

Springside colliery: This company has erected an electric light plant for lighting the city of Pana, and is experimenting with the Thomson & Vandepool coal cutting machine.

At the Penwell colliery, Pana, various improvements have been made during the year. The air-current has been sub-divided into six different splits, with six new overcasts. The overcasts are all circular in shape, with the sides and ends built with brick and cement; the arches are turned by a radius corresponding to the width of the entries; in two of them the arch is made of wood, and in four of them the arch is made of No. 8 iron, and all are made perfectly air proof; the wood and iron work is painted with metallic paint. This is quite an improvement on the building of overcasts in this district, and is a credit to the mine manager, as the friction of the air in passing over the overcasts is reduced to a minimum, and in mines giving off fire-damp the iron is much safer from slight explosions. This company has introduced a new signal at their colliery, and from the reports of the management it is claimed it is giving entire satisfaction. The following card is issued by F. R. Thompson, Pana, Ill., the inventor, which will explain the working of the signal: "It is attached to what is known as the bell rope; a register box is placed at the bottom of the shaft and another is placed in the tower; when you pull the bell rope once a figure one is shown at an aperture of the register box, both at the bottom and top of the shaft, and it stays in sight until the cage is moved up or down several feet. When the figure is shown on the box in the tower, the topman moves a lever attached to another set of boxes from the tower to the engine room, and the same number is given to the engineer, thus bringing into play the sense of sight as well as the sense of hearing. The working motions of the device are all positive, and no matter how much noise there may be, a glance at the register shows to a certainty the signal has been given; gongs are attached to the register boxes for those who wish to use the sense of hearing in connection with the sense of sight. The time saved by the use of these registers amounts to a good deal in the course of a day, for the noise of moving coal boxes, or coal sliding down the screen, or the noise made by the elevator buckets and machinery is liable to cause a man to be uncertain as to the signal that has been given, when a glance at the register shows to a certainty the one, two, three, four, five or six bells that have been rung, and he knows what is wanted at once. The simplicity of the device is that when a man gives a signal he can see for himself whether he has given the right signal or not, and if a mistake has been made he can change his signal before any harm is done, while if dependence is placed on a gong or bell, which is heard and then gone, confusion is sure to be fraught with much danger and damage to both life and property."

At the Riverton colliery, Sangamon county, two new overcasts have been put in, and the tail rope system of haulage extended about 700 feet. At the Sangamon colliery, two new boilers have been set up and two new