WHAT IS A BREAKER OR A COLLIERY? MINING TERMS

This article will be a dictionary for some common mining terms.

1. Anticlinal—Coal does not lay in level layers called veins in the earth. The veins go upwards and downwards as the earth moved years earlier in the formation of the coal. Imagine an inverted "V" underground. The coal vein lies on either side so the miner has to also travel that direction to get the coal.
2. Breaker—the largest building in the colliery. It could be 150 feet tall. Not everything that came from below ground was coal. There could be rock or slate or other material in it so the breaker helps to sort that out. The material would be carried up a long incline to the top by a chain system pulled the coal to the top. Sometimes coal cars would be pulled to the top and then tipped (the term tipple) or turned upside down to dump the coal out. The purpose of the breaker was to break the large chunks of coal into different sizes. It had been found that the coal burned best when in a fire of the same-size unit. A few of the designations were: steamer—used in large ships for fuel; rice, the smallest; egg, …. The whole breaker would shake when the big machines that were pulling or sizing the coal would run. You couldn't hear the person next to you as the machinery was so loud you had to use hand signals. The coal would be moved through a series of chutes to be sized as it passed through various crushers that would reduce it to what was needed. As breakers became more proficient, they also included washers that removed any other dirt or debris from the coal. A breaker in the early days cost $30,000 while by 1930 the cost went up to $3,000,000. Poliniak, Louis. For the miner, working in the breaker meant hearing loss, breathing in dust that created diseased lungs, and injury from the machines.
3. Coal companies—the organization that owned a particular mine. Some of the largest were the Glen Alden Coal Company known as the Blue Coal Company as they sprayed their coal with a blue dye to distinguish it from other companies as part of their marketing. Others were the Philadelphia and Reading Coal Co., Hudson Coal Co., Pennsylvania Coal Co., Jeddo-Highland Coal Co., Lehigh Valley Coal Co., and quite a few more (Poliniak 30).
4. Colliery—All of the buildings around a mine were part of the colliery. That included the breaker, the wash house, the tool barn, mule barn, powder barn, the shafts and slopes and all the rest.
5. Damp—there were numerous gasses in the mines. One was white damp, the other black damp. White damp is odorless, tasteless, and colorless. It is made up of mostly carbon monoxide. It is extremely flammable and highly toxic. Black Damp is not a single gas but a combination, primarily nitrogen, carbon dioxide, and water vapor, that reduces the oxygen content to a level that cannot sustain life.
6. Door tender—boys as young as 12 would work alone all day in the dark underground opening and closing doors for the mules as they passed by pulling the loaded coal cars or the empty ones. Sometimes the boys would make friends with a rat who came by to get some lunch.
7. Entrance to the mines: (Poliniak (5)

    a. Tunnel—this was a horizontal opening usually located at the base of a mountain
    b. Slope—an incline of various degrees of pitch the men could travel to their place underground
    c. Shaft—a vertical opening whereby the men had to be lowered by a cage to the depths of the mine sometimes up to 1200 feet. Like an elevator, the shaft passed through various veins of coal. A bell signaled the engineer when to stop so the men could step off at the designated work areas. By the time you reached the bottom, it was cold, and a downdraft continually blew.
8. Gangways—these were travel corridors hewn out of coal that men used to travel to other veins. They often had electric wires overhead and narrow train tracks on the ground.
9. Lokie—a small steam locomotive used to haul freight outside the mines. It replaced the mules in some cases. When electric "mules" came into use, they operated from an overhead trolley wire which could make electric sparks. That, of course, was a hazard when a gas pocket was encountered.
10. Mules—oxen were used first in many underground mines but soon replaced by mules. Mules who were near the surface were taken out of the mines every day while those who worked in the deep mines stayed in the stables.
11. Nipper—see door tender
12. Patch—this is a small mining community where people live near the colliery. The houses were often made of hemlock which sometimes attracted bugs. The boards would also shrink as they dried out leaving drafts to howl through during the winter. The roofs would often leak during rain. Fire was a great concern as some of the houses were connected while others were single homes. The patch usually had a colorful name like Stablehouse Row, or Fiddler's Green and was full of various immigrant nationalities.
13. Peg board—down in the mine at the foreman's office was a large board. On it were identification tags that miners had to pick up in the morning and return at the end of their shift. If any tag was missing, men would go out to search for that miner and crew.
14. Safety lamp—over the years new ways of detecting poisonous gases. Early detectors were canaries. If a canary who was brought down in a cage died, that meant gas was present and measures taken to get out of the danger. Various lamps were used until the safety lamp was invented. When a certain gas was present, the light in the lamp would grow in intensity; another gas would put it nearly out. By watching the flickering light, the inspector could tell what was going on.
15. Sprag—a piece of wood about 2 feet long and 3 to 4 inches thick tapered on either side. It was used to insert into the spokes the moving wheel of a coal car to act as a brake.
16. Underground stable—mules would be kept in their stables underground unless they were injured. They were used to pull coal cars along the railroad tracks in the gangways.
17. Ventilation—this system was critical. Run by huge fans on the surface, air would be forced into the depths to force poisonous gases out and allow men to breathe. Doors along the gangways would be opened or closed according to where the foreman wanted to direct the fresh air.
18. PRINT RESOURCES: Poliniak, Louis. *When Coal Was King*. Lebanon, PA: Applied Arts Publishers. 1970.