable to a mind reflecting on their utility,—are not grateful to an eye, viewing them in the light of Ornament.

This, however, applies most closely to the area, or more central parts, of the South Hams.
Hams. The Northern margin is finely diversified. In the valley of the Dart, about Totness, the views in every direction are fine. Compositions the most striking might here be caught. Below Kingsbridge too, the scenery is fine. And from Modbury Church, in the area of the District, some lovely views are seen: winding coombs, backed by the rugged scenery of the Northern margin, and distanced by the mountain heights of Dartmore. But an eye delighted with the wilder scenery of nature, will find, on the banks of the Yalm, above and below Ivybridge, the fullest scope for its gratification.

XVI. TENANCY. Lifeleasehold is the prevailing Tenure, or Tenancy, of the South Hams, as of West Devonshire.

XVII. POOR'S RATE. An evidence of the mischiefs which manufactures are capable of entailing on Agriculture, stands conspicuous, at present, (1791) in this District.

Some years since, a woollen manufactory,
of considerable extent, was set on foot, at Modbury, and carried on with spirit, and with success to the individuals who prosecuted it. But their end being answered, the manufacture ceased, and all the vice and debility, which it had drawn together, were left as a load upon the parish. The consequence of which is, I am informed, the Occupiers of Lands, within the Township of Modbury, are now paying five shillings in the pound, to the poor, while those of the surrounding parishes, do not pay two shillings.
THE

AGRICULTURE

OF

THIS DISTRICT.

I. FARMS. Most of the characteristics of the Farms, of the South Hams, appear in the foregoing Remarks, on the present state of the District at large.

The sizes of Farms, here, are various; the South Hams resembling, in this and other respects, the more Western parts of this quarter of the County. Fifty pounds, a year, rack rent, is esteemed a middle-sized Farm. One hundred pounds, a year, a full-sized one.

II. FARMERS. In a Country which is principally divided into small Farms, it would
would be unreasonable to look for many of that valuable order of men, who are usually styled Capital Farmers. At the fair of Plympton, or at the market of Kingsbridge, I saw no appearance of men of this rank in society. Nevertheless, men of enlightened minds are familiarly spoken of. Indeed, from some modern improvements, which will appear in this detail, to have been introduced into the District, we might safely conclude, without other evidence, that it possesses men, who think for themselves, and act without the authority of their ancestors.

III. BEASTS OF LABOR. These are Oxen, Horses, and Asses: the last being not uncommonly used for pack loads.

The Plow Team is four or six oxen; or four light, or two heavier oxen, with two horses before them; or three, or in some instances, two horses,—with a boy, or a man, to drive, or lead them!

A Road Team I do not recollect to have seen, out of the public road, between Exeter and Plymouth: and very few in it. Pack Horses.
horses, I believe, are the prevailing, or universal, means of transfer, whether of produce, of manure, or of materials in general.

IV. IMPLEMENTS. The waggon and the cart may be said to be wanting, in the South Hams; which, in this particular, appears, from everything I have seen and heard, to be behind West Devonshire. I have seen building stones carried on horseback along the finest road in the kingdom; close by the side of which they were raised; and conveyed to a neighbouring town, through which the road passes.

In the plow of this District, I observed no deviation from that of West Devonshire; except in the addition of a foot, in one or more instances.

V. MANAGEMENT OF FARMS. The only observable deviation, in the general management of the South Hams, from what may be styled the genuine Danmonian husbandry, lies in the proportion of corn crops to temporary ley grounds, on the
the lands that are subjected to an alternancy of corn and grass.

In West Devonshire, the regular distribution has been broken, in some sort, by the introduction of Turneps and Potatoes*. In the South Hams, the breach has been made still wider, by the introduction of Clover Leys for Wheat, and the practice of sowing Wheat after Turneps.

How long these practices have been introduced, I did not learn. But from their not having yet reached the more Western District, they are probably of modern date. And although I observed them in several instances, they are probably not yet introduced into the ordinary management, even of this District.

The Crops of the South Hams are the three corn crops of Wheat, Barley, and Oats. The Pulses are sparingly, if at all, cultivated in the District. Beans, at least, are imported, in quantity. Some Turneps, a few Potatoes, and cultivated herbage, form the rest of its arable crops.

* See Page 137.
VI. MANAGEMENT OF SOILS.

Nothing struck me, in this department of management, as differing from the practice of West Devonshire. The same velling, burning, and one plowing of ley grounds for Wheat and Turneps are observable: with, however, in some cases, an additional species of tillage, which, though partially used, throughout this quarter of Devonshire, did not fall under my inspection, in the more Western District.

This operation in tillage, has for some length of time, I understand, been practised here, under the ludicrous name of "tormenting." It is performed with a subplow* of many shares, which are fixed in a triangular frame, supported by wheels; these shares, or sub-hoes, working a few inches beneath the surface.

The only instance, in which I particularly examined it in use, was on a ley ground which had been velled &c. for Turneps, to be sown on one plowing: the tormenting being done previously to the plowing; for which

* See Minutes of Agriculture, in Surrey.
which it is an admirable preparation; as not only separating the roots of weeds, but breaking the soil, and rendering it the more obedient to the harrow. As a preparation for Wheat, to be sown under similar circumstances, the operation seems to be equally eligible.

VII. MANURES. The same manures, and the same management of them, are common to the South Hams, and to West Devonshire. The use of sea sand is fast declining. Lime is in full repute, and is managed, I believe, without deviation, agreeably to the method which has been described. And beat burning, though prohibited by some, is still in high estimation.

VIII. WHEAT. A new variety of Wheat has lately been raised in this District, and is likely to become a favorite sort *. This improvement, having been made

* For an accurate method of raising varieties of Wheat or other grain, see York. Econ. Vol. II. P. 4.
made by a Farmer, or a Farmer's son, and adopted by professional men, is a strong evidence that the bonds of prejudice are at length broken.

Succession. *Burnt ley ground* appears to be still the prevailing matrix for Wheat. But, as has been mentioned, *Clover leys*, and *Turnep lands*, are now more or less sown with this crop.

The time of sowing. In going over the District, in the latter end of October, I had an opportunity of observing this particular. Sowing was then commencing. But, in general, the lime and earth still remained, in roof heaps, unspread: and, in many places, among Turneps, uneaten off. Some Clover leys were then breaking up, and, in one or two instances, men and women were hacking over the plowed ground, to receive the feed *. November is probably the principal season of sowing. But it is thought "very well if they finish by Christmas." Can this be right? Is the practice peculiarly adapted to the climate?

* See P. 189.
mature of the South Hams? Or is it pursued, to counteract the foulness of the soil? Or is it merely a bad practice, that wants to be improved?

IX. TURNEPS. In the South Hams, as in West Devonshire, Turneps are still universally grown, after temporary Ley; except a few that are sown in autumn, on Wheat stubble. I met with no instance, nor could I hear of any, in which they were sown after Wheat or Oats, of the preceding year, agreeably to the prevailing practice of England.

Nor did I see or hear of an instance, in which Turneps were cleaned, and set out at suitable distances, with the hoe, as in that practice.

X. GRASSLANDS. The species of Grassland, here, as in the more Western District, are

Mowing grounds, or meadows; which are partially

* Wheat stubbles, in general, were then in full herbage.
partially watered, throughout the District;

Grazing grounds, or rich upland pastures; which were remarked, more particularly, about Ermington, Aunton, and Kingbridge; and, most especially, about Tottness; and

Pasture grounds, or the ordinary temporary leys of the Danmonian husbandry.

In the management of Grasslands, I perceived nothing which gave me reason to apprehend, that it differs from that of West Devonshire.

XI. ORCHARDS, &c. This is the principal fruit-liquor District of Devonshire. But, as I had so favorable an opportunity of making myself master of the Devonshire practice, in the place of my residence *, I had the less occasion to attend to it, in the South Hams: whose practice, from what I saw of it, is the same as that of West Devonshire; except in the greater atten-

* See Note, Page 214.
attention which is paid, in the former, to
the process of fermentation. But the Here-
fordsire practice being still far superior, in
this respect, to that of South Devonshire;
and having already given an ample and,
I believe, an accurate detail of that practice,
it is the less necessary to resume the subject,
in this place.

In the proportionate quantity of orchard
grounds, the South Hams, in like manner, resembles the West of Devonshire.
A stranger, in riding across the country,
would not suspect it to be a fruit-liquor
District. None of such extensive plots of
orchard ground, as meet the eye, in travelling through Herefordshire, &c. and in
some parts of Kent, are seen in South De-
vonshire. Nevertheless, the farms being
small, and each having its Orchard, the
aggregate quantity is considerable. The
trees being low, and confined chiefly to the
vallies, and perhaps overtopped by tall
hedgerows, account for the little show they
make.

A minutia of practice in the disposal of
apples,
APPLES, for household purposes, may not be too trivial to notice. In the ordinary practice of the kingdom, they are sold by measure: but, here, not unfrequently by number: a shilling a hundred being esteemed a moderate price.

XII. CATTLE. The breed is that of Devonshire: excepting a few, in the hands of individuals, of the short horned breed.*

The South Hams is not emphatically a breeding District. Corn rather than Cattle appears, to a stranger passing through the Country, to be the principal object of the Farmers of the South Hams. Many of the working Oxen, that are seen in this District, are doubtless purchased of the Moorside Farmers †.

XIII. SHEEP. I observed some considerable flocks, on the West side of the District; and smaller parcels on the East.

* See Min. 5.
† See Page 245.
The breed varies as to head. On the East side of the District, particularly about Totness, I observed a thick-carcased, long-wooled kind, uniformly polled, and with mottled or grey faces.*

* See Page 260.

A RETROSPECTIVE
A RETROSPECTIVE VIEW
OF THE
RURAL ECONOMY
OF
SOUTH DEVONSHIRE.

IN taking the foregoing View of the South Hams and its Rural Management, some reflections have arisen, which it might be wrong to suppress.

Viewing its state of husbandry, in the aggregate, and including the modern improvements of individuals, it approaches nearly to the medium of that of the kingdom at large. The permanent grasslands appear to be mostly well kept, and are many of them partially watered: and the lands
lands subjected to aration are not strikingly foul; nor do they appear, superficially, to be greatly in want of tillage.

Nevertheless, one who has been accustomed to the more fertile parts of Norfolk, of the Midland Counties, and of other fertile and well cultivated Districts,—and to observe, in the autumnal months, the plenty which everywhere presents itself,—the spacious barn, and well stored rick yard, with herds and flocks seen in every direction,—is struck with the apparent deficiency of produce, whether of corn or of cattle, in travelling over the South Hams, at the same season.

This apparent deficiency, is no doubt, in a considerable degree, owing to the smallness of the farms, and to the farmsteads being much secluded in the valleys. But similar appearances are observable, in the fairs and markets of the District. And I am of opinion, that its produce, at present, is far from being adequate to its natural advantages.

Viewing the District of the South Hams, and its present state of husbandry,
in the detail; a few modern improvements,—chiefly perhaps of individuals,—only excepted; they perfectly agree with those of West Devonshire: In soil, surface, and established practice, they may well be considered as the same District; and the following remarks are applicable to the whole of the inclosed lands of

SOUTH DEVONSHIRE.

IT may be right to premise, that, notwithstanding the apparent deficiency, in respect to produce, the lands of South Devonshire pay a rent, equal to what would be esteemed their fair value, in better cultivated Districts. This seeming contradiction is to be reconciled; by the circumstance of the Danmonian practice having no high-fed horses to support;—by the lowness of wages, and by the frugality of living, among working farmers;—by a ready market and much water carriage;—and, still more, by the favorable circumstance
stance of lime being freely used, on a soil that is not yet saturated with the calcareous principle.

Among the numerous IMPROVEMENTS, of which this Division of the West of England is susceptible, the following have occurred to me, in taking a retrospective view of the foregoing registers of its present practice. Many of them are noticed in those registers. But I think it right to bring the whole together here, for the greater ease of those, who may be disposed to promote the prosperity, of this favored part of the Island.

In the FORM OF FARM YARDS much is to be done; especially in providing proper receptacles for dung; to prevent its most valuable parts from being dissipated. In some few cases, I have seen the water, from dung yards, led over grasslands. But unless a reservoir be formed, to collect such water, in order to throw it over the land, in a large body, its effects are very confined and inconsiderable. For hints on this subject, see the close of the following MINUTES.

In the MANAGEMENT OF HEDGES, I am
am of opinion much improvement may be made, by pruning the sides, so as to prevent their drip and shade from destroying the under growth of the mounds, and the crops on either side of them; as well as to promote the upward tendency and strength of the wood, which grows on the tops of the mounds; whose surfaces, being limited, can only throw out a certain quantity of produce; and it is but reasonable to conclude, that so much of the nourishment, as is suffered to be expended on the spreading outside boughs, is lost to the more useful stems, which rise upon the top. See the Minutes, on this subject.

A proper form of a lease, for a term of years, appears to be much wanted; such a form as will encourage improvements, and give encreasing value to estates; instead of that which is at present in use. The modern forms of Norfolk, Yorkshire, and the Midland Counties, will furnish hints on this important part of the management of landed property *.

* See those Forms, in their respective Registers.
In the application of lands to their fittest uses, something remains to be done. There are many sites which would pay for planting, and some, which are now in a state of woodland, that would pay for clearing. See page 59.

In the management of timber, there is room for much improvement. See page 88.

The use of wheel carriages may be profitably extended to many of the farms, both of the South Hams, and of the more Western Districts.

The ordinary plow of these Districts is susceptible of very essential improvement: and the turn wrest plow would be found highly useful, in cultivating the steeper lands of this broken hilly country.

But the greatest improvement, which these Districts appear to be capable of receiving, lies in the succession of arable crops. The present practice of taking three corn crops in immediate succession, as well as the paucity of tillage which the land receives for these three crops (and even perhaps the ineffective form of the plow!)
plow!), doubtless arose from the difficulty which was experienced, at the time this practice was established, in the RENEWAL OF THE SWARD, after fallows, pulse crops, or more efficient tillage. Even the practice of drawing the weeds of Turneps, instead of cutting the ground over with the hoe, may have originated in the same experience.

But now, that the art of CULTIVATING SWARD is known, and practised, such a mode of procedure is become improper: for the cleaner the soil, and the finer the tillage, with the more certainty and effect may sward be cultivated.

In the Midland District, where the soil is retentive of moisture, and where the Turnep crop, and breeding flocks of sheep, are less eligible, than they are, on the absorbent soils of Devonshire, there is a better plea for persevering in a similar practice. See Mid. Econ. Vol. I. P. 186, and the Minute there referred to; also Vol. I. P. 195: where the reader may find this interesting subject discussed.

In the MANAGEMENT OF THE SOIL, very
very much requires to be done. The first step is to clear it from obstructions of the plow; and the next to rescue it from the dominion of weeds, to which much of it may well be said to be, at present, subject. In other words, it requires to be WHOLLY RECLAIMED from a state of nature and neglect.

This reclaim is to be effected, by FREE CLEAN FALLOWS; or FALLOW CROPS, whether of roots, herbage, or pulse; according to the circumstances of the respective lands, and the state of foulness in which they are found.

Another obvious improvement, in the soil process, is that of driving TWO OXEN, with WHIP REINS, in all the lighter works of tillage; carrying a width of plit or plow-slice, in proportion to the state of the soil, and the strength of the animals.

For instances in which these improvements were carried into effect, see the following MINUTES.

An evident and great improvement, in the FARMYARD MANAGEMENT, is that of bottoming the dung yard with mold: a practice
practice by which a rich source of manure, for grassland, is obtained, without loss of dung to the arable crops: or, if the mold be mixed up with the dung, in the spring, a most valuable compost is formed, fit, in the course of the year, for any purpose of Agriculture; and this at the trifling cost of collecting the materials; which may frequently be done, by means of backcarriage; and always at leisure times.

It is at least an object of experiment, in this uncertain climate, to try the effects of early sowing, on clean reclaimed land.

The present method of setting up Wheat, in the stubble, in this country, is very ineligible, compared with that of the North of England. See page 170.

In the harvesting of barley and oats, especially in a wet and backward season, the practice of the Northern Provinces would, I am of opinion, be found very advantageous. See page 175.

The winnowing mill requires to be introduced, forthwith, into general practice.

The turnep crop of this country is,
at present, disgraceful to English Agriculture. The practice of East Norfolk is perhaps the best which this District could adopt. For a minute detail of that practice, see the Rural Economy of Norfolk.

In the management of ley grounds, something is evidently requisite to be done; many of them, at present, are shamefully unproductive. If the Norfolk plan of management were wholly adopted, and the duration of the leys confined to one whole year, sowing them with Wheat the second, they might with strict propriety be mown for hay, the first year. But should they be continued, as at present, in pasture grounds, during five, six, or seven years, every effort should be made, to prevent so ruinous an operation from being necessary; or, if it cannot be wholly prevented, its injury should be rendered as light as possible, by mowing early, before the taller herbage has had time to destroy the undergrowth, and injure its own roots. See the Minutes.

The quantity of watered grassland may doubtless be much increased; and the present
present practice of watering be very much improved.

Some considerable portion of the present orchard grounds, it is very probable, may be converted, profitably, into watered mowing grounds. And many unproductive sites be converted, with still greater profit, to Orchard grounds. See page 115.

In the treatment of the present Orchards, one improvement is most obvious; namely, that of training up the trees, in such a manner, that yearling cattle may pasture among them, during summer; and Swine, the year through; except during the gathering season. In the pruning and cleaning of Orchard trees, there is likewise full scope for improvement.

To the manufacturing of cider, the Devonshire Orchardmen might bend their attention with profit, by turning their produce to the best advantage. Their soil, and their climature, especially in a moderately dry summer, are more friendly to the apple, than those of Herefordshire or Gloucestershire. And, were the arts of manufacture as well understood, here, as in the May-
Mayhill District, I am of opinion, that the cider of Devonshire would outrival that of Herefordshire, at the London market *. However, while cider remains a mere article of beverage, at the tables of those who indulge their palates, there is less encouragement to excellency of manufacture, than there would be, were it fashionable, as a substitute for wine.

The South Devonshire Husbandmen, however, have an object of improvement lying open before them, which will repay them, ten fold, for their attention, compared with any advantage that can arise from their Orchard grounds, or their fermenting rooms. This important object of their attention is the breeding of livestock; whether Cattle, Sheep, or Swine.

I am of opinion, that the rental value of the lands, of this part of the County, may be increased, exceedingly, by a due attention to the improvement of these three species of domestic animals, only. And seeing the facility

* For a minute detail of the Herefordshire practice, see the Rural Economy of Glocestershire.
facility with which it may be effected,—since there are superior breeds, of cattle and sheep at least, within the limits of the County,—there remains no color of excuse for delaying so valuable an improvement.

Finally, I will beg leave to suggest, in addition to the hints which are here considerately offered, that if the Gentlemen of this Country, who have lately formed themselves into a Society, for the purpose of promoting its Agriculture, will assist the professional part of their Countrymen, in the establishment of substantial practices, instead of wasting their attention and subscriptions, on theoretic schemes, and impracticable speculations, their Country, for ages to come, may have cause of gratitude for their patriotic exertions.
A

LIST OF RATES

IN

WEST DEVONSHIRE.

Buildings.

BLUE Slates, at the quarry, 3s. 6d. a thousand; for the ordinary rough undressed Slates, great and small: running from 4 to 12 inches wide, and 8 to 18 inches long, when dressed. The large Eaves Slates—provincially "Rags"—some of them two feet square, when dressed, are sold at 2s. 6d. a dozen; rough, at the quarry.

The price of "dressing," or cutting Slates into the required form, is 20d. a thousand.
The entire workmanship, of dressing, pinning, pins, and laying on, in mortar, is 6s. a square, of 100 square feet: without pins, 5s. 6d. a square.

A square of Slate roofing takes about a thousand Slates.

Oak timber—15d. a foot.
Ash timber—1s. to 14d. a foot.
Lime—5d. a bushel.
Masons' wages—18d. a day, and a quart of cider.
Carpenters' wages—the same.

Woodland Produce.

Cordwood—see page 95.
Rough Topwood—prov. "Sheedwood" (7 feet long, and the thickness of the arm, to that of the thigh)—3 or 4s. each 100.
Spray Faggots (4 feet long and 3 girt) 16d. a dozen to the King's bakehouses, &c.
The yearly wages of servants are,—
Prime Men Servants 8l.
Second 6l.
Women Servants 3l. to 3 guineas.
Boys 9d. to 15d. a week.
Day wages:—in winter and spring, 1s. a day; with a quart of cider, to constant laborers. In hay time, 1s. with more liquor. In harvest, 1s. with full board. See also page 107.
Mowing meadow gräfs—2s. Clover—2od. and Corn 18d. the customary acre*; with 3 or 4 quarts of cider, each acre.
Reaping Wheat—4 or 5s. an acre, without binding it.
Threshing Wheat (in the Devonshire manner see page 181.)—is. a "bushel" of two Winchester bushels; including the making up and binding of the reed.

* Customary acre. This is calculated by perches of eighteen feet square; being proportioned to the statute acre, nearly as six is to five.
Day's work of a packhorse—1s.
Plowing ley ground—6s. an acre.
—— broken ground—4s. 6d. an acre.
Agistment of a cow—2s. a week.
—— of sheep—2d. or 3d. a head.
—— for the winter—4s.

from October or November to Lady-day: an extra price, which is owing to the facility of keeping sheep, in summer, on the common and forest lands.
PROVINCIALISMS

OF

WEST DEVONSHIRE.

A.

APPLE DRONES: wasps (the ordinary name).
ARRISHES: ftubbles.

B.

BALLARD: a castrate ram.
BARKER: a rubber, or whetstone.
BARTON: a large farm. See page 101.
BEAT: the roots and foil subjected to the operation of "burning Beat." — See Vol. I. P. 141.
BEATING AXE: see as above.

Y 2    BEEN:
BEEN: a with, withey, or band: a twisted twig.
BEESOM or BIZZOM (Spartium Scoparium): the Broom plant: hence a name of the sweeping broom of the housewife.
BEVERAGE: water cider, or small cider.
BLIND NETTLE (Galeopsis tetraktis): wild hemp.
BURROW: a hilloek or heap; as "Stone Burrows"—"Beat Burrows:" hence, probably, Barrow—(Tumulus).
BUSS: a grafs calf. See page 249.
BUTT: a close-bodied cart; as dung butt, or wheel cart; currry butt, or fledge cart: ox butt; horfe butt.
BUTT LOAD: about six seams.

C.

CADDEL (Heracleum Sphondilium): cow parsnip.
CESS or ZESS: a mow, in a barn.
CHEESE: the pile of pomage, in making cider.
CLAW-ILL: the foul, in cattle.
CLefted CREAM: cream raised by heat.
COB, or COBWIALL: mudwall.
CONVENTIONARY RENTS: the reserved rents of life leases.
COOMB: a narrow meadowy bottom; generally, or always, between hanging woods.
COURTLAGE: farm yard.
Cousin Betty: a female changeling, real or counterfeit, who goes about the Country, to excite charity; as she does in Yorkshire,—under the same name!

Crooks: a furniture of packhorses. See page 121.

Crow Bar, or Bar IRE: an iron crow.

Culvers: pigeons.

Culver House: pigeon house, or dove cot.

D.

Dasheils (Cardui): thistles (the ordinary name).

Drags: large harrows.

Dray: a fledge, for light produce, as hay or straw. Q. A corruption of Draw?

To draw: to carry, or convey, hay or corn, on a waggon or fledge: most proper. Q. From dray or draw—a fledge?

Drudge: a large team rake. See page 125.

E.

Eth—is in common use, as the termination of the third person singular: hath, doth, are also in ordinary use.

Earth Ridges: see page 158.

Eaver (Lolium perenne): raygrasfs.

Y 3 Fairies
F.

FAIRIES (pronounced "Vairies"): squirrels!
FERN WEB (Scarabæus Horticola?): a small chaffer; injurious to the fruit of the apple tree, while very small.
FETTER LOCK: fetlock of a horse; by corruption, perhaps, Footlock.
FLAPDOCK (Digitalis purpurea): Fox Glove.
FRENCH NUTS: walnuts.
FRITH: brushwood.

G.

GALE: a castrate bull.
GREENSIDE: grass, turf, greenward.
GREY BIRD: the thrush; no doubt, in contradiction to the Black bird; both being birds of song, and nearly of the same size; a simple, apt distinction.
GURRY BUTT: dung sledge. See page 121.

H.

HACK: a one-ended mattock.
HAM TREES: hames.
HAMWARDS: straw or rush collars, for horses.
HANDBEATING: see page 142.
HANDREAPING: ordinary reaping; contra-
distinct from hewing.
HAUL-TO: a three-tined dung drag.
To HEAL: to cover, as with slates.
HEALING or HELLING: the slate covering
of a roof; also the operation of slating: hence,
HELLIER: a slater.
HERBERTY: a cottage garden, or herb garden.
HEWING: a method of cutting wheat. See
page 168.
HINE: bailiff, or farm steward.
HOG COLTS: yearling colts.
HOGS: yearling sheep.
HOLM (Ilex Aquifolium): holly.

J.
JUNCATE, or JUNKET: coagulated milk;
eaten in the undisturbed state of coagulation;
with sugar, spices, and clouted cream.

K.
KEEZER: a fort of sieve.

L.
To LEAD: to carry "truffles," on horseback.
See page 167.
LEAR or LEARY: empty; as an unloaded cart or waggon.
LEAT: an artificial rill, rivulet, or brook. See Vol. II. p. 269.
LENT ROSE (pl. LENT ROSEN): the Narcissus, or Daffodil.
LINHAY: an open shed.

M.

MASTS, or MESS?: Acorns.
MAZED: silly—idiotic.
TO MELL: to mix, as lime and earth.
MORES: roots, whether of grass or trees (the ordinary name).
MOCK: pomage, or ground fruit.
MOW: a rick or stack.
MOWHAY: stackyard.

N.

NECESSITY: a base kind of spirit. See p. 236.
NOT, or KNOT: polled, as sheep.

O.

OAK WEBB (Scarabaeus Melolontha): the Chaffer, or Maybug.
To ORDAIN: to order.
ORDAINED: intended (common).
OVERLAND FARM: a parcel of land, without a house to it.

P.
PASSAGE: ferry; the ordinary name.
PIKE, PEEK, or PICK: a prong or hay fork. Q. Analogous with war pike?
TO PITCH: to fling sheaves upon a stack or mow. See page 177.
PLANSHER: a chamber floor.
PLOW: a team of oxen.
PLUM: light and puffy, as some foils.
POOK: a cock of hay.
POTWATER: water for household purposes.
POUND HOUSE: cider manufactory. See p. 228.
POTTS: furniture of pack horses. See p. 122.

R.
RAW CREAM: cream raised in the natural way: not "scalded," or "clouted."
RED HAY: mowburnt hay; in distinction to "green hay," or hay which has taken a moderate heat; and to "vinny hay," or that which is mouldy.
REED: unbruised straw, of wheat or rye.
ROO: rough.

SCALD
SCALD CREAM: cream raised by heat; clouted cream.
SEAM: a horse load; or three hundred-weights.
SEWL or SULE,—pronounced "ZULE": a plow (the only name). See Plow.
SHEEDWOOD: rough poles of topwood.
SHIPPEN: an ox house.
SKIRTING: see page 144.
SKOVES: reaps, shoves, grips, or bundles, of corn;—unbound sheaves.
SLAPDASH: roughcast, or liquid coating of buildings.
SLATAXE: a mattock, with a short axe end.
SLIDEBUTT: dung sledge. See Gurry Butt.
SMALL: low, as the water of a river, &c.
SOUANT: fair, even, regular (a hackneyed word).
TO SPADE: to pare, or breast plow.
SPARS: thatching rods.
SPINE: turf, fod, sward.
SPIRE (Arundo): reed.
STAFF: a measure of nine feet; half a customary rod.
STEM: the handle of a fork.
STICKLE: steep, as a road; or rapid, as a stream.
STROLL: a narrow slip of land.
STROYL:
STROYL: couch, or other weeds; or roots of weeds: especially what harrow up, or rake out of the soil; whether in the field, or the garden.

SURVEY: a sort of auction. See page 71.

T.

To TILL: to sow and harrow in the seed; to femininate.

TONGTREE: the pole of an ox cart, or waggon.

TOR: a ragged pointed hill; as "Brent Tor," —"Roo-Tor,"—"High-Tor."

TORMENTING: sub-hoing, or sub-plowing.

See page 296.

TRONE: trench or drain.

TRUSSES: bundles of corn or straw, to be "led" on horseback. See page 167.

TUCKER: fuller.

TUCKING MILL: fulling mill.

TURF: peat.

V.

VAGS: turves, for fuel. Q. A corruption of Flags? see PROV. of NORFOLK.

VAT: the bed of the cider press.

To VELL: see page 143.

VETTY:
PROVINCIALISMS, &c.

VETTY: apposite, suitable; — opposed to Wish.
VINNY: mouldy.
VORRAGE: earth collected, for "melling" with lime.

W.

WANTS: moles.
WHITAKER: a species of quartz. See page 16.
WHITE WITCH: a good creature, which has the power of counteracting the evil designs of Black Witches. Such kind Spirits formerly were found in Yorkshire: and are still spoken of, there, by the same name!
WISH: inapt, bad, unfit, as "wish weather", — or any "wish thing", — as a stone, or a piece of timber, ill suited to the purpose for which it is applied or required (another hackneyed epithet).

Y.

YOKE of OXEN: a pair of oxen.

END OF THE FIRST VOLUME.