

A DUTCH TILBURY.

The accompanying illustration is from a photograph of an old Dutch tilbury of the eighteenth century. We give it as a curiosity and because of the study it affords of ironwork and carving. We are indebted to the Hub for kindly lending us the cut and particulars.

As will be observed, the ironwork is largely made up of flat instead of oval or round bars, and the scrolls show a narrowing of the bars to the ends. They evidence much artistic skill and excellence. The entire framework of the body is elaborately carved, while carvings and scrolls decorate the woodwork of the under carriage. The carved spokes and hubs evidence skill and originality. The scene on the panel would indicate that artists found opportunities for their genius on the vehicles of that day.

The Temperature of the Sun.

Prof. Paschen has been investigating the temperature of the sun, says the Gas World. Among recent observers, Rosetti has found a temperature up to 10,000° C. by means of a thermopile; Le Chatelier one of 7,600° C. by comparing the absorption of solar rays with that of rays from a hot object; Wilson and Gray one of 6,200° C. by balancing the radiation from the sun against that from a glowing strip of platinum, in a Boys radiometer; Scheiner one between 4,000° C. and 10,000° C. by measuring the breadth of the magnesium lines in the spectrum. Now Prof. Paschen reckons it by considering the wave length of the radiation of maximum energy in sunlight as inversely proportionate to the absolute temperature of an incandescent body; and this works out a solar temperature of 5,130° C. = 9,266° Fah.

OLYMPIAN TROPHIES.

We present engravings of trophies obtained at the recent revival of the Olympic games at Athens. We have already given views of the stadium and of the games, as well as a list of the events and the winners. The exhibition and recognition of physical excellence in action is the one permanent characteristic common to the old athletics and the new. The simple olive crown was felt to be a sufficient reward centuries ago when the interest in the games was at its height, but our modern ideas of sport and its reward have invaded even the classic precincts of the stadium; so the simple wreath, which is priceless in itself, carried with it in the present instance more substantial recognition. The larger of the cups was given to Robert Garrett, Jr., of Princeton University, for throwing the discus and the smaller for putting the shot. The discus shown in the engraving is the one actually used by Mr. Garrett on April 6, when he threw it 95.6 feet, defeating the Greek champion, Paraskevopoulos, by 7½ inches. It is 8 inches in diameter and about 2 inches thick in the center, becoming smaller toward the edges. It is made of wood with a brass plate on either side, and it has an iron rim. The smaller engraving represents the two medals, the face of one and the obverse side of the other. Each victor received one of the medals. Greece has commemorated the occasion of the revival of the Olympic games by the issue of an appropriately designed set of postage stamps.

Rising of the Land Around Hudson Bay.*

In the provinces of Ontario and Quebec it has been found by actual levelings by Gilbert, Spencer and Upham, that the old shore lines are not perfectly horizontal, but that they slope upward in a northeasterly direction at rates varying in different regions from one foot to even two feet per mile. If this upward slope were continued in the same direction to the north-eastern extremity of Labrador, 1,300 miles from Lake Huron, the increase in the elevation might there amount to 1,000 or 2,000 feet.

The shores of the bay every-

where afford abundant evidence that there has been a comparatively rapid rise in the land, and that the elevation is still going on. It is well known to those who have paid any attention to the subject, that since the establishment of the posts of the Hudson's Bay Company in the mouths of the rivers around the bay,

places far above the reach of the highest tides. The old beaches on which this wood is plainly seen occur at various levels up to about 30 feet above high tide, but the remains of rotten wood may be detected in some localities up to nearly 50 feet, above which it has disappeared from the ancient shores by long exposure to the weather.

The gravel terraces seen at various elevations around the coves and upon the thousands of small islands along the east coast of James Bay are remarkably sharp and well preserved, and almost as fresh looking as if they had been formed but yesterday.

Some of the aboriginal geographical names around the head of James Bay are significant of considerable changes in the topography since these shores became inhabited by the natives who still occupy them. The large peninsula between Hannah and Rupert Bays is called Ministik-oo-watum, which means wooded island with a cove or hole in it, ministik being the Cree for a wooded island, and watum for a cove or hole.

One of the best evidences of the modern rising of the land is to be found in the beach dwellings of the Eskimos, which may be seen at all elevations up to about seventy feet.

Among the historical evidences bearing upon this question since the advent of the white man may be mentioned the fact that in 1610 Henry Hudson, the navigator, wintered in a bay full of islands on the east coast south of latitude 53°. None

of the bays in this region would now be possible for this purpose, showing that a considerable change in the level of the sea has taken place in less than three hundred years.

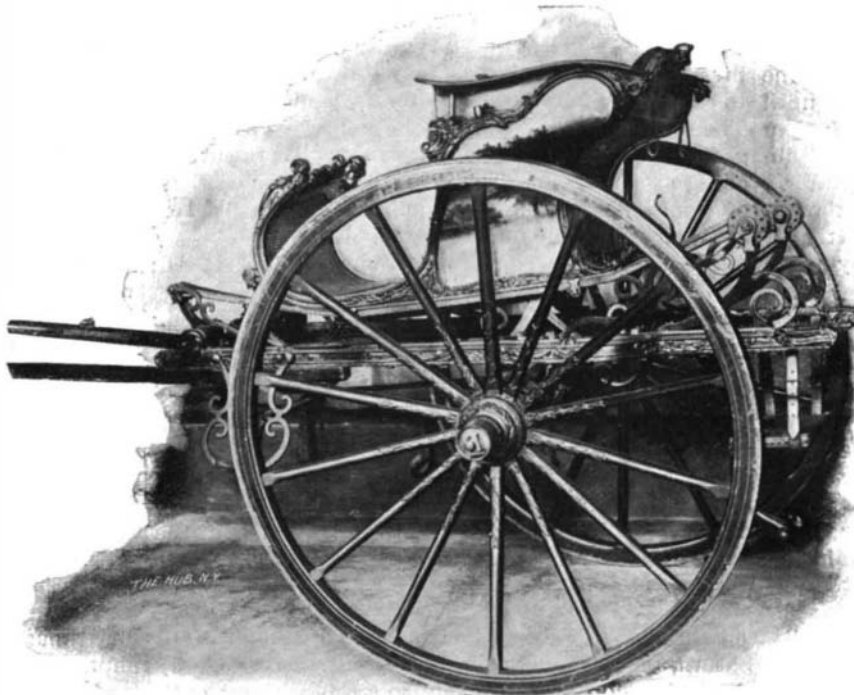
The officers of the Hudson's Bay Company are an intelligent set of men, and their universal opinion, based upon lifetimes of observation, is that the land all around the bay is rising. The following is part of a letter recently received from Mr. Joseph Fortescue, lately a chief factor in the Hudson's Bay Company, in answer to my request for his opinion on this subject:

"Regarding the rising of the shores of Hudson Bay, I have no doubt whatever. When I was at York Factory I heard several Indians say that the sea or tide had retired two miles from places they remembered when they were young, and my own observations during twenty years there would lead me to entertain the same opinion. When I revisited Moose Factory after nearly forty years' absence I found a great change in the appearance of the coast and river. Channels which were navigable at all times of the tide formerly could now only be used at high water."

The Fortifications Bill.

The Fortifications appropriation bill passed by the Senate on May 20 carries nearly \$11,000,000, an increase of about \$5,000,000 above the amount actually appropriated by the House. The item for new gun and mortar batteries was increased by \$3,115,000. It will be remembered that the Fortifications bill as passed by the House appropriated \$5,842,337 to be expended outright, and gave authority to make contracts to the amount of \$5,543,276 the total sum covered by the two provisions amounting to \$11,385,613. This is over half a million dollars more than the sum now voted by the Senate. On the other hand it must be considered that the Senate bill gives the War Department full license to expend the whole sum during the twelve months; and looking to the question of further appropriations by the next Congress, it is argued that they will probably be more generous if a new appropriation is then asked for outright, than if such a request was preceded by a provision for \$5,000,000 already authorized by a preceding Congress.

MR. WILLIAM I. HORNADAY, formerly of the National Museum, has been appointed director of the proposed Zoological Park in New York City.

**A DUTCH TILBURY OF THE EIGHTEENTH CENTURY.**

200 years ago, there has been an ever increasing difficulty in reaching these establishments from the sea.

On the eastern side the most striking evidence of the rising of the land is afforded by the numerous well preserved and conspicuous terraces cut in the till and other deposits. Near the sea these may be seen at various heights, up to about 300 feet, but above this elevation the scarcity of soft material out of which terraces might be excavated renders this kind of evidence less apparent than it might otherwise be at higher levels.

On this side of the bay one of the best evidences that the elevation of the land is still going on is furnished by the long lines of driftwood which one sees in many

**BRONZE OLYMPIAN MEDALS.**

The discus used in the games

Prize for throwing the discus.

Prize for putting the shot.

OLYMPIAN PRIZES WON BY ROBERT GARRETT, JR.

* From a paper read before the Geological Society of America, by Robert Bell, of the Geological Survey of Canada.