

The Tames and Bently Mine.—When the James mine was visited, its operator, Mr. Bently, was actively engaged in stripping the overlying fifteen feet of boulder clay from a large area of the lignite. This mine shows the following section :

	FEET	INCHES
5. Boulder clay	15	
4. Lignite	2	
3 Ray seam		4
2. Lignite	2	..
1. Clay	Unknown depth	

This mine is located just over the line of McHenry county, in Township 151, Range 79, Section 32. The seam outcrops for several rods along the coulee, and though it is but two or three feet above the creek level, it is well drained at the present time, as only a small quantity of water issues from the coal. The mine has been worked for four years and about 2,000 tons of lignite removed. Not the least of the conveniences which the enterprising manager, Mr. Bently, has arranged is that of selecting a trail that follows low ground almost on a direct line to Balfour, thus shortening the haul and furnishing a level road for customers. The analysis of the dried lignite from this mine is as follows :

	PER CENT
Volatile matter	37.72
Fixed carbon	53.77
Ash	8.51
	100.00

One other outcrop of coal was reported from this section, lying eight miles to the east, near water level in a coulee that drains to the sloughs north of the butte. Such an outcrop is not improbable, and is even to be expected from the level of the area intervening between the Dogden Butte mines and Balfour. This area includes a stretch of hilly ground, which, though drift covered, probably contains the lignite bearing Laramie series, lying at an elevation considerably above that assigned for the mines at Dogden Butte. The record of several wells of moderate depth in this area shows no lignite, but these wells all stop short at the water bearing gravel, thus failing to penetrate the deeper clays that might contain the lignite.