87-30

WOOL

Encouraged without Exportation;

O R,

Practical Observations

On Wool and the Woollen Manufacture;

WITH

STRICTURES

On the ANCIENT STATE thereof in this Kingdom.

[PRICE TWO SHILLINGS.]

WOOL

Encouraged without Exportation;

OR,

PRACTICAL OBSERVATIONS

On Wool and the Woollen Manufacture.

IN TWO PARTS.

PART I.

CONTAINING

STRICTURES on APPENDIX N° IV. to a Report made by a Committee of the Highland Society, on the Subject of Shetland Wool.

PART II.

Containing a BRIEF HISTORY of WOOL, and the NATURE of the WOOLLEN MANUFACTURE as connected with it.

Si tibi lanicium curæ, primum aspera silva Lappæque tribulique absint; FUGE PABULA LÆTA; Continuòque greges villis lege mollibus albos.

Virgil, G. 3, 1. 384.

By HENRY WANSEY, F.A.S.

LONDON,
PRINTED FOR T. CADELL, IN THE STRAND.
1791.

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Sir JOHN SINCLAIR, Bart.

SIR,

Having had the pleasure of corresponding with you on the subject of Wool by several letters since the time I subscribed to the Association at Edinburgh for encouraging the improvement of British Wool, I do not know how I can more properly introduce the following Publication to the notice of the world, than by placing it under the sanction of your respectable name—a name well known to every Lover of his Country, because ever to be found where any opportunity offers of doing her service. In this commendable attempt of improving and encouraging this native commodity and peculiarly valuable article of commerce, you, Sir, stand foremost; and may Heaven grant success to your bonest endeavours upon the broadest basis of Public Good.

I remain, Sir, with great esteem and truth,
Your obliged humble servant,

HENRY WANSEY.

August 6, 1791.

Α

PREFACE.

A Pamphlet was lent me by a Member of Parliament, entitled "Report of the Committee of " the Highland Society of Scotland, on the subject " of Shetland Wool," which gave me much pleasure and satisfaction in reading; and I cannot sufficiently commend the noble and patriotic motives and endeavours of this respectable Society. But I confess I much wondered to see such a Paper as No IV. bound up with it; as it is not only full of historical errors and false quotations, but is far from being so liberal as one should naturally expect from the quarter whence it comes. The Author holds up the manufacturers of wool to view, as men whose designs are injurious to the interests of their country, and calls the laws against the exportation of wool " a system of oppression to the wool grower—a mise-" rable system of policy—laws destructive to the " breed of fine-woolled sheep, &c. &c."

Whenever a man attacks a whole body or profession, I must, without examining any further, condemn such a person; but if, upon examining the historical facts he refers to and forms his judgment upon, they are found false quoted or misrepresented; I think he deserves still greater condemnation; for certainly the best cause in the world ought not to owe any of its support to deceit or misrepresentation. We are not to do evil, that good may come.

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I had the honour to be one of those Deputies that attended Parliament about three years ago, to obtain a revision of the Wool Laws, and am one of the profession thus attacked; and though not possessing " the pen of a ready writer," and though my opponent is backed by two such able assistants as Smith and Young, yet I shall not fear to enter the lists against him, who defies whole armies of Manufacturers, though armed with only a sling and a stone .- I think be stands on false ground; from whence he has levelled his artillery against those laws of his country established by the experience of ages, which I mean to defend as well as I can; as I think them (and I believe without prejudice or partiality) founded on the clearest views of its best and most extensive interests.

The Doctor published many of these opinions about nine or ten years ago, in his otherwise commendable "Essay on encouraging National Industry," and no one having controverted them, he has repeated his attack upon a body of men, who are now called upon to justify and defend themselves.

I hope the candid public will make all possible allowances for the inaccuracies of this Treatise, the Writer having but little leisure for a work of this kind; yet he felt it his duty to say something on the subject, in answer to DOCTOR ANDERSON'S ASSERTIONS.

INTRODUCTION.

poctor Anderson's Observations on Wool (particularly in a paper, Appendix, N° IV. to the Report of the Highland Society at Edinburgh, on the subject of Shetland Wool) abound with many statements contrary to sact, and (what is worse) conclusions are drawn from them, and points established, which may tend to mislead many a well-wisher to his Country, for want of their being controverted.

My only object in the following Treatise is, to prevent the Public being missed by a partial representation on a subject wherein the Interest of my Country is so much concerned. I shall only observe that the knowledge I may have acquired of the nature of Wool, is the result of twenty-sive years practice, as well as theory, in the manufacturing part of it; and I have made the history of it a favourite study.

I agree with the Doctor, that our wool is much degenerated, but not in the degree or manner he states; and also that there is no doubt but it may be so improved, as to supply ourselves with much more sine wool than at present, and so prevent the necessity of importing so many thousand

thousand bags of fine wool annually from Spain; yet many strong reasons subsist why it is better to encourage the growth of fine wool by premiums at home, than to seek the premium of a foreign market.

The Doctor condemns the good policy of this Country for ages past, in keeping its wool at home, and reminds us of the great exportations of wool in the time of Edward 3 to the Low Countries. But would be wish to see the two countries in the relative situation of those times? They were then a country sull of manufacturers, and we were only wool growers; they were rich, and supplied all Europe with money, and we were poor, and forced to pay our troops with wool, having but little money.* We are now (thank God)

* That Edward 3 paid his army with wool instead of money appears from Dugdale's Baronage, v. II. p. 138. Lord Bradestone received wages for serving in Flanders, with 4 knights, 15 esquires, 20 archers on horseback, and himself and retinue, for one campaign (16 E. 3) 28 sacks of wool. Also Ussford, Earl of Sussol, 77 sacks. Also the Lord Poynings, the same year, 21 sacks of the King's wool, as wages for 15 men at arms, 4 knights, 10 esquires, and 12 archers, also many others.—The 10,000 sacks mentioned by the Doctor, p. 38, from Rapin, as carried into Brabant by Edward in 1337, was scarcely a month's provision for the manufacturers of the single town of Louvain, so great was their trade in those days, though now they have very little.—The Duke of Brabant, whose territory was not larger than Cornwall and Devon, offered 50,000l. with his daughter as a dowry to the Black Prince, a sum in that age greater than any sovereign in Europe could have given with a daughter. Edward himself did not essentially such as a down with his daughter to Alphonso King of Castille. Ander-

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able to improve every pound of our wool ourfelves, be it fine or coarse, 4, 5, 6, and 700
per cent.

The Doctor does not feem to comprehend the true difference between parting with our wool in the raw state as nature gives it, and parting with it after it has been fully manufactured; in the former case, the balance of trade would foon be many millions against this country; and even to the wool-grower himself the advantage, in my opinion, is very doubtful, as I shall probably shew. But the Legislature is surely too wife to facrifice the general interest to the few; and I am convinced a proper discussion of the subject will discover it to be the truest and best policy of this country, not only to keep all our wool at home, but to encrease the quantity, by our own encreased and improved growth, if possible, to as great extent as we can find hands to employ in its manufacture.

Having premised this, I shall only add, that the same motive which influences the learned Doctor

fon's Hist. of Com. p. 318.—This ability and these riches were entirely owing to the great extent of manufacture in his dutchy.—When Queen Jane, the wife of Philip the Fair, paid a visit (anno 1301) to the Duke of Brabant, the ladies of Bruges put her Majesty out of all patience, says Guicciardini, to see how splendidly they were decked with jewels and rich attire. "I had thought, says she, that I was the only queen here, but I find here says above 600, besides myself, queens of this city."

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Doctor to write, induces me also to take up the pen, to wit, an ardent desire to encourage the growth and improvement of our British Wool; an object well worthy the attention and support of every friend to his country; nor do I think it at all necessary, in pursuing this object, that the landed and commercial interests should be fet in opposition to each other, or those of the wool grower and manufacturer. The rise of the latter does not at all stand on the depression of the former; for I conceive the interest of the former to be so blended with the advantage of the latter, that it must be an illiberal, or at least a very narrow mind, that attempts to separate them.

REMARKS

On Dr. Anderson's Memorial concerning British Wool, in Appendix No. IV. in the Report of the Committee of the Highland Society, 1790.

THE Doctor mentions, that in 1337 English Wool Page 38, line 14. fold in Flanders for 40l. per fack, that is 2s. 3d. per lb. ancient money, or above a guinea per lb. modern money. This would argue a great degradation indeed. But the fact is far otherwise. It is easily proved that Rapin (from whom he quotes) mistakes pounds weight for pounds sterling. And that English wool never at any time yielded in any instance whatever, one fourth part of the price here stated by the Doctor.

That the price of our wool at that time was about 6l. per fack, appears from Stowe, Hume, and many Stowe a better other historians, if the Doctor would have taken a little authority on the fubject of wool, more pains to have investigated the matter. Stowe must than Rapin, and why, be good authority, whose evidence was collected more than two centuries ago; was himself bred up in the woollen line, with a merchant taylor; and feems to have interested himself much in the subject of wool, of which it appears he well understood the nature and hif-

See his edition of 1692, black

on the credit of his subsidy, to account for at the rate of 40lb. per fack.

tory. He fays, 12 E. 3, (which is the very year above mentioned) that a Parliament was holden in London, wherein the Clergy granted him a tenth, and the Com-Wool taken up-mons a fifteenth: that at the same time the King took wool, to a certain number of facks, at a low price, in every county, by his agents, (the grant of the Commons probably operating too flowly for the King's immediate necessities.) The number set on Staffordshire was 600 facks, price 9 marks the fack of good wool; i.e. 120s. for 360lb. of wool, which makes just 4d. per lb. But Stowe fays immediately after, that the King took a fifteenth of the Commonalty, to be paid in wool, price of every stone (containing 14lb.) two shillings: this will amount to hardly 2d. per lb. I could not at first comprehend his meaning, in stating two prices so different, supposing he meant that the best Staffordshire wool sold for 4d. per lb. when the common fort yielded only half the money; but it foon occurred to me, that as he begins with faying the King was to have the wool at a low price, it must mean that he took the wool at the latter price (2d.) when it was really worth the former (4d.)

The King's pro-fit on a fack of wool was 40lb. of wool, which would fetch him 13s. 4d.

Let us next refer to Hume, who is generally very correct in his facts. He fays in 1337, Edward was granted by his Parliament a subsidy, not of money, but of the ninths on all produce of lands, and of sheep, and all moveables; that is, out of each fack of wool of 360 pounds exported, he was to have 40 pounds. Thus it was, that the King had 40 pounds of every fack of wool fold into Flanders, for all taxes were then paid in kind.

I shall here introduce an authority respecting the price [3

price of cloth in the age of E. 3, which cannot be difputed, and from thence adduce a fresh proof of the value of the wool. It is the statute book of William of Wykeham for his college near Winchester, and from which I got a friend to copy it a short time since. He directs, "That the gowns of the superior members of " that fociety should be made of cloth taken from a " piece containing 24 yards (virgatas), valued at 42s. Price of woollen "the whole piece (i.e. 21d. per yard), and that the gowns of Edw. 3. " of the scholars and clerks should be made of cloth " taken from a piece containing 24 yards at the least, "which should not exceed 33s. 4d. the whole piece." (i. e. 16d. ½ per yard.) Here we have the undoubted prices of two kinds of English broad cloth at the time above mentioned, that for gentlemen at 21d. and that for the scholars and commonalty at 16d. 1. And if we confider that every yard of cloth used up 2lb. of wool, and that the expences of manufacturing it must raise it at least three times the original value of the wool, we fee evidently that wool at this time could not be worth in England more than 3d. or 4d. per lb.

Further the Doctor afferts that "The fineness of the Page 28. "British wool induced the Romans to establish a cloth " manufacture at Winchester for the use of the Em-"perors. This therefore must have been deemed the "finest wool in the universe at that time."

So far from there being any proof of that inducement, there appears great doubt whether any fuch manufactory was ever established here. It all rests upon the explanation of three words mentioned in the Notitia Imperii, where an office is mentioned in Britain under

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the title of Procurator Cynegii Ventensis:" we will, to avoid all cavilling, admit the last word to mean Winchester (though there were several towns here besides Winton, which bore the name of Venta): we will also admit Cynegii to mean Gynæcii, and that Gynæcii means the facred workshops*. A person the least conversant with history knows that the Gynæcii were common in almost all the provinces of the empire, and means no more nor lefs, in my opinion, than fimply a manufactory, or in the largest sense, a manufactory for foldiers cloth, of which, as Britain maintained three legions, besides auxiliaries, there must be a considerable consumption; admitting this therefore to be the case, how can it warrant the Doctor from so simple a fact, to draw the following conclusion in the next page, "It was here the Roman Emperors, during their most luxu-« rious æra, chose to supply themselves with their most 66 sumptuous robes."

But giving up every thing to the Doctor that I have faid, and even admitting that Imperial garments were made there, he is still unwarranted in the last affertion, because the Notitia was not drawn up till just as the Romans were quitting Britain, when usurpers were continually starting up in this island. To put on the Imperial

In the time of the Emperors Arcadius and Honorius.

* "Procurator Cynegii Ventensis," after all, may have nothing to do with either wool or cloth; it is much more likely the root of the word Cynegii is **EUVNY**TYS*, a hunter, from **EUVOS*, a dog, than from Gynæceum, a workshop; which opinion Camden himself seems to favour, British dogs being much more celebrated by the poets than British sheep. Perhaps therefore, the office here described would in modern English be much nearer the truth, if rendered Master of the Buckbounds, an office still found in our British establishment.

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Imperial purple was an effential ceremony in proclaiming an imperator. An usurper could not have it from Rome or Constantinople; it would betray his designs; hemust therefore have had it manufactured as near to his own place of residence as possible, and in as private a way as he could. Such cloth for such Emperors might have been made, but such is not worth enquiring for: we know that no man dared presume to keep the true Imperial purple in his custody, as the Imperial laws both of the Theodosian and Justinian code, regarded this cloth with the most jealous suspicions. The Doctor therefore, in my opinion, has no excuse whatever for imposing that on the world for fact, which is only the result of his own warm and lively imagination.

Though the fact is perhaps not worth contending for, and no way relative to encouraging the growth of modern fine wool, yet it discovers a great want of candour, which I am forry to remark is visible through the whole of his Appendix N° 4, although he introduces his subject by saying they are all facts taken from authorities that may be relied upon.

He fays, "The exportation of wool, though subject Page 44 and 45.
"to a high duty and liable to temporary interruptions
"on monopolizing principles, was still however per"mitted in one way or other till the time of Charles II.
"and from thence leads his reader to conclude that this
"stystem of legislation, by occasioning an immense glut
"at home of fine wool, made it not worth the wool"grower's while to rear it!! Regardless therefore of the
"quality of his wool any longer, his attention must now

B 2 "be

se be turned chiefly to improving the carcafe of his 66 fheep, &c. &c. &c."

The new system of enclosing and turnip feeding, but the cause.

Strange affertions these! and much stranger conclusions are drawn from them for two or three pages. is not the effect, What, Sir, has the increased cultivation of our lands, and the gradual improving state of our trade and commerce nothing to do in bringing about this event?

It is an old observation, that States in the lowest degree of cultivation value the skin more than the carcase; but as they proceed in improving their lands, the carcase becomes gradually of more estimation than the skin, and wool of less relative value. But it will at once destroy all the Doctor's hypothesis and conclusions about the glut of fine wool, when I tell him from good authority, that at the very time he states this immense No glut of fine glut of fine wool, there was no fuch thing, but on the wool, 1C. 2. but awant of it so as contrary, considerable importations of fine wool from Spain, which sold in London, 1 Cha. 2, for 28.6d. per lb. when the best English would yield only from 16d. to 18d. per lb. there being then a superiority in the quality of the Spanish, in nearly the same proportion as there is now*. But

portation.

* An ancestor of mine, who was a clothier at Warminster as early as T.C. 2, has made the following entries in his book of accounts:

"July 27, 1664, bought of Mr. Sheepard of Kineton (Herefordshire) at Bristol fair, 34 stone of wool at 16s, a stone, 12lb. to the stone, 27l.4s." (This must have been the best English wool.)

"April 20, 1665, bought of Mr. Hugh Smithson, jun, (a Spanish merchant in London, an ancestor of the present Duke of Northumberland) 1 bag of short Spanish wool, No 28, I .. 2 .. 22, tare 9lb. at is. 8d. per lb."-This was an inferior fort, as appears by the next entry.

"March 25, 1668, bought of Hugh Smithson 4 bags of Spanish wool, 2 of refine at 2s. 6d. and 2 of short at 1s. 8d."

But the Doctor is not only mistaken in his foregoing deductions, but even in his first affertions; for as early as the year 1260, in the time of H. 3, it was enacted Stowe, among the Statutes and Provisions of Oxford, and confirmed by Parliament, "That the wool of England should " only be manufactured within the Kingdom, and that " no part thereof should be transported out of the realm "to strangers." There is also to be seen in the Statutes at large of the present edition, a law of II E. 3, passed to make it felony to transport any wool from this realm into foreign countries, and with forfeiture of life and limb. And though Edward's necessities for money Wars, foreign or to carry on his French war, foon occasioned this law to continual hinbe changed, it appears that he began feriously to take drance to the . fuch methods to improve and increase the manufactures nusacture in the of this country, as in the end to prevent the necessity of this country, and fending it abroad. Edward called feveral Parliaments always is the almost entirely to encourage the manufacture of cloth (an art almost lost during the continual wars of the

He found this Spanish wool at 2s. 6d. per lb. answer so well in his cloth, that he ever after, for 30 years, continued to buy Spanish wool, of which there are regular entries in his books, although he gave almost double the price he did for fine English; an evident proof of its intrinsic superiority above 130 years ago. The inferiority in price of English wool is much the same now, although Dr. Anderson says it is kept down in its price by the arts of the English manufacturer. If the Doctor doubts this importation of fine wool fo early as the time of his supposed glut of wool, he may inspect the custom-house books; as it particularly is mentioned, that they were weighed in the King's warehouse. In Charles the Second's time there were two forts of Spanish wool imported into this country, Refinos and Finos, and the same two sorts still continue to be imported.

Plantagenet Princes), not (as we find) to increase the quantity of his wool, that he might have larger profit in exportation, but to enable his subjects to work it up themselves, and so prevent the necessity of sending it abroad; for he found it of no use to enforce his statute of the 11th of his reign, unless his subjects first rendered themselves capable of working it all up into cloth. He must have observed in his intercourse with Brabant, Hainault, and the Low Countries, what great riches, power, and confequence they arrived to folely from manufacture, although in the first instance they were obliged to import the raw material, for they could buy of England forty thousand pounds worth of wool at credit, and repay the whole debt with a quarter part of the same wool, when they had manufactured it. The Flemings, by means of their two great fea-ports of Oftend and Bruges, received wool from all parts of Europe, as well as from us; and the detention of our wool from them by the act of 11 E. 3, did not feem to have given them umbrage, or stopt their manufacture; they were glad to have it, though from their great importations from other countries they could do without it, though it is faid our's, from the goodness of its quality, was very defireable.

Was Spain to adopt our improvements in agriculture, and recover their ancient spirit of

But the reason why the farmer or wool-grower became regardless of his wool, was not from a despair of felling fine wool, but from his being enabled by the improving state of his country (arising from its increased trade and commerce, riches, and luxury) to make the flesh of the would degenerate sheep a principal object of attention; a larger breed of sheep was therefore adopted, which naturally produced a coar[9]

a coarfer kind of wool; but finding the natural feed of the country would not maintain this new fort, he had recourse to artificial grasses and turnips, which latter is found very injurious * to wool, but the farmer still. made as much money from his fleece as he did before, though fold at a less price, because of the increased quantity of it; and this is still the language of every farmer of the West of England, who finds his coarse Though we want wool fell as readily as his fine formerly did; for to more fine, we one man who buys a coat of fine wool, there are ten at less coarse. least who buy inferior qualities.

The flesh of mutton was not formerly the principal food of the English, as it now is. Sheep are now kept for the fake of the mutton, which formerly were kept chiefly for the fake of the wool, as is the case with the Spaniards, whose fine-woolled sheep is a mere carrion, and never eaten. The English in ancient times lived chiefly on falted provisions, and much on bacon. In Domesday Book frequent mention is made of porcarii or pig-drivers; but keepers of sheep are seldom mentioned. And Edward of Sarisbury, Sheriff of Wiltshire, in the Rents of his Shrievalty, received 132 hogs and 32 flitches of bacon, and only 52 lambs and 240 fleeces of wool, but no muttons for the larder. As the Doctor afferts a continued state of manufacture at Winchester from the days of the Romans to the time of King John, I fearched Domesday Book in Hantescire (but in vain) for any traces of manufacture there. On the contrary,

* I have heard an eminent woolstapler say, that the effects of turnip feeding are so pernicious to fine wool, that he can distinguish it while drawing it apart in his fingers, from its acquired harshness. This is a very ferious confideration.

there is hardly any mention of sheep, lambs, or wool, in that county, although there is continual and repeated mention of hogs, such as Silva de 160 porc. Silva de 150 porc. Silva de xxx porc. de pasnag, &c.

P. 38. Respecting the Spanish vessel taken in 1470 by an English privateer, with wool on board, I understand it thus—A sack of wool was a known and determinate quantity alike in all countries, viz. 364 pounds; the wool in question weighed only a quintal, that is 100 lbs. which was stated as being worth in the Netherlands at the rate of 41. per sack, and amounts to about 22s. 3d. not 91. 12s. as stated by Dr. Anderson.

By Dr. Anderson's observations, p. 45, on our wool exported to Flanders, he does not seem to have considered the nature of the sales of wool in Edward the Third's time. All wool, whether coarse or sine, was at that time saleable in Flanders, and the English had no need to employ persons to fort it; it was undoubtedly sent unforted as it came from the sheep. The Flemings manufactured goods of all sorts and prices, and could use the coarse just as well as the sine; and as to the expence of carrying it from our coasts to Flanders, it never could be so great as the Dr. states (51 per sack).

P. 36. What Dr. A. mentions about Don Duarte, King of Portugal, is plainly this "That Edward King of Portugal (he calls him Don Duarte) a grandfon of John of Gaunt, and of course great grandson to our Edward the Third, after whom he was named, was much beloved by the English nation. He resided a considerable time in London, when only Duke of Coimbra, at which time he did the nation some signal service in healing the breach

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breach between the King's uncles Gloucester and Cardinal Beaufort (as may be read in Hall). He had the misfortune to have his brother taken prisoner by the Moors at the siege at Tangier. Puffendorf says he tried every means in his power to effect his delivery, though without effect. It is most probable this cloth of gold, being a rare and valuable present, was intended for this purpose, the date agreeing thereto; but the merchants to whom the King applied, seem to have made a point with the King before they would part with it, that he should use his interest with his relation the King of England, to procure them so sacks of Cotswould wool, being a fort of wool they could not otherwise easily procure.

I cannot conclude from hence, as the Doctor does, that it was therefore held in Italy in such estimation as to be preferred to gold itself, any more than I do that the man who gives a guinea for a sack of wheat, prefers the wheat to gold itself. There is no proof I believe that these sacks of wool were intended for Italy, although the cloth of gold was made at Florence. The English wool which was particularly coveted abroad, was that which grew in the Cotswould, which seems to have possessed from desireable quality that rendered it superior to other wool. When Florence and other towns of Lombardy bought our wool, they bought also wool from Catalonia and other parts.

The Plantagenet Princes were fo taken up with war, that manufacture and other arts of peace were but little attended to, and we might well spare 100,000 facks now

One town in Brabant used more wool than England, even in Edw. the Third.

Importance of the ancient trade Countries,

now and then. But what was this 100,000 facks towards supplying the manufacturies of Flanders, or even the fmall dutchy of Brabant, when the fingle town of Louvain employed 150,000 weavers*, each of whom all the growth of could work up a fack per annum at least, which was the time of our more than all England could supply. Besides which, we know there were large manufacturies at Ghent, Y pres, Bruffels, Boisleduc, Oosterwick, Lisle, and many other places. At Bruges they had the finest market in the world, and the greatest conveniences for a quick export of their cloth and import of their wool to and from all parts of Europe; the Cloth-hall was fo large that a branch of the canal flowed through it, and vessels from fea, full of merchandize, could fail into it, unload and load again, in any weather, by night or by day, with the greatest dispatch and privacy if needful, in the centre of their hall, as if on dry land; which was an inconceivable advantage to their trade; a conveniency to which the trade of this country has never yet arrived, any more than it has to the great extent of their exports and imports of woollen merchandize; for they carried on their trade in a style far superior to any thing ever exhibited fince, to which their connexion with the Hanse towns greatly contributed. Within a few years, there were still to be seen the ruins of seventeen ancient palaces, formerly the residence of the consuls of the different nations, besides a multitude of noble and grand repositories for supplying the various merchants who traded

> * It is still to be read in the annals of this town, that when the weavers went home to their meals, a great bell was rung to give notice to mothers to take their children within doors, lest they should be trampled to death by the crowd of workmen passing by.

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traded thither with every article of life or luxury then known in the world.

P. 59. I cannot agree with the Doctor when he afferts that the Spanish wool is not finer now than it was in ancient times: it certainly has been much improved, as I shall endeavour to shew in the second part of this publication.

P. 30. Neither the instances of Alfred's mother, nor the family of Edward the Elder, were proofs of any proficiency in woollen manufacture in this kingdom under the Saxons. Though it proves some existence, it is rather a proof of fcarcity and rareness, otherwise it would not have been worth the author's while to take notice of it.

"The departure of the Romans (fays Dr. Henry, in "his most excellent History of this country) was fol-" lowed by a total destruction of the arts and sciences in "Britain." The victories and massacres of the Saxons, and the bloody and continual wars of the Heptarchy, followed also by the cruelty, plunder, and oppression of the favage Danes, reduced Britain to the lowest state of humiliation; every art, every idea of comfort of life, was lost in that of preserving even existence. Forests, dens and caves, and the wild mountains were the most eligible places for Britons, and under these circumstances, how can we pretend to trace a progression of the arts, or of woollen manufacture. Cold, hungry, and naked, and destitute of every comfort of life, the arts of manufacture must have been totally and universally laid aside and lost. The wife Alfred, knowing the true interest of his kingdom, might attempt to introduce it secreted.

raifed and multiplied; hence the great use of

and the confusion which soon followed must, if it had been the case, have again configned it to oblivion. And as to British sheep, they must in those ages have been The bleatings of almost exterminated. A flock of sheep could not escape the Sheep would the prowling eye of a Danish troop, who would slaughter all times, though them as fast as they could seize them. Hence probably arose that general use of bacon and salted provisions, and the breed of pigs instead of sheep, which we trace in the Domesday Book, and which continued some hun-Pigs more easily dred years after. Pigs were not so liable to be seized as sheep. The latter required pasture, the former could be kept in the smallest room without betraying their situations, and eafily and expeditiously increased, whilst the bleatings of sheep could be heard at a great distance. Under these circumstances, this country could neither make any progress in the arts of weaving, nor even preferve the knowledge of it*. Pray where, Doctor, were they, in such perilous times, to get cards or spinning-turns for spinners? loombs and shuttles for weavers? oil, soap, racks and tenters for fullers? Or if any of these were found, how were they to compel workmen to return the property entrusted to them, if they chose to detain it? There were no laws then but such as strength and violence chose to dictate. You see in Madox's History of the Exchequer, account of Woad imported in fix places, and one of them happens to be Southampton; and you at once conclude, " the manufacture of woollen cloth

* The Doctor, notwithstanding, speaks positively, and says (p. 31) that this manufacture had always been confidered in this island, from the days of the Romans in it, as its chief and favourite manufacture.

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"still kept its ground at Winchester, where you say "the Romans established it," because forsooth Southampton is the port of Winchester.—Small premises, Doctor, with large conclusions!*

It is tedious to point out all the instances of this kind, which occur in this Appendix, professedly given from fuch authorities as may be relied on, yet fuch are found in every page. Suffice it to mention one more. P. 32, you fay "that the art of dying was carried on by " a Guildry I have not been able to learn, though it is "highly probable; but that it was carried on as a fe-" parate, honourable, and lucrative business, is clearly " proved by the following fact from Madox, anno 1201: "David the dyer pays one mark that his manor of _____ "may be made a burgage."—Now if this record was so, I draw a contrary conclusion, that it proves the fcarcity of the art, fince the appellation of "the dyer" was a sufficient distinction in an Exchequer accompt to identify fuch a man. But the Doctor has made a most unfaithful extract, for there is no fuch word as manor mentioned. I have referred to Madox myself, and find it thus-" David the dyer paid one mark that his mef-" fuage might be made a burgage, and that he might " have the fame liberties as other burgeffes had in Car-"liste." Just before this (5 R. 1) Madox mentions,

* Woad was used for other purposes than dying; and by old dying receipts, even down to Edward the Sixth's time, it appears they dyed not only blues, but browns, pukes, tawnies, and every other colour as well as blue with woad, and used four or five times the quantity that is now deemed necessary, to produce the same colour; and after all, the whole importation of the kingdom there mentioned, amounts only to a return for 60 facks

To shorten these Remarks by a more general answer, I would observe that the Exchequer makes no mention A few weavers of Textores or Telarii till the reign of Henry 1, and they in England temp. H. I, who were in too infant a state for the Kings of England to raise a fine upon, till the time of Henry 2. Madox's Hist. of Exch. vol. 1. p. 339, fays, "Oxford paid a " mark of gold, 22 H. 3, and 61. in lieu thereof, 29, 31, " and 41 of H. 3, for the ferm of their gild, yearly, 44 that nobody within five leagues of that burgh should « exercise the art but themselves." Notwithstanding this encouragement to increase the art, they petitioned E. 1 to have this fine abated, representing they were not able to pay a mark of gold for their ferm, their fraternity being reduced from 60 weavers to scarce 15, who were poor and decayed. In confideration whereof E.I reduced their yearly ferm to 42s. I extract also from p. 400, what each town in England paid into the Exchequer for their ferm, or for leave to exercise their weaving trade, and from thence shall endeavour to ascertain the

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extent of the weaving trade in England during the period above mentioned, when it was faid to be flourishing.

5 H. 2, the Telarii or weavers of London paid into the Exchequer 4 marks of gold (equal to 121.)-11, 15, and 24 H. 2, they paid 121. for each year .- and 1 R. 1. they paid 121 .- 12, 14, and 31 H. 2, the Telarii of Oxford paid 61 .- 5, 14, and 31 H. 2, Nottingham paid 40s. per ann.-12, 14, and 31 H. 2, York paid 101.-22, 27, 31, and 52 H. 3, York paid 101.-5 Steph. Huntingdon paid 40s .- 9, 15 H. 2, and 30 H. 3, Huntingdon paid 40s .- 5 Steph. Lincoln, paid 61 .- 5, 9, 12, 14, 15 H. 2, and 41 H. 3, Lincoln paid 61 .- 5, 9, 15, and 18 H. 2, Tellarii and Fullones of Winton paid 61 .- and 9 R. I, the same paid 61. each.

7 H. 3, the Textores of Oxford paid a cask of wine to P. 414. have liberty in the making of cloth as well as other things. (Wherein the Textores differed from the Telarii is not to the present purpose necessary to mention.)

The men of Worcester fined 100s. that they might P. 468. buy and fell dyed cloths (pannos tinctos) as they were wont to do in the time of H. 2.

The following places are also mentioned to have had leave to fell cloth, Bedford, Beverly, Norwich, Huntingtlon, Northampton, Gloucester, Nottingham, Newcastle, Lincoln, Stamford, Grimfby, Barton, Stafford, St. Alban's, Baldack, Berkhamstede, and Chesterfield.

It appears from Madox, that much cloth was im-P.765, 30H.3. ported into England at this time. Hen. 3, by letters patent granted to Simon de Campis, merchant of Douay, that he might trade throughout England, he paying to

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the King his rightful duties, and that no impost should be taken to the King's use for Simon's cloth.

From the above accounts I think it is not difficult to ascertain how many weavers (Telarii) were in England in the time of Henry the Second, a flourishing period, if we take the petition of Oxford for a guide: for when there were 60 weavers, they paid 61. but when reduced to 15 weavers, they paid only 42s. My mode is as follows:

 London -	31 H. 2, paid 24 H. 2, —	12/. ———	120
 Nottingham	31 H. 2, —	2l. ——	14
 York -	31 H. 2, -	10%	100
 Huntingdon	15 H. 2, —	21	14
 Lincoln	15 H. 2,	61. ——	60
 Winchester	18 H. 2,	61.	6ö

If any other town made cloth, it was too inconfiderable for the King to lay any fine or tax upon; and from this document it appears, that in the most flourishing times of Henry 2, there were not near 500 weavers in the whole realm of England, a number fo infignificant that every petty town in Flanders and Brabant could produce as many. Though the Kings of England gave much encouragement, yet the genius of Bir Met. Hale, the English did not excel in this way till many ages after; instead of being progressive in the art and practice, they were retrogade; that though more than 17 towns petitioned and obtained liberty to fell cloth, there were only 7 or 8 that attempted to make it, some of which, though indulged with exclusive privileges, could not maintain themselves, but fell into decay, and petitioned the King

Number of weavers in England in the reign of H. 2.

Madox.

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to take their case into consideration and lower their fine, which was done two thirds.

As to any claim of priority in the art which the Dr. seems to lay much stress upon in favour of Britain, it is well known that the arts of weaving and spinning were common in all ages and countries. Alexander presented Rollin's And Syligambis and other ladies of the court of Darius, with fome woollen cloth, the workmanship of his mother and fifters, in which, though he intended a compliment, yet it was thought at first an affront to these ladies of quality, because woollen cloth was so common a thing in Persia, that none but the lower classes of people used it. For the valgarity of this present Alexander was obliged to make an handsome apology.

We read that Augustus Cassar wore woollen garments; fpun and woven by his mother and sister. That the unfortunate Lucretia, who at first fight inspired the lustful Prince of Rome with so ardent a passion for her, was then employed in carding and spinning wool with her domesticks. And not to mention the pensive Queen of Ithaca, nor the beauteous Helen, nor any of the Princesses of the Iliad and Odyssey, we may look upwards to the times of King Solomon for his description of a virtuous woman, where we find a skill in spinning wool, a shining part of her character; or if we wish to feek 500 31 Prov. 13, 19, years further back into more remote antiquity; we shall find that while the mighty Sampson slept in the lap of his Dalilah, she was bufily employed in using his hair for forming the warp of her loom. A very ingenious woman indeed she must have been, and well qualified had fhe been still living, to have wove on this fine

warp of hair fome of Miss Ives's fine spinning, as recorded by the Doctor: but in this I hope I shall be understood not to pass the least reflection on the abilities of that ingenious lady, which deferve the highest commendation, though I must beg leave to remark, that a maker of superfine cloth would not be induced from this circumstance to purchase it in preserence to Spanish wool; on the contrary, he would prefer wool that did not possess this (power of) ductility. It is a good property for combing, but not for clothing wool. This property is, I suppose that which Dionysius Alexandrinus means to celebrate in the quotation given by the Doctor, as well as what Lewis Guiccardini calls " lane finissime," in contra-distinction to the Spanish, which he names very properly "lane bonissime," the latter being far superior (for all kinds of good cloth) to the former.

And now, while I am speaking of the antiquity of the woollen manufacture, let us trace it up to its remotest antiquity. Among the Institutes of Moses we find the antiquity. Among the Institutes of Moses we find the solution following: "Thou shalt not wear a garment of divers forts, as of linen and woollen together;" and in another place, "This is the law of the plague of leprosy in a garment of woollen or linen, or in the warp or in the woos, or in any thing made of skin to make it clean or unclean, &c. &c."

It is said of Moses that he was learned in all the wissom of the Egyptians. To speak of the warp and the woof, and to forbid manufactures of linen and woollen intermixed, denotes a considerable knowledge and proficiency in the weaving arts 3300 years ago; yet above 200 years before this, we read of a fond father who presented a favourite son with a coat of fancy cloth of many colours.

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If then dying with various tinctures was not unknown within 600 years of the Deluge, the art of weaving cloth must have been still earlier than that of dying. Can we suppose the Father of the faithful, who with his kinsman Lot possessed such prodigious slocks of sheep and of herds, that as the Scriptures metaphorically express it, the land was not able to bear them, that they might dwell together; can we, I say, suppose that Abraham, who had so prodigious a houshold as to be able to arm (upon short notice) 318 trained servants born in his own house, could find no employment for his female servants, who must have been equally numerous? or that he did not find a proper use for the large quantities of wool which he must have annually shorn from so many thousand sheep?

I shall not trace the woollen manufacture any higher, because I cannot prove that the garment Shem and Japhet took to cover the indecent situation of their father, was of woollen cloth; though I have no doubt but it must have been of some Antediluvian manufactory.

The lowest degree of manufacture in a country is where every family makes something for its own use: this is common even in savage countries: the next step is to work for their neighbours: the third degree is when so increased and improved as to be carried to the public market; but it becomes only considerable and extensive, when it becomes an article of export. The art will exist for ages in the first state, before it reaches the next, and in others it never arrives to the latter.

Pliny fays in his Natural History, lib. 8, "that the "Gauls manufactured a kind of cloth (or rather felt of

C 3

" wool)

This method of felting by means of vinegar is quite unknown to us manufacturers of the present day, but perhaps to mention it may give a useful hint to some who read this.

The Doctor fays (p. 36), "From the days of Edward I. to those of Cha. I. the woollen manufacture and the exportation of woollen cloth and wool, were the principal objects of legislation, and during this period British cloth was sought for with avidity by all nations, &c." Here is a variety of things blended together, some true and some not so. I first answer, that a great exportation of cloth must have precluded a great exportation of wool, in the fame manner that a dairyman who makes much cheese will be careful not to sell much of his milk. But the fact is, that there was not cloth enough made for our own confumption till long after the days of Edw. 1. And as to the Doctor's quotation, p. 35, of the duties Edw. I laid on woollen goods exported, I have looked into the authority he quotes, and there is no fuch duty to be found; and the whole is an imposition. We know (from Madox) that the father of Edw. 1. gave Simon de Campis, merchant of Douay, leave to import and fell his cloth in any part of England, which probably would not have been allowed if we had made enough for ourselves and

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to spare for exportation. Anderson's History of Commerce says (p. 335) that down to 1354 we had no exportable manufactures of our own, except some coarse woollen cloth which was but a late manufacture, and some worsteds; and that we were still obliged to take the greatest part of our fine woollen and linen cloth from the Netherlands. Edw. 3 in 1338 granted leave to the towns of Brabant freely to bring over and sell what number of woollen cloths in England they pleased.

There was certainly some quantity of English cloth exported to the Baltic (as a return for sish) in the times of R. 2 and H. 4 (Hackluit), but I have not met with any certain accounts before *, and this export was soon on the decline. The Hanse merchants intimidated us by their cruel usage of every English merchant ship they met on the seas, and we had very little foreign trade till the reign of Edw. 6 and Q. Eliz.—Where then is the proof of that assertion of the Doctor's, that English cloth, from the days of Edw. 1 to Cha. 1, was sought for with great avidity † by all nations!! The little export trade we had was not of much benefit to England, being chiesly managed by the merchants of the Steel-

* In Ed. 3d.'s time (1354) it is on record that we imported 1831 fine woollen cloths, worth 6l. each, and that we exported of our manufacture 4774 cloths, all of which were coarse cloths, worth only 40s. a piece; but I much doubt if it occurred again for many years.

† This about Edw. I is another gross imposition on the public. So far is this from a possibility of being true, that the very author he quotes says almost 200 years after this, "that a subsidy was granted to Hen. 6, on wool, woolfels, and cloth exported, anno 1452, and that this is the first mention of a subsidy laid our own woollen cloth exported." Yet the Doctor draws some bold conclusions from this salse statement also. How shall we venture to read so doubtful an author!—What can we think of such an unsaithful quoter of ancient history!

vard (mostly foreigners relident here, who returned home when they had made their fortunes), who kept this country poor. Hen. 4 threatened them. Hen. 7 fet up an English company against them; but Edw. 6 invalidated their charter granted them by H. 3; and upon their defeat our trade and manufacture rose.

I shall, to avoid growing tedious, shorten my other observations on Dr. Anderson's Appendix, N° IV. as much as possible, by the following general answers, as I fear a longer detail would grow dull and uninteresting to my readers.

P.41. I admit his first remark, but his second is totally erroneous; for though our Cotswould was the best of wool, the Flemings made it into much finer cloth than we did, the cloth of Ypres*. The third and fourth remarks are true, but the fifth partly true and partly false.

P. 42. The first is true; the second partly true and partly false. Third, true; for the Spanish wool is acknowledged to be the only fort now for making the finest cloth. Fourth, the Doctor does not seem to state his argument clear. No man I think of the least knowledge could maintain any such affertion. The French, as is well known, do not covet any of our wool for their fine cloths, but for their coarse worsted stuffs; and they cannot, any more than ourselves make their superfine cloths of their own wool, but only with the best wool of Spain. Fifth, is true.

P.43. First inference is true. Second, very doubtful. Third, not true; it is certainly from natural causes, the theep being kept for different views and purposes, and

56 Fine cloth of Ypres, that named is better than our's." A Poem in Hackluit, under date of 1436. [25]

fed on artificial graffes and turnips, as well as deprived of their wide range on the maiden downs which are put into inclosures.

P.42. Not true. The French cannot make their best fine cloth out of their own wool any more than ourselves; they must have their fine wool from Spain as we have: they certainly have made some finer and more perfect cloth than we, but not from incapacity in us. but because the English customer would not go to the price of the French customer. Till lately no draper would give more than 16s. per yard for his superfine. even if it was made worth a guinea, the study therefore of the manufacture was to produce fuch a superfine cloth as he could afford to fell at that price; but fince the commercial treaty, French cloth having come over at 26s. and 30s. per yard, I have feen superfine cloth, made by Mr. Waldron of Trowbridge, equal, if not fuperior, to the best French, 1s. per yard cheaper, after allowing for the ad valorem duty.

P. 66. The Doctor values the wool by the length of the staple; this is no recommendation to fine clothing wool, though good for combing. The former is the principal object to this country, and I much doubt whether the Doctor is right in stating that the large breed of sheep may be made to produce it. By all the best authorities I have collected, it appears that the fine woolled sheep of Spain is not a large sheep, as the Doctor afferts, p. 65, but a small one with short legs, though the coarse woolled common sheep of Spain is certainly a large, long-legged animal.

P. 44. Begins with some abusive infinuations against the manufacturers, calling the non-exportation laws a

monopoly, &c. for the benefit of the manufacturer at home. This is not a fair description, nor do they any way operate as a monopoly, or even check the spirit of the farmer and wool-grower.

The manufacturers of this island are the best purchasers of this native commodity, and where could the wool-grower get a better price? Holland and Flanders are now no longer what they were. The manufacturers of England are of themselves ten thousand rivals to each other. They are too many, and their views too varied, ever to operate in such a combination. Those who have the best trade and largest orders, will always give the best prices, and buy up the wool in the sace of others that have less trade. This is instanced every day in the West Country, for whenever Yorkshire has plenty of orders they send down into the West Country and advance the prices; nor will any manufacturer in his senses ever refuse to buy wool at any price, when he has trade to answer it.

Besides if leave was given to export wool, you cannot reason upon it in the abstract. It is probable from the nature of trade, and for the sake of back carriage, or of making convenient returns for other commodities, wool would be carried out at a less price than it would fetch at home, or more, according as ships wanted freight, sometimes monopolized and returned again at a forced price, all which would create such an embarrassment, such an uncertainty to the home manufacturer, that it would discourage him from extending his trade, or engaging for more orders than he was certain of getting would for. This cramping of the manufacturing trade would

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would foon be felt by the idle hands, which would be repeatedly thrown on the public to maintain.

Few people are competent to reason on so complex a subject as manufacture. What will hold good on the export of corn, grain, hops, grocery, &c. will not apply to that of wool, which, from the time it is sold, is progressively accumulating value by the labour of our poor, till after increasing three, four, sive, or even ten times its original value, it becomes in the most improved state an advantageous article for exportation, realizing into national wealth the labours of men, women, and children, old, young, lame, or decrepid, for they all get a livelihood out of it.

It should also be remembered, that while the clothier or manufacturer is working round his profit of 20s. the various people he employs make on the same wool at least an hundred shillings profit, two thirds of which is laid out in purchasing the produce of the land to the great advantage of the landholder.

A good trade, fully encouraged at home, becomes the best possible encouragement to the wool-grower, who, generally speaking, is also a farmer. The subject is much misrepresented by those who affert that a foreign market, in our present state of improvement, would benefit the wool-grower. It should be always taken into the same argument, that on every 20s. worth of wool sent abroad, there is above 60s. worth of labour taken from the community, who in lieu of that deprivation must subsist on something, and that must ultimately fall on the landholder. No circumstances can justify the step but a great redundancy of wool at home, and when such a case happens,

it is time enough to seek it. Let us for instance suppose. that half our next year's growth of wool is exported, and it rifes to double the price, what is the consequence? the manufacturer receives his order from the merchant on the usual terms, but finds from the great advance of wool, he shall not save himself, he must therefore decline the order, unless he can get such a price of the merchant as to insure him some prosit, (a little advance upon an article of manufacture will turn the current of a trade, though no fuch effect happens on fuch articles of life as corn, sugar, groceries, &c. which must be bought) the merchant not having this in his power, returns the order to his agent abroad, and the clothier remains without a trade, accumulating a heavy stock of materials made at a dear rate: his first step to save himself and family from ruin, is to discharge his work-folks, of which any manufacturer of consequence employs from 500 to a 1000. In consequence of this loss of trade from rise of wool, many 100,000 people are thrown out of bread, the effect of which is universal distress and discontent, and God knows where the evil would end! The first object of the mob would be to procure the names of those who voted for the exportation of wool, and their lives would be probably the facrifice! and the next step would be a numerous emigration to that country to which the wool was conveyed, which no doubt would be glad to receive them; as was actually the case with the Brabanters under their Duke Wenceslaus in the 14th century; with the Dutch upon the introduction of the Spanish Inquisition; with the French under Louis the 14th, upon the revocation of the edict of Nantz; and in

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Spain under Ferdinand, upon his compulsion of the Moors to change their religion, &c. &c. Further, if a lesser exportation takes place than the half, or even so much as to distress the manufacturer, and induce him to lessen his trade from a doubt of advantage, the evil will be nationally selt, more or less, according to the circumstances and extent of the evil.

Having premised these things in answer to Dr. Anderfon, I shall now proceed to state my conclusions in consequence.

1st. That Britain in ancient times produced wool much finer than any part of Europe, and in a much larger proportion to its coarse wool than it does at prefent; I mean during the 12th, 13th, 14th, and 15th centuries.

2d. That the wool of Spain, during that period, was so far inferior as to debase the wool of England whenever it was mixed with it in manufacture. One particular defect in its quality, besides its coarser nature, was, that it would not prove or thicken in the mill.

3d. That during the above period England was very poor, its land much uncultivated, had but little manufacture, and was thinly inhabited.

4th. That in those ages while England and France were wasting their strength in war with each other, Spain was full of inhabitants, industry and manufacture producing much wool; though to make their fine goods, they bought wool the growth of other countries, chiefly at the Flemish market, where the greatest part of the wool of England was carried for sale, but that they mostly coveted the English wool that grew in the Cotswould.

6th. That previous however to this, some people of Spain procured, at the conclusion of a treaty between the two kingdoms, from one of our kings, leave to export a few Cotswould sheep, which by a careful mode of

* Ferdinand the 5th banished nearly 100,000 industrious people betause they were Moors, for which the Pope honoured him with the title of Catholic. Philip the Third, his successor; to acquire the same merit with the holy father, banished from Valencia 140,000 more of them; and, in the three following years, 600,000 more from Seville, Mercia, and Grenada: the greatest part of these were weavers and husbandmen.

Ferdinand the 2d. on his taking Seville from the Moors, anno 1248; found there 16,000 looms for weaving, but in 1665 there were only 60 looms. The Spanish Government have seen their fatal error, and have many times fince attempted to re-establish their lost woollen manufactories, particularly about forty years ago, a Thomas Bevian of Melksham in Wiltshire, was engaged by the King of Spain with a pension of 500l. a year, and established at Guadalajara, with a view of using their fine wool themselves; but nothing could conquer the natural indolence of the Spaniards, so that the scheme was dropt, finding it more profitable to sell their fine wool to us, than to fabricate it themselves. Since that time the Spaniards have been making coarse serges called Serge de San Fernando; out of the old native fort of wool, which no foreigners would buy of them, and to encourage it the more, the ferges of Exeter (which had supplied Spain) were loaded with a duty of 50l. per cent. yet notwithstanding this disadvantage, an Exeter merchant told me a few months ago, that they had beat them out and out, and obtained a preference even in their own market. He faid, that he had feen many of their ferges, and that they looked work after milling than before, the same imperfection remaining in the wool as in ancient times, that it would not prove or felt in the mill. In cotton, they have succeeded much better, for at Barcelona, at this time, according to Mr. Townsend's well-written Journey in Spain just published, they have fourteen Manchester machines at work for spinning cotton, in consequence of a model brought them in 1785.

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management, and being put under certain convents and privileged houses, have so increased, that though the views of those wise men did not come to pass in the way they had intended, from the declination of their people from their ancient industry, yet however in consequence thereof, they are become able to supply those countries with fine wool, which used to supply them.

7th. That though the English in those times could make but poor progress in manufacture (though confiderably helped by their Kings), yet at last being emancipated from their difficulties*, have fince become the greatest manufacturers in Europe: that from this improved state of trade, industry, and commerce, the landholder has been induced (as also by its increased population with its manufactures) to turn his attention from the ancient small breed of English sheep, to a larger and stronger fort, producing more mutton, of confiderably more weight and value than the former fort: that though the natural feed of the ground would not maintain this large breed, he could have recourse to artificial modes of feed and manure, to feeding with turnips, and turning the downs into inclosures; the high price of all kinds of produce being a further inducement to the highest cultivation of his lands, his landlord having also raised him high in his rents.

8th. That though he observes this has a visible effect on the fineness of his wool, it does not deter him, because of the additional profit on his mutton.

9th. That in Spain there has been for ages, and still is, two distinct breeds of sheep, the one (trashú mantes) a

^{*} The Hanse merchants monopolized all our trade, and kept the na-

small short-legged animal, producing fine wool; and the other (estantes) a large long-legged sheep, producing a poor lank wool refembling flax, which has no elafticity, nor will it prove or thicken in the mill: this latter is the native ancient sheep of Spain, whose wool is fit only for making a coarse kind of serge, and is the same which our ancient laws forbid the mixing with our wool.

10th. That notwithstanding the improved system of husbandry in England has depreciated our fine wool, yet by increasing the quantity, it has greatly compenfated the loss (for instead of 100,000 facks anciently of fine and coarse, it now grows above 700,000 middle and coarser) enabling this country to extend its manufactures, coarse wool being as essential as fine wool.

11th. That this country still has some advantages in a kind of wool which/no improved fystem of husbandry has yet deprived her of, namely the long combing wool, which is coveted by the French for their estifanes and other worsted stuffs, and which is found to flourish well in inclosures.

12th. That however as England expends a large fum of money in purchasing the finest raw materials from Spain, which supply may not always hold, and as many parts of Britain remote and uncultivated would breed this fine wool equally as well, if properly encouraged, it is truly patriotic in any man, or body of men, who, by holding forth premiums, purchasing fine-woolled rams, ascertaining the best and fittest food for fine-woolled sheep, pointing out improved methods of treating, sheltering, and feeding them, and fuch other encouragements, do promote the culture thereof.

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PART THE SECOND.

Containing a brief History of the Wool of this Kingdom, when it began to be exported, the Customs thereon, and the ancient Prices thereof, and of the nature of Woollen Manufacture as connected with it.

GAUDET OVIBUS.

AMONGST the various animals with which Divine Providence has stored the world for the use of man, none is to be found more innocent, more useful, or more valuable than the Sheep. The Sheep supplies us with food and clothing, and finds ample employment for our poor, at all times and seasons of the year, whereby a variety of manufactures of woollen cloth is carried on without interruption to domestic comfort and loss to friendly society or injury to health, as is the case with many other occupations. Every lock of wool that grows on its back becomes the means of support to Staplers, Dyers, Pickers, Scourers, Scriblers, Carders, Combers, Spinners, Spoolers, Warpers, Queelers, Weavers, Fullers, Tuckers, Burlers, Shearmen, Preffers, Clothiers, and Packers, who, one after another, tumble and tofs, and

PART

twift and bake and boil this raw material, till they have each extracted a livelihood out of it; and then comes the Merchant, who, in his turn, ships it (in its highest state of improvement) to all quarters of the globe, from whence he brings back every kind of riches to his country, in return for the labours of these his neighbours exported with it.

Besides this, the useful animal, after being deprived of his coat, grows us another against the next year; and when we are hungry and kill him for food, he gives us his skin to employ the Fell-mongers and Parchmentmakers, who supply us with a durable material for securing our Estates, Rights, and Possessions; and if our enemies take the field against us, supplies us with a powerful instrument for roufing our courage to repel their attacks. When the Parchment-maker has taken as much of the skin as he can use, the Glue-maker comes after and picks up every morfel that is left, and therewith supplies us with a material for the Carpenter and Cabinet-maker, which they cannot do without, and which is effentially necessary before we can have elegant furniture in our houses, tables, chairs, looking-glasses, and a hundred other articles of convenience: and when the winter nights come on, and we are deprived of the cheering light of the Sun, the Sheep supplies us with an artificial mode of light, whereby we preserve every pleasure of domestic society, and with whose assistance we can continue our work, or write or read, and improve our minds, or enjoy the social mirth of our tables. Another part of the flaughtered animal supplies us with an ingredient necessary for making good common Soap, a useful store

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for producing cleanlines in every family rich or poors Neither need the horns be thrown away, for they are converted by the Button-makers and Turners into a cheap kind of buttons, tips for bows, and many useful ornaments. From the very trotters an oil is extracted useful for many purposes; as well as their affording good food when baked in an oven.

We have now picked the poor animal to the bones; yet these are useful also, for by a late invention of Dr. Higgins, they are found, when reduced to ashes, to be a useful and essential ingredient in the composition of the finest artificial stone in ornamental work for chimney-pieces, cornices of rooms, houses, &c. which renders the composition more durable by effectually preventing its cracking*.

If it is objected to the meek inoffensive creature, that he was expensive while living, in eating up our grafs, &c. it may be answered that it was quite the contrary, for he could feed where every other animal had been before him and grazed all they could find, and that if he No animal bites took a little grass on your downs, or in your fields, he the grass so close as the Sheep. amply repaid you (for every blade of grass) in the richness of the manure he left behind him. I forgot to

* Any curious person would be much entertained to see the manufactory of Bone Ash, now carried on by Mr. Minish of Whitechapel, New Road, wherein the bones of Sheep and of Cows undergo many ingenious processes.—1st. there is a mill to break them; 2d. a cauldron to extract their oil, marrow, and fat; 3d. a reverberatory to heat them red hot; 4th. an oven for those bones to moulder to ashes; -5th. a still to collect the fumes of the burnt bones into a brown fluid, from whence hartshorn is made; 6th. furnaces for making parts thereof into Globar's falts; 7th. a fand heat containing twelve jars, for collecting a chrystalizing vapour into Sal-ammoniac.

mention the service he yields to the ladies, whose fair soft hands he protects from the cold wintry blast by providing them with the softest leather gloves. Every gentleman's library is also indebted to him for the neat binding of his books, for the sheath for his sword, and for cases for his instruments; in short, not to be tedious in mentioning the various uses of leather, there is hardly any surniture or utensil of life but the Sheep contributes to render it either more useful, convenient, or ornamental.

I have already remarked that there were very few Sheep in this kingdom during the 9th, 10th, and 11th centuries, and the reasons of it; also observed how seldom wool or sheep are spoken of in Domesday Book, although there is continual mention of pig-drivers (porcarii), and of acres of ground appropriated to the feeding of hogs.

The first mention of the existence of the weaving art upon the records of the Exchequer appears to be in the time of H. 1, in favour of some inhabitants of Oxford (of which probably the original deed is still to be seen among the Rolls of the Exchequer). Madox mentions, vol. 1, p. 339, that Oxford paid a mark of gold into the Exchequer, 22 H. 3; also the 29th, 31st, and 41st of that reign, "that nobody within five leagues of that burgh, should exercise the art but themselves," which they state "to have been first granted them by H. 1." and this is the only instance I could there find of the weaving art existing in England as early as the reign of Henry the First, though Anderson's Hist. of Commerce mentions, in addition to Oxford, London and Winchester.

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It was probably introduced here by the Flemings, who came over to England in the reign of Henry 1, upon a large inundation of the sea into their country, the King planting them in various parts of the kingdom. But the weaving art did not become flourishing till the reign of Henry 2*, when, according to the illustrious Sir Matthew Hale, "this "island greatly flourished in the art of manufacturing "woollen cloth; but by the troublesome wars in the "time of King John, Henry the 3d, Edward the 1st, " and Edward the 2d, this manufacture was wholly " loft, and all our trade ran out in wool, woolfels, and " leather, carried out in specie." Edward the 3d revived it, and it continued advancing during the reigns of Richard the 2d and Henry the 4th; after which it again declined exceedingly, and did not thoroughly revive till the reigns of Edward the 6th and Queen Elizabeth. It again declined under the Stewart Princes, but under the Brunswick Princes it has not only revived, but within these last forty years been extended to a greater degree than ever was known in this island.

On the Exportation of English Wool, and ancient Prices thereof.

THE first mention on public record of any wool exported from this kingdom (according to Madox, vol. 1, p. 776) is in the 8th year of Rich. 1, at which time several merchants paid into the Exchequer 231.12s. as duties to the King during two years license to export

^{*} Henry 2 granted a fair, for the Clothiers and Drapers, to be held in the church-yard of Bartholemew Priory near Smithfield, for three days, which spot still goes by the name of Cloth-fair. Noorthouck.

Price of wool 2d, farthing per lb. anno 1199.

In the 10th Rich. Gervase of Aldermanbury, the King's Chamberlain accounted to the Exchequer for 45 facks of wool taken to the King's use at Hull and there fold for 225 marks, i.e. 31. 6s. 8d. per fack, or 2d. per lb.

In 1260, in the reign of Henry 3, it was forbidden to be exported, and it was enacted that it should be manufactured only within the realm.

It was not a regular article of export till Edward 1. when a public scale was erected in London to weigh the wool for exportation; at this time Custodes Custuma were appointed at the several ports of Newcastle, Kingston upon Hull, Boston, Yarmouth, Ipswich, Southampton, Bristol, and London. Madox says, "The Mayor of 65 London and other citizens, in obedience to the King's " order, caused a public scale to be erected (somewhere ff near Cornhill) for weighing of wool, that the King " might have his due custom of half a mark per fack. Soon after, the King levied an aid towards a war "with France of 40s per fack on wool; the Commons se complained of this heavy duty, (a long account of it in Fox's Book of Martyrs), and it was taken off, se and he commanded his Custodes to forbear receiving se the same, and his sheriffs to proclaim that those who se designed to export wools, &c. might safely carry 45 them to those parts where the King had a cocket, "they paying only the old duty of 6s. 8d." N.B. At this time our woollen manufacture was much declined

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declined from what it had been in Henry the 2d.'s time, and the wool therefore not wanted at home.

o E. I. Some merchants of Lucca refident in England rendered account of monies received for the new custom of wool (skins and leather) 771 sacks, and 7 stone exported from Newcastle in the port of Hull, the wool customed at half a mark per fack.

9 E. 2. A custom was levied for every fack of wool carried out of the port of Bristol, 6s. 8d.

In Edward the 3d.'s time (as before noted, 11 E. 3) an act passed to make it felony to transport any wool from this realm into foreign countries, and on pain of forfeiture of life and limb.—N. B. This law was foon suspended on account of the King's necessities for carrying on his war with France. In his reign (anno Price of wool 1337) the price of good Staffordshire wool was 4d. per lb. 4d. per lb. anno

In the 5th vol. of the Fædera, p. 369, we find however, under the year 1343, that Edward, to keep up the value of his wool, got the prices to be fixed by Parliament, that none should be bought under the following prices, viz. Shropshire (the best) 14 marks (91.6s. 8d.) per fack; Oxford and Staffordshire (the second best). at 13 marks, or 81. 13s. 4d.; Gloucester, Leicester, and Hereford, 12 marks, or 81. per fack; and in the fame manner in other countries, till it came to the lowest priced wool, which was that of Cornwall, valued no higher than 4 marks per fack. Anderson's Hist. of Commerce, vol. 1, p. 316. This enhancement of the price was of great advantage to the views of Edward, who being preparing to enter with vigour into the war with France, hereby got all the wool trade into his own D 4 hands,

Madox, vol. 1, p. 788, on Tronage.

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hands, by which he was enabled to raise what money he wanted. The world is the more than a second

It is faid that Edward exported 100,000 facks per ann. but I apprehend this was not done every year, the growth not being equal to it. Mr. Dillon averages it. at about 30,000 facks; this I think is putting it too

Stat. at Large.

ported funk in

price to 1 = per lb.

14. Hen. 6. A law paffed that neither wool nor woolfels shall be exported out of the King's dominions, and only to Calais, at that time part thereof.

During the wars of the Roses our manufacturers again went into decay, and our wool was exported to an unli-Wool when exmited extent, yet it proved of small benefit to the woolgrower, for it funk in price to 20d. per stone and 11 perilb. near the about the live

> In Edward the 4th's reign a stop was put to the exportation of wool, to every place but Calais. The people of Bristol (as well as Norfolk) complained to Parliament of the great decay of the woollen manufacture, owing, as they state, to the wool being exported. (Barret's Hift. of Briftol.)

Fenn's Orig. Let. vol. 4, let. 52.

Extract of a letter to Sir John Paston, a member of the first Parliament of Edw. 4: "The people of this 66 country live in hopes ye shall help to set a way, that they may live in better peace in this country, and 66 that wools shall be purveyed for, that they should not "go out of this land, as it hath been suffered to do; se then shall the poor people live better than they have done by their occupation therein."-Marg. Paston to Sir John her husband, he being in Parliament.

As a proof that the exportation did not help the price

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for the wool-grower, in the same letter we read further, "Thomas Bone hath fold all your wool here for 20d. per Price of wool " stone, to be paid at Michaelmas, and it is fold right 20d. per stone, "well, because the wool was for the most part right " feeble."

3 E. 4, it was enacted that no alien should export wool out of this realm.

4 E. 4 enacts from what places and on what condi-Stat. at Large. tions wool should be allowed to be fent to Calais.

12 E. 4, during five years, wool of certain counties only shall be carried to Newcastle, and all others only to Calais, on pain of felony.

Many good laws were made in the fhort reign of Richard 3, for the advantage of trade and manufacture; one only I shall mention, "that no alien not made a "denizen, shall make any cloth or put any wool to "work in this realm, nor carry on trade by retail."

We had so little of the woollen manufacture in England just after the bloody wars of the Roses, that H. 7, in 1400, in a treaty with Florence (according to Anderson, v. 1, p. 530) agreed that that state should be entirely supplied with wool from England for their manufactures, and that except 600 facks allowed to the Venetians, no other part of our wool should be brought into the Mediterranean. The only important clause on the part of England seems to have been, that it should only be fhipped on English bottoms.—This feems to have been the first attempt at our navigation laws.—It does not appear how much wool the people of Florence manufactured in each year; but Dillon quotes from Marino Sanuto, that the eleven cities of Lombardy at this time manufactured 9000 pieces of cloth per ann.

which

It made but little difference to England who had her wool, when she could not use it herself, though certainly impolitic in Henry not to have encouraged manufacturers more, at home; but it feems, that to preferve himself on the throne, to lessen the power of the Barons, and to hoard up a good stock of money in case of a fecond exile, engroffed his whole attention.

Henry 7 however established the English merchants trading to Zealand, Brabant, and Flanders (who foon exported a great deal of cloth) into a company, giving them the title of "Merchant Adventurers," a great benefit to England, because a check to the impofitions of the Hanse merchants, who had from the days of H. 3 engrossed the foreign trade of England and kept her poor.

Institution of the company of Merchant Ad-England.

6 H. 8. A law was made that no wool of Norfolk fit for worsteds and for stammins should be exported from this kingdom, under penalty of 40s. for every stone so exported.

N. B. By this successive progress of the wool laws, it appears to have been the constant care of the Legislature to provide first for the wants of the manufacturer, and to cherish and encourage as much as possible that useful and important branch of the community, whose labours find employ for so many hundred thousand of his Majesty's poorer fubjects, and it feems only to have been permitted to be exported, when it was not possible for the subjects to use it themselves. Hen. 8 first put the penalty to about 3s. per lb. which our law still retains. Edw. 6 rendered

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dered great service to the trade of England, by the determination of a famous fuit at law brought by the Hanse Merchants, or Merchants of the Steelyard, against Anno 1552. the Company of Merchant Adventurers of England, to call in question their right to the patent granted them by H. 7. An affair of such consequence occasioned embassies to the young King from all the Hanse towns (Hamburgh, Lubeck, &c.) in their behalf, and it became a point of most serious deliberation, the Lord Chancellor and the two Secretaries of State, Sir Robert Bowes and Sir John Baker, were consulted, and at length the result was " to confirm the grant of H. 7." From this time our foreign trade began to encrease, and be carried on in a more considerable way, so as to help the manufac-

When Philip and Mary reigned, the Hanse towns applied again to recover their privileges, but though feconded by the House of Spain, they could not obtain them. A fure proof, fays my author, it had been against the interest of England.

The good and flourishing state of manufacture and commerce under Queen Elizabeth was greater than England ever knew before. A stone of wool, which in Henry the 6th's time funk to 1s. 6d. was now chearfully purchased by our manufacturers at 12s. our cloths were exported by our own merchants to all parts of the world; the Queen graciously condescending, for the advancement of trade and commerce, to give letters under her own hand, directed to the Sovereigns even of No wool exthe remotest countries, wherever her merchants would ported in Queen Elizabeth's choose to adventure themselves; of these letters we have time.

many copies still preserved in Hackluit's Voyages .-James the 1st pursued a different policy, every thing was to be facrificed to the glory of the monarch and the extent of the royal prerogative, the people made for the King, and not the King for the people. By the bad policy at home the Dutch got our East India trade from us (a very extensive and valuable trade in those times), where our cloth at that time bore fuch fame and obtained fuch credit, that the Dutch acknowledged they could not fell a yard of theirs till they had imitated our clothiers' marks, the English packages, and our merchants' marks; and foon after we were so weak, as to obtain leave of Parliament to export our cloth to Holland half dreffed, whereby the Dutch underfold us with our own cloth, and at length entirely beat us out of the market. They also by degrees got our Eastland trade from us (Germany, &c.) And as the foreign trade had at that time taken off two thirds of all the cloth made in England, the loss of it occasioned a very dull trade and universal discontent. Bills were brought in session after session " to encourage trade and set the poor on work," but nothing could then be done till too late; the fault was laid on the Company of Merchant Adventurers. Sir Edwin Sands, 6th of June, 1604, presented to the Commons a report of the proceedings of their Committee on this business, before whom it was declared "that this Company of only " about 200 persons, had the fole management of two "thirds of all the clothing trade of this realm, which would have maintained many thousand merchants, " whereby it had grown into a monopoly, ruinous to the 66 trade of this kingdom, inafmuch as they thereby opes pressed

Journals of the

Ditto p. 218.

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pressed the manufacture, in supplying him with artice cles for manufacture at their own price, and bought se his cloth of him on fuch low terms, that the clothiers often returned home with loss instead of profit, compelled by necessity to lay their cloth to pawn and to " flack their trade, to the utter ruin of their poor workmen with their wives and children." The object of a petition then from the manufacturers was to dissolve this monopoly, which had occasioned a general decay of trade, and to procure a free trade; but these Merchant Adventurers were fo rich a body, and their interest so powerful in the House, that the business was postponed day after day, till it was lost, or the bill so altered as to be of no use. Trade at length got so bad, that few manufacturers could live in it, the consequence of which was a great flock of wool upon hand (which might have been avoided if they had been relieved in time), the manufacturers being reduced to half their number. Upon this the wool-grower added his complaint of the decay of trade, and no remedy P. 520. could now be found but leave to export wool; and the glory of Edward the 3d being remembered, a subsidy was granted to James out of it, as follows, "We, your 7 Jac. 1. ce faid poor Commons, by the advice, affent, and authority se aforesaid, do give and grant unto our said Liege Lord our " Sovereign, for the causes aforesaid, another subsidy; that is to fay, of every merchant born denizen, of and for every ce fack of wool (exported) 33s. 4d.; and of and for every " 240 woolfels 33s. 4d.; and of and for every last of hides " and backs 31.6s.8d.&c.; and of every merchant stranger .. not born denizen, for every fack of wool 31.6s. 8d.; " and of and for every 240 woolfels 31. 6s. 8d. Sc. Sc.;

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and so of every the said wools and woolfels, hides and backs; and every of them after the rate, to have, take, and enjoy; and receive the subsidies aforesaid, and every of them and every part and parcel of them; to your Highness; from the 18th day of March last past, during your life natural.*"

This grant was a fatal stroke, and laid the foundation of our civil wars, in putting the evils of the working part of society beyond a remedy, and producing (says my author, who wrote in Queen Anne's reign) a train of missortunes, which hath attended the kingdom to this very day. Great emigrations of the industrious part of the nation took place, and the idle and disorderly remained behind (ready to join in those commotions which took place in the reign of his son Charles). From hence to the 18th Jac. continual speeches in the House on the decay of trade, but no effectual remedies are applied.

See Journals, p. 552. An attempt was afterwards made to remedy these evils. 13th March, 18th Jac. a petition was presented to restrain the exportation of wool, stating it that one tod exported, gave our foreign rivals an advantage of mixing two tods more with it of their own inferior vivool, and thereby rivalling us threefold;" (which is the case at this very day, 1791.) Mr. Coucher and Mr. Berkely spoke against the exportation. Sir Edward Coke that cloth makes nine parts in ten of the commodity of the kingdom. Mr. Towerson stated that wool was very cheap, yet no clothier could live, and the reason

* There was no mention of place or quantity in the shipping of this wool, so that for 10 packs shipped, which paid a duty possibly, 20 or 30 might be shipped that paid no duty at all.

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was plain, ill management had lost our foreign cloth trade.

P. 597. 30th April 19 Jac. Upon the second reading of a bill to prevent the exportation of wool, the House seemed earnest to pass the bill, and make it felony, and no dissentient voice, yet the third reading of this bill was not brought on for more than six months.

P. 628. Serj. Davys observes, wool is a principal Observations in the House of pillar of our kingdom, and that to be the reason why Commons. the Judges of the land sit upon woolsacks.—P. 633. The decay of trade from bad to worse.—P. 633. Sir Edwin Sands says, we ought not any longer to palliate, but to make to the King a true remonstrance of the state of the kingdom, to speak fair words in the country, but the truth in this place.—P. 635. Sir Edwin Sands restected on after wards in the House for his honest speech, the word palliate offensive to the Court, but he is justified by the vote of the House.

P. 647. 20th Nov. 1621. The House again debating upon the decay of trade and want of money; the kingdom oppressed with monopolies.—P. 648. The King presses for money.—P. 653. The wool-bill, notwithstanding its second reading in April, is not brought forward for its third reading till this time (November). Mr. Mynn states, that he saw lately the manufactures of the Netherlands, and their materials; saw there English wool and Fullers earth, brought out of England, as plentiful as here. They confessed they could make no cloth without Fuller's earth, and could have none nearer than Silesia, except from England. Mr. Carvyl called this bill a monopoly. It was agreed to stand over to the

At this time, according to Mr. Misenden, a merchant at Hackney, the imports amounted to 2,619,3151. and the exports but to 2,320,436l. 12s. 10dt. The King now appointed a special committee from all parts of the kingdom, to consider of the decay of trade, and the want of employ for the poor, who were starving; but the revenues of the crown was too tender a point to be meddled with, when there was no better understanding between the Court and the people, no Parliament 1610 to 1620. having fat from the 8th to the 20th year of this reign, except one short session t. The King having then a subsidy on wool, was therefore sufficient to hinder this bill from being again taken up to prevent the exportation of it, and our manufacturers were obliged to emigrate to the countries whither our wool was carried .- I need not here observe where the encreasing discontents of the subject

> * An act to prevent the exportation of wool passed the House of Commons 22 James (26 April), but was lost in the House of Lords.

> † P. 527. Sir T. Row proposes in the House to send for some merchants of the East India, Spanish, and Turkey Company, who best can inform, how the scarcity of money groweth.-Sir Ed. Sands. The clothiers' looms laid down 200 in a town, one loom maintained 40 persons.

> 1 On the Journals of the House we find at this time, a message sent from James 1 to the House, that unless they forthwith proceed to treat of his fupply, he will dissolve the Parliament. P. 505.-A threat no King ever made before. One in the House stood up and said that the King had given away to one man 1000l. per ann. old rent, which was more than Queen Elizabeth gave in 44 years to all her servants .- P. 506. The Parliament was dissolved the next week. A bad humour to part in.

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ject ended. I shall only remark, that soon after the Restoration of Charles 2, the bill passed to prevent the exportation of wool, and to make it felony; but the loss of trade and manufacture, like a chronic disease in the human body, was as flow and gradual in recovering itself, as it was in its declension. This bill was however founded on a clear and comprehensive view of the general interest of the kingdom; our commerce always depending on the success of our manufactures, in which the interests of thousands are blended, that have no connection with either manufacture or trade. The Dutch in the mean time found themselves so strong in the East Indies, that under some false pretext they seized upon our merchants in the East Indies and our consuls at Amboyna, whom they put to death in the most cruel tortures, to intimidate any others from coming to fucceed them, whereby they at length totally excluded our merchants from any longer share in this lucrative trade, and we were at that time too weak to refent it, and glad a few years after to fend our cloth to Holland for them to fell it for us, and so to recover our manufacturing strength under their auspices. Large warehouses of English goods were established at Dort, the cloth lying on our account till the Dutch should buy it of us to supply their friends, formerly ours. Within the last fifty or fixty years we have been getting out of their hands, and now rival the Dutch in every part of the world (I think except Japan), and we are still progresfive, and within the last twenty years have encreased our manufactures of all kinds in a great degree, to which the invention of spinning and carding machines

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have greatly contributed. Of these inventions it will not be amiss here to speak a few words. The cotton foinning engine by water, like many other of our inventions, has been long known in China, and used in some parts of India. The first spinning machine by water was fet to work about twenty years ago near Manchester, by Sir Richard Arkwright, at that time only a barber, but a very strong mechanic genius. As long as 33 years ago there were spinning jennies at work upon a small plan worked by hand, at Bolton on the Moors, 12 miles from Manchester, where the first ever made is still to be feen, much inferior in point of contrivance to what have fince been made. The water machine is a very different engine, the thread being drawn from between rolling cylinders, like those used in flattening wire. Mr. Arkwright was many years finding out a perfect mode, and his patience was wonderful, having exhausted all his property and fome thousand pounds beside. The application of the distaff mode of spinning helped to perfect the invention, but after all, for want of a mode of flobbing, or spinning the material into a large thread preparatory to it, his invention stood still, and he was almost ruined. In the mean time fome cotton of a very long staple was brought to Manchester, which no one knew how to card, till a common workman contrived it by drawing it between two cylinders; and this was the beginning of the invention of the carding engine, the first of which was erected at Bolton also. I have heard that Arkwright, then only a barber, was shaving a common failor, during a discussion of the subject in his shop; the failor over-hearing them, said he had feen fuch a thing at work in China, and by the descrip-

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description he gave, discovered the very desideratum which Arkwright wanted, to bring his machine to perfection.

Of the Qualities of Wool, and the Improvement thereof.

Taverner observes in his extensive Travels, that the wools of Asia are incomparably finer than those of Europe. Poets and Historians are too diffuse or ignorant on the subject to be much depended on, when they speak of the fineness of wool; and speculative writers are apt to millead us; besides wool of apparent equal fineness may be widely different in its intrinsic value. The Athenians found the wool of Colchis a golden fleece to them, who before purchased all their manufactures from Egypt, and no wonder they adored Minerva as a Goddess who taught them how to spin and weave their new acquired fleecy treasure.

Ezekiel tells us, that the city of Tyre, in his time was 600 years before supplied with their white wool from the neighbourhood the Christian era. of Damascus, as well as their famous purple dye from the Archipelago*, not having then acquired the art of making it.

* Neither down to Alexander's time had the Tyrians acquired the art of manufacturing the purple dye, for which in after times they were so famous .- Quintus Curtius says on his taking Babylon, the seat of the Persian government, he there found 5000 quintals of Hermione + purple, the finest in the world, which had been treasuring up. 190 years, notwithstanding which its beauty and lustre was no ways diminished. Rollin, reducing it into French money, reckons its value at 100 livres per lb. i.e. about five times the price of cochineal. There is no mention of this precious drug, among the spoils of Tyre, conquered the year before, by Alexander.

† A town in Greece, bordering on the Archipelago.

Climates not fo with hills.

All the countries hitherto known producing fine wools, though in very different degrees of latitude, in one circumstance all seem to agree, viz. that they abound with lofty hills and wide ranges of pasture; this is highly essential in my opinion to producing of fine clothing wool, which is the material chiefly wanted in extensive manufacture.

Wherever Agriculture greatly flourishes, and lands are highly cultivated and enclosed, it is impossible to raise fine clothing wool. The loss of Spanish wool is not so much feared by us, from any embargo, Spain may lay upon it, as from the consequences of a better Government, encouraging arts, and improving their husbandry, and the cultivation of their lands. This event may not be fo distant * as we may suppose, and in this case, where shall we obtain fine wool, unless we can rear it ourfelves?

This is another reason why we should, by all the means in our power, endeavour to cultivate the growth of fine wool in our own island.

Another effential object towards improving the qualities of our wool, is keeping the sheep to a good age:

* The causes of their depopulation being well understood at this time in Spain, as appears by Mr. Townsend's Journey 1787, just published in 3 vol. they are adopting every encouragement to industry and population. Since 1723, he fays, they are increased two millions and half of inhabitants; agriculture is increasing, and the sheep masters are continually complained of as a trouble and injury to the husbandman; and though they plead the privileges of pasture granted them by the Mesta Code, it is probable these laws will in time give way to an improved system of cultivation and enclofure. When that code is abolished, then goes the fine wool of Spain .- The Hospicio, or House of Industry, at Barcelona, is a noble institution, and shews what may be done in a little time. - See Townsend's Journ. vol. 1, p. 123.

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they should also be kept in much exercise, by driving them from one place to another over the mountains, and not exposed much to the extremes of heat and cold. Our Cotswould fleeces were the most famous in ancient timesa, and these Sheep were always cotted or a Temp. Hen. 6. protected from the cold, by there being built for them on the open downs, long ranges of buildings three or four flory high, with low cielings and a flope at one end of each flory to the other. I believe the having many fuch houses built on open, exposed downs, would be of great service; Sheep are fond of sheltering themfelves from the fun, wind, or cold. The form I would recommend for building such sheds is like the letter L, the angle of which should always be to the south, as I think it would afford them more shelter, and the inner part, or court, to the north, would fuit afthmatic sheep, or fuch as should dislike the close rooms within*.

Wool of Heath sheep, I have observed, is always finer and better for manufacture than of those who live on the richer pastures adjoining; the cause I apprehend to be, the animal is kept poor, and is obliged to walk a great deal to pick up his daily subfistence; and I think the perambulations in Spain were (from the first) practised with a view to its reffect on the quality of the wool; it gives a vital elastic property to the wool, and clears it from any dead white hairs which are never to be found in Spanish wool.

* To explain myself clearer—Let a long building be raised in a direction from N. East to S. West, and another of the same fize join it from the direction of N. West to S. East; the angle will point to the South, and the court within the angle will be a shelter, as well as the house itself.

The wool of a fickly or murrain sheep I have also observed is always much finer than the rest of the slock, yet in some respects it is the worse for it, though not discoverable till the cloth is finished.

Fine and coarse are but vague and general descriptions of wool; and all fine fleeces have some coarse wool, and all coarse sleeces some sine. I shall endeavour, for the information of my reader, to distinguish the various qualities of wool, in the order in which they are esteemed and preferred by the manufacturer.- 1st, Fineness with close ground (i. e. thick matted ground); 2d, pureness; 3d, strait haired, when broke by drawing; 4th, elasticity (rising after compression in the hand); 5th, staple not too long; 6th, colour; 7th, what coarse is in it, to be very coarse; 8th, tenacity; 9th, not much pitchmark. Sand is no other disadvantage than the loss of more weight in scouring. The bad and disagreeable properties are thin grounded; toppy; curly haired; and, if in an unforted state, little in it that is very fine, a tender staple, no elasticity, with many dead white hairs * in it, very yolky, &c. Those who buy wool for combing, and other light goods which do not want milling, wish to find, 1st, length of staple; 2d, fineness of hair, though it should be thin in the ground; 2d, whiteness; 4th, tenacity +; 5th, pureness; 6th, elasticity; 7th, not many pitchmarks.—In these descriptions I may not perhaps be critically exact, but I believe nearly fo, at least to the best of my knowledge. It

* Some call them cats bairs; they abound very much in Welsh wool.

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It is unnecessary for me to write much on the management of sheep, as Sir John Sinclair has favoured the public with so good a treatise on this subject, in his Address to the Edinburgh Society, Jan. 31, 1791, and sold by Cadel and others in London, to which I wish to refer my reader. However, I shall add a few words on the giving of salt to the sheep, as Sir John has said but little on this head.

With respect to the use of salt, of which the Spanish sheep have a great deal, I conceive it to be of much more effectual service, than the helping to digest coarse food, as some have supposed; for though the herbage of Spain is very different in the feveral tracts through which the sheep are driven, the salt given them is always in the fame proportion. The owner of a flock of a 1000 sheep allows 100 aroves, or 25 quintals of salt for the flock to eat in 5 months, that is, 8 ounces per sheep in 30 days*. The shepherd places 50 or 60 flat stones, at about 5 steps distance from each other, and leads the sheep slowly along, that every sheep may eat to his liking, the effect of this (added to the dryness of the climate, and their constant exercise) is, the encreafing the infensible perspiration, and not only hardens the flesh, and prevents a gross habit of body, but likewife disposes the skin for throwing out a finer pile, and contributes very probably to the filkiness of the wool, by means of that pure animal oil in which it grows, and which in some degree softens each hair of the wool and incorpo-

* This account I have no authority for but the General Evening Paper of 22d. Jan. 1788; it makes but 2lb. and half to each sheep, or half a pound per month; though the quantity seems but small, yet being constantly given, must have considerable effect on the constitution of the sheep.

[†] This is the quality for which the French covet it. We observe that of late, the combing wool has not that degree of tenacity it formerly had; we attribute it to the forcing quality of the turnip feed; it is of serious consequence to some manufactures.

"Plantæ, quæ in predictis pascuis frequentiores prove-

* I refer my reader to Mr. Anstie's Letter to the Bath Agriculture Society, particularly to his Observations on two Anglo Spanish Fleeces fent him by Sir Joseph Banks .--- After all I have said, I must again urge that the chief and primal cause of the declension of our fine wool is the fystem of inclosures; it was complained of in some parts of England as early as the time of Henry 7th, for a law was then made to check it; fee the Statutes of 4 Henry 7, cap. 19 .- "Inclosures," fays my Lord Bacon in his Life of Henry 7th, "began at this time to be more frequent, whereby " arable land was turned into passure." This bred a decay of people, fays he, and of towns, churches, tythes, &c. His arguments and deductions which follow are certainly good as far as they go, but not applied to manufactures, which alter things again, by encreasing population. He however in general very justly condemns that policy which destroys the middle man, and converts all to very rich or very poor-all noblesse or peasantry. Mr. Anstie, I think, has fully shewn the influence of soil, in meliorating the quality of wool,

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" niunt, sunt: Festuca ovina, et Aira cristata vix digitum longæ: Trisolium repens pusillum et Medicago Lupulina. Secundum locum obtinet lanæ, quæ è grege stabili in agro "Cæsar-Augustano et Monegros appellato tondetur. Inter plantas hujus tractús pecori gratissimas sunt Plantago "albicans, Artemisia herba alba, varietas Ononidis tri- dentatæ."

As these names are given after the Linnæan* system, they may be easily traced out, and I believe may, most of them, be found very common in England.

Although we have heard lately much of the wool of Thibet, from which the fine shawl is manufactured, and which appears by Hackluit to have been known in England in the time of Queen Elizabeth, yet I apprehend fuch wool is not peculiar to that remote kingdom from which it may be fo difficult to obtain it, but common to many other States of Asia in the temperate zone. In the Mercurio Italico, published in 1789, there is a letter from Mr. Peter Allegretti to a friend at Florence, dated from Octofk, May 1788, giving an account of his journey thither; he fays, there are fine ranges of mountains, which extend from Little Tartary as far as Kamchatska. Among the nations through which he passed he mentions the Koriacchi, spelling it after the Italian pronunciation; and probably the same nation which Strabo speaks of (the Coraxi, an Asian nation), famous for its fine-wooled rams worth a talent each. Some of

* Linnæus also in his vol. 4, p. 179, gives us account of 387 kinds of grass and plants the sheep feed on, and of 141 which they leave untouched. Among the former, he places the Fesuca ovina as the first and most preferable, and next to that, the Erica, or sweet broom or heath. The former makes the sheep fat in a short time; but will it help the sineness of the wool?

I expected to have feen in D'Asso some account of the origin of the fine-woolled sheep in Spain, which is clearly a distinct species from the common sheep of the country; the former is a small, short-legged animal, producing a fine matted wool, foft, filky, and elastic, and that felts well in milling; the other a large, longlegged animal, whose wool hangs strait and long, refembling flax, has no degree of elasticity whatever, and will not prove at all or felt in the milling. Spain in ancient times, grew no wool but the latter fort, of which they raised great quantities, and made it up (besides exporting a great deal) into coarse goods, such as suited an age which had but little taste for the finest cloth; and which, being brought to England (by the Spanish merchants in a course of exchange, and bartered among other commodities, and fold at a low price), induced fome people to mix it with our good English wool, to make it cheaper, to the loss of the fair trader, which occasioned a petition in the reign of H. 2 from the car (dr. s.) in the science to place weavers

Some and the state of the first and a complete on the

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weavers of London; (and leave was granted) that if any cloth was found mixed with Spanish wool, it should be seized and publickly burnt*.

Swinburne, in his Travels in Italy, relates that Alphonso, King of Naples offered to supply the breeders of sheep at Naples with a fine new race, which should be imported to them from his dominions in Spain (he being a Prince of the House of Arragon), originally presented from Edward King of England, with information to them of the modes of treating and feeding them; similar, he must mean, to what was then practised in Spain.

Stow

* As to giving the credit of the improvement to Columella, or his uncle Marcus, because he says he imported some rams from Barbary, I object: in the first place, that we don't know whether it was to mend the size, improve the mutton, encrease the wool, or refine it; and in the second place, it happened 1700 years ago, in the time of Claudius Cæsar, and no body (unless the Doctor does) will urge a progressive system in the culture of wool in Spain from that time.

Mr. Townsend in his Journey through Spain in 1786 and 1787, just published, speaks of the travelling sheep in Spain, and says the privileges of the Mesta can be traced back to the year 1350; but I am still of opinion this does not invalidate the testimony of Stow, as that mode of driving the sheep, and depasturing them, might have been practised as an improvement before they had tried our Cotswould sheep, Spain at all times raising large quantities of wool; for there is no traces or proof of any of this sine wool in Spain till after 1465.

Mr. Townsend makes an extract from their records as follows, vol. 2, p. 179—"In 1437 a tax was imposed on all wool in general, called Servicio y montazgo; but to encourage the production, this was changed by Ferdinand VI. into a duty on fine wool exported. The coarse is kept at home." This rather confirms Stow's account, at least it does not at all contradict it; for Ferdinand the 6th did not reign till 250 years after Stow's account of the introduction of the Cotswould sheep, by which time they might easily be so encreased, as to allow a particular tax on the fine wool exported.

which he granted licence for certain Cotswould " sheep * to be transported into the country of Spain,

which have there fince mightily encreased and multies plied, to the Spanish profit, as 'tis said; but true it

is (continues he) that long ere this were sheep in 66 Spain, as may be feen by the patent of 31 H 2,

egranting to the weavers of London, that if any cloth

were found to be made of Spanish wool mixed with " English wool, the Mayor of London should see it

" burnt."

See his black

letter edition of 1592, and other editions.

As many writers have affected to treat the story with contempt, I shall make a few remarks thereon, and for the honour of my country, and as an encouragement to the scheme of improving our wool, urge, that if the best breed of fine wool of Europe can be proved to have come originally from England, there is the greatest reason to hope we shall succeed in recovering our finewoolled sheep again. Stow lived within 80 years of the fact, and therefore not eafily mistaken, although he did not, when he wrote, comprehend the use and design of this exportation, because, as he justly observes, they .had wool of their own before. - It is objected that in Rymer no mention is made of such a clause in the

* Baker's Chronicle is more particular than Stow, and states the number then exported to Spain to be 5 rams and 20 ewes .- Sir John Sinclair has lately (vice versa) imported from Spain, 10 rams and 5 ewes; and I question, whether this circumstance may not be remarked, as important, in the future history of British wool.

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treaty (though, by the bye, Rymer is not always accurate, being twice corrected by Madox).—Stow does not affirm it; he fays, "At the conclusion of the treaty," i. e. after the treaty was fettled, this licence was obtained. A matter of this consequence, if known publickly, might have raifed an alarm, and the people, proud of the unrivalled excellence of their own breed, would never have fuffered it to have been transported out of this country.

When Edw. 3 heard of some rams being exported from Boston, he sent orders to the bailiffs and collectors of that port, for the future, on no pretence whatever, to permit live rams to be transported beyond sea.---Fædera, v. v. 36.

Baron Dillon, in his History of Peter the Cruel, gives an instance (from the Archives of Barcelona) that the fine wool of England was fent from hence by the merchants, to be manufactured in Spain, and brought back, made into fine cloth, to the same persons * who had fent the wool. I think it likely that the manufacturers in Spain, finding, upon this trial, or some such experi-

* Dillon's Peter the Cruel (Richardson), vol. 2, p. 209. At Barcelona a record is still extant, of the year 1446, wherein the magistrates of that city fent instructions to their agent in London, to purchase 400 quintals of the finest wool (of a particular quality and price there described), with directions that he must get it 10 per cent. cheaper than he did the former year. To confirm this, the municipal Archives of Barcelona are possessed of a record relating to the return of a galleass from London to Barcelona, laden with 250 facks of wool, which were distributed to different manufacturers, to be made up into cloth, and fent back to England for fale.-Quantum mutatis ab illo!--- I would refer my reader to this intelligent author, who in his Supplement has collected much important information respecting Spanish and English wool.

tra 150 mille arobas, ut taught, that there were above vocant, lanæ in Aragonia 150,000 arobas, as they are ea æstate tonsas suisse do- called, of wool shorn in that cemur: quare velleribus. fummer in the king dom of Ara-8 in 36 libras computatis, gon; therefore computing 8

1,500,000 lanigeri pecoris fleeces to weigh 36 lbs. they capita circiter efficientur. amount to about 1,500,000

centum pondia adæquat. 30,000 bags.)

Nostris vero temporibus But at this time it is found. rem pecuariam in Aragonia by the wool accounts pubnon mediocre incrementum lished with us, that the sheep cepisse ex lanicii rationi- trade is encreased not a little, bus nobiscum communi- for by these it appears, that cates compertum est. Sub- we now grow wool to the ductis enim calculis velle- amount of 65,000 quintals; rum pondus LXV millia (i.e. 260,000 arobas, or about

N. B. Here appears a mistake in the calculation of D'Asso (or it is false printed), for 150,000 arobas, of 25 pounds each, make 3,750,000 pounds, which divided by $4\frac{1}{2}$, to bring it to what he fays is the weight of each fleece, makes the number of fheep 833,000, which is only about half as many as he states them.

He fays 8 fleeces weighed 36lb. Mr. Townsend fays (vol. 2, p. 63) in 1787, the fleece of an ewe weighed 5lb. and of a wether 8lb. and worth 12d. per lb. when first sheared, and that there are five millions of sheep in Spain. A friend of mine who is frequently in Spain, and a manufacturer of wool, fays he judges them to be about 3lb. when washed, fit for exportation.—" Who

experiment, the great advantage attending the manufacturing of our fine wool, would very naturally wish to possess themselves of the breed itself, which they took the best opportunity in the world of obtaining, from an English King, given up to pleasure and lasciviousness, and who was desirous at any rate to make friends on the Continent against the Lancaster party, who began now again to be formidable, being joined by the great, the disaffected Earl of Warwick. This article of the treaty, so important to Spain and such a facrifice to England, was probably carried on in the most covert manner, and carefully omitted in the public enrolment of the treaty, and only discovered when it was too late to prevent it *. And thus did the Spanish Monarchs bear off in triumph from the weak, the undifcerning Edward, that golden fleece for which England and France have fince bartered so many millions of their gold and other valuable commodities.

All that D'Asso says relative to this subject, is the account taken at different times by order of the Government, of the number and encrease of the (finewoolled) sheep. P. 60.

Anno 1699. Senatus In the year 1699, the Par-Cæsar-Augustanus libello liament of Sarragossa required fupplici arietes et verveces an account to be laid before in exteras regiones impor- them of the number of rams tari sibi permitti postu- and wether sheep in all the lavit. country round.

* In contradiction however to this, we see in Rymer, vol. 12, p. 137, in the year 1480, a covenant to grant his fifter Margaret Dutchels of Burgundy liberty to export annually 1000 oxen and 2000 rams to Flanders, Holland, and Zealand. It is probable this treaty was never put into execution, as no fuch export appears ever to have taken place, and was stated with a view to forward fome other negociations.

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It is a question with me, whether, in order to raise the best fine clothing wool, we must not, like Spain, have two separate breeds of sheep, treated very different; the one for wool, the other for mutton. For the former fort, I much doubt whether the feed of the fine tender grass of the downs, can be successfully changed, for any roots or foreign grasses whatever; although we should adopt their perambulations. I have heard that the ancient English sheep were never fed with any hay in winter, only what grass and other things they could pick up themselves; and that this method continued in Sussex till within the last 50 years.

Of the Importation of fine Spanish Wool into England, and Exportation of our own.

A fleece of Spanish wool is not all fine, as some persons have imagined. Out of 15 bags they will sort about 9 refinos, 4 sinos, and 2 tertios. The latter sort seldom comes to England, and is sold to the Dutch at about 10d. per lb. Segovia produced (some years since)

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fince) the best and most kindly wool, but now the Leonissa has the preference, and will yield 4s. per lb.

I have before observed that this fine Spanish wool began to be imported into England about the year 1660, and at that time sold here at nearly double the price of fine English; for then the latter sold for 16d. and 18d. per lb. when the former yielded currently 2s. 6d. per lb. At present, the fine Spanish generally yields from 3s. 10d. to 4s. per lb. and our own best Hereford and Shropshire from 2s. 4d. to 2s. 6d.

To demonstrate the advantage of working our wool at home in preference to exporting it in the raw state, I shall just mention the following facts. A pack of English combing wool is worth about 12d. per lb. but when made into sagathies, or fine camblets, will employ 202 persons for a week, who will earn upon that pack of wool 43l. 10s.—as follows—7 combers and a dyer, 150 spinners, 20 twisters, 25 weavers, and attendants. If into stockings, 184 persons will receive wages thereon to the amount of 56l.—viz.

£. s. d.

10 combers and a dyer - 6 6 0

102 spinners and twisters - 15 12 0

12 throwsters and attendants 4 10 0 60 stocking weavers - - 30 0 0

(Mr. Waring, a manufacturer of Alton, reduces the calculation to 500 people for one day.)

If, instead of being manufactured, this pack of wool is exported, it will employ one cart and one horse for one or

fázn

A pack of short clothing wool employs for one week 63 persons to manusacture it into cloth, viz. 3 to sort, scour, and pick it—5 to scribble it—35 to card and spin it—4 to spool, twist, and warp it into chains—8 to weave it—8 to scour, burl, and mill it.

These last calculations are taken from Chambers's Dictionary, but the following is the result of my own observation: A pack of lamb's wool is worth about 101. after a delivery by carriage of 50 or 60 miles: if fold abroad, might yield 121.; but if manufactured into flannels, will yield 321. by making 11 pieces, and finding a livelihood for 106 persons for a week, who will earn 201.15s. as follows, besides those employed in making the worsted chains, which are full half as many more.

£. s. 2 woolforters 0 4	<i>d</i> .
60 fpinners 7 10	0
26 weavers 7 16	O,
12 quilwinders 0 15	O
2 scriblers I 0	0
2 book-keepers 2 4	0
1 tucker and millman - 0 8	0
Warper and burler - 0 2	0.
Horse, cart, and man - 0 16	0

20 15 0

besides this national advantage * of employing the poor, when

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when they are not wanted by the farmer in the fields. Every extent of manufacture gives a new spring to commerce, by inducing the merchant to import more oil, Castile soap, and cane, as well as dye stuffs; it also encreases the business of carpenters for looms, spinning turns, &c.; wheelrights for carts, waggons, &c.; millwrights for mill work; rope-makers and hemp-dressers, wire-drawers, ironmongers, and curriers, as well as enable the poor to bring more money to the shop-keepers, linen-drapers, grocers, shoe-makers, &c. &c. (who on this account encrease their orders likewise to their merchants.) These get at least as much profit by them as by the dealings of their richer neighbours, for many country shopkeepers make fortunes by only selling to the manufacturing people.

I shall conclude with a few observations on the introduction of machines for shortening labour.

Many persons have condemned it as the means of depriving the poor of bread. The first inference will naturally lead to such a conclusion; because if there was only a certain limited quantity of work to do, and that being done, a stop was to be made, the sooner that work was done, the worse for the labourers; but the principle of manusacture operates differently; the more you do well, the more you may. The state of the cotton trade is a proof of this, for though by the introduction of spinning machines (to go by water 20 years ago), and the ability to spin was encreased an hundred fold, yet even now cotton yarn is so scarce, as hardly to be purchased by us in the West, who have always his therto bought our cotton yarn ready made,

F 2

There

^{*} Hume very justly observes that husbandry is never more effectually encouraged, than by the encrease of manufactures.

750l. which I am obliged to decline for want of abi-

lity, and I have reason to think the greater part will

never be executed, and therefore lost to the country.

If I could have undertaken it, I should have additionally

laid out with the community as follows, and have thereby

benefited some hundreds of my fellow subjects.

I should have bought of the wool-grower 3200lb. } of wool, and have paid him }	£. 220
I should have additionally paid to the workmen -	455
Reserving the manufacturer's profit of 10 per cent.	<u>75</u>
If I had allablished the:	750

If I had established the new-invented machinery to perfection I should have accepted this order, in which case the public would have benefited nearly as follows:

The wool-grower as before The public for labour, about	£. 220 - 380
The expences of machinery, about	30 - 75
And I should have encreased my profit -	705 45
	This

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This advantage would also enable me to extend my trade: and I should, in order to induce the merchant to encrease his commissions, offer him the goods in future at a lower price, my interest leading me so to do; and which advantage the merchant no doubt would embrase.

The only objection that can be urged to this, is the consequence of an overstock of the market, and thereby a damp to trade. To this I answer, It will be bad for England when she has lost her trade, which is the only thing, now, that enables her to pay the interest of her enormous national debt; and when that is the case, we well know great changes of all kinds, must take place. There is a point somewhere beyond which things cannot go; but it is not for this kingdom, under the apprehension of such an event one day or other taking place, to neglect the present means of encreasing its ability and strength; besides new countries are opening continually to the trade of Britain. The last observation I shall make is, that if the experience of twenty years already in the use of spinning by water, at Manchester, has produced such general employment and activity there, as that hardly any fingle person can be found in want of employ; and that as Yorkshire, by dint of fuch machines and engines, not only use all their wool, but send down into the West Country and buy it up out of the very mouths of the wool-dealers and clothiers, and thereby take our trade with it; then it must necessarily follow that the general introduction and use of them in the Western Counties, and every other part of the kingdom also, must be highly advan-

ageous

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tageous to the poor, and likewise eventually to the community at large.

And if Manchester, by the introduction of machines for shortening labour, has induced an encreased importation of cotton wool ten fold, the adopting of these machines to the woollen manufacture will occasion an encreasing demand of wool, and thereby greatly encourage the wool-grower, and enable the manufacturer to give a better price. And if the present patriotic scheme of the Highland Society succeeds, they need not doubt a market for their wool, although it should not be fuffered to go abroad; and though it may not be worth a farmer's while to ship it for England, yet woolcollectors may ship it for the Humber or Thames, on the Eastern coasts; or the Severn, Liverpool, &c. on the Western; and if publicly known by advertisement in the London papers, they need not fear its finding its value and meeting every encouragement. As to the time of the year when most marketable, I conceive it to be at the end of the Summer, though indeed at all times, whenever they can find a freight homeward.

APPENDIX.

THE Committee recommend in their Appendix N° IV. "before a sheep is brought from its native "country, a lock of wool be cut off from one certain part of the sleece, and laid by, in order to compare "with its suture growth." On this I would remark, that wool continues to grow after it is sheared, as long as the yolky moisture remains in it, and therefore it becomes coarser by being kept. This would deceive the observer into an opinion that it was finer, when in sact, the first lock had only grown coarser. I would therefore recommend, that such a lock of wool be scoured in urine, or soap and water, and dried; this would prevent it.

J. Palmærus, a disciple of Linnæus, writing on the rot in sheep, and of the worms found in the liver of such sheep (which he attributes to their feeding on marshy grounds), recommends salt to be given them. I should think it might be of great service to the sheep of the counties of Caithness and Sutherland in Scotland, which Mr. Andrew Ker, in his late Tour (undertaken for the Society), observes are very subject to the rot, the pasture there being naturally very wet. This author does not mention the quantity of salt, but any person might follow the Spanish rule (see page 55), and encrease it as he sees it necessary.

Respecting pitchmarks, the damage to fine wool from the use of them is very considerable, as well as occasioning great loss and depreciation. In 1752 a petition was presented to the House of Commons, stating the loss to this kingdom from this practice to amount annually to 425,000l. the pitchmarks generally being

made

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made on the finest part of the sleece. Their petition was, that a law might be enacted against the use of any pitchmark, except on the forehead of the sheep; but the bill was thrown out.—It is a question with me, whether it would not be better for some Society to offer a premium for the discovery of such a composition, as would answer all the purposes of pitch, and yet dissolve, and detach itself, from the wool in lukewarm water; for those who buy wool, abate considerably in their price on account of excess of pitchmark.

It would be defirable to the public, if the Society would collect and publish a table of the weight of the fleece and carcass of the sheep of the different counties and districts throughout the kingdom, in its original as well as its improving state, as nearly as possible; that in case any improvements take place, we may ascertain the encrease or decrease of the sleeces.

The mere driving of sheep, if done regularly and flatedly, would tend much to improve fome lands. I have often observed on the Wiltshire downs, tracts of land a mile long and about 40 feet wide, called droves, where sheep are regularly driven along, which make a most conspicuous appearance from the superior fineness of the vegetation, like as if it had been regularly mowed and rolled. This observation has been made by others, and I think a further improvement might follow, if a shepherd, in addition to the natural grasses, were to strew fometimes, at proper seasons, in the same tract, seeds of the burnet, fweet broom, yarrow, narrow-leaved plantain, the festuca ovina, or of some other grasses, which the Edinburgh Society would no doubt fupply fuch with, as apply to them having "the character of being " active and intelligent improvers."

FINIS.

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ERRATA.

P. 16, 1. 5, for burgage read messuage.

56, l. 12, for translator read transcriber.

54, l. 27, after pitchmarks, add spily wool, or wool full of broken straws, thorns, cockles, &c. is always highly prejudicial to the manufacturer.

61, note, 3d.1. from bottom, for mutates read mutatus, 62, 4 last lines, wrong translated.