

RECOGNITION OF REAR-ADMIRAL DEWEY.

As soon as possible after the news of the splendid victory of Commodore Dewey at Manila Bay, on May 1, reached the United States, it was determined by Congress that the hero of this great naval engagement should receive in substantial form a token of appreciation from the nation, and on June 3, 1898, by a joint resolution of Congress, a sword of honor was ordered to be presented to Rear-Admiral Dewey, and, in response to the resolution, a number of designs were submitted. A representative committee, composed of Assistant Secretary of the Navy Charles H. Allen, Hon. Henry Cabot Lodge, United States Senator from Massachusetts, and Prof. Marshal Oliver, of the United States Naval Academy, selected the design, the one chosen being that of Mr. Paulding Farnham, the secretary and one of the directors of Tiffany & Company, the well-known jewelers of New York, who is an excellent designer and sculptor as well.

The sword is one of the finest and most costly testimonials of the kind which has ever been presented. With the exception of the steel blade and the metal body of the scabbard, it is made entirely of pure twenty-two carat gold. The grip of the sword is covered with fine sharkskin, which is held in place by gold wire and is studded with gold stars. Above the grip the handle terminates in an elaborately chased and enameled gold collar and pommel, a narrow band of oak leaves uniting the collar to the grip. On the pommel is carved the name of the battleship "Olympia" and the zodiacal sign for the month of December, which is Commodore Dewey's natal month. These are encircled by a closely woven wreath of oak leaves, which are the standard decoration for a naval officer of Dewey's rank. At the very top of the hilt are the arms of the United States, the blue field of the shield being in enamel. Below them are the arms of Vermont, the native State of the Rear-Admiral. The guard is composed of a conventional eagle terminating in a claw clasping the top, and the outspread wings form the guard proper. The eagle holds a laurel wreath in the beak. This, besides being symbolical, serves as a protection, covering the point of the beak. The sword blade is of the finest steel and is damascened with the inscription which should be honor enough for any man. It reads: "The gift of the nation to Rear-Admiral George Dewey, U. S. N. in memory of the victory of Manila Bay, May 1st, 1898." The blade is ornamented with Phœnician galleys, and on the reverse of the lettered side are shown eagles in flight—symbolic of victory. The scabbard is of thin steel and is damascened in gold, with sprays of a delicate sea plant, which signifies fidelity, constancy, and remembrance. The sprays are interlaced so as to form, as it were, a series of cartouches with stars in the center. At each side of the bottom of each cartouche is a dolphin. The lower portion of the scabbard terminates in entwined gold dolphins. Sprays of oak leaves and acorns secure the rings and trappings of the scabbard. The top of the scabbard is terminated by a raised monogram in diamonds, with the letters "G. D.," which are entwined, and below them are the letters "U. S. N." This eminently appropriate testimonial to the great sailor cost \$3,000.

We also illustrate the handsome medal which has been struck in honor of the victory. It was designed by Mr. Daniel Chester French, the well-known sculptor, and is made of bronze. The obverse has a medallion portrait of Rear-Admiral Dewey and bears the words, "The gift of the people of the United States to the officers and men of the Asiatic Squadron under the command of George Dewey." The center of the reverse is occupied by a gunner naked to the waist, who sits on a gun, holding an American flag, and around it are the words, "In memory of the victory of Manila Bay, May 1, 1898." The rear-admiral and all his officers and men will receive these medals.

The Dangers of the "Dry-cleaning Process."

The extreme care with which easily inflammable liquids should be handled was exemplified some time ago in the case of a paraffin hair-wash. This unfortunate occurrence, which resulted in the death of a lady from shock and burns, would appear to have been due to the ignition of benzine by the production by friction of an electric spark. It is well known that when the air is particularly dry the production of an electric spark, say by stroking the hair or by rubbing flannel, is a very simple matter. Under the very dry conditions of the atmosphere there is a strong tendency

for opposite electrical conditions to exist on the slightest provocation. This probably accounts for a somewhat remarkable accident which occurred in a "dry-cleaning room" at Ashton, England. Some workmen were engaged in cleaning by the dry process certain garments, such as pants and vests. During the rinsing process a flash suddenly occurred in the "rinse kettle." "It was a bright flash like lightning. Then everything became one mass of flame, the spirit, garments, and everything." The fire extended, and one man unfortunately lost his life. The witnesses were one and all positive that the flame had its origin in the "rinse kettle," and every precaution was taken to exclude any possibility of ignition from naked flames or from lighted tobacco pipes. The igniting cause was probably, therefore, an electrical phenomenon, and it only remains to suggest that when the weather is remarkably dry the air in dry-cleaning workshops should be kept moist by suitable means, and extra care should be taken to avoid friction in the cleaning process.

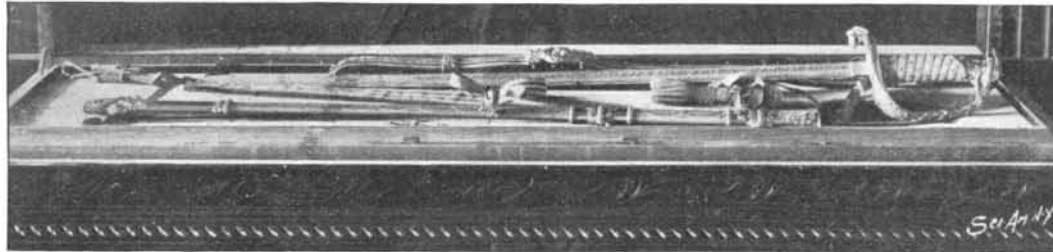
Bread Fruit Trees.

Of the various trees that produce fruit which is used as a staple article of food by man may be mentioned those of the genus *Artocarpus* (a word meaning "bread fruit") of tropical countries.

The bread fruit tree (*Artocarpus incisa*) of the southern part of Asia and the South Sea Islands bears a roundish fruit of the size of a melon, rough on the exterior, marked with hexagonal knobs, and of a green color. The pulp of the interior is whitish and of the consistence of new bread. It is roasted before it is



MEDAL COMMEMORATING THE VICTORY OF MANILA BAY.



SWORD PRESENTED BY THE NATION TO REAR-ADMIRAL GEORGE DEWEY.

eaten, but has little flavor. The best varieties contain no seeds, the tree being propagated by shoots that spring from the roots.

In the South Sea Islands the bread fruit constitutes the principal article of diet of the inhabitants. It is prepared by baking it in an oven heated by hot stones. The plant is now cultivated in the West Indies, but does not there equal the plantain as an article of food.

The fruit of the *bedo*, another plant of the genus, contains two large pulpy seeds that swim in a semi-liquid substance of a vinous taste. It, therefore, offers the natives of Java and the Marianne and Philippine Islands, where the tree grows, both food and drink.

The jack (*Artocarpus integrifolia*), another bread fruit, is a native of the Indian Archipelago and is cultivated in Southern India and all the warm parts of Asia. The fruit is a favorite article of food among the natives, as are also the roasted seeds.

The roasted nuts of *Brosimum alicastrum*, a tree belonging to the same order as the *Artocarpus*, are used instead of bread, and have a taste something like that of chestnuts.

To this last named genus belongs also the famous cow tree of South America, which yields a copious supply of rich and wholesome milk, as good as that of the cow. In the same order we find the genus *Phytocrene*, one species of which, when wounded, discharges a large supply of pure and wholesome liquid, which is drunk by the natives. By a singular anomaly, the order of plants that includes these useful trees embraces the celebrated upas tree, which, when pierced, exudes a milky juice which contains a very acrid and virulent poison into which the natives of Java dip their arrows.

Uranium.

Uranium is obtained chiefly from the mineral pitchblende, an oxide of uranium, but generally contains small quantities of other metals, as the following results of the analysis of a typical specimen show:

	Per cent.
Oxide of uranium.....	79.15
Lead.....	6.20
Silica.....	5.30
Iron.....	3.03
Lime.....	2.81
Arsenic.....	1.13
Magnesia.....	0.46
Bismuth.....	0.65
Water	
Selenium	127
Manganese	
Carbon	
Total.....	100.00

It is now prepared by calcining uranium nitrate in a porcelain crucible until a reddish-colored mixture of the sesquioxide and green oxide (U_2O_3) is formed. The mixed oxides are thoroughly ground with a slight excess of pulverized charcoal and tightly packed in a carbon crucible. On subjecting the charged crucible to an electric current of about 450 amperes and 60 volts, the reduction is completed in a few minutes. The metal thus obtained is not pure, but contains carbon in amounts which vary between 5 per cent and 14 per cent. This carbide has a brilliant fracture and great hardness, and when thrown on a slab of porcelain, or closely pulverized and shaken in a glass flask, exhibits the singular property of discharging copious showers of sparks, resembling those displayed when freshly

reduced iron is quickly moved about in air. The fusing point of uranium carbide is very high—much higher than that of platinum—and the alloy will probably be found to possess advantages over platinum for use in pyrometers and similar instruments. Carbide of uranium would make a splendid alloy with steel, and if it could be obtained cheaply it would probably supersede nickel and wolfram in the manufacture of high-class steel.

Pure uranium is a perfectly white, non-magnetic metal which takes a good polish, and can be easily scratched with a file. When subjected to high temperature, it is much more volatile than iron. Finely powdered uranium takes fire in an atmosphere of fluorine, and is attacked by chlorine, bromine, and iodine at different high temperatures. It is also completely burnt in an atmosphere of oxygen at a temperature of 170° C. At high temperatures uranium directly combines with nitrogen.

An alloy of uranium and a small quantity of silver, copper, or lead is used in the manufacture of a yellow glass which arrests chemically active light rays. It is employed in making windows for chemical laboratories and photographic developing rooms, and for bottles and flasks for holding substances sensitive to light. The salts of uranium are largely used in photo-

graphy and as chemical reagents. Some of them are used in glass painting for making apple-green tints, and in porcelain painting for producing black tints. Recent researches in chemistry and physics have made us familiar with the properties of a number of new or rare metals, but few of them possess so many valuable properties as uranium, and it is to be regretted it is so sparingly and irregularly distributed.—Mining and Scientific Press.

Rice Cultivation in Russia.

While rice has long been grown in Persia and the Trans-Caucasus, it was almost unknown in the interior of Russia up to 1886, the supply being imported from India, and, as it was subjected to high duty, its use was naturally confined to the wealthier classes.

Russia first commenced the cultivation of rice in the early eighties, and in 1888 the first steam rice-cleaning factory was opened at Baku, and 1,612 tons were produced the first year. There has been a steady increase in the production of rice, and there are now five rice-cleaning factories in operation and the annual product is more than 48,000 tons. The demand for rice has increased and it is now generally used by the peasants throughout the empire. The quality of the native product is equal to that of the imported article. The residue is utilized, the broken grain being made into starch and the flour is given to hogs.

The Havana Electric Company.

A company with a capital of \$5,000,000 has been formed to operate street railways through the city of Havana and elsewhere in Cuba.