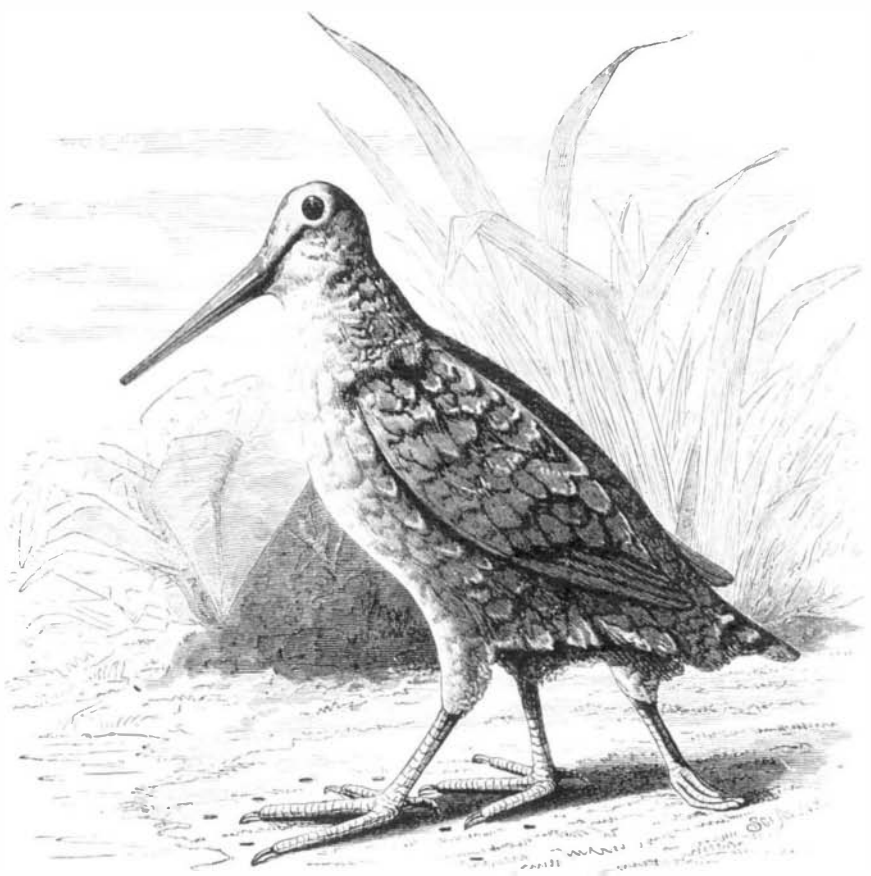
A THREE LEGGED WOODCOCK.

It is rare that monstrosities in nature are ever able to hold their own in the struggle for existence. An exception appears, however, in the illustration herewith: a three legged woodcock, shot by Mr. Jules Reynal, near White Plains, New York, last September. The third leg was attached just below the vent, and dragged, as shown in the cut. It appears to have been in reality two legs in one, the double bones showing quite clearly, and the six toes being distinct and nearly perfect. The bird has been sent to Professor Baird, of the Smithsonian Institution, from whom we hope to receive an account of the internal anatomy of this curious freak of nature. The bird when shot was well grown and in good condition.



A THREE LEGGED WOODCOCK.

Experiment with Carnivorous Plants.

To test fairly and on a large scale the conclusions arrived at by both the venerable Charles Darwin and his son Francis, with respect to the benefit derived by carnivorous plants from the insects they destroy, Mr. Peter Henderson, of Jersey City, has tried the following experiment. He procured, in March, from Keenansville, North Carolina, a large number of *Dionœa muscipula*, which reached him in fine condition.

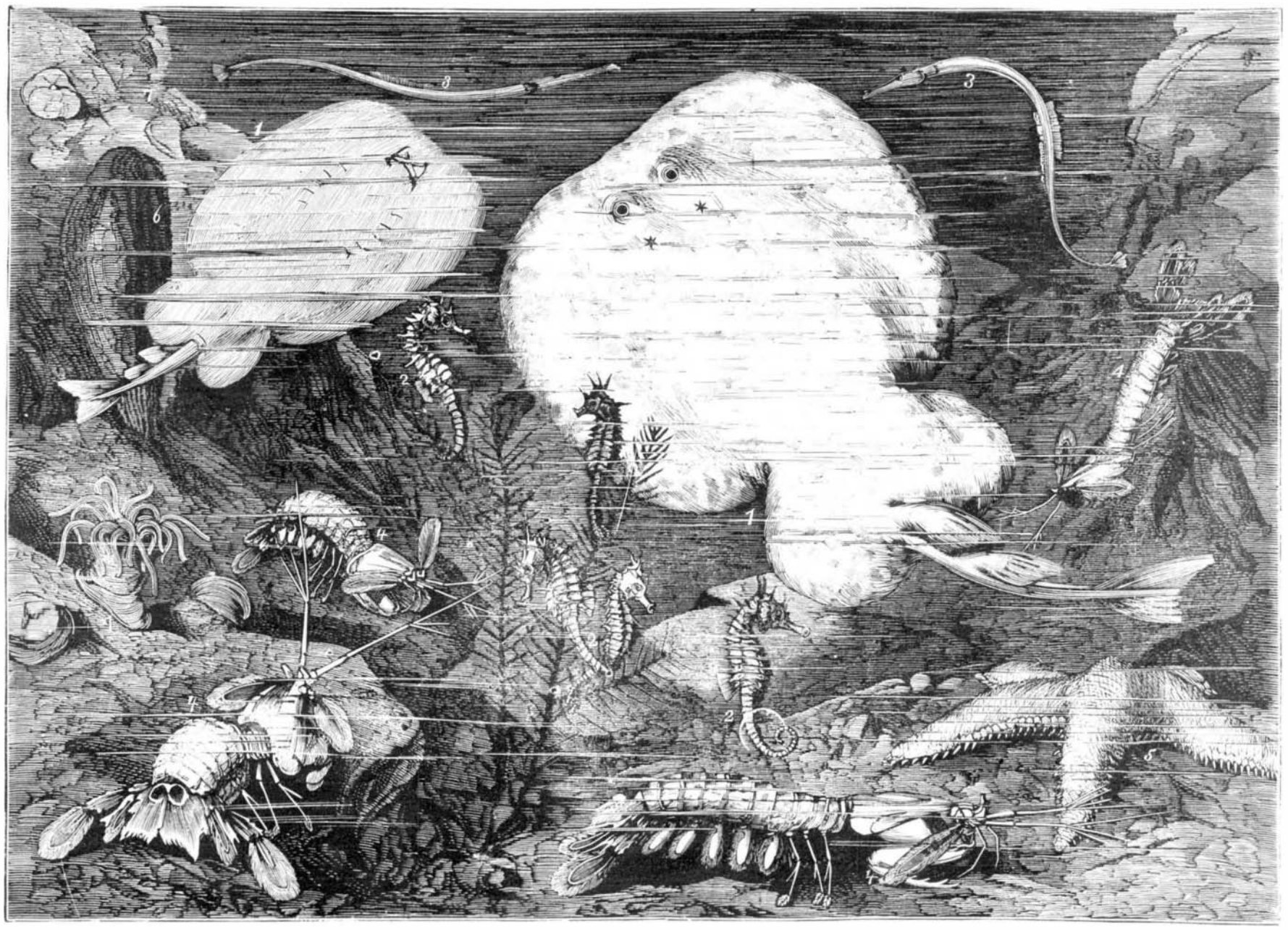
Selecting from the lot two hundred of the strongest plants, he thoroughly rinsed them in water, so that every particle of soil and all other matter foreign to the plants was removed. He then procured two boxes, three feet by three feet and three inches deep; these were filled with moss (sphagnum) and sand mixed, in about the proportion of four parts moss to one of sand, forming a soil somewhat similar to that which they had been growing in naturally; this compost had been also subjected to the rinsing process so as to clear it from impurities. One hundred of the fly-traps were planted in each box, the plants selected being as nearly alike as possible. After planting the boxes were each copiously watered with pure water and placed in a cool and partially shaded greenhouse. One box was covered with a wire netting, as fine as could be procured, so as to exclude insects; the other was left uncovered. By about the middle of May, two months after planting, the plants had begun to grow freely, and the "feeding" process was begun with the plants in the uncovered box. In this he was assisted by Mr. William Tait, one of his neighbors, a gentleman of leisure, and one who is well versed in many branches of natural science; between them the one hundred uncovered fly-trap plants were "fed" almost daily for three months with flies and other insects. In August, three months from the time the feeding began, the operation was stopped, and the most careful examination and comparison failed to show the slightest difference between the one hundred plants that had been "fed," and the one hundred (under the wire netting) that had not been "fed." Both lots had made a splendid growth, and were the admiration of scores of visitors. Mr. Henderson never omitted an opportunity to ask professional horticulturists for their opinion, and the verdict invariably was that both lots were identical, as near as could be. In this case the "feeding" certainly did not fatten. "It may be," Mr. Henderson remarks in the *Gardener's Monthly*, "that our American flies were not so nutritious as the English 'meat,' though certainly ours was the more natural food of the two; but, as corroborating the test of Mr. Darwin, it failed."

STUDIES FROM THE BRIGHTON AQUARIUM.

To wander at ease among the many strange and beautiful forms of life which animate the world of waters, watching the mysterious habits and doings of creatures as different as they well can be from those with which we are most familiar, is a pleasure and a profit which have been reserved for our own times, and which can be nowhere more conveniently or completely studied than at the Brighton Aquarium. In our engraving different subjects are indicated by numbers, as follows: 1. Electric ray fish. 2. Sea horses. 3. Fife fish. 4. Bear crabs. 5. Star fish. 6. Muscle. 7. Anemones.

Remarkable Mortality of Fish.

The extraordinary phenomenon displayed on the Florida coast, by which not only the coast waters, but as far out as 150 miles into the Gulf, have been rendered so poisonous as to kill the fish and create a pestilential stench in bays and harbors where the floating carcasses collect, should receive a thorough investigation. We have seen no other explanation of the poisoning than that it comes from inland waters—the everglades prominently—and penetrates the Gulf in strata of dark reddish water, which kills all the surface fish as soon as it reaches them, and even far beyond any apparent contact. This poisonous outflow is stated to have been nearly fatal to the fish trade between Florida and Havana—the smacks finding it almost impossible to select a route in which the fish in their wells are not destroyed by the poison. The Key West *Key* says: "The smack George Storrs, Capt Zeb Allen, attempted to run to the westward in hopes of escaping the deadly waters, and when 50 miles west of Tortugas, in 25 fathoms of water, lost its whole fare of fish in a very short time. He describes the poisoned water to the south and west of him as far as he could see." Fifty miles west of the Tortugas would make the locality indicated 150 west of Cape Florida, and not very far from mid-gulf.



STUDIES FROM THE TANKS OF THE BRIGHTON AQUARIUM.

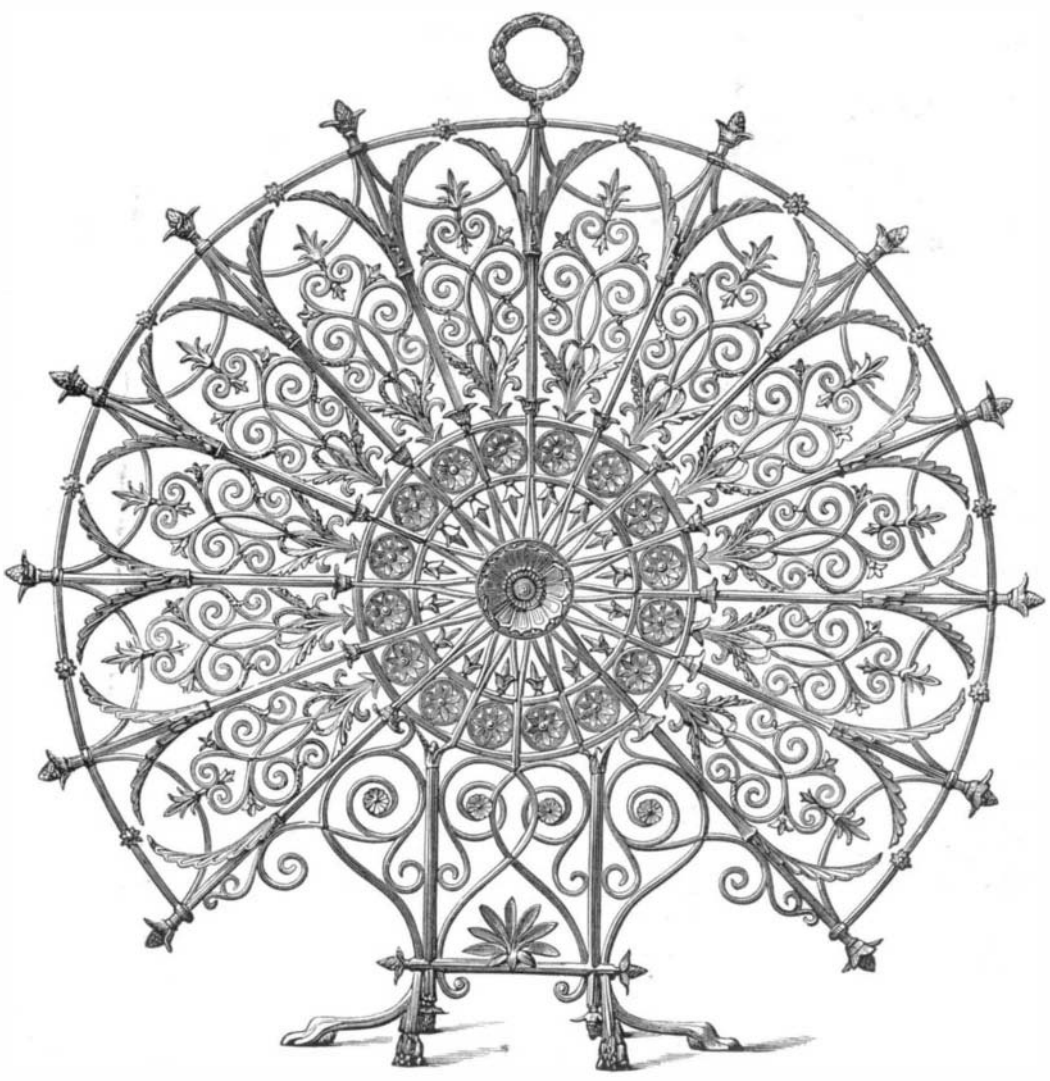
The Orange Trade in New York.

With the holidays come the oranges, and since the season promises to be an exceptional one, it is estimated that between now and New Year's 50,000,000 oranges will be sold in this city. Already the fruit departments of Fulton and Washington markets are glutted, and by one steamer due in port to-day 300,000 oranges, by another 3,000 barrels, or 1,000,000 oranges, and by another 350,000 in bulk are expected. The barrel stock, nearly all of which comes from the West Indies, and the case and box stock, mainly from Mediterranean ports. are consigned to shipping and commission houses, by whom they will be distributed among the trade. The stock in bulk, however, partly from the West Indies and partly from Florida, is sold in quantities from one barrel to 1,000 barrels at the docks, as potatoes and other home products are sold at the foot of Vesey and West Thirty-fourth streets. One whose inferences with reference to the local orange trade are drawn from an inspection of the business exhibits which dealers put forth to tempt the small buyer has but a superficial and erroneous notion of the risks which encumber it. To say that the fruit is perishable, as the term is usually understood, is an inadequate expression of the extent of that risk. There is no product so perishable. Of about two hundred million oranges received here last season—from September until March—nearly eighty-three millions perished, or 40 per cent of those received from the Mediterranean ports and 46 per cent of those received from the West Indies. The loss on a cargo of 200,000 oranges from Dominica was 159,600, or 79 per cent; on eleven cargoes from Mayaguez, comprising 2,654,590 oranges, 1,495,120, or 56 per cent, and on a cargo of 230,000 from Ocho Rios, 210,000, or 91 per cent. In many cases the amounts received from the sales of cargoes were insufficient to pay the charters of the vessels. Until within three or four years the trade was conducted mainly by importers, but they soon learned the lesson which the figures just given convey, and many of them were ruined in the learning. Of about fifty then engaged in the business in the city only three remain, nearly all the others having become commission merchants only. No better opportunity to appreciate the trade, stripped of its glamour, could be had than by boarding to-day or to-morrow the sailing vessel which will be moored at some of the docks near Burling slip, with stock in bulk, the vessel having on the way from the West Indies encountered two tornadoes, which are especially disastrous to the preservation of the fruit. The stock, when sold, will be carried to store rooms or cellars, out of sight, and there sorted after the approved fashion best known to the trade, by a process so highly scientific, that the best that is saved and the worst, after the usual polishing and drying, would never be recognized as having originally belonged to the same lot. Stock received in bulk is generally considered inferior in quality to that received in barrels, boxes, or cases, although it is no more perishable. At present, there is a furor over Florida fruit, which is rarely received in bulk. Ever ready to accommodate the public taste, small dealers have provided themselves abundantly with paper labels, and it is almost impossible for a retail buyer to find any other kind of fruit. John Marsh, who sells for Darrell & Co., importers of the Mandeville (Jamaica) stem cut oranges—a large, solid, bright colored fruit—and who has a large trade among the Fulton and Washington market dealers, says that the best imported fruit is labeled as coming from Florida to meet the popular demand. The receipts of this season have thus far been much larger than they were at this time last year, although the West India trade has suffered from violent storms, and is likely to fall short of the average yearly importation.

"I was offered a few days ago," said a large dealer yesterday, "the use of two of the best estates in Jamaica, where the fruit may be had in any quantities for the gathering, but I wouldn't hear of the offer. By accepting it I could deliver the best oranges in the world in New York for less than $5 a barrel. The best sell for $10 a barrel—from 320 to 340 in a barrel. When I was younger in the business I thought I could make money in that way. I stood on the wharf for three months and lost $10,000 on account of the waste by rot. That is why I didn't accept last week's offer."
—*New York World.*

BRONZE LATTICE OR FIRE GUARD.

The accompanying engraving represents an elegant bronze lattice or fire guard, designed by H. Claus, and manufactured by Messrs. D. Hollenbach & Son, of Vienna.



BRONZE LATTICE OR FIRE GUARD.

The Last Eruption of Mount Vesuvius.

A sketch of the crater of Mount Vesuvius, as it appeared during the recent eruption, has been sent to us by our esteemed correspondent, A. Ricco, Professor at the University of Naples, who visited the crater on the 10th of November last.

"The view on the crater," he says, "is extremely beautiful and imposing. The crater has undergone considerable changes since the eruption of 1872. It now presents the form of a large amphitheater of about 1,200 feet in diameter and 100 to 150 feet deep. The bottom is formed of lava which has only superficially hardened. In some places the crust is hard and thick enough to allow walking over it, at other places it is yet quite soft. The surface is full of cracks and holes, from which dense masses of smoke are constantly issuing. The lava on the sides of the crater is soft and so plastic that it readily receives impressions from coins, etc. In the center of the crater rises a small cone, about fifty or sixty feet high; it is covered with incrustations containing many shells and different species of mosses. Looking through the cracks in the side of the cone and floor the incandescent lava may be seen, the aspect resembling a labyrinth of fiery paths, running over the bottom of the crater in all directions. At short intervals the mouth on the summit of the cone sends forth a gigantic column of smoke and fire, which is plainly visible from the city of Naples, miles distant. Near the base of the cone a second mouth has been formed, from which lava and smoke constantly issue.

"As the inclined position of the crater tends to send the lava and smoke constantly in one direction, the crater may at present be visited with comparatively little danger."

Look to Your Fireplaces.

From what occurred the other day in Boston, according to the *Daily Advertiser*, it is wise for residents of new houses that they should keep close watch of the fireplaces during their first trial. The fire in the Roberts mansion on Beacon Hill, which was about three years in building, and had the immediate supervision of an architect, is an item of grave astonishment not only to the underwriters, but to the owner. Two days previously a fire was started in one of the open grates for the first time, and not burning freely was dumped upon the hearth. From that moment there was a smell of smoke in the apartment, when, as above noted, it was discovered that the hearthstone rested upon a beam which ran directly across the fireplace. About three feet of this beam was burned off. Three other Boston fires from open grates are noted within a fortnight. A South End resident had an attractive soapstone fireplace, and, purchasing a pair of andirons, started an old-fashioned wood fire, to find that his fireplace was only a ventilation, and his blaze burning in behind the plastering up through his house. Another case similar was the Marlborough street fire in October, where a single course of brick for a hearth resting upon the beams was no protection, and a marble slab for a hearth lying upon the under floor being overheated set the floor afire.

Iron Wood Screws, etc.

No recovery can be reported as yet, says the *Ironmonger*, in this important and once flourishing branch, which continues very quiet under the combined influences of over-production, American and French competition, and the depression of the building trades.

The introduction here in 1854 of patent self-acting machinery from the United States, continues the same English paper, has increased the local production probably fivefold, and it is not to be wondered at, therefore, that in times of dull trade like the present the industry should be in a somewhat suffering state. Westphalian wire, which is being imported by thousands of tons yearly, is fast superseding English wire for screw making purposes.

The Birmingham Screw Company, who produce in ordinary times some 60 to 70 tons weekly, find the Westphalian wire, or English wire drawn from Westphalian rods, equal, if not superior, for screw making purposes, to any article in the market, and at considerably less cost than native iron. The great difficulty English screw makers have to contend with just now is the French and American competition. Messrs. Jappy Frères have now got a virtual monopoly of the French and Italian markets—thanks, in some measure, to protective tariffs; and as the German screw makers are also very active, there is not much opening for English screws in the continental markets. The Americans, however, are at present our most formidable competitors, not only in Canada and the colonies, but in this country, where, there is some reason to believe, they are selling under cost price.

Since the recent auction sales of screws, which were professedly intended to relieve stocks, but which were manipulated in such a way as to enhance the market value of those stocks by bogus purchasers at high prices, the American screw makers have altered their discounts so as to advance prices, on the net, about 12½ per cent, and as this advance gives them the required profit on their home sales, they can afford to send their surplus stocks into this and other markets at something under cost price. This is understood to be the policy of the American Screw Company, who make a specialty of the "taper" bodied screw, and manufacture some 4,000 varieties, and this will explain the low prices at which American screws are being delivered now in Liverpool. A new variety of screw, now being offered to English manufacturers, has been newly adopted by Jappy Frères for France. Its peculiarity consists in this, that the bottom of the groove, or slit, in the head of the screw, instead of being straight and level, rises in the center to an apex nearly flush with the surface of the screw. This necessitates, of course, the employment of a special form of driver with V-shaped edge to fit the bottom of the slit. The object is to strengthen the head of the screw, which is sometimes so much weakened by the slit as to break off under the pressure of the driver, but the proposed remedy is generally regarded here as worse than the evil, and it is not likely to be adopted.

Cost of the Yellow Fever.

Loss of life by yellow fever in the South last year is estimated at about 15,000 persons, and of money and trade at from $175,000,000 to $200,000,000—as great as the loss from the Chicago fire. But some good is likely to come out of this calamity. It is thought that henceforth quarantine regulations will be more thoroughly established than they have ever been. Apart from death and human suffering, negligence is the worst kind of political economy. Expenditure of one-twentieth part of what the fever has cost might have prevented it altogether.

The Catalpa.

Professor Burrill, of the Illinois Industrial University, says that from experiments performed at that institution, the catalpa is found to be one of the cheapest and earliest trees to grow, and one of the most rapidly growing of our forest trees, native or introduced. Its growth has been surpassed only by the white willow and soft maple, among the various trees tested in the last eight years. It has outgrown the American elm, white ash, European larch, Osage orange and black walnut, on the same ground, and under the same treatment. It is not attacked by any insect. The young trees were set two feet by four, cut back and cultivated like corn for three years, and plowed one of the two succeeding years. This was good management. The trees are now large enough for half to be thinned out. The average height is more than sixteen feet; they are straight and erect.