

INVENTION

Patent Control of Flight And Fueling of Rockets

New Patents Describe Aids to Rocket Flight; Advances in Cakes and Nylon

THREE patents on flight control and fueling of rockets were issued by the U. S. Patent Office to Prof. Robert H. Goddard, on leave from Clark University, who for years has been experimenting with rockets upon an isolated proving ground at Roswell, N. M. In all, 943 patents were issued.

Twin gyroscopes placed in the rocket to guide it in flight and automatically keep it on a predetermined course are covered in patent No. 2,158,180. This device can also be applied to an airplane to make it return to a course from which it may have shifted.

Another Goddard patent describes a delayed action reversing switch, operating in conjunction with gyroscopes which will make current flow through an electrical circuit one way and then reverse it after a properly determined time. His third patent relates to a heat insulating coupling to be used on a pump which pumps liquid air, a common rocket fuel.

Better Cakes

To Benjamin R. Harris of Chicago, Ill., goes patent No. 2,158,775 for a superior cake batter and shortening for making better cakes.

Assigned to the Proctor and Gamble Company, the invention claims to produce cakes which do not shrink when removed from the oven, and which have a better texture.

Grandmother would be surprised at one of the ingredients in one of the

Harris cake recipes. It is oleostearine sulphate, which the patent claims improves the cake.

New Nylon Patent

An additional patent on nylon—the synthetic organic material which can be used in fibers rivalling those of natural silk—has been granted posthumously to Dr. W. H. Carothers, chemist of the E.

OCEANOGRAPHY

Germany's Hope of Food From Sea Is Impractical

GERMANY'S hope of harvesting tiny marine plankton from the sea for their food content, is doomed to economic failure, it appears from studies on collecting these organisms already on file at the Woods Hole Oceanographic Institution.

German scientists have reported that the larger kind, known as zooplankton, have a nutritive value equal to the best meat and the smaller phytoplankton have a food value equal to rye flour.

There is little quarrel about the food value, reports Dr. George L. Clarke of Woods Hole. (*Science*, June 30.) A typical catch of zooplankton when dried shows 7 per cent fat, 59 per cent pro-

I. du Pont de Nemours and Company. The new patent, No. 2,158,064, covers the application of variations of nylon to the coating of fabrics already existing and also its potential use as a lacquer.

Light Polarizer

To Edwin H. Land of Boston, Mass., went another new patent, No. 2,158,130, for his polaroid material which improves its value for use in automobile headlights to eliminate glare.

Photographic Sensitizers

Patents Nos. 2,158,882-3 were granted to Dr. C. E. K. Mees, director of research of the Eastman Kodak Company, for new types of specially sensitized photographic emulsions containing cyanine dyes that makes them sensitive to the red region of the light spectrum.

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tein, 20 per cent carbohydrate, and 14 per cent chitin and ash.

Sharks, whales and other kinds of fish feed on plankton almost exclusively so that the nutritive value is demonstrated. Moreover, shipwrecked crews have been known to sustain themselves on plankton strained from the sea with handkerchiefs.

However, explains Dr. Clarke, it is virtually impossible to get enough plankton to consider it a commercial food source. Knowing the size, mesh and towing speeds of nets fine enough to gather them, it can be shown that it would take two and a half hours to catch enough plankton to feed a single man for one day.

It would be necessary, moreover, to strain them out of a volume of seawater equal in size to a football field and about a yard deep, or about 7,500 cubic meters of water.

The problem of catching enough plankton seems to have comparable handicaps with that of getting gold out of the sea. There is plenty of gold—and plankton—in the ocean but the economics of filtering and treating enough water to get them out takes the problem from the realm of practical reality into one of academic interest only.

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