

paratively barren of gas or oil. Of its productive properties, however, more will be said later. In eastern Ontario it covers a large area, but west of Toronto and Collingwood the series is overlaid by the Utica and newer formations, with the exception of a small area in the vicinity of Collingwood, where it is seen to consist of bluish limestone, having a slight dip to the southwest. In the few wells wherein it has been reached the character of the rocks is apparently unchanged, though its thickness varies considerably. For instance, at Whithy, east of Toronto, it has a thickness of 600 feet; at Toronto, 585 feet; Swansea, 602 feet; Collingwood, 553 feet, and Saint Catharines, 667 feet, in all of which places the formation was entirely traversed, the drillings, with the exception of the well at Saint Catharines, ceasing on the striking of the Archean rocks immediately beneath. In the case of the boring at Saint Catharines the drill penetrated 27 feet of white quartzose sandstone, which may be Paleozoic or belong to the arkose beds.

GEOLOGIC HORIZONS IN ONTARIO YIELDING GAS AND OIL.

OIL WELLS IN THE CORNIFEROUS LIMESTONE.

Age and Depth.—Of the occurrence of petroleum in Ontario but little can be said. In Lambton county, where it has been produced for 30 years, it is found in the Corniferous limestone at a depth of about 475 feet, the record of a well bored near the Imperial refinery, Petrolea, being as follows:

| Formation. | Strata. | Thickness in feet. |
|------------------|----------------------------------|--------------------|
| | Surface deposits..... | 104 |
| | { Limestone..... | 40 |
| | { Shale..... | 130 |
| Hamilton..... | { Limestone..... | 15 |
| | { Shale..... | 43 |
| | { Limestone..... | 68 |
| Corniferous..... | { Limestone, soft..... | 40 |
| | { Limestone, gray, oil rock..... | 25 |
| | Depth..... | 465 |

Annual Output of Oil.—Some 3,000 wells are now producing and afford about 800,000 barrels per annum, making the average daily production about two-thirds of a barrel per well. The oil is dark-colored and of from 31° to 35° Baumé in gravity; nor is it an oil that can be easily refined, on account of the considerable proportion of sulphur it contains in a form as yet undetermined.