

262. Everywhere open prostitution is very rare. In the parish and neighbourhood of Camborne, which embraces a population of 30,000, it was stated by an officer of the Union, intimately acquainted with the subject, that there was not even one individual living in that condition. This fact is rendered still more creditable to the population by the favourable contrast in which it stands to the state of some of the towns at no great distance.

XII. COMPARATIVE CONDITION

263. In the principal mining districts almost all the children of the poorer classes are sent, to the mines when there is any demand for their labour. Comparison can therefore be hardly instituted, on a large scale, except with districts more or less remote. The relative condition of those in the neighbourhood has, however, been kept in view in all the statements in this Report which bear a relative character, and many illustrative particulars in the Evidence collected have been referred to. A brief notice of the condition of the children and young persons employed in domestic and civic occupations, in agriculture, and in the iron-foundries and slate quarries, from which returns have been obtained, shall now be given, under the several heads of inquiry already treated as respects the mining class.

264 (1) Very little, if any, paid employment is found in agriculture for boys under 10 years of age, and it is merely casual till they are 12 or 13. Young girls have only a little occasional work in the field, and do not, till they are 15 or 16, engage in it as their regular occupation. In towns, places are found for a few as servants or errandboys, and apprenticeships are resorted to by the greater part. The girls from 14 upwards obtain employment, as domestic servants, and a great number learn the business of dressmaking at the same age. The ages at the iron-foundries are, under 13, 62; between 13 and 18, 150; those at the slate-quarries, under 13, 21 males and 9 females; between 13 and 18, 34 males and 17 females.

265 (2) The hours for agricultural work are usually about 10 in the day in summer, and daylight in winter. Night-work is unknown, as well as working overtime, except perhaps a little at harvest. Girls employed in dressmaking are here, as in other parts of England, kept at work till 8, sometimes till 10, in the evening, but they seldom begin it before 7 or 8 in the morning. The hours of work in the foundries are from 6 A.M. to 6 P.M., out of which an hour and a half is allowed for meals; a few work at night regularly, and others when there is a particular press of business. At the slate-quarries the hours of work are 10 in the day.

266 (3) An hour is generally allowed for dinner in all departments of husbandry, and another, or at least half an hour, for breakfast; and it large proportion of the young people employed are able to return to their homes to their meals, or to take them in the farm-houses. The same allowance is usual in employments in towns. At the foundries an hour and a half is allowed, and this is also the case at the slate-quarries.

267 (4) It is needless to describe the nature of the agricultural and civic employments just spoken of, which are the same in this as in other parts of the country. The separate reports on the iron-foundries and quarries may be referred to for particulars on this point relating to them.

268 (5) It has been stated that the surface operations in these mines are carried on in well-ventilated places, free from the causes of impurity connected with town habitations. They are in fact, nearly analogous, in regard to aeration, to rural work; the latter is the less sheltered of the two, but likewise the less sedentary. The comparative disadvantages of those who work under ground need not be enumerated. No kind of town occupation is attended by any at all equal ones; but the close situations in which many of its departments are carried on, and the noxious effluvia with which the air is often loaded, render the comparison with the surface work at the mines unfavourable. The quarries and clay-works present no essential points of difference from the more exposed surface work at the mines. The particular condition of the foundries must be looked for in the special report respecting them; but it may be stated generally that they are more injurious in some parts, both from extreme alternation of temperature and from impurity of air, than the places of work at the surface in the mines, but much less so than those under ground.

269 (6) As to the liability to accidents, the disadvantage is altogether on the

side of the mines, though this is nearly confined to the under-ground work. In the foundries several accidents have happened from the machinery, and some from the bursting of boilers, but in no proportion to those in the mines.

270 (7) Holidays are about equally rare in the other lines of employment as in mining. Monday and Tuesday in Whitsun-week are, however, not infrequently allowed as such. But on the whole the engagements being less binding, and for shorter terms, at the mines, the work there is in reality more frequently interrupted than that in most other occupations.

271 (8) The modes of hiring established among the miners having been stated, comparison is easy with those in rural and urban life, which are those usual in other parts of England. At the foundries there are some apprenticeships, but the great majority are hired as daily labourers, as is the case at the quarries.

The wages of mining children and young persons are higher, even at the surface, than those obtained at the same ages in most agricultural and civic employments; the difference probably averages about one-third. Those under ground receive considerably more. In the foundries the weekly wages range from 1s 6d to 9s, the corresponding ages ranging from 10 to 18. In the quarries the earnings of boys are from 2s 6d to 10s per week, between the ages of 8 and 18; and for girls from 2s to 5s.

272 (9) There is nothing to be observed with respect to comparative treatment and care, but that the children and young persons in the mines are more free from arbitrary punishments than those of the other classes, though there is very little ground of complaint among any of them in that particular. The encouragement to labour by means of piece-work is also in favour of those engaged in the mines.

The greater proximity of residence, and more intimate connexion existing between the employers and the employed, would naturally lead to a more beneficial care and influence being exerted by the former in behalf of the latter in most other departments of industry than in mining concerns. Such care and influence cannot, however, be said to be exhibited to any great extent by the farmers, or by tradespeople generally, with regard to those immediately under them. In the foundries more active interest in their welfare has been displayed. The quarries and clay-works are nearly similarly circumstanced with the mines.

273 (10) The statement already given of the *physical condition* of the children and young persons employed in the mines, is almost in all parts relative to that of others in the neighbourhood. A few additional remarks will therefore suffice.

The *external appearance* of those who work at the surface was said to be that of florid health. It is not, perhaps, quite equal to that of those employed in agriculture with respect to robustness, for there are certainly among the former more individuals having those personal characteristics which are considered indicative of predisposition to consumption, and generally there is less coarseness of frame and feature. Compared with any other class of young people, their external appearance is decidedly in their favour. It is distinctly superior to that of those employed in the foundries.

The relation borne by the under-ground boys to those on the surface has been noticed at length, and the observations just made will transfer that relation to other classes as well.

The inferior development of the men to that of the women has been mentioned, and the children of both sexes being alike well grown, it is clear that causes of subsequent operation produce the difference in the adults. No accurate measurements of the *stature of men following various occupations* have been made; but the foregoing facts would be sufficient to prove, what cursory observation strongly confirms, that the under-ground lads and men are, as a class, inferior in growth to the agricultural class, who are otherwise similarly circumstanced.

The *food* of the other labouring classes spoken of is probably rather less abundant in quantity than that of the mining class, owing to the higher average earnings of the families belonging to the latter. But the preparation of the food is, perhaps, among no other labourers so rude as among the miners; neither is the dinner eaten by any in a manner so habitually comfortless and hurried. Agricultural labourers have the opportunity of obtaining many articles of diet at a cheap rate, especially milk, which is with difficulty procured in the mining districts.

The *clothing* of the children of the peasantry in the West of England is generally decent, but by no means so good as that of the young people connected with the

mines. In the towns the disposition to personal display is prevalent; but the children of the town class are not so well attired as the mining children. Between these last and those employed at the foundries, there is no great difference.

In comparative *cleanliness*, the mining children and young persons stand as high as those of any class; those employed in husbandry are more neglected in this matter; but nowhere are so many instances of positive filthiness to be met with as in the towns, though the West of England is by no means singularly bad in this particular.

The account already given of the *amount of sickness* among the children and young persons employed in the mines is essentially comparative. The tables of mortality at different ages in the introductory part of this Report may be referred to for some definite information concerning the relative sickness in the above class and in the agricultural and urban populations: the immunities from, and liabilities to, particular diseases among these last are much the same here as elsewhere. It needs only to be borne in mind that the West of England ranks high for longevity and healthfulness. A particular comparison between the girls employed at the mines and those at a small manufactory, to the advantage of the former, will be found in the Evidence (p. 835, 9).^{*} The amount and kind of sickness in the iron-foundries may be seen in the Special Report concerning them, and a general comparative estimate may be deduced with regard to the young persons from what has been stated of the adults in the present Report.

274. (11.) Sunday-schools are general throughout the rural districts and in the towns in the West of England. Where the population is thin they are more uniformly connected with the church, than where large masses are brought within a small compass. It is probable that the proportion of children attending them to those who do not is greatest in the mining districts.

The day-schools scattered through the country are of a very humble class, and the opportunities of instruction generally enjoyed by the agricultural children are certainly inferior to those within the reach of the mining districts. Where such opportunities exist they may be longer taken advantage of. All the more favourable circumstances concur in the towns,—good schools, facility of access, and a less demand for the labour of the very young. Education is consequently carried further in them, although the majority of the children leave the schools, even there, much too soon to give security that they will hold fast the knowledge and the principles which must be still merely rudimentary in their minds. The national and the British and Foreign systems are those followed by the most considerable and best conducted schools for the poor. The Glasgow method has just been introduced for the first time into the West of England, through a school established at Penzance, under the auspices of the Wesleyan Methodists. There are a few infant-schools. The provision of good evening-schools is very scanty.

By the proprietors of the iron-foundries a good deal of attention has been given to the providing means of instruction for the younger children of their work-people: and in some cases evening-schools for those actually employed. The results as to the ability to read and write are the following:—

Work.	Attend Sunday School.		Read an easy book.		Have written their names.				Total Employed.			
									13 to 18.		Under 13.	
	M.	F.	M.	F.	M.	Aver Age.	F.	Aver. Age.	M.	F.	M.	F.
Hayle Iron Foundry . .	63	..	105	..	48	15·1	..	..	75	..	45	..
Sandys and Co., do. . .	37	..	63	..	41	15·	..	..	56	..	15	..
Perran, do. . .	..	..	22	..	16	14·8	..	..	19	..	2	..
Delbole Slate Quarry .	34	18	35	25	20	14·	6	15·	34	17	21	9
Bickford and Co., Safety Fuse Manufactory.	2	7	2	7	2	11·	5	15·6	..	6	2	1

* Some cases illustrative of the effects on health of other occupations, compared with mining ones, may be found in the Evidence (p. 823, l. 22; p. 841, l. 2; p. 845, l. 68; p. 852, l. 40).

† The average age at which such schools are left (usually for some employment either remunerative or useful to the parents) may be inferred from the following statement respecting the Central National School at Truro, for which I am indebted to the master:—

Of 77 boys who have quitted that school, the average age at admission was	.	7	Years.	9·97	Months.
"	"	4		0·44	
"	"	11		10·41	

The replies of several of the magistrates to whom queries were sent, and which have been already given, will further illustrate the comparison of the moral condition of the children and young persons employed in these mines with that of young people in other classes.

275. Some account of the adult mining population has been given in the introduction to this Report. The results of their earlier labours are there displayed. Boys trained to mining do not, to any large extent, desert it for another occupation. When they do so, ill-health is the most frequent cause. Instances of this description, and others occurring in the evidence, have been already referred to. Agriculture is, perhaps, the most usual resort of the miner when he relinquishes his former employment. But the number of boys brought up as miners who do not continue such is comparatively small.

276. The girls likewise, in by far the larger proportion, continue in the same connexion. A very great number of them get married to miners, and that early in life; and many follow milling labour for a long course of years. Change of occupation is however not unusual among them. Some examples of it have been already referred to.

The habits of laborious industry acquired by them at the mines are found serviceable in many employments. For agricultural work they are well adapted, and many are engaged in it; and, though they are not coveted as domestic servants by the upper classes of society, they are found very efficient in that capacity by those to whom a little coarseness of manner and familiarity of address are not a very serious annoyance. Their general character for honesty, sobriety, and steadiness, is unimpeached.

277. The mines in the West of England, not being at all in the vicinity of any works subject to legislative restriction with respect to the employment of children and young persons, no injurious influence has been hitherto exercised upon such works by the exemption of the mines from that restriction.

278. Before concluding this Report, I beg leave to suggest for consideration certain (as it seems to me practicable) measures, which may be remedial to some extent of the evils which have been pointed out under the several heads of the inquiry.

279. (1) No child should be employed *in any way in a mine* under the age of 9 years. The number returned as being under that age is 90, and it is probable that in all the mines there are not above 100; the deprivation therefore of their work or of their wages could not be much felt.

280. No boy should be employed *under ground* before he was 15 years of age. The number returned as working under ground, under 13, is 128; from 13 to 14, 124; and from 14 to 15, 172; altogether 424. Allowing for defective returns, there may, perhaps, be 1000 such boys employed. To prevent their following this employment would produce a serious defalcation from the income of perhaps 500 parents, generally amounting to the difference between the surface and underground pay. But there is, probably, no one practice affecting the young so injurious to them, and ultimately to the mining community at large, as this of exposing boys at a very early age to the pernicious agencies which operate on the under-ground miner. These agencies and their effects have been already dwelt upon (§ 4, 5, 10, &c.).

281. As to the precise age at which it may be least disadvantageous to permit the working of boys under ground, opinions will differ. For the good of the boys, I would, I think, be quite soon enough; but many will judge that the limit ought not to go beyond 14, looking chiefly to the necessities of the parents, and in some measure to the expense of labour to the owners.

282. (2) The children at surface-work should not be allowed to work more than 8 hours in the 24, till they were 13 years of age; nor the young persons to work more than 10 hours in the 24, till they were 18. Night-work should not be permitted for any under the age of 15. The boys should not be allowed to remain under ground more than 8 hours in the 24, before they were 18 years of age.

283. (3) Not less than three-quarters of an hour should at any time be allowed for dinner.

284. Under the heads from 4 to 10 inclusive, several beneficial arrangements may be suggested, and recommended to the adoption of the proprietors of mines; but, not being subjects for legislative interposition, need not be here stated in detail. Such are:

285. (4) the substitution of machinery for manual labour in several cases, and a more accurate adjustment, than generally prevails, of the employment to the ages

and strength of the children and young persons.

(5) A more perfect provision of shelter on the surface. The under-ground arrangements have been spoken of in the introduction (107).

(6) Not employing boys under 15 about the engines. Suggestions for the prevention of accidents under ground are given in the introduction.

(7) The promoting the system of task-work; and giving a few half-holidays.

(8) Making general the arrangements adopted at some mines for the payment of wages in such a form as admits of ready division among the individual labourers, and paying the boys and females on the evening preceding the pay-day of the men.

(9) An increased exercise of superintendence and influence over the children and young persons when they are not upon the mines.

(10) The only points of physical condition to which recommendations can apply are those of *food*, *clothing*, and *cleanliness*. As to the *first*, it would be very desirable that the use of hoggans should be discouraged, and that accommodation should be provided for warming the pasties before they are eaten, which might easily be done in every mine; and that facilities for the procuring some warm drink should be afforded in cold weather. It would also be desirable that water for drinking should be supplied to those under ground. With regard to *clothing*, a change of shoes and stockings at the mine would be very beneficial to the surface labourers, as, at present, if they get wet in coming to they get work, which is very frequently the case, they continue so till they have returned home at night. The promotion of *cleanliness* by the supplying of warm water has been spoken of in respect of those employed under ground. The boys and girls at the surface should likewise be encouraged to wash before their dinner and when they leave work.

285. (11) The *moral condition* of the children and young persons employed in these mines would be improved to a most important extent by their being subject to the influence of a sound education till there was reason to believe that the mind was so far developed that the value of what had been learnt would be appreciated, and self-cultivation might be expected to follow; and, what is of greatly more consequence, till there was something like security that the principles of religion and virtue were so firmly rooted that they could not readily be afterwards forgotten, and that the ordinary temptations to evil courses might be withstood. Much is already done by Sunday-schools, but the clergy and dissenting ministers, who are best acquainted with these schools, have universally stated that they are not at all sufficient, by themselves, for effecting these objects, even with respect to those who habitually attend them, whilst a great number either go very irregularly or not at all. Supposing the existing system of employing children and young persons in these mines to be only interfered with to the extent above suggested, the education of those so employed can be carried on by evening-schools alone. The foundation of these must be the day-schools. To these encouragement and supervision should be extended; and by a small contribution from the miner (such as that at North Roskear),* and from the mine (as in that mine, and in Wheal Friendship, and Wheal Betsey in Devon), combined with some external aid, good and accessible day-schools might be provided for all the children of miners. Their attendance must as far as possible be secured. A good evening-school follows of course upon a good day-school. For the support of this, a small deduction, gradually increasing in amount, should be made from the wages of the children and young persons; and other support should be given, as in the case of the day-school. Provision should be made for sound religious instruction in these schools, and they should be constantly connected with Sunday-schools. The payment by all would, probably, induce the attendance of the greater number; but the influence of the employers must still be called in to secure this result.

286. Some instances of exertion and sacrifice on the part of employers and the public, for the furtherance of the education of the rising generation of miners, have been adduced; but no statement of the moral condition of this class and of the prospects of its improvement can be complete without making some reference to the recent experimental mining-school supported by Sir Charles Lemon. The whole of the documents necessary to the explanation of this experiment have been printed in the Appendix to Mr. Tremenheere's Report, and to them I must refer for its details. Here it will be sufficient to state that, for two seasons: 1. a preliminary course of instruction in elementary mathematics, in the theory and prac-

Some opinions of practical miners as to the feasibility of making arrangements regarding the work-hours, which might admit of attendance at evening-schools, may be seen in the Evidence (p. 824, 1. 52; p. 832, 1. 26; p. 847, 1. 56; p. 851, 1. 8).

tice of land and mine surveying, and in the construction of plans and surveys, and in mechanical drawing, by an able teacher; and subsequently, 2. Scholastic courses of a more advanced character, in mathematics and mechanics, by professors from King's College, London; and in chemistry and mineralogy, by a gentleman eminent for his knowledge in those departments, were provided, at Truro, at a very small charge to the pupils. Almost the whole cost of this educational experiment was borne by Sir Charles Lemon; and when, at the close of the second year's instruction, the test of a public examination had shown that a great amount of practically valuable knowledge, of an order much higher than had been previously within reach of boys destined for mining employments, had been acquired by boys of that class very rapidly, and under many disadvantages, the honourable baronet proposed to endow an institution, which might permanently furnish a complete education of an analogous kind, with a sum of £10,000 or even £20,000, and, besides, to contribute largely to its first foundation, provided the adventurers in mines should testify their approval of the establishment of such an institution by assenting to the levying of a tax of one half-farthing in the pound sterling of value on all metallic minerals raised in Cornwall during twelve years. A majority of the adventurers declared themselves opposed to the imposition of this tax, and, consequently, Sir C. Lemon's contingent offer of endowment was withdrawn, and his experiment terminated. That experiment was, however, enough to prove, *first*, that boys taken from the class of under-ground miners might be readily furnished, by scholastic instruction, with the means of improving their own condition, and facilitating the processes of mining; *secondly*, that there is no reason to apprehend, as was apprehended, that such instruction would give rise to a distaste for under-ground employment; for the pupils have returned, even with zest, to that kind of labour; and, *thirdly*, nothing, except, indeed, the non-acceptance of Sir C. Lemon's munificent offer, could more clearly prove than the apathy with which that experiment was received, that the need of such instruction is great. The time will no doubt arrive when the importance of placing the practical miner on the vantage-ground of science at the outset of his career, instead of leaving it to chance whether he gropes his way thither towards the end of it, will be fully perceived, as will be the great outlet for Cornish talent, which would be opened by the capability of supplying to the mines of the world agents so instructed as they can be nowhere but in Cornwall; but the power to perceive these things must first be given by the supply of elementary education.

287. Under arrangements such as those above suggested, the circumstances of these young people would be particularly favourable for the attainment of the best fruits of education. An excellent industrial course is already provided by the processes of mining employment, combined with those in which the parents call for the assistance of their children; and the amount of labour is not even now found to incapacitate for the reception of more direct instruction. At a later period, the miner has a good deal of time at his disposal, and as the nature of his employment affords him the means of turning his knowledge to account, these leisure hours may be always profitably occupied, if the elementary instruments by which knowledge is applied to practical purposes have been placed in his hands. Almost every miner has, moreover, the opportunity, at some time or other, of materially improving his condition; and if his character has been established on the firm basis of religion, he will avail himself of that opportunity to obviate the risk of being compelled to have resort to credit, and will gradually accumulate a sufficiency to enable him to marry with prudence, and to bring up his children without being forced to support himself or them by premature demands upon their physical powers. He will be also able to find, among the females educated in such schools, a partner who will second his efforts by that acquaintance with the principles and practice of domestic economy which is more essential to the welfare of the poor than of the rich man's household; and much more by a capacity for making use of those occasions for implanting the seeds of virtue in the hearts of his children, which a mother can alone enjoy.

288. The working of these mines, of the deeper ones in particular, can hardly, perhaps, in the nature of things be rendered altogether free from consequences directly or indirectly pernicious to the labourer; but the robust and healthy condition of the majority of mine agents who have been subject for many years to a great part of those noxious influences, and the sound state of many miners who have attained middle age, and continue at their posts under ground, having only differed from others inasmuch as greater intelligence and prudence have secured

them greater comfort, and better principles have secured them from excesses; these things lead me to believe that the evils which now affect the miner may for the most part be hereafter obviated, if, together with the removal, as far as shall be found possible, of those injurious agencies which have been pointed out in this Report, effectual measures shall be taken for the intellectual, moral, and religious education of this class of the population of the West of England.

I have the honour to be, Gentlemen,
Your very obedient servant,
CHARLES BARHAM,
Sub-Commissioner.

APPENDIX (A)

4, Clarence-street, Penzance
May 10th, 1841.

SIR,

ONE of the most fatiguing circumstances to which our miners are exposed is the elevated temperature which prevails in deep mines. I have personally inspected every part of about 200 mines in Cornwall and Devon, and have made many hundreds of observations on the temperature of the streams of water which flow into them immediately as they issue from the unbroken rock. The following is a general summary of my results:

Depth, in Fathoms, of Place of Observation.	Temperature.	
	In Slate. Degs. (Fahr.)	In Granite. Degs. (Fahr.)
Surface to 50	57·0	51·6
50 " 100	61·3	55·8
100 " 150	68·0	65·5
150 " 200	72·0	••
200 and upwards	85·6	81·3

The fatigue of climbing 200 fathoms is very great, and when this is done in an atmosphere of 80 degrees the exertion is of course considerably greater. But added to this, one party, (of the three gangs who relieve each other at every eight hours) have to leave their work at 10 o'clock at night; and I have known instances where labourers, who had to remain in a temperature of 96 degrees whilst at their employ, at this late hour of the night had to walk three miles to their homes. Some of these were too poor to be well clad; and after so frightful a transition of temperature, and so long a walk against a fierce and biting wind, they have often reached a home without a fire, and had to creep to bed with no more nourishing food and drink than barley-bread or potatoes with cold water.

The rewards which private benevolence and the exertions of the Polytechnic Society have offered for the production of a safe machine applicable to the general features of Cornish mining economy, have brought into notice several ingenious pieces of mechanism, for the purpose of lowering the labourers to their work, and raising them to the surface after their day's employment is over.

That none of these machines have been introduced to practice is a sufficient proof that the project, or the modes of effecting it, have not met the approbation of practical men. You will perhaps allow me to glance at an objection or two which I think it may be found very difficult, if not impossible, to obviate.

All these machines require a shaft to be set apart for their use; and a shaft of 200 or 250 fathoms deep, in the centre of the workings, is in the first place an item of enormous cost, and in the second the shafts in such situations are required every moment both of day and night for the purposes of the pumping-engines, or for drawing the ore and rubbish to the surface. Of course, if the shaft through which the workmen are drawn to the surface is not in the vicinity of the *workings*, its utility will be but small. Again, the masses or *bunches* of ore in our *lodes* (veins) have almost invariably a dip or inclination, which is in most cases from the nearest mass of granite. From this reason the chief portions of the deep workings are seldom *immediately beneath* the shallow ones; and thus whilst the workings increase in depth, they almost always have a horizontal progression.

Thus the shafts which at the commencement of a mine serve for the working of the deeper parts, are almost abandoned as the mine gets deeper. The steam-engines for pumping water thus often require occasional removal; and the same remark applies to any other machinery fixed in the shafts, and of course bears on the subject of the raising and lowering of the labourers.

I have little doubt but that the mode in universal use in the coal-mines, of lowering and drawing up the workmen in a basket, box, or other vehicle attached to a rope or chain, and that wound by a steam-engine, might be as beneficially employed in Cornwall as it is elsewhere; and if it was only adopted for 100 or 150 fathoms from the surface, it would produce a saving in the animal power, which would be most advantageous as well to the adventurer (mine-owner) as to the workman.