

Average value of lump coal per ton at the mines .....	\$1 33.32
Aggregate value of total product.....	\$4,043,638
Number of coal cutting machines used .....	10
Number of tons cut by machines.....	90,795
Number of employes in machine mines.....	98
Number of fatal accidents.....	17
Number of wives made widows.....	10
Number of children made fatherless.....	40
Number of non-fatal accidents.....	146
Total number of accidents.....	163
Number of employes to each fatal accident.....	520
Number of employes to each non-fatal accident.....	61
Number of tons to each fatal accident.....	199,687
Number of tons to each non-fatal accident.....	23,252

Comparative table for each county, in tons of lump coal, for the years ending July 1, 1892 and 1893:

COUNTIES.	Tons pro-duced in 1892.	Tons pro-duced in 1893.	Tons increase.	Tons decrease.
Grundy.....	1,108,419	1,106,574	.....	1,845
Kankakee.....	81,793	83,700	1,907	.....
LaSalle.....	1,261,467	1,242,566	.....	18,901
Livingston.....	404,491	402,370	.....	2,121
Will.....	108,897	77,934	.....	30,963
Total.....	2,965,067	2,913,144	1,907	53,830

Net decrease in the district for the year. 51,923 tons.

*New Mines.*—The following named mines have been put in operation during the year: In Grundy county, the Chicago, Milwaukee & St. Paul Coal Co.'s No. 4 mine, located about one mile north of the village of Braceville; the Star Coal Co.'s No. 3 mine, located one-fourth of a mile west of the village of Carbon Hill; Leharty Bros. mine, north of Morris; also one mine reopened at Morris by John Teiford. In LaSalle county, the Standard Coal Co. mine, at Seneca; the Marseilles Land and Water Improvement Co. mine, at Marseilles; the Acme Coal Co.'s mine, at Streator, and W. B. Scott's mine, near Kangley. In Livingston county, the Streator Clay Manufacturing Co. and Alexander Bergren have opened mines at Streator. In Will county, at Braidwood, William Mally opened a local mine.

*Prospective Mines.*—In Grundy county, the Big Four have sunk a new shaft, and are equipping for a large output in the future; at Morris, Esley & Co. have put down a shaft for local trade only. In Kankakee county, the Wilmington Gardner Coal Co. have been prospecting with the drill and will commence sinking operations in a short time at Clark City. In LaSalle county, at Streator, Messrs. Plumb and Baer & Co. are each sinking a shaft to reach the lower vein or No. 2 of the geological section of the State; the Chicago, Wilmington and Vermilion Coal Co. have sunk and are busy equipping its new No. 1 mine, located four miles north of Streator. In Will county, at Braidwood, the same company have finished sinking the escapement shaft, and are now engaged sinking the hoisting shaft of what will be their Q mine.

*Abandoned Mines and Mines Not in Operation During the Year.*—In Grundy county, the Wilmington Mining and Manufacturing Coal Co. abandoned its No. 3 mine permanently, after closing it down for four months. In

LaSalle county, Goodmanson and Dawson, Freeman C. Bliss, and one of William Howe & Co.'s mines at Streator have been permanently abandoned. In Livingston county, Samuel Simpkins' mine was abandoned on account of the river breaking into it. John Marshall and Muncie & Son's mines were also abandoned, the coal being exhausted, all located at Streator. In Will county, the Chicago, Wilmington and Vermilion Coal Co.'s N mine is abandoned; the Ballantine & Fleming mine, at Braidwood; Purshuse & Co. and Jesse Masy's mines have not been in operation during the year, the last two in Streator.

*Mining Machines.*—At Carbon Hill, Grundy county, the Star Coal Co. has taken all the mining machines out of its No. 1 mine, and is not operating, at present, machines in any of its mines. The Chicago, Wilmington and Vermilion Coal Co. has not operated any mining machines during the year and has moved its engine and dynamo to Streator.

*Escapement Shafts.*—The following companies have sunk escapement shafts during the year: The Star Coal Co., at its No. 3 mine at Carbon Hill; the Chicago, Milwaukee & St. Paul Coal Co., at its No. 4 mine; Howe & Co mine, and the Marseilles Land and Water Improvement Co.

*Floods.*—The following mines were flooded with water February 4th, in Livingston county, at Streator: Samuel Simpkins, Pleasant Hill Coal Co., Richard Evans, Barrackman & Sons, Lukins & Cavanaugh and Alexander Bergren. In LaSalle county, May 11th, the Star Coal Co.'s No. 1 shaft at Kangley was flooded through a break which came to the surface, allowing the water from Moon's creek to flow into the mine. All of the flooded mines were idle for some time. S. Simpkins finally abandoned his mine on account of surface breaks near the bed of the river.

*Improvements.*—In LaSalle county the Star Coal Co. at its No. 2 mine, Kangley, sunk an air-shaft near the working face, thus shortening the travel of the air-current one-half, and greatly improving the sanitary condition of the mine; the Illinois Valley Coal Co., Oglesby, put in a new fifteen-foot fan and new engine, 12x14 inches, at its No. 1 mine which gives a large increase to the volume of air passing in the mine; the Oglesby Coal Co. has removed its fan-engine up close to the fan; this does away with the wire ropes which were used for transmitting the power of the engine to the fan, and which caused a great deal of trouble through stretching and breaking, also a loss of working time; the LaSalle County Carbon Coal Co. has increased its boiler power at the Rockwell mine, and are replacing the old hoisting engines with a pair of Litchfield engines, each 18x32 inches. Mr. E. Hakes, of Rutland, is now equipping his new shaft, having succeeded in getting the railroad track into it after over one year's delay; he intends to hoist all the coal from the mine at this new shaft and will use the old shaft as an escapement shaft.

In Livingston county the Chicago, Wilmington and Vermilion Coal Co. has sunk a shaft for water and ventilation purposes on the eastern portion of their No. 3 mine, thus shortening the travel of the air-current and greatly improving the ventilation of this part of the mine; a traveling



compartment has also been made so that the miners working in this portion of the mine can reach their work with less travel than formerly.

*Fatal Accidents.*—During the year fifteen fatal accidents have occurred, causing the death of seventeen persons, six of whom were single and eleven were married men; the latter leaving fifty persons dependent for support.

*Fatal Accidents in Det. il.*—August 23, 1892. Andrew Samuelson, machine helper, a married man, was instantly killed in the Star Coal Co.'s No. 1 mine at Carbon Hill, Grundy county, by a large piece of rock falling on him while at work trying to take it down so as to make it safe for the men following with the mining machine.

August 29, 1892, George Heinz, miner, a single man, employed in the Mattheussen & Hegler Zinc Co.'s mine, at LaSalle, LaSalle county, was fatally injured by a fall of rock near the face of the entry in which he was working. He died an hour and a half after being injured.

October 10, 1892, Peter Raffalti, miner, a married man employed in No. 1 mine of the Star Coal Co., at Carbon Hill, Grundy county, was instantly killed by a falling rock in his room; a slip in the roof was the cause of the rock falling.

October 15, 1892, George Singula, miner, a married man, was instantly crushed to death in Samuel Simpkin's mine at Streator, Livingston county, by a large piece of rock falling on him at the face of his room. He had passed through a clay slip a few days previous but failed to secure the roof.

October 18, 1892, George Yearsley, miner, a single man, employed in the Oglesby Coal Co.'s mine at Oglesby, LaSalle county, was instantly killed by a falling rock at the face of his room. The roof had taken a heavy break-through during the night and while making an examination in the morning before commencing work, the rock fell on him, breaking his neck.

October 28, 1892, Charles Swanson, miner, a single man, employed in N. Plumb's mine at Streator, LaSalle county, was fatally injured about the body by a falling rock at the face of his room; he died from the injuries the following day.

December 21, 1892, E. McClairry, top-man, was fatally injured, while visiting in Samuel McClairry's mine, near Kangley, LaSalle county, by the falling of a large piece of rock; death occurred a short time after the accident took place.

January 31, 1893, Michael Davidson and Michael Halley, both married, and Joseph Smith, single, all miners, were instantly killed in Peter Rynn's mine at Streator, LaSalle county, by a falling rock; they had left their rooms, and were all sitting on the south entry eating dinner, when, without any warning, the rock came down, killing the three men. Smith's brother was near by and had a very narrow escape, although uninjured.

February 2, 1893, Joseph Tuppin, miner, a married man, employed in the mine of the Pleasant Hill Coal Co. at Streator, Livingston county, was instantly crushed to death by a large piece of rock falling on him while at work in his room; the rock was so large it had to be broken before the body could be extricated.

March 18, 1893, Emique Bulgarina, miner, a married man, was fatally crushed by a falling rock in his room at the Big Four Co.'s mine at Coal City, Grundy county; he had fixed a shot a short time before which cleared a slip in the roof, and while taking away the loose coal the rock fell on him, causing death thirty minutes later.

March 20, 1893, John Robbin, night roadman, single, was instantly killed by falling down the shaft of the Star Coal Co.'s mine at Kangley, LaSalle County; he was assisting to put a mine-car loaded with ties on the cage at the lower landing. The cage being a little low, the car went off of the track on to the cage, he climbed over the top of the car, and while doing so, the engineer raised the cage a little, causing him to lose his balance, and he fell into the shaft.

April 6, 1893, John Lamb, messenger boy, was instantly crushed to death between two railway cars at the Big Four Co.'s mine at Coal City, Grundy county. He jumped on a moving car to ride down to the coal chute and failed to observe another empty car standing in the slack switch, and only passing space between the two tracks. On reaching this place he was caught between the moving and standing cars, crushing in his head and breast.

April 28, 1893, Samuel Skelton, miner, a married man, was fatally crushed by a large piece of rock falling on him at the face of his room in the Star Coal Co.'s No. 3 mine at Carbon Hill, Grundy county. He knew that the rock was bad, and had made some preparation to take it down, but while loading a car it fell and caught him, injuring him so severely that he died the following morning.

June 5, 1893, Frank Boska, miner, a married man, was instantly killed in No. 2 mine of the Star Coal Co. at Carbon Hill, Grundy county, by a large piece of rock falling on him in his room; when taken from under the rock it was found that his neck was broken.

June 8, 1893, John Anderson, miner, a married man, employed in No. 3 mine of the Chicago, Wilmington & Vermilion Coal Co. at Streator, Livingston county, was fatally crushed by falling coal at the face of his room; he was gathering his tools together at quitting time, when the coal fell on him, causing death the following day.

Following are tables of the fatal and non-fatal accidents: