

1880-81.
—
VICTORIA.

REPORT OF THE CHIEF INSPECTOR OF MINES

TO THE

HONORABLE THE MINISTER OF MINES

FOR THE YEAR

1880.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority:

ROBT. S. BRAIN, ACTING GOVERNMENT PRINTER, MELBOURNE.

R E P O R T.

Office of Mines,
Melbourne, 15th February 1881.

To the Honorable Henry Roberts Williams, M.P., Minister of Mines, &c., &c., &c.

SIR,

It is again my duty to bring under notice a retrospect of the general administration of the Act for the Regulation of Mines, and to submit for your consideration observations upon some special accidents which have been recorded during the past year, and also references to subjects relating to means by which greater safety may be attained in the prosecution of mining operations, &c.

In previous years I have had occasion to draw attention to the favorable results attending the operation of the Statute for the Regulation of Mines, and I am thankful to be able still to bear testimony to the beneficial effect of the existing Act in the prevention of accidents.

No matter, however, what steps may be taken to impress upon men engaged in dangerous occupations the necessity of exercising caution for the avoidance of accidents, we have still to deal with fallible human nature, in which is found so many instances of individuals who, from the naturally sluggish tendency of their minds, and from their incapacity to foresee danger, will incur the most frightful risks of bodily injury that might often be avoided by the exercise of ordinary care. In every year there will doubtless be a pretty regular percentage of accidents in and about the mines among persons of this class; but, on the other hand, we may expect a diminution of accidents among those miners who intelligently and carefully pursue their calling.

Although the fatal casualties for the year under review have been very slightly in excess of those of the two preceding years, the total number of persons who have received fatal and non-fatal injuries is less than any yet recorded, notwithstanding a perceptible increase in the number of miners employed. This result cannot fail to be otherwise than gratifying.

The inspectors of mines, in their periodical reports testify, that, as a rule, there has been a general and careful compliance with the provisions of the *Regulation of Mines Statute* in all the principal mines, which undoubtedly has operated beneficially in decreasing the number of accidents, and that the exceptions are to be found mostly among persons engaged in shallow alluvial ground, who work independently of companies; but the workings in mines of this character are of such a temporary nature, and are so generally spread over the goldfields, as to be difficult of constant supervision; and, furthermore, the persons employed are frequently so actuated by a desire to attain their objects at the least possible trouble and expense, that they are often insensibly led to incur serious risks of accident which prudent men would avoid. I trust, however, that the publicity given to these annual reports will in time create a lasting impression with good results, even upon the minds of the more careless class of our mining community.

In the tables and remarks which follow I have adhered as closely as possible to the plan adopted in former reports, so that the results may be readily compared with the accidents which have occurred in previous years.

During the past year the total number of accidents has been 134, with one exception, the lowest yet recorded. The proportionate number of persons killed of those employed in and about the mines has been 1·31, as compared with 1·29 per thousand in 1879 and with 1·93 per thousand in 1874 (the first year in which a *Regulation of Mines Statute* came into operation). But the proportionate number injured has been only 2·34 per thousand, as compared with 3·01 per thousand in 1879 and 5·26 per thousand in 1874; or, in other words, had the total number of miners employed

in 1874 been the same as in the year 1880, the diminution of the number killed would have been 24, and of the number injured would have been 111, with a total diminution of the numbers killed and injured in corresponding proportion of 135.

The following table shows the numbers of accidents in the last seven years, as compared with the mining population of the colony during the same periods :—

Year.			Mean Number of Miners employed.	Number of Accidents.	Killed.	Injured.	Total Killed and Injured.
1874	...	...	46,512	296	90	245	335
1875	...	...	42,058	275	83	217	300
1876	...	...	41,531	209	55	170	225
1877	...	...	38,860	213	64	154	218
1878	...	...	37,212	121	40	106	146
1879	...	...	37,195	146	48	112	160
1880	...	...	38,076	134	50	89	139

During the past year there were in alluvial mining—

3 fewer persons killed, and 6 fewer persons injured than in 1879 ;
 8 more persons " and 1 less person injured, than in 1878 ;
 11 fewer persons " 22 fewer persons " " 1877 ;
 9 " " 35 " " " 1876 ;
 20 " " 55 " " " 1875 ;
 16 " " 57 " " " 1874.

And in quartz mining there were—

5 more persons killed, and 17 fewer persons injured than in 1879 ;
 2 " " 16 " " " 1878 ;
 3 " " 40 " " " 1877 ;
 4 more persons " 46 " " " 1876 ;
 13 fewer persons " 73 " " " 1875 ;
 24 " " 99 " " " 1874.

In the course of the past twelve months twenty-two persons were killed in alluvial mining, and twenty-eight persons lost their lives in quartz mining.

Eleven deaths resulted from accidents at the surface, and thirty-nine from accidents below the surface ; forty-three of the killed were Europeans and seven were Chinamen.

Sixteen of the men killed were married, and they left sixty-seven orphan children.

The deaths were nearly 0·969 per thousand of the mean number of alluvial miners employed during 1880, and of quartz miners 1·822 per thousand. The mean number of alluvial miners employed during the past year was 22,707 ; therefore one death occurred in every 1,032 miners engaged in this branch of mining. The mean number of quartz miners employed during the year was 15,369 ; consequently the death-rate through mining accidents was one in every 545 miners. The average death-rate per thousand of both classes of miners was 1·313, or one death to every 762 miners employed.

To afford some means of comparing the fatal accidents in our mines with those occurring in mines of a somewhat similar character in the United Kingdom of Great Britain and Ireland, it is found, on referring to the Report of Her Majesty's Inspectors of Mines for the year 1879, that the aggregate number of persons employed in the whole of the mines amounted to 523,870 persons ; of these, 476,810 were employed under the *Coal Mines Regulation Act* and 47,060 under the *Metalliferous Mines Regulation Act*.

Separating the coal miners, who are naturally more liable to accident from the combustion of explosive gases generated in coal seams, from those employed in the metalliferous mines, I find it recorded that, among the 47,060 of the latter, there was one death by accident during the year to every 490 persons employed in and about the mines.

While we have to deplore the many deaths from accident in our own mines during the past year, it will yet be seen that the number bears a very favorable

comparison with that of the mother-country. I feel assured, however, that, considering the education, intelligence, and general steadiness of our mining population, we shall, in the future, be in a position to show greater freedom from accident than in the past.

The following comparative statement shows the number of persons killed by accidents which have occurred in each mining district during the past seven years :—

Mining District.	Alluvial Mining.							Quartz Mining.							Total.						
	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
Ballarat ...	16	14	11	14	7	9	7	10	6	12	8	5	4	8	26	20	23	22	12	13	15
Beechworth ...	5	6	4	4	2	6	5	3	3	...	1	...	3	2	8	9	4	5	2	9	7
Sandhurst ...	2	5	2	2	...	1	2	21	25	7	12	11	11	12	23	30	9	14	11	12	14
Maryborough ...	7	6	9	5	1	3	1	3	2	1	1	4	1	...	10	8	10	6	5	4	1
Castlemaine ...	6	3	4	4	2	5	3	7	3	...	4	2	3	3	13	6	4	8	4	8	6
Ararat ...	1	6	1	4	1	1	3	5	2	4	4	4	1	2	6	8	5	8	5	2	5
Gippsland ...	1	2	...	...	1	...	1	3	...	...	1	...	...	1	4	2	...	1	1	...	2
Totals ...	38	42	31	33	14	25	22	52	41	24	31	26	23	28	90	83	55	64	40	48	50

The immediate causes of the fatal accidents and the number of persons killed in each of the seven years, from 1874 to 1880 inclusive, were as follow :—

Cause of Death.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
Fall of earth or rock underground ...	35	45	26	20	16	17	22
Fall of earth on surface ...	10	13	9	9	5	12	8
Falling down shafts ...	22	6	7	15	7	8	8
Falling down winzes or shoots ...	3	...	...	2	...	1	2
Fall of materials down shafts ...	2	3	4	3	4	3	1
Cage accidents ...	...	...	...	...	...	2	1
Crushed by cages in shaft ...	2	3	2	5	2	...	2
Fall of timber underground ...	...	3	...	4	1	...	1
Machinery in motion ...	5	2	1	...	...	...	2
Explosion of blasts (explosive not named)	3	...	...	...	...	...	...
" " (lithofracteur) ...	2	1	...	1	1	...	...
" " (gunpowder) ...	2	4	2	...	2	1	...
" " (gun-cotton) ...	1	...	...	...	...	...	...
" " (dynamite) ...	...	...	...	...	...	1	...
Explosion of fire-damp ...	...	...	1	...	...	...	...
Explosion of tins of blasting compound ...	...	1	...	...	2	...	...
Foul air ...	...	1	...	2	...	...	...
Miscellaneous ...	6	1	3	3	...	3	3
Totals ...	93	83	55	64	40	48	50

As usual, about three-fourths of the deaths from fatal accidents during the year have been caused by falls of earth or rock underground and on the surface and by falling down shafts. This proportion has been kept up with remarkable exactitude ever since records of accidents have been instituted. Many of the casualties have been due to want of care ; notwithstanding the careful supervision of mines by the officers of the department, and the cautions so frequently administered in these reports.

Upon analysing the twenty-two fatal casualties from falls of earth or rock underground, twelve out of the number appear to have been due to purely accidental causes, and the remaining ten to direct or indirect carelessness on the part of the unfortunate sufferers. Of the deaths from apparently accidental causes, one was due to the unexpected fall of a large portion of rock from the face of a stope while men were engaged in drilling the ground for blasting. One from the fall of rock in a stope while the ground was being timbered with the usual precautions. Two from falls of rock in passes which were being logged or timbered up with ordinary care. One from a fall of rock in a drive, caused by the accidental displacement of timbers. One from a fall of quartz from the sandstone back of a reef. Two from falls of rock in the faces of drives at which the men were working. One from a fall of earth from the roof of a

Fall of earth or rock underground.

washdirt drive. Two from falls of earth from the roofs of tunnels and one from a fall of slabs and earth in a washdirt drive, from which the timbers were being drawn.

Of the ten deaths from apparently preventable causes, four were due to falls of rock from the roofs of stopes or drives which had been insufficiently and carelessly timbered. One from a fall of earth in an untimbered and unsafe drive. One from a fall of earth and rock from the entrance of a tunnel insufficiently secured (by which a boy engaged in carting lost his life); and four (of Chinamen) from the collapse of some untimbered drives and a shaft, which ought to have been made safe for working by means of the usual appliances.

Falls of earth or rock at the surface.

Of the eight deaths resulting from falls of earth or rock at the surface, one only appears to have been free from carelessness on the part of the sufferer. In this instance there was an accidental and unforeseen fall of earth from the bank of a sluicing claim. In the other seven cases, four men lost their lives by incautiously fossicking and undermining the banks of creeks. Two from falls of earth or rock in shallow workings, not properly secured; and one from a fall of earth from the sides of a deep drain or race in course of construction.

Falling down shafts.

Of the eight deaths from persons falling down shafts; in one instance an engineer was precipitated down a shaft from the breaking away of a ladder upon which he was standing, caused by the fall of pump material, which was being lowered to be placed in position, and another man fell while screwing up the bolt of a pump column. The other six deaths appear to have been due to want of care and heedlessness on the part of the sufferers. One man fell while descending ladders in a state of intoxication. One from the breaking away of an old and unsafe staging, erected by himself many years previously, and upon which he was employed. One from incautiously stepping on to the ladders in a shaft at the opening of a drive. Two from falling off ladders while carelessly ascending or descending shafts; and one fell off or out of a bucket while being raised in a shaft by means of a windlass.

Falling down winzes or shoots.

In respect to the two deaths that occurred from falling down winzes or shoots, one was caused by a man falling with a truck down a shoot; and the other, by a man foolishly and incautiously swinging himself by an unsafe rope over a winze, in order to pass down, instead of descending by the ladder-way.

Fall of materials down shafts

One death only occurred during the past year from the fall of materials down a shaft, and this was due to utter want of care on the part of those in charge of the mining operations. A man was repairing a shaft, at a depth of 230 feet from the surface, and above him, for his protection, were only some temporary and insufficient coverings of loose boards. At the same time another man was most improperly allowed to go to the poppet-heads to endeavor, with a crowbar, to wrench a skid from a plank to which it was fastened. During his efforts, the skid and plank both came away, and breaking through the coverings of the shaft, struck the man below and smashed the back of his skull.

Cage accidents.

In respect to the three deaths from cage accidents, one man was killed while attempting to ascend in a passing cage from the surface—a distance of twenty-five feet—to the brace above (contrary to the regulations). It was not very clear how the accident happened, but the man was afterwards found lying on the surface, near to the shaft, with his neck broken.

Crushed by cages in shafts.

Two men were struck and killed by descending cages, through incautiously placing their heads in shafts.

Machinery in motion.

Of the two deaths from machinery in motion, one was caused by an accidental fall against a fly-wheel (properly fenced), and, in the other case, a man was crushed between the cog-wheels of a quartz-mill. No one saw the latter accident, but it was supposed to have been the result of a reckless habit on the part of the sufferer of leaping about the moving machinery.

Fall of timber underground.

One death occurred from the collapse and fall of timber in a shoot while the man (a Chinaman) was engaged in clearing the shoot from accumulated mullock.

Miscellaneous.

Of the three deaths from miscellaneous accidents, one was caused by a blow from the handle of a crab-winch, at which the sufferer was engaged in lowering pump material down a shaft, and was supposed to be due to want of care. One happened from the burning of a tin of safety powder, into which a boy (the sufferer) had allowed a lighted candle to fall; and one was due to a most extraordinary and, apparently, simple accident. A man was breaking up a piece of quartz, when a small fragment flew off, and striking him on the throat, punctured the sub-clavian vein, and caused internal bleeding, with fatal result.

In the following statement is given the number of persons injured by accidents which have occurred in each mining district since the passing of the *Regulation of Mines Statute 1873* :—

District.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
Ballarat	72	69	59	47	26	26	19
Beechworth	24	12	10	16	6	8	5
Sandhurst	70	64	42	49	37	36	31
Maryborough	18	30	25	19	14	22	13
Castlemaine	41	15	20	16	11	12	8
Ararat	13	20	9	4	11	7	7
Gippsland	7	7	5	3	1	1	6
Totals	245	217	170	154	106	112	89

The causes of non-fatal accidents and numbers of persons injured were as follow :—

Cause of Injury.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
Fall of earth or rock underground	60	58	53	49	41	41	29
Fall of earth on surface	15	8	11	12	4	9	2
Falling down shafts	21	19	13	12	10	8	10
Falling down winzes and shoots	9	10	2	4	2	2	6
Fall of materials down shafts	18	13	16	10	5	7	9
Fall of materials down passes and jump-ups	1	5	3	2	3	1	1
Cage accidents	2	16	5	8	10	7	5
Injured in setting timber	4	2	1	5	1	4	1
Slipping and falling underground ... ..	...	5	5	4	2	...	2
Slipping and falling at surface	4	3	1	1	1	1	3
Truck accidents ... ..	...	5	8	5	1	3	...
Machinery in motion	15	8	8	10	1	4	3
Explosion of blasts (gunpowder)	13	15	8	17	11	11	7
" " (guncotton)	6	1	3	...	...	...	...
" " (lithofracteur)	3	5	2	1	...	...	...
" " (dynamite)	2	...	...	...	1	1	...
" " (rock-burster) ... ..	...	...	2	...	...	...	...
" " (other explosives)	16	...	...	1	...	...	...
Explosion of a boiler	1	1	1	...	2	...	...
Explosion of fire-damp	2	10	2	...	5	...	...
Explosion of explosives (not blasts) ... ..	...	4	3	6	1	1	5
Miscellaneous	53	29	23	7	5	12	6
Totals	245	217	170	154	106	112	89

The following table shows the number of persons killed and injured to every thousand employed during the seven years that the *Regulation of Mines Statute 1873* has been in operation :—

Years.	Alluvial Mining.		Quartz and other Lode Mines.		All Classes of Mining.	
	Number per Thousand.		Number per Thousand.		Number per Thousand.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1874	1·21	2·75	3·40	10·39	1·93	5·26
1875	1·52	3·03	2·84	9·23	1·97	5·15
1876	1·15	2·38	1·64	7·25	1·32	4·10
1877	1·37	2·11	2·11	7·00	1·65	3·96
1878	0·61	1·32	1·79	5·25	1·07	2·85
1879	1·11	1·55	1·57	5·25	1·29	3·01
1880	0·96	1·27	1·82	3·90	1·32	2·34

NON-FATAL ACCIDENTS.

Although the fatal accidents for the past year are slightly in excess of those of the two preceding years there has been a marked diminution in the number of persons injured from accidents of a non-fatal character. In those prolific accidents due to falls of earth or rock, the number of persons injured last year was only 31, as compared with 50 in 1879, 45 in 1878, 61 in 1877, 64 in 1876, 66 in 1875, and 75 in 1874. Notwithstanding that too many accidents are still traceable to recklessness on the part of the sufferers, I think it may be fairly assumed from the above comparison that both the managers of mines and the miners themselves are becoming more and more impressed with the responsibility which devolves upon them of exercising greater and more systematic vigilance and care in the supervision and prosecution of actual mining operations both under-ground and on the surface.

In noting a few of the non-fatal accidents which seem to have been the result of carelessness, it may be remarked, that, of those men who suffered from falls of earth or rock, 11 were injured by carelessly undermining dangerous ground ; and one man, a trucker, unaccustomed to mining, got injured by a fall of rock through indulging in a little underground mining practice while alone in a drive, and during the temporary absence of the regular hands.

No less than 16 persons were injured from falling down shafts, winzes, or shoots. Of these, one fell while descending a shaft, in consequence of the temporary removal of a ladder, of which he had received no notice. Another from the breaking of a rotten rung of a ladder by which he was ascending. Another fell in consequence of the breaking away of an old staging upon which he was working in a shaft. A boy fell while being lowered on a rope, to which he was holding simply by his hands, and another fell from a ladder while attempting to regain a candle that he had inadvertently dropped, and a man fell from the breaking away and falling of an improperly constructed and unsafe bush windlass by which he was being lowered down a shaft.

Of the ten men injured from falls of materials down shafts, passes, or jump-ups, one man was injured by the fall of a piece of rock from an ascending bucket which had been overfilled, and which was carelessly allowed to come into collision with an empty descending bucket ; another was injured by a piece of loose quartz, which had been allowed to roll into the mouth of a winze ; another received injuries in consequence of the fall of a piece of batten from the side of a shaft, and which broke the thin iron cover of the cage in which he was descending ; and another was injured by a falling bucket which had become detached from the rope.

In reference to the cage accidents, one man was injured by the dislodgment of picks in a cage in which he was foolishly travelling ; another was struck by a descending cage while leaning over one of the compartments of the shaft ; and another man had a very narrow escape from death ; he was struck by a descending cage while crossing a compartment of a shaft, and was precipitated head foremost a distance of 55 feet into the well.

Twelve persons received non-fatal injuries from explosions of various kinds ; and of those, resulting from want of care, may be mentioned one in which two parties of men were engaged (one above and the other below) in constructing a winze between two levels of a mine, and as they approached close to each other, a blast was carelessly fired from above, which broke through the intervening rock and severely injured one of the men working below ; another man was severely injured by allowing a lighted candle to drop into a keg of powder while he was engaged in filling a canister for blasting purposes ; another man was severely injured by a blast which he unwisely approached some time after the fuse had been fired ; another was injured by the explosion of the fulminate of a dynamite cap which he incautiously fired with a candle ; a man was injured by the explosion of powder while attempting to dry it on a hot iron plate ; another was burnt by the explosion of about two pounds of litho-fracteur cartridges, through standing the pot in which they were placed upon the forge of a smithy ; and another was severely burnt while stupidly attempting to thaw similar cartridges upon a heated shovel.

Mr. A. B. Ainsworth, inspector of mines for the Goulburn Division, in his report for the June quarter called attention to the danger attending the use of horse whips in sinking shafts, on account of the want of absolute control on the part of the braced man over the action of the horse. He referred to the fatal accidents of the

Falls of earth or rock under-ground, and at the surface.

Falling down shafts, winzes, or shoots.

Falls of material down shafts, passes, and jump-ups.

Cage accidents.

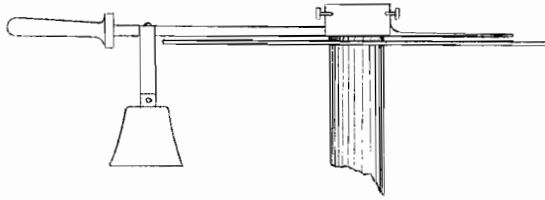
Explosions of explosive compounds.

Horse whips.

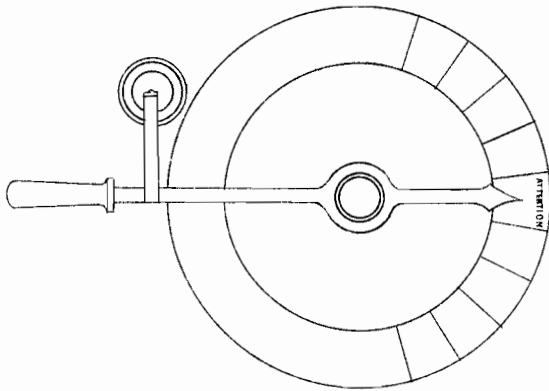
SIGNALLING APPARATUS

IN USE AT THE NEW KOH-I-NOOR COMPANY'S SHAFT,

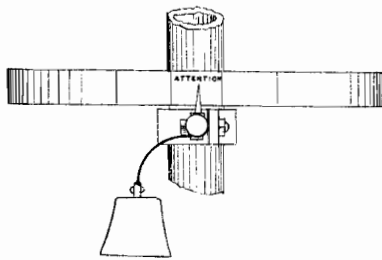
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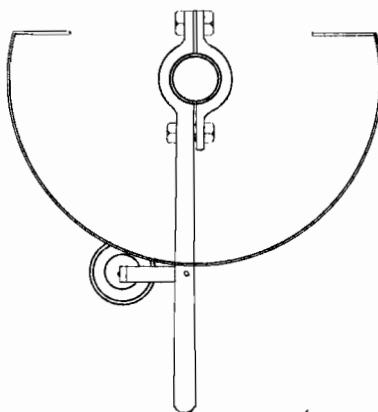
Elevation of Dial at Brace.



Plan of the above.



Elevation of Dial at Chambers.



Plan of the above.

preceding year in connection with those appliances, and recommended that all horse whips should be fitted with brakes, such as a lever and clamps fixed over the shaft and immediately below the pulley wheel, so that the braced man might have the rope directly under his control, to prevent any sudden fall of the bucket down the shaft in the event of mishap to the horse gear.

Mr. A. B. Ainsworth, in alluding to a fatal accident which occurred at Wood's Point in August last, remarked upon the reprehensible practice of some few men employed about machinery of wearing coats or other loose-flowing garments, likely to be caught by revolving wheels; and he advised that engine-drivers and others engaged in such work should be compelled to wear jackets or similar close-fitting garments. The wisdom of the advice given in this instance is obvious, and I trust that the inspectors will, when any cases of the kind mentioned come under their notice, immediately warn the persons concerned of the danger they incur.

A singular accident occurred at the Union Extended Company's mine, Amherst, on the 24th December last, from the breaking of the centre of a winding spider while the cage was being raised in the shaft, and from the running away of the cage with the rope attached thereto, as described in the appended list of accidents.

Mr. Nicholas, Senior Inspector of Mines, appeared to think that the accident was most likely caused by the chain which connected the cage to the rope becoming caught around the horns or projectors of the detaching-hook when the cage was started from the bottom of the shaft, that the chain subsequently slipped and caused the cage to drop slightly, and that the strain caused by the sudden jerk of the descending cage burst the centre portion of the spider. It is said to be a not unusual occurrence for slack chain to be caught by safety hooks of the form used on this occasion. There can, I think, be little doubt that the iron boss of the spider was defective, and Mr. Nicholas very properly recommended that the thickness of the new boss should be increased; he also recommended the use of Ormerod's safety hook.

As mineowners are displaying a commendable desire to comply in a reasonable manner with the requirements of sub-clause x. of section 6 of the Act for the Regulation of Mines by improving the means employed for signalling in shafts, I have much pleasure in furnishing the following description and drawing of an apparatus used for signalling purposes in the shaft of the Kolinooor Gold Mining Company, Ballarat, and which is said to be very effective in its operation, and to answer the intended purpose:—

"This apparatus may be used both as an indicator and a speaking tube. The indicating dials, as shown in drawing attached, are fixtures; the circular one being placed at the brace and those of a semi-circular form at the different levels.

"A two-inch gaspipe is placed down the shaft, which pipe revolves on a tapered step at the bottom, and is supported by glands fixed on the top of the plates in the shaft. There are pins through the couplings to prevent the lengths of piping from unscrewing when moved.

"At each dial, handles connected with the pointers are clamped on to the piping, with screws through a collar-piece, and an alarm bell is attached to the handles.

"The pointer on the top or circular dial works horizontally, and those at the different levels vertically, as shown in drawing attached. The top dial is fixed on a wooden stand, and those below on 2-in. planks.

"For speaking purposes, a 2-in. T coupling is fitted to the main pipe at each level, to which is fixed an indiarubber tube with a tin mouth-piece. This tubing is of such a length that when not in use it hangs down, and thus prevents the sound from escaping. The mouth-piece at the brace is at the top of the main tube.

"The spaces on the dial are filled in with such words as are mostly used in mines. If more than one level is being worked at the same time, the indicator shows 'Cage wanted at No. 1,' and so on, as the case may be.

"When communicating from below, the handle is turned to attention, and rings the bell. If the braced man be absent at the time the signal is given, he sees, on returning, by the pointer being at 'Attention,' that someone has been ringing. He then moves the handle, which rings the bells below, when the man below moves the pointer to the space on the dial indicating the article required. The handle is not moved until something is again wanted, when it is brought back to attention as before."

An accident, fortunately attended with no serious results, occurred in February last, at the mine of the Band of Hope and Albion Company, Ballarat. A safety-cage, with three men in it, was being drawn up from the bottom of the shaft when the rope broke, and the cage fell a distance of about 30 feet into the well. On subsequent examination it was considered that the failure of the cage was due to the excessive wear of the pins and pin-holes connected with the safety apparatus. (The same cage had been subjected to a previous accident, and had come out of the trial successfully).

A circular was forwarded to the mining inspectors for distribution, directing the attention of mining managers to this accident, and reminding them of the necessity of examining the working parts of safety-cages in connection with their periodical inspections of machinery, as provided in Rule xxv., of Section vi., of the *Regulation of Mines Statute*.

Safety-cages.

As the subject of safety-cages, detaching-hooks, and other appliances for preventing the fall of cages down shafts, has, for some time past attracted much attention in Victoria, the following remarks from the report for the year 1879 of Joseph Dickinson, Esq., F.G.S., one of Her Majesty's Inspectors of Mines, will, doubtless, be read with interest :—

“Overwinding Disconnecting Apparatus.—The skill and care ordinarily exercised in the construction of the arrangements and in the winding at shafts is highly creditable to all concerned. Millions of windings are performed in which the cages run at railway speed, and are started and stopped almost to an inch, without any accident occurring. Occasionally, however, generally just at starting, half a stroke or so of a large engine is made the wrong way, and the cage being drawn against the head-gear becomes severed from the rope, and, if there be no catch, crashes down the shaft. Many of these occurrences which happen with minerals or other materials in the cage, and not men, as well as many overwindings, where the cage is caught by a catch, are unknown except to those immediately concerned. No accurate number of overwindings can therefore be stated. It has long been found that, except when an engine ceases to be under control, and the cage shoots almost like a bullet out of a gun, and swings over the engine-house at the tail end of a rope which no ordinary appliance could arrest; the slight overwindings, which are most numerous, may generally be provided against. The earliest way in which the cage seems to have been dissevered and caught was by having strong cross-beams with self-acting catches, underneath in the head-gear. Improvements followed, and instead of the cage having to be severed by actual breakage, a disconnecting apparatus called by various names, such as ‘safety-link’ or ‘hook,’ was brought into use; the cage when disconnected having, with some of the appliances, to be caught upon self-acting catches fixed underneath in the head-gear, and in others to be either caught by the link or hook itself or by the safety-catches on the cage, or sometimes by both. In this way many lives and much valuable property have been saved, as well as time by the prevention of break-downs. With the increase in the depth of shafts and size of winding-engines and drums, disconnecting appliances have, in this district, been found increasingly essential. From the replies which I have received to the circular letter prepared and issued at your request in December last, consequent upon an overwinding accident, attended with a serious loss of life, in another district. I find there were then 115 disconnecting apparatus daily in work at the collieries of this district. Of these 86 were on Ormerod's principle, 16 Bryham's, 9 Walker's, 2 a previous Mr. Walker's, and 2 Broadbent's; Bryham's and that of Mr. Thomas Knowles, of Ince, who has used them for about 20 years, being almost identical. Such appliances are approved of here, except amongst about the average number of sceptics which are to be found in every group respecting every subject, or where the arrangements are rough, slight, or not first class. Like other mechanism these appliances require to be properly constructed and attended to. The proper number of times for opening, cleaning, oiling, and new riveting may not yet have been exactly ascertained, but at collieries, where these things are attended to once a month, it is found to suffice. The circular letter seems to be giving increased impetus to the introduction of the apparatus in this district.

“There is perhaps no part of the kingdom where safety-cages or safety-catches are in such general use in shafts as in this district. When first introduced, upwards of 30 years ago, by Mr. Fourdrinier, and by Messrs. White and Grant, and others, they were found to be unreliable, cages being occasionally left sticking in the shafts with coils of rope upon and about them, through the needless and dangerous action of the apparatus. Hence, nearly every one of these early inventions has been discarded. The principle, however, only required improving into the required form. This was done, about 25 years ago, by Mr. James Owen, then of Worsley, and afterwards of Pendlebury, near Manchester, and his safety cages (an original drawing of which I annex), see diagram, have since been in common use at many of the shafts in this district, and they have been the means of largely saving both life and property. They are only considered applicable where wooden guides are used. In December last I find that 184 on this principle were at work in this district, running at both quick and slow velocities. Four of a kind called Broadbent's, which is similar to White and Grant's, were also at work in this district. Also, one with Walker's disconnecting apparatus, in Sussex.”

Safety-hooks.

A paper on safety-hooks, by Wm. Logan, Esq., was read on the 1st May last, at a general meeting of the North of England Institute of Mining and Mechanical Engineers, in which the writer produces carefully prepared drawings and descriptions of what he considers to be some of the most successful appliances in use in the country districts, and of these, four—which appear to be the most highly recommended—are herewith reproduced for general information.

Of King and Humble's hook, Mr. Logan says it meets all requirements.

Of the Grange hook, that it cannot fail to take a good position.

Walker's improved hook, he thinks, is a considerable improvement upon the original hook of the same inventor, which has been before the public for years.

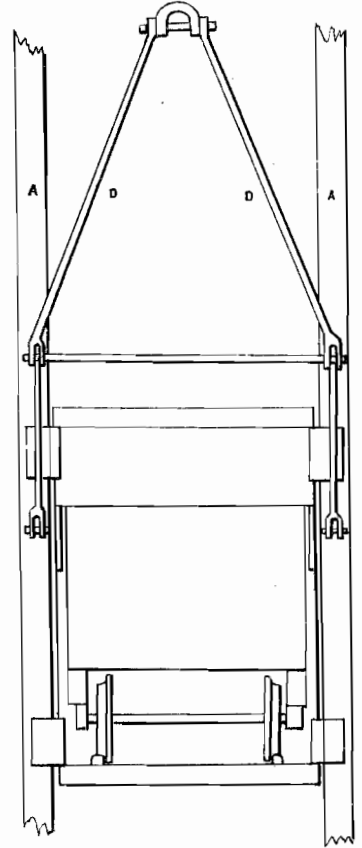
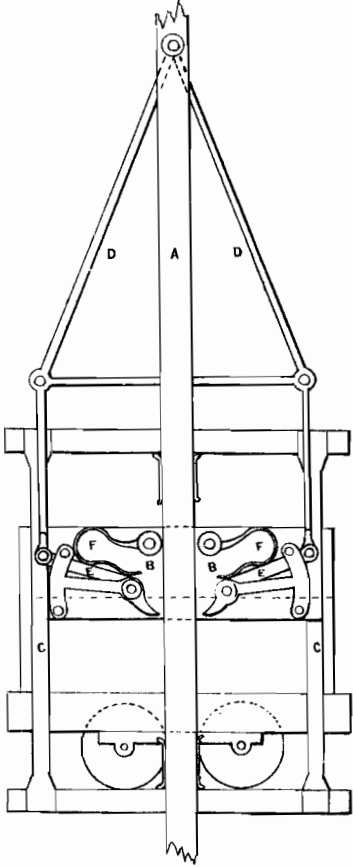
Of Ramsey and Fisher's hook, he says, that it is especially good in design, and although apparently complicated, is exceedingly simple and sure in its action.

It will be observed that none of the hooks in question have any of those objectionable horns or projections from the sides likely to cause entanglement of the chain attached.

OWEN'S SAFETY CAGE.

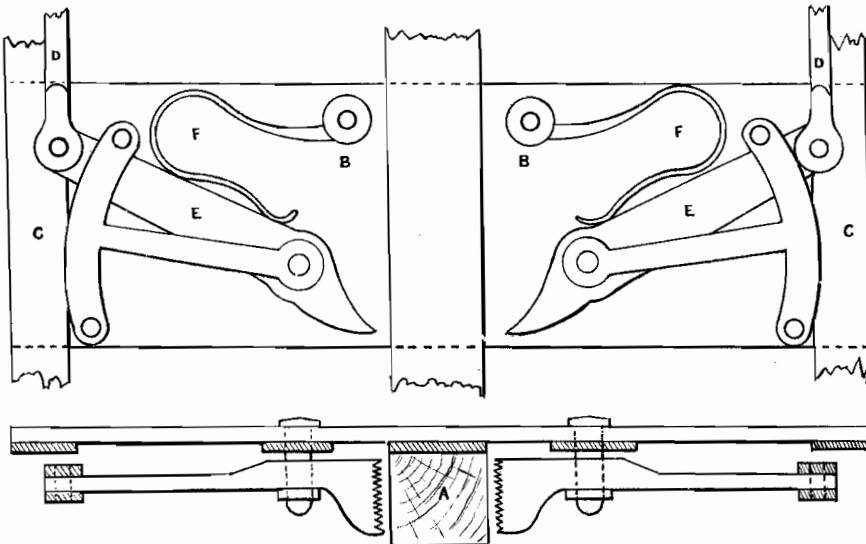
Side Elevation.

Front Elevation



Scale, $\frac{1}{2}$ Inch. to One Foot.

Enlarged drawing of working portions.



Section showing form of levers.

Scale, $1\frac{1}{2}$ Inches to One Foot.

- A. Conductor Rods.
- B.B. Wrought-iron Plate on side of Cage, 11 inches deep, $\frac{1}{2}$ inch thick.
- C. Sides of Cage.

- D.D. Rods to connect the apparatus to the Rope. If the Rope breaks the Rods fall, and the Levers
- E.E. are forced down by the Spring,
- F. causing the end of the Lever to pierce into the Conductor rods, and hold the Cage fast.

Mr. Logan says that objection has been taken to the use of safety-hooks, on the ground that they make the engineer careless, but this is not a valid reason, and it ought to be a rule that the engineer who makes an overwind except when testing the hooks, under direction, should be fined or dismissed.

He further remarks, that safety-hooks are only portions of the colliery machinery which ought, at the same time as ropes and chains, to be carefully examined, and if this is done, there is no more risk in using a safety hook than in using an ordinary shackle, and by their use many lives and much valuable property will be saved.

Drawings and descriptions of some of the self-detaching and self-suspending hooks referred to by Mr. Logan.

PLATE 1.—*King and Humble's Hook*.—Fig. 1 represents a front, and Fig. 2 a side view of the hook as in actual working order.

Fig. 3 represents it when detached and suspended on the catch-plate.

The hook consists of four plates, viz.:—Two outer, *AA*, and two inner, *DD*, which oscillate about a strong pin *J*. The collar *B* goes completely round the plates, and is held in position by two copper pins *NN*. In the collar is placed a loose pin *E*, which passes completely through both the collar *B*, and the four plates of the hook. In each of the outer plates, there is a vertical slot *I*, and in the inner plates grooved slots *FF*.

In ordinary work the weight of the load carried by the hook is communicated to the rope by the bottom shackle *O*, pin *P*, side straps *Q*, the centre pin *J*, and the hooks *KK*, of the inner plates *DD*.

When an overwind occurs, the hook passes into the ring or catch-plate, and the collar *B*, in which is the pin *E*, comes in contact with the catch-plate *C*, and, as the hook is still drawn upwards, the natural result is that the collar is pressed down, shearing the copper pins *NN*; and the inside plates *DD*, being actuated by the pin *E* in slots *FF*, are forced open, releasing the rope-shackle, and the hook with its load is left suspended on the catch-plate, by the two catches, *MM*, of the inside plates which are sufficiently strong to hold the load attached to the hook.

It will be noticed there is just sufficient space for the catch-plate to rest between the collar *B* and catches *MM*; consequently it is believed to be impossible for either hook to detached itself until drawn sufficiently far through the circular hole in the catch-plate, and this is effected either by a quick or slow overwind.

Another point of importance is that the hook being overhung, that is, the pin *J* being above the catches *MM* (the faces of which when first emerging from the frame are inclined upwards towards the centre of the hook) the moment the catches gain the slightest hold upon the catch-plate, the safe suspension is practically accomplished, for the weight of the load will then tend to force the catches out to their full extent, and there is not any chance of the hooks again closing. Until this point in the action of the hook is reached, their tendency is not to open, but to keep shut, on account of the gradual curve in the inner plates clutching the rope-shackle pin *L*.

The other points claimed in this hook is the gradual and simple nature of the motion, and the great simplicity both of the hooks and catch-plates, while the catching points *MM*, owing to their vertical depth, are exceedingly strong.

PLATE 2.—*Walker's improved Hook*.—A square hole is cut in the clamp *C*, and the clamp kept in position by a tongue and the two upper copper pins *BB*, and detachment cannot take place until not only the two upper copper pins *BB* are sheared, but also the two lower copper pins *B¹B¹*. The clamp *C* is forced down by coming against the catch-plate, expanding the upper jaws, and pressing in the lower limbs. On the inside of the clamp *C*, and on the sides which move down the outer edges of the lower limbs, feathers of brass, *EE*, are securely fixed, which facilitate the movement of the clamp downwards, and are so shaped that, when the clamp *C* is in the position shown on Fig. 4, it locks the hook and keeps the jaws properly expanded. To prevent too much expansion of the suspending jaws, a stud *D* is fixed to the inner side of one of the lower limbs. The clamp in this hook is prevented from coming down on the lower shackles.

PLATE 3.—*The Grange Hook*.—This hook is of recent construction, and is being manufactured by the Grange Iron Company, Durham. It consists of three plates, planed true on the inner sides; the middle part *A*, to which the lifting shackle *B* is attached, has two projections to prevent the hook being drawn through the plate, and the distance between the projections and those on the two outer plates is the least possible, so as to give a minimum amount of fall when detached. The three plates are held together by the centre bolt *C*, to the projecting ends of which a double hook or claw is attached to lift the hook and cage after detachment, and refix the rope-shackle *D*. The two outer plates are held in position by the copper rivet *E*.

Figs. 1, 2, and 3 represent a seven-ton hook.

Fig. 1 shows the hook ready for detaching, and Fig. 3 after detachment. The bolt *F*, during detachment, drops down into a groove and prevents the plates re-adjusting themselves by the shock, and falling through the retaining plate *G*.

PLATE 4.—*Ramsey and Fisher's Hook*.—The invention of Mr. Ramsey, of Castle Eden Colliery, in the county of Durham.

Two independent jaws, *AA*, are contained in a box of great strength. They are separately hung on the bolts *BB*, and separately actuated, and in ordinary working are kept firmly in position by means of the two keys *CC*, shown projecting slightly at the sides of the box. The keys rest upon two copper rivets, *DD*, but they are so constructed as to exert no pressure upon the copper rivets until an overwind takes place. When the hook passes up into the strong cast-iron ring *E*, fixed in the head-gear, the two keys come simultaneously into contact with the conical lower end of the ring, are pressed downwards, and, by cutting the copper rivets, and pressing the lower ends of the jaws together, they open the top ends so as to catch upon the ring, and release the shackle and rope.

As the rope disengages, it draws up between the jaws a wedge *F*, riveted by a small copper rivet to the links *G*, on the top shackle. The act of cutting this rivet is sufficient to firmly fix the wedge between the two jaws, securely locking them on to the ring, and making it absolutely certain that the hook catches the ring properly, and perfectly impossible to shake it off again by any amount of jerking and shaking. The tops of the jaws are kept extra large, and a hole bored in each as shown. After an overwind it is only the work of a few minutes to couple a shackle on to each jaw, knock down the wedge, and, by tightening the rope with the engine, close the jaws, and lower the cage safely on to the keeps. By placing a little tallow or grease round the edge of the box, the working parts are effectually protected from all damp, and kept in perfect order, ready for action.

Each jaw being separately actuated, and it being necessary that both keys should be struck, and both rivets cut before disengagement takes place, it may safely be said to be impossible to disengage the load in ordinary working. The fall back is in no case more than one inch, and partial overwind cannot take place to disengage the hook, as the jaws must be in a position to grip the ring before the rivets are cut.

Poisonous effects
of the fumes
of burning
dynamite.

In my last annual report special reference was made to the death of J. O'Grady from inhaling the fumes of burning dynamite, and, as but little is generally known of the poisonous and deadly nature of these fumes, I deem it right to bring under notice the following information bearing directly upon the subject, extracted from a report by Major A. Ford, R.A., to the Secretary of State for the Home Department.

It appears that the Great Western Railway Company are engaged in constructing a tunnel, about four and a-half miles in length, under the Severn, to connect Bristol and South Wales, and that in 1879 a preliminary "heading," 7 feet by 7 feet, intended to act as a drain to the tunnel, was being driven. In one of the sections of this "heading," which was commenced from a shaft about 200 feet deep on the South Wales side of the estuary, men were engaged in three shifts in cutting through "sandstone and marl," and drills driven by compressed air and charges of dynamite were employed in the work. (The explosive was obtained from Nobel's Explosive Company, Limited, at a cost of £200 per ton.) Two "headings," one on each side of the shaft, were worked simultaneously, and, for the purpose of blasting the rock, fifteen holes were bored in the faces, about 3 feet deep, and were then each charged with a half pound of dynamite in readiness of firing.

After firing the charges, the men went to the surface, and remained for an hour, to allow the fumes from the dynamite to become diluted with fresh air, which was being constantly pumped in through a pipe, and discharged at about 20 feet from each heading. To assist in the ventilation of the mine, a pipe of wood, in connection with a furnace above ground, passed along the roof of the drive to places about 100 yards from the faces, for the purpose of drawing off the vitiated air.

On the 24th of May, 1879, a man named Deacon was taken ill while at work, and died the following day; on the 23rd June another man, named Tuckwell, a "new hand," came on and worked only during the time one set of bores was being drilled and charged, and on coming to the surface he complained of being unwell, and he died the same evening. At the inquests on both these cases the coroner and juries appear to have been ignorant of the real cause of death, and verdicts were returned that the men died from congestion of the lungs.

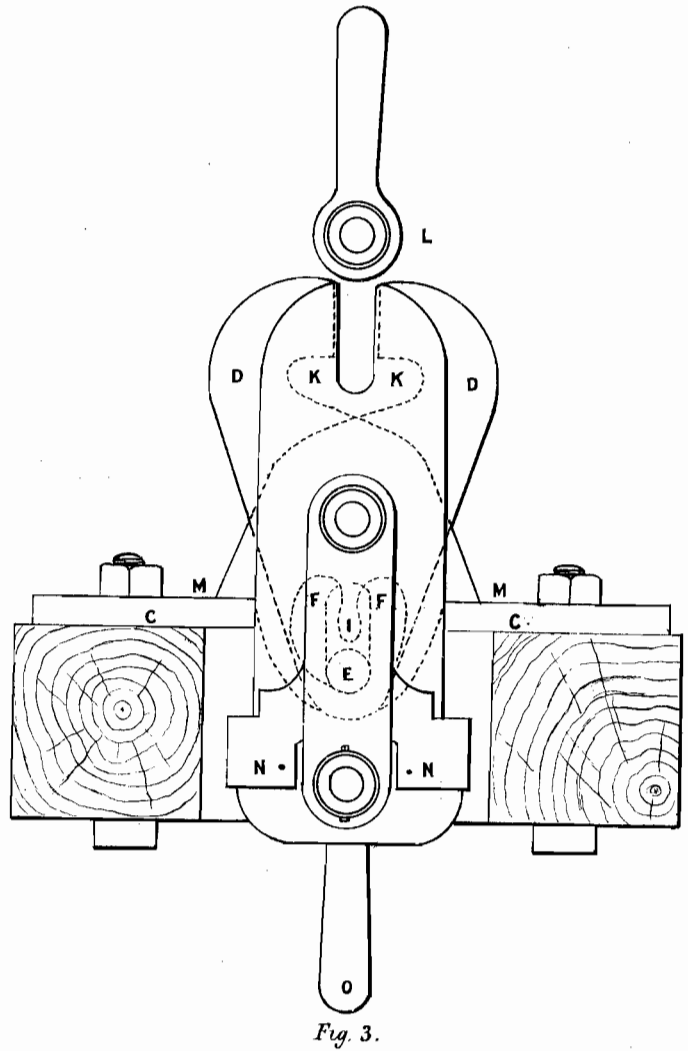
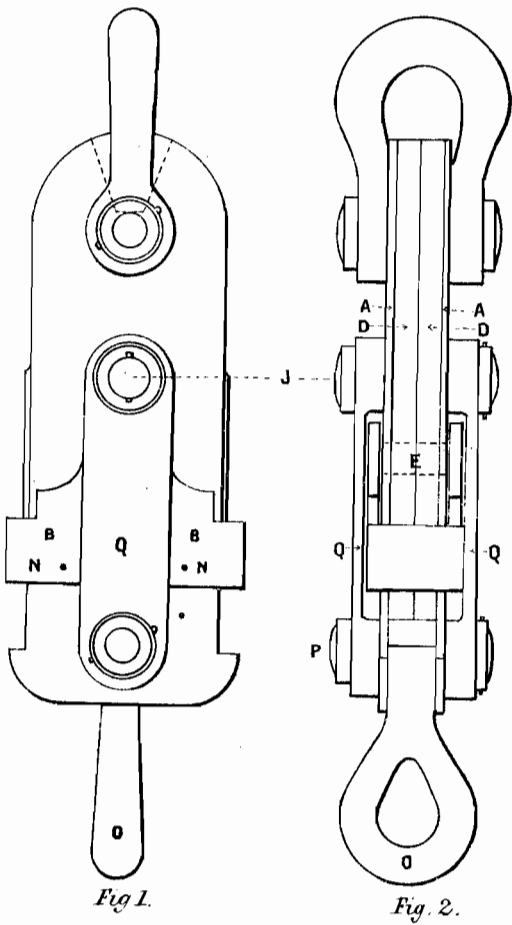
On the 23rd September two men named Maggs and Sheppard, also "new hands," were employed, and went to work underground at 2 p.m. The foreman knowing that men newly employed were more liable to be affected by the fumes from the exploded dynamite than others accustomed to the work, enquired from time to time of Maggs and Sheppard how they felt, and in reply to a final enquiry just before coming to the surface at 5.20 p.m., one said that he was "all right," and the other that he was "middling." The latter did not return to his work, he went away to his lodging and complained of a difficulty of breathing, but shortly after got better. He retired to bed at 9 p.m., and was very ill during the night and died at 8 o'clock on the following morning. Shortly before death "he became quite purple, even to the finger nails."

The other man, Sheppard, went underground a second time, but immediately after returned from the heading stating that he was ill. He was afterwards put to bed and died on the following morning about three hours later than his fellow workman Maggs.

At a subsequent investigation Major Ford came to the conclusion that in exploding charges of dynamite a portion of the dynamite is burned before a charge is detonated, and therefore that complete decomposition of the dynamite does not take place, and "nitrous fumes," together with some carbonic oxide (both poisonous gases), are generated.

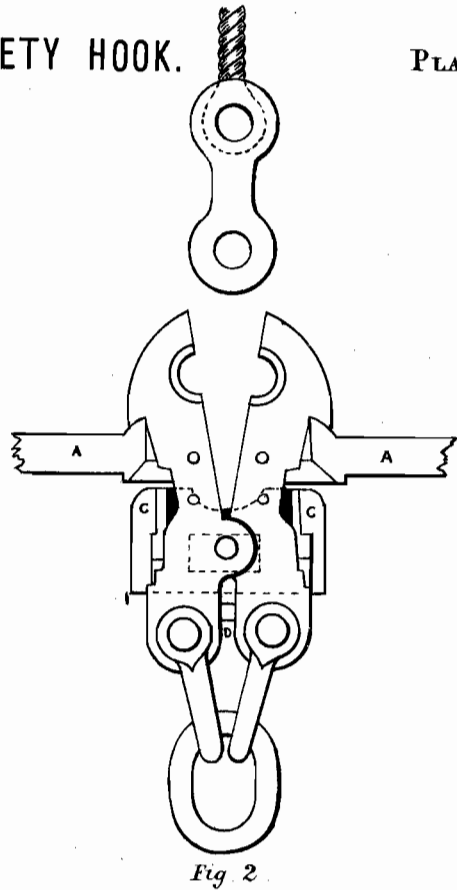
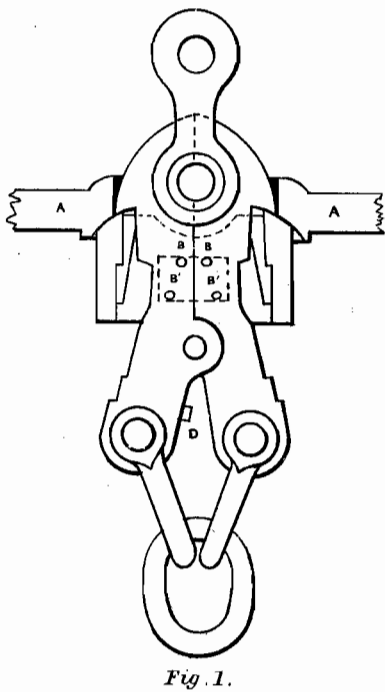
KING AND HUMBLE'S SAFETY HOOK.

PLATE No. 1.



WALKER'S IMPROVED SAFETY HOOK.

PLATE N° II.



Scale 2 In. to One Foot.

THE GRANGE SAFETY HOOK.

PLATE No. III.

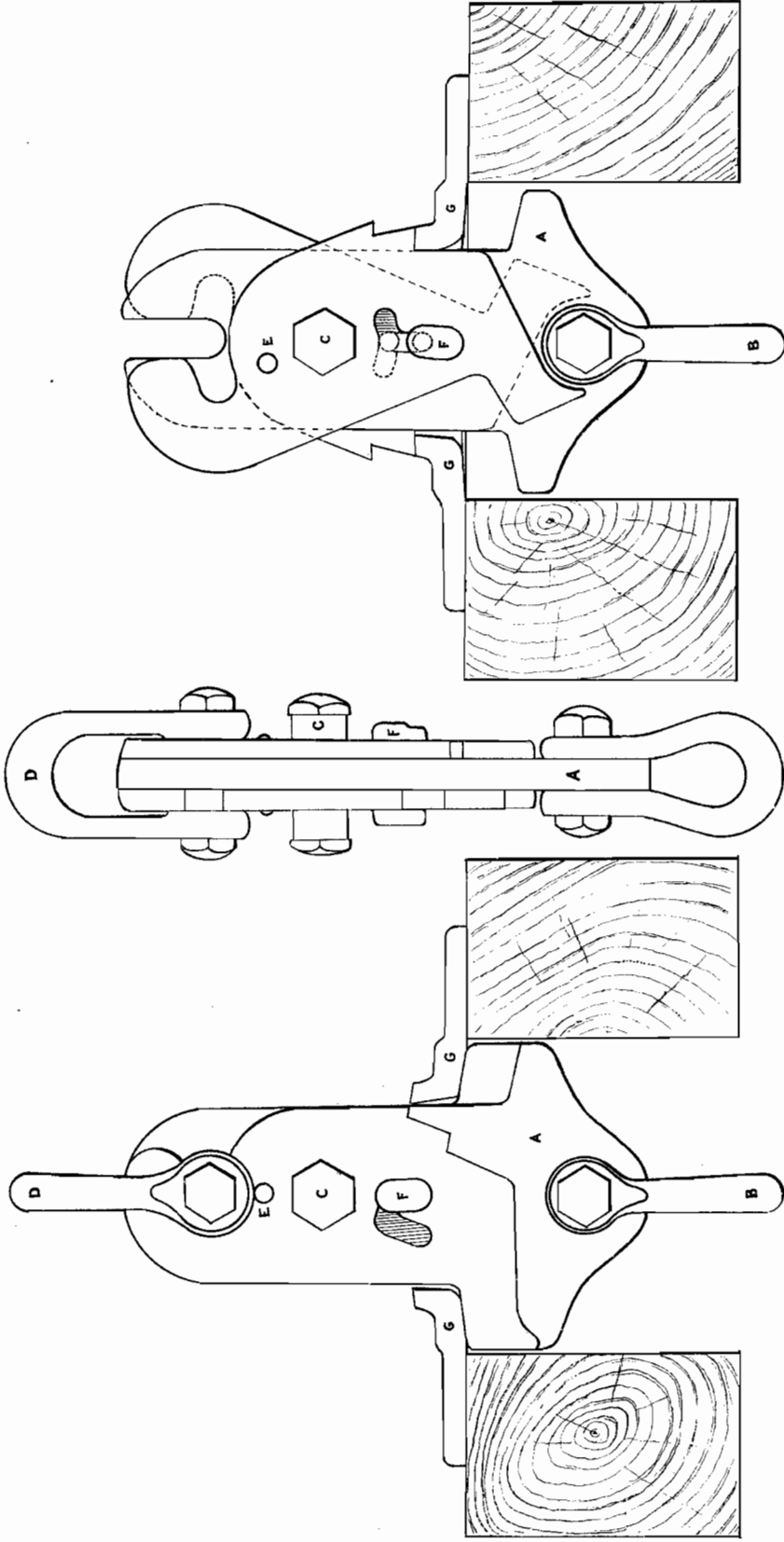


Fig. 1.

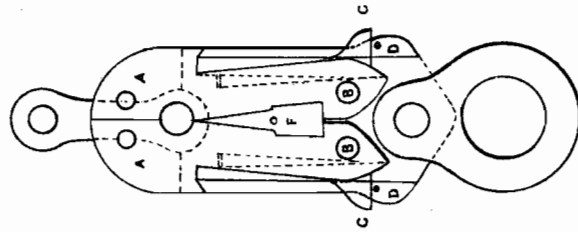
Fig. 2.

Fig. 3.

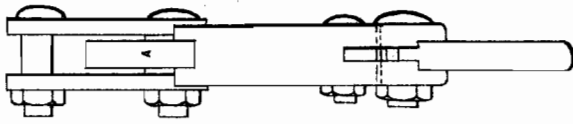
Scale, 1 1/2 Inches to One Foot.

RAMSEY AND FISHER'S SAFETY HOOK.

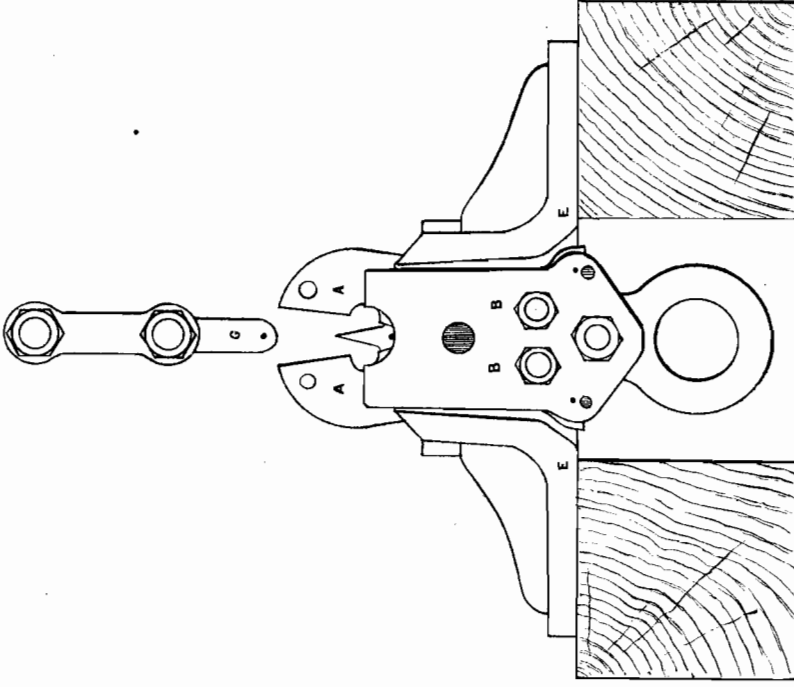
PLATE No. IV.



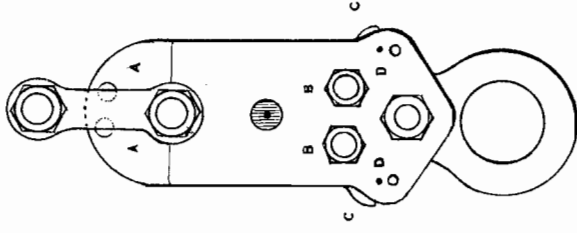
Section.



Side View.



Front View after detachment.



Front View, closed.

Major Ford quoted some undoubted cases of poisoning by nitric acid vapor in which the sufferers were apparently but little affected for some hours after inhaling the fumes, but in which difficulty of breathing afterwards set in, followed by death after some hours of suffering.

He said that a careful perusal of these cases must in his opinion lead to the inevitable conclusion that the deaths under enquiry were caused in a similar way : the partial recovery of the patients in all of them before the real attack had set in was such a marked and unusual symptom as to amount almost to a proof of the identity of the destroying agent.

The marly nature of the rock operated upon in the Severn Tunnel doubtless had a tendency to cause a larger portion than usual of the fumes from the burning dynamite to be retained in the fallen *débris*, resulting from the blasts, until the removal of the earth, and that then these fumes were inhaled in dangerous quantities by the men notwithstanding the means employed for the ventilation of the workings and for the purification of the air. The quantity of dynamite used at any time in ordinary blasting operations in our mines is much less than the quantity employed in the construction of the works for the Severn Tunnel, and the amount of noxious vapor arising therefrom must necessarily also be less, but still the knowledge obtained as to the deadly poisonous nature of the gases evolved from imperfect detonation, or from the burning of any compounds of which nitro-glycerine forms the base, should act as a warning to all to avoid as far as possible the inhaling of air vitiated by the combustion of explosives of this kind.

It appears to me that the breathing at constant intervals of such air, even to a comparatively limited extent, would be likely to have a prejudicial effect upon health ; and, although there may not be any immediate cause for alarm, I consider it my duty, in the general interests of the miners, to suggest that some competent persons be authorized to make investigations as to the effects of the fumes arising from blasting operations as conducted in our mines ; and, if found to be prejudicial, to devise and recommend a remedy for any evil that may be apparent, either by the better ventilation of the workings, or by restricting the use of any objectionable explosive compounds employed.

In a recent fatal accident which occurred in the Buckland Division of the Beechworth Mining District a man was apparently suffocated by a fall of earth, and on being brought to the surface no attempt was made to restore animation by artificial means, owing to the ignorance of those persons who rescued the body of the proper mode of treatment of such cases. It was therefore considered desirable to obtain from the Board of Health some plain directions for the treatment of persons apparently drowned or suffocated by falls of earth in mines or other places. These directions, properly illustrated, were prepared in April last, and one hundred and fifty copies, printed on calico, were immediately sent for distribution and publication in the several mining centres.

Recovery of persons apparently drowned or suffocated from falls of earth.

Mr. Thomas R. Pearce has furnished a copy of the last annual report and balance-sheet relating to the "Clunes Accident Relief Fund," from which it appears that the administration of the fund has been attended to with care and vigilance on the part of those entrusted with the work, and that the allowances granted by the committee have been highly beneficial to subscribers who from accidental injuries have been incapacitated from work. The report also bears evidence of the generally prosperous state of the affairs of the institution. I have also received a report and balance-sheet for the half-year ending the 31st December 1880 relating to the affairs of the Ballarat Miners' Association, and which bears abundant evidence of the good effected by the association.

I have the honor to be, Sir,

Your most obedient Servant,

T. COUCHMAN,

Chief Inspector of Mines.

LIST OF ACCIDENTS IN THE MINES OF THE COLONY OF VICTORIA DURING THE YEAR ENDING THE 31st DECEMBER 1880.

District.	Division.	Mine Owner.	Date of Accident.	No. of Accident.	Cause of Accident.	Killed.	Injured.	Remarks.
Ballarat	Buninyong ...	Llewellyn G. M. Co.	1880. 3rd Jan.	1	Fall of reef in the face of a drive	...	1	The sufferer was a trucker, and was working in the main drive (4½ feet high), which was timbered "close up," with the last set of laths driven half-way home. During the absence of the two miners with whom he was working, he commenced to pick in front of the laths, when the ground, which required careful management, gave way, displacing the last set of timber, and causing slight injuries to the back and side of the man; who had only himself to blame for the accident.
Ararat	Pleasant Creek	Newington and Pleasant Creek Co.	8th Jan.	2	Fall of mullock from hanging wall	1	1	Verdict at inquest:—"Accidental death," and from the evidence adduced no blame could be attached to any responsible person. Men with three sets of hammers were at work at a slope of the flat reef, when, without any previous warning, a block of mullock (about 3 tons) fell out from the headwall upon two of the hammer men, one of whom was killed, and the other was slightly bruised on the back. The Inspector reported that the mine was properly timbered.
Ballarat	Steiglitz ...	New Britannia Co.	8th Jan.	3	Giving way of a stage in a shaft	...	1	The shaft was being enlarged by cutting it down from the surface. It was timbered as the work progressed, and for the purpose temporary stages were erected in the shaft; the injured man was at work picking down from one of these stages when a larger piece of earth than he expected broke away, and falling upon the stage, sent it and the man to the bottom of the shaft, a distance of 80 feet. He had a foot sprained and three ribs broken; it was considered remarkable that he was not killed, as he fell amongst timber, ladders, and <i>débriés</i> . The injured man put in the stage himself, thinking, as he remarked, that it was strong enough for anything. The Inspector reported that "no blame attached to any one, everything about the mine being new and good."
Ararat	Pleasant Creek	Deceased (S. Assprey)	9th Jan.	4	Fall of a block of cement underground	1	...	The deceased was at work with his mate in an underground drive 15 feet from the surface, and he was preparing the ground for a prop when a mass of cement, weighing about 3 tons, fell upon him, inflicting injuries which resulted in his death. The men were at fault in failing to fix a temporary prop under the cement before commencing to prepare the place for a permanent prop.
Sandhurst	Sandhurst ...	Garden Gully Freehold Co.	10th Jan.	5	Blow from the handle of a crab-winch	1	...	Verdict at inquest:—"Accidental death." Deceased was engaged on the surface at a crab-winch in lowering the working barrel of the draw-lift of the pumps from the 400 to the 500-foot level, when by some means he let go the handle, which, in revolving, struck him on the head, causing death. The Inspector reported that, in consequence of the crab-winch being a double-purchase one, he considered that one man would have been sufficient to lower double the weight for the few feet required, and, as the deceased had often done the same work before, it was probable that inattention to duty was the cause of the accident.
Castlemaine	Castlemaine ...	Ogilvie and Silver...	16th Jan.	6	Fall down a shaft 80 feet deep	...	1	The man was ascending the shaft, and when near the surface the ladder gave way, falling with him to the bottom of the shaft. The ladder was secured to a cross bearer by a rope one inch in diameter, which rope was used on the day of the accident for the first time. The accident was due to the rottenness of the rope which bound the ladder. The Inspector did not consider the accident a serious one.
Ballarat	Smythesdale...	Chinese co-operative party	16th Jan.	7	Fall of earth in a drive	1	...	Verdict at inquest:—"Accidental death." The deceased, a Chinaman, was fossicking in a drive about 17 feet below the surface, which had been previously worked about 20 years ago. The drive was 12 feet long by 8 feet wide, and was supported by two 4-foot cap pieces resting together on one prop. No one saw the accident, but the Inspector surmised that the ground settled down from the surface, causing the props to give way, and thus crushed the man to death.
Maryborough	Maryborough	Goldbrook G. M. Co.	17th Jan.	8	Cage accident	...	1	Verdict at magisterial enquiry:—"Accidental death." From the evidence adduced at the enquiry, as well as from the report of the Inspector, it appeared that the deceased got into the cage when it was in motion for the purpose of riding from the surface to the brace, a distance of 25 feet, when, having failed to signal the engine-driver, and fearing that he would be caught by the flippers, he let go his hold and fell, and received injuries which ultimately caused death. The man was entirely to blame for the accident, as he was acting contrary to instructions.

Gippsland	...	Omeo	...	Duke of Cornwall Co.	20th Jan.	9	Fall of earth in a drive	1	The injured man was "stopping" towards ground that had been previously worked; at a place where a portion of rock showed signs of sliding; while he was working in the bottom of the drive a slide of rock took place, which broke his leg just above the ankle-joint. The sufferer, who was the underground manager of the mine, admitted that the accident was the result of his own carelessness.
Ararat	...	Pleasant Creek	...	Nos. 14, 15, and 16 South Cross Reef Q. M. Co. Limited	26th Jan.	10	Fall of about two tons of mullock in a drive	1	The man was engaged in "picking out" close to the reef when a mass of mullock from the back of the workings fell upon him, breaking several of his ribs and causing laceration of the lungs. The local Inspector of Mines reported that the ground was well and properly timbered.
Ballarat	...	Ballarat	...	Queen Q. M. Co. ...	26th Jan.	11	Fall of a block of about 10 cwt. of sandstone from the face of a drive	1	The drive had been prepared for a set of timber, but the injured man, thinking the ground was so hard that timbering for a time would be unnecessary and obstructive to work, ventured to undermine a quartz vein, and had progressed about 15 inches when a block of sandstone fell from a greasy face upon him, bruising his shoulder and cutting his face. The sufferer was alone to blame for the accident, as the timber for the drive was ready and he had been told to put in the set.
Sandhurst	...	Sandhurst	...	Warding O'Donnell and party	26th Jan.	12	Fall of earth in an open cutting	1	The man was engaged undermining the ground in an open cutting at about 5 feet from the surface, when it suddenly fell in upon him. The safe working of the ground depended entirely upon the sufferer's own judgment and knowledge of mining.
Ararat	...	Pleasant Creek	...	Oriental G. M. Co. ...	31st Jan.	13	Blow from a piece of quartz	1	The sufferer was engaged in striking a drill to cut a foot-hole for a prop, when a detached piece of quartz entered his left eye, and destroyed the sight.
Sandhurst	...	Sandhurst	...	Great Comet Co. ...	3rd Feb.	14	Fall down a shaft	1	Verdict at inquest:—"Accidentally killed." The local Inspector of Mines reported that the deceased, who was a tributer, was descending a shaft only 38 feet in depth, and when at a depth of about 10 feet from the surface he suddenly fell, and received injuries which caused death. The facts elicited tended to show that the deceased had been drinking heavily prior to the accident, and the Inspector attributed the accident to that cause.
Sandhurst	...	Sandhurst	...	Victoria Gold Miners Co.	4th Feb.	15	Explosion of a blast	1	The injured man was in the act of charging a hole, drilled in hard sandstone, with Hall's powder, and had just got the first layer of tamping on, when the blast suddenly exploded. The man was using a copper tamping bar at the time, and could give no explanation as to the cause of the sudden explosion.
Ararat	...	Pleasant Creek	...	14, 15, and 16 South Cross Reef G. M. Co.	12th Feb.	16	Fall of earth in a drive	1	The party to which the sufferer belonged received instructions from the mining manager to take down some of the headwall which appeared to be dangerous. The work had been commenced, when the injured man noticed a shovel lying against the footwall and went to take it away to prevent its being broken, and at that instant the roof fell and struck him on the left thigh, causing a fracture thereof. The accident occurred at the 416-foot level. The Inspector reported the mine to be well timbered, and that no one was to blame in the matter excepting the injured man himself, who might be considered to have run needlessly into danger.
Gippsland	...	Stringer's Creek	...	Lily of the Valley Co.	13th Feb.	17	Fall of earth underground	1	The injured man was engaged putting in a set of timber at the top of a rise, and was standing on a stage, but, instead of cutting away gradually the block in the face of the rise, he, acting under directions from the mining manager, cut deeply into the strata, when the block suddenly slipped, broke the stage, and precipitated the man down the rise about 120 feet, injuring him severely. A prosecution against the manager was instituted, but owing to difficulties in procuring evidence to justify a conviction, it was not proceeded with.
Beechworth	...	Jamieson	...	John Reynolds and party	15th Feb.	18	Fall of earth in a drive	1	A magisterial enquiry was held into the cause of the accident, and, according to the evidence, it appeared that deceased and his two mates were filling a truck in a tunnel, when a stone fell, which induced the deceased to sound the roof with his pick, and while doing so the roof fell in and buried him and one of his mates; the other man ran out and obtained assistance, but although only ten minutes elapsed before the deceased man's head and shoulders were cleared of the fallen earth, he was quite dead when taken out. The other man was uninjured. The local Inspector reported that the drive in which the accident occurred was timbered in an exceptionally strong manner, and that he could not think the deceased or his mates blameable or careless in the matter. The drive had been constructed immediately under a layer of cement, and the accident occurred at a point where the overlying crust of cement thinned out and was replaced by the loose drift of an ancient river bed.
Maryborough	...	Dunolly	...	Queen's Birthday Q. M. Co.	4th Mar.	19	Fall from scaffold at the surface	1	The sufferer was working on the scaffolding at the surface, erecting a shed over the quartz hoppers, when he accidentally fell off. He stated that no person but himself was to blame for the accident, and that he expected to be able to resume work shortly.

List of Accidents in the Mines of the Colony of Victoria during the Year ending the 31st December 1880—continued.

District.	Division.	Mine Owner.	Date of Accident.	No. of Accident.	Cause of Accident.	Killed.	Injured.	Remarks.
Beechworth ...	Buckland ...	John Brum and Co.	1880. 10th Mar.	20	Fall of earth and timber in a drive	...	1	The sufferer, a Chinaman, was working in a drive that was being constructed to drain the mine, and by it is supposed—some awkwardness on his part, he struck a prop of the last set of timber and caused it to come down, together with three other sets of timber and a large body of earth; he fell over a narrow and lay between it and the wall of rock, and fortunately three slabs fell over him and thus prevented the great body of earth from crushing him to death. Another Chinaman working near the injured man escaped and gave the alarm, but it was not until 28 hours after the occurrence that the sufferer could be released from his position.
Beechworth ...	Yackandandah	Consols United Co. ...	10th Mar.	21	Fall of a bucket down a shaft, 25 feet deep	...	1	The injured man was working at the bottom of the shaft, and had sent up a tub or bucket of washdirt (about 3 cwt.) to the surface, but when it reached about the level of the mouth of the shaft the "split link" which connected the hook with the hauling gear broke, and the loaded tub fell to the bottom and crushed the snifer's hands against the edge of a trolley, which he was in the act of pulling back from the bottom of the shaft into the drive. The local Inspector was of opinion that the construction of the "split link" was faulty, and was the cause of the accident.
Ballarat ...	Blackwood ...	Sultan Q. M. Co. ...	12th Mar.	22	Explosion of a blast (powder)	...	1	Two parties of men were engaged in the mine sinking a winze from the 400 to the 500-foot level, from which latter depth the injured man and his mate were at work putting up a rise to meet the winze. The two parties came near enough together to put in a drill hole from the winze to the rise, through which they could talk to each other. The men in the winze were about to fire a blasting-charge, but before doing so they signalled to the others in the rise, and on receiving no answer, ignited the powder, as they supposed the other men to be away; it was, however, not so, and the result of the explosion caused severe injuries to one of the men engaged in the rise. The local Inspector reported that the men in the winze showed a great want of care in not ascertaining that the other two men were out of danger before firing the blast.
Ballarat ...	Smythesdale	Reform G. M. Co. ...	13th Mar.	23	Bursting of the timbers of a "shoot"	1	...	Verdict at inquest:—"Accidentally killed." The deceased, a Chinaman, was employed in taking the dirt out of a "shoot" which, owing to a stoppage, had got full of mullock; and it was supposed that the deceased had got the dirt out up to the first "breaker," about 10 feet up, and that he then climbed the shoot in order to work the dirt down, when the whole timbering, &c., suddenly fell in upon him. The local Inspector reported that the occurrence was purely accidental.
Sandhurst ...	Sandhurst ...	Garibaldi Co. ...	20th Mar.	24	Machinery in motion...	...	1	A boy was engaged in cleaning the floor of the engine-house, when he incautiously placed his hand too near an eccentric wheel in motion, and slightly injured it. The boy stated that the accident was the result of his own carelessness.
Ballarat ...	Ballarat ...	Temperance Co. ...	22nd Mar.	25	Explosion of blast (gunpowder)	...	1	A boy, in the absence of his uncle, was working by himself, and had drilled two holes and ignited the fuse; and one having "missed fire," he proceeded, contrary to advice and instructions, to drill out the charge, and had got through the tamping when the powder exploded; the handle of the hammer used by him was broken in pieces, and he received a cut in the hand and one in the eye.
Sandhurst ...	Eaglehawk ...	Duchess of Edinburgh Co.	26th Mar.	26	Fall of rock underground	...	1	A man was "working down" some ground at the 260-foot level, when a fall of stone unexpectedly occurred, causing injuries which were not considered to be of a serious character. The Inspector could impute no blame to the management, as the safety of the man depended on his own practical knowledge and care.
Castlemaine ...	Tarrngower	Parkin's Reef Tribute Co.	31st Mar.	27	Attempting to cross a bob-pit	...	1	A man was attempting to step across the balance bob-pit, when he slipped and fell upon the straps of the bob, breaking his right leg. The Inspector reported that the man should not have attempted to cross the bob-pit in such a manner, and that he could give no reason for doing so.
Castlemaine ...	Fryer's Creek	New Era Co. ...	2nd April	28	Injured in setting timber	...	1	The accident occurred in the stopes at about 70 feet from the surface, through the fall of a set of timber which the injured man was engaged in placing in position. The man was assisted by his mate, and both were experienced and capable miners. The sufferer had one rib broken. The Inspector could not attach blame to any person in connection with this accident.
Beechworth ...	Beechworth ...	Cook Chung (deceased)	On or about the 3rd April	29	Fall of earth on surface	1	...	The deceased, who worked without any mates, was found lying under a quantity of fallen earth at the foot of a bank in his claim. There was no evidence as to how or when the accident occurred.

Sandhurst	...	Eaglehawk	...	Catherine Reef United Co.	5th April	30	Cage accident	...	...	1	The accident occurred at the No. 6 level of the main shaft. The injured man, who was the mining manager, thinking that a truck of stuff standing on the cage in the shaft was too full, proceeded to remove therefrom some pieces of mullock, when the cage suddenly moved up and jammed him against the cap piece of the plat, breaking three of his ribs and severely bruising his back. It was considered that the sufferer was at fault in interfering with the cage on truck before he had signalled to the engine-driver. Verdict at inquest:—"The deceased died from injuries accidentally caused by the ignition of safety powder, and the jury attribute blame to the management in allowing a young man like the deceased to go to the magazine. The powder should have been procured by an older and more experienced miner." The deceased, after placing his candle, which was in the usual hump of soft clay, over an open tin containing safety powder, proceeded to fill his can, when the candle fell into the powder and ignited it, causing it to blaze and burn the deceased so severely that death shortly ensued. A prosecution was instituted under paragraph (b), clause 2 of section 6, Act No. 583, which resulted in the mining manager being fined £1, and £2 2s. costs.
Sandhurst	...	Sandhurst	...	Great Southern Co.	10th April	31	Burnt by the ignition of safety powder	1	...	...	Verdict at inquest:—"The deceased was accidentally killed by a fall of reef in a drive." The underground manager and the captain of the shift having heard a fall of earth in a stoep off the side of the main drive where deceased was working, called to him, and not obtaining any reply went into the stoep, where they found the man lying with a large block of sandstone on his head. The stone was removed by means of crowbars, and the sufferer was sent to the surface, but he died within 10 or 15 minutes after the accident. The manager was prosecuted for a breach of sub-section 8 of section 6, Act No. 583, and fined £5, with £2 2s. costs.
Ballarat	...	Ballarat	...	United Black Hill Co.	12th April	32	Fall of stone from the roof of a drive	1	...	...	The injured man was working in a drive by himself, the drive being timbered close up to the face, and while breaking out stone a piece of reef slipped out from the face and struck him upon the knee, causing slight injuries. The Inspector considered the man was alone to blame, as he should have sounded the ground before starting to gouge out the stone.
Ballarat	...	Ballarat	...	Sergeant's Freehold Co.	16th April	33	Fall of reef from the face of a drive	...	...	1	A man had been engaged in cleaning grease from the machinery whilst the engine was not in motion; when the engine had started he attempted to remove a bit of cotton-waste from one of the shanks and two of his fingers were caught between the revolving cam and the shank and injured severely. The sufferer was alone to blame for the accident.
Castlemaine	...	Fryer's Creek	...	New Era Quartz Mining Co.	16th April	34	Machinery in motion...	...	...	...	A man was standing under a steam puddling machine, and was in the act of closing the door thereof with a stick, when the stick slipped and the door fell back, and striking him upon the forehead, inflicted a somewhat serious wound.
Gippsland	...	Tarwin	...	Shakespeare Gold Mining Co.	17th April	35	Struck by the falling open of a swing door at the bottom of a puddling machine	...	...	1	A man was cutting a plat at the 200-foot level when a small piece of slate fell from the roof and struck him on the head, inflicting a severe scalp wound.
Sandhurst	...	Sandhurst	...	New Chum and Victoria Co.	17th April	36	Fall of slate underground	...	...	1	A keg of powder had just been sent below and stored in a suitable place, when a man went to fill two canisters with the powder, and he placed his candle, which was stuck in a piece of clay, against a prop immediately over the keg; he had filled one tin and was going to the plat with it, when the candle must have fallen into the keg, causing the powder to explode and set fire to the unfortunate man's clothes, and to burn his head and body very severely.
Ballarat	...	Ballarat	...	Major Co.	17th April	37	Explosion of a keg of gunpowder	...	...	1	The injured man ignited the fuze to two holes charged with gunpowder; one charge missed fire, and, after waiting, as alleged, three-quarters of an hour, the man returned, when the "missed fire" charge suddenly exploded, inflicting slight injuries to his face and body. Samples of the fuze in use in the mine were examined by the Inspector of Explosives, but under the most favorable circumstances he could not make any of them smoulder more than a few minutes. He remarked, that "if the miner's statement was correct, there was no way of accounting for the accident, except that the fuze remained lighted and burnt slowly across a break in the powder core."
Sandhurst	...	Eaglehawk	...	Catherine Reef United Co.	22nd April	38	Explosion of a blast (gunpowder)	...	...	1	Verdict at magisterial enquiry:—"Accidental death." Deceased was engaged with his mate in timbering a drive about 9 feet high; the men had room for about two sets, and had just completed one set 7 feet high, leaving 2 feet between the top of the timbering and the roof of the drive unpacked, consequently the roofing gave way and caused injuries which terminated in the death of the man. The Inspector reported that "the manager used all reasonable precaution to prevent accidents, and he (the Inspector) was of opinion that the men were guilty of negligence."
Ballarat	...	Creswick	...	Port Phillip and Colonial Quartz Mining Co.	26th April	39	Fall of reef from the roof of a drive	1	...	...	A man was in the act of emptying the contents of a truck into a puddling machine, when one of the rails upon which the truck was run from the brace broke, and the man fell along with the truck into the machine, a depth of about 5 feet, and injured the sinews of his leg.
Gippsland	...	Tarwin	...	Shakespeare Gold Mining Co.	28th April	40	Fall with a truck into a puddling-machine	...	...	1	

List of Accidents in the Mines of the Colony of Victoria during the Year ending the 31st December 1880—continued.

District.	Division.	Mine Owner.	Date of Accident.	No. of Accident.	Cause of Accident.	Killed.	Injured.	Remarks.
Ararat	Pleasant Creek	Great Northern Co.	1880. 29th April	41	Fall of mullock from the headwall of old underground workings	...	1	A tribute party from the No. 3 Crown Cross Co. went into the old workings of the Great Northern Co., presumably with the object of searching for payable quartz; and while there a mass of mullock fell from the headwall upon one of them, causing serious and severe injuries, and necessitating the removal of the sufferer to hospital. The man had only himself to blame for the accident, as he had no business in the dangerous old workings into which he had ventured.
Sandhurst	Sandhurst	Osing (deceased) and mate	29th April	42	Fall of earth at the surface in an open drain	1	...	Verdict at inquest:—"Accidental death." The deceased was engaged in cutting an open drain, about 8 feet in depth, when about two tons of earth gave way and fell upon and crushed him. The Inspector was of opinion that the deceased was to blame for the accident, as he cut the sides of the drain too vertically, and the ground which gave way was weakened and dangerous from old workings.
Beechworth	Indigo	W. E. French (deceased) and another	29th April	43	Fall of earth underground	1	...	Verdict at magisterial enquiry:—"Accidental death." The deceased was smothered by a sudden fall of about 5 tons of earth, while driving in dry ground about 31 feet deep. The Inspector reported that the accident appeared to him to be due to gross neglect; the man was working immediately under a water-course, and not the slightest precaution seems to have been exercised in securing the drive.
Castlemaine	Fryer's Creek	Renaissance Quartz Mining Co.	3rd May	44	Fall of a piece of reef casing from the roof of a drive 8 feet high, at the 110-foot level	...	1	The sufferer had commenced to remove mullock without first examining the roof overhead, when the fall took place, and broke one of his ribs; the man admitted that he alone was to blame.
Sandhurst	Sandhurst	Royal Oak Co.	4th May	45	Fall of earth from the roof of a drive, about 8 feet below the surface	...	1	The man was working out some spurs, when some ground suddenly fell upon him, causing slight bruises. The sufferer was engaged in timbering the drive when the accident occurred.
Ballarat	Creswick	New Australasia	4th May	46	Falling 45 feet down a jump-up	...	1	The man was engaged in hauling up timber by means of a windlass, when he accidentally stepped into the shaft, and falling to the bottom broke one leg and several ribs, and injured one arm.
Sandhurst	Heathcote	Butler and Alabama Co.	8th May	47	Fall down a shaft, 50 feet	...	1	A man was descending the shaft when he fell in consequence of the temporary removal of a ladder, which removal the "boss" of the shift had failed to make known to him. The man was very severely injured and shaken, and, as the Inspector considered the accident was caused by negligence on the part of the "boss," or man in charge of the shift, proceedings were taken against him under section 11 of the Act, which resulted in a verdict of £10 with £9 9s. costs, the fine being awarded to the sufferer.
Ararat	Pleasant Creek	Big Hill Co.	10th May	48	Fall of earth and rock from the roof of a tunnel, about 12 feet square	1	...	The deceased, a young lad, was engaged in carting stone from the face of the tunnel; he had backed his horse and dray into the tunnel and had commenced to load when a fall of earth and rock took place, which crushed the unfortunate lad to death. At the magisterial enquiry it was elicited "that the ground was considered perfectly safe," but in view of two previous fatal casualties which had occurred in the mine since the beginning of the year 1878, and also of a special report on the cause of the accident by the Senior Inspector of Mines; proceedings were instituted under general rule 8 of section 6, Act No. 583, and a verdict was obtained against the company of £20, with £10 16s. costs.
Castlemaine	Tarrengower	Great Nelson Quartz Mining Co.	10th May	49	Falling down a shaft...	1	...	Verdict at magisterial enquiry:—"The deceased came by his death through the block hooks giving way while he was engaged in lowering pumps, which threw the deceased down the shaft." The magistrate was of opinion that no one was to blame. It appears that the deceased, who was an experienced engineer, was engaged in placing a column of pumps, and was superintending from the surface ladder the lowering of about one ton of material when the hook of the upper pulley-block broke, and the suspended pipes, with the blocks, fell down the shaft, carrying away the ladder upon which the deceased was standing. The man was found in an insensible state on the rod stays, about 30 feet down the shaft. The pulley-blocks were new, and had been approved by deceased before purchase.
Maryborough	Avoca	Working Miners G. M. Co.	17th May	50	Fall of timber down a shaft	...	1	The accident occurred in the main drive, at the south end of the mine; while a man was engaged in sending props up a monkey rise to the blocking-out men, a prop which was placed on end against the

Beechworth ...	Beechworth ...	Ah Chun and others	26th May	51	Explosion of a blast (gunpowder)	...	1	side of the drive was displaced in some manner, and in falling struck him on the head; the injuries were very trivial, and the Senior Inspector did not think it should be included in the list of accidents.
Sandhurst ...	Eaglehawk ...	New Argus Gold Mining Co.	27th May	52	Fall of earth from the surface in an open cutting, 12 feet deep	...	1	The sufferer was engaged with his mate in blasting granite rock in a tail race, at a depth of about 8 feet from the surface, and was tamping with an iron rod, when the blast exploded and severely injured him by fracturing one leg and both elbows. The sufferer was ignorant of the fact that the use of an iron tamping bar was dangerous and prohibited, and, as he paid a heavy penalty for his ignorance, a careful warning was deemed more expedient than a prosecution.
Sandhurst ...	Sandhurst ...	O'Leary's Tribute Co.	31st May	53	Fall of slate from the roof of a slope	1	...	The boy who was injured was working with his mate, when the ground suddenly fell and crushed him, breaking three of his ribs and bruising his body. The Inspector reported that there was no mining manager in the claim, and that the injured boy and his mate were tributers: and further that he attributed the accident to want of judgment, neither of the two being practical miners.
Ararat ...	Pleasant Creek ...	Nos. 2, 3, 4, and 5, South Scotchman's Co.	3rd June	54	Explosion of a blast (gunpowder)	...	1	Verdict at inquest:—"Accidental death." The deceased, who was mining manager of a tribute party, was assisting to put up a set of timber, and, while he was stooping, about 3 cwt. of slate fell from the roof and struck him, causing fracture of the spine and other internal injuries. The ground opened was in the 50-foot level, about 16 feet from the shaft, and was 10 feet in length, 7 feet high, and 6 feet wide, giving about room for the set of timber which was being erected. The deceased had sounded the ground a short time previous to the accident. The mine was reported to be well and securely timbered.
Castlemaine ...	Fryer's Creek ...	A. Mather and Sons	7th June	55	Fall of timber and earth from the roof of a blocked-out drive	1	...	Three shots had been fired in the flat reef face, and two of them were heard to go off. The injured man unwisely went to examine the third shot, when it also went off, forcing pieces of quartz into his chest and head. The Inspector reported that "no one but the sufferer himself was open to blame on account of the accident."
Ballarat ...	Creswick ...	South Clunes Q. M. Co.	9th June	56	Fall of rock in a pass...	1	...	Verdict at magisterial enquiry:—"Accidentally suffocated by a fall of earth and slabs in a tunnel." Deceased was working with his father in one of the faces about 250 feet from the mouth of the tunnel, and was assisting in taking out slabs from a worked-out face, when three sets of timber and a quantity of earth fell partly on deceased, causing fatal injuries.
Castlemaine ...	Taradale ...	Ironstone Hill Lead G. M. Co.	15th June	57	Fall of a "cup-piece" from the timber truck	...	1	Verdict at magisterial enquiry:—"Accidentally killed by a fall of earth in the South Clunes mine, and no one was to blame." The deceased and his mate were "logging" up a pass, the height of the drive being 3 feet 6 inches above the top logs of the pass, and, as only one man could work at a time, deceased sat down in the place where his mate, who had just relieved him, had been sitting, when, without any warning, a piece of mullock, about 2 feet in width, fell on to the shoulders of deceased and doubled him forward and broke his back.
Sandhurst ...	Sandhurst ...	Great Southern Co.	17th June	58	Fall from stage underground (320-foot level)	...	1	A man was turning a truck on the turn-table in the main drive, when a piece of timber fell out of the truck upon his foot, breaking a toe.
Gippsland ...	Crooked River ...	J. P. Quigley and the deceased, P. Vivian	17th June	59	Falling in of the roof of a drive	1	1	The man was on a stage breaking down some quartz, when the slab upon which he was standing broke, and the sufferer fell and was considerably injured by splinters from the broken slab entering his arm.
Sandhurst ...	Sandhurst ...	Garden Gully United Co.	19th June	60	Fall of a piece of slate down a shaft	...	1	The deceased and the injured man, his mate, were engaged in removing a stone from the face of a tunnel in their alluvial claim, when the stone fell and came in contact with one of the props, and displaced it and caused the roof to fall in, killing one man and breaking his mate's arm. A magisterial enquiry was held, and the evidence adduced favored the opinion of the Inspector of Mines, that "the occurrence was purely accidental."
Beechworth ...	Beechworth ...	G. Elmer and party	19th June	61	Fall down a shaft 10 feet deep	...	1	The man was working immediately below the 745-foot level, assisting in sinking the shaft, when a piece of slate fell striking him on the hip and inflicting a slight bruise. The Inspector could impute no blame to the management, as the injured man informed him that "it was his own fault for not taking down the bit of loose ground."

List of Accidents in the Mines of the Colony of Victoria during the Year ending the 31st December 1880—continued.

District.	Division.	Mine Owner.	Date of Accident.	No. of Accidents.	Cause of Accident.	Killed.	Injured.	Remarks.
Ararat	Barkly	Lady Barkly Co. ...	1880. 21st June	62	Fall of rock and slabs underground	1	1	The manager, finding that no "dirt" was being sent up from the mine, went down the shaft to ascertain the cause, and found that a fall of earth had occurred in the 96-foot level, at a place about 90 feet from the shaft, where two men were working. Assistance was at once procured and the men were extricated, but one of them died on the way to hospital. The survivor informed the Inspector that the accident was caused by the wedge over the cap-piece having been knocked out, which caused the laths to give way. The verdict on the deceased was "Accidental death." His mate's injuries were not of a serious character.
Ballarat	Ballarat	Central Hurdfield Co.	26th June	63	Slipping down a rope in a shaft	...	1	The company had just started a whim, which appeared to work well, when the cage, in being lowered down the shaft, stuck at a depth of about 30 feet from the surface. The injured man went down by the rope to see the cause of the obstruction, and, instead of waiting until hauled up, he ventured to climb up the rope, and when about 10 feet from the surface he slipped, and falling upon the top of the cage broke his leg.
Sandhurst	Eaglehawk	Johnson's Reef Co. ...	26th June	64	Fall of rock from the roof of a drive	1	...	Verdict at inquest:—"Accidental death." Deceased was working in the "backs," between the 530 and 600-foot levels, about 150 feet from the shaft, when some of the roof suddenly fell upon him. The Inspector reported that he considered the occurrence a pure accident, and that it was caused by a vein of quartz slipping from a sandstone back. The ground appeared to be perfectly safe, and timbering to be quite unnecessary.
Ballarat	Creswick	New Australasian Co.	5th July	65	Falling with a truck down a shoot, 25 feet deep	1	...	Verdict at magisterial enquiry:—"Deceased died from fracture of the spinal vertebra, from accidentally falling down a shoot upon his head, and there was no evidence of negligence on the part of the officers or servants of the company." The accident does not appear to have been witnessed by any person. Deceased was missed by his mate, who had previously heard the truck falling down the shoot, and a search was instituted, which resulted in finding the lifeless body. In respect to the accident, the Inspector said, "I can only account for it by thinking that, after emptying the truck, he (the deceased) brought it down on the rails with such force as to cause the front wheels to bound up and go over the tops on the rails into the shoot, and that the man, in trying to save the truck, was dragged into the shoot with it."
Ballarat	Ballarat	Sergeant's Freehold Q. M. Co.	6th July	66	Machinery in motion ...	1	...	Verdict at magisterial enquiry:—"The boy was killed by the fly-wheel of the engine, and no blame was attributable to the employés of the company, the usual precautions having been taken." The deceased, who was 15 years of age, was engaged in "feeding" the battery; he went to the steam-chest to warm a "billy" of tea, and when passing the fly-wheel he seemed to trip and fall backwards; his head was struck by the revolving wheel, which dragged his body under the floor. The fly-wheel was fenced in the ordinary manner by having a rail about 2 feet 6 inches high and a 6-inch skirting-board at the bottom, so as to prevent any person walking against it.
Sandhurst	Eaglehawk	Pascoe's Co. ...	8th July	67	Fall 35 feet down a shaft	...	1	A man was ascending the shaft by the ladder-way, when one of the rungs of the ladder broke in his hand, and he fell away to the bottom, and received injuries which resulted in the dislocation of an ankle, "bruises" to his body, and a severe cut in his right eye. The Inspector managed to secure some pieces of the broken rung, and these, on examination, proved to be quite rotten. Proceedings were instituted against the mining manager, who was fined £5, with £2 5s. costs, for breach of sub-sec. 12 of sec. 6, Act 583. The amount of the fine was awarded to the sufferer.
Castlemaine	Fryer's Creek	New Era Quartz Mining Co.	9th July	68	Fall of earth, &c., underground	1	...	Verdict at inquest:—"Death was caused by a quantity of earth and quartz falling upon the deceased whilst at work in the 70-foot level of the New Era mine, owing to proper care not having been taken in timbering the ground." The Inspector was of opinion that the accident was caused by defective timbering of the roof of the stope, and proceedings were instituted against the underground foreman under clause 8, sec. 6, Act No. 583, but evidence was adduced which led to the dismissal of the charge. The presiding magistrate remarked "that negligence had not been proved against the defendant, but that the accident appeared to have been caused by the negligence and fool-hardiness of the deceased."

Ballarat	...	Ballarat	...	Wilson's Freehold Co.	10th July	69	Explosion of a blast (gunpowder)	...	1	The injured man was putting powder into a horizontal hole which he had just drilled in quartz, and, when forcing it "home" with a copper tamping-bar, the charge exploded, and severely injured his face. The Inspector reported that he had examined the part of the drill-hole left after the explosion, and found it to be very ragged; he was of opinion that the accident was caused through the friction of some pieces of quartz producing fire. He recommended the adoption of paper cartridges as a preventive against accidents of a similar nature.
Castlemaine	...	Hepburn	...	Thomas (deceased) and another	12th July	70	Fall of earth at the surface	1	Verdict at inquest:—"Accidental death." Deceased was at work at the bank of a sluicing face, which was from 14 to 16 feet high, and consisted of partly worked out and abandoned ground, and when standing about 8 feet from the face the earth fell upon and buried him. The ground had not been undermined. When the fallen earth was being washed away a prop was discovered, which favored the supposition that the water had penetrated through the old ground, softened the earth about the prop, and caused the fall of the bank. The Inspector could not attach blame to any person in connection with the accident. A man was working down some ground and had just removed a piece of timber, which caused the mullock to roll over and dislocate his ankle. No blame could be attributed to any person.	
Sandhurst	...	Sandhurst	...	New Chum and Victoria Co.	14th July	71	Fall of a piece of mullock in the stopes, at the 400-foot level	...	1	The face on which the man was working had two veins of quartz in it, and having undermined the bottom vein too far, the slate reef between the two veins slipped down, and, falling on his leg, broke it between the ankle and the knee. The sufferer was alone to blame for the accident. The ground was well timbered.
Ballarat	...	Ballarat	...	Duchess Co.	20th July	72	Fall of slate from the face of a drive	...	1	The injured man was ascending a shaft in a cage along with his mate, when some picks, which he had placed in the cage, were dislodged; these, striking the side of the shaft, inflicted flesh wounds and bruises on the sufferer, who was alone to blame for the accident, as the picks should not have been put in the cage in which he was ascending.
Sandhurst	...	Eaglehawk	...	St. Mungo Co.	21st July	73	Ascending a shaft in a cage containing picks	...	1	Verdict at inquest:—"Accidental death." The deceased was engaged in working down a piece of ground at the 345-foot level, when a quantity suddenly came away, falling upon his leg and inflicting injuries which eventually caused death. The man had "sounded" the ground immediately before the accident occurred.
Sandhurst	...	Eaglehawk	...	York and Durham Co.	23rd July	74	Fall of rock underground	1	...	The man was inserting the end of a fuze into a dynamite cap, when he incautiously touched it with his candle, and caused an explosion of the cap. The man's hand was severely cut and bruised. The accident was due to the sufferer's own carelessness.
Sandhurst	...	Sandhurst	...	North Garden and Passby Co.	23rd July	75	Explosion of a dynamite cap	...	1	Verdict at magisterial enquiry:—"Accidental death, and that there was no negligence on the part of the manager or workmen." Deceased was assisting to log up a pass leading from the No. 5 level, when a large stone, about one ton in weight, fell over from the hanging wall and jammed him against the pass timbers, crushing his head and chest so severely that he died within an hour from the time of the accident.
Gippsland	...	Stringer's Creek	...	The Long Tunnel G. M. Co. Registered	24th July	76	Fall of rock underground	1	...	The injured man was at work "blocking out" at the bottom of the shaft of his alluvial claim, 13 feet deep, when about 4 cwt. of earth fell upon him, severely bruising his right shoulder. The Inspector reported that the accident was solely attributable to the sufferer's negligence in not timbering the ground.
Maryborough	...	Maryborough	...	Sartorio (deceased) and another	26th July	77	Fall of earth underground	...	1	The accident occurred at the 300-foot level, through the sufferer foolishly attempting to dry some fine gunpowder on a sheet of iron by holding a candle underneath, when the iron became heated to such an extent as to cause the powder to ignite. The man was only slightly injured.
Sandhurst	...	Eaglehawk	...	Kneebone and Jeffrey's (Tribute Co.)	28th July	78	Explosion of gunpowder	...	1	Verdict at inquest:—"Accidental death." Deceased was fossicking at the side of a creek or sludge channel, and had just commenced to undermine for the purpose of taking out some washdirt, when a quantity of earth suddenly fell upon him and buried him. The deceased was working by himself, and the ground was wet and extremely dangerous.
Sandhurst	...	Sandhurst	...	...	29th July	79	Fall of earth at surface	1	...	Verdict at inquest:—"Accidental death." Deceased, who worked in his claim occasionally, was standing on a stage in the shaft, about 30 feet from the surface, repairing the shaft, when a quantity of earth fell upon the stage, precipitating it with the man to the bottom of the shaft, which was about 60 feet deep from the surface. The stage was erected by deceased about eight years previously, and the timbers had become quite rotten. The Inspector considered it an act of madness to venture to work in such an old and unsafe shaft.
Sandhurst	...	Eaglehawk	...	Chadwick (the deceased)	30th July	80	Falling down a shaft	...	1	The sufferer was working down some ground in proximity to the mouth of the winze, and, in getting out of the way of some falling material, he tumbled down the winze. The Inspector remarked that the injured man, previously to commencing work, should have covered over the winze, as he had plenty of timber at hand which could have been used for that purpose, and that the accident was caused by his own recklessness.
Sandhurst	...	Eaglehawk	...	New Moon Mining Co.	2nd Aug.	81	Falling 30 feet down a winze	...	1	

List of Accidents in the Mines of the Colony of Victoria during the Year ending the 31st December 1880—continued.

District.	Division.	Mine Owner.	Date of Accident.	No. of Accidents.	Cause of Accident.	Killed.	Injured.	Remarks.
Beechworth ...	Buckland ...	Hewitson Bros.' ...	1880. 6th Aug.	82	Falling down a shaft a distance of about 40 feet	1	...	Verdict at magisterial enquiry:—"Accidental death." The deceased (a boy), accompanied by one of the claim owners, while attempting to ascend a shaft from a drive at about 10 feet from the surface, missed his footing on the ladder, and fell to the bottom. It is supposed he was misled by some bags which covered the shaft.
Ballarat ...	Ballarat ...	...	9th Aug.	83	Fall of an embankment at the side of a creek	1	...	Verdict at magisterial enquiry:—"Accidental death." The deceased was fossicking in the vicinity of the White Horse Ranges, and was in a gully, at the bottom of a deep and narrow channel which had been worn away by the action of storm-water, when, without warning, the side gave way, and about 5 tons of earth fell on his head, and killed him instantly.
Maryborough ...	Avoca ...	Homebush United G. M. Co.	9th Aug.	84	Jammed between a wood-truck and the timbers of a drive	...	1	The accident occurred through the man having stepped on to the wood-truck, which was at the entrance of the water lodgment from the main drive; the truck started with him down the incline, and his knee was caught between the truck and a set of timber. The sufferer, whose knee was severely bruised, was alone to blame for the accident.
Castlemaine ...	Tarrngower ...	South German Reef Tribute Co.	9th Aug.	85	Explosion of litho-fracteur	...	1	The injured man was thawing frozen cartridges, and had placed them in a sheet-iron can within a kerosene tin containing some boiling water. Contrary to instructions, he placed the tin on the forge of the smith's shop, and was leaving the smithy in order to land a bucket at the shaft, about 20 feet away, when the litho-fracteur, about 2 lbs., exploded. The man received some injuries to his head, and the roof was blown off the smithy. The sufferer acted with indiscretion, but, in view of the injuries he had received, it was deemed inadvisable to do more than simply to caution him.
Ballarat ...	Buninyong ...	G. Carnegie, sen., and others	21st Aug.	86	Falling a depth of 30 feet down a shaft	...	1	The sufferer, a boy, aged 15 years, was being lowered, by his father, down a shaft upon a rope; when down about 35 feet he took his foot out of the loop of the rope, and his arms being unable to sustain him, he fell to the bottom, fracturing his thigh. Proceedings were instituted against the father for a breach of sub-section 17 of section 6 of Act No. 583, which resulted in a conviction, and a fine of 10s., with £2 2s. costs.
Beechworth ...	Wood's Point ...	Hope Mining Co. ...	26th Aug.	87	Machinery in motion ...	1	...	Verdict at magisterial enquiry:—"The deceased came by his death through being caught between the cog-wheels of the Hoop crushing battery. There is no evidence to show how he got between the wheels, and no blame attaches to any one." The deceased, after he had apparently been dead several hours, was found on the gangway below the gearing, between the cam-shaft and the water-wheel. The evidence adduced at the enquiry, and the expressed opinion of the Inspector, point to the conclusion that the unfortunate man came by his death from a reckless habit of jumping about the machinery, and of which he had many times been cautioned.
Castlemaine ...	Hepburn ...	Menotti's Co-operative Freehold Tunneling Co.	26th Aug.	88	Fall of washdirt from the roof and side of a drive	...	1	Two men were working in a tunnel level, at about 600 feet from the entrance; they were placing boards for some washdirt which required taking down, when about two trucks full fell upon one of them, causing a compound fracture of the lower jaw, and other injuries. The Inspector reported that "from the nature of the information obtained, and from his inspection of the place, he thought the injured man only was blamable for the occurrence of the accident."
Ballarat ...	Ballarat ...	North Hurdfield Extended Co.	27th Aug.	89	Fall of a piece of rock down a shaft 115 feet deep	...	1	The man was engaged with his mate in slabbing a shaft, and was filling in rock behind the slabs, for which purpose stone was being lowered from the surface. It appeared that two boys who were working at the windlass had filled the bucket too full, and the full bucket in going down struck the empty bucket coming up, and caused a piece of rock to roll off, which fell upon the sufferer and inflicted a serious scalp wound. The Inspector reported that "he had been expecting accidents of this nature for some time, as at most of the shafts which were being sunk only boys were employed on the top, who neither knew nor cared what they are doing."
Beechworth ...	Wood's Point ...	All Nations Q. M. Co.	28th Aug.	90	Fall of rock underground	...	1	The man was at work in a slope by himself, and was engaged in putting in a prop when a stone fell upon his shoulder, and dislocated his arm. The Inspector reported that the ground was "dangerous," but that the usual precautions against accident had been taken.
Ballarat ...	Creswick ...	Chinese co-operative party	30th Aug.	91	Falling in of a shaft 14 feet deep	1	...	Verdict at magisterial enquiry:—"Accidentally killed." Deceased and his mates, all Chinese, were without the aid of timber, sinking a shaft, which was surrounded by broken ground, and close to a small

Sandhurst	Sandhurst	Hustler's Q. M. and Drainage Co.	1st Sept.	92	Fall of rock underground	1	...	...	One side of the shaft fell in, completely covering deceased, who was not extricated for nearly two hours, when life was found to be extinct.
Ballarat	Blackwood	Sultan Q. M. Co.	3rd Sept.	93	Fall of rock underground	1	...	...	The man was working at the 330-foot level, when a large piece of sandstone and quartz suddenly fell and struck him, causing a scalp wound and the loss of one finger. The Inspector reported that there was no blame to be imputed to the manager.
Castlemaine	Tarrongower	Eaglehawk Limited Co.	7th Sept.	94	Falling about 120 feet down a shaft	1	...	...	Verdict at enquiry:—"Accidental death." Deceased and his mate were commencing to work in a drive below the 400-foot level; they began to remove some loose stone, and while thus engaged, a piece of rock, 5 feet long, 2 feet deep, and one foot thick, slipped from the face and fell upon the deceased, crushing his head and causing instant death. The mine was well timbered, but it was thought that hardly sufficient caution had been shown in sounding the ground.
Sandhurst	Sandhurst	Barker and Craig's Lease	7th Sept.	95	Fall of rock in an open cutting, about 15 feet in depth	1	...	...	Verdict at magisterial enquiry:—"Accidental death." Deceased was working in the pump shaft, at a depth of about 200 feet, and when in the act of tightening up a bolt with a screw-wrench, he disappeared down the shaft, and was afterwards found lying on one of the sollars. The Inspector thought it probable that the screw-wrench had slipped on the nut of the bolt, and caused deceased to fall.
Sandhurst	Eaglehawk	Catherine Reef United Co.	8th Sept.	96	Cage accident	...	...	...	Verdict at inquest:—"Accidental death." Two men had just taken a tribute. After inspecting the ground which they proposed to work, and finding that a portion of it was unsafe, they got a slab to secure it. They were "gadding," and one, having finished his turn, was relieved by the other, upon whom a quantity of ground immediately fell and buried him. Deceased had been an engineer, and the Inspector was of opinion that he had no practical knowledge of mining, otherwise he would not have gone where had to take the ground down, as it could have been removed from another place with perfect safety.
Sandhurst	Sandhurst	Garibaldi Co.	9th Sept.	97	Fall of a piece of quartz down a winze at the 250-foot level	...	...	...	The injured man was unwisely leaning over one of the compartments of a shaft, sticking some clay in the corner of it, when the descending cage struck him, and cut his head. The Inspector reported that the man would have been forced down the shaft by the cage to a depth of 200 feet, but that the opening to the shaft at the place where he was standing had been properly fenced.
Maryborough	Maryborough	New Kong Meng G. M. Co.	10th Sept.	98	Falling part of the way down a "jump up" 34 feet in height	2	...	...	The injured man's mate was hauling up quartz out of a winze with a bucket, when a piece accidentally rolled back from the level, and falling down the winze struck the sufferer, and inflicted a slight scalp wound. The Inspector reported that the injured man and his mate were tributaries, and that the accident was caused by their own carelessness.
Sandhurst	Eaglehawk	Constellation Co.	11th Sept.	99	Falling down workings, about 25 feet	...	...	...	A burst of water and drift came from a wash-drive near to a reef-drive in which the men were at work. The men hearing the "burst" of water in the wash-drive left their work at once, and were descending the ladders to the main drive, when the rush of water and sand knocked them off the ladder, causing slight injuries to each of them. The men, who were first-class miners, stated that "the timbering of the wash-drive could not have been better done, and that no blame could be laid to the manager," which remarks were endorsed by the Inspector.
Ballarat	Ballarat	Smith's Freehold Co. No Liability	14th Sept.	100	Fall of material down a shaft	1	...	...	The man was standing on a ladder platform when it suddenly broke away, and he fell, sustaining bruises to his shoulder and a slight shock to his system. The Inspector reported that "the ladder platform was to all appearance perfectly safe; the breaking away of the wood was caused by what is known as "dry rot." The Inspector had frequently travelled over the same ladder-way.
Ballarat	Ballarat	Duchess Q. M. Co.	15th Sept.	101	Fall down a winze 18 feet deep	1	...	...	Verdict at enquiry:—"Accidental death." Deceased was at work at the 290-foot level assisting to repair the shaft, when a plank fell from the poppet-heads upon his head, completely smashing the back of his skull, and causing instant death. It appears that it was found necessary to raise the brace about 5 feet, and, in order to protect the men working in the shaft, some temporary coverings of miscellaneous boards were placed over the mouth of the shaft, and also at the 230-foot level. One of the men working near the pulley-wheels at the poppet-heads was trying with a crowbar to pinch a skid from a board to which it was nailed, when suddenly both skid and board fell, breaking through the coverings of the shaft, and striking deceased. An action was instituted by the Inspector against the management, under section 11, Act 583, which resulted in a fine of £10, with £5 6s. costs.

Verdict at inquest:—"Accidental death." Deceased was going to work in a drive 18 feet below the 250-foot level. There was a shaft or winze connecting the two drives, which was slabbed, and the sets, which were only 6 inches apart, answered for a ladder. Deceased, instead of getting upon the ladder-way in the usual manner, took hold of a rope used for hauling tools, and swung himself into the winze, when the rope broke and he fell, causing what at first appeared to be only a slight shock to his system. He, however, died within 11 days from the accident. The Inspector had frequently been up and down the winze, and considered it perfectly safe.

List of Accidents in the Mines of the Colony of Victoria during the Year ending the 31st December 1880—continued.

District.	Division.	Mine Owner.	Date of Accident.	No. of Accident.	Cause of Accident.	Killed.	Injured.	Remarks.
Castlemaine ...	Tarrngower	...	1880. 16th Sept.	102	Fall of earth from the bank of a creek claim	1	...	Verdict at magisterial enquiry:—"The deceased came by his death through the fall of a bank of earth while he was engaged in mining at Sandy Creek, near Maldon." The man was fossicking for gold in the bank of the creek, which, at the place of the accident, was 12 feet high, when, it is supposed that, from incautious undermining, from two to three tons of earth fell upon him, burying him and causing death.
Ballarat ...	Ballarat	New Burra Burra Co.	23rd Sept.	103	Cage accident	1	...	Verdict at magisterial enquiry:—"Accidental death, the result of deceased's own thoughtlessness." Deceased, who had been engaged in carting quartz from various claims, from some unaccountable reason, placed his head between the boards at the surface of the shaft, and a descending cage struck and almost completely crushed it. The Inspector reported "that the occurrence looked more like suicide than a mining accident."
Ballarat ...	Smythesdale...	Racecourse Co.	27th Sept.	104	Falling in of a drive	1	...	Verdict at magisterial enquiry:—"Accidental death." Deceased and his mate were working in a blocking drive close to the main drive. The ground appeared, from warning noises, to be settling, and the men ceased working for a short time. When the deceased resumed work in the "face," the cap-piece immediately over his back suddenly broke, and the ground collapsed and buried him. The Inspector subsequently examined the broken cap-piece, and found it to be of green sound timber.
Sandhurst ...	Sandhurst	Shenandoah Co.	28th Sept.	105	Fall down a stope	...	1	A man was "shifting" some broken quartz, when he slipped and fell about 5 feet down the stope. The injuries received were of so light a nature that the Inspector hardly deemed them worthy of record as an accident.
Sandhurst ...	Kilmore	Beaconsfield G. M. Co.	29th Sept.	106	Explosion when thawing frozen lithofracteur	...	1	A miner was in his hut engaged in heating some frozen lithofracteur cartridges on a shovel, when they exploded and burnt him badly about the face. The sufferer could only attribute his own want of caution as being the cause of the accident.
Maryborough...	Inglewood	Comet Q. M. Co. No Liability	1st Oct.	107	Fall of earth in a drive	...	1	The sufferer was working alone driving in the 96-foot level, when some of the overhanging earth fell upon him, fracturing one leg and causing injuries to his head and body. The Inspector reported this accident occurred through the carelessness of the sufferer in undermining the ground too far, and that no person but himself was to blame.
Sandhurst ...	Eaglehawk	Virginia Co.	1st Oct.	108	Falling a distance of 304 feet down a shaft	1	...	Verdict at inquest:—"Accidentally killed." The deceased, who was a young and inexperienced miner, was going with his mate down the ladder-way, in order to work in a cross-cut at the 654-foot, or bottom level. They had reached the 350-foot level, when the deceased, in attempting to step over one of the compartments of the shaft, fell to the bottom. His lifeless body was recovered by means of grappling irons from the well after the lapse of about an hour. The Inspector reported that "the accident was entirely due to want of care."
Beechworth ...	Buckland	Tin Long and others	5th Oct.	109	Collapse of a drive	2	...	The two men were working in a drive putting in timber for the sets, when the drive suddenly fell in from the surface (about 20 feet deep). No person actually witnessed the accident. The Inspector was of opinion that the men were standing erect at the time of the accident, and were driving the laths overhead, and that the sets of timber must have slipped during the process of driving. The Inspector remarked—"As a rule, the Chinese do not make good underground miners, and, in fact, they are rarely seen at such work in the district."
Sandhurst ...	Eaglehawk	United Devonshire Co.	19th Oct.	110	Fall of 25 feet down a winze	...	1	The injured man, who was the mining manager, widened an iron S hook, when cold, and unwittingly fractured it. He then used the hook for suspending a ladder in a winze, and on stepping upon the ladder the hook broke, and the ladder fell away with him. The accident was occasioned through the sufferer's own want of caution.
Sandhurst ...	Sandhurst	Windmill Hill Co.	20th Oct.	111	Fall of 55 feet down the pump shaft	...	1	The injured boy was going down the ladders from the 1,050-foot level in the pump shaft, when he dropped his candle, and in trying to catch it missed his hold, and fell, receiving bruises to his body of a not very serious nature, and also a slight cut on his head. The Inspector, in his report, remarked "that the ladders were not used to travel on, the miners being raised and lowered by machinery, and that the accident was the result of the boy's own carelessness."

Sandhurst	...	Sandhurst	...	United Hustlers and Redan Co.	21st Oct.	112	Fall of a piece of slat ^s from the hanging wall	...	1	The injured man was shovelling down some quartz at the 280-foot level, when a piece of slate fell from the hanging wall, and struck him on the back and hip, causing bruises, which were not severe. The mine was well timbered, and the occurrence was purely accidental.
Sandhurst	...	Sandhurst	...	Royal Golden Fleece Co.	21st Oct.	113	Fall of about 25 feet down a shaft	1	...	Verdict at inquest:—"The deceased died from injuries accidentally received by falling down a shaft."
Ararat	...	Ragian	...	South Defiance G. M. Co.	23rd Oct.	114	Being forced down a shaft by a cage	1	...	Deceased was engaged in cleaning out the shaft, which was 160 feet deep. Having called to his mate on top to "haul up," with the intention of being raised by the windlass to the first ladder, he put one foot in the bucket, which was attached to the windlass rope, and when he had been raised about 25 or 30 feet, from some unexplained cause, he fell, receiving injuries which resulted in his death.
Sandhurst	...	Sandhurst	...	G. G. Consolidated Co.	28th Oct.	115	Falling over of an iron bucket	...	1	Deceased was lying at the surface, with his head projecting over the shaft, and was talking to the men below, when the cage, in descending, caught him by the neck, jamming his head underneath the cage, and he was dragged to a depth of 120 feet, then the cage stuck within 12 feet from the bottom of the shaft, and the unfortunate man, who was quite dead, was extricated. The Inspector, who could impute no blame to the management, suggested that it should be made compulsory to keep a clear view between the engine-driver and the shaft.
Sandhurst	...	Sandhurst	...	Haw and party	30th Oct.	116	Fall of the roof of a drive	...	1	The injured man was filling a large iron bucket at one of the underground plats, when it canted over, and struck him on the leg, breaking it between the ankle and the knee.
Sandhurst	...	Sandhurst	...	New Chum Consolidated Co.	1st Nov.	117	Struck in the throat by a splinter when breaking a piece of quartz	1	...	The man was engaged in blocking out some ground at a depth of 45 feet from the surface, and about 50 feet from the shaft, when a portion of the roof of the drive fell upon him, injuring his spine. The Inspector reported that "the accident occurred either from the sufferer's own want of knowledge as a miner, or from his carelessness, as a few small props, which could have been easily put in, would have prevented the accident."
Ballarat	...	Ballarat	...	Washington Co.	8th Nov.	118	Fall of a piece of timber down a shaft	...	1	Verdict at inquest:—"Accidental death." Deceased was breaking a piece of quartz at the 660-foot level, when a small piece flew off, and striking him on the throat, punctured the sub-clavian vein, causing internal bleeding, which resulted in death.
Maryborough	...	Amherst	...	Union Gold Mining Tribute Co.	15th Nov.	119	Slipping and falling when underground	...	1	The injured man was descending in the cage, when a piece of batten, about 8 feet long, was dislodged from a portion of the shaft, about 250 feet above the cage, and, falling, broke through the cover of the cage, and struck the sufferer on the shoulder, inflicting a slight bruise. The iron cover of the cage was one-eighth of an inch thick. The Inspector expressed an opinion that it should be made compulsory to have the iron cage covers at least one-quarter of an inch thick. The shaft was reported to be in good condition, but, as the water in this mine had proved very destructive to iron, it was presumed that the nails driven into the batten had become eaten away by rust.
Ballarat	...	Blackwood	...	Town Reef Co.	15th Nov.	120	Fall of a piece of reef from the side of a drive	...	1	The injured man, who was the mining manager, was assisting the captain of the shift to make an "opening-out drive" from an old main drive, and when in the act of using a shovel both his feet slipped on the rails of the main drive, and he fell against the timbers, receiving slight injuries to his spine. The occurrence was purely accidental.
Ballarat	...	Buninyong	...	Dolcloth Co.	18th Nov.	121	Fall of a bucket down a shaft	...	1	The sufferer was one of a party of tributers working in the mine, and was engaged with his mates in cleaning out a drive which had been unworked for about seven years. The men in timbering a defective portion had just put in a prop, and had left to go to their dinner. The injured man turned back for something which he had left behind, and not returning, the other men went back to ascertain the cause, and found him under a piece of reef, with his left leg broken. The stone had come out from the side only 10 inches in front of a prop, which had just been put in.
Ballarat	...	Smythesdale	...	J. A. Linstrum (deceased) and Sons	22nd Nov.	122	Fall of an embankment at surface	1	...	The man was engaged in drawing slabs from the bottom of the shaft; he had lashed four of them in the bucket, which was hauled to the surface, and left hanging in the shaft, in which position the man at the surface unlashed the slabs, when the bucket dropped, cutting the sufferer's shoulder and bruising his face. The cause of the accident was chiefly owing to the careless manner in which the rope had been hooked.
Sandhurst	...	Sandhurst	...	Victoria Mining Co.	30th Nov.	123	Fall of slate from the footwall of a drive	...	1	Verdict at inquest:—"Accidental death." Deceased, and his two sons, aged respectively 15 and 12 years, were undermining a creek embankment, at a depth of about 6 feet from the surface; they had driven about 2 feet 6 inches, when a quantity of rock and earth fell on deceased, and caused injuries from which he died on the following day.

List of Accidents in the Mines of the Colony of Victoria during the Year ending the 31st December 1880—continued.

District.	Division.	Mine Owner.	Date of Accident.	No. of Accident.	Cause of Accident.	Killed.	Injured.	Remarks.
Ballarat	Ballarat	Burra Burra Co. ...	1880. 3rd Dec.	124	Cage accident	...	1	The man and his mate were in the cage, going below, when the cage stuck in the shaft, and before the engine-driver could take up the slack rope the cage fell away, and was brought up by a sudden jerk, which sprained the sufferer's ankle. The cause of the cage sticking was owing to the faulty and irregular construction of the shaft. A prosecution under sec. 11 of Act No. 583 was instituted against the management, but the case was dismissed.
Sandhurst	Englehawk	Aldinga Q. M. Co....	3rd Dec.	125	Falling down a shaft...	1	...	Verdict at inquest.—"Accidentally killed by falling from a ladder-way in the shaft," &c. The deceased, contrary to advice, went to work by himself in taking out stone at the 150-foot level. The shaft was 200 feet deep from the surface, and the body of the deceased was found at the bottom by a fellow tributer, whom deceased had relieved on the previous day. As the accident was not witnessed by any person, it was supposed that the unfortunate man had fallen off the ladder when ascending the shaft.
Ballarat	Smythesdale...	Wilson and Co., co-operative	3rd Dec.	126	Fall of a windlass down a shaft	...	1	The injured man and his mate were employed by a co-operative prospecting party to sink a shaft; they had erected a windlass stand of small saplings, about an inch and a half thick, which were stuck in the ground, without being properly stayed. The men managed to sink the shaft to the depth of 43 feet, when the sufferer, while being lowered by his mate, was precipitated to the bottom, a distance of 20 feet, the windlass, which jumped out from the stand, fell upon him, and fractured his skull. The Inspector reported that a more trumpery affair than the windlass stand he had never seen, and that he purposed taking proceedings against the responsible parties.
Gippsland	Stringer's Creek	Long Tunnel G. M. Co.	14th Dec.	127	Fall down a shaft	...	1	The sufferer was one of the contractors for sinking a main shaft from the 700-foot level. He had been landed at the seventh plat chamber, and on going from thence with others down the ladder to his work he fell, but what distance is not known. The injuries received by the man consisted of several scalp wounds. A statement giving the particulars of the accident was furnished by the sufferer to the Inspector, but little light was thrown upon the cause of the accident. The man stated that the ladders were safe to travel on, and that when he fell one mate was above him, and another immediately below him. He could not tell how he fell away, but so far as he knew it was purely by accident.
Ballarat	Ballarat	United Black Hill Q. M. Co.	14th Dec.	128	Fall of reef from the roof of a drive	...	1	The man was working in a stope, breaking down a vein of quartz, about 6 inches thick, when a wedge-shaped piece of stone came away from between two greasy heads, and, falling upon his leg, broke it. The ground was well and closely timbered, and no blame was attributable to any person.
Sandhurst	Sandhurst	G. G. Consolidated Co.	15th Dec.	129	Fall of a stone about 20 feet down a shaft	...	1	The man was working in the bottom of the shaft, when the stone fell upon his head, causing a fracture of the skull and concussion of the brain. It was thought that the stone came from one of the flanges of the pumps, having been probably deposited there from the effects of a blast, and that the vibration of the pumps caused it to fall. The injured man imputed no blame to anyone.
Maryborough	Dunolly	North Birthday Q. M. Co.	18th Dec.	130	Cage accident at the 400-foot level	...	1	The signal had been given to haul up the last truck of earth, and the cage had ascended about 6 feet, when the engine, which was also used for pumping, centered, or had insufficient steam for the lift; this caused the cage to descend, and as it did so it struck the man, who had just placed himself underneath it for the purpose of removing a bearer. The injuries received consisted of a compound fracture of the right ankle-joint, lacerated and contused wounds on the face, and strain of left ankle. The removal of the bearer was not within the man's duties, and under any circumstances he should have seen that the cage had ascended a safe distance. The Inspector considered that the sufferer was alone to blame for the accident.
Maryborough	Tarnagulla	United Specimen Hill and Phoenix Extended G. M. Co.	18th Dec.	131	Fail of slate in a drive at the 300-foot level	...	1	The man was engaged in trucking earth from a drive, which had just been opened out, when about 1 cwt. of stone slipped from the roof and, falling upon him, caused fractures of the right thigh-bone and two ribs, and displacement of one knee-cap. The height of the drive was 7 feet, and the work was not sufficiently advanced for timbering. The Inspector reported that "blame could not be attached to any one."

Maryborough	Amherst ...	Union Extended G. M. Co.	24th Dec. 132	Cage accident	...	1	The injured man was crossing the winding division of a shaft, contrary to the rules of the mine, when the descending cage struck him on the head, and forced him into the shaft. In falling, his foot was caught between the cage and the shaft timbers. He hung suspended for a few seconds, and then fell a distance of 55 feet into the well, sustaining no injury from the fall. His foot was, however, bruised, through being caught between the cage and the shaft timbers. The injured man was solely to blame for the accident.
Maryborough	Amherst ...	Union Extended G. M. Co.	24th Dec. 133	Machinery in motion...	...	1	The man was at his post driving the engine, and the cage was in the shaft within 10 feet from the surface, when one of the "spiders" burst at the centre. The driver put down the break, but that only stopped the fixed spider. The injured spider rapidly revolved, until the rope ran out, and broke from its lashings, when the arms of the spider flew off from its shaft, and displaced the fencing of the winding gear, a portion of which struck the man, breaking three of his ribs. The Inspector stated that he could not blame either the engine-driver or the manager.
Maryborough	Tarnagulla ...	Old Poverty Reef G. M. Co.	27th Dec. 134	Fall of pipes down a shaft through the straightening of a pulley-hook	...	1	The accident occurred at the 300-foot level in the following way:—The main hook attached to a pulley-block, which was being used in raising some pipes, straightened out, and caused the pipes to fall a short distance. The sufferer, it appears, was at work assisting to draw the pipes, and had his left foot on the edge of an opening in the boarding, between the pumping and the winding divisions of the shaft, while his right foot was on one of the bearers which supported the yokes for keeping the drawlift in place. In falling, the flange of one of the pipes struck the man, and threw him, and his hand was crushed between the descending bearer and the flange. Four fingers and part of his left hand were cut off. It was observed, on examination after the accident, that there was a fracture in the hook at the bend, probably due to faulty make, which fracture was not noticeable previous to the accident. The Inspector could not attribute blame to any one.

APPENDIX A.

TABLE showing the Number of Mining Accidents that have occurred in Alluvial and Quartz Mining in the several Divisions of each Mining District during the Year 1880.

(Compiled from information obtained in the Office of Mines.)

District.	Division.	Alluvial Mining.			Quartz Mining.		
		Killed.	Injured.	Number of Accidents.	Killed.	Injured.	Number of Accidents.
BALLAARAT	Ballaarat and Gordons ...	1	2	3	5	9	14
	Smythesdale ...	4	1	5	...	...	...
	Buninyong and Steiglitz ...	...	1	1	...	3	3
	Creswick ...	2	1	3	2	...	2
	Blackwood ...	...	...	...	1	2	3
	Total ...	7	5	12	8	14	22
BEECHWORTH	Beechworth ...	1	2	3	...	...	...
	Indigo ...	1	...	1	...	...	...
	Buckland ...	2	1	2	1	...	1
	Mitta Mitta and Yackandandah ...	...	1	1	...	...	...
	Jamieson ...	1	...	1	...	...	...
	Gaffney's Creek ...	...	...	...	...	...	...
	Wood's Point ...	...	...	...	1	1	2
Big River ...	...	...	...	...	...	...
	Total ...	5	4	8	2	1	3
SANDHURST	Sandhurst ...	2	2	4	7	16	23
	Eaglehawk and Raywood ...	...	...	...	5	11	16
	Heathcote and Waranga South ...	...	...	...	...	1	1
	Kilmore ...	...	...	...	...	1	1
	Waranga North ...	...	...	...	...	...	...
	Total ...	2	2	4	12	29	41
MARYBOROUGH	Maryborough ...	1	3	3	...	...	...
	Dunolly and Tarnagulla ...	...	...	...	...	4	4
	Inglewood and Wedderburne ...	...	1	1	...	...	...
	Amherst ...	...	3	3	...	...	...
	Avoca ...	...	2	2	...	...	...
	St. Arnaud ...	...	...	...	...	...	...
	Total ...	1	9	9	...	4	4
CASTLEMAINE	Castlemaine ...	...	1	1	...	...	...
	Fryer's Creek ...	1	...	1	1	3	4
	Taradale ...	...	1	1	...	...	...
	Hepburn ...	1	1	2	...	...	...
	St. Andrew's ...	...	...	...	...	...	...
	Tarrangower ...	1	...	1	2	2	4
	Total ...	3	3	6	3	5	8
ARARAT ...	Ararat ...	...	...	...	...	...	...
	Pleasant Creek ...	1	...	1	2	6	7
	Barkly ...	1	1	1	...	...	...
	Raglan ...	1	...	1	...	...	...
	Total ...	3	1	3	2	6	7
GIPPSLAND	Donnelly's Creek ...	...	...	...	...	...	...
	Russell's Creek ...	...	...	...	...	...	...
	Stringer's Creek ...	...	1	1	1	1	2
	Jericho ...	...	...	...	...	...	...
	Crooked River ...	1	1	1	...	...	...
	Omeo ...	...	1	1	...	...	...
	Mitchell River ...	...	...	...	...	...	...
Tarwin ...	...	2	2	...	...	...
	Total ...	1	5	5	1	1	2
	Grand Total ...	22	29	47	28	60	87

APPENDIX B.

TABLE showing the Names of Persons Killed by Mining Accidents in Victoria during the Year 1880, whether Married or Single, and the Number of Children left by them.

District.	Division.	Date of Accident.	Name.	Condition.	Number of Children.
		1880.			
Ararat ...	Pleasant Creek ...	8th January ...	George Gardiner ...	Married ...	Seven
Ararat ...	Pleasant Creek ...	9th January ...	Samuel Assprey ...	Single	
Sandhurst ...	Sandhurst ...	10th January ...	Henry Harrison ...	Single	
Ballaarat ...	Smythesdale ...	16th January ...	Yen Tuk ...	Married ...	(Wife in China)
Maryborough ...	Maryborough ...	17th January ...	Charles Faulkhead ...	Single	
Sandhurst ...	Sandhurst ...	3rd February ...	William McKay ...	Married ...	Ten
Beechworth ...	Jamieson ...	15th February ...	John Reynolds ...	Single	
Ballaarat ...	Smythesdale ...	13th March ...	Wong Ah Gee ...	Single	
Beechworth ...	Beechworth ...	On or about 3rd April	Gook Chung ...	Single	
Sandhurst ...	Sandhurst ...	10th April ...	Frederick William Baird	Single	
Ballaarat ...	Ballaarat ...	12th April ...	John Jennings ...	Married	
Ballaarat ...	Creswick ...	26th April ...	Alexander Mitchel ...	Single	
Sandhurst ...	Sandhurst ...	29th April ...	Omar Osing ...	Single	
Beechworth ...	Indigo ...	29th April ...	William Evans French	Single	
Ararat ...	Pleasant Creek ...	10th May ...	Michael Hayes ...	Single	
Castlemaine ...	Tarrangower ...	10th May ...	Hugh Knuckey ...	Married ...	One (not dependent)
Sandhurst ...	Sandhurst ...	31st May ...	John Cooney ...	Single	
Castlemaine ...	Fryer's Creek ...	7th June ...	Thomas Mather ...	Single	
Ballaarat ...	Creswick ...	9th June ...	Nicholas Penrose ...	Married ...	Six
Gippsland ...	Crooked River ...	17th June ...	Francisco Viviani ...	Single	
Ararat ...	Barkly ...	21st June ...	Joseph Scott ...	Single	
Sandhurst ...	Eaglehawk ...	26th June ...	Thomas Roberts ...	Married ...	Three
Ballaarat ...	Creswick ...	5th July ...	Michael Connell ...	Married ...	Eight (several not dependent)
Ballaarat ...	Ballaarat ...	6th July ...	James Hunter ...	Single (boy)	
Castlemaine ...	Fryer's Creek ...	9th July ...	George Murley ...	Married ...	Four
Castlemaine ...	Hepburn ...	12th July ...	James Thomas ...	Married ...	Five
Sandhurst ...	Eaglehawk ...	23rd July ...	George Crux ...	Single	
Gippsland ...	Stringer's Creek	24th July ...	James Mitchell ...	Single	
Sandhurst ...	Sandhurst ...	29th July ...	John Dragon ...	Married	
Sandhurst ...	Eaglehawk ...	30th July ...	Abraham Chadwick ...	Married ...	Three
Beechworth ...	Buckland ...	6th August ...	Charles Hartley Taylor	Single (boy)	
Ballaarat ...	Ballaarat ...	9th August ...	George Henry Lawrence	Single	
Beechworth ...	Wood's Point ...	26th August ...	Nicholas Woolcock ...	Married ...	Four
Ballaarat ...	Creswick ...	30th August ...	Ah Loy ...	Not known	
Ballaarat ...	Blackwood ...	3rd September	Edward Sullivan ...	Married ...	Five
Castlemaine ...	Tarrangower ...	7th September	John Rouse ...	Single	
Sandhurst ...	Sandhurst ...	7th September	William Hancock ...	Single	
Ballaarat ...	Ballaarat ...	14th September	George Curnow ...	Widower	
Ballaarat ...	Ballaarat ...	15th September	Daniel Carmody ...	Single	
Castlemaine ...	Tarrangower ...	16th September	Ah Wy ...	Single	
Ballaarat ...	Ballaarat ...	23rd September	George Dixon Walters	Single	
Ballaarat ...	Smythesdale ...	27th September	Thomas George Galvin	Single	
Sandhurst ...	Eaglehawk ...	1st October ...	John Benjamin Trevarrow	Single (boy)	
Beechworth ...	Buckland ...	5th October	Tin Long ...	Single	
			Ah Kong ...	Single	
Sandhurst ...	Sandhurst ...	21st October ...	Thomas James Dawson	Single	
Ararat ...	Raglan ...	23rd October ...	Henry Kruse ...	Single	
Sandhurst ...	Sandhurst ...	1st November ...	William Henry Robbins	Married ...	Five
Ballaarat ...	Smythesdale ...	22nd November	Joseph Alfred Linstrom	Married ...	Six
Sandhurst ...	Eaglehawk ...	3rd December ...	William Fauckner ...	Single	
Ballaarat ...	Smythesdale ...	3rd December ...	Donald McDougall ...	Single	

APPENDIX C.

LIST of Prosecutions under *The Regulation of Mines Statute 1877* during the Year 1880.

Where the Prosecution took place.	Date.	General Rules or Sections of Act No. 583 violated.	Result of Prosecution.	Remarks.
	1880.			
Maldon ...	15 Jan.	General rule vi., section 6 ...	Fine of 5s. with £4 10s. costs	
Sandhurst ...	26 Jan.	Section 13	Case dismissed	The Bench considered there were mitigating circumstances in this case
Maryborough	3 Feb. ...	General rule vi., section 6 ...	Fine of £3 with £2 costs	
BallaaratEast	6 May ...	General rule xvi., section 6 ...	Fine of 1s. with £1 3s. 6d. costs ...	Nominal fine only
Sandhurst ...	11 May	Paragraph (b), general rule ii., section 6	Fine of £1 with £2 2s. costs ...	See accident No. 31
Creswick ...	11 May	General rule xvi., section 6 ...	Fine of £20 with £3 3s. costs	
BallaaratEast	13 May	General rule viii., section 6	Fine of £5 with £2 2s. costs ...	See accident No. 32
Stawell ...	16 July	General rule viii., section 6	Fine of £20 with £10 16s. costs ...	See accident No. 48
Eaglehawk	31 July	General rule xxiii., section 6	Fine of £5 with £3 costs ...	For dismantling a shaft without permission
Eaglehawk	31 July	General rule xii., section 6 ...	Fine of £5 with £2 5s. costs ...	See accident No. 67
Ballaarat ...	7 Aug.	General rule x., section 6 ...	Fine of £1 with £1 1s. costs	
Ballaarat ...	7 Aug.	General rule x., section 6 ...	Fine of £1 with £1 1s. costs	
Ballaarat ...	7 Aug.	General rules x. and xvi., section 6	Fine of £1 with £1 1s. costs for each violation	
Fryerstown	7 Aug.	General rule viii., section 6	Case dismissed; P.M. did not consider negligence proven	See accident No. 68
Ballaarat ...	10 Aug.	General rules x. and xvi., section 6	Fine of £1 with £1 1s. costs for each offence	
Ballaarat ...	10 Aug.	General rule xvi., section 6 ...	Fine of £1 with £1 1s. costs	
Ballaarat ...	10 Aug.	General rule xvi., section 6 ...	Fine of £1 with £1 1s. costs	
Heathcote ...	3 Sep. ...	Section 11	Fine of £10 with costs	Fine ordered by P.M. to be given to sufferer injured by accident No. 47
Maldon ...	9 Sep. ...	General rule xviii., section 6	Fine of 5s. with £2 1s. 6d. costs	
Maldon ...	9 Sep. ...	General rule xviii., section 6	Fine of 5s. with £2 1s. 6d. costs	
Sebastopol ...	7 Oct. ...	General rule xvii., section 6	Fine of 10s. with £2 2s. costs ...	See accident No. 86
Ballaarat ...	19 Oct.	Section 11	Fine of £10 with £6 6s. costs ...	See accident No. 100
Warrandyte	29 Oct.	General rule xxiii., section 6	Fine of 5s. without costs ...	For dismantling a shaft without permission
Beaufort ...	25 Nov.	General rules vi., xi., and xvi., section 6	Fine of 5s. with £2 2s. costs for each offence	
Eaglehawk	4 Dec. ...	General rule xxiii., section 6	Fine of £10 with £3 costs ...	For dismantling a shaft without permission
Clunes ...	15 Dec.	General rule x., section 6 ...	Four prosecutions and all dismissed	The Bench considered that the defendants had used all reasonable means to comply with the Act
Clunes ...	15 Dec.	General rule xvi., section 6 ...	Fine of £1 with £3 3s. costs	
BallaaratEast	17 Dec.	Section 11	Case dismissed	See accident No. 124
Buninyong	17 Dec.	Section 11; general rule xxiii., section 6	Three men fined 2s. 6d. and £1 1s. costs each for breach of section 11, and 2s. 6d. and 14s. costs each for breach of general rule xxiii.	See accident No. 121

APPENDIX D.

SCHEDULE of Amounts paid during the Year 1880 to Persons Injured and to the Relatives of Persons Killed by Mining Accidents.

District.	Division.	Name of Company.	Name of Person Injured.	Name of Person Killed.	Date of Accident.	Amount Paid.	By whom.	Remarks.
Sandhurst	Sandhurst	Great Southern Garden Gully Co.	Fred. Uhrbrock	...	1879.	£200	Company	This amount was additional to that paid during 1879. See Table for last year.
Castlemaine Sandhurst	Fryer's Creek... Sandhurst	Renaissance Q. M. Co. ... Victoria Reef G. Mines Co.	John Macdonald James Trewartha	...	23rd Sept. 27th Dec. 1880.	£148 * £300 * { £50 † £75 †	Company	This amount was obtained in an action against the Co. [For damages.
Ararat	Pleasant Creek	Newington and Pleasant Creek Reef Co.	George Gardiner	George Gardiner	8th Jan.	£10 †	Company Stawell Miners' Accident Society	
Sandhurst Maryborough Ballaarat Ararat	Sandhurst Maryborough Ballaarat Pleasant Creek	Garden Gully Freehold Co. Goldbrook G. M. Co. Queen Co. Oriental Q. M. Co.	Henry Harrison Chas. Faulkhead William Carrigg James Lowry	Henry Harrison Chas. Faulkhead	10th Jan. 17th Jan. 26th Jan. 31st Jan.	£25 † £7 16s. * £33 * £39 *	Company	This amount represented the sum of 12s. per week for [13 weeks.
Ararat	Pleasant Creek	Nos. 14, 15, and 16, South Cross Reef Co.	P. Borella	...	12th Feb.	£17 * £15 † £48 15s. * £15 15s. * £12 †	Company	The amount represents £1 per week paid for 17 weeks. The Co. also paid £41 expenses in connection with deceased. The amount represents 25s. per week paid for 39 weeks.
Ballaarat Ballaarat Castlemaine Sandhurst Ballaarat Ballaarat Ararat Sandhurst Ararat	Blackwood Smythesdale Tarrangower Eagiehawk Sandhurst Ballaarat Ballaarat Creswick Pleasant Creek Heathcote Pleasant Creek	Sultan Q. M. Co. Reform G. M. Co. Parkins' Reef Tribute Co. United Catherine Q. M. Co. Great Southern Co. United Black Hill Co. Major Tribute Co. Port Phillip and Colonial Q. M. Co. Great Northern Co. Butler's and Alabama Q. M. Co. No. 2, 3, 4, and 5 South Scotchman's Co. South Clunes Q. M. Co.	Henry Julien ... William Davies Edgar Rosman ... William Smith James Paul John Stephens James Vivian	Wong Ah Gee Fdk. Wm. Baird John Jennings Alex. Mitchell	12th Mar. 13th Mar. 31st Mar. 5th April 10th April 12th April 17th April 26th April 29th April 8th May 3rd June 9th June 15th June 5th July 6th July 9th July 10th July 24th July 26th Aug. 28th Aug. 3rd Sept. 10th Sept. 14th Sept. 27th Sept. 1st Oct. 1st Nov. 15th Nov.	£70 † £39 * £100 * £55 * (£70 † £10 † £55 † £3 * £20 † £30 † £150 † £10 * £100 † £150 † About 25 * £47 † £10 * £7 † £40 †	Clunes Accident Soc. Stawell Accident Soc. Company	Funeral expenses defrayed by Co. The man's mats worked his share and he got the [dividends. The injured man also received a sum of £10, being [fine imposed for breach of sec. 11 of Act 583.
Ballaarat	Creswick	South Clunes Q. M. Co.	Nicholas Penrose	Nicholas Penrose	9th June	£10 †	Company Workmen of Co. Accident Fund	
Castlemaine Ballaarat Ballaarat Castlemaine Ballaarat Gippsland Beechworth Beechworth Ballaarat	Taradale Creswick Ballaarat Fryer's Creek Ballaarat Stringer's Creek Wood's Point Wood's Point Blackwood	Ironstone Hill Lead G. M. Co. New Australasian G. M. Co. Sergeant's Freehold G. M. Co. New Era Q. M. Co. Wilson's Freehold G. M. Co. Long Tunnel G. M. Co. The Hope Mining Co. All Nations G. M. Co. Sultan Q. M. Co. New Kong Meng Co. Smith's Freehold G. M. Co. Racecourse G. M. Co. Virginia Co. New Chum Consolidated Co. Union G. M. Tribute Co.	James Dorsey ... James Dorsey ... Frederick Ebbles ... William Jones { Cornelius penrose John Wells ...	Michael Connell James Hunter George Murley James Mitchell Nichs. Woolcock Edward Sullivan George Curnow Thomas Galvin J. B. Trevena W. H. Robbins	15th June 5th July 6th July 9th July 10th July 24th July 26th Aug. 28th Aug. 3rd Sept. 10th Sept. 14th Sept. 27th Sept. 1st Oct. 1st Nov. 15th Nov.	£20 † £30 † £150 † £10 * £100 † £150 † About 25 * £47 † £10 * £7 † £40 †	Company	The Co. also defrayed the funeral expenses. The Co. also defrayed the funeral expenses. Sufferer was supported by the tribute party during [this compulsory illness. Funeral expenses defrayed by the Co. Funeral expenses defrayed by the Co. The injured man was paid full wages during time he was unable to work.

† To widow.

† To relatives.

* To sufferer.

TABLE showing the Causes of Mining Accidents which have occurred in the several Mining Districts of Victoria during the Year 1880.
(Compiled from information obtained in the Office of Mines.)

District.	Division.	Fall of earth, rocks, &c., underground.		Fall of earth on surface.		Falling down shafts.		Falling down winzes and shafts.		Fall of materials down shafts.		Fall of materials down a pass or jump-up.		Cage accidents.		Killed or injured in setting timber.		Slipping and falling at surface.		Slipping and falling underground.		Truck accidents.		Machinery in motion.		Explosions.						Blow from hammer.		Blow from windlass handle, &c.		Miscellaneous.		Total.	
		Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured				
BALLARAT.	Ballarart & Gordon	1	4	1	...	1	...	1	...	1	2	...	1	1	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	6	11
	Smythesdale	3	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	
	Buninyong and Steiglitz	...	1	2	1	4	1			
	Creswick	3	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1
	Blackwood	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	2	
	Totals	8	6	2	...	3	2	1	1	4	...	1	1	...	1	1	...	...	...	...	...	...	1	...	3	...	...	1	...	...	...	...	15	19	
BEECHWORTH.	Beechworth	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	2	
	Indigo	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
	Buckland	2	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	
	Mitta Mitta and Yackandandah	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
	Jamieson	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
	Gaffney's Creek	1	...			
	Wood's Point	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Big River	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
Totals	4	2	1	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	7	5		
SANDHURST.	Sandhurst	1	7	3	1	2	1	...	1	...	2	...	1	...	...	...	...	...	...	...	1	...	...	1	...	1	1	...	...	1	...	1	1	9	18
	Eaglehawk and Raywood	2	1	...	1	3	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	5	
	Heathcote and Waranga South	1	1	...			
	Kilmore	1	1	...			
	Waranga North			
Totals	3	8	3	2	5	4	...	3	...	2	...	1	...	2	...	...	...	...	...	1	...	...	1	...	2	...	1	3	...	1	2	14	31		
MARYBOROUGH.	Maryborough	...	1	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	
	Dunolly and Tarnagulla	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
	Inglewood and Wedderburne	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
	Amherst	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	3	2
	Avoca	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
	St. Arnaud	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	...	3	...	...	...	...	2	...	2	...	...	1	2	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1	1	13	...		
CASTLEMAINE.	Castlemaine	1	1	3			
	Fryer's Creek	2	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	
	Taradale	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
	Hepburn	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
	St. Andrew's Tarrangower	...	...	1	...	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3	2		
Totals	2	2	2	...	2	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	6	8			
ARARAT.	Ararat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pleasant Creek	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	6	
	Barkly	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	
	Raglan	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
Totals	4	5	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	7			
GIPPSLAND.	Donnelly's Creek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Russell's Creek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Stringer's Creek	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	
	Jericho	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Crooked River	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	
	Omeo	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
	Mitchell River	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tarwin	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2		
Totals	2	3	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	6			
Grand Totals	23	29	8	2	8	10	2	6	1	9	...	1	3	5	...	1	3	...	3	...	2	...	2	3	...	7	...	1	5	...	1	6	50	89					