

8543

85-10



OBSERVATIONS

ON

WOOLLEN MACHINERY.



PRINTED BY EDWARD BAINES.

1803.

## OBSERVATIONS,

&amp;c. &amp;c.

A TRADE or manufacture is deemed valuable to a country in proportion to the number of hands it employs, and the families it maintains: because in them, is national strength, and the produce of their labour, is the truest riches. The solidity of this maxim is strikingly evident, when applied to the preparation of any articles destined for the consumption of foreigners. Since we can instantly perceive, that the more of our families which can be supported *at their cost*, the more we increase our population and the more able we are to defend ourselves against them in cases of necessity, and the greater wealth we draw from them into our own country. On this sound principle it is, that the exportation of our wool unwrought up is strictly prohibited. But we seem now in a great measure to be losing sight of the leading object of this wise regulation of our laws, which was undoubtedly not alone to add to the value of our wool by labour upon it prior to its leaving us; but chiefly to cause the greatest number possible to derive advantage or subsistence from this prizeable home production—this boon of Providence to our isle.

( 4 )

But now on the contrary, the prevailing solicitude seems to be, to confine the advantages presented to us by so valuable a possession, to the fewest number possible, and ingenuity is incessantly on the stretch to accomplish this; and to convert our wool into cloth, as far as ever practicable, by mechanical contrivances, without the intervention of human labour; or in other words, to reduce the great staple trade of the country, to something very little better than the mere exportation of the raw material.

The pretext held out, for this great deviation from the wisdom of our ancestors, is improvement, and extension of trade. *But it cannot be extended beyond what the fleeces of our sheep will permit.* And as there is no complaint whatever, that any wool remains on hand unmanufactured, but the very reverse; it is manifest that the desire for more machinery in the woollen manufactory proceeds from, in fact, not public, but private advantage. It is wholly a race amongst individuals. Public good is certainly out of the question. It is in reality, each one striving against the rest, by every possible means, to draw to himself a large proportion of the business. The means chiefly employed to accomplish this, are mechanical contrivances; every one endeavouring to carry them farther than another for his own peculiar advantage. A line of competition, which has already done much public injury

( 5 )

injury in the woollen trade, and will yet do much more, if not arrested and restrained by the regulating power and wisdom of the Legislature.

However powerful the machinery made use of, no more cloth could be produced—no more could be sold than is already sold; if all the wool that is to be had, is now made up, of which there can be no shadow of doubt, from its continual advance. Neither would there be any wisdom in such a case, to reduce the price of cloth by means of further machinery, (if it would have that effect, which however as we shall see by and by is not quite so certain) as it is very plain, that if we can sell all that is to sell, on an average suppose of five shillings per yard, it would be the extreme of commercial folly, to weaken the population of our country, and lessen so considerably its wealth, by endeavouring through machinery, to let the foreigners have, at 4s. 6d. what they would otherwise cheerfully give us 5s. for; unless we could sell them so much more of the article to compensate for the difference and the loss; but that in the woollen trade is totally impossible. To give an instance in conformity to this idea: Suppose the full and complete adoption of machinery for the shearing and finishing of cloth, what would be the consequences? The coarser kinds, which is the bulk, might be sold probably 1d. or 2d. a yard cheaper, the finer ones from 4d. to 6d. lower, but equally imper-

( 6 )

imperceptible in the whole price; not a yard more would or could be sold on the whole, than is already: but we should surrender to our purchasers the said pennies and twopences, that is, the maintenance of thousands of our families—throw them on the parishes; and after thus very foolishly giving up, what sufficed for their support to no manner of purpose, we should have them to maintain out of our own pockets instead of those of the foreigners, in the shape of poor assessments: to say nothing of the mortifying poignant feelings of the men, on being turned adrift from a business, which after a long learning procured them at last a comfortable subsistence, to a poor-house, or some precarious employment if any other could be found, of which they knew nothing.

Hence it is plain that what might be very great improvements in some branches of trade, are not so in the woollen; because it cannot be increased beyond the quantity of wool grown. It is also plain for the same reason that machinery ought to be applied to wool with great caution, and only when absolutely necessary. While on the contrary, some other of our important manufactures, such as the cotton and flaxen, could not on account of the high price of our hand labour be retained, or perhaps exist at all in the country, without the utmost use of machinery.

It

( 7 )

It is also further evident from hence, that the highest state of perfection of the woollen trade—the way to make it the most profitable to the country, and to let the greatest number of its inhabitants participate of its benefits, would be, to work up the wool as much as possible by hand labour, provided the whole that can be grown could be so worked up in due time; and the goods after such expensive hand labour could meet with a ready sale. But such a nice arrangement and exact proportion of the produce of our sheep to manual labour, and to the prices of woollens in foreign markets, is not to be expected. The farther however that circumstances compel us to deviate from such a desirable state of perfection, and the less advantageous the whole of the community considered, the trade most certainly becomes. But more or less we must deviate, because, by endeavouring to employ the greatest number of hands, and confining the manufacture chiefly to manual labour, we might very much injure the farmer, by leaving him burthened with wool, at the same time that he is forbid to dispose of it elsewhere; and by the high price of hand labour in this country, in comparison to that of others, the merchant might also be beat out of foreign markets by their own manufactories, which now almost every where abound, notwithstanding the comparative superiority and cheapness of our wool.

To

( 8 )

To prevent or rectify this order of things, so prejudicial to the farmer and merchant, machinery may be advantageously called in as an auxiliary to human labour; but clearly only so far as to clear the farmers of their stocks at a fair price, and enable the merchants to maintain their ground with ease in foreign markets. If farther applied, instead of an useful auxiliary, it becomes an enemy both to labourers, manufacturers and merchants, and friendly only to the farmers, because the quantity of wool we know to be of necessity strictly limited, and cannot otherwise than very slowly, be increased. But we may easily conceive so much of machinery to be used, as would work up the whole of the year's growth, for example, in the space of six or eight months instead of twelve.

The amazing clamour that would be caused by this state of things, among the proprietors of mills for wool to feed their works, will readily present itself to every understanding; and that an enormous advance of the article (of which the late inadequate supply of corn for the year's consumption may give some idea) far more than overbalancing the cheapening power of their machinery, must be the inevitable consequence. It is therefore abundantly clear, from this by no means absurd supposition, that *too much machinery* may be applied to wool; and that there is a point when it ceases to be useful, and where besides its  
exclusion

( 9 )

exclusion of hand labour, it begins to defeat the very end and purpose for which it was adopted—to produce dearness instead of cheapness. To ascertain then this point is the grand desideratum. From the uniformly rising price of wool ever since the free use of machinery, till its present unprecedented height, and the little expectation yet of its fall, may it not be strongly suspected that we have already passed it? And that, if in attempting to remedy, or as it may illusively seem, to keep pace with the evil, we have still further recourse to more machinery, is it not like adding fuel to the fire we wish to extinguish, the very way to aggravate the grievance? Most certainly it is, if wool be already, of which there seems ample proof, too rapidly wrought up. Go on in the error, increase machinery, and we may soon raise wool and woollen goods so high, or impoverish the quality so much, as totally to exclude ourselves from foreign markets; unless our ingenious machinery advocates, can also invent machinery, to create or produce wool in proportion to their multiplication of compendious means for working it up.

But the misfortune is, that a large new mill can be much sooner erected, than additional sheep reared to keep it in motion. Indeed, without some restriction to the slaughter of lambs, or general inclosure bill, we may pretty safely conclude,

B

( 10 )

clude, that little or no addition can be made to our growth of wool—for the high price both of carcase and fleece during so long a time, can scarcely have failed to urge every breeder, e'er this, to stock to the utmost that his land will bear.

—This mode of reasoning with regard to wool, seems to be founded on indisputable truth. But will not at all hold good, as before hinted, when applied to cotton; for this simple reason, already so often noticed, that the one material is limited in quantity, while the other is continually suiting itself to the demand, and may be produced *ad infinitum*. It is therefore scarcely possible to carry cotton machinery too far, as there is nothing to prevent its extension, but scantiness of demand for the manufactured goods. Besides, as all other countries have nearly equal access with us to the raw material, without very superior machinery, dexterity, taste, &c. we should soon have little else to furnish with cotton goods, but our own country and its dependencies. *Whereas our principal advantage with respect to wool, does not result from machinery, but from our sole possession of the article, from its being also preferable for most purposes, and in general cheaper than in any other known.* Machinery as we have seen to a certain extent, may aid, but when in excess, by consuming it faster than it can be produced, will destroy that advantage, by enhancing the price to such an intolerable degree, as

to

( 11 )

to endanger the loss of a great part of the foreign trade, and render desirable some regulating law, to restrain its use and injurious influence, according to the price of wool, after the manner of opening and shutting our ports to corn, as it rises or falls.

But who shall enjoy the privilege of that quantum of machinery which might be deemed salutary, is a question which at once presents an insuperable difficulty to the existence of such a law. There is, therefore, perhaps no other alternative, if people will not endeavour to understand the subject, and see the necessity of abstaining from further machinery of their own accord, than patiently to wait till one extreme as usual in commercial concerns slowly corrects another, and to submit to the losses and inconveniences of the interim.—This interim of suffering, however, will be of much longer duration now, than formerly. Because when once arrived at the extreme of dearth—when the prices can no longer any where be borne, many mills must stop—many manufacturers be ruined—many merchants at a stand for want of vent, before the present riches of the farmers, and the large capitals now employed in the wool trade, can be conquered, and made to give way, so as sufficiently to relieve the manufacturing branches from such a distressing situation.—We seem now on the high road to this situation, and as wool cannot be much increased, there appears to be no means whatever of prevent-

B 2

ing



( 12 )

ing our arrival there, but by checking the use of machinery. Already several of our articles are either too bad, or too high, for many of the markets abroad; it will soon be the same with others; and how can it be avoided, but by a more provident use of machinery—a slower consumption of wool?

At the first, and for some time after the introduction of spinning jennies, pulling out and twisting from 40 to 60 threads at once in the place of one, and of carding, slubbing and scribbling billies, performing with one man the work of twenty, &c. all seemed in the woollen trade to go on well; and instead of men being thrown idle as they apprehended, webs were prepared so much more quickly than before, that they all found themselves called upon to the looms, and the women and children only were left without work in their own houses. The trade in general consequently flourished. Goods were rapidly and cheaply made up, and quickly sold. The murmuring about the new machinery in a great measure subsided, and in its place an idea begun to prevail, that the more machinery, and the more need of human labour; and this conclusion is probably perfectly right, with regard to cotton or any other raw material that can be produced at pleasure, furnishing so much more of one sort of employment, if it deprives of another, but fails

com-

( 13 )

completely with respect to wool. Though the error might not be easily detected, while wool continued in plenty to feed the devouring machines, working away often day and night, and till the old long accumulating stocks were expended, and the calls became too quick and large for the sheep to satisfy. But now the disproportion between the demand and the supply, between the consumers and producers, begins to be felt, and to convince us, that the effect of a too liberal indiscreet use of woollen machinery, is unavoidably advancement of price.

There is also another evil of no small magnitude resulting from machinery, which deserves the particular notice of the middling manufacturers. This is, that during a brisk demand for goods, they are apt to load themselves with machinery, (forgetting that greediness generally overshoots her mark) which will surely prove a snare to them, in the languid time which always ensues. For it is a settled maxim, that their mills must be kept going, to avoid the palpable, certain loss of their standing still. They therefore go manufacturing on, push their means and their credit to the utmost, as well as encourage their neighbours who have no mills to do the same, till an overwhelming stock of goods is accumulated, and finding themselves unable to proceed, must either sell to great loss; give ear to dubious chaps, and probably

probably

( 14 )

probably lose the better half; or enter into hazardous adventures, which can scarcely fail to be ruinous, in as much, as they must nine times in ten, be made with unsuitable assortments of goods, and under the direction of total inexperience, bringing destruction on themselves, and injuring materially the regular trader.

Such are the bitter fruits of too much wool manufacturing machinery, when in the hands of middling men, very high prices created by the quick calls for, and rapid advancement of wool, or glutted markets, with costly made up, but lowering articles.

Formerly the mode of making cloth in this large cloathing district was as follows:—A class of men with tolerable capitals called woolstaplers, rode over the country about cliptime, to buy up the wool from the growers. They then have the fleece carefully broke into its various qualities, and afterwards sell it out in small quantities thus assorted, to innumerable master manufacturers of little or no capitals, spread around in the adjacent villages. Those master-makers superintend all the remaining operations; have many performed in their own houses, and hire out the rest, to their neighbouring families: the whole of which, husbands, wives, and children, were employed together in their own dwellings, some in weaving, others scribbling, carding, or spinning.

Since

( 15 )

Since the introduction of machinery a new class of men, as machinery, or mill-owners, are concerned; and many of the master-makers have their own mills. The effect of which is, that wool is very much faster made into cloth, considerably more weavers are employed, and no home work left for women and children. Now after the wool is dyed by the master, it is sent to a mill, where, with the help of a man or two and a few children, it is most expeditiously scribbled, willied, slubbed, spun and made ready for the loom.

Those mills are costly establishments, and must, if possible, be kept in motion: hence, during the last ten years, wool has been consumed so fast, that it has been steadily on the advance, notwithstanding a war in the mean time, more expressly levelled at our trade, and manufactures in particular, than any preceding one; and at some periods of which severe losses were sustained by the merchants, and almost total stagnations of sale ensued.

But so much machinery being introduced, the manufacturing at all events went on. Wool therefore continued in demand, and on the rise, whatever became of the pieces manufactured; and we have often in the course of said ten years, been presented with (as the fruit of so much machinery) the distressing spectacle, of lowering goods, and rising raw materials, at one and the same instant of time. Wide spread ruin amongst the poorer



( 16 )

poorer manufacturers was, of course, the consequence—the jails were filled—the poor rates increased—and many, of rather more spirit and enterprize than the rest, unwilling tamely to yield, swarmed over Germany and America with their goods, but still came to ruin. And even now, since the peace, when the usual countries and consumers of our woollens are restored to our trade, at least, so far as French enmity and influence will permit, the price of wool has got so enormously high, many sorts being advanced since the adoption of machinery, not in a double or treble, but even in a four and five-fold proportion, that in spite of every art of the clothiers, the article produced is so bad and dear, that a very large proportion, to be sold at all, must be sold to loss. On which account, and the rapid mode of manufacturing, continual consignments as adventures must be made, and employment furnished to the auctioneers of London, Hamburg, Amsterdam, America, &c.

Coarse and middling cloth-making is undeniably become, a most miserable occupation. No men living perhaps, toil and struggle so hard, and reap so little benefit as the clothiers of the present day. But they know no other business, nor have they capitals to turn to any other; they must therefore struggle on. Wanting the aid of their sons as early as their strength will allow, they

( 17 )

they are all very generally also, doomed to the same fate, and must become cloth-makers or weavers in their turn.

In the stuff trade this lamentable contest between the oppressive dearness of the raw materials, and the low market prices of manufactured goods, is nearly at an end. Many makers have already sunk under it, and cotton has fortunately furnished a refuge to others. But they have fled to it with trembling steps, when only at the last extremity, and with the chilling apprehension, that one of those stagnations so customary to that fluctuating trade, may soon bereave them of its protection.

It is a curious fact in the said stuff business, that in proportion as mills have increased for the spinning of worsted yarn, which was thought a wonderful improvement at the first; the price of yarn has advanced, instead of lowered, and the number of stuff pieces manufactured, diminished, till the trade is now nearly lost, the foreign part almost totally, not a piece being now made for ten or perhaps twenty or more of former times with hand spinning. The mill spinning however goes on, the profits of spinning being, as it is said, enormous. What becomes of the yarn is not so apparent. Certainly it is not made into stuffs hereabouts as formerly before the existence of mills.

c

In

In the cloth trade we are now getting a step further from the old mode of manufacturing above described. Some merchants, in order to concentrate, or rather to avoid all the profits of middle-men, such as clothiers, woolstaplers, master-dyers, salters, oilmen, mill-owners, &c. have themselves become cloth-makers, erected large factories for the purpose, and import or purchase at the source every requisite material. Their considerable purchases of wool, made at once, and that often unskilfully, have not a little contributed to its advance. Possessing, however, so many advantages, all other merchants that can, must in time follow them; unless the laws interpose in favour of the middle ranks, and of the country in general; more especially as those merchants who have not factories, are ever more and more harassed and disgusted, with the bad, falsified, and dear goods, now, by reason of the dearness of wool, exhibited by the old usual makers, (who are nevertheless nearly starving), and know not where to sell them with any prospect of profit or comfort.

We shall then have our valuable middle classes swept away, by the monopolizing power of the rich merchants; and this great trade conducted on a system, which, to it, is not at all needful, and which it would be desirable in a moral view to avoid, in all trades, if possible, viz. the large factory

factory system. Bringing together hundreds of men, women, and children, from their happy domestic labouring parties, and simple, uncorrupted manners, to nurseries always of vice and corruption, and often of disease, discontent and disloyalty. It would doubtless be well if the Legislature in its wisdom could devise some means of putting a stop to this needless, pernicious system in the woollen trade, pregnant with so many evils to the morals and well-being of this part of the country.

If encouraged to the utmost, no more cloth in the course of a year, could be made—it might be done with more dispatch, and the year's wool wrought up in nine or ten months suppose; but admitting a real demand equal to this dispatch, which is not the case, and that the foreigners would take it as quickly as manufactured; why for the sake of accommodating them a month or two earlier, but doing in fact at the long-run no more business, should we tread down great numbers of our own men, and set up more machinery for the purpose? It is still greater folly, when this is done without a real demand keeping pace with the mills, which has long been evidently the fact. This is an evil, however, which one would think would soon correct itself; but year after year we have seen that it does not, and that woollen goods are furnished much faster than there is any real

( 20 )

solid demand for them, and therefore hawked about in almost every country; when, by a better arrangement of the trade, particularly by manufacturing with less dispatch, wool would be kept at a moderate price—the manufactured articles good and cheap—they would be every where greedily sought after—no manufacturing losses be incurred—and we might bid defiance to the utmost malice and power of our rivals, who will soon, no doubt, be in possession of all our mechanic arts; but let us only get our wool as before; it will then be so much lower and superior to any foreign wool, that with that, and our capitals, we might be tranquil respecting the issue, of their use of machinery.

It seems perfectly evident from what has now been said; that we have already too much woollen machinery; that the excess does not correct itself very readily, because the very thing that does the mischief, is unfortunately regarded as the cure; that we manufacture by far too rapidly; that great losses are somewhere constantly accruing in consequence; when, by less dispatch, every one might be well paid for his labour. Our great object consequently should be directed not to quicken by more machinery, and increase the evil, but by every practicable means to retard, and thereby decrease the intolerable dearness of wool.

Instead

( 21 )

Instead therefore of repealing all old statutes, with a view still to facilitate the quick making up of wool, more restrictions, rather, seem necessary, or the old ones repealed and new ones enacted, better adapted to the spirit of the times, and particularly, that the apprentice qualification should be somehow confined, as the best and surest way of keeping the number of clothiers and dressers within some tolerable bounds, and proportioned to the quantity of wool produced. *And above all, that full consideration be given to the large factory system, and if found unnecessary and fraught with the mischiefs here represented, as no doubt it will, on due investigation, let the merchants be confined to their own profession.* By such a measure, essential service would be rendered to the middling men of every description, and the morals of our labouring classes preserved, without any loss or detriment to the trade in general; since the wool, being the same, after, as before their erection, whatever is done in those factories is necessarily drawn from the old middling makers above described, who themselves make use of more machinery already than is prudent. But they will, notwithstanding, persevere, thinking they must have still more and more in order to make head against the ever rising price of wool; not suspecting that, to be the natural effect of their very efforts to keep down the price of the manufactured

factured article; and not reflecting that the sooner they get a piece made up, the sooner they want wool to begin another. Wool thus called for cannot but rise.

Another cause which prevents a ready correction of an excess of machinery is, that every new adventurer and mill-builder, flatters himself with more skill or luck than his unfortunate neighbour, and the unprofitable distressing round is again gone over.

See below the prodigious number of pieces manufactured for the last ten years in this riding, according to the annual reports: A considerable portion of which, as is indeed no wonder, have been, it is well known, sold without any profit to the manufacturer. It is also almost as well known, that after all this amazing quantity done, the clothiers as a body are impoverished—in a worse condition, and less at ease in their circumstances, than when considerably fewer pieces were made, and less machinery used. Their situation therefore is highly worthy the attention of Government. They labour hard, toil incessantly, suffer patiently, and know not how to help themselves. The Legislature alone seems competent to grant them relief and assistance, and to protect them, as well as the cloth-workers and shearmen, from falling a sacrifice to the spirit of monopoly—to private cupidity in the guise of public good.

A STATE-

A STATEMENT OF THE QUANTITY OF WOOLLEN CLOTH MILLED IN THE WEST RIDING OF

THE COUNTY OF YORK,

The last Ten Years, ending April the Sixteenth, 1803.

YEARS.	PIECES.	YARDS.
1793,	Broad, - - 214,851	- - 6,760,728
—,	Narrow, - - 190,468	- - 7,531,698
1794,	Broad, - - 190,332	- - 6,054,946
—,	Narrow, - 150,666	- - 6,783,722
1795,	Broad, - - 190,988	- - 6,067,208
—,	Narrow, - 130,403	- - 4,634,258
1796,	Broad, - - 250,993	- - 7,759,907
—,	Narrow, - 155,087	- - 5,172,511
1797,	Broad, - - 246,770	- - 7,830,536
—,	Narrow, - 151,594	- - 5,245,704
1798,	Broad, - - 229,292	- - 7,235,038
—,	Narrow, - 156,709	- - 5,503,648
1799,	Broad, - - 224,159	- - 7,134,114
—,	Narrow, - 148,566	- - 5,180,313
1800,	Broad, - - 272,755	- - 8,806,688
—,	Narrow, - 180,168	- - 6,377,277
1801,	Broad, - - 285,851	- - 9,263,966
—,	Narrow, - 169,262	- - 6,014,420
1802,	Broad, - - 264,082	- - 8,699,242
—,	Narrow, - 137,231	- - 4,833,534
1803,	Broad, - - 265,660	- - 8,686,046
—,	Narrow, - 137,016	- - 5,023,754

It

It also appears, from the above list, that notwithstanding we have every year more and more machinery, and the last a year of peace, fewer pieces are latterly made than before; the reason of which is, doubtless, that the old stocks of wool are gone, and we are now come to the real produce of the year.

If we wish to produce a good, cheap, and every where marketable woollen article, we must depend much more on cheap raw materials, than on machinery.

FINIS.

---

EDWARD BAINES, PRINTER, LEEDS.

---