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*Plan of the Farm
of 242. Acres.*

THE
ART OF VALUING
RENTS AND TILLAGES,
AND THE
TENANT'S RIGHT
ON ENTERING AND QUITTING FARMS,
EXPLAINED BY SEVERAL
SPECIMENS OF VALUATIONS,
AND
REMARKS ON THE CULTIVATION PURSUED ON SOILS IN
DIFFERENT SITUATIONS.
ADAPTED TO THE USE OF
LANDLORDS, LAND-AGENTS, APPRAISERS,
FARMERS, AND TENANTS.

By J. S. BAYLDON,
LAND-SURVEYOR AND VALUER.

FOURTH EDITION, CORRECTED AND ENLARGED.

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PREFACE.

IN presenting the fourth edition of this work to the public, the author tenders his best thanks for the ready sale of the three former. He is willing to attribute his success in writing an interesting book, rather to the importance of his subjects, than to any merit in his manner of treating upon them.

Since first writing the work, alterations have taken place in the value of agricultural expenses and produce. The profits of farming are reduced, and it is attempted to be shown in the following pages how to make a corresponding alteration in rent.

A treatise of this kind is more wanted at the present than at any former period. Many tenants are now quitting their

farms in consequence of the pressure of the times, or of accumulated arrears of rent. In either case, a valuation of the tenant's right is necessary, and also of the rent that may be required of the succeeding tenant. The following pages have been composed with a view to render the method of ascertaining these important objects familiar to persons interested in the management of landed property, and to farmers in general.

The author begs leave to acquaint the public, that he is in the habit of visiting different parts of the kingdom, for the purpose of introducing agricultural improvements, and of equalising rents and valuing tenant-right and poor-rates.

J. S. BAYLDON.

*Carlton, near Barnsley, Yorkshire,
May 30th, 1832.*

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THE
ART OF VALUING
RENTS AND TILLAGES.

INTRODUCTION.

To be able to ascertain what rent farms will bear in different situations, so as not to deprive the landlord of his share of the produce of the soil on the one hand, nor oppress the tenant with too much rent on the other, is undoubtedly a most desirable object; and to apportion these apparently different interests equally, requires some skill and experience. The relative advantages and failings, in regard to the quality of land, climate, taxes, tithes, local situation, expenses incurred by labour, and, lastly, but most materially, the price of corn and other produce,

should be well considered. These are the chief points of enquiry; but many more might be suggested, which are obvious to every farmer.

Where rents have been raised, several years ago, equal to the high price of corn, it is evident that, now corn and all kinds of agricultural produce are much reduced in value, these rents should be settled in proportion, making an allowance for taxes taken off, and the reduced value of labour and other expenses.

A fair rent acts as a stimulus to good cultivation; for the farmer, well-knowing that he can only obtain profitable crops by industry and good management, must exert himself in some proportion to the amount he has to raise. Some farmers are, no doubt, of more industrious habits than others, who will not slacken their attentions when holding under a low rent; but we generally find that tenants at rack rent are more active and laborious than those under very liberal landlords, or even

than small proprietors occupying their own land. The latter, having no rent to pay, commonly trust to servants, and indulge in field sports or inactivity, omitting the drudgery, and, consequently, some of the profits, of farming. Instances have occurred of such persons selling their farms to pay off debts contracted by carelessness of management; then taking them at fair rents, and using diligence and perseverance, have acquired comfortable maintenances. On the other hand, an excessive rent is to be deprecated. It reduces the capital of the tenant, — occasions him to severely crop the land without applying sufficient manure, — and renders him unsettled, and anxious to quit as soon as he can better himself. The farm can then only be let at a reduced rent, below its real value.

The evil consequences of exorbitant rents are now severely felt almost generally, notwithstanding many deductions have been made; but which will not, on

examination, bear a comparison with the present reduced price of agricultural produce. To know what rent land is actually worth, is a question anxiously enquired after by every feeling landlord, who, no doubt, would be willing to allow the farmer a fair remuneration for his labour, if it could be ascertained with any degree of truth. This, it is presumed, may be obtained by estimating the expenses incurred, and the profits arising throughout the whole course of one rotation of crops upon different soils, which will be attempted in this work. Few valuers are at the trouble of fixing the rent after this method; but more frequently judge by comparing it with the adjoining land, or the common rate of the neighbourhood.

The plan of landlords letting their estates to value by the pound, is a powerful temptation to the valuer to lay on more rent than can be cleared by the tenant. If such proceedings be practised,

they eventually end in impoverishing the soil ; for the farmer, perhaps attached to the home where he was born and bred, is probably unwilling to leave it till he is nearly ruined. Seeing the decline of his property, he is obliged to overcrop the land, without supplying a sufficiency of tillage and dung, in order to meet the rent as it becomes due. In this manner soils are frequently exhausted to their utmost extent ; and the tenant, in consequence, is thrown in arrear with his rent, and quitted. When land is brought into this condition, it can only be let for very reduced rents ; and, considering the loss of rent and deterioration of the soil, the landlord derives less profit, as well as less credit, than if a more moderate rent had been taken. And here a few remarks may be made, as not being irrelative to the present subject, that the valuer of rents and tillages should be a man of strict integrity, maintaining that honest independence of mind which prompts

him to act uprightly and to be unbiased by any personal or friendly considerations. But integrity alone is not sufficient to constitute an able valuer. He should be endowed with a clear understanding, improved by a liberal education and general practice. On every occasion, he should accustom himself to examine, and calculate thoroughly, the expense and profits attending the various methods of fallowing, of getting in the seed, and of all other operations performed upon land. The state of the markets in regard to the rise and fall in price of each article of farming produce should unremittingly engage his notice. In valuing tillages with an opponent, it is necessary that he should be able to substantiate and support his own opinion, in a clear and forcible manner, and be ready to detect and refute any incorrect insinuations which may be urged by his adversary.

RENT OF LAND.

To fix a proper rent upon land, it is necessary to enquire into several local circumstances : such as its quality, whether light or strong ; its soundness, whether upon a clayey or gravelly sub-soil : whether it be well watered, without being over retentive and flooded ; its tendency to seed well, and carry a proportionate quantity of stock ; its contiguity to markets and manure ; the value of agricultural produce in the neighbouring markets ; the poor-rates, taxes, and tithe ; the expenses of labour in the neighbourhood ; and many other expenses and advantages which are different in almost every parish.

It is often observed that the difference made in the rent of light rich soil and strong loam is seldom in proportion to their relative value ; and that if a statement were made out of all the expenses and produce attendant upon a piece of

strong heavy land, situated a mile from the homestead, during a four-years' course of husbandry, and compared with the expense and produce in managing the same quantity of fine light land during the same time, adjoining the homestead, it would be found that the latter would bear at least twice the rent of the former. And when land differs greatly in quality, even thrice the rent would be a fair proportion. This question will perhaps be satisfactorily explained in the subsequent calculations.

One mode of ascertaining the rent that land will bear is, to calculate the gross quantity of corn, hay, turnips, grass, and every thing the land is capable of producing, in one season, for the farmer's benefit. The value of this produce is then divided into three equal parts; one of which is set apart for the expenses in ploughing, dressing, and manuring the land; smith's, carpenter's, and sadler's work; labourers' wages, and other inci-

dental expenses: another, for the maintenance of the tenant and his family: and a third, after deducting the taxes, tithes, and assessments, is reserved for the rent. This certainly appears to be a ready way of apportioning the rent, and may, in some instances, approach pretty near the truth, especially where the quantity of arable land exceeds that of grass. But in farms adapted to, and chiefly used for grazing, to allow one third of the gross produce of the farm for the expenses of management, where so little is bestowed in comparison with arable land, would lead to erroneous results, and leave the landlord very little rent.

This was the way of apportioning rents before the introduction of modern implements, and before clover and turnips were cultivated as regular crops. Then inclosures were small, labour more tedious, and a less disposable surplus could be spared. In those days rents were paid partly in money, and partly in grain,

cattle, and service; but as the circulating medium became more plentiful, these feudal customs were gradually abolished, and now rent is discharged by payments in money.

The surplus produce of farms, after deducting the expenses of cultivation, is the proper subject on which to calculate the rent. A portion of this surplus is due to the tenant, as a return for his capital and skill, and the remainder shows the rent due to the landlord. In ascertaining the rent of an entire farm after this method, comprising arable and grazing land, we are led into intricate and difficult calculations, the items of which are numerous and ever variable. The success of rearing or fattening stock depends more on skill and good luck than the production of corn, and the profits are not so regular. It is desirable, therefore, to avoid computing the profits of stock in ascertaining rent, and judge of the value of the land on which cattle are

reared or fed, by comparing the quality of the soil with that of the fields in a regular course of husbandry. Entire grazing, or dairy farms, are rented according to the stock they will feed, and the profits of local situation. But in the mixed husbandry, where part is arable and part in grass, which may be converted at intervals, the readiest way of computing rent is to ascertain the value of the best and worst land, and judge of the intermediate qualities by comparison. This plan was laid down by Dr. Coventry, who formed a table for regulating rents yearly, or for an average of years, according to the value of the produce per acre on different qualities of soils. Thus, on land capable of producing

Per acre.					
£10	10	0	one third, or	£3	10 0 per acre rent.
6	12	0	one fourth, or	1	13 0
4	5	0	one fifth, or	0	17 0

This table was made for land in Scotland, where poor rates and other expenses are

lower than in this country, and at a time when produce sold much higher than at the present period. It is well known that as produce is depreciated in value, a less proportion can be afforded as rent, because the expenses of cultivation do not lessen equal to the reduced value of corn and other productions.

The expenses of cultivation on good and bad land are about the same. Good land requires more cleaning, rolling, and harrowing, and strong clay land more strength in ploughing. A trifling difference arises in assessments and tithe. On the contrary, the above table must have been formed under the idea that bad land takes much less cultivation than good; for, if we regulate the rent by the comparative value of produce, and try the table by this standard, we shall find it inapplicable. Thus, if 33*s.* per acre rent is fixed on an average produce of 6*l.* 12*s.*, and we deduct from that rent the difference betwixt 6*l.* 12*s.* and 4*l.* 5*s.*, less by

the difference of tithe and assessments (say 6*s.*), we shall have no remainder of rent due for the average produce of 4*l.* 5*s.*

The fact is, 33*s.* per acre is too high a rent for a produce of 6*l.* 12*s.*, and land is not worth cultivating that will not bring more than 4*l.* 5*s.*, but should remain in grass.

The mode of ascertaining rents here adopted is to select one acre of the best arable land in the farm, and to value the labour, expense, and produce attendant upon it, through the whole of a four-years' course of husbandry; consisting of turnips, barley, clover, and wheat; and, after taking an average of the profit, to deduct therefrom 10 per cent. for the farmer's stock and capital; the remainder is left for rent. The same plan may be adopted with regard to the stiff loam; and when a value is thus formed of the best and worst land in the farm, the intermediate qualities of the soil of the

other fields may be readily ascertained by a person who understands the nature of land.

Objections having been raised to the sum of 10 per cent., as being insufficient for the farmer's profit, and 15 or even 20 per cent. recommended as an adequate allowance, the author deems it necessary, in this edition, to give his reasons for assuming that rate of profit.

Interest for capital embarked in a concern attended with casualties and risk is all that is meant to be included in the 10 per cent., and not the labour, skill, and attention of the farmer. These are remunerated by his exertions in business. When a man is engaged in trade or any other active employment, it is expected, that, besides the profits of his calling, he shall exert himself occasionally to fill up a post, and be vigilant in keeping down expenses. No pursuit in life affords more latitude for savings of this description than farming. Much depends upon the

exertion and superintendence of the person most interested, and no calculation can be made of the value of such service, with any degree of accuracy. On this account the livelihood of the tenant and his family is purposely left out of the following estimates, and is meant to arise from their own industry. If their private income, with the addition of 10 per cent. be sufficient, and they are satisfied therewith, their concern may be trusted to servants; but if not, the different members of the family must bear a part of the necessary toil. The expenses in the estimates are stated at their highest cost, and men are supposed to be employed, and are allowed for, in all the operations, at their full wages; whereas boys at half the cost will do the work in many cases, with the assistance of the farmer, or, if the farm be large, of his foreman. On small farms of 60 to 100 acres tenants do a great part of the work themselves; and on more extensive farms, they are more

profitably employed in rearing and fattening stock. The management of a dairy, of ewes and lambs, and of pigs and poultry, are means of profitable employment to the tenant and his family; but which cannot, with any degree of accuracy, be brought into calculation. An industrious manager will also contrive to save something out of the charges for the keep of horses, by substituting chopped oat or pea straw for hay; and turnips, potatoes, or other cheap food for corn. On large farms much of the work may be let by the piece, occasionally at less than the estimated allowances, and more harrowing, ploughing, and dragging may be performed in the given time, on convenient farms in good cultivation.

In forming an estimate of the expense of labour incurred in working land, it may be observed, that the weather being so variable, renders it impossible to make use of precisely the same means of tillage even for two seasons together; and that

if the articles of agreement by which the farm is held be fulfilled, the tenant is at liberty, in other respects, to work the soil in what manner he thinks proper; and therefore is not obliged, nor will he always find it convenient, to follow the method of cultivation here described. But, although these objections to previous calculations may appear insurmountable, it is certain that rents must be ascertained by some means. We certainly cannot show the rent that will be equitable at all times, but must endeavour to judge from experience, and the probable average of future prices. This teaches us to take into consideration the fluctuating price of corn, and an average of the labour and produce of the last eight or ten years, according to the most approved courses of husbandry; which will show in some measure what labour will be required in future.

In order to explain the manner of ascertaining rents and tillages, it is in-

tended to value the farm first for the rent, and afterwards for the tillages which would be allowed for, according to the custom of the country where the farm is situated.

The plan of the farm laid down at the beginning of this book represents a plot of land in the West Riding of Yorkshire, and consists of sixteen fields, containing fifteen acres each, besides the homestead, which measures exactly two acres.

That part of the plan coloured with pink is a dry turnip soil, on a gravelly subsoil, and is well adapted to the growth of turnips, barley, clover, and wheat. The other part is a strong stiffish loam, on a retentive clayey subsoil; which, although not calculated for growing turnips with success, is capable of producing by good management heavy crops of wheat, beans, and oats; and occasionally clover and barley might be introduced for a change.

The light land graduates into the

strong in a regular manner, as shown upon the plan by the light shade round the colour. Across the middle of the fields Nos. 9. 12. and 13., the soil is remarkably stiff and stubborn; and, in consequence of their lying nearly on a level with the adjoining brook, are often overflowed with water. The quality of the soil in Nos. 10. and 11. may be taken as a medium betwixt those just mentioned and Nos. 14. and 15. Nos. 1. 14. and 15. are excellent strong soil, and often grow heavier crops of wheat than any of the light land.

The course of the canal, and the boundaries of the farm, may be relied on as correct, having been taken by actual inspection and admeasurement. This is not exactly the case with the fences and homestead. To render the plan more complete, the fences have been straightened a little with the ruler; and the homestead has been entirely removed from a village adjoining the northern

boundary. This arrangement makes the farm more compact, and increases the value of the land immediately round the buildings.

ON DIFFERENT TIMES OF ENTRY.

Farms are entered to at different periods of the year. The first of January is by some preferred, on account of its commencing the year. The second of February, Candlemas day, is the most ancient and most common time of entry to land, and the thirteenth of May, Old May day, to buildings. These times are inconvenient on account of being separate, and not allowing the oncoming tenant the use of the buildings for three months, at a busy time of the year. When an oncoming tenant has to remove a considerable distance from one farm to another, the inconvenience of having his property divided at two places for three months is severely felt. The twenty-fifth

of March, Lady-day, is a more suitable time for entering to the land and buildings together. Winter is then over, seed time is at hand, and nearly all the straw of the last crop made into manure.

Michaelmas entries are usual in some districts, especially in remote situations, where corn is not much cultivated. The most common periods of entry and quit-tance are assumed in the following pages, in order that the different estimates may be more generally applicable.

ARTICLES OF AGREEMENT.

The farm is occupied under the following yearly agreement; namely, the land to be held from the second day of February; and the homestead, comprising the buildings, yards, gardens, and orchard, from the thirteenth day of May following, for the term of one whole year certain, from each respective time; and afterwards from year to year, so long as

each party can agree. The possession to be given up at the termination of any one year, upon six months' previous notice being given from either party to the other for that purpose. The rent to be paid half-yearly, by equal portions; at Whitsuntide and Martinmas. The first half year's rent to be paid at Whitsuntide following the day of entry. The tenant to pay all taxes and assessments, and to have at all times one fourth of the farm in grass; which must have been laid down upon a fallow crop, and manured with eighteen cubic yards of rotten dung per acre, or other manure of equal value, at least three years previously to the time of quitting. Not to take more than two white crops betwixt fallowing; and then to manure with not less than eighteen cubic yards of rotten dung, or other manure of equal value, per acre. Also, not to take more than two crops of hay successively from any grass-land, without manuring with fifteen cubic yards

of such dung, or other manure of equal value, to each acre, immediately after taking off such second crop of hay ; and not to sell or dispose of any hay, straw, or other produce from off the farm, except corn. To expend and spread upon the land yearly and every year the dung and other manure made therefrom, or made upon the premises. Not to let, or assign over, any part of the land or premises without consent of the landlord ; and to keep and maintain the land, buildings, fences, gates, and stiles, in tenantable repair. The landlord and his agents to have full liberty to shoot and course, to take down and carry away any timber growing upon the farm ; to examine the buildings thereon ; and to dig and carry away any minerals, which are hereby reserved to the landlord, a reasonable compensation being made to the tenant for damages done to the soil or fences in taking away such timber or minerals. Upon the above conditions being com-

plied with, and peaceable possession being given to the landlord or his agent, the tenant to be paid such sum of money as two indifferent persons, one to be chosen by each party, or their umpire, shall deem a proper and reasonable compensation for the manure, tillages, half tillages, and other matters and things done and left in a husbandlike manner, being what is usually allowed by landlords to tenants on quitting their farms. The amount of such valuation, after deducting the dilapidations (if any), to be paid by the landlord or the incoming tenant.

ON THE VALUE OF LABOUR.

It is well known that the value of labour is in some measure regulated by the price of corn; and although the value of the latter has fluctuated, and had more sudden advances and rapid falls than the former, yet the value of labour has followed leisurely at a distance, and at pre-

sent bears about the same proportion to the price of corn that it did several centuries ago. The profits obtained from the improvements in agriculture, by the introduction of clover and turnips, and superior implements, will balance the modern charges and expenses of poor and highway rates. Upon this principle, it is presumed, as a foundation for the following calculations, that a labouring man's daily wages are equal to the price of a peck of wheat, which has been a fair proportion from time immemorial. For in the oldest books written upon agriculture, we are told that quantity has been found an adequate discharge of the workman's hire per day; and even now, the comparison holds equally good in an average of years. In ascertaining the rents and profits of farming, the price of wheat is the general standard to be observed. All other produce rises and falls in value on an alteration in the price of wheat. This may not always happen

immediately; but comes about leisurely and certainly on any material change. Wheat is an article of the first necessity, and a market for it may be commanded at any time, regulated by the consumption and demand.

During the last seven years the average price of wheat has been about eight shillings per bushel, throughout England. This will be taken as a scale from which to ascertain the rent, and to which, it is intended, the value of every operation shall bear a relative proportion. Hence, when wheat sells for eight shillings per bushel, the labourer's wages will be two shillings per day; if nine shillings per bushel, the wages will be two shillings and three-pence per day, and so on in proportion. This is not always the case; but in assuming a general average for the purpose of forming a calculation, it will perhaps arrive as near the truth as any method yet discovered.

EXPENSE OF HORSES.

In the next place, it is necessary to enquire what the labour of farming horses should be charged per day: for which purpose it is supposed that the horses are kept upon hay, beans, and oats, during winter; and green clover, grass, or tares, mown into the yard, and occasionally beans and oats, when hard-worked, during the summer and harvest. A horse will eat, when at work, two and a half or three stones of dry clover, or hay, per day, besides half a peck of mixed oats and beans.

The quantity of corn given should be regulated by the quality of the hay. Therefore, if the hay be inferior, the horses will require more corn; and the overvalue of the increased quantity of corn will make up, and sometimes exceed the deficiency of hay.

A horse will eat nearly three times the weight of clover, or grass, in a green that

he will in a dry state ; but upon this head we cannot be exactly certain, since so much depends upon the green fodder, whether cut in an old or young state. Natural grass, and green clover, are found to diminish to about one fourth of their weight when made into hay.

In the following calculations, it is assumed that the horse is turned upon the stubbles for a month or two, after harvest, during the night-time, and occasionally fed on bean or sweet-pea straw, in the shortest days in winter, when not much engaged in work. But it is generally found that horses, when turned on the stubbles, return from the field in the morning nearly as hungry as when they went, and require nearly as much hay and corn as if they had never gone. The number of days a horse is actually engaged in husbandry in a year can only be determined by forming a supposition from experience. Formerly, horses were only used in the spring, summer, and

autumn; and in these seasons they probably were not engaged above three days in the week, besides remaining almost totally inactive during the winter. But since the introduction of threshing machines, of the new systems of husbandry, and of road-making, their strength is more required, and their work is now become much more regular. On an average, they may be stated to work at least 200 full days in 365. Deduct 52 Sundays from 365, and there remains 313; and thus 113 days are allowed for hinderances of rain, parts of days, and rest.

*Estimate of the average Value of a Horse's
Work for one Day.*

When wheat sells for 8s. per bushel, oats may be stated at 2s. 8d., beans at 5s., and hay at 4l. per ton.

The relative proportions of the prices of grain, according to the regulation for importation, are, barley half the price of

wheat per quarter, and oats one third less than barley. Therefore, if wheat be 8*s.* per bushel, barley will be 4*s.*, and oats 2*s.* 8*d.* Since the beer duty was taken off, barley has risen in price, and will probably henceforward average 5*s.* per bushel.

Eight horses will, in general, consume two tons of hay in a fortnight, besides half a peck of corn each per day, when at work: consequently one horse will eat about 42 lbs. of hay per day.

A horse having hay 185 days in the year, and consuming 42 lbs. per day, about three tons and a half will supply him per annum; and eating green clover or grass 180 days, and using 112 lbs. per day, nine tons will be the yearly supply.

In the following estimate the horse is supposed to have corn, about two thirds of the year, at the rate of half a peck of mixed oats and beans per day.

A farm of 242 acres will require nine horses, and the following implements of

husbandry, to work the arable land. Much more capital than is here included is necessary for the occupation of a farm of this extent; but which cannot be considered as belonging to the cultivation of arable land, and must, therefore, be charged upon the produce whence its profits proceed.

	£	s.	d.
Nine horses, at 20 <i>l.</i> each, -	180	0	0
Harness for ditto, -	30	0	0
Two waggons, at 20 <i>l.</i> , -	40	0	0
Four carts, at 12 <i>l.</i> , -	48	0	0
Four ploughs and gear, at 2 <i>l.</i> , -	8	0	0
Two pair of drags, -	3	0	0
Five pair of harrows, -	7	0	0
Two rollers, -	5	0	0
One chopper, -	6	0	0
One machine for dressing corn,	2	0	0
Sixty corn bags, at 3 <i>s.</i> , -	9	0	0
Scythes, rakes, forks, ropes, &c.,	10	0	0
Divide by the number of horses, 9)	348	0	0
Average capital per horse,	38	13	4

	£	s.	d.
Ten per cent. per annum on ditto,			
for wear and tear, - -	3	17	4
Smith's work per horse per annum,	1	15	0
Wright's do. do. do.	1	10	0
Sadler's do. do. do.	1	1	0
	<hr/>		
	8	3	4
Three tons and a half of clover or			
hay, at 3 <i>l.</i> per ton, - -	10	10	0
Nine tons green clover, or grass,			
including mowing and carrying,			
at 15 <i>s.</i> per ton, - -	6	15	0
Eighteen bushels of oats, at 2 <i>s.</i> 8 <i>d.</i>			
per bushel, - -	2	8	0
Nine bushels of beans, at 5 <i>s.</i> do.	2	5	0
	<hr/>		
	30	1	4
A horse is supposed to work 200			
full days in the year, which, at			
3 <i>s.</i> per day, amounts to -	30	0	0
	<hr/>		
	0	1	4
	<hr/>		

This estimate may be varied many ways, by different implements of husbandry, and food, and produce different

results. An average is here attempted to be shown, taking care to state the charges and quantities high enough to allow industrious and careful managers an opportunity of clearing something out of them towards a livelihood. Ten per cent. is allowed for wear and tear; besides the charges of smith's, wright's, and saddler's work for repairs, and the carriages, implements, and horses are supposed to last only ten or fifteen years; whereas, in careful hands, they commonly last twenty or thirty years. Some farmers are in the habit of working their land with young horses of their own breed, and selling them off at six or seven years old. By this means their value is augmented by ten per cent., instead of being diminished. The quantity of corn allowed will, by some, be thought extravagant for the number of days of actual work. No doubt, the vigilant farmer will here be able to curtail the expense.

By the above calculation it is shown,

that when wheat sells at 8s. per bushel, the value of the labour of a horse engaged in husbandry, under these circumstances, may be stated at 3s. per day, including the decline in the value of the horse, and wear and tear of carriages and farming implements. By classing these different items together, the calculations of labour, which are introduced in a following part of this work, will be rendered more simple and precise, than if entered singly under their respective heads.

PLOUGHING, HARROWING,

AND

DRESSING

RICH TURNIP SOIL,

FOR

Turnips, Barley, Clover, and Wheat.

COURSES of crops are varied according to the quality of land, situation, and local value of produce. Near large towns and in populous districts, potatoes, turnips, and carrots, are much cultivated. These are taken with corn alternately, except when clover or grass is introduced for a change. In more remote situations, rotations of four or six years are adopted. On fine turnip soils, the most prevailing course is the four years' shift, namely, turnips, barley, clover, wheat; or turnips, barley, beans, wheat.

Turnips and clover too often repeated on the same land frequently fail, and cannot be cultivated with much success, without an interchange of other ameliorating crops. It is a favourite practice with many farmers to sow red clover once in twelve years, and supply its place in the intervening rotations with beans and white clover; others renovate the soil by allowing it to remain in seeds or grass occasionally for several years together. Each rotation has its own peculiar advantages, and may prove profitable or otherwise, according to the altered circumstances of the times. For an average, the most common course of cropping turnips, barley, clover, wheat, will be the most generally applicable, and is therefore detailed in order to show the labour and expenses of cultivation.

First year for turnips. The land is supposed to be wheat stubble, after sustaining turnips, barley, beans, and wheat, since the last fallow, which have left it in tolerable condition.

The first ploughing is given a little before Christmas, and the fence sides are stubbed during the winter. This first ploughing is commonly called fallowing down, and is performed at different depths, according to the discretion of the occupier. Some farmers are of opinion that this first furrow should be given ten or eleven inches deep, where there is sufficient earth, in order that a large portion of soil may be exposed to the winter frosts; and others think the shallower it is ploughed the better, if the soil be only turned up to the depth of the couch or other root-weeds in the land. In support of the latter opinion it is urged, that the less quantity of earth is mixed with the first and second ploughings, the less labour will be required to dress out the couch; and by this means the land is nearly cleaned in the second dressing. Whereas by ploughing deep, such a large portion of the soil is mixed with the couch, that four dressings are found necessary.

By the last method, it must be admitted, that a greater quantity of vegetable mould is prepared for the use of the turnips, which being exposed to the air at an earlier period, proves more beneficial than when suffered to remain unmoved till the latter dressings.

When the two first ploughings are made with a light furrow, the third is taken a little deeper, and turns up a portion of the soil that has not been pulverised probably since the last fallowing, and consequently, being of a dead nature, is not in a fit state for producing a crop. This objection is entirely obviated when the soil is turned up a good depth in the first instance, by the whole having the benefit of a winter's rate, and more frequent exposure to the air, which renders the under-soil as fit for vegetation as the other. But when soil is thin, and upon a clayey, gravelly, or rocky foundation, it is, no doubt, more advisable to be governed by its depth, and only fetch

up the vegetative earth. The deeper ploughings require more labour, and apparently ought to bear a greater value: but how much more, can only be determined by the quality of the turnips and the succeeding crops.

After the first ploughing the land remains till the spring, when the second ploughing is generally given across the first. In both cases, a man with a pair of stout horses abreast will turn over, upon dry turnip-soil, from three roods to an acre per day. The first ploughing requires rather more strength than the second; and if performed a good depth when days are short, three roods will be found a moderate day's work.

If the weather be tolerably fine for a fortnight or three weeks after the second ploughing, the fallow will be in a proper state for dragging across, which should be done twice over at least. Six horses and two men, one to hold and the other to drive, are required to perform this

work, and ought to drag from four to five acres well, twice over per day.

In farms consisting of less than 150 acres, where six horses are not required, the dragging cannot be done as here described; they must therefore be supposed to have smaller drags, suitable to the number of their horses. The expense of each will be found on comparison nearly equal: so that no difference need be made in the value of either method on this account.

After the fallow has remained to dry a few days, it will be necessary to make use of the roller; which must be sufficiently heavy, this first time over, for the full draught of three horses, or it will have little effect. This operation may be stated at eight acres per day.

The heavy, or ox-harrows, are next required to work the ground twice over; which ought to be weight sufficient for the draught of four horses, and take two yards in breadth. One man, and if the

harrows do not clear themselves, a boy must go with them ; and ought to harrow nine acres once over per day. But if the land be very foul, these harrows are of little service immediately after the first rolling ; and their place may be better supplied by making use of the drags again, once in a place. After either case rolling will be found necessary, with a man and a pair of horses ; which ought to do nine or ten acres per day, if the weather be fine. The heavy harrows are next used, as mentioned above, once or twice over, according to circumstances, and are followed by rolling and harrowing. This operation is best performed by fixing the harrows behind the roller ; which takes four horses, a man, and a boy, to work them, at the rate of ten acres per day, once over. It is commonly found necessary to roll and harrow the land three times over this first dressing ; but if the fallow is not very foul, twice may be sufficient. The couch is next

gathered up and burned, if the weather will permit; but if not, it is either conveyed into large heaps, or taken into some convenient place.

The fallow next receives a third ploughing, which may be done by one man and a pair of horses, at the rate of one acre, or where the soil has received two deep ploughings previously, five roods per day. It is then dragged by two men and six horses once over, at the rate of nine acres per day; which is again followed by rolling with a man and a pair of horses. Heavy harrows should next be applied once over, and rolling and harrowing twice, which brings the land into a proper state for couching. The fallow being ploughed a fourth, and dressed a third time, ought to be well prepared for receiving the rotten dung for turnips. Ten or twelve three-horse cart-loads, containing each fifty solid feet, or nearly two cubic yards, are found sufficient for manuring one acre in a tolerable manner;

to which may be added, every third or fourth fallow, four chaldrons of lime. It is here presumed that the dung has been produced by the farm, thrown up into a heap, and turned either in the yard or some other contiguous situation, or perhaps taken at once into the field intended for turnips.

*Estimate for carrying and spreading
Dung.*

To fix a value per load for this work in every situation is impossible; but if the fallow lies near the homestead, it may in some measure be ascertained by the value of the labour required. It is well known that one man can fill from 10 to 15 loads* of dung per day, for which (being hard work) we must suppose he receives 2s. 6d. Four men filling forty-eight loads per day would require three

* Fifty cubic feet of dung are equal to one load.

44 CARRYING AND SPREADING DUNG.

carts and five horses, two boys to drive,
and one man to drag it out of the cart.

	£	s.	d.
Four men to fill 48 loads of rotten			
dung per day, at 2s. 6d.	-	0	10 0
One man setting on, 2s. 6d.; two boys			
driving, at 1s. 6d. each,	-	0	5 6
Three carts and five horses, at 3s. 3d.			
per horse,	-	0	16 3
The manure will probably have set-			
tled in bulk one third since it was			
thrown up or carried out of the			
fold, consequently there would be			
at that time 72 loads in a raw state,			
which would require as much la-			
bour per load as the above; there-			
fore, say one third more than 31s.			
9d. is	-	2	7 7
The dung-heap will take a man nearly			
three days to turn it,	-	0	6 6
Three men spreading 48 loads of			
dung per day, at 2s. 6d.	-	0	7 6
	£	4	13 4
48 loads, at 1s. 11½d. per load,			
amounts to	-	4	13 0
		0	0 4

It may be inferred from this estimate, that in valuing under the above circumstances, when labourers' wages are from 2s. 3d. to 2s. 6d. per day in summer, 2s. per load may be considered a customary price for carrying and spreading dung produced by the farm-yard. If the dung be thrown up in the yard where it is made, and suffered to remain until it is turned, and then conveyed at once into the field, a considerable expense will be saved by not requiring the carts and horses for more than one carrying. But this can seldom be done except where farm-yards are very spacious, and in consequence bear a greater rent than small ones. If any profit be derived from superior skill and management, surely the tenant is entitled to it, to make up, in some measure, for the many unforeseen accidents and increased expenses that arise, and against which it is impossible to guard. On this account, the price of labour ought to be stated rather too high

than too low, in order that industrious and careful managers may be able to keep their expenses below the scale here laid down.

When it is intended to sow turnips broadcast, and the land is made thoroughly clean, and is perfectly pulverised, the dung is spread and ploughed in by the seed furrow; which may be done at the rate of six roods per day. One pound of seed per acre is generally found sufficient for drilling, and one pound and a half for sowing broadcast. On large farms, where a great quantity of turnips are grown, one man may sow ten acres per day broadcast, but on smaller ones, growing less than thirty acres in a season, it is seldom found necessary or convenient to sow more than five or six acres each day, and the sower's spare time is occupied in superintending and assisting in the other operations; therefore, five acres may be taken as a daily average quantity. One horse and a boy with a pair of light

harrows, or a frame drawn with thorns, are required to cover the seed, and the breadth of ground done must of necessity be regulated by the quantity sown. With regard to drilling, it may be reckoned at least twice the labour of sowing broadcast. There is such a great variety of turnip-drills which take a different number of rows at the same cast, and which require more or less labour according to circumstances, that it would be extremely tedious to attempt to describe the expenses attendant upon each. Some take one, some two, and others three rows at once. If we suppose the greatest number, three, we shall find that, besides the additional labour of forming the ridges, the drill requires a horse, a man, and a boy, to keep it in motion, and only being capable of sowing four or five acres per day, renders this method of sowing turnip-seed twice, and in many cases three times, the expense of sowing broadcast. These observations are not made with a view to

condemn the system of drilling turnips, but to point out the necessity of enquiring into the quantity of labour bestowed when calculating the expenses of sowing. Drilling has been frequently proved to produce greater crops than sowing broadcast, under equal circumstances as to the quality and condition of the soil. This advantage may be attributed, in a great measure, to the regularity in which the plants are capable of being placed, and to the seed being scattered immediately upon the manure. The reason drilling is not more generally adopted, is probably owing to the difficulty of getting it well performed, which, if not the case, will frequently prove less beneficial than sowing aloft.

The labour of the turnip-crop will be completed by hoeing them well twice over; the first time when the plants are in rough leaf, and the second about a fortnight after. It is expected that the plants are set out about one foot in dis-

tance from each other during the first hoeing, and that the spare ground is worked completely over. One acre is commonly found to be a sufficient day's work for three men.

The second hoeing is generally worth half as much as the first; but this depends upon the season and the manner in which the first has been performed. If the plants have not been well singled during the first hoeing, or if the season has been wet, so as to make the weeds strike rapidly afresh, one acre will require two men a whole day to hoe them in a workmanlike manner. An abundant turnip-crop is so very desirable, that too much pains cannot be taken in hoeing and making the land perfectly clean; because upon this crop, if eaten on the ground by sheep, chiefly depends the success of the crops taken afterwards. On this account, if weeds still continue to strike and grow, notwithstanding the land has been well

hoed twice, a third hoeing will be found very beneficial.

The next operation after the turnips are cleared off, is to plough the land for barley, in March, ready for either sowing aloft or drilling, before the month has expired. One man and a pair of horses generally plough fine land for barley at the rate of one acre per day. Four bushels are sufficient for sowing that quantity broadcast, and three for drilling. There is very little difference in the labour of these two modes of sowing barley, for it is quite necessary to harrow the land well in either case ; and although the drill requires an extra horse and boy, yet it must be observed that the coulter divide and pulverise the soil as much as one harrowing. A drill taking seven rows at once, at seven inches apart, will, if well employed, sow five acres per day, which is commonly found to be a proper quantity upon farms where less than

thirty acres are sown in one season. The saving of seed also is an important object in favour of drilling barley. Three bushels of seed deposited in this manner upon fine land will provide a sufficiency of plants in almost any season. But if the weather be very fine and warm, and the seed clean and good, two bushels and a half, or even two bushels, may be applied with success. As it is impossible to foresee what changes may take place in the seasons betwixt the time of sowing and reaping, the quantity of seed that is necessary can only be regulated by the state of the weather, the quality of the seed, and the condition of the land at the time of sowing. However, in order to insure a crop, in all seasons it is more advisable to use too much seed rather than too little, and three bushels for drilling, and four for sowing broadcast, in favourable circumstances, will prove a fair average. When barley is sown thin on rich soil, the straw is apt to grow long

and coarse, and consequently does not prove so good for cattle; neither is the corn so bright a sample as when grown thick on the ground. Fine land generally requires four harrowings and two rollings to render the soil of a proper tilth for barley, which may be done at the rate of ten acres per day for each harrowing and rolling.

When the barley has grown a few inches above the soil, ten or twelve pounds of clover-seed may be sown per acre, which will take one horse, a man, and a boy, to sow ten acres per day. The next operation after sowing the clover-seed, is gathering the stones lying on the surface, which is commonly done by women and children, at different prices, according to the labour required. Upon soils which are almost free from stones, this work is unnecessary, therefore no allowance needs here be made. The barley, if not perfectly clean, is hand-weeded in May or June, which will

cost about 1*s.* per acre. The crop now remains undisturbed till harvest. A man and a woman will reap, on an average, one acre and a half in two days, for which they may be said to receive (when wheat sells for 8*s.* per bushel) 13*s.* 6*d.*, or 9*s.* per acre. The expense of carrying and stacking depends upon the distance of the field from the premises. Suppose it be not more than half a mile, seven horses, four men, and two boys, will carry eight or ten acres per day. If we take the latter number, the expenses may be stated as follows : —

	£	s.	d.
Three waggons or carts will require seven horses at 4 <i>s.</i> each (being harvest), - - -	1	8	0
Four men, say 4 <i>s.</i> each, - -	0	16	0
Two boys at 2 <i>s.</i> 6 <i>d.</i> - -	0	5	0
Thatching, and other trouble, - -	0	6	0
	<hr/>		
	£2	15	0
Ten acres, at 5 <i>s.</i> 6 <i>d.</i> per acre, is	2	15	0
	<hr/> <hr/>		

Thrashing barley, whether performed by hand or by a machine, will be moderately stated at 2*s.* per quarter, or 10*s.* per acre. Barley can undoubtedly be thrashed better, and at a less expense, by the latter method than the former; but so much depends upon the construction of the machinery, and its tendency to get out of repair, that it would be fallacious to attempt to make a distinction in the prices. Besides, thrashing machines are only used upon large farms, and even upon such they are not yet become general. In most cases, barley deserves 2*s.* 6*d.* per quarter for thrashing and winnowing by hand-labour; whilst the same work is frequently done for 1*s.* 6*d.* by machinery: therefore, 2*s.* per quarter, or 10*s.* per acre, may be stated as a medium.

The expense of selling and delivering the barley varies according to the distance from the market or the place where it is delivered, which here is supposed to be

four miles, and 1*s.* per quarter may be allowed.

The next labour required is securing the clover crop, which is generally cut the first time in July, and the second in the latter end of September, or the beginning of October. The value of the labour of this work is, of course, ruled, in a great measure, by the strength of the crops. If the first be moderately strong, the mowing and making into hay will deserve about 8*s.* per acre, and the second 2*s.* less. The carrying and stacking, if within one mile of the homestead, may be averaged at 8*s.* per acre for the first crop, and 6*s.* for the second. There may be some little pasturage left, after the latter crop of clover has been taken; but as it occurs at a time when meat is plentiful throughout the farm, it is often thought a more judicious plan to plough it in with the seed furrow, for the benefit of the following wheat crop; therefore its value here needs not be noticed.

In ploughing clover ley for wheat, on fine land, one acre is found to be a day's work for one man and two horses; which will require, if sown by hand, three bushels of seed.

To sow ten acres broadcast, or to drill five, is commonly thought a sufficient day's work. As it is rather doubtful whether any more profit arises from the latter mode of sowing than the former, and as drilling wheat is only found practicable in particular seasons and situations, the advantages occasionally derived from it, by the saving of seed or otherwise, may be allowed for the extra labour required.

The clover ley will require, in most cases, five harrowings, and two rollings, when sown with wheat; one rolling being given when the seed is sown, and the other in the following spring. Weeding is the next operation, if any be required; but as the land is in regular course after fallow, few weeds will appear

of any account. Nothing now remains to be done till harvest, when the expense of labour for reaping, carrying, stacking, thrashing, and conveying to market will be nearly as follows; namely, reaping, 12s., carrying and stacking, 5s. 6d., thrashing, 12s., marketing, 6s. per acre.

Having pointed out the labour required through a whole four years' course of husbandry, we shall now proceed with the necessary calculations.

Estimate of the first Year's Expense upon one Acre,—Fallow and Turnips.

	£	s.	d.
First ploughing at Michaelmas, one man and two horses, including wear and tear, -	-	0	8 9
Stubbing and fencing, -	-	0	0 6
Second ploughing at Spring, -	-	0	8 0
Dragging twice over, -	-	0	4 0
Rolling, one man and three horses, ten acres per day, is, per acre, -	0	1	2
Harrowing, one man and four horses, twelve acres per day, is, per acre, -	0	1	3
Carry forward,	£1	3	8

58 EXPENSES OF TURNIP SOILS.

	£	s.	d.
Brought forward,	1	3	8
Rolling and harrowing twice over, -	0	4	0
Dressing and burning couch, -	0	1	6
Third ploughing, -	0	7	6
Dragging once over, -	0	1	6
Rolling and harrowing twice over, -	0	3	6
Dressing and burning couch, -	0	1	6
Fourth ploughing, five roods per day,	0	7	0
Harrowing and rolling, -	0	4	0
Dressing and burning couch, and gathering stones, -	0	1	0
Ploughing, seed, furrow, and sowing,	0	7	6
Five dressings, - - - $\frac{1}{5}$)	£3	2	8
Average for each dressing, -	0	12	6
Five dressings brought down, -	3	2	8
Ten loads of manure, at 10s. per load,	5	0	0
Turnip-seed, two pounds, at 1s. per pound - - -	0	2	0
Hoeing twice over, -	0	10	6
Suppose three chaldrons of lime are applied every third fallow, there- fore say one chaldron, - -	0	9	0
Carrying ten miles, at 9d. per mile,	0	7	6
Watering and spreading, -	0	2	6
	£9	14	2

Second Year,—Barley.

	£	s.	d.
Ploughing, - - -	-	0	9 0
Harrowing twice over, - -	-	0	1 10
Rolling and harrowing four times, -	-	0	6 6
Seed, four bushels, at 5s., -	-	1	0 0
Sowing, 6d., rolling, 1s., weeding, 1s. 6d. - - -	-	0	3 0
Reaping, 9s., carrying, stacking, and thatching, 7s., -	-	0	16 0
Thrashing five quarters, at 2s., -	-	0	10 0
Winnowing and marketing, -	-	0	11 0
	£	3	17 4

Third Year,—Clover.

	£	s.	d.
Ten pounds red clover seed, at 9d.,	0	7	6
Four pounds trefoil, at 5d., -	-	0	1 8
Sowing, 6d., harrowing, 8d., -	-	0	1 2
Mowing and making two crops at 8s., and 6s., - - -	-	0	14 0
Carrying and stacking, -	-	0	12 0
	£	1	16 4

Fourth Year, — Wheat.

	£	s.	d.
Ploughing, - - -	0	9	0
Seed, three bushels, at 8s. per bushel, - - -	1	4	0
Sowing, 6d., harrowing, 1s. 4d., -	0	1	10
Harrowing and rolling four times over, - - -	0	8	0
Weeding, 2s., rolling, 1s., -	0	3	0
Reaping, 12s., carrying, stacking, and thatching, 7s., -	0	19	0
Thrashing 27 bushels, at 6d., -	0	13	6
Winnowing and marketing, -	0	10	0
	<hr/>		
	£	4	8 4
	<hr/>		

Expense of the Four Crops.

	s.	d.
Turnips, - - -	9	14 2
Barley, - - -	3	17 4
	<hr/>	
Carry forward, £	13	11 6

			£	s.	d.
Brought forward,	13	11	6		
Clover,	-	-	1	16	4
Wheat,	-	-	4	8	4
			<hr/>		
			1	19	16 2
			<hr/>		
Average,	-	-	£4	19	0
Add for tithe *, 12s., taxes, 6s.,			0	18	0
			<hr/>		
			£5	17	0
Interest on £5. 17s. at 10					
per cent.,	-	-	0	11	8
			<hr/>		
Average expenses for one					
year,	-	-	£6	8	8
			<hr/>		

Produce of the Four Crops.

			£	s.	d.	
Turnips,	-	-	-	3	0	0 ×
Barley, five quarters, at 40s. per quar-						
ter,	-	-	-	10	0	0
Barley straw, one ton and a half,						
at 22s.	-	-	-	1	13	0
			<hr/>			
Carry forward,	£14	13	0			

* Tithe of turnips is not collected, and tithes of grass and hay are covered by modus.

	£	s.	d.
Brought forward,	14	13	0
Clover, first crop, one ton and a half,			
at 50s. per ton, -	-	3	15 0
Ditto, second crop, one ton, at 40s.			
per ton, -	-	2	0 0
Wheat, 27 bushels, at 8s.	-	10	16 0
Straw, one ton and a half, at 22s., -	-	1	13 0
	$\frac{1}{4}$)£	32	17 0
Average produce of one year, -	-	8	4 3
Deduct average expenses of ditto, -	-	6	8 8
Remains for rent, -	-	£1	15 7

The wear and tear of harness and farming implements are included in the horse charges.

The tithe is shown to be 12s. per acre, and is found by dividing the average value of produce, not including the turnips and hay, by ten. It is obvious that if the land was tithe-free, the rent would be 2*l.* 7*s.* 7*d.* per acre on land of the finest quality.

Hence it appears, that when wheat

sells for 8*s.* per bushel, and other produce in the proportion above stated, and when other profits and outgoings are similar, the rent of fine turnip soil, such as that portion of the plan coloured pink, may be stated at 35*s.* 7*d.* per acre. If the price of wheat average only 6*s.* per bushel, and the value of labour and other expenses lower in proportion, the rent should be reduced, as 6 is to 8, or one fourth. Thus it is obvious that the rent demanded for land should always, if possible, bear a proportion to the profit derived from it. The current price of grain is the general standard by which the profit arising from land is ascertained; and the prices of all kinds of grain are commonly regulated by the value of wheat. Therefore, in farms chiefly adapted for the growth of corn, a scale may be formed by which the rent of land, after being once valued, can be altered, either higher or lower, according to the current price of wheat. This may be easily done, by

having each field valued according to its relative worth; the whole is then added together, and an average taken of the whole farm, from which a table may be formed in the manner following:—

If wheat sells for 4s. per bushel, the rent of	
fine rich soil should be 15s. per acre.	
If.....5s.	20s.....
If.....6s.	25s.....
If.....7s.	30s.....
If.....8s.	35s.....

And so on, increasing or lessening 5s. per acre for every variation of 1s. per bushel in the price of wheat; providing that a corresponding alteration takes place in the value of labour and other expenses.

It must here be observed, that the rent stated in this table is only applicable to land of the finest quality, and in such circumstances and situations as that part of the plan of the farm coloured pink. But although this statement of rent may

only apply to a single farm, yet it is humbly presumed that the scale of any farm may be easily ascertained in the same manner; which, when once obtained, may be used by the landlord for the purpose of raising or settling his rents according to the existing times.

By comparing the results of the foregoing and succeeding estimates for rent, it will appear, that the rent of poor and fertile soils should not be fixed by the relative value of their produce, but by a comparison of the profits which remain after deducting the expenses from the produce. The labour and expenses of cultivating each are nearly equal, but the value of their produce is generally very different; which constitutes the difference to be made in the rent.

RENT OF CLAY SOILS.

THE rent of strong clay soils, such as those fields in the plan numbered 12 and 13, must be ascertained by the same method which has been followed for fine soils, in order that a contrast may be made, whereby the value of the intermediate qualities may be fixed on comparison. This sort of land is supposed to be cropped according to the most common course of husbandry practised upon strong soils; namely, first year, fallow; second, wheat; third, clover or beans; fourth, wheat or oats.

In many districts this system of management is now losing ground, and some farmers are in the habit of fre-

quently prolonging the period of summer fallow to every sixth or eighth year; whilst a few others are of opinion that clayey land may be kept under a constant succession of crops, by adopting the row culture, and taking leguminous and culmiferous crops alternately.

Whether summer fallows upon strong soils are or are not necessary, is a question that has been frequently disputed, and which will perhaps ever remain undetermined whilst seasons continue changeable: for it is certain that the success of fallowing, ploughing, and sowing, depends in a great measure upon the state of the weather, and can never be properly carried on unless the season be dry and favourable.

After an early harvest, if the weather be very fine and dry, and the farmer be able to apply an adequate force, ground in a foul state may be nearly as effectually cleared of root-weeds and couch as if the

whole year was sacrificed for that purpose. The manure may then be laid on, and the land sown with wheat the same season, or stand over for barley or oats till the spring following. If this plan of cultivation fail, the dressings are generally resumed in the spring; when, if the land can be made sufficiently clean, barley or oats may be sown; but if not, there is still another chance of raising a crop by preparing for turnips or rapes; which, when eaten on the ground by sheep in dry weather, leave the soil in better condition for the succeeding crops than if suffered to remain a plain fallow throughout the whole year.

Great spirit and activity are requisite for carrying on this course of management during fine weather; otherwise, if a wet season should set in before the fallowing operations are finished, the labour already bestowed may be rendered in a great measure useless.

Although root-weeds may be eradicated

from strong soils by a quick succession of ploughings, harrowings, and dressings, in dry seasons, yet this is not the case with the seeds of weeds; these require moisture to make them vegetate, and time to bring the land frequently into that state in which they can be most effectually destroyed, and which can only be expected to be practicable during the summer months.

In preparing ground for a crop by means of a short fallow, much depends on the state of the soil as to cleanliness, as well as on the seasons, it being evident that, if strong land be extremely foul and full of the seeds of weeds, no crop should be sown until it be thoroughly cleaned, and that no plan of management is so well calculated for this end as a well-conducted summer fallow.

No doubt exists but the quantity of summer fallow, upon soils of a medium quality, may be much reduced by attentive management and favourable seasons;

and if it cannot, consistently with good husbandry, be done away with altogether, it is at least practicable in most cases to defer the operation to a later period, especially if an opportunity be seized of giving the land an occasional dressing during a dry season, in the spring or autumn months, when not sustaining a crop. Great pains should also be bestowed in hoeing and cleaning the crops at every favourable opportunity.

The generality of farmers yet prefer the old custom of three crops and a fallow, as being the surest means of obtaining a return for their labour in all seasons, and preserving their farms in a regular rotation of crops. Besides, by observing a regular course of cropping, the labour of the farm is more equally distributed throughout the year, and will, in consequence, require fewer horses and fewer workmen than when the land is under irregular management and cross-cropping.

All attempts to grow more than three

crops upon strong clayey soils betwixt fallowing is attended with risk, and may in some degree be deemed a speculation; therefore, the tenant cannot, positively, be said to gain any advantage in taking crops out of the common course. So much depends upon the condition of the soil, the seasons, the climate, and other circumstances, that no calculation can be made of the profit yielded by taking crops out of a regular rotation. . If any advantage be derived from spirited and extraordinary management, the land at the same time not being deteriorated, it ought to be awarded to the tenant for the expenses thereby incurred, and for previous speculations of the same nature, in which it is probable he may have occasionally failed.

For these reasons no notice needs be taken of the profits capable of being made by any deviation from the most common course of husbandry, when ascertaining the rent of strong land; but

it should be estimated according to the profits derived from the four years' rotation, including one of fallow. The tenant will then have room to exercise his own judgment in the choice of crops, if not prevented by restrictive clauses in his lease or agreement.

The following estimate is made on stiff loamy soil, which is of sound quality; and, although not suitable for turnips and barley, is capable of growing, in dry seasons, good crops of wheat, clover, and beans. The seasons have great influence on the crops, and consequently on the profits, of strong soils. An average of both is here attempted, which will be applicable, it is presumed, for six or seven years' tenancy.

Estimate of Expenses upon strong Soils.

	£	s.	d.
First ploughing at Michaelmas,	-	0	11 0
Stubbing, fencing, and gripping,	-	0	0 6
			<hr/>
Carry forward,	£0	11	6

	£	s.	d.
Brought forward,	0	11	6
Second ploughing at Spring,	-	0	11 0
Dragging twice over, six horses, one man and one boy, five acres per day,	-	-	0 4 6
Third ploughing,	-	-	0 9 0
Dragging twice over,	-	-	0 4 0
Fourth ploughing,	-	-	0 8 0
Dragging and rolling,	-	-	0 4 6
Ploughing seed-furrow,	-	-	0 8 0
Harrowing twice over,	-	-	0 2 0
Five dressings,	-	-	<u>£3 2 6</u>

Average of one dressing, 12s. 6d.

Second Year,—Wheat.

	£	s.	d.
Ten loads of rotten dung, at 10s.,	5	0	0
Lime, three chaldrons applied every third fallow, therefore one chal- dron,	-	-	0 9 0
Carrying ditto, ten miles, at 9d.,	-	0	7 6
Watering and spreading lime,	-	0	1 6
Seed, three bushels, at 8s.,	-	1	4 0
Carry forward,	£7	2	0

	£	s.	d.
Brought forward,	7	2	0
Sowing, 6d., rolling, 1s., weeding,			
1s. 6d., - - -	0	3	0
Reaping, 10s., carrying and stacking,			
7s., - - -	0	17	0
Thrashing 2½ bushels, at 6d.,	0	12	0
Selling and conveying to market,	0	8	0
	£9	2	0

Third Year,—Clover.

	£	s.	d.
Red clover-seed, ten pounds, at 9d.,	0	7	6
Trefoil, four pounds, at 5d.,	0	1	8
Sowing and harrowing, - - -	0	1	0
Mowing and making, at 7s. and 6s.,	0	13	0
Carrying and stacking, - - -	0	11	0
	£1	14	2

Fourth Year,—Wheat.

	£	s.	d.
Ploughing, clover ley, - - -	0	10	6
Rolling, - - -	0	1	0
Seed, three bushels, at 8s.,	1	4	0
Carry forward,	£1	15	6

EXPENSES OF CLAY SOILS. 75

	£	s.	d.
Brought forward,	1	15	6
Sowing, 6d., harrowing and gripping,			
5s., - - - - -	-	0	5
Weeding, 1s. 6d., rolling, 1s., reap-			
ing, 10s., stacking, 7s.,	-	0	19
Thrashing 20 bushels, at 6d.,	-	0	10
Selling and conveying to market,	-	0	9
	£3	19	6

*Expense of Four Years' Cultivation upon
clayey Soils.*

	£	s.	d.
Fallow, - - - - -	-	3	2
Wheat, - - - - -	-	9	4
Clover, - - - - -	-	1	14
Wheat, - - - - -	-	3	19
	4)	18	0
		4	10
Tithe, 10s., rate 3s., - - -	-	0	13
		5	3
Interest on £5. 3s. at 10 per cent.,	-	0	10
	£5	13	3

Produce.

			£	s.	d.
Wheat, 24 bushels, at 8s.,	-	-	9	12	0
Straw, one ton and a half,	-	-	1	10	0
Clover, first crop,	-	-	3	10	0
Ditto, second crop,	-	-	1	10	0
Wheat, 21 bushels, at 8s.,	-	-	8	8	0
Straw,	-	-	1	6	0
			<hr/>		
			25	16	0
			<hr/>		
Average produce,	-	-	6	9	0
Deduct expenses, say,	-	-	5	13	0
			<hr/>		
Rent for one acre,	-	-	£ 0	16	0
			<hr/>		

The rent is here ascertained upon strong loamy soil, lying convenient to the homestead, and having a good road to it. If springs abound, and break out on the surface, or the soil be thin or of bad quality, deductions should be made according to the reduced quantity and value of produce.

The expenses of cultivation being about the same upon bad strong land as good ;

it is evident, by the above estimate, that when the average produce is not of more value than £5. 13s. 0d., and the expenses continue the same, land is not worth cultivating. The rent should advance according as the value of produce rises above that sum.

The following scale is regulated by the comparative value of produce, and will show the variation of rent on inferior soils : —

	£	s.	d.		s.
Average produce, 6	9	0	...	Rent 16 per acre.	
.....	6	5	0		12
.....	6	1	0		8
.....	5	17	0		4
.....	5	13	0		0

To regulate the rent of such soils by the price of wheat, after the same method that is followed for soils of the best quality in page 64., a scale may be formed as follows : —

	Per Bushel.		Per Acre.
If wheat sells for	5s.	the rent will be	1s.
.....	6s.		6s.
.....	7s.		11s.
.....	8s.		16s.

And so on, increasing or lessening 5s. per acre for every variation of 1s. per bushel in the price of wheat; providing that a corresponding alteration takes place in the value of labour and other expenses.

Having fixed the rent of the best land in the farm at 35s., and the worst at 16s. per acre, the rent of the other dissimilar soils may be easily found by comparison; and the rent of each field in the farm will be as follows:—

	A.	R.	P.	s.		£	s.	d.
No. 1. -	15	0	0	at 17 per acre, is		12	15	0
2. -	15	0	0	- 25	-	18	15	0
3. -	15	0	0	- 35	-	26	5	0
4. -	15	0	0	- 27	-	20	5	0
5. -	15	0	0	- 30	-	22	10	0
6. -	15	0	0	- 30	-	22	10	0
	<hr/>					<hr/>		
	90	0	0			123	0	0

	A.	R.	P.	s.		£	s.	d.
	90	0	0			123	0	0
No. 7. -	15	0	0	- 30	-	-	22	10 0
8. -	15	0	0	- 23	-	-	17	5 0
9. -	15	0	0	- 16	-	-	12	0 0
10. -	15	0	0	- 20	-	-	15	0 0
11. -	15	0	0	- 16	-	-	12	0 0
12. -	15	0	0	- 16	-	-	12	0 0
13. -	15	0	0	- 16	-	-	12	0 0
14. -	15	0	0	- 17	-	-	12	15 0
15. -	15	0	0	- 18	-	-	13	10 0
16. -	15	0	0	- 32	-	-	24	0 0
<hr/>						<hr/>		
240 0 0 at 23 per acre, is						£276	0	0
<hr/>						<hr/>		

By this estimate, the rent of the farm averages 23s. per acre, exclusive of the buildings and homestead.

The amount is carried to page 83., where it is added to the rent of the buildings.

RENT OF BUILDINGS.

THE farm-house and outbuildings are next to be valued and added to the rent. It is objected by some persons that farm buildings ought not to have any rent fixed upon them, alleging the impossibility of profitably holding a farm without them, or the occupation of them without the farm. Whatever rent is fixed upon them must proceed, in a great measure, out of the land with which they are held, and when the land is rented it seems reasonable to conclude that the buildings should be thrown in. This is not, however, exactly the case. The landlord, in many cases, can let land without buildings; and if called on by his tenant to erect a new house or barn, can do so or not at

his pleasure. Land lets for more rent with buildings than without, and so much more as is gained thereby shows their worth. It is customary to value farm buildings at a low rate compared with shops or warehouses, because it is considered that they are partly rented with the land to which they are attached, and because, in some situations, they are indispensable, and farms could not be occupied without them. A difference in the rent betwixt those farms which have suitable and good buildings and those which have inconvenient and bad ones is also obtained. Quality and fitness are noted down. Old and inconvenient buildings that require frequent repairs should bear little or no rent: the probable cost of repairs and other disadvantages should be deducted from their value.

The rent of buildings is to be found by making an estimate of what they would cost when first erected, and reckoning a

per centage upon the money expended by the landlord.

If built within twenty years, 5 per cent. is charged upon them as a poundage, and after a building has stood 20 years, this poundage is generally reduced to $2\frac{1}{2}$ per cent. The readiest way of finding the original cost is, to measure the ground upon which the building stands, and to judge by the height and appearance what should be allowed per square yard.

The house on the farm, for instance, measures 13 yards square, or 169 superficial yards, and is a good substantial building, two stories high, erected about forty years ago, and would probably cost at that time 3*l.* per square yard = 507*l.*; which, at $2\frac{1}{2}$ per cent., amounts to 12*l.* 13*s.* 6*d.* for the yearly rent. The other buildings were erected at the same time. The two beast-houses and turnip-house have hay-chambers over them. They measure 144 square yards, and would

cost about 30s. per yard building, which amounts to 216*l.*; and at 2½ per cent., makes 5*l.* 8s. rent per annum. The two barns and stable occupy 315 square yards, which, at 30s., is 236*l.* 10s.; at 2½ per cent., is 11*l.* 16s. annual rent. The riding-horse, stable, and pig-house, with the chamber over them, measure 60 square yards, at 30s. per yard, is 90*l.*; which, at 2½ per cent., is 2*l.* 5s. The other buildings will amount to a yearly rent of 21s.

		<i>£</i>	<i>s.</i>	<i>d.</i>
Annual rent of the fields,	- -	276	0	0
Ditto the house,	-	12	13	6
Ditto two beast-houses and turnip-house,	- -	5	8	0
Ditto two barns and stable,		11	16	0
Ditto stable and piggery,		2	5	0
Ditto shedding,	- -	2	6	0
Ditto other buildings	- -	1	1	0
Ditto garden, orchard, and fold-yard	- -	2	10	6
		<u><u>£314</u></u>	<u><u>0</u></u>	<u><u>0</u></u>

84 RENT OF FARM-HOUSES AND OFFICES.

In valuing farm-houses and offices for the rent, it is necessary to examine whether they be arranged in a convenient manner, and suitable for the purposes intended. They ought also to bear a proportion to the size of the farm, and be in good repair; and, if not the case, it is necessary deductions should be made. To be able to make these with judgment, requires a knowledge of building, joined with experience in planning, and skill in arranging farm-houses and offices.

TILLAGES.

THE word tillage implies ploughing, harrowing, fallowing, manuring, and all other operations performed in the cultivation of arable land. There is no direct law to point out the extent of a tenant's right in the property of tillages that remain unexpended at the time of quitting land, except when held under a lease or agreement; and if the tenant be unable to prove that any valuation was paid by himself or his predecessors at the time of entry, he is entitled by law to none at his removal. These premises relate only to tillages. As to the crop growing at the time of quitting, there is an old established custom, founded upon an ancient law, that "he who sows the corn shall

have the emblements," or, in other words, the crop; to which the tenant is undoubtedly entitled, if sown before receiving a notice to quit. But if the tenant sows after proper notice to quit has been given, the landlord can reap the crop; because the term of the tenant's holding is fixed, and he has no right to sow corn, when he knows that he will not have possession at the time of reaping. The law makes a distinction in this case, betwixt a tenant for life and a tenant for years. A tenant for life, or his representative, is entitled to the crop growing at his demise, on account of the term of his tenancy being contingent and uncertain, and not determined by his own act or deed, but by the will of Providence. But a tenant on lease, for a term of years, is not entitled to the crop, unless contracted for, because the expiration of his term depends upon a certainty, being fully aware of the time of quitting.

— "Every one who has an uncertain

estate or interest, if before severance of the corn his estate determine, either by the act of God, or of the law, he shall have the emblements, or they shall go to the executor or administrator; and so it is in all cases regularly, where a man sows land, whereof and wherein he hath such an estate as may perhaps continue until the corn be ripe."—*Williams's Farmer's Lawyer*, p. 193.

This law, however, is only applicable to tenants, who are under no lease or agreement; or wherein there is no stipulations as to what is to be allowed to the offgoing tenant on quitting. And although in such cases the crop can be demanded, it is more frequently valued; unless disputes arise betwixt the parties, when, if each set the other at defiance, the matter is referred to the decision of a court of justice.

Proportion of Grass to be left on the Farm.

The proportion of the farm to be left in grass, at the expiration of the term by which it is held, or on quitting, is often a matter of dispute, when it has not been mentioned and contracted for by a lease or agreement. The common quantity upon arable farms is one third, or one fourth, to remain in grass, and "not to be ploughed up, or converted into tillage, without leave in writing from the landlord;" while some farms, which are more adapted for grazing, are restricted to one half; and others, on thin poor soils, even to two thirds. But if there be no written agreement betwixt the parties, or if the agreement be silent upon this subject, the tenant must leave so much of the farm in grass as he entered to.

If the tenant plough up any grass-land during his tenancy, or on quitting, do not leave as much of the farm in grass as he found on entering, he is liable by the

law to remunerate the landlord for the damages thereby sustained. The amount of such damages is generally determined by charging half rent and taxes, two dressings, an average of white clover seeds, hay seeds, sowing and harrowing; which make betwixt three and four pounds per acre. Many agreements provide for five pounds per acre, and some valuers contend for that allowance in the absence of agreement. This is a question that admits of much controversy, and is more frequently a matter of dispute than any other subject in settling the claims and dilapidations of quitting tenants. The quality of the grass left on the farm, and which has been laid down by the tenant, is examined, and if found to be very inferior, and not sown after a fallow crop, is not taken for grass-land.

It is customary on some estates to allow for extra grass-land, which is computed as above, if well laid down in regular course, and not mown too fre-

quently. But if in slovenly condition, one half or two thirds are allowed, as the case may require.

Farm-yard Dung.

Nothing is more deceitful to value than manure that has been incorporated with the soil during fallowing, especially when a crop has been taken: it is then almost impossible to ascertain, with any degree of truth, either its quantity or quality.

It is expected that the offgoing tenant states, to the best of his knowledge, the quantity that has been applied; but, as he is so much interested, it is necessary for the valuer of the opposite party to examine the appearance of the growing crop, and also the manure that remains unexpended on the soil. When the whole of the tenant-right on the farm is valued, and all the manure taken into account, an idea may be formed whether the num-

ber of loads given in are overcharged, by estimating the quantity that could be produced by the previous crops. The straw grown upon one acre is generally allowed to produce from three to four loads of dung; and if the quantity claimed for exceed this proportion, it is presumed there either is a mistake, or the crop must have been abundant. However, it sometimes happens that there is much more straw produced on land in equal condition in one year than in another; therefore no certain estimate can be made for general use, but this point must be submitted to the judgment and decision of the valuers. Here, if any deception be suspected, it is incumbent on the valuers to make strict enquiry into the local means of making and obtaining manure, as they are not bound to give the offgoing tenant credit for more than can be reasonably accounted for, or than it is probable, according to their opinions, the farm or other sources would yield.

The quality of the manure may be known, in some measure, by learning what number of cattle have been fed upon it, and by making enquiry whether much corn or turnips have been given to them during the winter.

The dung of fat animals is richer than that of lean ones. Cattle fed upon corn or oilcake yield more valuable manure than when fed upon hay or grass. If straw alone be given, the manure produced will be of the meanest sort. Something, however, depends upon the quality of the straw, and the condition of the cattle. Oat straw, containing much grass, or barley straw with young clover, well harvested, will yield better dung than clear wheat straw; but the latter makes better than either of the other sorts when given alone. Hence it appears that a variety of circumstances may occur to alter the quality of farm-yard dung, and that some enquiry should be made in these matters before concluding on its value.

The value of dung increases in direct proportion with the value of and demand for agricultural produce. One load of rotten dung, measuring 50 feet, or nearly two solid yards, and weighing about one ton and a half, is, in most situations, of the same value as one bushel of wheat, exclusive of the carriage required to the place of its application. Its value, however, depends in some measure upon the local situation of the farm; which, lying near a market-town, or in a populous district, causes this and other manures to be obtained at an easier rate than in retired situations. On which account it often happens, that manure bears a greater value in one place than another.

Farm-yard dung, when thrown into a heap, is measured as a solid body, by taking the length and breadth with a tape or a yard-stick, and the depth with an iron rod. In doing this, it is necessary to be very exact in taking the dimensions, particularly the depth; as a few inches

in the average depth of the whole heap will make a great difference in the total quantity. Its quality may be tried by removing a portion in several places with a fork, taking care to examine it well to the bottom ; where, if there be any of less value in the heap, it is generally placed. Whilst the dunghill ferments, it will continue to settle ; and if only just turned, one third, and sometimes one half, may be allowed for its future diminution. This difference is occasioned by the time the manure has remained in the fold, and the materials of which it is composed ; which should be well examined, and the price regulated accordingly. Dung should be thrown up or turned, at least a fortnight before it is measured. Before that time, it cannot be settled to its natural bulk, and is not in a measurable state. Light or fresh dung requires time to ferment and rot ; and most valuers refuse to value dung till ten days or a fortnight has elapsed since it was moved. This rule is

also observed for sale manure in large towns. In large valuations, where great accuracy is required, one person is generally employed to measure for both parties; but, in smaller ones, it is expected that the valuers perform this work themselves; therefore this is a business with which they should be well acquainted. The length, breadth, and depth are taken in feet and inches, and are multiplied into each other either by the rule of practice or of duodecimals; the latter is in general preferred, and is adopted in the following example.

Suppose the length of the dunghill be 37 feet 6 inches, the breadth 26 feet 8 inches, and the depth 3 feet 10 inches, how many solid yards does it contain, and what is it worth at 4*s.* per yard?

<i>Ft.</i>	<i>in.</i>
37	6
26	8
<hr/>	
25	0
235	
74	
<hr/>	
1000	0
3	10
<hr/>	
833	4
3000	0
<hr/>	
27)3833	4(141 $\frac{2}{3}$, or 142 yards, at 4s.
27	4
<hr/>	
113	2,0)56,8
108	
<hr/>	
53	£28 s 8
27	
<hr/>	
26	
<hr/>	

Thus it is shown that a dunghill of the above dimensions, of the best quality, and which has been made three weeks, when wheat is worth 8s. per bushel, may be estimated, in most situations, at 28*l.* 8*s.*

Lime.

Lime is measured either by the chaldron or by the dozen. One chaldron contains four quarters, or 52 solid feet; one dozen contains 48 feet; and one ton 34 feet.

Lime is commonly applied upon arable land during summer fallow, or in preparing for turnips, every second or third course, at the rate of three or four chaldrons per acre.

It requires great knowledge in the qualities of limes, and of the state and condition of the soil, to be able to know what quantity will be most beneficial, as it often happens that much lime is lost by applying it injudiciously and in improper quantities. Even the most experienced agriculturists are frequently at a loss in this respect, and the best informed are yet in the dark, as to the real extent of the utility of lime in assist-

ing vegetation upon soils in different situations.

By chemical experiments it has been found, that lime does not contain any vegetable matter fit for the food of plants; but that its use consists in opening and dividing the soil by fermentation, and in uniting the oily and watery particles by absorption and its alkaline quality. Hence, if lime be frequently applied on the same land, the soil will become barren, unless plentifully supplied with farm-yard dung, or other manures of an oily nature.

In some cases, especially on light soils under the plough, a small quantity is frequently found more beneficial, to the growing crops, than a large one. The quantity applied should in some measure be regulated by the prevalence of decayed vegetables contained in the land; as is proved by its powerful influence upon soils recently ploughed out of grass, and the comparatively little advantage gained,

when laid upon land worn out by tillage and overcropping.

On old grass-swards that grow a variety of weeds, lime produces the best effects, by destroying many noxious plants, and causing the sweetest grass and herbage to rise up in their place. Whereas on arable soils that have been run out, and frequently limed, a further application of this manure would be of little or no service, and be found in some cases even to prove hurtful to vegetation.

In valuing the tenant's right for lime laid upon land, within the time allowed for its influence in different situations, the valuer should exercise his skill in determining whether it has been used with judgment, and likely to be of service in meliorating the soil; because the value of the tillages remaining after applying lime is allowed for according to the benefit it is likely to produce on the future crops.

Opinions vary materially, in regard to

the time that lime remains unexpended when laid upon land. Some valuers, a few years ago, held, that ten years were not too long a period to allow for its influence upon grass, and four white crops upon land under the plough. But now, six years are thought to be a sufficient time for lime to be of any benefit on pasture, which is divided as follows; namely, if the lime has been applied only one year, five sixths of its primitive value is due to the offgoing tenant; if two years, two thirds; if three years, one half; if four years, one third; and if five years, one sixth.

The fertilising powers of lime are sooner expended upon arable land than grass, which is occasioned by its being more immediately mixed with the soil, and thereby more minutely pulverised, than if suffered to remain unmoved on the surface. On this account, the custom of the country only allows a valuation for lime upon arable land, the same as

for manure ; namely, whole tillage after fallow or turnips, half tillage after one white crop ; and after the land has sustained two white crops, no valuation is due.

The offgoing tenant is entitled to the value of the lime according to these regulations, and also to the cost of carrying and spreading, watering, and other trouble that may have been required.

It sometimes happens that the carriage of lime amounts to more than it would cost at the pit. In this case, the full value of the carriage is added to other expenses, and to the price of the lime ; and deductions made from the amount according to the time it has been applied. Where lime is carried more than three miles, 10*d.* or 1*s.* per mile is thought to be a moderate rate per chaldron ; but this is subject to the variations in different places in the value of labour. The watering and spreading are valued at 1*s.* and 1*s.* 6*d.* per chaldron ; but the worth

of this labour is always a matter of enquiry, being performed in different ways. It is the practice with some farmers to set their lime on the land in small heaps, before it has fallen; they then water and spread it immediately. Others pursue the more laborious method of making one or more large heaps in the field, and let them remain six or twelve months for the lime to fall spontaneously. They then carry afresh, and commonly spread it out of the cart. This is accounted the best management with some limes; and the labour in either case is valued according to the expense bestowed.

Rape-Dust.

The properties of rape-dust, as a manure, have only been known about thirty years; and before that time it was thrown away as useless. Its quick vegetative powers being discovered, a small price was fixed upon it, which soon increased

3-

12

120 c of turnips 6-0-0
 Value of Wheat &c 29. 17-0

4 | 35 - 17 - 0

Acres Value of crops 8 10 3
 Average crops 4

6-8-8
 2-10-7

Produce 100 bushels 5-6

Produce 200 bushels 12-17

Clover & Wheat 12-17

4/37-17

Produce 100 bushels 5-6

Produce 200 bushels 12-17

Remaining for Rent 5 00

to its relative value with other manures, and has since continued to rise or settle in price with agricultural produce.

When rape-dust is applied on young corn, it makes an immediate alteration in the appearance of the crop, in almost any season; but is the most active in warm showery weather, when it produces a luxuriance not obtainable by any other manure in so short a space of time. The efficacious properties of this manure are so speedily exhausted, as to render it unfit for supporting a whole four-years' rotation of crops. When used upon fallow, it is generally applied with other manures of a more durable nature, such as lime or dung; but is more frequently spread on young corn, in the spring, as a support to the last crop in the course of husbandry.

Land delights in a variety of manures, as well as in a variety of plants; and it is found, by repeatedly using rape-dust, on the same land, for several crops in suc-

cession, that its beneficial influence gradually decreases; and the condition of the soil is more exhausted than if different manures of the same, or even of less value, had been applied.

In valuing the tillages before a crop is produced, its full cost is allowed, including carrying, spreading, and all other expenses incurred in procuring and applying it.

Full tillage is also allowed after turnips, if they have been eaten on the ground by sheep; because it is supposed that although the rape-dust may be more exhausted than any other manure, yet the crop would be proportionately abundant, and, consequently, a greater quantity of dung would be made.

When rape-dust has been used on turnips which have been drawn and consumed in the yard, it is supposed that two thirds of its strength is exhausted, and taken off the land with the turnips; and one third of its cost, without labour,

is valued to the way-going tenant. The same allowance is made when one white crop has been taken, after turnips eaten on the ground; and also after one white crop in any case.

Soot.

Soot has the same vegetative properties as rape-dust, but in a less degree. It is an active manure, of a hot nature, and is, consequently, best adapted for cold and moist situations; where it is, in general, applied upon young corn in the spring.

Soot is seldom used in the first year after a fallow, but is commonly reserved as an assistance to the last crop in the rotation. As March and April are the most proper times for laying it on young corn, it does not often come under the valuer's notice. One corn-crop is supposed to consume its vegetative properties; after which no valuation is due upon

it. A small quantity is, however, sometimes used, to protect turnips from the ravages of the fly; and, as it at the same time acts as a manure, one fourth of its substance is thought to be left in the soil, after the crop of turnips has been eaten on the ground by sheep; but when drawn, no valuation is allowed.

Marl.

Marl is a kind of dry, soft, fossil earth, commonly used as a manure upon sandy, gravelly, or light soils, in countries where it can be easily procured. It is chiefly composed of carbonate of lime and clay, and is valuable in proportion to the calcareous and oily qualities it contains. Various colours, such as blue, grey, yellow, and red are found in different districts. The blue is, in general, accounted the best, the yellow next, and then the grey. About 35 or 40 cubic yards are found sufficient, in most situations, for

manuring one acre ; which will keep arable land in condition for producing crops four or six years, and grass a few years longer. The duration of these terms is determined by the quality of the marl and the custom of the country.

When marl is obtained, and applied in the farm, the labour, and all other expenses to which it is liable, are valued ; but nothing is allowed for the material itself. But if it is procured from property belonging to another person, the offgoing tenant is allowed the price he has given for it, the same as for dung, or any other manure.

Burnt Earth or Clay.

Earth or clay, when taken from any part of the farm, and properly burnt for a manure, is valued according to the labour and expenses which have been incurred ; allowing full tillage when laid upon fallow or turnips, and valued be-

fore producing a crop of corn ; half tillage after one corn crop ; and after two, no allowance is awarded.

Ashes are valuable in proportion to the quantity of vegetable matter they contain. Burnt earth is of greater service to land than burnt clay ; and the ashes of the refuse of vegetables are more beneficial than burnt earth.

If the materials from which the ashes are produced be procured from any part of the farm, the labour and coals, only, are valued ; but if brought from other property, their cost and carriage are included. When found on the farm, the same allowance is made for one description of ashes as another, providing they be properly burnt, which if not the case, deductions are made according to the quantity that appears to be mismanaged.

Bones and Bone Dust.

Bones are most commonly applied on grass land and turnips, and are seldom

used on land of an adhesive nature. A valuation of six years is allowed for them when laid upon pasture, and four years on grass successively mown. On arable land it is now customary to allow one tillage more for bones than for farm-yard dung. After one white crop has been taken, two thirds of the value of the bones, and the labour in procuring them, are allowed. After two white crops, one third remains, and after three the valuation ceases.

The customary allowance in regard to bones varies in different countries. In some, ten years is the time allowed for their influence upon pasture, six years on grass frequently mown, and four corn crops, or six years, on arable land; whilst in others a longer period is given.

As the decomposition of bones sooner takes place when ground into dust than when broken only with the hammer, it seems reasonable, and is in most cases a custom, to allow one tillage more for the

latter than the former. Therefore, if the bones are ground very fine, the dust is subject to a valuation equal only to that of dung, which is determined by a four years' course of husbandry.

Composts.

Composts are mixtures of different substances, such as earth, clay, sand, lime, dung, and refuse of vegetables, in order to form an enriching manure. In making a compost regard ought to be paid to the nature and strength of the different materials, which should be so proportioned as to neutralise and putrify each other, and thereby constitute a more beneficial manure for land than if each ingredient were applied separately.

If fresh burnt lime be mixed with farm-yard dung partly decayed, no advantage will be gained, but the caustic properties of the lime will act so violently on the dung, as to cause its valuable parts to be

evaporated and lost. Whether benefit be obtained at any time by mixing substances for compost, is a question on which there is a variety of opinions. Many sensible farmers, who have made frequent trials of its effects in different situations, have come to the conclusion, that the value of the materials are not increased equally to the expenses of labour incurred; and that time and money would be saved by laying the substances on land in fallow, separately. On grass, however, its application is frequently attended with profit, especially if the parts be well mixed and pulverised. It then becomes of immediate use, and enriches the herbage more than if the different ingredients had been applied in a rough unmixed state.

In valuing the tillages remaining in land after compost has been used, it is necessary to know where the materials have been procured. If purchased and brought from a distance, their cost and

carriage are valued as well as the mixing and spreading; but if earth, clay, or marl be obtained from any part of the farm under the same tenure, it is customary to allow nothing for their cost. On arable land the tillages are expended by two crops of corn; on grass by twice mowing, or four years' pasture.

Draining.

It is a prevailing custom to allow a valuation upon draining for ten years, making a deduction of one tenth of the value of the drain, for every year that transpires betwixt the time it is made and the time of valuing. If the drain has only been made one year, nine tenths of its cost are allowed; if two years, eight tenths; if three years, seven tenths, and so on in proportion, till the expiration of ten years, when the valuation is worn out. It is, however, the custom in some districts to allow a valuation upon

draining for twelve years, or three four years' courses of husbandry; which, if the drain continue to run, and appear to have been made with judgment at the expense of the tenant, should be allowed as an encouragement to improvement. It is necessary for the valuers to examine whether drains have been made in proper directions, so as to justify the expenses with which they are charged, as it is not customary, nor is it reasonable, to pay for labour that has been uselessly bestowed. In other situations no valuation is made for draining, which acts as a check to this important branch of agricultural improvement. As it requires a period of ten or twelve years to remunerate the occupier for forming drains, no one will be at the expense of making them, unless he is assured of having a proportionate recompense made to him at the time of quitting; or has a lease which will secure him possession till he is repaid by superior crops.

The value of drains is ascertained by examining them in several places, taking the length and depth, and computing them at so much per rood, of seven yards, as seems equal to the expense that has been laid out. If the stones that are used for setting the drain be bought, their cost and carriage are allowed, besides the expense of cutting and setting. But if they are obtained from any part of the farm, their value is not taken into account. A common sized drain of three feet in depth will take one load and a half of stones for every rood of seven yards; and in common soils which are easy to work, will be worth about 1*s.* 6*d.* per rood cutting and setting. In some situations it is found necessary to make drains five or six feet deep, in order to dry the soil effectually; and if it appear to the valuers that so much labour was requisite and proves beneficial, the off-going tenant is entitled to its value according to the custom of the country.

A valuation upon this labour cannot be demanded by law, unless it has been contracted for in the agreement betwixt the parties, or the offgoing tenant or person who quits can prove his having paid for draining when he entered upon the land.

Ploughing.

It rarely occurs that ploughing has occasion to be valued by itself, being commonly included in what is termed dressings. But when in valuations which are made at Candlemas the land intended for fallow has been ploughed, or if at any time ploughing has been found necessary, or be likely to prove useful, according to the rules of good husbandry, the value of the labour is allowed.

It is generally expected that ploughing previous to quitting shall be avoided as much as possible, in order that the incoming tenant may be enabled to arrange his

rotation of crops according to his own judgment and discretion.

On an entry at Michaelmas, when clover ley has been ploughed for wheat, it is customary to value it, as well as the sowing and harrowing, if performed well and in due course.

Ploughing of every description is now generally executed by one man and a pair of horses, and the quantity done must of course be regulated by the quality of the soil.

In some places it is, however, still the custom to plough adhesive soils with one man, one boy, and three horses; and if it appear to the valuers that a fallow furrow upon such land is beyond the power of two horses to perform, the expense of the additional labour is allowed.

It has been shown before, that when wheat averages 8s. per bushel, a labourer's wages is 2s. 3d. per day, and the expense of a horse, including wear and tear of every description, will average 3s. per

day; consequently if one man and two horses can plough one acre per day, 8s. 6d. should be charged per acre; if only three roods, 11s. 4d. per acre, and so on, increasing or lessening in value in proportion as the land increases or diminishes in firmness.

Dressings.

The process and expense of fallowing, and of dressing couch and weeds out of land, have been explained in a former part of this work. The expense is computed from the average price of wheat at 8s. per bushel, and is shown to be 12s. 6d. per acre for each dressing upon both fine rich loam and heavy soils.

But it must here be observed that this calculation was made upon land capable of being ploughed in any season, by one man and a pair of horses, and of course the ground must be supposed to be moderately level. If, on the contrary, the

soil be very stubborn or hilly, and it be found necessary to make use of three horses in ploughing, and other parts of the dressings require greater strength than has been taken into account in forming the above estimate; it is a perfectly reasonable, and a universal custom, to remunerate the offgoing tenant for the additional labour.

In level countries it is usual to value the dressings at only 11s. each, and on unlevel ground at 12s. or 13s. each. These, it is presumed, are too low, as shown by the foregoing estimates.

As the dressings of land are sometimes indifferently executed, it is incumbent on the valuer for the incoming tenant to examine the soil, so as to be enabled to judge of the degree of labour that would be required to bring it into the state in which it appears at the time of valuing, from the commencement of fallowing. Five dressings are commonly allowed for a clean fallow, whether they have actually

been given or not; but if any couch, docks, or other root-weeds appear, only three or four dressings are reckoned, according to the judgment and decision of the valuers.

More than five dressings are never allowed for the most perfect fallow, it being considered that if the quitting tenant suffered the land to run into such bad condition, before fallowing, as to require additional dressings, they ought to be sacrificed for previous mismanagement. It is a generally received opinion amongst valuers, that four dressings, performed in a husbandlike manner, are sufficient for cleaning any land in a regular rotation. The fifth is allowed for the seed, furrow, and harrowing.

If the land be suffered to run foul after one or two dressings have been given, and appear in as bad condition, as it may be supposed to have been in before any fallowing commenced, it is customary to make no valuation what-

ever. The dressings are divided by the ploughings, and the last furrow with the harrowing in of the seed is considered to be one; therefore, on half-tillage land, in good order, only two dressings are valued.

Full Tillage.

When land has been summer fallowed, made perfectly clean, and the tenant's right is valued before producing a crop, it is denominated full tillage; which consists of rent, taxes, dressings, manure, seed, if any sown, and labour.

Land is also said to be in full tillage when turnips, rapes, or other green crops, have been consumed on the ground by sheep, after a fallow: deducting one half the value of the crop, from the full value of the manure, rent, taxes, dressings, turnip seed, and hoeing.

Rent and Taxes.

Rent and taxes are computed by adding the yearly rent of the farm, and the assessments for the church, highways, and poor, together, and dividing the whole by the number of acres in the farm, which gives the average rent and taxes for one acre. When valuing a whole farm, this method may be adopted, as being the easiest and attended with the least possible trouble, and will, in general, prove nearly accurate, especially where an equal quantity of good and bad land is kept arable. But if only one or several fields be valued together, it will be necessary to compare their quality with the whole farm, and fix a proportionate rent. The assessments will also require to be divided according to the quality of land.

In computing the rent and taxes it appears, at least, questionable, whether the value of the carriage-work performed on the highways during the year, ought

not to be included. It is equally due and is as faithfully executed as the payment of rent and taxes, and done entirely on account of occupying the farm. However, in compliance with the prevailing custom, the statute duty is not introduced in the following valuations. This is an arbitrary and unreasonable custom, and is only followed in some districts. In others, where articles of agreement are not common, it is included. Agreements generally specify that rent and assessments of fallow-ground shall be refunded to the quitting tenant. Now statute carriage-work is not, properly speaking, an assessment, but labour in lieu thereof; and therefore, as agreements do not provide for such an allowance, it is omitted.

By the Act of Parliament for the performance of statute-duty, one team of three horses and two men shall be employed on the highways, in the township, six days for every fifty pounds of rent per annum, if found necessary; and persons

occupying farms of less yearly value than fifty pounds shall either do a proportionate quantity of carriage-work, or if the overseer think proper, shall pay 1*s.* 6*d.* in the pound on his rent as an equivalent.

In valuing the tillages upon small farms, where the money has been paid in lieu of statute-duty, it is customary to include the amount with the rent and taxes. This is, no doubt, perfectly reasonable; but is inconsistent with the arbitrary custom mentioned above, of nothing being allowed for carriage-work. Probably this custom took its rise in former ages, when the labour required on roads was so trivial as not to be thought worthy of notice; but now that the repairing of roads is become a serious expense, and operates in much the same manner as a direct tax upon the occupier of land, this absurd custom should be exploded.

TURNIPS.

OF all crops from which the farmer derives a remuneration for his trouble and capital, turnips are the most precarious. The young plants are often difficult to raise; for, if the season be either cold or dry, or if the plants be attacked by the fly, the prospect of a crop will prove partly, if not entirely, hopeless. To remedy these evils, many expedients have been resorted to, but with little success; and it is now generally found, that after several rotations of crops have been taken, in which turnips were introduced every fourth year, the land begins to tire of them, unless plentifully supplied with fresh earth, or rich vegetable mould. If

these cannot easily be procured, it is found expedient to stop the rotations, and let the land remain in grass several years to refresh itself.

In the plan of the farm at the beginning of this book, the field, No. 6., at the time of valuing, namely, the 2d of February, is supposed to have been turnips, which are just cleared from the soil; ten acres of which have been consumed upon the ground by sheep, and four acres and three roods drawn and eaten in the yard by cattle. In valuing tillages upon land in the former state, the full amount of rent, taxes, dressings, manure, turnip seed, and hoeing, for the whole process of fallowing during the preceding year, is taken into account, from which it is customary to deduct one half the value of the turnips as an allowance for the tillages which are exhausted by the crop. It may be thought questionable, by some persons, whether tillages be consumed equal to half the value of the crop for eating on

the ground, as it is often proved that sheep are of great benefit to the soil, by their treading and dung, and frequently leave it better prepared for the succeeding crop of barley, or wheat, than if the same quantity of manure had been applied, and no turnips sown. If the treading and dung be thought equal to the manure and tillages which are exhausted, it seems reasonable that no deduction should be made for growing the turnips, and that the tillages should be valued the same as for bare fallow. But, on the other hand, it must be observed, that the best season for sowing wheat is generally over before the turnips are cleared off, and the ground is left to be sown with barley, or spring wheat, which are scarcely ever so profitable as wheat sown in the regular manner at Michaelmas. The manure, by being applied a crop sooner for turnips than if reserved for the wheat, is partially expended before the corn is sown; and although the soil may be better prepared

for an immediate crop, yet its vegetative powers will be sooner exhausted, and it will not be able to support the succeeding crops so well as if the manure had been applied at a later period for the wheat. For these reasons, and on account of turnip seed and hoeing being charged when a crop is produced, a deduction is made of half the saleable value of the turnips.

In valuing tillages upon land from which turnips have been drawn and taken from the field, the dressings and half the manure still remain to be valued, as tillages unexpended; but nothing is due for the rent and taxes, as these are supposed to be included in the crop; or, which will frequently make the same amount, the rent, taxes, dressings, and manure may be allowed in full, and two thirds of the value of the turnip-crop deducted.

When turnips are on the ground at the time of valuing, and it is agreed that they should be transferred to the in-

coming tenant, half their value as eaten on the ground by sheep is added to the dressings, and all the manure applied during the fallowing. Another method of valuing, under these circumstances, is to allow for all the expenses that have been incurred since the commencement of fallowing, which are charged to the incoming tenant, on his receiving the crop.

But as this custom acts unfairly, by allowing, in most cases, as much valuation for a bad crop of turnips as a good one, it is seldom followed, except the tenant be quitting soon after the turnips are sown, when, of course, it cannot be known what the value of the crop may be.

Swedish Turnips, Cabbages, and Mangel-Wurzel.

These are sown on land prepared in the same manner as for common turnips, and are, in general, produced for the use

of cattle in the spring when other green food is scarce. The tillages remaining after their growth are valued after the same method which has been explained for common turnips drawn and consumed off the field, if they be taken in reasonable time; but if not, further deductions are made according to the damages thereby sustained.

POTATOES.

Potatoes are seldom cultivated as a crop for disposable produce, except upon deep rich loams situated in a neighbourhood where manure can be easily procured. They are generally introduced in the place of turnips or rapes, and sometimes instead of a plain fallow.

To raise a full crop of potatoes on land that has last sustained a crop of grain, it is necessary to clean and pulverise the soil to the greatest perfection, and to apply double the quantity of dung that

would be required for wheat or turnips. The number of dressings that are given is determined by the state of the soil, and the discretion of the farmer. Three or four are bestowed, as occasion requires, or as the seasons will permit. Litter fresh from the stable, or which has undergone only a small degree of putrefaction, is found to be the most serviceable to potatoes; as being the means of keeping the ground light, and thereby enabling the roots to branch out more freely in search of food. If manure be used in this state, its value should be regulated according to its quality, compared with that of rotten dung. In some instances this difference will be one half, and in others a deduction of one third will be a fair proportion.

The following estimate of the expenses and produce in raising one acre of potatoes, is taken equal to wheat at 8s., and potatoes at 2s. per bushel. They are grown on a light loamy soil, after a crop

of wheat, which would otherwise have been fallowed for turnips.

	£	s.	d.
One year's rent, 33s.; tithe, 8s.,	-	2	1 0
Taxes, rated at 3s. in the pound on			
20s. per acre, -	-	0	3 0
Four dressings, at 12s. 6d. each, -	-	2	10 0
Litter, including carrying and spread-			
ing 20 loads, at 6s. per load, -	-	6	0 0
Potatoes for seed, 20 bushels at 2s.,	2	0	0
Labour for setting, three men two			
days, at 2s. 6d., -	-	0	15 0 -
One horse two days, at 3s. per day,	0	6	0
Hoeing, two men one day, at 2s. 6d.,	0	5	0 -
Earthing with the plough, one man			
2s. 6d., one boy 1s., one horse			
3s. 3d., -	-	0	6 9
Getting, two men at 2s. 6d., six wo-			
men at 8d., and one horse 3s., for			
three days, -	-	1	16 0
Straw for covering potatoes, one half			
the value of 20 bundles, at 3d., -	0	2	6
Marketing, carriage three or four			
miles. Crop 210 bushels: 30			
bushels taken per day by two			
horses and one man, will be seven			
days, at 9s. per day, -	-	3	3 0
Carry forward -	£19	8	3

	£	s.	d.
Brought forward -	19	8	3
Add 10 per cent. for capital employed,	1	18	10
	<u>£21</u>	<u>7</u>	<u>1</u>

Produce.

	£	s.	d.
210 bushels, at 2s., -	21	0	0
Half manure remaining, -	3	0	0
Half of dressings do., -	1	5	0
	<u>£25</u>	<u>5</u>	<u>0</u>
Deduct expenses, -	21	7	1
Profit,	<u>£3</u>	<u>17</u>	<u>11</u>

Here a profit of 3*l.* 17*s.* 11*d.* is shown to be made from one acre of potatoes ; besides an allowance of 10 per cent. for capital employed, which some growers would think only very moderate, considering the great trouble required, and the risk of failure to which they are subject.

It may be justly observed, in opposition to the estimate, that the quantity of labour and manure required is variable

according to the quality and condition of the soil; and that a variety of circumstances might occur which would render the result different from the profit here produced. These objections, however, do not render the statement unnecessary. It is here introduced to point out the labour and expenses to which the cultivation of potatoes is liable on fine land in a regular rotation; and has been taken from an average of the actual expenses and produce of several years.

As potatoes require more manure than can, in most cases, be spared, and are found to deteriorate the soil in a more powerful degree than any other crop, few farmers cultivate them to any greater extent than for the use of their own families, except in the vicinity of large towns. We frequently meet with them in small patches in the turnip-fields, consisting of from one rood to an acre, of the richest land that can be found. When valuing tillages in the spring, after potatoes have

been taken, it is a custom, in some districts, to allow the off-going tenant for the dressings, and half the manure which were applied in their preparation; but nothing for rent and taxes. In others, it is usual to value the rent, taxes, and dressings, but not the manure; and in others, half tillages for the rent, taxes, dressings, and manure, are thought a due equivalent for the tillages that remain.

On light soils, where only a moderate quantity of manure is applied, the potatoes will, in some instances, exhaust the whole of the manure; and if the soil has not been well cleaned in preparing for potatoes, the land will probably be left in a worse condition than that in which it was found before the commencement of fallowing. Under these circumstances no valuation is allowed.

When one white crop has been taken after potatoes, the tillages are considered by some valuers to be wholly gone; whilst others contend, that if the land

were thoroughly cleaned for the potatoes, and a proportionate quantity of manure applied, it will still carry another crop of grain, after clover or beans, and that one quarter's tillage, at least, ought to be allowed. — This question is determined at the time of valuing, by the real state and appearance of the soil; and no rule or custom is scarcely ever strictly followed, even by the same valuer, twice together, but is subject to alteration, according to circumstances.

HALF TILLAGE.

When land has sustained one white crop after fallow or turnips, half the value of the rent, taxes, dressings, and manure which were expended in the year of fallowing, is due to the off-going tenant. But if the turnips be drawn and consumed off the land, half the dressings and one fourth of the manure are only allowed, and nothing is charged for rent

and taxes. If the turnips be drawn after rape-dust has been used, and then a crop of corn taken, and the tillages valued in the spring following, the properties of this manure are supposed to be nearly consumed, and one third of its cost only allowed.

Five dressings are generally awarded in full tillage; one of which comprises the seed-furrow, sowing, and harrowing the turnips. Or, on soils where turnips have not been grown, but which are sown with wheat, the fifth dressing is allowed for the seed-furrow, sowing, and harrowing the wheat: so that in reckoning the half tillages for dressings, it is customary only to admit half of four, or two dressings.

Young clover, and other seeds, are frequently sown on land valued for half tillage; the cost of which, together with the sowing and harrowing, are allowed for in full, if performed in a workmanlike manner, and in proper course.

By sowing red clover on the same land

for several courses in succession, the soil becomes exhausted of the vegetable food on which its growth principally depends; and the young plants, if any rise, are frequently either thrown out by the winter frosts, or die away in the spring. Even in situations which appear every way favourable to the produce of a flourishing crop of clover, it is sometimes found to fail, and no manure has yet been discovered, that will render soil capable of growing several crops in succeeding rotations without becoming tired.

In valuing the tillages upon land that has been sown with clover the preceding spring, and which has failed so far as to justify the necessity of ploughing it up, it is a rule to divide the expenses between the quitting tenant or occupier and his successor. It may here be objected, that it is hard for the on-coming tenant to pay for clover-seed that will not be of any benefit to him. But, on examination, the

custom will be found reasonable ; for, if the off-going tenant be led to expect that if the crop entirely fail he shall not receive any thing for the seed, he will avoid the risk by not sowing any. The allowance is granted to secure, in some measure, the sowing of clover ; and for this end, the full costs of seed and sowing are frequently awarded, although it may not have grown. By taking half, as above, the loss is divided.

CLOVER LEY,
BEAN OR PEA STUBBLE,
SOWN WITH WHEAT.

IT is often a matter of contention whether wheat sown upon clover ley, bean or pea stubble, shall be valued as a crop, deducting the rent, taxes, and tithe, or merely to allow for the ploughing, seed, and sowing. The off-going tenant cannot demand the crop by law, unless he can prove his having paid for it on his entrance to the farm; or the existence of a specific provision in a lease or agreement. If the farm has descended from father to son, or by any other means, for several generations, so that the occupier is unable to prove any valuation being

paid for such corn as a crop, at the time of entry; or if no provision be made on this subject, the matter is frequently submitted to the decision of valuers, who, in general, confine themselves to custom, which, in many counties, awards the crop to the out-going tenant, after deducting one year's rent, taxes, and tithe. This custom has prevailed for a long succession of years; but as it, in most cases, amounts to more value than tillages on land that has only sustained one white crop, and no clover or beans since fallow, it is now estimated to be a greater sum than is due for the tillages that remain unexpended, and the labour bestowed; and agreements which are now made with tenants either exclude the custom altogether, or provide an allowance, not exceeding fifty or sixty shillings per acre.

In order to show what tillages are really due, in such situations, an idea may be formed by deducting the worth

of the three crops which have been taken since fallow, namely, turnips, barley, and clover, from all the expenses that have arisen against them, which will leave the value due for the remaining tillages.

The following calculation is made upon land of the finest quality, and at a time when wheat averages 8s. per bushel, and in situations where the rent of good turnip soil is 40s. per acre : —

	£	s.	d.
It has been shown that the expenses incurred by fallowing and manuring one acre of rich land for turnips amount to	-	-	9 14 2
Expenses in the second year for barley,	-	-	3 17 4
Ditto in the third year for clover,	-	-	1 16 4
Three years' rent at 35s., and tithe at 12s. per acre,	-	-	7 1 0
Ditto taxes and poor's rate, at 6s. per acre,	-	-	0 18 0
Interest of capital engaged, say two years on £12, at 10 per cent.,	-	-	2 8 0
Carry forward,	-	£25	14 10

Produce of Three Years.

	£	s.	d.
Brought forward, -	25	14	10
	£	s.	d.
Turnips per acre, -	3	0	0
Barley, five quarters, at			
40s. per quarter, -	10	0	0
Straw in ditto, -	1	13	0
Clover, first crop, one			
and a half tons, -	3	15	0
Ditto, 2d ditto, one ditto, -	2	0	0
	20	8	0
	£5	6	10

By this calculation it is found, that tillages in clover leys, on land of the finest quality, when in a regular four years' rotation, amount to 5*l.* 6*s.* 10*d.*; whereas in the valuation of the field, No. 7., it is seen that a profit of 8*l.* 4*s.* 5*d.* per acre is allowed, according to the common custom of valuing the remaining tillages as a crop. It may be urged in opposition to this estimate, that if the turnips or clover happen to fail, the amount of tillages which ought to be

left when the produce is taken from the expenses will be adequate, and, in some instances, exceed even the stated profits when allowed as a crop. It is readily admitted that this may be the case in some seasons; but, on the other hand, we should observe, that the produce in this calculation is very moderately stated for land of the finest quality. Turnips are not unfrequently worth 4*l.* per acre, when a good crop, and when wheat sells for 8*s.* per bushel. And barley often produces a crop of six or seven quarters per acre upon soils of superior quality and excellent condition. The clover, too, will be found considerably under-rated in bountiful seasons. What is here attempted is to draw an average betwixt the two extremes, so as to apportion the quitting tenant a fair satisfaction on the one hand, without bearing too hard on the entering tenant on the other.

As to the custom of only valuing the ploughing, seed, and sowing, upon clover

leys, it needs no further argument to prove its fallacy than what has been shown by the above calculation.

The tillages in land sown with wheat after beans may be obtained by the same means as have been practised for wheat sown on clover leys, if done in the regular four years' course of husbandry.

Wheat after Beans.

	£	s.	d.
Expenses of fallowing for turnips,			
per acre, - - -	9	14	2
Ditto of the second year for barley,	3	17	4
Ditto of the third year for beans,			
ploughing, and sowing, - -	0	12	6
Ditto of three bushels of beans for			
seed at 5s., - - -	0	15	0
Ditto three years' rent, at 35s. per			
acre, per annum, - - -	5	5	0
Ditto tithe at 12s., rates at 6s., ditto,	2	14	0
Ditto reaping beans, 9s., thrashing 8s.,	0	17	0
Ditto two years' interest on capital,			
£12, at 10 per cent., - - -	2	8	0
Carry forward,	£26	3	0

Produce of Three Years.

	£	s.	d.
Brought forward,	-	26	3 0
Turnips, per acre,	-	3	0 0
Barley, five quarters, at			
40s. per quarter,	-	10	0 0
Straw in ditto,	-	1	13 0
Beans, 27 bushels, at 5s.	-	6	15 0
Straw in ditto,	-	1	10 0
		<hr/>	22 18 0
Value of remaining tillages,	-	£3	5 0
		<hr/>	<hr/>

On different Customs of valuing Tenant-right.

As the rotations of crops may be varied into many different forms, it would be fruitless to attempt to show the manner of valuing so as to suit every change that might be made.

If a tenant be under a lease or agreement wherein it is specified what course of cropping is to be followed, he is not

entitled to any valuation for tillages out of that course, and can only demand what the agreement enjoins. For instance, if it be covenanted that the tenant shall adopt the four years' course of husbandry; namely, 1st, fallow or turnips; 2d, barley, wheat, or oats; 3d, clover, beans, or peas; 4th, wheat or oats: — or, which is much the same thing, not to take two white crops in succession, or more than two white crops betwixt fallowing, he will not be allowed a valuation for tillages in land on which he has deviated from the plan of management laid down.

The manure in and upon the land, and which has been made from the straw and other produce of the farm, is in the following valuation awarded as the property of the tenant. If it belonged to the landlord, which is not unfrequently the case, the amount of the valuation would be considerably less. The custom of allowances varies in different neighbourhoods,

and often on different adjoining estates, according to the views of the parties at the time of entry. The landlord can at any time alter his covenants, by giving regular notice, and taking his farms in hand, or paying or receiving the difference, on a change of tenancy.

Farms held under agreements must, of course, be bound by their provisions, and the claims satisfied according to the prescribed allowances. Some set forth that full tillage and manure shall be valued, but not half tillage; and seed and sowing only for growing crops. This custom prevails on thin soils, where manure is applied often and in small quantities. In other situations, where the manure belongs to the landlord, full tillage and half tillage are allowed for rent, assessments, dressings, and labour of manure; and seed and labour only for wheat sown and growing after beans; and an extra allowance, not exceeding 50s. or 60s. per acre, besides seed and labour, for wheat sown

and growing after red or white clover ley; such allowance to be awarded according to the condition of the land, and its likelihood of a crop. The following specimen of valuation is the most liberal in allowances that is ever granted to a tenant on quitting, and fully remunerates him for the property left in the ground, unless he has recently made substantial improvements, such as erecting buildings or walls, making fences, levelling or removing soil, ridding or bringing rough land into cultivation. It has been held, that, by law, nothing can be claimed for these and similar operations, unless provided for by agreement or a previous contract; therefore, it behoves the tenant who contemplates making improvements, which may not repay him during his holding, to have a clear understanding about them beforehand. It is, however, customary in some districts to discern that a sufficient profit will not be returned for substantial improvements in less than

ten years; and that if the tenant quits within that term, he should be repaid according to the time that is unexpired, reckoning one tenth off for every year. This is a just and liberal custom, but can only be admitted where landlords have, on former occasions, given it their sanction, and in cases where it is evident that they or their on-coming tenants will be benefited thereby. Such allowances operate as an encouragement to improvement; for tenants cannot lay out money with spirit unless ensured of a return; but will frequently make alterations that will benefit the estate for twenty or thirty years, on a prospect of being reimbursed for ten, in the event of giving up before the end of that term.

On the other hand, great valuations are often injurious to on-coming tenants, and inconvenient to landlords. The capital of the former is sunk by discharging them, and they are rendered less able to meet other payments that arise before the

first harvest. In these depressed times, it not unfrequently happens, that tenants with adequate capital cannot readily be found to enter on farms bearing great valuations ; and if the landlord is obliged to take possession himself, under such circumstances, the payment, sometimes, becomes a matter of serious importance. To remedy these objections, and to prevent tenants preparing their land to give up with great valuations, leases and agreements are now generally drawn up with much care, and the tenant is tied down to regular cropping and management, and runs the risk of nonpayment for expenses incurred and work done that is not provided for by the prescribed allowances.

The relation of landlord and tenant implies an obligation on the part of the latter to crop and cultivate his land in a husbandlike manner, whether under covenants as to management or not. And if it be the prevailing custom of the country

where he resides to follow the four years' course of crops, there would be no valuation due for sowing a third white crop betwixt fallowing, except for ploughing, seed, and sowing, and not even for those, unless the land appears in a proper state for producing a crop.

Land is frequently held without any lease or agreement betwixt the parties, except for the payment of rent; in which case, the tenant can take crops as he thinks proper, without regard to regular rotations, and receives a valuation according to the custom of the country.

Specimen of Valuation.

The following valuation of tenant-right is given as a specimen to show the mode of classing the allowances, and is made agreeable to the covenants laid down towards the beginning of this work. The principle of such valuation is to remunerate the off-going tenant for the condition

and unexpended manure that remains in the land since the last fallow, if under regular course.

Valuation of Tillages and Manure in the Farm, February 2. 1832.

	£	s.	d.
Rent of the whole farm, including			
the buildings, -	314	0	0
The poor's assessments, at 3s. 6d.			
in the pound, on £208 rate, -	36	8	0
The highway ditto, at 1s. ditto, -	10	8	0
The church ditto, at 3d. ditto, -	2	12	0
	<hr/>		
Divide by the number of acres 242)	363	8	0
	<hr/>		
Rent and taxes per acre, -	£1	10	0
	<hr/> <hr/>		

A.	R.	P.		£	s.	d.	£	s.	d.
14	3	0	No. 1.—For fallow. (See Plan.)						
			Ploughing for fallow, at 9s. per acre,	6	12	9			
			Stubbing, fencing, and gripping,	0	15	0			
							7	7	9
14	3	0	No. 2.—For fallow. Not ploughed.						
14	3	0	No. 3.—For fallow. Not ploughed.						
14	3	0	No. 4.—Grass mown the last season, and manured previously.						
			120 loads of manure, at 8s., in- cluding carrying and spread- ing, half tillage,				24	0	0
			No. 5.—Pasture.						
14	3	0	No. 6.—Turnips, ten acres eaten on the ground by sheep.						
			Rent and taxes, at 1l. 10s.,						
			Five dressings } per acre.						
			at 12s. 6d. is } £4 12 6	46	5	0			
			3l. 2s. 6d.						
			30 quarters rape-dust, at 20s.,	30	0	0			
			Carriage of ditto 10 miles, at 1½d. per quarter per mile,	1	17	6			
			Spreading ditto, at 4d. per quar- ter,	0	10	0			
			30 chaldrons lime, at 9s. per chaldron,	13	10	0			
			Carrying 12 miles, at 9d. per chaldron per mile,	13	10	0			
			Spreading 30 chaldrons, at 1s. 6d.,	2	5	0			
			Carry forward,	107	17	6	31	7	9

A.	B.	P.		£	s.	d.	£	s.	d.
			Brought forward, -	107	17	6	31	7	9
			Turnip-seed and hoeing, -	4	10	0			
				112	7	6			
			Deduct one half the value of the turnips, at 3 <i>l.</i> per acre,	15	0	0	97	7	6
			No. 6. — Turnips drawn — 4 acres 3 roods.						
			Five dressings, at 12 <i>s.</i> 6 <i>d.</i> is 3 <i>l.</i> 2 <i>s.</i> 6 <i>d.</i> per acre, -	14	16	10½			
			No rent and taxes allowed.						
			Half of 60 loads manure, at 10 <i>s.</i> ,	15	0	0	29	16	10
14	3	0	No. 7. — Clover ley wheat.						
			The crop is valued to yield 27 bushels per acre, at 8 <i>s.</i> per bushel, -	10	16	0			
			Deduct rent and taxes, - £1 10 0						
			Deduct tithe per acre, 1 1 7	2	11	7			
			Per acre, -	8	4	5	121	5	2
14	3	0	No. 8. — Grass.						
			120 loads manure, at 8 <i>s.</i> per load, -				48	0	0
14	3	0	No. 9. — Grass. — Pasture.						
14	3	0	No. 10. — Young Clover.						
			Half rent and taxes, at 1 <i>l.</i> 10 <i>s.</i> is - £0 15 0						
			Two dressings, at 12 <i>s.</i> 6 <i>d.</i> , - - 1 5 0						
			£2 0 0	29	10	0			
			Half of 150 loads manure, at 10 <i>s.</i> ,	37	10	0			
			150 pounds red clover-seed, at 9 <i>d.</i> per pound, -	5	12	6			
			60 pounds trefoil, at 4 <i>d.</i> , -	1	0	0			
			Sowing and harrowing, -	0	15	0	74	7	6
			Carry forward, -				402	4	9

A.	R.	P.		£	s.	d.	£	s.	d.
			Brought forward, -				602	2	7
14	3	0	No. 14. — Summer Fallow Wheat.						
			Rent and taxes, at £1 10 0						
			Five dressings, at						
			12s. 6d., - 3 2 6						
			Per acre, - £4 12 6	68	4	4			
			180 yards rotten dung, bought						
			at 4s., - - -	36	0	0			
			Carrying and spreading ditto, at						
			6d., - - -	4	10	0			
			90 loads burnt earth, at 1s. 6d.,	6	15	0			
			45 bushels wheat, for seed, at						
			8s., - - -	18	0	0			
							133	9	4
14	3	0	No. 15. — Summer Fallow Wheat.						
			Rent and taxes, at £1 10 0						
			Five dressings, at						
			12s. 6d., - 3 2 6						
			Per acre, - £4 12 6	68	4	4			
			150 loads manure, at 10s., -	75	0	0			
			44 bushels seed wheat, at 8s.,	17	12	0			
							160	16	4
14	3	0	No. 16. — Young Clover Seeds.						
			Ten acres of this field, when						
			turnips were eaten on the						
			ground by sheep.						
			Half rent and taxes, £0 15 0						
			Two dressings, at						
			12s. 6d., - - 1 5 0						
			£2 0 0	20	0	0			
			One third of 26 quarters rape-						
			dust, at 20s., - -	8	13	4			
			Half of 35 chaldrons lime, in-						
			cluding leading and spread-						
			ing, at 20s. 6d., - -	17	18	9			
			Carry forward -	46	12	1	896	8	3

VALUATION OF TILLAGES.

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A.	R.	P.		£	s.	d.	£	s.	d.
			Brought forward, -	46	12	1	896	8	3
			100 pounds white clover seed,						
			at 1s. - - -	5	0	0			
			40 pounds trefoil, at 4d., is						
			13s. 4d.—and 25 pounds red						
			clover, at 9d., is 18s. 9d.,	1	12	1			
			Sowing, - - -	0	10	0			
							53	14	2
			Young Clover Seeds in						
			No. 16. 4 acres 3 roods.						
			Two dressings, at 12s. 6d. is						
			14 5s. per acre, - -	5	18	9			
			No rent nor taxes allowed, on						
			account of the turnips having						
			been drawn.						
			One fourth of 70 loads manure,						
			at 10s., - - -	8	15	0			
			48 pounds white clover seed, at						
			1s., - - -	2	8	0			
			12 pounds red clover seed, at 9d.,	0	9	0			
			20 pounds trefoil, at 4d., -	0	6	8			
			Sowing and harrowing, -	0	4	9			
							18	2	2
							968	4	7
			Draining.						
			21 roods, in No. 8. done three						
			years, three feet deep, 2s. 9d.						
			per rood, cutting, setting, &c.,	2	8	4			
			25 roods, in No. 10. done four						
			years, three feet six inches						
			deep, 3s. per rood, -	2	10	0	4	13	4
							972	17	11

Dilapidations.

On the farm here valued, the fences, gates, posts, stiles, and walls, are considered to be in complete repair: but when this is not the case, deductions are made from the valuation equal to the expenses which would be required to put them into that state. The allowance for dilapidations in fencing varies from five to eight shillings per acre, of 28 yards in length, according to the condition in which it is found. If a fence be entirely broken down, eight shillings per acre is a common charge for repairing it, in many districts, but always subject to variations, according to the expense of procuring materials.

It is expected that enclosed farms shall have a gate and posts properly fixed to each field; and if any be found deficient in this respect, allowances are made for repairs. Where gates are entirely broken, or wanting, 10s. is a common price for

each gate, and 3s. for each post. It is not here expected that new gates and posts should be provided, where found wanting; but these prices are stated as averages of what each should be worth.

Improvements and Repairs.

There is no law for remunerating tenants at will for making improvements in the farm, or for erecting buildings during occupation, unless previously contracted for; these being deemed the property of the landlord, whenever he thinks proper to give legal notice to quit and take possession.

Most of the laws relating to landlords and tenants were formed at a time when the cultivation of the soil was conducted very differently from the present system, and when the interest of the landlord was much more attended to than that of the tenant. The proprietors of the soil were formerly the legislators of the country,

and held their tenants in the greatest awe and subjection to their will. Therefore no wonder need be excited that these laws were made favourable to their own interest.

The following laws, regarding what the tenant is liable to uphold and keep in repair, are extracted from Williams's Farmer's Lawyer, under the article WASTE : —

“ Whatever does a lasting damage to the freehold or inheritance is waste : first, in respect of houses ; secondly, in respect of gardens, orchards, and the like ; thirdly, in respect of land ; fourthly, in respect of timber and other trees.

“ First, as to houses. — It is clear, from the stat. Marl., 52 Hen. III. c. 23., and stat. Glo., 6 Ed. I. c. 5., that waste may be done in houses. Thus, if a tenant pull down the houses demised, it will be waste : so if he suffers a house to be uncovered, whereby the timber decays, though the timber be not thereby

thrown down: so if the house was uncovered at the commencement of the lease, yet it will be waste if he pulls it down without the consent of the landlord; or if it was ruinous at the commencement, and he suffers it to be more ruinous. So if the tenant suffers glass-windows to be broke or carried away, or the wainscot, benches, doors, furnaces, or the like, which are fixed to the house, to be removed, although they were originally fixed by the tenant by nails, screws, or otherwise. It is also waste if he permits the walls of a house to be decayed for want of plastering, whereby the timber is rotted, or the chambers of a house injured, though the timber be not thereby rotted. So if he does not scour a drain, whereby the ground timber is decayed; so it will be waste if the walls are suffered to go to decay, though the timber was in decay at the commencement of the lease: and it will be waste, though there be no timber upon the land

demised for repairs ; or though the house was uncovered by, or damaged by tempest, if it be suffered afterwards to remain in decay. So it will be waste if the tenant pulls down the house, and rebuilds it less than before, or if he rebuilds it larger, to the prejudice of the landlord, for it is more charge to repair. So if the tenant alters the house to the landlord's prejudice ; as if he converts a parlour into a stable, or changes a corn-mill to a cotton or fulling-mill, or the like. So it may be waste to turn two rooms into one ; for if it would be for the lessor's advantage, it may be shown on the other side. So it will be waste if the tenant builds a new house, and afterwards suffers that to be decayed.

“ However, in all questions respecting waste, it is to be observed, that, in regard to the repairs of houses, the tenant is not liable thereto, unless he holds the premises under a lease for a term of years, but the burden thereof lies on the land-

lord. Thus in the case of a tenancy at will, or from year to year, the landlord is under an obligation to keep the premises in tenantable repair; but where there is an actual lease, the charge of repairing, without any express covenant for that purpose, is upon the tenant, reasonable or ordinary wear and use being allowed.

“ But if the house was uncovered at the commencement of the lease, it is no waste if the tenant suffers it to fall into further decay without pulling it down, or if the walls were uncovered, or insufficiently supported; or if the house was ruinous, and the tenant suffers it to be as it was, without permitting it to become more ruinous. So also it is no waste if the tenant removes furnaces, coppers, or other utensils of trade, though fixed to the freehold, if he removes them before the expiration of his term; but if he permits them to remain after the expiration of the term, he cannot remove them, for they are then vested in the reversioner or land-

lord. In like manner, green and hot-houses are removable; so a barn erected on the premises upon blocks of timber; and this, notwithstanding there be a covenant to leave all buildings which then were or should be erected on the premises in repair; for such covenant means, that the tenant shall leave all buildings annexed to and become part of the reversionary estate: but if the tenant will actually build, he must leave the buildings for the benefit of the landlord; thus if the tenant erect a beast-house, a carpenter's shop, a cart-house, pump-house, or fold-yard wall, letting such buildings into the ground, he cannot remove the same: for there is a distinction between erections necessary to the purposes of trade or manufactures, such as hot-houses, and the like, and those that are requisite in order to the better enjoyment of the land demised, such as beast-houses and the like; and therefore those of the latter description are not removable by

the outgoing tenant, but must remain for the benefit of the inheritance.

“Secondly, As to gardens, orchards, and the like. Waste may be committed therein, if the tenant cuts down pear-trees, apple-trees, or other fruit-trees, or, if they are thrown down by tempest, and the tenant afterwards roots them up, or cuts down the germens growing, without planting new. So, if the tenant destroys or suffers the stock of a dove-cote, warren, park, fish-pond, pool, or the like, to be diminished, or throws down the pales of a park or warren, or stops up the holes of a dove-cote, or throws down the banks of a fish-pond. But if the tenant kills or destroys, yet it is no waste if he leaves a sufficient stock.

“Thirdly, As to land, it will be waste, if the tenant suffers the sea to surround arable land, meadow, or pasture, or if he suffers a wall or bank of the sea, a river, or the like, to be ruinous; by which the water surrounds or overflows the land,

and renders it useless; so if he digs up the surface of the land, and carries it away, or if the tenant converts arable to wood, or wood land to arable, it will be waste; or meadow to arable or pasture; or meadow to orchard or hop-ground (though it be done for the amelioration of the soil); or a hop-ground to tillage.

“ So if a tenant for life or years opens new mines in land, demised without mention of mines, it will be waste; so if he digs for gravel, lime, clay, brick-earth, stone, or the like, in pits not open.

“ But it is not waste, if land is surrounded or overflowed by the violence of a tempest; or if pasture be converted to tillage for the improvement of the soil, where it has been sometimes pasture and sometimes arable; or if it was stocked with rabbits, it not being a warren by charter or prescription; so, if it was a warren. So it is no waste if the land lies

fallow, though it be bad husbandry ; or if trenches are dug in a meadow, to draw off the water ; or if wood, or the like, be sown against the end of the term, though it be not ripe for several years.

“So it is not waste to dig for ore, coal, or the like, in mines open at the time of the lease ; or if mines were not demised, if the land was demised with all mines ; neither will it be waste for the rector or vicar to dig for or open mines in his glebe.

“The remedy of the landlord against the tenant for waste, is either under the statute of Gloucester, 6 Ed. I. c. 5., whereby it is enacted, that if tenant for life or years do waste, he shall forfeit the place wasted, and treble damages, or by a special action on the case in nature of waste.”

The above is an abstract of the general principles of the laws relating to the repairs and waste of land and buildings, in which it evidently appears, that the

framers of them have had the landlord's interest in view much more than that of the tenant; a circumstance which the farmer should never lose sight of when taking land. It is, however, plainly shown, that tenants at will, or from year to year, are not liable to the repair of houses and buildings, unless by mutual agreement, but that this expense belongs entirely to the landlord. If a house or other building be ruinous at the commencement of the lease, and the tenant suffers it to be more ruinous, it is waste, or, in other words, the tenant is liable to repair it, notwithstanding the building be ever so inconvenient and worthless; nor is he allowed to take it down and rebuild it, either greater or less than it was before. It is also denominated waste, and the tenant is liable to repairs, if he suffer the building to decay, although it may have been built at his sole expense. The following distinction made by the law, in regard to the tenant's right in the pro-

perty of buildings erected during his lease, is contrary to the true spirit of improvement. If the tenant build a house or other substantial building at his sole expense, and let the foundation into the ground, he is obliged by the law at the end of his time, not only to give up all property therein, but also is answerable to the repairs. But if the foundation rest upon blocks of timber, it is thereby made the property of the tenant, and may be removed. Now here is a distinction in the right of property, without any difference in the use or application of the building, being in both cases erected as necessary to the better management and convenience of the farm.

In point of justice, the tenant is equally entitled to the value of the building, deducting an allowance for the time it has been in use, for one mode of erection as the other.

The law next states, that if the tenant will actually build, he must leave the

building for the benefit of the landlord. It seems, that however necessary it may be to make new erections during the currency of the lease, they will be the property of the landlord at its termination, unless he rests the foundation upon blocks of timber, which must not be let into the soil, but must lie upon its surface. It appears inconsistent, too, that buildings erected for pleasure and luxury, such as green-houses and hot-houses, should be deemed removable property belonging to the tenant, whilst if he build a substantial stable or beast-house, which in many cases may be essentially necessary, he is to receive no remuneration whatever, and this because the latter are more necessary to the future benefit of the farm.

The disputes which arise on account of these inconsistencies are in a great measure owing to the changes that have taken place in the system of agriculture since the time of vassalage in which these

laws were framed. They are as inapplicable to the present state of farming, as the implements which were then in use would be in the hands of our most enlightened husbandmen.

To prevent misunderstandings in regard to the satisfaction for the erection of buildings, it is incumbent on the tenant to agree upon the terms with the landlord or steward before putting them up. On neglecting this precaution, he runs the risk of receiving nothing for them in case he quits; and the landlord will probably be tardy in any allowance, especially if the buildings are not exactly suitable to him or his succeeding tenant.

Fences erected by Tenants during Lease.

When a tenant contracts with his landlord, in a lease or agreement, to keep and maintain, and at the expiration of his term, or on quitting, to have his fences, gates, stiles, drains, watercourses, and

bridges, in tenantable and complete repair, it is seldom provided that he shall be remunerated for improvements being made ; which, if the case, no satisfaction can be demanded. On the contrary, the waygoing tenant must either remove them, or leave them, for the benefit of the landlord or the succeeding tenant, in perfect condition. A tenant building walls or making fences on his landlord's ground, is presumed to do so from a conviction of their utility during the continuance of the remainder of the lease ; and though they may be necessary for the convenient occupation of himself, yet the landlord, or the incoming tenant, may judge them useless, and would rather the farm had remained in large enclosures.

* By the clause frequently inserted in leases, binding the tenant to leave all the fences in repair at his removal, is implied all the fences which are on the farm at his entrance, and of course those that are made subsequently must also be left in

repair, if the tenant do not choose to remove them. Because, if they be suffered to remain in ruinous condition, the landlord is laid under an obligation to the succeeding tenant of repairing them, which he would not have been subject to, had they never been made.

On the Decline in the Value of Tillages.

It is a matter of opinion amongst valuers, whether, on the rate of labour lowering, the quitting tenant should be allowed, according to the present value of tillages, or according to their worth when applied.

In valuing half tillages, there is generally a period of two years betwixt applying the dressings, manure, &c. and the time of valuing; in which a material difference may take place in the value of labour and produce. The price of grain seldom remains stationary for any length of time, but is constantly fluctuating;

and it is impossible to foretell what may be the average price of grain for the time to come, with any degree of certainty. Rent and taxes are positive charges upon land held by tenants, and cannot be avoided. They are not subject to risk and speculation, like the variable price of corn, but must be paid according to the usual rate, however low the value of produce may be.

The manure and labour, too, which have been expended, ought to be considered in the same light, and should be supposed to have cost the farmer what they were actually worth when applied. The progress of cultivation and vegetation is slow, and two or three years are frequently required to produce profitable crops; for, although a single crop seldom remains on the ground longer than one year, yet the manure and labour, from which the benefit arises, have, in most cases, been applied one or two years previously. For these reasons, it would seem

proper to allow the value of the tillages at the time of their application.

But, on the other hand, it is urged, that farming is a speculation, in which the risk of the present tenant should not extend to his successor, but be determined at the conclusion of his own tenancy; as it would be an act of injustice to make the entering tenant make good the speculation of his predecessor, by paying for tillages or manure which prove too dear, or may not have been applied with judgment.

On this account, it appears most advisable to value according to the present worth of the thing in question, whether prices have risen or fallen, which cannot but be reasonable in all cases, as the tenant's speculation, during the last three or four years of his occupation, will have the same chance of turning to his advantage as to his loss.

176 VALUATION ON PREMISES IN MAY.

Valuation on the Premises on the 13th of May.

At this latter valuation it is usual to take into account the manure recently made on the premises, if it belongs to the tenant, straw, hay, corn, in or out of stack (if any), pumps, troughs, posts and rails, fixtures, and whatever belongs to the tenant, which the oncoming tenant is willing to take at a valuation.

It is here understood that the land is held on a yearly tenure, expiring on the 2d of February, and the buildings and homestead on the 13th of May following. This arrangement allows the tenant time to thrash and dispose of his last year's crop of corn. It is also a season of the year when there is the least quantity of hay on the premises, and when both hay and straw are generally converted into manure. However, it not unfrequently happens that a portion of both hay and corn remain on the premises for the use

of the incoming tenant, at a fair valuation, which is generally submitted to the decision of the persons who have valued the tillages on the 2d of February.

On measuring Stacks.

It is the business of valuers to measure the hay-stacks which are suffered to remain on the premises, and ascertain their value by computing them at so much per ton as they are considered to be worth. The length, breadth, and height are taken in feet or yards, and are multiplied into each other, and the product divided, when brought into yards, by as many as may be supposed to contain one ton. When the valuation takes place on the 18th of May, the stack will probably have stood since the previous hay-time, in June or July. If this be the case, and if the hay were stacked in good condition, and not very dry, ten solid yards will weigh about one ton. Clover lies lighter.

in the stack than natural hay, and will generally take eleven or twelve yards to make one ton; and sometimes, when it has been stacked very dry, thirteen yards will be required.

Suppose the stack to be measured is 9 yards long at the bottom and 10 at the eaves; $3\frac{1}{2}$ yards wide at the bottom, and $4\frac{1}{2}$ at the eaves; and suppose it is $4\frac{1}{3}$ yards high to the eaves, and the roof rises 2 yards: in order to find the content, these dimensions are multiplied into each other, as follows: —

The medium length is	$9\frac{1}{2}$ yards
Ditto breadth is	4
	—
	38
Ditto height is	5 including one third of
	— the rise of the roof.
	10)190
	—
	19 tons the solid content.

If the dimensions be taken in feet, they should be multiplied into each other

in feet, and the product divided by 27, to bring them into yards.

When the stack swells out considerably towards the eaves, the height if taken up the side will be made too great, and will bear the same proportion to the true or perpendicular height, as the hypotenuse of a right-angled triangle does to its base. Therefore it should be taken in several places with a long rod set up in a perpendicular direction. When it is required to measure an irregularly formed stack, the content may be found, after a little practice, by giving and taking, so as to render the crooked lines straight, or by measuring and computing it in several divisions.

It sometimes happens that stacks to be valued have been made in a round form, which cannot be brought into straight lines without having recourse to geometry and figures. The most simple and correct method of finding the solid content of a round stack, is to measure the

circumference at the bottom, and in several places up to the eaves, at regular distances, which must be added together, and divided by the number of them, for a mean circumference; the square of which must be multiplied by the decimal .07958, and this product by the height up to the eaves, and one third of the rise of the roof added together. For example; suppose the circumference at the eaves is 50 feet; round the middle 46 feet; and round the bottom 36 feet; the perpendicular height to the eaves 13 feet, and the roof rises 9 feet, what is the solid content in yards and tons, and what is its worth at 3*l.* per ton, supposing that 10 yards will make one ton?

50	
46	
36	
3)132	
44	
44	
176	
176	
1936	
.07958	
15488	
9680	
17.424	
135.52	
154.06688	
16 = 13 + 3	
924.40128	
1540.6688	10
27)2465.07008	(91.29889 yards.
243	9.12988 or 9 tons and 1 yard.
35	
27	
80	
54	
267	£ s. d.
243	at 3 u 0 u 0
240	9
216	27 u 0 u 0
240	6 u 0
216	£27 u 6 u 0 Answer.
248	
243	
5	

The number of yards requisite to constitute one ton, depends partly upon the

old or young state in which the grass was cut before it was made into hay, and partly upon the dry or moist state in which it was stacked, and also depends in some measure upon the length of time it has lain in the stack.

In order to be able to form a judgement of the quality and weight of the hay, it is necessary to examine it in several places. If it has been well got, and does not appear to have been cut very old, 10 yards is an average allowance per ton for natural hay, and 12 for clover, which have been made in the last season; but in large hay-stacks which have been made one or two years, nine, and sometimes even eight yards will make one ton.

Corn-Stacks.

The method of valuing corn in the stack, or unthrashed in the barn, generally practised, is, either to judge by the

condition and breadth of ground it has grown upon, the appearance of the stubble, or to measure the stack in solid yards. All these may be adopted at the same time; one being an assistant to the other. When following the last method, the content of the stack or mow is ascertained in the same manner as shown in a preceding page for the measurement of hay, the only difference being in allowing so much corn to each solid yard, instead of so many yards to the ton.

In a stack containing wheat that has been shorn, one bushel is a common average per cubic yard, where the straw is a moderate length, and the sample tolerably good. But if the crop has been mown, one yard will not on an average contain more than three pecks. These estimates, however, are subject to much variation, from the length of the straw, and the soundness and body of the corn. Barley, oats, beans, and peas, if any remain, may be valued in the same

manner. When there is no restriction for the hay and straw to be consumed upon the premises, the offgoing tenant sometimes removes them from the farm for his own use, which of course renders valuing unnecessary.

Straw.

Leases and agreements between landlords and tenants frequently provide that the straw and manure produced by the last year's crop shall, on quitting, be reserved for the landlord or the incoming tenant, without any remuneration being made for them. This, however, is not the case in the present instance; the tenant is only required to apply and consume all the manure and straw upon the farm, and, at the expiration of the term, or, on quitting, a valuation is allowed for them, according to the custom of the country.

When straw is laid loose in a stack or barn, &c., it is usual to measure it in solid

yards, in the same manner as explained for measuring hay, and allowing 18 or 20 cubic yards for each ton, which must be varied by the straw lying sad or light. But straw is commonly bound up in bundles or bats, by which means its weight may be more correctly ascertained. Six or ten of them, which appear to be of a medium size, may be weighed together, and by counting the whole number, the weight may be easily obtained. Common-sized bats will weigh 16 or 18 pounds, and 120 or 130 will make one ton. Straw tied neatly up in bats is generally allowed to be worth ten shillings per ton more than loose straw. Barley, or oat-straw, if sweet, and used for feeding cattle, is commonly rated a few shillings per ton higher than loose wheat-straw.

Garden.

A valuation is generally allowed for fruit-trees, which have not been planted

more than ten or twelve years, or the offgoing tenant is suffered to remove them. When they have attained that age, they are supposed to have cleared their cost and expenses, and are then the property of the landlord. Fruit-trees commonly cost from one to two shillings each when first planted, and they rise in value till six years of age, according to their apparent worth, when their value continues the same six years more. Gooseberry and currant bushes are valued; and are scarcely ever worth more than from 3*d.* to 6*d.* each.

It is also customary to make a valuation for digging; and for vegetables growing in the garden, or to permit them to be taken away. As garden-ground produces a crop every year, and ought always to be kept in a clean state of cultivation, nothing is allowed for labour given previously to the last crop, but half tillage is due upon the manure. If any labour or manure has been given since

the last crop, the outgoing tenant is entitled to its value, as well as to the value of any seeds sown. The shrubs, flowers, or vegetables may be either valued or removed.

Pumps and Troughs.

Pumps and troughs are generally the property of the occupier, and are either valued to the incoming tenant, or are suffered to be removed. When lead is worth 20*l.* per ton, they are estimated at about 10*s.* per yard deep, if the length be under 12 yards; at 12*s.* 6*d.* if above 12 yards and under 20; and if above 20, 15*s.* per yard is a customary allowance. The depth is measured by the length of pipe, and the pump-case is included.

Pump-troughs and stone-troughs in general are valued by the number of gallons they will contain, and are worth from 4*d.* to 6*d.* per gallon, according to their quality.

The capacity of troughs is found by taking the inside dimensions in inches, and multiplying the length, breadth, and depth together, and dividing the product by 282, which brings it into gallons.

For example; suppose the length of an oblong trough is 56 inches, the breadth 42 inches, and the depth 32 inches, what is its worth at 5*d.* per gallon?

$ \begin{array}{r} 56 \\ 42 \\ \hline 112 \\ 224 \\ \hline 2352 \\ 32 \\ \hline 4704 \\ 7056 \\ 282 \overline{)75264} \\ \underline{564} \\ 1886 \\ \underline{1692} \\ 1944 \\ \underline{1692} \\ 252 \\ \underline{4} \\ 282 \overline{)10083} \\ \underline{846} \\ 162 \end{array} $	$ \begin{array}{r} \text{Gals. qts.} \\)266 \ 3 \\ \underline{5} \\ 12 \overline{)1333} \\ \underline{20} \overline{)111} \ 1 \\ \underline{5 \ 11 \ 1} \text{ the answer.} \end{array} $
--	---

Stone troughs that are used in farm-yards for tumbrils are frequently made in a round form, the contents of which may be found by multiplying the square of the inside diameter by the decimals .7854, for the area of the bottom; which being multiplied again by the depth, will give (if worked in inches) the number of inches, and by dividing as before by 282, the number of gallons the trough will contain is found.

The size of a semicircular stone trough may be obtained by the same method as the round one. The length of the straight side may be taken for the diameter, which when squared, multiplied by .7854, then by the depth, and this product divided by 282, if worked in inches, will give just twice the number of gallons it will hold. The true content of the semicircular trough will then be found by taking half.

Valuation on the Premises, May 13th.

	£	s.	d.
Manure, 350 cubic yards, at 4s.,	-	70	0 0
Ditto, 240 ditto at 3s.,	-	36	0 0
Ashes, 4 loads, at 1s. 6d.,	-	0	6 0
Straw, 6 tons, not bound, at 21s.,	-	6	6 0
Do., 5½ do., bound up in bats, at 31s.,	-	8	10 6
Four stands for stacks, erected by the tenant, each 20 yards long, at 2s. 6d. per yard,	-	10	0 0
Garden, 54 gooseberry and currant bushes, at 4d.,	-	0	18 0
Half tillage for 8 loads of manure in garden,	-	2	0 0
Pump, 9 yards deep, at 10s. per yard,	4	10	0
Stone trough, 140 gallons, at 5d. per gallon,	-	2	18 4
Ditto, 115 do., at 6d. do.,	-	2	17 6
	£	144	6 4

Valuation of Tillages on thin Soils.

It is now proposed to give a valuation of tillages taken in a district adjoining the moor-edges, where the soil is generally found light, thin, and uneasy to be

worked on account of being hilly. In such situations the rotations of crops vary exceedingly from those already noticed, and therefore require a different method of valuing the tillages.

Leases are seldom granted upon land of this description, except where great improvement is intended to be made by the tenant, and he is desirous of securing the occupation of the farm until those improvements have repaid him. Under these circumstances leases are granted for fourteen or twenty-one years, which restrict the tenant to nothing but the regular payment of rent, and a provision that one third or one half of the farm shall be left in grass, which has been laid down at least three years. Also providing, that at the expiration of the term, or on quitting, the tenant shall receive a valuation of tillages according to the custom of the country.

Notwithstanding the courses of crops are very irregularly taken, and the farmer

suffers himself to be guided in his management by the seasons, the condition of the land, and the prospect of a crop, yet there are several courses more frequently practised than others, and may be stated as follows; namely, first, fallow with turnips; second, wheat or oats, with grass-seeds and white clover mixed; third, mown for hay, and immediately manured; fourth, pastured; fifth, wheat; sixth, oats. In this rotation, lime would be applied for turnips, and the manure reserved for the sward after mowing, which would render it in good condition for carrying two white crops afterwards in succession. In cold climates, where wheat seldom ripens to perfection, oats are taken after turnips and fallow, after which the land remains three years in grass, and then oats again, as a last crop before fallowing.

When the soil is converted into tillage out of rough ground, or grass that has been laid down ten or twelve years, it is

a favourite practice in many cold climates, first, to pare and burn, and sow with turnips; second, wheat or oats; third, oats; fourth, fallow with turnips; fifth, wheat or oats; sixth, red clover mown; seventh, wheat. In the next course, grass-seeds are sown instead of the clover, and remain two years, one year mown and manured, and the other pastured; after which it will carry two white crops in succession. In this manner rotations may be varied in many different forms, without injuring the staple of the soil.

It is laid down as a fundamental maxim by many writers on agriculture, that two grain-crops should never follow each other; and that only two white crops should be taken betwixt fallowing; and that on arable land capable of growing turnips, white and green crops should be sown alternately. But, if it be found profitable to grow two or three green crops close after each other, or if land lie in pasture several years, and be thereby

greatly enriched, surely two white crops may be sown in succession afterwards, without leaving the soil in worse condition for fallowing, than if only one green and one white crop had been taken. The situation of the land, the condition of the soil, the climate, the seasons, and the prospect of the most profitable return, should each be considered in the regulation of crops that are to succeed each other. And as it is impossible to foresee what is most suitable to be sown before the seasons arrive, the tenant cannot obtain or afford so great a rent when bound by a regular system of management, as if left to his own discretion.

As the tenant knows that during occupation he cannot obtain abundant crops, and profitable returns, without bestowing a sufficiency of labour and manure, and as he is aware that on quitting, he will only be paid for such as have been applied with judgment, he has surely suffi-

cient inducement for managing well, without being tied to follow a course of husbandry that may frequently prove improper for the seasons and the condition of the soil. However, notwithstanding these objections to restrictive clauses, it is not meant that provisions in leases shall be set aside altogether, and the tenant permitted to plough up and crop the land as he may think proper ; on the contrary, it is necessary to bind him to have one third, and in some districts one half, of the farm in grass, which shall have been laid down on a fallow crop, with a proper quantity of tillage and manure. It should also be provided, that more than two corn-crops shall not be taken in succession ; and several other restrictions may also be necessary, which can only be determined by a knowledge of circumstances and the custom of the country.

*Valuation of the Tillages and Manure in
a Farm of thin Soil, and in a cold back-
ward Situation, Sept. 29th.*

The farm is tithe free, and consists of —

	A.	R.	P.	
Near Common Field,	4	3	0	Fallow.
Middle Do.	5	2	10	Oat-stubble seeds.
Far Do.	4	2	12	Seeds 2d year.
Near Bent,	-	3	3	0 Clover ley wheat.
Far Do.	-	4	2	0 For fallow.
Hollin Field,	-	4	3	0 Turnips.
Near Bush Field,	5	1	10	Seeds 2d year.
Far Do.	-	6	2	8 Pasture.
Dike Field,	-	4	3	10 Oats after wheat.

44 2 10

Rent and taxes per acre.

Rent,	-	-	-	£50	0	0
Assessments, 3s. in the pound,				7	10	0
				44	2	10

£57 10 0

Rent and taxes, per acre, £1 5 10

The fences are not included in the measurement.

A.	R.	P.		£	s.	d.	£	s.	d.
4	3	0	Near Common Field. Fal- lowed.						
			4 Dressings, at 13s. £ 2 12 0						
			Rent and taxes, - 1 5 10						
			£ 3 17 10	18	9	8			
			16 Chaldrons lime, at 13s. 6d.	10	16	0			
			Carrying 12 miles, at 1s. per chaldron, per mile, -	9	12	0			
							38	17	8
5	2	10	Middle Common Field. Seeds half-tillage.						
			2 Dressings, at 13s. £ 1 6 0						
			Half of rent and taxes, - - 0 12 11						
			£ 1 18 11	10	16	5			
			Half of 50 loads manure, at 11s.	13	15	0			
			16 Quarters hay-seeds, at 8s.	6	8	0			
			20 Pounds white clover-seed, at 1s. - - -	1	0	0			
			Sowing and harrowing, -	0	10	0			
							32	9	5
4	2	12	Far Common Field. Grass Seeds, mown.						
			No valuation.						
3	3	0	Near Bent. Clover-ley, to sow with Oats.						
			Allowance for tillages, at 50s per acre, - -				9	7	6
4	2	0	Far Bent. For Fal ow.						
4	3	0	Hollin Field. Turnips rid- ded, pared, and burned.						
			Rent and taxes, at 11 5s. 10d. per acre, - -	6	2	8			
			Carry forward, -	6	2	8	80	14	7

A.	R.	F.		£	s.	d.	£	s.	d.
			Brought forward, -	6	2	8	80	14	7
			Ridding, at 7l. per acre, and par- ing and burning, at 1l. 4s.	38	19	0			
			Ploughing and sowing turnips, at 16s. per acre, -	3	16	0			
			Turnip-seed, 9 pounds, at 10d.	0	7	6			
			Hoeing, 14s. per acre, -	3	6	6			
			One half value of crop, at 80s. per acre, -	9	10	0			
5	1	10	Near Bush. Grass-seeds, mown.				62	1	8
			46 Loads rotten dung, at 11s.	25	6	0			
			15 Chaldrons lime, half-tillage, at 1l. 5s. 6d. -	9	11	3			
6	2	8	Far Bush. Grass. Pasture. No valuation.				34	17	3
4	3	10	Dike Field. Oat-stubble after Wheat.						
			One-half of ridding, at 8l. per acre, -				19	5	0
			Draining, in Dike Field, 45 roods, three feet deep, at 3s. 6d. per rood; done three years, -				5	10	3
			The corn and straw to be valued.				202	8	9
5	2	10	Middle Common Field. Oats.						
			33 Quarters oats, at 1l. 1s. -	34	13	0			
			3 Tons straw, at 1l. 5s. -	10	0	0			
				44	13	0			
			Deduct thrashing, &c. at 2s. 3d.	3	14	3			
4	2	0	Far Bent. Wheat-stubble.				40	18	9
			30 Bushels wheat, at 8s. -	36	0	0			
			Carry forward, -	36	0	0	243	7	6

A.	R.	P.		£	s.	d.	£	s.	d.
			Brought forward, -	36	0	0	243	7	6
			6 Tons straw, at 1 <i>l.</i> 1 <i>s.</i> per ton,	6	6	0			
				42	6	0			
			Deduct thrashing, &c. 90 bushels, at 7 <i>d.</i> -	2	12	6	39	13	6
4	3	10	Dike Field. Oat-stubble.						
			25 Quarters oats, at 1 <i>l.</i> 1 <i>s.</i> 4 <i>d.</i>	26	13	4			
			6 Tons straw, at 1 <i>l.</i> 2 <i>s.</i> -	6	12	0			
				33	5	4			
			Deduct thrashing, &c. at 2 <i>s.</i> 3 <i>d.</i>	2	16	3	30	9	1
			12 Tons of hay, at 3 <i>l.</i> 10 <i>s.</i> -				42	0	0
			6 Tons of clover, at 3 <i>l.</i> 5 <i>s.</i> -				19	10	0
			Manure in the yard, 28 yards, at 4 <i>s.</i> 6 <i>d.</i> -				6	6	0
			Ditto, 35 yards, at 4 <i>s.</i> -				7	0	0
			Ditto, 36 ditto, at 3 <i>s.</i> -				5	8	0
			Ashes, 2 loads, at 1 <i>s.</i> 6 <i>d.</i> -				0	3	0
			Garden, 25 gooseberry and currant bushes, at 6 <i>d.</i> -				0	12	6
			4 Loads manure in garden, half-tillage, -				1	0	0
			Stone trough, 110 gallons, at 5 <i>d.</i>				2	5	10
			Ditto, 72 ditto, at 6 <i>d.</i>				1	16	0
			Pump, 14 yards deep, at 12 <i>s.</i> 6 <i>d.</i> -				8	15	0
			Ladder, 21 steps, at 7 <i>d.</i> -				0	12	3
			Ditto, 30 ditto, at 8 <i>d.</i> -				1	0	0
			Dilapidations :—				109	18	8
			3 Gates deficient, at 8 <i>s.</i> -	£	1	4			
			5 Posts ditto, at 2 <i>s.</i> 6 <i>d.</i> 0 12 6						
			50 Yards of fencing, 0 11 0						
							2	7	6
							107	11	2

Here both the tillages and crop being taken into account, make the valuation amount to a larger sum than many tenants are able or disposed to advance at once, on entering upon so small a farm. And it is a much more general custom for the corn to be thrashed by the off-going tenant, and the straw to be taken by his successor at a customary rate. By this means, the valuation would be reduced to about two thirds of the amount.

This is certainly the most correct way of obtaining the true value of the corn; but as it is always desirable for one tenant to quit the premises and the land at the time the other enters, the former is both more decisive and more advisable where it can be followed.

Form of an Appraisalment.

An appraisalment of the tillages, half-tillages, manure, corn, hay, straw, two stone troughs, pump, and two ladders, in and upon a farm situate at A—, containing 44 acres, 2 roods, 10 poles, in the occupation of B— C—, made to the landlord D— E—, or to his on-coming tenant, F— G—, this 29th day of September, 1832, which, after deducting dilapidations, amounts to the sum of four hundred and seven pounds eleven shillings and two-pence.

£407 11 2 — Valued by us, { G. H.
J. K.

Note.—This valuation would require an appraisalment stamp of 15s.

When the valuation is discharged, a receipt may be given for the amount on the same paper, without any additional stamp.

Law respecting Appraisers.

Persons appraising property for hire to be deemed Appraisers, who must take out an annual licence, under the penalty of 50*l.*, which commences on the 6th of July. Auctioneers duly authorised may act as appraisers without any further licence.

Penalty on neglecting to insert any valuation on a proper stamp, 50*l.*

Penalty on any person receiving any appraisal without a stamp, 20*l.*

Stamps.

Appraisements, or valuation of any estates or effects, real or personal, or of an interest therein; or of the annual value thereof; or of any dilapidations; or of any repairs wanted; or of the materials and labour used and to be used in any buildings; or of any artificer's work whatever. Any valuation or appraisement on vellum, parchment, or paper, where the amount shall not exceed £50 £0 2 6

Exceeding £50	and not exceeding	100	0	5	0
100		200	0	10	0
200		500	0	15	0
500		1000	1	0	0

Exemptions. — Appraisements in any courts of Admiralty; or appraisements made for ascertaining the legacy duty.

A Table of English Lineal Measure.

Inches. 7.92	1 link.						
12	$1\frac{17}{32}$	1 foot.					
36	$4\frac{6}{11}$	3	1 yard.				
198	25	$16\frac{1}{2}$	$5\frac{1}{2}$	1 pole.			
792	100	66	22	4	1 chain.		
7920	1000	660	220	40	10	1 furl.	
63360	8000	5280	1760	320	80	8	1 mile.

A pole, perch, and rod, are the same measure.

An acre in length is 28 yards.

A rood in ditto is 7 yards.

A Table of Square Measure.

9 feet.	1 yard.				
272 $\frac{1}{4}$	30 $\frac{1}{4}$	1 perch.			
4356	484	16	1 chain.		
10890	1210	40	2 $\frac{1}{2}$	1 rood.	
43560	4840	160	10	4	1 acre.

A pole and perch are the same measure.

144 square inches make one square foot.

1 square chain is the tenth part of an acre.

4840 square yards one English acre.

6150 square yards one Scotch acre.

The Scotch chain measures 24.8 English yards.

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