

ECONOMIC BOTANY

Ethiopian Trees May be Tapped for Motor Fuel

GEOLOGIST and chemist have cooperated toward the solving of the motor-fuel problem, working on petroleum in most parts of the world, on coal in hard-pressed Germany. But in Italy's recently conquered province of Ethiopia the botanist may have to step into the geologist's place.

Italy's need for motor fuel in Ethiopia is immediate and pressing. Motor transport is about the only practicable means for the commercial exploitation of the country in the immediate future. The one railway line is inadequate, and it ends in an alien seaport. Airplanes obviously cannot handle bulk freight. The truck is the only practicable answer.

But all gasoline and oil have to be imported—and prices are terrific. Ethiopia's dreamed-of oil fields have not yet been found, ardent though the search has been.

Alcohol, the quickest answer of oil-less lands to the liquid fuel problem, is a possibility. Corn and millet, good basic stuffs for fermentation, are raised abundantly. Also, there is a tremendous surplus of palm nuts known as vegetable ivory, which can be converted into a kind of sugar and thence into alcohol. A million gallons a year can be made from these nuts, it is estimated.

But an even better resource appears to reside in the millions of weird, cactus-like plants called candelabrum euphorbias, that grow all over the country. The milky sap of this species is said to yield some 60 per cent of a gasoline-like liquid

upon a relatively simple chemical treatment. Combined with ivory-nut alcohol this "vegetable gasoline" holds out a hope to the worried Italian engineers.

At any rate, they are going to try it. The Italian Fuel Commission is arranging for the construction of an ivory-nut alcohol distillery and a euphorbia-"gasoline" refinery at Agordat, which is the center of ivory-nut production and also has ready access to large forests of candelabrum trees. Agordat also has the advantage of being on a main highway to Adis Ababa, where fuel-hungry trucks pass in fleets every day.

Science News Letter, September 11, 1937

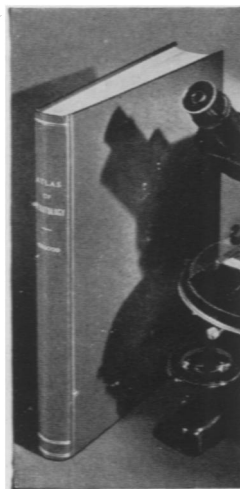
MARINE BIOLOGY

Swarming Life Collected On Wood-Cement Blocks

MORE than 180 distinct species of plant and animal life attached themselves to wood-cement blocks and glass plates lowered into the sea from the thousand-foot pier of the Scripps Institution of Oceanography at La Jolla, Calif., in studies made by Drs. W. R. Coe and W. E. Allen. The forms included, among others, 15 kinds of seaweed, 88 species of one-celled plants and animals together with sponges, worms, barnacles, ascidians or sea-squirts, and the California oyster. Drs. Coe and Allen describe the experiments in detail and suggest practical significances, in a special bulletin of the Institution.

Science News Letter, September 11, 1937

Osgood and
Ashworth



ATLAS OF HEMATOLOGY

A practical aid to diagnosis, prognosis and treatment. The most satisfactory presentation of this subject ever published. Over 300 illustrations of blood cells in actual color magnified x2500.

Contents

- General Principles of Hematologic Diagnosis.
- The Lymphocyte Series.
- The Monocyte Series.
- The Granulocyte (Myeloid) Series.
 - Agranular cells and cells containing azmophil granules.
- The Granulocyte Series, containing the Neutrophils.
- The Granulocyte Series, containing the Eosinophils and Basophils.
- The Plasmacyte Series.
- The Erythrocyte Series.
- Parasites of the Hematopoietic System, Artefacts, Unclassified Cells, the Thrombocyte Series, and Peroxidase Stained Cells.
- The Anemias and Polycythemias.
- The Leukemias.
- The Differential Diagnosis of Splenomegaly, Hepatomegaly, and Lymphadenopathy.
- The Hemorrhagic Diseases.
- The Differential Diagnosis of Sore Throat.
- The Hematology of Infectious Diseases.
- The Hematology of Allergic and Parasitic Diseases.
- Methods.

Order direct or through any book dealer or send for circular giving more complete description of this remarkable book. **\$10** POSTPAID

J. W. STACEY, INC.

236-8 Flood Bldg.

San Francisco, Cal.

This Handy Coupon

IS FOR NEW OR RENEWAL SUBSCRIPTIONS

To Science News Letter, 2101 Constitution Avenue, Washington, D. C.

Please start 1 year, \$5
 renew my subscription to SCIENCE NEWS LETTER for 2 years, \$7

Name -----

Street -----

Address -----

City and -----

State -----

Extra postage charges; 50c a year in Canada; 75c a year in foreign countries.