

entries, as soon as they are worked out, to increase the ventilating facilities. By this means the air-courses are greatly shortened and improved. This company shows an evident desire to anticipate and keep in advance of legal requirements.

#### GREENVIEW COAL COMPANY.

This mine is in very fair condition and is worked on the double-entry system. It has enough air in circulation if properly conducted, but by using screens, for the most part in dilapidated condition, instead of doors, much of the air is wasted. Mr. Wadsworth, Superintendent, proposes to remedy this defect in the ventilation.

I had been informed that this company did not weigh the miners' coal and was requested to enforce the law in this respect. Believing it my duty to do so, I made an effort in that direction, but found that I was powerless in the matter, owing to the fact that the miners had entered into a special agreement with the company for the purpose of evading this provision of the law.

The Athens Coal Company has good ventilation, but their escapement is too small. Otherwise the place is all right.

An escapement has been sunk this year at the Sweetwater mine.

#### CASS COUNTY.

##### THE CASS COUNTY COAL COMPANY, ASHLAND.

This is a co-operative company composed of coal miners, who at great cost of labor have sunk a shaft 205 feet, only to find 30 inches of coal. They have no trade except to supply the local demand. The time has already expired in which they should have had an escapement, but I do not suppose they will be able to sink it.

##### THE VIRGINIA COAL AND WATER Co., VIRGINIA.

This company has a three-foot seam of good quality, which they are just opening, though not in good shape. If the workings were properly laid out on the long-wall system, and a market were secured, the property could be made to pay. An escapement was begun, but work was subsequently suspended because they could not secure railroad facilities for shipping. On my last visit only six miners were at work, merely for the purpose of keeping the place in workable condition, and I allowed them to continue while negotiations with the railroad company were pending.

#### TAZEWELL COUNTY.

This county has eight mines, though one of them—Vaglesang's, at Hilton,—has this year been worked out.

The principal mine is operated by D. M. Alexander, and has been worked for fourteen years. The air-courses are consequently

long, and although the amount of air passing was really up to the legal standard, it was impregnated with so much carbonic acid gas as greatly to impair its quality. The company, however, opened a new air-course, shortening the distance and improving the ventilation. They had no escapement shaft, but I induced them to order a fan and get the use of the air-shaft for place of egress. On my last visit they had only to attach the engine to the fan to have it in operation. This improvement will give them rank among the better class of mines.

Rundle & Goold's mine was found in good condition, but they had no escapement shaft. Subsequently they constructed a good one, with stairs and railings from top to bottom.

J. B. Ledterman's mine is poorly managed, though well ventilated. I had some trouble to get him to sink an escape shaft, being obliged to take legal proceedings. On my last visit, however, the new shaft was within ten feet of the coal.

Norman C. Hawley is working rather an old mine, fairly conducted, and well ventilated. The road to the escapement was blockaded, but subsequently cleaned up. He enlarged and retimbered his hoisting shaft and covered his top buildings with corrugated iron, to render them fire proof. The only thing now wanting is a brake on the drum, which he has promised to put on.

Mr. Dissman's mine, four miles from Pekin, required retimbering at the bottom of the shaft, also an escape shaft. He put in the timbers and sunk the shaft.

G. Millard's shaft was frozen up last winter, and he informed me he should not attempt to do any more work that season. I instructed him to put in an escapement shaft before resuming operations.

Ruche Bros. only work a few men during the winter, but had good air and an escapement.

#### WOODFORD COUNTY.

##### THE CHICAGO AND MINONK COAL MINING Co., MINONK.

This company has been in operation for fifteen years. It has an extensive plant, a large business, and a deep shaft to a thin seam of good coal. This is generally considered the No. 2 seam, but I was informed by Mr. McDonald that two workable seams had been found below it, so that it may really prove to be No. 3. There were 258 men and 18 mules at work in this mine, and the ventilation was very defective. Several measurements of the air, both at the in-take and up-cast, disclosed the fact that the current was really barely sufficient for the animals. The stables were also placed at intervals along the in-take air-course, which still further impaired what feeble current there was in circulation. To remedy this condition of things, the company erected a ten-foot fan, driven by a 45 horsepower engine, and reversed the current. On a subsequent visit, I found 17,028 cubic feet of air passing, which was still further increased by enlarging the fan blades. An escape shaft had been