

numerous experiments to possess maximum efficiency, *i. e.*, yielding the highest temperature for a definite quantity of combustible material. This gives the Cumberland coal great value for steam generative purposes and it is regarded as the most valuable coal for locomotives, ocean steamers, and in manufacturing establishments. It finds a ready market in New York, Philadelphia, Baltimore and along the entire Atlantic coast.

Coal was first discovered in the Cumberland basin in 1804. The first company was organized in 1836, and to-day there are fourteen companies operating in the valley. The development of the Cumberland coal basin is closely associated with the extension of transportation facilities from the seaboard at Baltimore and Washington westward. The national road was opened between Cumberland and Frostburg about 1846; the Baltimore & Ohio Railroad reached Cumberland in 1842, and the Chesapeake & Ohio Canal in 1850. There was much rivalry between these corporations, as they were to pursue very nearly the same routes.

The total output of coal from Maryland mines during 1896 aggregates 3,756,066 tons, which, valued at the rate of 85 cents per ton at the mines, amounts to \$3,192,656.10.

#### THE GOLD DEPOSITS.

The crystalline rocks of the Piedmont Plateau have been found to carry gold in Maryland, Virginia, North Carolina and Georgia. The gold occurs in quartz veins which occupy the old lines of fracture in the accompanying rocks. The gold occurs either in pure quartz, or in association with pyrite, or in the pyrite itself, and is also sometimes accompanied by lead (galena), silver and telluride of bismuth (tetradymite).

The first gold ever found in Maryland was discovered in 1849 near Sandy Springs, Montgomery county, a specimen being exhibited to the American Philosophical Society in that year. Most of the Maryland mines are located along the southern edge of Montgomery county, near the Great Falls of the Potomac. The oldest mine in this region was opened in 1867. Some wonderfully rich specimens have been