

felted cap, hemispherical in the crown, and broad-brimmed, about two pounds in weight. On this he usually sticks his candle, by means of a lump of clay, attaching another to a button.

60. These habiliments are, unless the miner lives very near at hand, kept at the mines, in the changing-houses, where the ordinary dress is left till he comes up from his work. In a few mines, under the benevolent auspices lately referred to, the access to them, from the shafts by which the miner ascends, is by shallow levels terminating, by means of a short footway, in the interior of these buildings, so that the miner, when he comes to the surface, issues at once into a warm air without any exposure. In the changing-houses themselves, the degree in which accommodation is furnished for drying the clothes, and enabling the miner to change his dress without running the risk of chill, is very various. Some of the most perfect are described in the evidence (p. 838, 1. 54; p. 839, 1. 39).

61. Closely associated with these arrangements is the provision of warm water for cleansing the surface before the dress is changed. The quantity of water heated in condensing the steam - the great moving power in these mines - causes a ready access to this article, so essentially beneficial when the frame is exhausted, and the skin coated with mineral dirt; but in the greater number of the mines it is allowed to escape without being collected in any reservoir where the men might effectually avail themselves of it. The excellent contrivance for this purpose at North Roskear is described in the evidence (p. 839, 1. 44).

62. The great body of the miners under-ground are employed in excavating the rock, whether for the sinking of shafts, the driving of levels, or the removing the veins of ore. These operations require, in most of these mines, the almost constant application of the explosive force of gunpowder. The greatest part of the work consequently consists in "beating the borer", that is, driving an iron cylinder terminating in a wedge-shaped point, by blows with a heavy hammer (mallet), whilst it is turned by another hand. The necessity, or advantage, of making the hole in a particular direction, often constrains the miner to assume every variety of posture in carrying on this work; at times he is even compelled to lie on his side for this purpose.

63. When the rock has been bored to a sufficient depth, the charge is introduced, and rammed down with a "tamping-iron", a particular clay being used for wadding, and a certain length of safety-fuse keeping up the communication with the powder; fire is applied to this, and the miners retire till the explosion has taken place. It is not often that the safety-fuse misses fire, but accidents now and then arise from its burning more slowly than usual, which may occur from tight ramming down; the impatience of the miner leading him to a too early examination into the cause of the delay, and the explosion taking place before he withdraws.

64. After the blasting, the "pick" comes into requisition, for the removal of the partially separated and angular pieces of rock. In soft ground the use of gunpowder is only occasionally required. A more minute account of some of the operations which are performed equally by boys and men, and of the usual hours of work, will be found in subsequent sections of this Report.

65. The work above described is done almost universally by the piece. The miner contracts to excavate the rock in a certain situation, at so much per solid fathom; this is denominated "tut-work"; or he undertakes to excavate the vein, and to fit the ore for the market, at the price of so much in the pound of the sum for which the ore is sold; this is called "tribute".

66. It will be seen that both these contracts are, to a certain extent, speculative; but while the former involves only the uncertainty of the nature of the ground, which in these strata is not ordinarily great, the latter is dependent on the character of the vein as well; on its size, and richness, which are exceedingly variable in the majority of mines. The consequence is, that while the tutworkman receives pay approaching in the regularity of amount to that of the daily labourer; the tributer is on one occasion absolutely a loser, and on another receives a sum unusually large for a person in his rank of life.*

The method by which the contracts are let, tends however to equalize, in a great measure, the average monthly earnings during periods of considerable length. At certain stated times, generally at an interval of two months, the work to be

*The tributer is in fact a co-adventurer with the owners, but one who risks nothing but his time and labour.

done in different levels is put up to be contracted for. Each place of work (pitch) requires a certain number of men and boys, determined by the agent; the partnership between the individuals being entirely voluntary. The greater part of the men who are employed in a particular mine are generally present on these occasions; or at any rate one of each party is there to compete for the contract. The agent, who acts as auctioneer, commonly standing in the window of the counting-house of the mine, names a particular place of work, as "the 140 west of Doctor's Shaft." Some one immediately names a price, and, in a great majority of cases, this is one of the party who have been already working in the place in question, and no one underbids him; but the agent states a lower price, and that is accepted. In such a case as this, where the contract is taken by the party which had it before, it is generally throughout the mining districts, but more in some parts than others, a rule among the men not to disturb those who have been in possession of a "pitch." It is the assurance springing from this rule which sometimes induces a party of miners, when a new "pitch," one which has not hitherto been worked, is set up, to take it for nothing, or next to nothing. They expect thereby to establish themselves in the mine, and in that particular contract ; and on the next setting-day they probably obtain a remunerating price.

68. There is of course an opposition of interests between the owners whom the agent represents, and the labourers; and the object of the latter is to make the former believe the ground harder and the vein poorer than they are. He on the other hand forms his own judgment on these points by an accurate examination within a day or two of the setting; and he fixes his price, the most part, so that average wages may be gained by the men. It is clear, however, that where a "tribute pitch" is at present poor, he must be cautious in giving a higher price, as there is always a possibility of a rapid increase in the size of the lode, and the value of its produce.

69. The contracts are commonly good from one setting-day to another, or for two months; but longer terms are often given, where the work to be done is known to be of very equable value.

70. The setting-day is usually the pay-day likewise. Accounts are given to each party, stating the value of their work, and the deductions to be made from it. The sum due to the "concern" is received by one of its members; and it is divided afterwards among themselves. One considerable item in these bills is what is called "subsist," which is an advance made "on account," at the end of the first month of the contract, for the subsistence of the men and the payment of the boys. Its amount is commonly determined by the value of the work already done. But in some mines the sum advanced is always nearly the same; where the men are relied upon for continuing at their work, this pay is allowed for a number of successive months; until at length their contract becomes more profitable, and they are enabled to discharge the arrears.

71. A few specimens of these bills will give a just notion of the fluctuations of the miner's earnings, and also of the various particulars which must be estimated by the miner as well as by the agent in determining the price which will probably remunerate the one, and not commit the other by an overcharge on his employers.

Dolcoath Tribute Pay.

			17th April, 1841.		
WILLIAM RULE.—Two Men and two Boys.			£.	s.	d.
Amount	60 <i>l.</i> 3 <i>s.</i> , at 13 <i>s.</i> 4 <i>d.</i>	.	40	2	0
		£. s. d.			
Mixing and dividing	.	0 5 1			
Grinding	.	0 5 10			
Box and drawing	.	1 6 10			
Smiths' cost	.	1 13 11			
Candles and materials	.	3 9 7			
Powder	.	1 6 10	8	8	1
Subsist	.	.	10	6	0
Doctor	.	.	0	1	6
			18	15	7
			£21	6	5
Club	.	.	0	13	2
			£20	13	3

For Jan and Feb., 1841.

Dolcoath Tutwork Pay.

17th April, 1841.

JAMES RICHARDS & PRS.—Six Men.

	£.	s.	d.
Driving 2 fathoms, at 10 <i>l</i>.	.	.	.
„ 1 fathom, at 8 <i>l</i> . 10 <i>s</i>.	.	.	.
	£.	s.	d.
Box and drawing . . .	0	12	6
Smiths' cost . . .	2	1	4
Candles and materials . . .	3	16	5
Powder . . .	1	17	11
Subsist . . .	.	.	.
Doctor . . .	.	.	.
	8	8	2
	0	0	0
	0	1	9
	8	9	11
	£20	0	1
Club . . .	0	10	0
	£19	10	1

For March, 1841.

North Roskear Pay.

March, 1841.

JOHN GLANVILLE & PRS.

	£.	s.	d.
Amount 544 <i>l</i> . 10 <i>s</i> . 6 <i>d</i> ., at 6 <i>s</i>.	.	.	.
„ 31 <i>l</i> . 18 <i>s</i> . 3 <i>d</i> ., at 5 <i>s</i>.	.	.	.
	£171	6	7
Subsist . . .	36	2	6
Materials, &c. . .	20	13	10
Doctor . . .	0	4	0
Club . . .	0	8	0
	57	8	4
	£113	18	3

North Roskear Pay.

March, 1841.

JOHN MICHELL & PRS., driving.

Films.	Ft.	In.	£.	s.	d.
1	4	6	at 13	.	.
2	0	1	at 11	.	.
Watching Engine, Sundays	.	.	.	.	.
	£46	8	0		
Subsist . . .	0	0	0		
Materials, &c. . .	14	18	4		
Doctor . . .	0	4	0		
Club . . .	0	8	0		
	15	10	4		
	£30	17	8		

Trethellan Pay.

January and February, 1841.

JOHN RODDA & PRS.

	£.	s.	d.
Tribute of ores, 32 tons 10 cwt., at 4 <i>l</i> . 1 <i>s</i> . 6 <i>d</i>.	.	.	.
per ton . . .	134	5	6
Decrease . . .	9	12	3
	£124	13	3
	£124	13	3
Debt brought forward . . .	6	3	3
To 46 lbs. candles, at 8 <i>d</i> . . .	1	10	8
„ 4 lbs. powder, at 9 <i>d</i> . . .	0	3	0
„ hilts 1 <i>s</i> ., handles —, rods 1 <i>s</i> . . .	0	2	0
„ shovels —, clay 4 <i>d</i> ., cans 1 <i>s</i> . . .	0	1	4
„ locks, sieves, dags . . .	0	0	0
„ paper, barrel . . .	0	0	0
„ smith cost . . .	0	11	0
„ drawing . . .	2	0	9
„ subsist . . .	9	0	0
„ doctor and club . . .	0	3	4
„ dividing, weighing, and samples . . .	1	6	4
	21	1	8
	£6	19	4

Trethellan Pay.									
THOMAS MOYLE & PRS.									
February, 1841.									
By stoping bottom of the 45-fathom level,									
west of Thomas's Winze, 5 fathoms, at									
90s.	£.	s.	d.	£. s. d.
Stems	22	10	0	
						0	9	0	22 19 0
To 50 lbs. candles, at 8d.	1	13	4	
,, 48 lbs. powder, at 9d.	1	16	0	
,, hilts —, rods 13s., clay 1s.	0	14	0	
,, paper —, cans —, dags 2s.	0	2	0	
,, shovels, nails, barrels	0	0	0	
,, bowls —, spales 5s., slings 8d.	0	5	8	
,, smith cost	1	13	5	
,, drawing	5	0	0	
,, subsist	6	0	0	17 4 5
									£5 14 7
Doctor and club	0	5	0	
Balance				£5 9 7
Fowey Consolidated Mines.									
December Ores.									
WM. COLLUM & CO.									
Tons.	Cwt.	Qrs.	Per Ton.	Amount.	Increase.				
£.	s.	d.	£.	s.	d.	£.	s.	d.	£. s. d.
3	3	0	at 4 17 6	15	6 5	0	5	5	
Real amount 15l. 11s. 10d., at 15s. from 20s.									
									£. s. d.
Cash	7	0	0	
Smiths' cost	0	1	1	
Dressing cost	0	5	0	
Club 3s., doctor 1s.	0	4	0	
Spale	0	0	0	
10 lbs. candles	0	6	8	
lbs. powder	0	0	0	
Hilts	0	0	0	
Shovels	0	0	0	
Shovel-hilts	0	0	0	
lbs. hoop iron	0	0	0	
Barrow	0	10	6	
Barrel	0	0	0	
Sieve and handles	0	0	0	
Riddle and handles	0	0	0	
lbs. tallow	0	0	0	
Copper nails	0	0	0	
Brooms	0	0	2	
Washing-tub	0	0	0	
Powder-cans	0	0	0	
Kibble and ropes	0	0	0	
coils sump-rods	0	0	0	
Slings	0	0	0	
Carriage	0	0	0	
Railing	0	0	9	
lbs. nails	0	0	0	
oil	0	0	0	
24 feet safety-rod	0	1	0	
tar	0	0	0	
Paper	0	0	0	
Grinding	} at 6s. 8d. } per ton. }					1	0	11	
Drawing									
Dividing									
Assaying									
Subsist	0	0	0	9 10 1
									£2 3 9
Fowey Consols Mines.									
Pay for January Month.									
JAMES JENKIN & CO.									
13th February, 1841.									
Driving the 4-fathom level east of Mundic									
shaft on lode, 1 fathom, at 100s.									
Driving ditto, ditto, 4 ft. 6 in., at 110s.	5	0	0	
						4	2	6	
Carried forward				£9 2 6

Fowey Consols Mines—continued.

Brought forward	£.	s.	d.	£.	s.	d.
	9	2	6			
Deduct cash	.	.	.	3	0	0
Smiths' cost	.	.	.	0	17	6
Club	.	.	.	0	3	0
Doctor	.	.	.	0	1	0
Spale	.	.	.	0	2	6
24 lbs. candles	.	.	.	0	16	0
30 lbs. powder	.	.	.	1	0	0
Pick-hits	.	.	.	0	0	0
Shovel	.	.	.	0	0	0
Shovel-hits	.	.	.	0	0	0
Barrows	.	.	.	0	0	0
Barrel	.	.	.	0	0	0
Debt W. & B., folio 48	.	.	.	0	9	11
Copper nail	.	.	.	0	0	0
Powder-can	.	.	.	0	0	0
Paper	.	.	.	0	0	0
Hoop-iron	.	.	.	0	0	0
Tallow lbs.	.	.	.	0	0	0
Slings	.	.	.	0	1	0
Pitch	.	.	.	0	0	0
1 lb. nails	.	.	.	0	0	3
Kibble and rope	.	.	.	0	0	0
Safety-rod, 168 feet	.	.	.	0	7	0
Sump-rod, coils	.	.	.	0	0	0
					6	18
					2	
					£2	4
					4	

72. Besides the main body of tributers and tutworkmen, a number of other men are employed in the mines. The several grades, proportionate numbers, and relative pay of these may be best seen from the following account of a great mine, the Fowey Consols. The statement of the other articles of expenditure in the mine, and of the income, is likewise given, as it will furnish very full information as to the general pecuniary management, and the consumption of different materials in the more extensive and deeper mines :—

The following is a Synopsis of the quantity of Ores raised, and also the *Proceeds* and *Expenditure* of the FOWEY CONSOLS MINE, in the parish of Tywardreath, in the county of Cornwall, for one year, ending the 31st December, 1838; together with a *Statistical Account* of the number of persons employed, their average monthly wages, &c. :—

Quantity of ores raised within the above time	Tons.	Cwt.	Qrs.
	15,771	7	0
Amount of proceeds for ores sold, including the carriage-money paid for the same	£.	s.	d.
	95,190	8	9
Total amount of expenses for the year	76,691	16	3
Amount of profit in 1838	£18,498	12	6
Amount paid to the adventurers in six dividends	17,408	0	0
Amount added to the reserved fund	£1,090	12	6
The expenses may be divided under the following heads, viz. :—			
Amount of agency, including purser, clerks, and storekeeper	£1,428	13	6
„ Lord's Dish, or dues, &c.	5,510	2	7
„ smithery (including boiler and chain-makers)	1,179	2	3
„ carpentry and sawing	730	2	4
„ masonry	183	10	4
„ pitwork, timberwork, and capstaning	508	0	0
„ mapping, dialling, &c.	170	2	0
„ engineer, and engine-men working pumping-engines, and rent of water	1,656	3	2
„ tutwork, or work underground in prosecuting a mine for discovering ore, by driving levels, &c.	14,718	6	8
„ tribute, or underground work, in extracting ores when discovered or laid open	21,825	15	6
„ sundry surface labour, and sundries	1,727	3	0
„ charges on ores	2,020	10	8
„ drawing, filling, and landing	2,734	5	3
„ parochial rates and compensation for land destroyed	428	13	8
„ carriage of ores, &c., and freights of materials	4,049	7	2
„ counting-house expenses	167	2	1
„ { paid to sick labourers of both sexes, from the sick-club, when unable to work	721	19	5
„ { paid for medical attendance	321	12	0
„ Stores	16,311	4	8
	£76,691	16	3

Under the head of *Stores*, the following articles may be considered as constituting the principal items, making the above sum of 16,311*l.* 4*s.* 8*d.*, viz.:—

	Tons.	Cwt.	Qrs.	£.	s.	d.
Coals, including carriage, &c., to the mine	2,208	16	1	2,021	12	1
Iron, of various sizes and descriptions	148	18	2	1,500	0	10
Steel, ditto ditto	5	13	1	218	4	6
Patent flat and round ropes	32	1	2	1,201	2	2
Candles (7121 dozen lbs.)	33	3	0	2,155	18	10
Best Russia tallow	5	11	2	304	16	2
Gunpowder (86,100 lbs.)	38	8	3	1,658	0	0
45 hides of leather (2390 lbs.)	1	1	1	224	6	7
425 fathoms of patent iron chain	2	5	1	73	4	0
95 bags of nails of various descriptions	7	2	2	165	3	5
Foundry bills for castings, including a new steam-engine and weighing-bridge				2,150	8	2
57,759 feet of debenture timber (Dram and Longsound)				3,041	7	1
1044 ditto yellow and red pine				79	4	9
1232 ditto American oak				155	1	9
300,000 ditto patent safety fuse (12,500 coils)				472	17	11
1133 dozen pick and shovel hilts				115	8	11
1290 yards engine shag and poldavey				67	11	6
1356 gallons of cod-oil				197	4	4
221 ditto rape-oil				42	9	2
25 dozen of copper powder-cans				41	5	0
Sieves, riddles, and stamps grates				167	11	9
Account-books and stationery				36	0	10
Sundries, of various descriptions				222	4	11
				£16,311	4	8

The following is a Statistical Account of the Agents, Labourers, and others, employed in and on the foregoing Mine; exclusive of Carriers, and those casually employed, viz.—

Designation.	No.	Average Monthly Wages.	Remarks.
		£. s. d.	
Agents, &c.	13	9 3 0	Agents, 7; Clerks, 5; Storekeeper, 1.
Engineers	1	8 8 0	
Mapper and Dialler	1	8 8 0	With occasional assistance from a Clerk.
Tributers	338	3 10 9	Less 2 <i>s.</i> per month, viz.—1 <i>s.</i> 3 <i>d.</i> for Sick Club; 3 <i>d.</i> for Death Fund; and 6 <i>d.</i> for Medical Attendance, as hereafter expressed.
Tut-workmen	350	2 19 9	
Sump-men	44	3 12 5	
Boys underground	15	0 17 6	Employed Blowing Air Machines.
Day Labourers ditto	140	2 12 0	Maximum, 3 <i>l.</i> 5 <i>s.</i> ; Minimum, 1 <i>l.</i> 12 <i>s.</i>
Day and Monthly Labourers at the surface	196	0 0 0	Including Smiths, Carpenters, Engine Men, Trammers, Dividers, &c., &c.
Boys employed at surface	302	1 0 7	Maximum, 1 <i>l.</i> 12 <i>s.</i> 6 <i>d.</i> ; Minimum, 8 <i>s.</i> 8 <i>d.</i>
Women and Girls ditto, ditto	324	0 16 3	Ditto, 1 <i>l.</i> 3 <i>s.</i> 10 <i>d.</i> ; Ditto, 8 <i>s.</i> 8 <i>d.</i>
Total Number employed	1734		

Dated 23rd March, 1839.

WM. DAVIS, Purser of the Mine.

73. The proportionate numbers of tributers and tutworkmen, and of the boys associated with them, as well as of the boys and girls employed on the surface, and their average earnings, in the different Cornish districts, are stated by Mr. Seymour Tremenheere, in the following table:—

Estimated Rate of Wages per Month.

Estimated Proportionate Numbers Employed (per cent.)	Eastern District.	Midland District.	Western District.	Average.
	£. s. d.	£. s. d.	£. s. d.	
30 Tributers	3 11 7	2 15 0	3 2 0	3 0 0
20 Tut-workmen	3 1 11	2 12 6	3 0 0	2 10 0
10 Surface Labourers	2 2 0	2 5 0	2 3 0	2 2 0
25 Boys	0 17 10	1 8 0	0 13 0	0 15 0
15 Females	0 14 0	0 18 0	0 12 0	0 13 0
100				

74. The relative numbers, however, of the different classes vary exceedingly. The tribute system in some mines preponderates, in others the tutwork; and in some instances even the ore is raised on the owners' account. The great difference in the wages of the boys arises chiefly from their employment at an earlier period in some mines than in others. A more detailed statement on this point will be given hereafter.

75. The adult miner earns at present from 40s to 65s in the month by his own labour. In many instances, having both sons and daughters employed, he takes from the mine £8 or £10 on the average in the same period. By such circumstances, or by successful contracts, he is able to accumulate and realise some property. The deposits in the savings banks in Cornwall are stated by Mr. Seymour Tremenneere to be £281,541, and two-thirds of this sum at least are said to belong to individuals now working, or who have worked, in the mines. From a statement also of the amounts deposited by the several parishes in the Penzance Savings Bank, it appears that the sum received from persons residing in the parish of St. Just, the population of which are chiefly miners, is £8586; a sum very little less than that contributed by the large town of Penzance, and more than twice as much as was deposited from any other parish.

76. The miners living in the country, or in those towns and villages which have sprung up of late years around the mines, occupy for the most part decent cottages, often containing four rooms, often not more than two. In the middle portion of the central district they are usually built of stone, and are frequently collected in rows, having a very cleanly and neat appearance — each with its little garden in front. Thatched cottages are more frequent in the western district, and cob-walls in the eastern:— although in both a great many well-built stone houses, whether separate or in rows, are occupied by miners.

77. But a very great number of miners are now located on leaseholds of an acre or two, on which they have built a house.* It has been the practice of landlords possessing waste ground to lease it in small lots for three lives at a high rent of a few shillings per acre, on condition that a house of a certain value is built upon it. On the setting up of a new life a fine of from £25 to £50 is paid (Evidence, p. 830, 1.46); or if the landlord does not allow of renewals, the lease is again sold for three lives.

78. A description will be found in the Evidence (p. 838, 1. 19) of the method often adopted by the miner in building his house. These cottages are totally devoid of picturesque effect, but they are commonly as roomy and comfortable as those of any class of labourers in this part of England. In some cases, however, not in connexion with the above holdings, hovels of a very miserable description have been constructed by miners of a less reputable class, now and then in places excavated in the sides of hills, so that on one side, if not on two, the roof rises but little above the adjoining ground. It is chiefly on the outskirts of the mining districts that dwellings of this inferior character are found.

79. Agricultural pursuits are congenial to the miner, and when he only undertakes the charge of a small extent of ground, which he can sufficiently cultivate without breaking in upon his regular occupation at the mines, he is usually benefited both in health and finances. The moral effects of the possession of a house and garden and little farm of his own, and of the consequent employment of his leisure hours and of those of his family, are still more importantly advantageous. The attempt to combine the cultivation of a farm of several acres with regular mining engagements is seldom successful. The small capital acquired by a fortunate "tribute pitch" is swamped in this vain endeavour; and the care and toil involved in it tend to exhaust instead of recruiting the mental and physical powers. It will be seen in the Evidence (p. 839, 1. 9) that men so situated are also considered by the agents less eligible for employment.

80. Among the many benefits resulting from the fixing of the miner on a plot reclaimed by his own industry, and in a dwelling which he can call his own, one incidental evil has been noticed; the distance which he is obliged to walk when, as often happens, the mine in which he was employed when he settled on a particular spot ceases to give him work, and he is compelled to seek it in those which are more remote. He will in such cases sometimes travel six or even eight miles between the mine and his home twice in the day. In other instances he obtains lodgings in the neighbourhood of his place of work, and returns to his home to spend the interval between his last turn of labour in one week and his first in the following (Evidence, p. 847, 1. 66). But many, who are obliged to go still farther for employment, are separated altogether, during long periods, from their wives and families.

81. The facility with which the miner is able to obtain a piece of ground on a building lease varies very much in different districts; partly in proportion to the

* It is stated by Mr. Seymour Tremenneere, that "of 685 miners, of whom the question was asked, 161, or nearly one-fourth, were possessed of cottages of their own. The cost of building a cottage is from £35 to £50."

relative denseness of population to the quantity of unoccupied land, partly in connexion with the disposition of the lords to grant such leases. In those parts which many large mines have been long worked, towns and villages have sprung up, and the greater number of miners are unprovided even with a garden. In such neighbourhoods the land is also of course generally cultivated. Where the mines are more dispersed, and the wastes more extensive, no other difficulty but the disinclination of some landlords presents itself to the establishment of the miner on his little farm. Even in the former situations, however, it is a common and growing practice for the farmer to allot and prepare as potato-ground for the miner as much land as the latter can supply with adequate dressing for the subsequent tillage of corn.

82. The quantity of this dressing which the miner can obtain depends in great measure on his opportunities for cutting turf and furze, the ashes from which constitute most valuable additions to the produce of the pigsty; an appendage which the thrifty miner generally contrives to annex to his cottage. A supply of potatoes* sufficient for the greater part of the winter is often obtained by the miner through this arrangement, besides cabbages or other vegetables. The pig is a subsidiary source of income in this way as well as by its more direct value [sic], which indeed often arises rather from the gradual accumulation of small sums, which might otherwise be wasted, effected in the feeding, than from the difference of amount between the ultimate price obtained and the items of outlay.

83. In the extreme western district the different collateral aids which contribute to the comfort of the miner are perhaps more concentrated than in any other. A cow is there sometimes kept by several conjointly, when the quantity of land occupied by each is small. On the same principle a fishing-boat is often kept by eight or ten individuals, and at times furnishes an abundant supply of what is in that neighbourhood, whether in a fresh or salted state, the chief food of the people, next to bread and potatoes.

84. The deposits made by miners in the savings-banks have been already stated (No.75); the improvement of land and the building a house are of course other modes of accumulating earnings. In many instances further sums are invested in houses. Benefit societies have been established in almost every neighbourhood, the usual principle being that of giving pay during periods of inability to work from sickness, distinguishing between those who are confined to their houses and those who are able to get out. A sum is also generally given, on the death of a member, to the surviving relatives; and this is provided by a separate contribution from the other members. The scales of payments are in a great number of these societies so injudiciously arranged, and so little discrimination is exercised in the admission of members, that the fulfilment of their engagements has been found impossible.

85. There is in these mines, without any exception it is believed, a sick-fund. The most frequent rate of contribution to this fund is 1s for the men and 6d for boys underground, monthly. This is regularly deducted from their pay, as may be seen in the specimens of bills given in a former section. In return, the men are allowed 1s a day and the boys 6d when they receive an injury in the mine, during the time they are detained by it from their work; and they are provided with surgical attendance. Neither pay nor medical aid is given in cases of sickness. In many instances, however, where the medical man receives 6d or more per month, he engages to give his attendance both to the miner and his family in all attacks of disease. The above are the most general rates of contribution and of pay; but the practice is by no means uniform. The following are examples of the systems adopted in different mines, as stated in the returns:—

At Dolcoath there is a mine-club, having a capital of £1500, for the benefit of wounded, injured, or distressed workmen and boys, supported by a contribution of 6d in the pound on gettings, 1d in the pound on merchants' bills, and a percentage on Lords' dues. Girls are very averse to paying towards a sick-fund: it has been attempted here and failed.

The plan of the club at East Wheal Crofty is nearly the same. It is further thus described in a letter from the agent, Mr. Tredinnick:—

The club belonging to this mine has £1500 in the savings bank in the name of Lady Basset as trustee, to defray the expense of which the men pay 4d in the pound from their earnings, which enable us to add £60 or £70 per year to the amount in bank, and also to give monthly pay to all widows whose husbands met with their deaths in this mine, so as to keep

* From 30 to 60 perches may be thus sown with potatoes. About two bushels (Winchester) to a perch is a fair crop.

them from parochial relief. Every man, whilst unable to work, occasioned by hurt received in the mine, obtains 1s. per day, and likewise every boy 6d. per day: if families are distressed we relieve them according to the extent of the case.

By another return from this mine, it appears that during the eighteen months from January, 1840, to June, 1841, £301 14s. 2d. was given by the club. Of this sum about £100 was allotted to seven widows; £9 6s. to the expenses of three funerals; £10 in cases of distress occasioned by a fever; and £35 in bedding supplied to men of the largest families, and who were most in need, at Christmas last: the remaining sum of about £146 having been given to the sufferers from the accidents formerly enumerated.

The arrangements at Fowey Consols are thus stated:—

Each miner receives 30s. per month during illness under certain restrictions, and the females 12s. per month, besides an allowance of £5 to the widow, or representatives, on the death of each miner. For this the miners allow from their monthly earnings 1s. 6d., and the females 1d. upon every 5s. of their monthly earnings, not exceeding 5d. in all.

Examples of slight differences from these scales may be found in Balleswidden, where 8d. a month is paid by the miner, and he receives 5s. a week; in Wheal Owles, where for the same advantage he pays 9d. a-month; in Treleigh Consols, where 6d. per month (besides the 6d. for the surgeon), ensures him 1s. a day;* and in the Ashburton mines, where a contribution of 1s. per month secures nothing to the miner but medical attendance.

At Wheal Uny, in addition to the provision of 30s. per month and medical attendance in return for 1s. per month from the miner, "one-thirtieth share of the mine is carried on by the proprietors for the benefit of the miners; the profit thereon to be employed for their physical and moral improvement, or comfort, in such manner as the majority of proprietors shall from time to time determine."

86. The foregoing statement will furnish materials for a sufficiently accurate estimate of the ordinary income and resources of the miner; his expenditure comes next to be considered. The following household accounts have been furnished from different districts. The first is a list of the articles contained in a miner's dwelling, consisting of two rooms, for which, with a garden, £2. 10s. per annum was paid. The couple are said to have been married under circumstances not particularly favourable:—

No. 1.

	£.	s.	d.		£.	s.	d.
Kitchen table	0	10	0	Brought forward	3	6	0
chairs	0	7	6	3 knives and forks	0	1	6
Baker and iron	0	4	0	3 teaspoons	0	3	0
3 spoons	0	0	3	3 rummers	0	1	6
3 wine-glasses	0	0	9	Teatray	0	2	0
Spare table	0	4	0	Chamber-brush	0	1	6
Bellows	0	2	0	Earthenware pan	0	0	6
2 water-pitchers	0	0	6	Looking-glass	0	1	6
Wash tray	0	2	6	Bed and bedding	5	0	0
3 cups and saucers	0	0	6	Clothes-box	0	10	0
Set of china	0	7	6	Firegrate	0	3	0
Buffet	1	0	0	Teakettle	0	2	6
2 candlesticks	0	2	0	Candlestick	0	0	3
Form	0	2	6	Plates and basins	0	5	0
Iron crock	0	2	0	Contingencies	1	0	0
Carried forward	£3	6	0	Sum of above	£10	18	3
For miners marrying in circumstances of rather more comfort, the following addition may be made:—							
To the quality of the above articles					3	10	0
Watch or clock					1	10	0
Extra clothes, and ring					5	0	0
Expenses, fees, &c., on wedding-day					1	0	0
Chest of drawers					2	2	0
Bible, &c. &c.					0	10	0
Total					£24	10	3

* At Wheal Budnick the same scale is adopted. The rules of this mine-club (the only printed ones met with) are given in the Appendix (B).

It is added, that although many get settled with less than this sum, it is frequently doubled.

The following examples of housekeeping expenditure, in connexion with different amounts of gettings, will sufficiently explain the usual economy of the miners :

No. 2.

This is a specimen of frugal management, from the parish of St. Just, in the Western Cornwall District :—

One Week's Account for a Man and Wife and three Children.

Barley, 20 lbs.	£. s. d.	Average gettings now	£. s. d.
Wheat, 5 lbs.	0 2 0	Extra stems	2 2 0
Potatoes, 6 gallons	0 0 11½		0 2 0
1 lb. of butter	0 2 0		£2 4 0
1 oz. of tea	0 0 10		
Salt 1d., pepper ½d.	0 0 2		
½ lb. of treacle	0 0 1½		
3 lbs. of fish, at 2d. per lb.	0 0 2½		
1 lb. of pork	0 0 6		
½ lb. of soap	0 0 7		
Soda, blue, and starch	0 0 3½		
	£0 6 11		
House-rent 1s. 6d., fuel 1s. 2d.	0 2 8		
	£0 9 7		
(Candles from the mine.)	4		
Per month	1 18 4		
To pay club and buy clothes	0 5 8		
	£2 4 0		

When an improvident person has her pay-day, she will have, the first week, “ a frolic,” as the miners call it. This will cost—

	For the Cake :—	s. d.
¾ lb. of currants		0 6½
½ lb. of sugar		0 5
1 lb. of butter		0 10
Saffron		0 1½
3 lbs. of flour		0 6½
	For Tea :—	
1 oz. of the best black and green		0 6
Minus at the end of the month		3 0

The labourers now receive about 9s. or 10s. ; but have their fuel for a trifle, also potato-ground, which make their wages equal to about 11s. per week.

The next accounts are from the Central Cornwall District.

No. 3.

A man, wife, and six children consume per week,—

1½ peck of flour	s. d.	Wages :—Man	£.
½ peck of barley	9 0	Three children 1	3 per month.
¾ lb. butter	0 10		—
½ lb. lard	0 9		£4
1½ lb. pork	0 4½		”
Dry fish	0 9		
Coal	0 4		
Snuff	0 11		
Sugar 2½d., candles 3½d.,	0 2		
Soap 6½d., soda, starch, &c., 1½d.	0 6		
Seldom much butcher's meat, ex- cept on the pay-day, say about 4d. weekly	0 8		
	0 4		
Weekly outlay	15 1		
Yearly rent	£4 0 0		

No. 4.

Another similar family incurs monthly such a bill as follows; wages and rent as above:—

	£.	s.	d.
Fine flour	1	10	4½
Barley †	0	7	2½
Sugar, currants, soap, &c.	0	3	4
Lard 3s., butter 4s., candles 2s.	0	9	0
Starch 4d., tea, tobacco, &c., 4s.	0	4	4
	£2	14	3

No. 5

The following is from the parish of Gwennap, in the same district. The miner's age is 47, that of his wife 45. They have been married 26 years, and have had 12 children. of these 4 are dead, and 1 is married. His highest wages have been 55s. per month. The whole gettings of the family are now as follows:—

	£.	s.	d.
Constance, 21 years old, earns	0	15	0 per month.
John, 19 „	2	0	0 „
Richard, 17 „	1	6	0 „
James, 14 „	0	16	0 „
Elizabeth, 12 „	0	2	0 „
Total with his own wages	£7	10	0

The monthly expenses are these:—

	£.	s.	d.
“ Shop,” i. e. flour, barley, soap, starch, tea, butter, &c.	3	10	0
Coals and candles	0	8	0
Market, (meat, &c.)	1	0	0
Shoes, and clothes	1	5	0
Sundries	0	15	0
	£6	18	0

“ Charity” (a rare item this !) £1 per annum.

Rent was formerly paid at £4 per annum; but a neat substantial house is now built on lease, with a good garden, and almost paid for. The whole family are comfortable and respectable.

87. A large sum was formerly expended by the miners in beer—in some cases estimated to have been 30s. in the month. The average of this outlay is now reduced to an amount comparatively small. Tobacco is very generally used, often to an extent injurious to health,* but the cost is not heavy.

88. The uncertain amount of the earnings of the greater part of miners, their almost penniless condition at one time, coupled with their hope of comparative affluence hereafter, have led to the establishment of a system of credit in the mining districts, which, while it accounts for the subsistence of men who undertake to work for two months at a time for nothing, or less than nothing (for they have to make good a positive outlay), also accounts for much of the embarrassment in which a very great number of miners are constantly involved. The statement given in a letter which will be found in the Appendix (C) with respect to the central district is, it is feared, nearly true of the others.

89. The court in which the vice-warden of the Stannaries exercises a summary jurisdiction in cases of debt between parties connected with the mines, has, within the few years during which it has been in operation tended to check the practice of running in debt, and it has afforded a remedy against fraud: but the system of giving credit must be extensively followed, as the only one which will give customers to the tradesman, until habits of prudent forethought have become much more characteristic of the miner than they have hitherto been.

90. The system of "tribute", although tending to develop the intelligence of the miner by the variety of particulars on which his judgment must be exercised, and to stimulate his exertion by the hope of large possible gains. is found in its general effect lessen, rather than augment, his financial prosperity. Naturally leaning to the more sanguine estimate of his prospects of success, and consequently spending.

* See a letter from Mr. Pace Appendix (E).

his present receipts as if they were rather to increase than diminish, he finds himself ill-prepared for a reverse. His position also imposes on him, more than on other classes of miners, the necessity of obtaining supplies upon credit, and together with an enhanced price of articles less economical in kind entailed by dealing, under these circumstances, at small retail shops, he incurs all the incidental evils attendant on the state of a debtor who is, for the time at least, insolvent. Regular earnings, though of less amount, are seen to be associated with a more frugal outlay, and therefore more permanently comfortable condition:

I may state (says Captain Davis) that our *tutworkmen's* wages have averaged nearly £3. per month for some years past, and with this some men of frugal habits appear to live comfortably, and rear a numerous family without in any way becoming a burthen to their parishes; whilst the *tributers*, whose wages generally average front 10s. to 15s. per month more than the tutworkman (though sometimes for months together their wages may be very low), are for the most part in debt, and some to a considerable extent, where they have not been so fortunate for a long time as to have what the miners call a "sturt," to liquidate them from their pecuniary difficulties.

A remark having the same bearing is made by a magistrate (Ev. p. 830, 1. 29), that the extent of disorderly conduct, the earliness of marriage, and the consequent embarrassments, generally increase with the rate of wages.

91. In a subsequent part of this Report, a detailed statement will be given of the proportion of individuals engaged in mining labour, and under the age of 18, who are able to read and write. With the view of ascertaining whether any considerable number obtained instruction at a later age, some adult miners who were able to write were taken indiscriminately from the whole body in certain mines in the different districts, and, together with their signatures, the period and place at which they had learned to write were taken down. The following are the results :—

Table 10.—Showing for a certain number of Adult Miners able to write in the several Districts, the average Age at which they learned, and where they obtained Instruction.

Mine.	District.	No. who have written their Names.	Age at which they learnt.				Where they learnt.			Average present Age.
			Under 10.	10 to 15.	15 to 20.	Above 20.	Day-school.	Evening-school.	Self-taught.	
Levant . . .	Western	17	2	13	..	1	15	2	..	23.6
Balleswilden .	Do.	22	..	..	..	..	9	4	9	..
North Roskear	Central	12	5	3	1	3	7	2	3	33.1
Trethellan . .	Do.	31	15	3	6	7	19	2	10	..
Consols . . .	Do.	7	7	..	..	..	7	..	..	26.5
Fowey Consols	Eastern	30	15	8	5	2	23	3	4	35.
Wheal Friendship	Devon	31	25	3	2	1	27	3	1	30.
Total . . .	.	150	69	30	14	14	107	16	27	29.6

92. On the whole it appears that no considerable proportion of the adult miners have acquired the art of writing after they have become independent agents.* It is probable that the same may be said with truth of the art of reading, but the number of men or boys who cannot read at all is not very great.

93. The direct instruction which has been received by the existing race of miners will appear, then, to be small in amount. The miner is, however, to speak of the class, not only an intelligent labourer, he is a man of considerable knowledge as well. His *intelligence* is, probably, in part, derived from his tribal origin, as a degree of quickness of apprehension is a quality possessed by the natives of the West generally. But it is in the miner called forth and constantly exercised by the nature of his calling, involving as it does almost continual occasion for thought, and by the system through which he obtains the reward of his labour, the amount of which is dependent on his calculating correctly a great many particular probabilities (Ev. p. 849, 1. 62). The *knowledge* possessed by the miner is chiefly the result of the frequent intercourse maintained among the individuals of the class, and with mine-agents and likewise with the ministers of religion. Newspapers and tracts of various kinds are also circulated largely among them. When a man is not only a

* Having under my eye a body of about 400 miners, I desired those who could write their names to separate themselves from the rest. About two-fifths of the party did so. This was in the neighbourhood of Camborne, where the means of instruction are more than commonly accessible, and in a mine the returns from which show a more than average number of the boys employed able to write. In the Levant Mine, in the parish of St. Just, in the Western District, of 30 men, taken as they followed each other up from under ground, 16 wrote their names fairly, and 1 badly; of the remaining 13, 4 are entered as unable to read, and 5 as reading badly.

miner, but a builder, a farmer, and a fisherman as well, no surprise will be felt at his being both intelligent and well informed.

94. The miner of the West of England is a man of frank and independent manners. He is not often insolent, but he is usually blunt. Something beyond this must be said of many, of the younger men especially. Indeed rudeness; a want of civilization, is the most unfavourable feature of the mining as compared with the urban or agricultural classes.

95. Political questions have not hitherto excited any very intense interest among the miners; but measures of an administrative kind which have touched their local interest or attachments have at times excited them into riotous combinations. The introduction of the New Poor Law system caused some exhibitions of this description. The exportation of corn or potatoes has always been looked upon by them with great jealousy.

96. Many circumstances have conspired to give a character of independence, something American, to this population. The mine adventurers, the real employers, are not brought into contact in any way, as masters, with the working mines; so that the agents, men taken for the most part from their own ranks, are the only superiors with whom they have to do. The system again by which the contracts are let, gives the takers entire freedom to make what arrangements they choose among themselves; and each man feels, as a partner in his little firm, that he meets his employers on nearly equal terms. The tributer, likewise, entertains a hope - often realized, if he is a good miner - that some fortunate contracts will put him on a parity as to station with the wealthier individuals near him, who have for the most part, at no remote period, occupied some of the lower steps of the ladder on which he himself stands.

97. But this independence of manner is too often associated with a condition of embarrassment and poverty very far from that successful issue of the miner's speculative life to which allusion has just been made. The history of a great portion of miners is this: a youth of 18 obtains the wages of a man; before he is 20, he forms a connexion with a girl employed at the mines, with whom he continues to associate, or, as it is said, to "keep company", till they mutually think he is established in sufficient gettings to allow of their being married (Ev. p. 830, 1. 30), or very frequently till the circumstances of the female make marriage indispensable. Most commonly some provision is made, either by a small accumulation, or by the contributions of parents, for the purchase of a scanty supply of furniture; though this is by no means always the case (Ev. p. 841, 1. 62). The family now increases rapidly; and the wife, though often industrious, having no knowledge of household economy, the earnings are found barely sufficient at the best. Whenever a check occurs from the failure of employment, the badness of a "pitch," or sickness, the necessities of life must be obtained on credit.

98. As long as the children are too young to work at the mines, the degree of embarrassment increases with their number. But their earliest capacity for labour is eagerly laid hold on as the means of rescue. Education, if any has been obtained, is interrupted at once, and a life of toil is imposed almost before the child has tasted what life is. That toil is not, indeed, severe or injurious in kind, whilst the child continues at the surface, but it occupies nearly all the day.

99. The same necessities which first occasioned this evil to the child soon induce a much more serious one, the transferring him to under-ground work at the earliest opportunity, as by this change his earnings are considerably augmented; and subsequently, on the same principle, the boy is prematurely taken into partnership with the men, and both his own and his father's powers are taxed to make good the amount of work which is their contingent.

100. In the course of these years it must almost always happen that the father will suffer more or less from illness. Perhaps he has gone through the same stages which his son is now pursuing (Ev. p. 831, 1. 7), and has had his own strength exhausted by too early labour, and he may likewise have inherited some morbid predisposition. In any case he finds he cannot afford himself a respite from labour, if it is possible for him to continue at his "place"; and, consequently, what might have been a trivial ailment, is often aggravated into dangerous, perhaps permanent, disease.

101. His children born under such circumstances will be originally feeble in constitution, and the sustenance obtained by them will not be calculated to strengthen it. The boy will therefore be ill fitted to contend with the injurious agents to which he will be exposed in his place under ground, and the fare which his home supplies

will be far from adequately restorative. But the mischief resulting to the boys will be reverted to hereafter; as respects the adult miners, it is unquestionable that circumstances such as those above described are a principal cause that so many widows with large families of young children are found in the mining districts, that the signs of premature decay are so conspicuous in the care-worn faces of a great number of men not yet advanced into middle life, and that poverty, embarrassment, and insolvency are of so frequent occurrence.

102. No one circumstance in the miner's life is so prolific of evil as this irretrievable step; a marriage contracted between parties immature in body and unformed in mind; unacquainted with the most simple rules of economical expenditure and domestic comfort, and totally unprovided with resource against any of the unfavourable contingencies of life. It is clear, however, that a delay of marriage, if attended by a deterioration of morals, must be deprecated rather than desired, and that it is by the establishment of a superstructure of prudence on the foundation of religion, the future improvement of the mining classes in this particular can be alone secured.

103. The miners of the West of England are a religious people. Having been in some of the principal mining districts reclaimed from a state of semi-barbarism and deep ignorance in comparatively recent times, they exhibit a tendency to enthusiasm, recurring in paroxysms, such as is usually witnessed in the period which intervenes between the first communication of religious truth and the prevalence, among the body of the people, of a sober and settled faith. Their Celtic origin may also in part account for this disposition.

104. But evidence of the most conclusive kind of the real influence of the great doctrines of revelation on the heart of the miner is constantly exhibited in an habitually excellent and religious life, in equanimity under suffering and privation, and in calmness and resignation where death is known to be inevitable. Nothing can indeed be more admirable than the cheerful confidence with which, in the trust of a future life, the miner contemplates that termination, often an early one, of his labours. To the ministration of the Church of England, exercised by an able and excellent body of clergy, and to the persevering zeal of the Wesleyan Methodists, whose system has been found particularly congenial to the miner's character of mind, is to be attributed the diffusion, instrumentally, of this vital Christianity.

105. This description applies of course to only one class of miners; a class, however, so numerous, that its qualities become prominent features of the whole body, when it is compared with other communities. Of a great number a very different account must be given. The faults of character most frequent among the miners are such as are usually found to prevail among half-civilized people. The rudeness which has been already noticed is the manifestation of a temper which exhibits itself at times in savage outrage,* and now and then in ferocious crimes. The offences against property, with the exception of small thefts in the mines, bear the same stamp, being for the most part highway robberies, which are rare; or larcenies, such as the stealing of poultry and fruit, and poaching, in which there is as much of lawless frolic as of dishonesty. It is particularly among the young men and lads that the contempt of authority manifested in these and similar acts is prevalent; and it is among these that Sabbath-breaking, the cause and effect of bad propensities is, in some districts especially, habitual. Drunkenness is universally stated to be less common than heretofore; but it is still a very frequent practice to hold carousals after the pay-day, and fights and riots very often arise on such occasions.

106. The following statements by some of the most able magistrates acting in the several districts will furnish materials for a just estimate of the average infraction of the law and good order by the miners. The question submitted was the following:

What is the general estimate formed by you of the relative prevalence of orderly and moral conduct among persons employed in mines and other large works in this country, and others not so employed?

* Whilst writing these pages instances of *both* have occurred. The only parts of Cornwall in which, at the recent election, personal assaults on political opponents were committed were in the Central Mining District. In the same district, since that time, a party of thirty miners are said to have taken a woman violently into the fields, and to have subjected her to all the outrage which licentious brutality could suggest.

From the extreme Western District, the answer received from a gentleman who has paid much attention to statistical inquiries at home and abroad was this:

Those employed in mines are not so orderly as those employed in other branches of labour. The former have more time on their hands than the latter. They are also less subject to a master's control, not living at all in the employer's house, but merely going to the mine-works for a portion of the day. The employment of great numbers together leads to disorder; the system of meeting on Saturdays, and at other times, provincially termed holding "choruses" extends its evil influence to the young.

From the western portion of the Central District, towards Camborne, a magistrate living in the midst of a mining population has supplied these remarks:

I have lived in the midst of a large population of miners for 18 years, and have frequently boasted of their general good conduct, under great temptations from agitators and deputations from other districts, and from pressing poverty at home; and that I have never, in my constant intercourse with them, experienced the slightest incivility, although I have sometimes, as a magistrate, been obliged to punish them for drunkenness and fighting, in consequence of the prevailing practice of dividing their wages at public-houses.

The opinions of a magistrate resident in the town of Redruth in the middle portion of this district will be found in the Evidence (p. 830, 1. 25). From the midst of the great mines in the eastern part of the same district, an able magistrate transmits these observations:

I think the miners and others employed in large works are less orderly and moral than the others. One but not the sole cause of this difference arises from the circumstance of miners congregating in large numbers on market-days at the adjoining town, where it not unfrequently happens they become intoxicated, and quarrels, sometimes of a very serious nature, take place. The habits of the other labouring classes are not such as draw them together in considerable numbers at any particular time or place.

In a separate communication this gentleman says:

Crime of great enormity is, I hope, rare in these parishes, though I fear I could enumerate *four murders* (two of infants) in this parish in *five* years; in no case has conviction followed. Petty thefts - garden and orchard robbery are very frequent; and much vice, as drunkenness, &c., is too apparent, especially with the young unmarried miners. I attribute this to the causes I mentioned the other day, viz. neglect of parents; Sabbath-breaking; the habit of dividing wages at public-houses and, not the least, to the long interval (16 hours) between their turns of work. This accounts for their crowds of idle youths you may at any time see about our roads, in blacksmiths' shops, and such like resorts; this will also account for the consequences of idleness. Evening-schools, if well regulated, would, in my opinion, be one the most effectual remedies that could be applied.

Another magistrate of long experience remarks:

It is impossible to form any comparative estimate between these classes. I have often been struck with the number of offences committed by young persons of both classes. These offences are chiefly acts of violence to the person, and most commonly the instrument is a *stone*. Severe injuries are sometimes inflicted by throwing stones; and sometimes by striking with a stone in the hand.*

With reference to the Eastern District, a gentleman than whom no one on the bench has had larger experience, or is held in more deservedly high estimation, observes:

I have no reason to say that there is less orderly or moral conduct among persons employed in mines or other large works in my neighbourhood than among those not so employed. I cannot, however, but believe that when people of any age congregate in large masses, without efficient discipline, there must be, generally, a greater tendency to disorderly conduct, than under other circumstances.

Another active magistrate in this district writes thus:

I should say that one to three was a favourable computation to the miner, as I believe they offend in a greater ratio, and that most certainly as regards property; and that not only on the ground that the miners as a body are much more prone to mischief than the agricultural classes, but that their *hours* of going to and returning from their labour are in many cases most unseasonable. A large proportion of the fowl and duck stealing may be traced here to lads about 16 or 18, connected with the working of the lower class of fire-engines, who have every now and then opportunities of roasting, or, what is more common, baking in clay the produce of the farm-yard.

I would observe that in tin-works and clay-works, though there is a congregation, it is of a far different kind, from the copper and tin mines under-ground. There are no public-houses very near the former, where vice may be taught on the wholesale - no private nooks where it may be projected in retail - no return from work at night to facilitate their depredations. I do not know so much of the character of the china clay-worker as of the stream-tinner, but

* I suppose *sticks* do not grow in that country.

I should take them to be much alike. They have many hours of leisure, during which they labour as husbandmen, and they seldom appear before us in any way.

From the extreme east of Cornwall, in the neighbourhood of Launceston, in which there are several manganese-works, one eminent magistrate writes:

Not an unfavourable estimate; though there are sometimes local disadvantages which may operate otherwise; for instance, a mine may be in some retired part, with a beer-shop or two in its immediate neighbourhood. Otherwise, I believe, the miners are as well-behaved as others of the labouring class. Of course, some allowance must be made where numbers congregate.

With respect to the Devon District, a very able and experienced magistrate, residing near Tavistock, gives his opinion as follows:

I think that orderly and moral conduct is not so prevalent among persons employed in mines and other large works as among those not so employed.

There are in this division two woollen manufactories as well as several extensive mines.

Taking Cornwall as a whole, it would appear, from the criminal returns, that crime is increasing more rapidly than population. From 1821 to 1831 the increase of population was 17·47 per cent. In the three years ending 1836 the total number of convicted offenders was 429; in the three years ending 1839 it was 570. Of these, in the former period, 64 in the latter, 105, were under 16 years of age. The proportion of offenders to the population is in Cornwall less than one-half that in England and Wales.

107. This is not the place for entering into any detailed consideration of the means by which the condition of the miner may be improved; but the interests of the children and young persons employed are so closely interwoven with those of the adults, as to demand a few cursory remarks on that subject. In the first place, the greater part, if not the whole, of those beneficial arrangements which have actually been carried into effect in some mines, might be adopted in all. The principal of these are: 1. Making it a condition in the contracts that no level shall be less than six feet in height and three feet in width. 2. Reducing the distance of the staves of the ladders to 10 inches from top to bottom; and making the inclination from 18 inches to 21 inches in the fathom. Penthouses should also be fixed above the landing-places (sollars), so as to secure the orifice (manhole) leading to the next ladder from bodies falling from above. 3. Driving a shallow level from the shafts in which the footways are placed to the changing-houses, so that the men may come up into them from under-ground without being exposed to the external air. 4. Warming these changing-houses effectually, and furnishing accommodation for the drying of the clothes. 5. Providing an abundant supply of warm water, in which the men may wash, which is most effectually done by means of baths, as at North Roskear (Ev. p. 839, 1. 44). 6. Furnishing some warm and nutritious fluid to the miner when he comes to the surface, as at Dolcoath (Ev. p. 837, 1. 60). With respect to other points, where the experiment of philanthropy has yet to be tried, the recommendation of any particular measures would be out of place. A few suggestions may, perhaps, be allowed. (a) Several mine-clubs might be instanced as exhibiting different excellencies of plan, but it may be doubted if any of them combines all that is attainable by such institutions. Medical attendance should be secured in all illness, both for the miner and his family. Pay should be given in all illness to the miner, on a graduated scale. These objects are effected more or less perfectly in some of the mines. But injustice is often done to the miner by the universal arrangement, in two ways. If the mine fails, the fund sinks with it; the miner is left with provision. If he quits a mine, though he has contributed many years to the club, and has never derived any advantage from it, he has no claim upon it afterwards. Benefit societies exist in most neighbourhoods, but their system is not always the most judicious; and it seems probable that the addition of the principle of these societies to that of the sick-fund, or the establishment of such societies on a sound system, in connexion with the mines and with the co-operation of the employers, would obviate the risk of a provision being never made, or of the providence of the miner being frustrated by the miscalculations or mismanagement of his club. (b) The deposits made by miners in the savings banks have been very considerable; but it is the opinion of competent judges that they would be much larger, if the place of deposit were nearer, and more frequently open. Some arrangement might be made for the receipt of small sums, at times and places convenient to the men. Closely connected with such facilitation of economy, is the payment of wages in a manner that will obviate all inducement to visiting the public-houses for the purpose

of dividing the earnings of a party. Without great additional trouble, every individual might be separately paid. (c) The efforts of public benevolence in (*sic*) behalf of the miner have been of late years directed to the introduction of some method for the lessening the toil of his ascent in the deeper mines. If a safe and practicable plan can be devised, it will doubtless give great relief to the miner, and will probably lengthen his days; and it will also materially facilitate the carrying on of those mines which are already worked at a depth of from 200 to 300 fathoms. No such method has been yet in operation in these mines. Some remarks on the subject will be found in the Appendix (A).

108. These preliminary remarks on the conditions of the mines, and of the adult miners, were necessary to the perfect understanding of the details respecting the children and young persons employed in those mines, which I am about to give. Before proceeding to these details, it will be right to state the means by which they have been ascertained. These were :

1st. The sending the printed queries and tabular forms to almost all the mines the district. It will be seen that the returns to these embrace a great majority of the whole class concerned.

2ndly. The sending the printed educational queries to all the clergy, and to the leading ministers of dissenting bodies, in the several mining districts. To these a sufficient number of returns have been made to afford unexceptionable materials for a just estimate on the points to which they relate. A few of the special educational queries were also addressed to well-informed laymen, and from them some valuable answers have been obtained. A few of the tabular forms for Sunday-schools have also been filled up.

3rdly. Written queries were sent to the medical men chiefly practising among the mines, soliciting the results of their experience. Some, also, of the printed special queries issued by the Board were put into their hands. Information of a valuable kind has been obtained from this quarter.

4th. Written queries were addressed to one or more magistrates resident in each district. They have, almost without exception, replied in a very obliging and effectual manner.

5th. I have visited the whole of the districts, including mines of any importance west of the Fowey Consols, near Lostwithiel, or about 60 miles in length. I have *accurately examined* the arrangements, places of work, and the children and young persons employed in the following mines of different metals *in* the several districts :—

TIN

Eastern District.—Charlestown United Mines. Central District.—South-East.—Carnon (Diluvial).
North-East.—Polberou Consols.
South.—Wheal Lovell.
West.—Wheal Vor.
Western District.—North-East.—St. Ives Consols. West.—Ballewidden.

COPPER.

Eastern District.—Fowey Consols.
Central District.—East.—Consolidated Mines, Trethellan, Tresavean.
Middle.—East Wheal Poole, East Wheal Crofty, Dolcoath, North Roskear.
West.—Trevasens, Relistian, Wheal Friendship.
Western District.—Levant.

LEAD.

Central District.—North-East.—Cornubian, East Wheal Rose.

I have more cursorily inspected, but with sufficient minuteness to have detected any difference between them and those which were more critically examined, the following mines:—

COPPER.

Eastern District.—Par Consols. Central District.—South Roskear.
COPPER AND TIN.
Central District.—Cambrea, Tincroft, Carzize, West Julia
Western District.—Providence Mines, Botallack.

In the course of this investigation I have seen the positions and general arrangements of almost all the mines within the limits stated; and on former occasions I have had the opportunity of assuring myself that there is no material difference in

these respects in the mines in Devonshire.* The dwellings of the miners have been often inspected, and their domestic condition ascertained, on this occasion as well as previously.

6th. I have examined and noted the depositions of different parties connected more or less with the mining population. Care was taken that, among the parties belonging to the labouring class, there should be a representation of the different sexes, ages, and employments; at the same time, the individuals were taken indiscriminately, and I believe their testimony was given without deceit or reservation. The patients examined were some of those who presented themselves casually, in the course of a few weeks, for my advice, and their statements are given without selection, in order that a true notion of the usual characters of the ailments of this class may be gained. The other persons examined were selected for their superior knowledge in the different departments of the inquiry.

7th. Elucidation of various particular points was attained by written or personal communications with individuals considered the most likely to furnish the information required.

I will now proceed to state the results of the inquiry with which I have been charged, into the employment of the children and young persons in these mines, following the division of the subject pointed out in the Instructions from the Board.

I.—AGES AND NUMBER OF CHILDREN AND YOUNG PERSONS.

The returns made on the tabular forms give the names, ages, and other particulars respecting 6035 individuals, of whom 1584 males and 535 females are stated to be under 13, and 2331 males and 1585 females to be from 13 to 18 years of age. The returns made to the queries state the numbers employed in certain mines to be, under 13, 1235 males and 550 females, and those between 13 and 18 to be 2229 males and 1364 females. The addition of the children and young persons whose names have been returned on the tabular forms, from certain mines from which no returns to the queries have been made, will raise the totals stated above as deduced from the latter to 1639 males and 696 females under 13—and to 2720 males and 1740 females between 13 and 18. The total number of children and young persons employed in the mines respecting whom returns have been made is therefore 6795, of whom 4359 are males and 2436 females. The number of persons above the age of 18, stated in the returns to the Queries as being employed, is 14,737, being 12,580 males and 2157 females. If to these be added the usual proportion of adults for those mines above mentioned, for which returns have been in the tabular forms, but not to the Queries, the total number of adult males employed in the mines from which returns have been obtained will appear to be about 15,500, and that of the adult females 2700. The following is then a general summary of the results :—

Above 18, or Adults.		13 to 18, or Young Persons.		Under 13, or Children.	
Males.	Females.	Males.	Females.	Males.	Females.
15,500	2700	2720	1740	1639	696

This gives a total of 24,995 persons employed in the mines in question.

The whole mining population in Cornwall has been estimated at from 28,000 to 30,000. That of Devon may be taken at about 1500. Returns have been obtained from all the more important mines, with the exception of four or five. The persons employed in these and in several smaller works, together with the omissions in the returns made, may be calculated to amount to less than one-third.

* Having resided for five years at Tavistock, in the centre of the most important mining district in Devonshire, and having been for four years physician to the public dispensary in that town, I was familiarly acquainted with the condition of the miners in that neighbourhood. I may take this opportunity of stating that I have not thought it necessary to institute very extensive or very minute inquiries into the particulars of the instruction furnished in the schools in these mining districts; that subject having been recently very thoroughly examined, and most ably reported on, by Mr. Seymour Tremenheere, for the Committee of Council on Education. I shall borrow some of his statements, and make reference to others, both directly and indirectly belonging, to the department which he has treated. On the other hand, the methods of investigation pursued under the present inquiry have procured a great mass of details concerning the actual condition of the mental culture of the children and young persons, constituting a very important Supplement to the earlier Report.

† I must not omit the expression of my strong sense of obligation for the kindness and courtesy with which I was almost everywhere received, and for the ready co-operation lent by the parties above referred to in the furtherance of my inquiries. Many of their names occur in the pages of this Report and of the Evidence connected with it; and I beg to associate all these gentlemen in this general acknowledgment with those magistrates, clergymen, ministers of dissenting congregations, and private individuals, whom I have not thought it well to name in connexion with the statements of facts or opinions contributed by them to this Inquiry.