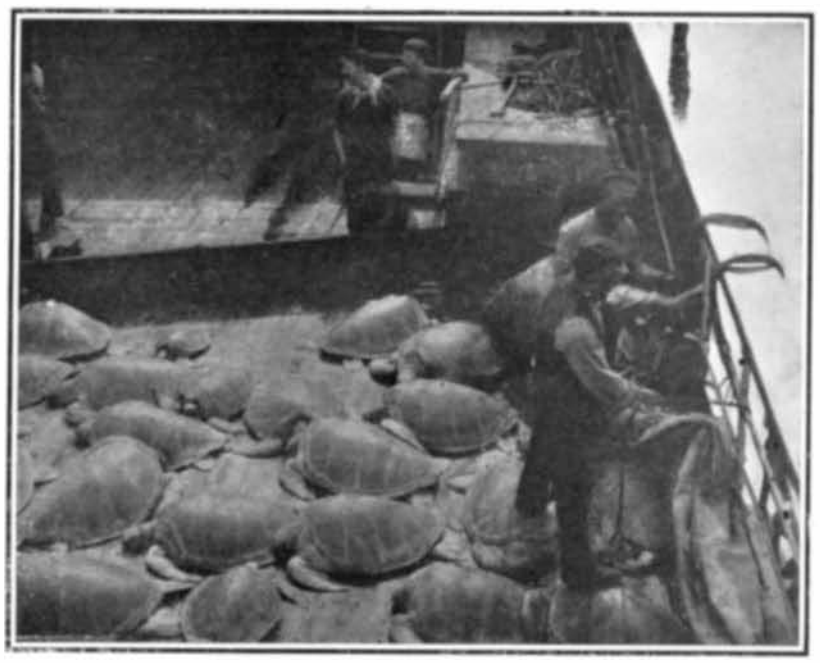
THE TURTLE TRADE OF THE WEST INDIES.

BY W. G. FITZ GERALD.

There are few more curious or profitable industries than that of catching and exporting the edible turtle for the benefit of the *gourmets* of the world, who love turtle soup, not to mention invalids and our weaker brethren generally, whose lives may be saved by this peculiar delicacy, which appears to possess nutritive properties of a very high order.



Turtles on Board Ship.

Appraising Live Turtles.

These appear to be due to the easily assimilable form in which the nitrogenous and gelatinous constituents exist in the flesh of the turtle. The trade itself is unique. Its headquarters are at Kingston in Jamaica, but most of the fishing is done on the coral reefs lying to the north of the island. Twelve or fifteen small schooners are employed, and upward of 120 men.

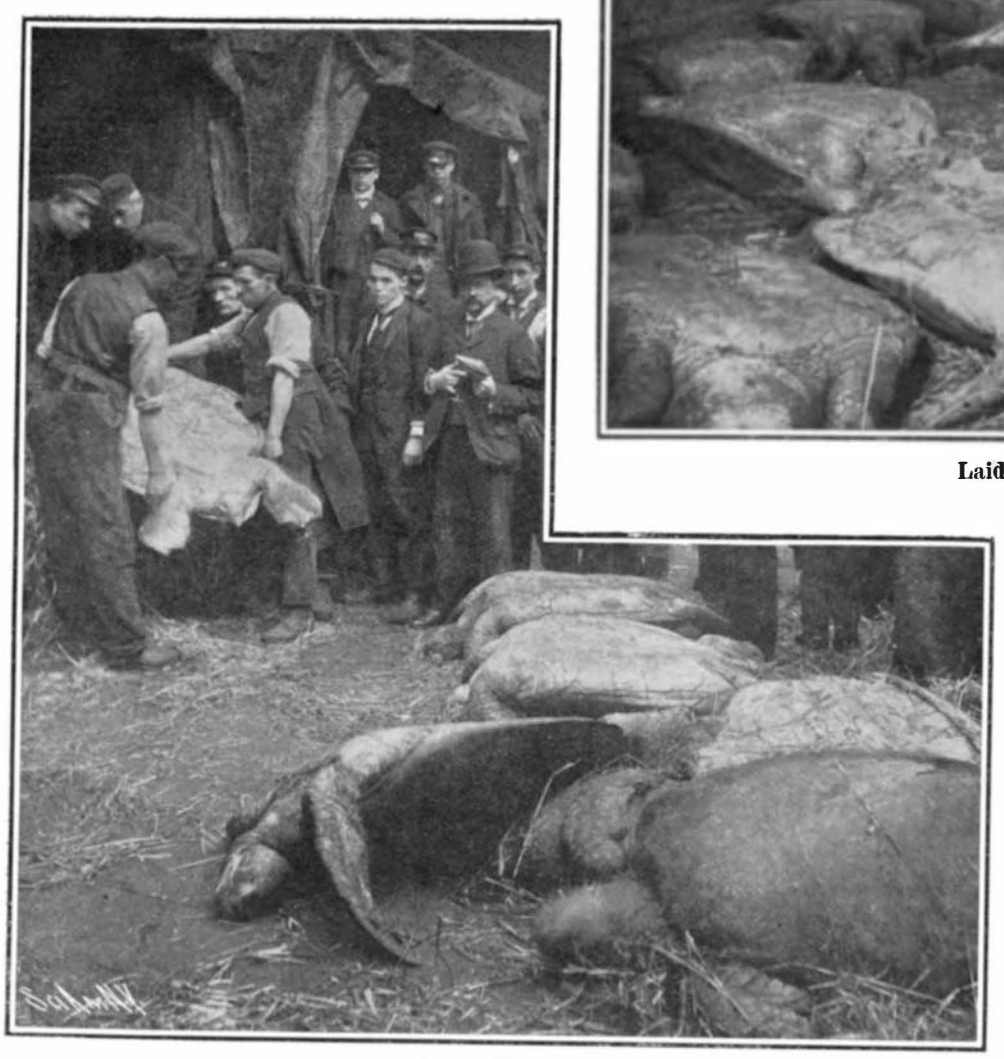
These fishers of strange "fish" (the turtle's technical name) stretch nets of twine from rock to rock, and the moment the turtle feels itself entangled, it clings tenaciously to the meshes. The schooners in due time return to Kingston with from eighty to a hundred and fifty of these queer "fish," which are promptly deposited in palisaded inclosures flooded by the sea, and here they are fed upon a certain kind of herbage known as turtle grass, and taken as required.

The true *Chelonia Mydas* is quite a small turtle of rarely more than 180 pounds, and the market is regulated artificially. For example, the one London dealer in whose hands the entire British trade is, instructs his agents in Kingston not to send more than a hundred turtles once a fortnight by the mail steamer arriving at Southampton.

Everything about these creatures appears to be abnormal. For example, they have three hearts, and the appearance of four. Moreover, bringing them over seas is as delicate a business as the case would be with a cargo of giraffes, and frequently 105 splendid turtles out of 120 have died *en route*, in spite of the most elaborate precautions, such as the constant spraying of salt water daily on board the mail steamer, and the use of luxurious foot warmers for the turtles in the wagons conveying them from the terminal railroad station to the dealer's warehouse. Most of the "fish" are sold in advance to *restaurateurs* of the highest class; and in England alone some 3,000 choice specimens are imported every year. The average weight of each is about 165 pounds, and the wholesale price ranges from twenty to twenty-five cents per pound. Although the turtle is seemingly very susceptible to cold, his vitality after decapitation by the *chef* in the kitchen is all but incredible. In one well-authenticated instance a turtle whose head had been cut off, and which had been hung upside down for upward of twenty-four hours, actually knocked down one of the men cooks with a spasmodic blow of its fin. Naturally, *chefs* have tried many curious experiments with this strange creature; and a turtle's head has been known to bite savagely at a piece of wood many hours after decapitation.

Laid on Their Backs the Turtles Are Helpless.

The flesh is divided into what are known as calipee, calipash, and fins. The flesh is said to be colored green by the peculiar grass that grows on the coral reefs where the turtles feed. The winter season is naturally the busiest for the turtle trade, and the parts used in the famous soup are the membranes of the stomach and back-shell. The shell itself of the green turtle is worth very little, but the hawksbill turtle yields what is popularly known as tortoise shell, and the armored covering of a good specimen may be worth $45.



A Scene in a Turtle Market.

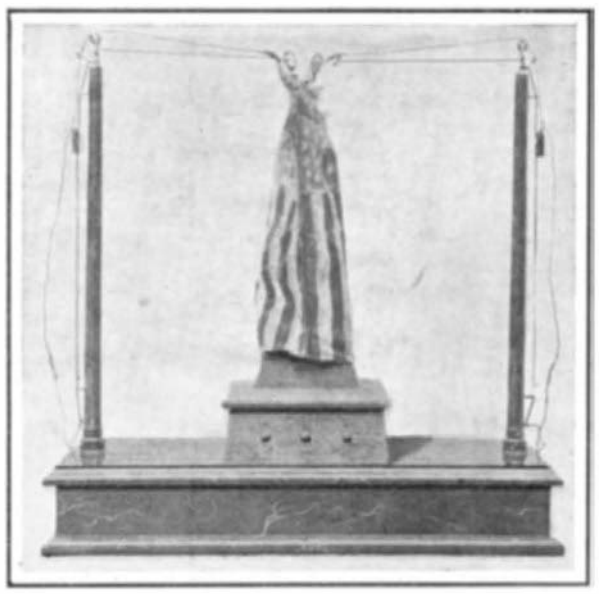
THE TURTLE TRADE OF THE WEST INDIES.

Of course, turtle range in size up to 600 pounds, but the flesh of very large specimens is too coarse and has no commercial value. A great quantity of the finest turtle are now caught in the Mexican Gulf, and beyond all question the flesh has been regarded as a very great delicacy from the remotest times of antiquity. As far back as the days of Pliny himself, we read of the shell being made into dishes, to say nothing of hair-combs for the Roman ladies.

A great industry is growing up in canned and bottled turtle products, quite apart from the live "fish." A visit to the cellars in which these huge creatures are stored is an uncanny experience. Here one may see a veritable menagerie of edible turtles, rustling about on a bed of sweet straw. From time to time they lift up their peculiar heads, and utter strange sounds like the faint, hoarse bark of a small dog. From time to time a telegram arrives from some great

caterer, announcing some important banquet, and one of the "herd" is forthwith cautiously dispatched to the scene of festivities, with as much care taken for his personal comfort *en route* as though he were the pampered pet dog of some great lady.

Beyond doubt turtle products are vastly cheaper today than they were ten years ago, because the famous



The Statue Covered.

calipee and calipash are now manufactured in portable form, mainly for the convenience of invalids and explorers venturing into malarial countries like the West Coast of Africa, where readily-made turtle soup is found a very powerful restorative in cases of debilitating fever.

There is little chance, however, that the turtle trade will ever attract investors, for not only is the demand extremely limited, but, as we have seen, all conditions appertaining to the supply are extremely precarious. In the nature of things, turtle soup must ever remain beyond the reach of the poorer classes, but it has for centuries figured at aldermanic banquets and great civic festivities, and we have evidence that Lucullus himself loved the luscious green fat, which has become synonymous with high living and an opulent table generally the world over.

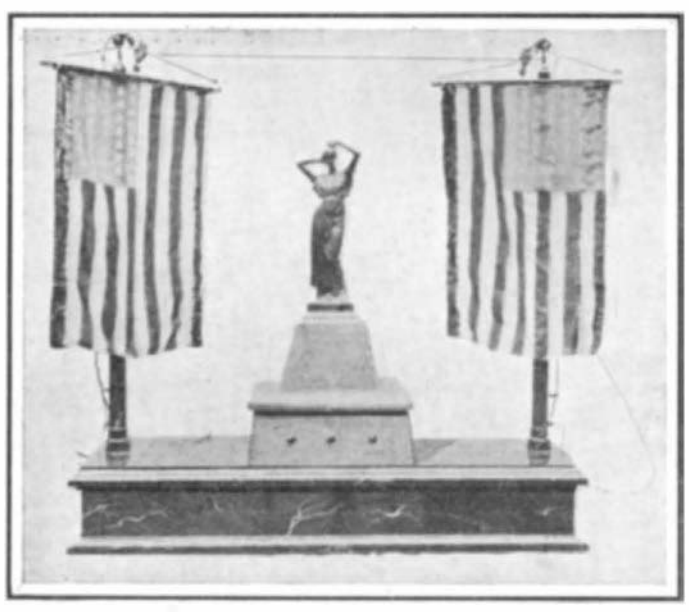
UNVEILING STATUES BY ELECTRICITY.

BY GEORGE J. JONES.

The unveiling of a statue under ordinary circumstances is a very impressive occasion, but it is frequently rendered ludicrous by a failure at a very critical moment. Often the drapery which is used to hide the lines of the memorial refuses to respond to the tugs and pulls given at the cords which were designed to draw the fabric away. This sort of mishap is no less embarrassing than when the material falls of its own accord in advance of the set time. Having witnessed several such accidents at Washington, D. C., J. S. Hill, an electrical engineer employed in the Department of the Interior, set about some time ago to devise some method of performing this operation by the use of the electrical current, so as to render such occasions free from accidents. Recently he announced the completion of his self-assumed task.

The scheme calls for the erection of two poles placed on either side of the monument, with a stout wire cable stretched from top to top. The ends of the cable pass down the side of one pole, and are secured near the bottom. Held slightly away from the pole, the cable acts as a guide for counterweights. Mounted on the cable are two swivel pulleys, each supporting a wooden staff balanced therefrom. Flags are generally made use of for the purpose of hiding the lines of the statue until such time as it is desired to reveal them to the assemblage, and in the electrical process the bunting is secured from these sticks. The flags hanging from the sticks completely encircle the statue. The lengthwise edges of the flags are supplied with small magnets and corresponding armatures, the magnets being connected in series, and the current from a few batteries is sufficient to hold the edges of the flags together, even in the face of a strong wind. This current is conveyed through a small insulated wire. When all is ready one of a pair of touch-buttons, placed at a convenient point, is pressed. The flags open like a book, and for a few seconds they remain as an effective background to the memorial. The second button is then pressed, and the flags move off under the action of the weights, toward the poles, leaving a free and unobstructed view of the statue.

The inventor of this scheme had an ambitious desire to put the scheme to a severe test at the unveiling of the Franklin statue in Paris. He submitted a plan to the American ambassador. His suggestion was that the ceremony be made a double one, the actual pressing of the button being done at Philadelphia, Pa., at the meeting of the American Philosophical Society, by some distinguished electrician who might attend the gathering or by some of the descendants of Benjamin Franklin, several of whom are still residing in that city. There was not sufficient time, however, to make the necessary arrangements, which would require much correspondence.



The Statue Unveiled.

UNVEILING STATUES BY ELECTRICITY.

Making Casks of Cork.

BY ARTHUR H. J. KEANE.

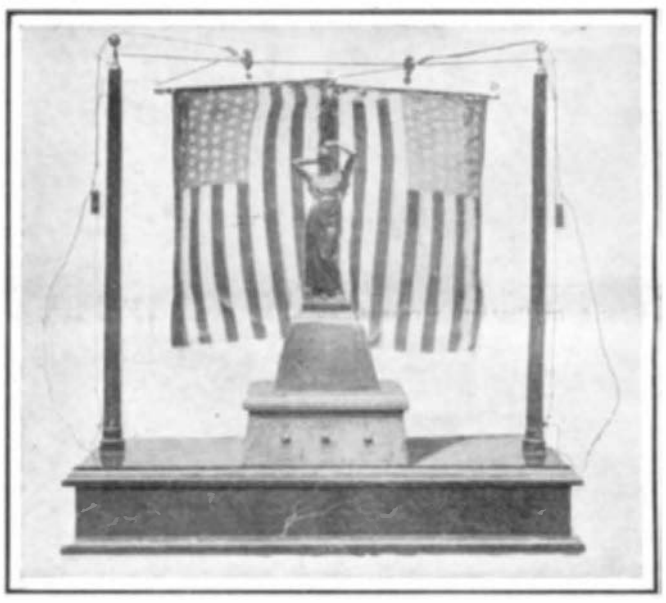
A great impulse to the cork trade promises to be given by the discovery of a new process relating to the manufacture of casks, barrels, and the like from the raw material in question. The process consists in placing staves made of cork edgeways instead of flat, as is usual when making casks of wood; in this way all cracks and holes traverse the stave in the direction of its width, thus assuring perfect impermeability, even with cork of inferior quality or of a grade not suitable for any commercial purposes. The staves, when assembled and hooped, are pressed together by means of a cooper's lathe or other suitable apparatus. The hoops are slipped on in quite a natural manner without the necessity for using a hoop-driver; they become imbedded in the cork, and are all the more adherent as, owing to the elastic nature of the cork, the body of the cask always tends to swell. The bottom of the cask is composed of strips of cork, also placed edgeways, and so joined together as to form a base of any desired thickness; upon this latter a circumference is drawn corresponding in length to the height of the cask. When placed in position, the pressure exerted upon it by the first hoop gives it both impermeable and perfectly solid qualities. Its rigidity may also be further enhanced if desired by placing across it a sheet of steel, a T-iron, or a wooden brace, the ends of which are made fast to the first hoop. A wooden bottom, covered with cork or not as preferred, may also be used with advantage, if no press of sufficient power to render the cork bottom impermeable is available. Any risk of mustiness or "corky taste" being imparted to the contents is prevented in the following manner: Before placing them in position the staves are steeped in boiling paraffine, and the inside of the cask is coated with a varnish similar to that now used for beer barrels. The heated air expands, and causes the coating to penetrate into the pores of the cork; the cask is then emptied, and the outside is given a good dressing with pitch, coal tar, or other substance that will harden cork. Casks and barrels of all sizes may be made in this way, by suitably cutting the cork. The average weight of such a cask is from 34 to 35 pounds, or one-third the weight of a wooden cask, so that costs of transport (especially as regards the return of empties) are greatly reduced. A cork and a wooden barrel were recently filled with water at 10 deg. C. and placed right in the eye of the sun; at the end of two hours the water in each was tested, and the temperature found to be 10 and 18 degrees respectively; after six hours' exposure the temperatures were 12 and 40 degrees in the cork and the wooden barrel respectively. In the shade water in a wooden cask became undrinkable at the end of two days, whereas the supply tested in a cork cask was quite fresh and sweet, and remained so after being kept under test conditions for a very long space of time. This is a point of vital importance in connection with the keeping and storage of wines, especially in warm countries, as cork affords a very efficient means of protection against fermentations of all kinds. This industry, though still in its infancy, is already giving most encouraging results in France, and a great future is forecasted for it.

Overhauling Brass.

When brass first began to be rolled it was not treated in any manner to remove the dross or other imperfections which were present on the surface. The customer was obliged to take the sheet metal in whatever condition it was. As the consumer became more critical, the so-called "overhauling" was practised, i. e., the scraping of the surface of the brass with a hand scraper. This, too, finally became unsatisfactory on account of the impossibility of removing all the imperfections. The old-fashioned Stever overhauling machine made its appearance, and for many years was the only appliance known to the brass rolling mill industry. Taking this for a base, the modern and very efficient overhauling machine has been evolved. Various attempts have been made to devise some more rapid machine, but without success.

For years it was the custom of the American brass rolling mill to overhaul all brass. It made no difference what it was, all went through the same process. Within the last year or two, however, there has been a tendency toward the partial elimination of the overhauling machine, and at the present time several of the large brass rolling mills have abandoned the use of the overhauling machine entirely on certain classes of work and are now rolling a proportion of their brass without any treatment whatever, except perhaps, first pickling it, and even this is dispensed with in many instances.

This practice was started in the commonest varieties of brass, and it has gradually spread to those of



The Parting of the Flags.

more importance, until now even drawing brass is made in this manner. The success of such practice depends, of course, upon the quality of the cast plate, but when care is used in making it, it is a matter of surprise to find how well it will work.

There are many uses for brass which do not require the metal absolutely free from imperfections, and it is in these instances that overhauling can be dispensed with. As overhauling is also an inspection process, its elimination is apt to be attended with bad results unless much care is used in dispensing with it.—Brass World.

Cadmium Alloy for Bearings.

A new alloy for bearings has been patented by Hans Kreusler, of Wilmersdorf, Germany, in which the following are used:

Cadmium	45 parts
Zinc	45 parts
Antimony	10 parts

This alloy is stated by the inventor to have a very low coefficient of friction and to cast well. —Brass World.

Japanese Machinery Imports.

In turning lathes the United Kingdom and the United States practically divided the import for the whole of Japan last year, of which Kobe absorbed nearly all. In cotton-spinning machinery, of which about six-sevenths were exported by the United Kingdom, Kobe absorbed five-sixths of the British machinery and five-sevenths of the whole import from all countries. In turning lathes Germany advanced her total import into Japan by over 300 per cent, but the value remained at not more than one-fifth of the British and one-eighth of the American import.