and cents far exceeding the cost to them of obtaining it. This fact cannot be successfully disputed, and we are egotistical enough to believe it would receive the endorsement of many subscribers.—*Grocery and Country Merchant, San Francisco.*

The Trade Dollar.

The crusade against the trade dollar which resulted so quickly in its extirpation from circulation, has given rise to many accounts of the genesis of the coin. The following history of it is by Mr. Acton, assistant treasurer of the United States in New York. In an interview with a newspaper reporter, he said, "There appears to be a great misunderstanding of the coinage and manner by which the trade dollar got into circulation. It is not money. It never was. By that I mean it never was a dollar. It was coined under an act of Congress known as the Coinage Act of April, 1873, and was first issued in July of the same year. The trade dollar was intended to supersede or take the place of the Mexican dollar. So it was made a trifle heavier and given a better cast generally. It was countenanced by the Government for the purpose for which it was made only—that of export. Mexican dollars were coin current in China, and the trade dollar, it was thought, would take their place. They have been pretty generally accepted along the coast, but have never got very far into the interior. The trade dollar was coined when the single or gold value was adopted, and was a legal tender in sums of five dollars or less up to July 22, 1876. Then the Act making it such was repealed, and it became again a coin valuable only for the amount of silver it contained. A regulation was then issued by the secretary of the treasury that no trade dollars should be put in circulation or coined except for export, and the coin has been under a cloud ever since."

Fallen From its High Estate.

The sword was, as the ancient chronicler said, "the oldest, the most universal, the most varied of arms, the only one which has lived through time. All people know it; it was everywhere regarded as the support of courage, as the enemy of perfidy, as the mark of commandment, as the companion of authority—as the emblem of sovereignty, of power, of force, of conquest, of fidelity, and of punishment." And all this has steel abandoned—to become rails! Look at what it was, and what it is. Its aspect was brilliant; its habits were punctilious; its manners were courtly; its connections were patrician; its functions were solemn; its contact was ennobling; even its very vices were glittering, for most of them were simply defects of its superb qualities. It is true that it was sometimes cruel, and that its process of action was distinctly sanguinary; but those reproaches apply to all other weapons, too. Throughout the ages it grandly held up its head and haughtily bore its name. It lost no caste when it allied itself with lance and dagger, with battle axe and helm, for they were of its natural kindred; and even when, in later days, it stooped to generate such lowly offspring as razors, lancets, knives and needles, the world saw no real abasement in the act, for the chivalrous blade was still the image which represented steel to man. But now its whole character has changed; now it has thrown aside its gallantry, its graces, its glory, now it has forsworn its pride for profit, its pomp for popularity. Steel is now bursting coarsely on the earth at the rate of thousands of tons a month. It is positively being made into steam-engines, and cannon, and ships, and all sorts of vulgar, heavy, uncomely, useful objects. Worse than all, it is becoming cheap! Steel cheap! The steel of old, the steel of legend and of story, the steel of palladin and the chevalier, the steel of the noble and the brave, the steel of honor and of might, the steel that was above price, that knew not money and cared naught for profit—that steel is no more. It has been driven contemptuously out of sight by metallurgic persons called Bessemer and Krupp and others, and these destructive creators have put into its place a nineteenth century substance, exactly fitted to a mercantile period, but possessing no title whatever with time or fame. —*Blackwood's Magazine.*

Potato Ivory.

This new "vegetable ivory" is made from ordinary potatoes—provided they are tolerably sound and fully developed—by purely chemical means. The selected tubers must first be carefully peeled and the "eyes" cut out, all spongy and discolored portions being also scrupulously pared away. The peeled tubers should then be allowed to soak for a short time, first in plain, then in acidulated water, sulphuric acid being the agent employed, and the mixture should be quite cold before the potatoes are put into it. The next, and most important part of the process, is boiling the vegetables in diluted sulphuric acid for a considerable time. Herein lies the gist of the invention, the secret of which is kept rather closely at present, but a short series of well-organized experiments would probably enable any of our friends to elucidate the question.

The variety and age of the vegetable itself, the time for which it is subjected to the action of the acid, and especially the strength of the latter are all matters of great importance to the object in view as effecting the quality of the preparation. As some little guide, however, we may bear in mind the process for "parchmentizing" paper, which is effected in the cold, and also the fact that heat greatly enhances the action of all acids upon organic substances, so that as the potatoes, according to our advices, have to be boiled in the liquid, a comparatively more dilute acid should probably be used. Treated in this way the entire substance of the potatoes hardens and become gradually less pervious. When done they are to be taken out and washed in a stream of first warm and afterward cold water, the subsequent drying process being in all cases a slow and gradual one. Potato ivory thus prepared is not very unlike the "vegetable" kind, but is said to be of more even grain as well as easier to turn, while it is not so liable to split when exposed to the influence of a very dry atmosphere.

Potato ivory is of a creamy white tint, hard, durable and elastic, it being even adapted, it is stated, for the manufacture of billiard balls. There is no difficulty in dyeing or coloring the material either during the process of preparation, or afterward, and altogether it would seem that this new product is one which is capable of a great number of useful applications. To its other good qualities it adds that of being exceedingly cheap. We should have said before that the sulphuric acid used must be quite free from impurity, even traces of nitric or hydrochloric acid being detrimental.—*Mechanical World.*

Fast Ocean Steamers.

Fiercer and fiercer grows the contest between the trans Atlantic steamship lines. So far from being abashed by the breaking of the machinery of the new crack steamer Aurania, just as she was completing her first voyage to New York, the owners of the Cunard line announce that contracts have been entered into for the construction of two new steamships, to be of 8,000 tons burden and 13,000 horse power each. They do not intend to be outdone by the Alasca, of the Guion line, which at present is the recognized champion of the seas, and the owners of the latter, so far from being content to rest on their laurels, have already launched the Oregon, which is built on finer lines than the Alaska, and will be fitted with engines of higher power. This steamer, according to the statements of her builders, will surpass in speed the fastest ship in the world. They are not satisfied with a passage of seven days between New York and Liverpool. Mr. Guion believed the trip would be made "*in very much less time*"—*in any* event, they "would not build ships that would go slower than the Oregon." While this struggle between the companies named, taxing the highest resources of engineering and mechanical skill, is going on, the Bremen and National lines are no less determined to "beat the record." A new steamer, to be called America, will shortly show the whole ocean squadron her heels. While the extreme limit as to speed and size still remains an open question, for all practical purposes the grand problem has been substantially solved. Until the laws of hydraulics are changed, it will hardly be practicable to shorten materially the ocean voyage without such a disproportionate cost of power and material as to neutralize the advantage gained.

Japanese Enterprise.

The National Railroad Company of Japan, incorporated with a capital of $20,000,000 under the auspices of the Japanese government, two years ago, has adopted the American system of building railroads, and is now constructing the main line, which extends from Tokio to Anderson, the northern seaport of Japan, a distance of 450 miles. A part of the main line, about fifty miles in length, has already been finished, and will be open to the public this month or next. The terminus of the line is the commercial center of a province where silk culture is the principal occupation of the people. The silk raised in this province is highly esteemed in foreign markets, and is exported to America, as well as Europe, in large quantities every year. It is expected that the whole line will be finished within three years.