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# BIENNIAL REPORT

OF

STATE INSPECTOR

OF

# METALLIFEROUS MINES

DECEMBER, 1894.



DENVER, COLORADO: THE SMITH-BROOKS PRINTING CO., STATE PRINTERS, 1894





# COMPLIMENTS OF

# HENRY L. ACKER,

INSPECTOR OF METALLIFEROUS MINES.



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# OFFICE OF STATE INSPECTOR OF METALLIFEROUS MINES.

Leadville, Colorado, December 14, 1894. To His Excellency,

DAVIS H. WAITE,

Governor of Colorado:

Sir—In obedience to law, I submit to you herewith my official report for the years 1893 and 1894, with such suggestions and recommendations as to matters coming under my official observation, as can well be made within the brief limit of twenty pages.

I take this opportunity of thanking you for the uniform courtesy and kindness shown me.

Very truly yours,
HENRY L. ACKER,
Inspector of Metalliferous Mines.

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# REPORT.

The law creating the office of Inspector of Metalliferous Mines, divides the state into three districts, and contemplates the appointment of an assistant inspector for each of said districts.

Having been requested by your excellency to make the most economical arrangement consistent with a proper performance of the duties of the office, and with your approval, I appointed only two assistants—Mr. Maurice C. Hayes, of Aspen, and Mr. J. H. Goldsworthy, of Rico. These gentlemen, during the time their appointments continued in force, held themselves in readiness to go to any portion of the state when ordered to do so; and I avail myself of this opportunity to thank them for a prompt and intelligent performance of their official duties.

At the expiration of my term as Inspector, the office will have cost the state at least 35 per cent. less than for the same period of time during a former administration.

Mining is the distinguishing industry and chief source of wealth in Colorado. The law providing for the inspection of metalliferous mines has for its main object the protection of the lives of that most numerous class of our wage workers, engaged in what is, perhaps, the most hazardous of all occupations. Under this law, the legislature has provided for collect-

ing and preserving information as to the nature and cause of all mining accidents, so that, in the light of the knowledge thus obtained, still better and more effective laws may be enacted for the accomplishment of the beneficent purposes in view.

Considered merely from the humane standpoint. such a law is proof that in Colorado legislation, in this instance at least, seeks to protect and throw all possible safeguards about the weak and those who need protection most. Viewed from the more coldblooded standpoint of business and a sensible public policy, much might also be said in support of the wisdom of such a law. Miners, as a rule, are improvident; and, because of the nature of their employment, it is difficult for them even to obtain ordinary insurance upon their lives for the benefit and protection of their families. So that, as one result of accidents caused by selfish mismanagement, or criminal carelessness, the disabled miner or his helpless family must often become an additional burden upon the state or the citizens. Considering, therefore, the objects sought by the law, the hazardous nature of the business, the vast number of our citizens employed in it, and all conditions existing in Colorado, there is, perhaps, no office in the gift of the governor and senate more important that the office of Inspector of We have upon our statute books laws intended for the protection of game and fish, and if generous provision is to be made for the enforcement of such laws, how much more should public sentiment in Colorado sanction and approve a provision for the proper enforcement of a law intended for the protection of human life.

The failure to formally include in the last general appropriation act an appropriation for the salary and expenses of this office, and the consequent necessity of personally providing means for carrying on the business of the office, has caused the present incumbent much loss and inconvenience; his subsequent confirmation by the senate being accepted, however,

as an assurance that in the end the justice of his claim would be fully recognized by the state which had thus constitutionally approved of his appointment, and shown a willingness to accept his official services.

In the performance of my duty it became necessary, on several occasions, to insist upon the closing down of work, or the safe timbering of the mine as directed, and I have reason to believe that in some instances such directions have resulted in the saving of human life.

Generally speaking, mine owners have shown a commendable disposition to promptly comply with all reasonable regulations having in view the safety and protection of the men in their employ.

Many accidents have been caused by attempts to drill out loaded holes which have failed to explode. From this cause alone, during my term of office, two persons have been killed and ten seriously injured; one of the latter suffering the loss of both eyes, and others being so maimed as to compel the amputation of hands or arms.

Tamping loaded holes with metal bars is another frequent cause of accidents.

Another cause of accidents is the failure to have cages in shafts properly arranged. In many instances such cages are without proper side protections, thus greatly increasing the risk to miners and, generally speaking, all cages used in deep workings should be supplied with the latest and best safety appliances. The ropes or cables are sometimes of insufficient strength, or become so worn as to make them dangerous. The means and system of mine signals in many cases, also, are not what they should be.

Wooden buildings, blacksmith shops, etc., should not be permitted to be placed at or near the entrance to tunnels or shafts, because in case of fire, the smoke and gasses enter the workings causing loss of life and preventing escape. For the same and other excellent reasons, giant powder and all explosives should be safely stored, not less than 150 feet from mouth of shaft or tunnel.

In many instances, shafts and adits are carelessly left uncovered, thereby endangering the lives of any who happen to be in the vicinity. When snow covers up all traces of unprotected places of this kind, they become still more dangerous. This is in plain violation of law, and should accidents result from leaving the tops of shafts or adits thus uncovered, the owners are not only subject to heavy penalties, but make themselves also liable for damages.

The timbering, particularly in some of the new gold camps in the state, is not up to the standard necessary for the protection of life. In many instances, shafts from thirty to fifty feet in depth have been put down through wash, with not a stick of timber to be seen. Human life is much too precious to leave any excuse for this kind of mining. It occasionally happens too, that an accident is directly traceable to the fact that timbers have been improperly set by some incompetent man.

Skilled miners know these dangers and generally do their best to avoid them, but incompetent men, sometimes employed at lower wages, not only endanger themselves, but often cause the loss of the lives and property of others.

The law, in view of the results aimed at, should, I think, be amended and improved in some respects, as above suggested, penalties being attached to all violations thereof, and then strictly enforced.

The company or mine management which permits men to pick out unexploded shots, or to tamp loaded holes with iron or steel bars, should not be permitted to easily shift responsibility by the usual claim that it was a careless violation of orders on the part of the employe, but should, under proper

restrictions and penalties, be compelled to personally see to the prevention of such dangerous practices in the work under their charge.

Mine owners and managers, particularly when conducting large enterprises, should be required to make frequent examinations of ropes, cables, cages, machinery, signals, timbering, ladder-ways and the condition of every portion of the mine as to ventilation, and to keep for inspection a record of such regular examinations.

Upon a theory that the lives and health of the citizens are involved in the proper conduct of their business, the druggist and even the person who, in our largest cities, desires to follow the common occupation of plumber, are required by state law to first undergo an examination intended to thoroughly test their fitness for such work. Although the same theory seems to apply, it may be impracticable to require men in active control of mines to submit to such examination. But in some way, if possible, corporate and individual owners should be compelled to see that foremen and those directly in charge of bodies of men engaged in so hazardous an employment, are competent and well qualified to properly care for the safety of the men under their control.

Substantially the same duties being required of them as of the inspector when called upon to visit mines, the office should be able to command the services of good men as deputies. And even if it be thought best to reduce the amount of the inspector's salary for the purpose, the compensation of his assistants should, in my judgment, be increased to at least \$1,800 per year, as competent men cannot well be obtained for less money.

There is, in my opinion, no occupation to which the requirements of an eight-hour labor law may be more properly applied than to the business of mining, and I would be heartily in favor of any sensible legislation to that effect.

I refrain herein from any special censure, or expression of opinion as to who may have been to blame for accidents, deeming it to be outside of the proper province of my official report. The description and account of most of the accidents as herein contained, as well as mining statistics, are also necessarily very brief, the legislature having seen fit to limit this report to twenty printed pages, but the books in my office, and which will be turned over to my successor, contain much more full details. Some accidents have occurred not in any way herein referred to, principally for the reason that they did not seem of sufficient importance to require formal notice in this report. There is also, in plain disregard of the law's provisions, a manifest tendency on the part of some mine owners to suppress all information as to any accidents.

Colorado's splendid recovery from the blighting effects of the demonetization of silver is a matter of marvelous surprise, both at home and abroad. Aspen, though strictly a silver camp, is still working many of her rich mines, though not nearly to the same extent as before silver was demonetized. Any sensible legislative recognition of silver would at once restore her former prosperity, and many thousands of miners would soon be working in the rich district immediately tributary to that beautifut city. Of Creede and other comps, the wealth of which is solely in the white metal, much the same may be said—only their richest mines can now be profitably worked.

Turning to the more favorable side of the picture, I think it an extremely conservative estimate to say that gold mining in Colorado has increased 200 per cent. In Gilpin and the surrounding counties, many old mines which had lain idle for years, are being successfully worked and more men are now employed in gold mining than ever before. Cripple Creek, already safely past the stage of speculation

and uncertainty, has attracted the world's attention and bids fair, by its wealth in gold, to now do for Colorado all that Leadville formerly did because of its wealth in silver.

And of a number of smaller and more recently discovered gold camps, it is believed that some, with proper development, may become as great and as productive as Cripple Creek. Leadville, having for years maintained and firmly established its record as the world's greatest silver mining district, was generally believed to be dependent for its prosperity upon that industry alone, but now gives us another pleasant surprise by proving itself to be one of the best gold camps in the state. Abundantly rich in gold, silver, lead and iron, Leadville has, at present, every indication of entering upon a new era of increased prosperity.

So that on the whole, the state's distinguished industry, and for the benefit of which this office was created, may be said to be in much better condition than might reasonably have been expecten, in view of legislative hostility to silver and more mining work is being done to-day in Colorado than ever before.

From which brief resume, and reflecting upon the manner in which mines have been profitably worked for centuries in some portions of the old world, we may reasonably conclude that the surface of the ground has, as yet, scarcely been scratched, and that mining in Colorado is still in its infancy.

#### IMPROVEMENTS RECOMMENDED.

To remove explosives	. 40
To put in more timbers	.285
Better ventilation	.150
To make second exit	.105
To put in new ladders	. 84

To divide shaft
To repair cages 6
To repair skips 3
To repair cables 4
To remove blacksmith shops
Not to thaw giant powder on top of the
boilers 20
Overloading skips, cages or buckets with
men230

#### CAUSE OF ACCIDENTS.

Fall of rocks.

Explosions.

Suffocation.

Falling off car, buckets and cages.

Caught by cages, buckets and skips.

Insecure staging.

Falling off ladders.

Incompetent engineers.

Mill holes, chutes and winzes not being properly secure.

Drilling out miss-holes.

Thawing powder.

# RECAPITULATION.

Number of mines working	.16,794
Mines visited	. 985
Number of visits	. 1,232
Recommendations	. 1,075
Fatal accidents	. 50
Non-fatal accidents	. 100
Miles traveled	.34.287

# ERRATA.

Page 12—First line under Recapitulation "Number of mines working," should read "Number of miners working."

Page 13—First line of first paragraph should read, "John McBeth was killed at the Virginius mine."



# FATAL ACCIDENTS.

May 8, 1893-

E. Dougherty, Irish, a contractor, was killed in Mt. Sneffles, near Ouray. The mill-hole on the elevator level becoming choked with rock, he went in, in order to place a shot to loosen it. While in there, the rock became loosened and fell on him, killing him instantly.

May 15, 1893-

E. Dougherty, Irish, a contracter, was killed in the Orient mine, belonging to The Colorado Fuel & Iron Company, near Villa Grove. He, with others, was standing at the mouth of the tunnel, and the concussion of the charge, which was a heavy one, threw him over the dump among rocks and boulders, fracturing his skull. He lived several hours after the accident. He was about 40 years of age.

May 24, 1893—

J. F. McAuliffe, American, 28 years old, was killed at the Birdella mine, in the St. Kevin district, Leadville, by a fall of rock and earth at the breast of the tunnel. The work at the point where the accident occurred was timbered up to within about two feet of the breast. It was one of those unusual accidents that could not be foreseen.

June 6, 1893—

Jacob Osler, Austrian, aged 19, was killed at the Silver Age mine, Idaho Springs, by a cave-in in the

roof of a drift. He was not a practical miner, and had been in the country only six months. The place in which he was working was dangerous. About a ton of rock and earth fell upon him. The company seems to have been to blame for the accident, as it was no fit place to put an inexperienced man to work. Verdict of coroner's jury, "accidental death."

#### June 6, 1893-

Michael McNulty, Irish, and about 40 years of age, was suffocated in the Calumet mine, belonging to The Colorado Fuel & Iron Company. An unused tunnel was discovered to be on fire and Mr. McNulty, with others, undertook to extinguish it. The fire and smoke created a deadly gas and he was overcome before he could be rescued. The fire was supposed to be of incendiary origin, as the tunnel had not been used for some time previously.

# June 20, 1893—

Henry Dold, American, aged 35 years, was killed on Mammoth mountain, near Creede, in Dry gulch. He was at the bottom of a shaft, fifty-eight feet from the surface, when, without warning, the windlass and bucket at the top of the shaft somehow became detached and fell upon and instantly killed him. He had a sister in New York city, and a brother somewhere in the South.

# June 22, 1893—

Edward Moore, Swede, 35 years of age, was killed at the Virginius mine, Mt. Sneffles, near Ouray, by being caught by a descending cage. No blame could attach to the company, as he had no occasion to be where he met his death. It is supposed that, out of curiosity, having heard the signal given, he went to the shaft to see if the cage was coming down, and as he did so, it caught him and instant death was the result.

July 19, 1893-

Richard Oates was seriously injured at the Lutz Extension mine, Russell mining district, near Central City. He was fixing some timbers and lost his balance and was precipitated thirty feet down the shaft, where he first struck, and then about one hundred feet further down, striking a trap door with his head. One of his arms was broken in two places and his head badly bruised. He has a wife and several children, and has since died.

July 19, 1893-

James G. La Munyon was killed at the Albro mine, Albro mountain, near Dumont. He, in company with Solon Eldred, John O'Brien and James Duncan, was repairing the timbers in an old shaft, some twelve feet below the surface, when, without warning, it suddenly caved in, burying the men under the earth and timbers. All, however, escaped except La Munyon, who was instantly killed. He was 24 years of age and married. He was interested in the property. The coroner's jury rendered a verdict of "accidental death."

July 21, 1893—

John J. Tooley, American, aged 66 years, was killed at the Little May mine, near Victor, Cripple Creek. He was trying to take the tamping out of a hole that missed fire, when it exploded, blowing off one arm entirely, and inflicting other injuries, from which he died before medical aid arrived. He was married, and formerly lived at Leadville.

July 21, 1893—

James, Brennan was killed in a mine at Crested Butte while working as a trammer. He was a young lad, and, falling asleep, rolled over the track where a car, loaded with ore, ran over him. He had a mother living. Hs father was killed near Leadville some ten months ago.

# August 19, 1893—

Frost Green, American, 40 years of age, was fatally injured at the National Belle mine, Red mountain, near Ouray. He was employed as timberman, and in charge of the work going on at the time, putting in square sets in the stope. From some unknown cause, he walked into the chute. There was a space eighteen inches by five feet open at the time for the purpose of throwing ore into the chute.

# September 3, 1893—

Angilo Toffali, Italian, was injured in the Mountain Quail mine, near Silverton. He was engaged in taking out the tamping in a hole which had failed to explode, and while so engaged the powder exploded, fracturing his skull and otherwise injuring him.

#### October 26, 1893—

Kenneth McLead was killed in the New Guston mine, Guston. McLead, in the performance of his work, dumped a car of waste into the skip, then lifted the apron, which is used to prevent any of the stuff from going over the sides of the skip. When the skip got up the shaft some distance, he lifted the chain on which the skip rested and a stone, weighing two pounds, came down the shaft, striking McLead on the head. In filling the rubbish on the skip this stone must have lodged on one of the skip wheels, and when it got up some distance the stone fell from the wheel, hitting him on the head with fatal result.

# October 30, 1893—

John Faas was killed by the premature explosion of a charge of powder in the C. O. D. mine, Poverty gulch, at Cripple Creek. He was loading a hole and tamping it when it occurred. His skull was fractured and his right arm shattered. He died some hours after. He was 45 years of age and a Pennsylvanian.

#### November 5, 1893—

Frederick Ames was killed in the Last Chance mine, at Creede, Mineral county. He was coming up on a skip, which contained twelve men, when the skip jumped the track, jamming Ames against the shaft partition, killing him instantly. The rule of the company is that only six men shall come or go on the skip at a time; but as the company permits employes to violate this rule, it would seem to be, to some extent, responsible for Ames' death. He left a widow, who has instituted a suit for damages.

#### November 12, 1893—

Owen McClusky, Irish, aged 35 years, was killed in the R. A. M. mine, at Leadville. Eleven men were employed, including two pump men, two engineers, and two top men. One of the engineers, from some cause, failed to stop his engine at the proper time, and pulled the bucket, containing nearly a ton of rock, up over the sheaves so rapidly that the bucket flew over the top of the drums, scattering the rocks in all directions, some going down the shaft, with the fatal result as above. The shaft was 925 feet deep.

#### November 17, 1893—

John Conway, employed in the Morning Star mine, Leadville, was struck on the head by the cage in the shaft, crushing his skull and fatally injuring him. He died in the hospital the next day, November 18.

#### December 17, 1893—

S. P. Gaines, American, aged 34 years, was fatally injured in the Mollie Gibson mine, near Aspen. He was coming up in the cage, and when part way up, fell to the bottom of the shaft. He had complained of being sick, and it is supposed he fainted, as he made no noise or gave any utterance.

# December 19, 1893—

Andrew Mason, English, 25 years of age, was fatally injured in the Hubert mine, Nevadaville, Central City mining district. He fell down the shaft, a distance of 130 feet, and was instantly killed.

December 28, 1893—

Hiram Fallis, American, 30 years of age, was fatally injured in the Anaconda mine, near Barry, Cripple Creek district. He was inserting a cap in a stick of giant powder, when it and five other sticks of giant powder exploded. Both hands were blown off and a portion of his thigh.

January 2, 1894 —

Victor Johnson, Swede, age about 22 years, was killed in the Pennsylvania mine, at Tathbone, Summit county. He attempted to drill out a non-exploded hole, when an explosion occurred, resulting in his death twenty-four hours later.

January 14, 1894-

Walter Phillips, English, age 26 years, was killed in the Smuggler Union mine, near Telluride. Vein matter in the stope fell upon and crushed him.

January 19, 1894—

Alex. Richie, German, was killed in the Leadville mine, at Frying Pan, Woody mining dstrict. He was at work in the bottom of a shaft, while some iron pipe was being lowered. The pipe being covered with ice, slipped through the noose and fell upon him, crushing his skull. He left a wife and four children.

January 24, 1894-

Thomas Garaghty, Irish, age 38 years, was killed in the Mahala mine, near Leadville. He was caught between the cage and shaft.

January 30, 1894—

William J. Wall, Irish, about 40 years of age, was killed in the Champion Empire mine, Aspen. He fell from a bucket while ascending to the surface. He was alone, and it is not known how he happened to fall out. Coroner's jury acquitted the company of all blame.

January 30, 1894—

John White, Cornishman, aged 24 years, was killed in the Sheridan mine, near Telluride. His death was caused by a cave-in stope. Just before going to work he sounded the ground and considered it safe.

February 13, 1894—

J. B. Traverse, American, age 38 years, was killed in the May mine, near Lake City. His death was caused by a cave-in of rock. A blast had been put off. The men tried the ground and considered it safe. They were in the act of putting in a hole when the fall of rock occurred.

March 8, 1894-

James O'Connell was fatally injured by falling from the ladder in the shaft in the Mineral Rock mine, Cripple Creek mining district.

March 20, 1894-

Samuel Witton was fatally injured in the Golden Terry mine, Cripple Creek. He was loading a hole and a premature explosion occurred.

March 25, 1894—

John Hightree was fatally injured in Wilfley mine, near Kokomo. He left the stope where he was drilling, to get a drill from a drift near by, and while in the act of picking up the drill a fall of rock occurred.

April 27, 1894—

William Dillion was fatally injured in the Ada Belle mine, Raven Hill, near Cripple Creek. He jumped from the bucket at the surface and fell to bottom of shaft, seventy feet. He was 32 years of age.

May 26, 1894—

Henry Lampshire, American, aged 28 years, was fatally injured in the Keystone mine, Magnolia dis-

trict. A piece of timber becoming detached from the slide while the bucket was being hoisted, fell and struck him on the head.

June 6, 1894-

William Foulds, American, aged 25 years, was fatally injured in the Fisk mine, Black Hawk, Gilpin county. He was standing on a stull, which gave way and fell some fifty feet, several tons of ore and dirt covering him, causing his death by suffocation. A shot had been fired a short time previously, which is supposed to have loosened the stull.

June 21, 1894—

Edward Anderson, 28 years of age, was fatally injured in the Maid of Erin mine, Leadville. The accident occurred while the shifts were changing. He fell out of the cage while ascending, falling to the bottom of shaft.

June 28, 1894—

J. P. Cooper, American, 30 years of age, was fatally injured in the Tressie C. mine, St. Elmo. He was ascending a ladder, when George Consant, who was some distance above him, fell and knocked Cooper off the ladder. Cooper was killed, while Consant was but slightly injured.

June 30, 1894-

Charles Langman, Swede, 25 years of age, was fatally injured in the Virginius mine, Mt. Sneffles, near Ouray. He was killed by rock falling from roof.

June 30, 1894-

J. W. Murray, American, 50 years of age, was fatally injured in the Silver Lake mine, near Silverton. He was an outside laborer, and had no occasion to go near the ore chute through which he fell. No one saw him go in, but on the return of the men from dinner his dead body was found at the bottom of the chute.

July 1, 1894-

James Mindock, Irish, 52 years of age, was fatally injured in the employ of the Commercial Mining company, Leadville. The accident was caused by a fall of rock at top of breast.

July 2, 1894-

William McIntosh, American, 21 years of age. This party with two others, was in the Victor mine, on Bull Hill, Cripple Creek, without the knowledge of the owners. He was found dead at the bottom of the shaft, 240 feet in depth.

July 3, 1894—

M. J. Galligan, American, 35 years of age, was fatally injured in the Hidden Treasure mine, Nevada mining district, Gilpin county. He was foreman of the mine and was making some measurements and examining shaft when a small slab of rock fell on him from about 100 feet above.

July 7, 1894—

John Butler, Irish, 22 years old, was fatally injured in the Lillian mine, Printer Boy Hill, Leadville. He was crushed by a cave-in. He was told to timber, but he thought the ground was safe.

July 7, 1894—

Eugene Dougherty, American, was fatally injured in the Black Diamond mine, Battle mountain, Cripple Creek. He fell out of the bucket as he was ascending to the surface. How it hapened is not known.

July 26, 1894—

F. C. West was fatally injured in the Katherine mine, Cripple Creek district. He was hoisted to the surface by an incompetent man at the whim, who did not stop it, and let it go. West tried to jump for the collar of the shaft but missed it and fell to the bottom.

#### August 10, 1894—

William Pelland, Canadian, was fatally injured in the Tom Boy mine, near Telluride. The accident occurred by rock falling from above while he was pulling down rock after a blast.

# August 24, 1894-

Charles Procter, Hugh Fay, R. McDonald and Thomas Cressale were fatally injured in the Amethyst mine, near Creede. the buildings on the ground, shaft house, lunch room, etc., were destroyed by an accidental fire, supposed to have started in the lunch room, where those parties had, but a short time previously, eaten their lunch. The cable rope attached to the skip was melted by the intense heat and the skip fell to the bottom of the shaft, killing the men. Procter was an American, aged 34. Fay was a native of Ireland, aged 28. McDonald was a Canadian, aged 25, and Cressale an American, aged 28. Eightytwo days elapsed before their bodies were recovered.

# September 4, 1894—

Eugene Reed, American, 58 years of age, was fatally injured in the Bobtail mine, near Central City. He was showing some friends over his mine, and while coming to the surface his friends got into, and he stood on the rim of the bucket. For some reason the engineer could not stop the bucket. It struck the sheave and Mr. Reed, falling to the bottom of the shaft, 525 feet, was crushed to a mass. His friends escaped.

#### October 2, 1894—

John Nero was fatally injured in the Independence mine, near Victor, Cripple Creek district. He was engaged in picking out a hole which had failed to explode, when an explosion took place. He is said to have been warned by the foreman not to do it.

#### October 8, 1894-

George Potter, American, was fatally injured in the Smuggler mine, Aspen. He attempted to mount the cage while in motion and being caught between the cage and timbers, was crushed.

#### October 12, 1894—

Frank C. McDonnell, Irish, aged 37 years, was fatally injured in the Midnight mine, Big Evans gulch, Leadville. He was engaged in putting off some holes, when an explosion took place. He had been warned to leave, but paid no attention to it.

#### November 15, 1894—

George Malich, Austrian, 29 years of age, was fatally injured in the Orient mine, near Villa Grove. He was shoveling ore at the bottom of stope, when a piece of ore rolled down, striking him on the head, resulting in death in about two hours.

#### November 17, 1894—

Albert Saunders, James Willis, James Whitlow and Dunham Ivey were fatally injured in the Perigo mine, Gamble gulch, near Black Hawk. These men were working in a tunnel running an upraise. The trammer let a lighted candle drop among some giant powder, which caused it to ignite. The trammer and engineer got excited and ran away, as they expected the powder to explode. The gas produced by the fire suffocated the parties in the tunnel. They were Cornishmen, aged respectively 22, 23, 25 and 43 years.

#### November 21, 1894—

Julius Doecher, Caradian, aged 35 years, was fatally injured in the Portland mine, south slope of Battle mountain, Cripple Creek mining district. A blast was put off 200 feet from where he was standing in a crooked drift, where a piece of rock struck him on the head.

# NON-FATAL ACCIDENTS.

May 15, 1893-

D. Rothpavich, an Austrian, was severely injured by the concussion of a blast at the Orient mine, near Villa Grove.

May 15, 1893-

Con O'Neill, Irish, was injured by the concussion of a blast while standing at the mouth of tunnel at the Orient mine.

May 20, 1893--

Russ Robinson was injured at the Iron Mask mine, Battle mountain, near Red Cliff. A large boulder from the breast of the workings fell on him.

July 6, 1893—

John Goldrick was injured in the Durant mine, Aspen mountain. He was working in a stope when a mass of earth and rock fell from the roof, knocking him some fifty feet down an incline.

June 6, 1893-

August Anderson was injured in the Durant mine, Aspen mountain. Cause same as preceding. He sustained a compound fracture of the leg and other bruises.

June 21, 1893--

Charles Folsom was severely injured in the Lamertine mine, near Idaho Springs. A rock weighing about twenty-five pounds struck him on the side fracturing a rib and injuring him internally.

June 26, 1893-

John Alexander, American, was injured at the Orient mine, near Villa Grove, sustaining a fracture of the leg. He was loading ore at the mouth of a stope and was struck by some ore that fell from the stope above.

June 26, 1893-

Charles Banditz and Frank Duchan were slightly injured at the Orient mine. Banditz was burned with black powder and Duchan had his leg bruised.

July 10, 1893--

Michael Nelson, Swede, had both legs fractured by a fall of rock from the hanging wall while employed in the Suffolk M. & M. Co., at Ophir, San Miguel county.

July 12, 1893—

Richard Metzler had his right foot crushed in the Calumet mine. He was caught in the chute by rocks and ore.

July 18, 1893-

William Dingwall, nationality unknown, was injured in back and chest, at the Orient mine, by being caught between a car and the wall of the tunnel. He was examining his dinner pail and did not observe the car coming.

July 19, 1893—

James Duncan, American, was injured by timbers falling on him at the Albro mine, Dumont. He and some others leased the mine and as it had not been worked for a number of years the timbers are much decayed. They were in the act of repairing the tunnel preparatory to working the mine, with the result as above stated.

July 19, 1893—

Solon Eldred, American, was also injured at the Albro mine under the same circumstances as stated above.

July 19, 1893-

John O'Brien, American, was also injured at the Albro mine, Dumont, under the same circumstances.

August 1, 1893—

James Bierce was seriously injured in the Wallace mine, near Leadville. He was preparing to descend the shaft when he missed his footing and fell a distance of 100 feet, and then rolled down the sump eighty feet further.

August 28, 1893—

Walter Blackford, American, was injured at the Strong mine, Battle mountain, near Cripple Creek. He made a misstep and fell fifty feet down a shaft. His injuries were slight.

September 7, 1893—

W. M. French, American, was injured by a cavein from the top of the shaft in the Rosita mine, near Cripple Creek. French was working at the bottom of the shaft and was covered several feet with rock and earth. Though seriously injured he has since recovered.

September 7, 1893—

N. B. Quirk, American, was injured in the Rosita mine, Poverty gulch, near Cripple Creek, in the same accident mentioned in the preceding case.

September 11, 1893—

Thomas McIntosh was injured in the Free Coinage mine, near Boulder. He was picking out the tamping of a non-exploded hole, when the explosion took place. He will lose the sight of both eyes, and was otherwise injured.

September 14, 1893—

John Kelley and A. Coff were seriously injured at the Chrysolite mine, on Fryer hill, Leadville. They were tearing down an old shaft house when the building fell, breaking Kelley's leg and severely injuring Coff about the head.

September 30, 1893—

Tony Blanica was injured at the Ora mine, Breckenridge, by a loaded car falling on him. The car was not properly loaded and fell over.

October 1, 1893-

William Spear met with a serious accident in the Peck & Thomas mine, in Packard gulch, Central City. He attempted to drill out a loaded hole that had failed to explode, when he was severely injured by an explosion which filled his eyes and face with particles of rock and earth, also cutting his right arm, his wrist, neck and breast.

October 1, 1893—

William Fould was injured in a shaft at the Fisk mine, Central City, by a descending bucket, which struck him on the right side of the face, cutting a gash several inches long.

October 4, 1893—

Edward Errickson was injured at the Log Cabin mine, Leadville mining district. Errickson and partner charged a hole at the bottom of the shaft, at a depth of 300 feet. After fixing the fuse they commenced to ascend to the first level, about eighty-five feet above. Errickson, who was the last to go up, failed to reach it before the explosion took place. He was struck by a piece of rock under the chin, shattering it in such a manner as to require the removal of a portion of the chin.

October 5, 1893-

John Duff was injured at the Summit mine, near Cripple Creek. In trying to descend a shaft the wind-

lass rope broke, precipitating him to the bottom of the shaft, a distance of fifty feet. Two ribs were broken and one of his ankles dislocated.

October 9, 1893-

A. Vivian was injured in the Bob-Tail mine, near Black Hawk. He was working at the top of the shaft when he slipped and fell to the bottom, a distance of 120 feet. He dislocated his jaw, and his head was considerably injured.

October 17, 1893-

Richard J. Jones, Welshman, was injured at the Ada mine, Clear Creek. He lost his balance while fixing a slide.

October 24, 1893—

Isaac Flood was injured on Lease No. 6, of The Aspen Mining Company, by a cave-in of earth. He had a leg fractured and his back injured.

November 1, 1893—

Patrick Ahern was injured in the Mahala mine, Leadville. He was caught by a cave-in of earth and had his back and spine injured.

November 7, 1893—

Charles Bragg, American, was slightly injured at the Casino mine, Clear Creek. He was putting in a stull and slipped and fell a few feet to the bottom of a level, injuring his back and side.

November 13, 1893—

Frank Payton was injured in the Gray Eagle mine, Leadville. He was crossing a chute, when he slipped and fell a distance of forty feet, fracturing his right arm and right thigh. He states the accident was caused by a mis-step.

November 13, 1893—

Joseph H. Scott, Canadian, was injured by having his left arm crushed at the J. C. Johnson incline,

Aspen. While riding up, he thoughtlessly put his arm outside just as the skip was passing a loaded chute.

November 15, 1893—

Patrick Maginnis, Irish, a lessee on the J. C. Johnson mine, Aspen, had his left leg fractured by fall of rock behind him while he was kneeling, cutting out for timbering.

November 17, 1893—

John Gay was injured in the Aspen mine, Aspen. The stope where he was working was securely lagged, but shots put in and fired at noon broke the ground away from the timbers. On his return after lunch he was standing on loose ground, which gave way and he fell to the sill floor, a distance of twenty-five feet. He was not seriously injured.

November 21, 1893—

James Durkin was severely injured at the Bob-Tail mine, near Ironton, by a cave-in of rock, which injured his back and bruised him considerably.

December 1, 1893—

James Smitherum met with a painful accident at the California mine, in Eagle canon, near Red Cliff. While drilling out a hole which had only partially exploded, an explosion took place, severely lacerating and burning his face and eyes. He is recovering, but may lose the sight of one of his eyes.

December 23, 1893—

Edward Toohey was injured in the Griffin mine, St. Kevin's district, Leadville. He was picking out some loose rock when an explosion occurred. It is supposed that it was a miss-hole. He was badly hurt and will, in all probability, be disfigured for life.

December 30, 1893—

William Smith was seriously injured by a premature explosion in the Barnes mine, near Central City.

January 4, 1894-

Frank Smith was injured in the Pike's Peak mine, Cripple Creek district. He fell down the shaft and, as a consequence, had one of his legs amputated.

January 13, 1894-

Evan Bowen was injured in the Cordelia Edmundson mine, Leadville. He was working at the bottom of a shaft when the bucket fell on him. He was not seriously hurt.

January 21, 1894-

Charles H. Raymond, American, was injured in the Utica mine, Ward district. The injury was caused by the breaking of windlass, the bucket striking him.

January 23, 1894—

Daniel Tobin was injured by a cave-in of earth in the William Wallace mine, Leadville, badly bruising him about the head.

January 28, 1894—

Frank Reed was injured in the Eda mine, Cripple Creek. As he was going down the shaft a bucket fell on him from above. He fell ten feet and received some bad gashes on the head and bruises on body and shoulders.

February 6, 1894—

William Graham was injured by a car running off track in incline in the Lillian mine, Printer Boy hill, near Leadville.

February 13, 1894—

Alexander M'Dermid was injured in the Royal Magna Charta, near Creede. The accident was caused by slide falling on him in a shaft. February 13, 1894—

Peter M'Closky was injured in the Ibex mine, Leadville. He fell in winze and was considerably bruised.

February 13, 1894—

Charles Eckland was injured in the Union mine, near Breckenridge. He was climbing up a ladder in the shaft when the ladder broke and he fell about twenty feet, fracturing one of his legs and dislocating his ankle.

February 15, 1894—

Peter M'Sorley was injured in the Little Johnny mine, Leadville. He attempted to go down on a rope instead of the ladder. He slipped and fell twenty feet, seriously injuring him.

February 19, 1894—

Kenneth M'Coy was injured in the Arctic mine, Lake mining district, Gilpin county. The accident occurred by drilling out a non-exploded hole. He was severely injured but has since recovered.

March 12, 1894---

Frank Dougan was injured by a caving in of earth in the Bison mine, Carbonate hill, Leadville. His injuries were not serious.

March 13, 1894—

M. Schelin was injured by slipping off the ladder while going down a shaft in the Marion mine, near Leadville. He fell about thirty feet, slightly dislocating the lower vertebrae.

March 20, 1894-

George Bowers was injured in the Ulay mine, Lake City. He was working in a stope where one of the men was picking out a non-exploded hole and was struck by flying rocks. March 20, 1894-

Walter Case and Charles M'Kenna were injured in the last named mine under the circumstances above explained.

March 24, 1894--

Gordon Beach was injured in the Golden Age, near Jamestown. The accident was caused by rock falling from about forty feet above him, which, it is supposed, had been lodged there by a previous shot. He was badly bruised but has since recovered.

April 3, 1894-

Swan Elinquinst was injured in the Emmer shaft, Boreal Mining Company, Leadville. He was caught between a moving ore car and timber.

April 4, 1894-

Peter Hughes was injured by a caving in of earth in the Ibex mine, Leadville; not seriously.

April 4, 1894--

A. Melville was injured in the Maid of Erin mine, Leadville. His left hand was caught between shoe and guide on cage. He has fully recovered.

April 14, 1894—

John Culver was injured in the Livingstone mine, Boulder. The accident was caused by his own neglect. He had removed a plank used for walking over an opening between stulls; returning shortly after, forgetting he had removed the plank, he slipped in the opening and fell about twenty feet. He has since recovered.

April 27, 1894-

William Castile and Orville Shem were injured in the Gold King mine, Cripple Creek. It was occasioned by an explosion of giant powder placed near a fire. Both men were seriously injured. May 2, 1894—

Patrick Wheatley was injured in the Emmet mine, Leadville. The accident was caused by a fall of ore striking him on the right leg below the knee. He has since recovered.

May 11, 1894—

James B. Preston was injured in the Elkton mine, Cripple Creek. The accident was caused by caving in of ore from roof. He has since recovered.

May 24, 1894—

Walter Skelley and M. Campbell were injured in the Orient Iron mine, near Villa Grove. The accident resulted from drilling out a non-exploded hole. Campbell had his left hand amputated and Skelley had his left eye seriously injured.

May 25, 1894—

Charles Kutzlieb was injured in the Delphos mine northeast slope Elk mountain. His injuries resulted from a fall of ore from breast of stope.

May 26, 1894—

Reuben Davidson was injured by a rock falling on his head in the Geyser mine, Silver Cliff.

June 7, 1894—

John E. Howe was injured by a fall of slide from the side of the drift in the Silver Pick mine, near Telluride.

June 16, 1894-

Coney Gibson was injured by a fall of rock after a blast in the Mahala mine, Leadville. His left leg was fractured.

June 16, 1894-

Albert Morrell was injured in the Cimmaron mine, Marshall Basin, near Ouray. Accident was caused by a fall of rock. Injuries not serious.

June 28, 1894-

George Consant was injured in the Tressie C. mine, near St. Elmo. The accident occurred as follows: Consant and a man named Cooper were coming up the ladder for dinner, Consant in the lead. When near the top he slipped and fell upon Cooper, and knocked him off the ladder. Cooper was killed and Consant but slightly injured.

July 3, 1894—

William Bamecout was injured by a fall of rock breaking his leg. in the Henriett mine, Leadville. He was working with a pick at the time.

July 30, 1894—

Myron Smith was injured in the Lillie Bartzell mine, Sunshine district, Boulder. Was at top of shaft and accidentally fell down a distance of ninety-three feet, falling upon a plank, which broke the fall and saved his life.

August 10, 1894—

Henry McKeen was injured in the Orient mine, near Villa Grove. He attempted to put a can into a car going up the incline and carelessly stepped in front of a loaded car going down.

August 16, 1894—

John Kenney and Thomas Crosby were injured in the Mineral Farm mine, Aspen. They were putting off shots, when one prematurely exploded, inflicting serious injuries upon both men about the face and head.

August 25, 1894—

Daniel Morrison was injured in the Zenobia mine, Altman, Cripple Creek district. He had spit two holes, one of them failing to go off and when he got to it, it exploded. As a result he lost one of his eyes.

### September 18, 1894—

Charles Martin was injured in the Smuggler Union mine, near Telluride. He was caught in a rock cave. One of his ribs was broken and he was hurt internally.

#### October 9, 1894-

William Hartley and James Tomkins were injured in the Gales mine, Spring gulch, Ward mining district. They were picking out a missed hole when an explosion occurred. Hartley lost his left hand and Tomkins was badly burned. Picking out missed holes is against the rules of the mine.

# October 14, 1894-

H. E. Miller was injured in the Emmet shaft, Stray Horse gulch, Leadville. Ore fell from the roof, injuring his back. Not serious.

### October 18, 1894-

Benjamin Eustin was seriously injured by a caving in of earth in the Minnie mine, Leadville. His leg was broken in three places.

# October 26, 1894—

David Saunders was injured by a premature explosion of giant powder in the Champion Empire mine, Smuggler mountain, Aspen.

### November 5, 1894—

Edward Martin was injured in the Bonair mine, Leadville. The cage struck him in the back. The accident was quite serious but he will recover.

### November 6, 1894—

F. Winters was injured in the Worlds Fair mine, near Georgetown. He was warming some giant powder, when it exploded, injuring him seriously about the face and shoulders.

November 8, 1894—

Fred Niem was injured in the Silver Pick mine, Mt. Wilson mining district. He was picking out a missed shot when an explosion followed and he sustained serious injuries.



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