

The recovery of gasoline from natural gas has now become a large industry, which contributes materially to the supply of motor fuels. Experiments in the conversion of natural gas to gasoline were made as early as 1903, but experiment did not give way to commercial production until about 1910. The growth of the industry since that year has been remarkable. In 1911 there were in operation 176 plants, which produced about 7,400,000 gallons of raw gasoline from natural gas. In 1917, only six years later, there were 886 plants, which produced nearly 218,000,000 gallons. Prior to 1916 most of the gasoline recovered from natural gas was derived from casing-head gas obtained from oil wells, by methods involving compression and condensation, but from year to year an increasingly large proportion of the annual output of natural-gas gasoline has been recovered by the absorption process, which has now been applied not only to "wet" gas from oil wells but also to so-called "dry" gas, which occurs independent of oil and constitutes the main supply of natural gas. Dry gas can not be profitably converted into gasoline by compression.

LEATHER FROM AQUATIC ANIMALS

THE Bureau of Fisheries reports that excellent progress in the tanning of fish leather is to be recorded, and a number of the difficulties that have retarded the development of the industry have been overcome by tanners in this field.

One company which is tanning fish-skins has established a station in North Carolina and another in Florida for the capture of sharks and porpoises, and is meeting with success in its fishery for sharks. It is understood that the number of stations will be increased as rapidly as possible. Another company which has recently acquired a site for a tannery in Washington plans to tan the hides of sharks, beluga, hair seals, etc.

Samples of leather recently submitted show marked improvement in appearance over earlier samples. The leather is soft and pliable and appears to have ample strength for many uses. Arrangements have been per-

fectured for the Bureau of Standards to make tests of later products as to durability, porosity, tensile strength, pliability, water absorption, wearing qualities, etc.

The nets which the Bureau developed for the capture of sharks are proving successful and are being adopted for the fishery. At the fishery stations the liver oil is extracted and the flesh is converted into fertilizer, so that none of the material is wasted.

The supplies of walrus leather, which is cut into wheels and used for polishing fine metal surfaces or for removing marks and scratches on bright metal objects, have heretofore been imported. Last year the bureau furnished several interested persons with pieces of walrus hides for tanning and has recently received a sample of leather made therefrom for which tests are being arranged to determine its suitability for such purposes.

VACATION NATURE STUDY

BELIEVING that a better knowledge of wild life will bring about better conservation of it, and that when people are on their summer vacations they are most responsive to education on wild life resources, the California Fish and Game Commission backed by the California Nature Study League instituted this past summer a series of lectures and nature study field trips designed to stimulate interest in the proper conservation of natural resources. Six different resorts in the Tahoe region were selected for the work, and here illustrated lectures on the game birds, song birds, mammals and fish, given by Dr. Harold C. Bryant, of the University of California, furnished evening entertainment and early morning trips afield gave visitors an introduction to mountain wild life.

The motto of the field classes was: "Learn to read a roadside as one reads a book." Special excursions for children gave surprising results owing to the rapidity with which they absorbed information about the living things encountered.

Compact nature study libraries were placed at the resorts by the California Nature Study League and an exhibit of colored pictures and other illustrated material was on display.