

NOTES ON THE RECENT DISCOVERY OF NATURAL GAS
IN PITKIN COUNTY, COLORADO.

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Messrs. Beard and Haas of the J. C. Osgood Coal Company have recently called my attention to the existence of "blowers" of natural gas in the large amphitheatre known as Coal Basin on the head of Coal Creek in the Huntsman's Hills.

The "blowers" are situated in the western part of the basin, or amphitheatre, on Dutch and Waterfall Creeks, the localities being about one and two thirds miles apart.*

At the Dutch Creek occurrence there are two "blowers" distant from each other about 50 feet. The evolution of gas takes place in small pools of water rendered turbid by the bubbling of the escaping gas which issues from the country rock (shale) about 18 inches below the surface of the water. The smaller of the two "blowers" gives off about as much gas as would be required for an ordinary burner. When lighted it burns with an unsteady bluish-yellow flame which is soon extinguished owing to the evolution being disturbed over a comparatively large surface.

The pool of the larger "blower" is from 10 inches to 12 inches across. The rapid evolution of gas, which goes on over the entire surface, is accompanied by a bubbling noise, like that of boiling water, distinctly audible at a distance of 10 paces. When lighted the gas burns with a bluish-yellow flame about 8 inches high covering the surface of the pool. The "blower" on Waterfall Creek is similar in most respects to the small one on Dutch Creek, the gas bubbling up in a little pool of turbid water and becoming extinguished a few seconds after ignition. There is no evidence of a flow of water accompanying the evolu-

* The localities are shown in the map on page 128.

tion of gas in either locality, nor is the water apparently above the ordinary temperature.

It is not likely that the gas is derived from one of the numerous Upper Cretaceous coal seams outcropping in the vicinity, as the "blowers" all occur in the Middle Cretaceous shales about 300 feet vertically below the base of the coal measure. These shales, dipping at an angle of from 9° to 12° westward, or under the measure, develop in Coal Basin a thickness of fully 2,000 feet. Though not as highly bituminous as the shales of this epoch in the southwestern part of the State yet bands of bituminous material are frequently met with along the Middle Cretaceous exposures of the Great Hogback and it is highly probable that the gas originates in this formation. The Lower Cretaceous, or Dakota, coal measure, although always present, is barren along the line of the Hogback fold, which extends as far south as Coal Basin, consequently it is not probable that the gas has its origin in that horizon.

As Coal Basin contains an area of about 15 square miles, immediately underlaid with these shales, which has been but little explored, other and more important discoveries of this nature may be expected.