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BIG INDUSTRY BIGGER PROBLEMS

The Cloth Districts Of Yorkshire

By: Angus Reach

Supplement to the Morning Chronicle, 18 Jan 1850 The town of Huddersfield is a species of minor capital of the broad and fancy clothworking districts of Yorkshire; Leeds being taken as the general manufacturing metropolis of the county. In Huddersfield and its neighbourhood, however, a very important proportion of the clothworking of the entire district is carried on, and much of the finetextured stuffs, conventionally known as West of England goods, is spun, woven, and finished on the banks of the Colne. The town of Huddersfield contains rather more than 36,000, and the district comprehended by the Huddersfield union is peopled by somewhat more than 108,000 inhabitants. The number of paupers at present accommodated in the several workhouses of the union amounts to about 250, and the amount of outdoor relief granted during a single week in the beginning of the present month was £186. In the year 1846, Out of 939 couples who married, 378 men and 696 women signed the register with their marks. In Huddersfield and its neighbourhood, howev-

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HOW A BOY BECAME A MILL WORKER IN DUNDEE

By: Frank Forrest

To begin at the beginning, I may succinctly state that my father was a country shoemaker, and, like most of his class, somewhat speculative; fond of political and religious disputation, and not altogether devoid of a taste for the bottle. In addition to carrying on a trade in the locality, which, by the way, was in the vicinity of Glammis, he likewise rented a small quot pendicle of about six acres ... Can the reader blame me then, when I affirm that I think the little cottage where I was born was the sweetest spot on earth. The tidy garden, the river, the thick plantations, over which towered the grey turrets of the ancient castle of Glammis, the soothing solace of an affectionate mother's love, and all the innocent amusements and prattling of you thys warm existence, rush on my memory, and force me to conclude that I have seen no place like the place of my childhood. The dim remembrances that I yet have of these happy days impress me with the belief that my father and mother lived comfortably, and In addition to carrying on a trade in the locality, which, by the way, was in the vicinity of Glammis, he likewise rented a small

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An American Visitor to Textile Mills at New Lanark

By: Louis Simond

Returning to Lanark, we stopped a moment at a cotton manufactory. It was the first established in Scotland, and the most considerable. It is certainly a prodigious establishment. We saw four stone buildings, 150 feet front each, four stories high of twenty windows, and several other buildings, less considerable; 2500 workmen, mostly children, who work from six o'clock in the morning till seven o'clock in the evening, having in that interval an hour and a quarter allowed for their meals; at night, from eight to ten for school. These children are taken into employment at eight years old, receiving five shillings a week; when older, they get as much as half aguinea. Part of them inhabit houses close to the manufactory, others at Lanark, one mile distance; and we were assured the latter are distinguished from the others by healthier looks, due to the exercise this distance obliges them to take, four miles a day. Eleven hours of confinement and labour, with the schooling, thirteen hours, is undoubtedly too much for children. I think the laws should interfere between avarice and nature. I must acknowledge, at the same time, that the little creatures we saw did not look ill. The prodigious increase of manufactories in England, and the application of the force of water to their machinery, threatened equally the purity of mountain streams and of morals; but farther improvements in mechanics have led to another mode of applying the force of water, and, instead of its weight, its expansion is now made subservient to the arts. The steam engine is an agent so convenient, so powerful, and so economical, in a country abounding with fossil coal, that falls of water have been abandoned; but the great manufactory of Lanark had been established before this great discovery. The cost of tile steam engine and fuel is more than compensated by the advantage of saving the transportation of both the rough materials and the manufactured articles; of being on the spot of consumption and exportation, and where great population furnishes workmen, rather than among deserts and mountains. I understand that there are now even gristmills worked by the steam engine. On our arrival at Glasgow this morning [24 August, 1810] .... Professor M., Mr. G. and Mr. H. . . . undertook to carry us immediately to the principal manufactories. We have seen carding and spinning mills, weaving mills, mills for everything. The human hand and human intelligence are not separated; and mere physical force is drawn from air and water alone, by means of the steam engine. Manufactories, thus associated with science, seem to produce with the facility and fecundity of nature. It is impossible to see without astonishment these endless flakes of cotton, as light as snow, and as white, ever pouring from the carding machine, then seized by tile teeth of innumerable wheels and cylinders, and stretched into threads, flowing like a rapid stream, and lost in the tourbillon of spindles. The eye of a child or of a woman, watches over the blind mechanism, directing the motions of her whirling battalion, rallying disordered and broken threads, and repairing unforeseen The prodigious increase of manufactories in England, and the application of ...

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Richard Guest on the Cotton Industry

By: Richard Guest

Happening to be at Matlock, in the summer of 1784, I fell in company with some gentlemen of Manchester, when the conversation turned on Arkwright's spinning machinery. One of the company observed, that as soon as Arkwright's patent expired, so many mills would be erected, and so much cotton spun, that hands never could be found to weave it. To this observation I replied that Arkwright must then set his wits to work to invent a weaving mill. This brought on a conversation on the subject, in which the Manchester gentlemen unanimously agreed that the thing was impracticable; in defense of their opinion, they adduced arguments which I certainly was incompetent to answer or even to comprehend, being totally ignorant of the subject, having never at that time seen a person weave. I controverted, however, the impracticability of the thing, by remarking that there had lately been exhibited in London, an automaton figure, which played at chess. Now you will not assert, gentlemen, said I, that it is more difficult to construct a machine that shall weave, than one which shall make all the variety of moves which are required in that complicated game. Some little time afterwards, a particular circumstance recalling this conversation to my mind, it struck me, that, as in plain weaving, according to the conception I then had of the business, there could only be three movements, which were to follow each other in succession, there would be little difficulty in producing and repeating them. Full of these ideas, I immediately employed a carpenter and smith to carry them into effect. As soon as the machine was finished, I got a weaver to put in the warp, which was of such materials as sail cloth is usually made of. I immediately employed a carpenter and smith to carry them into effect. As soon as the machine was finish Now you will not assert, gentlemen, said I, that it is more difficult to construct a machine that shall weave, than-

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Weather for February 7th - 14th

Today	7°C
Friday	8°C
Saturday	8°C
Sunday	7°C
Monday	8°C
Tuesday	9°C
Wednesday	9°C
Thursday	9°C

Andrew Ure Describes a Modern Cotton Spinning Factory

By: Andrew Ure

The building consists of a main body, and two lateral wings; the former being three hundred feet long, and fifty feet wide; the latter projecting fifty-eight feet in front of the body. There are seven stories, including the attics. The moving power consists of two eighty-horse steam engines, working rectangularly together, which are mounted with their great gearing wheels on the ground floor, at the end of the body opposite the spectator's right hand, and are separated by a strong wall from the rest of the building.... The boilers for supplying steam to the engines, and to the warming pipes of the building, are erected in an exterior building at the righthand end of the mill; and transmit the smoke of their furnaces through a subterraneous tunnel to the monumental looking chimney on the picturesque knoll, shown in the drawing. By this means, a powerful furnace draught is obtained, corresponding to a height of fully three hundred feet. As this mill spins warp yarn by throstles, weft yarn by mules, and weaves up both by power looms, it exhibits in the collocation of its members an instructive specimen of the philosophy of manufactures. Both systems of spinning, namely, the continuous or by throstles, and the discontinuous or by mules, require the cotton to be prepared on the same system of machines; and therefore they must be both arranged subordinately to the preparation rooms. This arrangement has been considered in the true spirit of manufacturing economy by the engineer. As the looms require the utmost stability, and an atmosphere rather humid than dry, they are placed on the ground floor of the body of the building, as also in a shed behind it, to the number of about one thousand. The throstle frames occupy the first and second stories of the main building; the mules, the fourth and fifth stories; each of these four apartments forming a noble gallery, three hundred feet long by fifty wide, and twelve feet high. The third story is the preparation gallery, intermediate between the throstles and mules, as it is destined to supply both with materials. Towards one end of this floor are distributed the carding engines; towards the middle, the drawing machines for arranging the cotton fibres in parallel lines, and forming them into uniform slivers, or soft narrow ribands; and towards the other end, the bobbin and fly frames, or roving machines, for converting the said slivers into slender porous cords, called rovings. These rovings are carried downstairs to be spun into warpyarn on the throstles, and upstairs to be spun into weft (or sometimes warp) yam on the mules. The engine occupies an elevation of three stories at the right hand end of the mill. The stories immediately over it ...

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