to be the escape of gas from a well located about three or four hundred feet away. This well had been drilled to the gas about six years previously, and, about 1910, it was cleaned out and tubed; after which a casing head was placed so as to enclose the gas within the outside casings. In all probability no packers were placed at the bottom of the hole to prevent leakage around the casings.

"Attention has been called to Judge Doty's decision against the Penn. Gas Coal Co., which corporation sought to restrain the Greensboro Gas Co. from drilling a well through their coal without fulfilling a previous agreement to protect their operations.*

EXPLOSION AT A CONSOLIDATED MINE

"The explosion which occurred in two mines of The Consolidation Coal Co., in the Fairmount region, in 1910, was proved to be directly caused by a capped gas well.†

"This well was started with a 13-in. bit and drilled to a depth of about 246 ft., or about 82 ft. below the Pittsburgh coal seam. An 8¼-in. casing was then 'run in' and a cement mixture poured around it, up to some point above the coal. The cover at this point is about 176 ft. thick. When the well reached the gas, a casing head was placed on the 8¼-in. casing. After standing for some time, the pressure reached about 850 lbs. per sq. in.

THE DOWNWARD PRESSURE OF THE MEASURES COMPARED WITH THE UPWARD PRESSURE OF THE GAS

"According to investigations made at Lehigh University a vertical column of coal-measure rock, 176 ft. high and one foot square, will produce, approximately, a compression of 13.3 tons net or about 185 lbs. per sq. in. The gas pressure of the aforementioned well was over four and a half times this amount, and as most of the coal in this neighbourhood was extracted, the chances for the leaking of the gas were highly favourable.

"In June of 1911, the Hutchinson Coal Co. made an opening into the Pittsburgh coal, about 8 miles west of Clarksburg, on the Parkersburg branch of the Baltimore and Ohio railway. After the entries had advanced about 80 ft. a gas explosion blew mine cars and tools out of the opening. Upon investigation the odor of natural gas could be easily detected and a 1-in. pipe inserted into the coal showed a pressure of two-tenths inch water gauge or a flow of about 17,600 cu. ft. of gas per day. It is easy to imagine how large a quantity of gas must have been escaping from the entire face of the entry.

EXPLOSION CAUSED BY A WELL 1,500 FEET AWAY

"A gas well about 450 ft. distant from this opening, and near the outcrop, was uncapped but this had no effect upon the flow of gas. Another well located about 1,500 ft. south was then opened and the flow of gas immediately stopped. No indication of gas has since been found in this mine.

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* *Coal Trade Bulletin*, Vol. XXVII, No. 6, Aug. 15, 1912.

† *Mines and Minerals*, Vol. XXXII, No. 1, August, 1911.