

the total of 383 miles. In the final heat from Salzburg to Vienna there were only 77 competitors left. The race seemed to be between the heavy Mercedes cars of German make, mounted by Count de Zborowski and De Forest, and the French racers, the Panhard cars mounted by H. Farman, Pinson and Teste, and the Darracq, conducted by Edmond. At Vienna more than 20,000 persons were assembled at the Hippodrome to see the finish. Contrary to expectation it was Marcel Renault, on a light automobile of Renault make, who arrived first, covering the total distance in 26 h. 22 min. 43 sec. The next best record was made by H. Farman (26 h. 36 min. 30 sec.), followed at intervals of a few seconds by Edmond and Zborowski. The chauffeurs received an enthusiastic ovation by the crowd, but the Austrians were a little disappointed that Zborowski had not come first. Renault won the prize of honor offered by the Emperor Francis Joseph to the French racer who arrived first, and President Loubet offered a similar prize to the first foreign chauffeur, which fell to Zborowski. The prize offered by the Prince de Furstenberg for the first car to enter Vienna was also won by Renault.

The Paris-Vienna race has been an instructive one for automobile constructors. The French machines are in general of a light and powerful build and are admirably adapted for the fine roads of the country, but are at a decided disadvantage when called upon to meet the trying conditions of the Austrian roads. It was thought at first that the heavier built German cars would take the lead, but the result shows that the Mercedes car ranked only fourth, and was preceded by the Renault and two Panhard machines. Another point to be remarked is that the Gordon Bennett Cup now passes out of France for the first time, and this will make the next year's race all the more interesting.

A TRIP ACROSS THE ATLANTIC IN A KEROSENE BOAT.

Mr. A. A. Low, a brother of the Mayor of New York city, has developed an invention of Mr. Feodor C. Hirsch, in which, by the novel method of injecting kerosene into a previously heated bulb, power is generated without water. In order to prove the great efficiency of an engine of this type, the New York Kerosene Oil Engine Company has built and equipped a 38-foot launch with a 10 horse power engine. On July 11 this launch started from College Point for Falmouth, England, by way of Sandy Hook.

The old tea house of A. A. Low & Brother owned many ships in the halcyon days of the three-masted clipper. The founder of the house, the late Abiel Abbot Low, carried the United States flag and three-striped firm flag with its "L" to all parts of the globe. The little kerosene launch carries the same emblems.

By the time this paper reaches our readers the little launch may have reached its destination; for Capt. Newman and his sixteen-year-old son, who constitute the craft's entire crew, hope to reach England in about twenty days.

THE REMORA OR SUCKING-FISHES.

BY H. I. GEARE.

Sucking fishes have the unenviable reputation of going through life as hangers-on to fishes of larger growth, notably sharks, swordfishes and bull-fishes. Like some human beings, they prefer to have their food found for them—too lazy to do their own skirmishing in the struggle for life; and to accomplish their end they attach themselves to the gill-covers or sides of larger fishes with their first dorsal fin (the fin on the back nearest the head)

As they are excellent swimmers, there seems to be no good reason why they should become a burden to others, but it is well known that they travel with their unwilling hosts continuously in this manner, and the latter have often been found

emaciated and thoroughly exhausted from the strain of pulling these uninvited guests around. From careful observation it appears that the object of the suckers beyond doubt is to share with their hosts the food which the latter find.

for, having a Line or handsom Cord fastened about him, so soon as a Turtel, or any other of his Prey, comes above Water, they give him Line; whereupon the Guiacan like an Arrow out of a Bowe, shoots toward the other Fish, and then gathering the Mouth of the Bag on his Head like a Purse-net, holds them so fast, that he lets not loose till hal'd up out of the Water."

The natural feeling of antipathy against this class of fishes is heightened by the fact that they are not considered fit to eat, but there is a grim satisfaction in the knowledge that the propensity for fastening themselves on others has been utilized against them in making them catch sea animals for the benefit of man.

The illustrations, which are from photographs belonging to the National Museum, show one of these sucking-fishes alone, and one attached to a shark.

The Great Cork Forests of Spain.

The cork forests of Spain cover an area of 620,000 square miles, producing the finest cork in the world. These forests exist in groups and cover wide belts of territory, those in the region of Catalonia and part of Barcelona being considered the first in importance.

Although the cork forests of Estremadura and Andalusia yield cork of a much quicker growth and possessing some excellent qualities, its consistency is less rigid and on this account it does not enjoy the high reputation which the cork of Catalonia does.

In Spain and Portugal, where the cork tree, or *Quercus suber*, is indigenous, it attains to a height varying from 35 to 60 feet and the trunk to a diameter of 30 to 36 inches. This species of the evergreen oak is often heavily caparisoned with wide-spreading branches clothed with ovate oblong evergreen leaves, downy underneath, and the leaves slightly serrated. Annually, between April and May, it produces a flower of yellowish color, succeeded by acorns. Over 30,000 square miles in Portugal are devoted to the cultivation of cork trees, though the tree actually abounds in every part of the country.

The methods in vogue in barking and harvesting the cork in Spain and Portugal are virtually the same. The barking operation is effected when the tree has acquired sufficient strength to withstand the rough handling it receives during the operation, which takes place when it has attained the fifteenth year of its growth. After the first stripping the tree is left in this juvenescent state to regenerate, subsequent stripings being effected at intervals of not less than three years, and under this process the tree will continue to thrive and bear for upward of 150 years.—The Boston Herald.

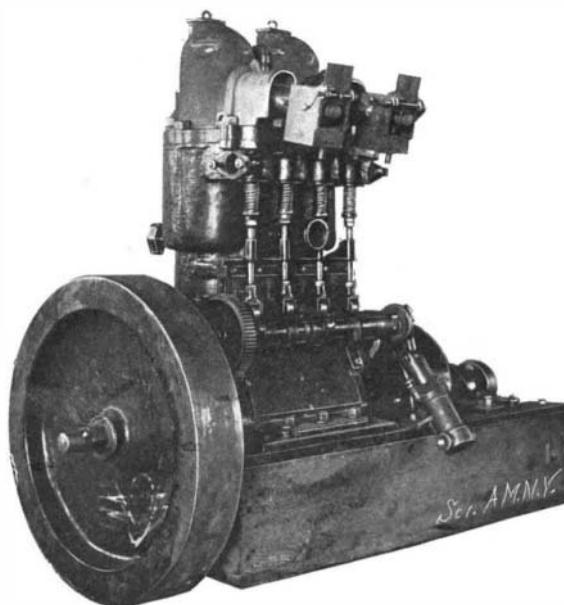
A New Oil-Carrying Fleet.

The Standard Oil Company is to have built in England a fleet of twelve steamships of the "Kennebec" type for the Eastern trade. If two trips a year are made by each of these vessels, it will be possible to ship 48,000,000 gallons of oil to China and Japan during the year. This amount would be equivalent to an eighth of the total amount of oil exported to foreign ports from Philadelphia. It is probable that the use of this large fleet will drive sailing oil-ships to seek other business.

Benjamin Arnold, of East Greenwich, R. I., died recently after a short illness. He was an inventor of wide repute. He was born in 1822 and was educated at the Friends' High School in Philadelphia, and also at the Franklin Institute in the same city. The most useful and prominent of his inventions was a netting machine for making seines from either linen or cotton, the patent for which he disposed of to the firm of William E. Hooper & Sons, of Baltimore, Md., which firm also purchased a number of his other patents for doing the same character of work.



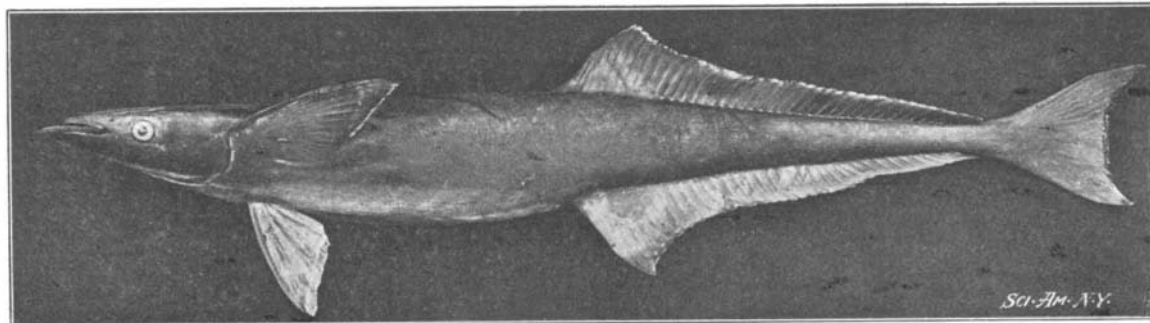
THE KEROSENE LAUNCH NOW CROSSING THE ATLANTIC



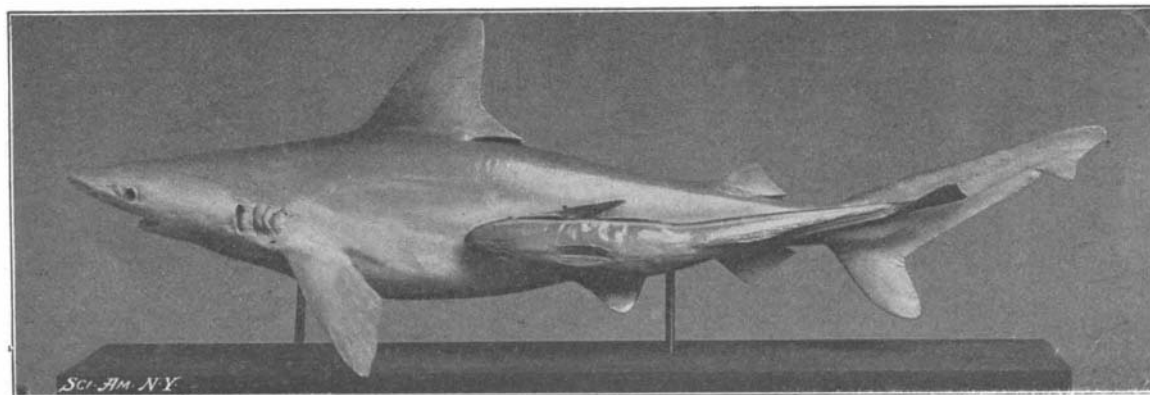
THE MOTOR OF THE LAUNCH.

The Remora was one of the first fishes observed by the discoverers of North America, and history tells us that the Indians used them as baits to catch other fish. Thus in Ogilby's "America" the following reference to them is found in speaking of the fishes observed about the West Indian islands:

"Columbus from hence (Cuba) proceeding on further Westward discovered a fruitful coast, verging the Mouth of a River, whose water runs Boyling into the Sea. Somewhat further he saw very strange Fishes, especially of the Guiacan, not unlike an Eel, but with an Extraordinary great Head, over which hangs a Skin like a Bag. This Fish is the Natives' Fisher;



THE SUCKING FISH.



SUCKING-FISH ATTACHED TO A SHARK.