

products of petroleum and at least 100 more for which no use has, as yet, been discovered. A special room was devoted to the paraffin exhibit alone, and contained all the varieties of paraffin from the ordinary kind used in candles to the kind used to wax the paper in the paraffin tube you use to sip your ice cream soda.

Their exhibit of water-white oils was a splendid illustration of the wonderful perfection of their refining processes, these oils being obtained from any grade of Pennsylvania, crude oil or from the sulphur-laden oils of Ohio. They also exhibited all grades of lubricating oils—engine, car cylinder, valve, dynamo—everything from that required for the most delicate parts of a watch to that used for a heavy steam roller.

Prospecting for Oil.

There are few pursuits after elements of economic value that depend so much upon a thorough knowledge of geology and geological conditions as that of prospecting for oil.

Every new region brings out new and interesting features peculiar to it, or helps to illustrate and verify long accepted theories. An "expert" oil man, trained in the East, and sent to the West to prospect for oil, would find himself confronted by entirely new conditions, and the prospector trained in the West would encounter as many difficulties in the Eastern oil regions. This is because of the vast difference of geological age and position between the Eastern and the Western fields. In the East, oil occurrences are in strata, far more ancient than those in the

West, being confined to the Palaeozoic limestones and sandstones of the Silurian, Devonian, and Lower Carboniferous strata. (In Ontario they seem to be confined to Devonian strata and limestones.) In the West, most of the oil horizons are found in limestone, shales, and other rocks of Mesozoic and Cenozoic age, from the Jura Trias below to the Tertiary above; although there are exceptional cases of oil signs in the Western Palaeozoic rocks; as, for example, in California, where the asphalt and oil deposits are in the unaltered Cretaceous and Tertiary rocks of the coast range, and underlie the Sacramento and San Joaquin valleys, or in Colorado, where the oil horizons are in the Jura Trias and Cretaceous rocks.

In prospecting for oil, it should always be remembered that it cannot exist in granite or metamorphic rocks (those altered by heat) any more than in a limekiln. Attention should be confined to the unaltered rocks, and all streams, pools and other bodies of water, should be carefully inspected. Oil on the surface shows prismatic colors and may be distinguished from certain iron compounds sometimes floating on water by breaking up into rings when stirred and again showing prismatic bands of color when it comes to rest.

All outcrops of stratified rocks should be carefully examined in the banks of streams, gulches, canyons, cuttings and cliffs, and the ground carefully studied for evidence of anticlinal arches and synclinal troughs. These folds have been formed by the pressure of the rocky strata; an anticline having its arch upwards, a syncline down-