New-York Daily Tribune.

SCIENCE, INDUSTRY AND INVENTION.

WIARD'S PATENT ICE-BOAT.

This is a steam-boat on runners, intended to navigate the Northern rivers and lakes in Winter, when closed with ice of sufficient thickness to support its weight with safety. It is constructed with a water-tight hull, so that in case it should break through the ice, or come come to open places in the river, it will float on the water without harm to itself, cargo or passengers. We copy the following from a pamphlet on the subject, written by the inventor:

"It is safe to say that no less than 22,000 miles of ice-road are embraced within the limits of the United States and Territories. In addition to this immense field, there are still others in the British Provinces and the north of Europe. By means of the ice-boat, remote regions of our country shut out in Winter will be brought into constant connection with the Cities of Chicago, St. Louis, Washington, New-York and Boston.

"In the Winter of 1858-59, I constructed, at Prairie du Chien, my first ice-boat. It was my intention to have it completed in time to make a trial of its speed upon the ice of the Mississippi River, between Prairie du Chien and St. Paul, in the Spring of 1859; but in this I was disappointed, by the reason of the breaking up of the ice in that river a month earlier than usual. The boat, however, was completed, and is now ready to be employed on that route during the coming Winter.

"This boat is seventy feet in length, twelve feet in width, and when resting upon the water, loaded, displaces about one foot in depth of water. Its upper part is similar to a railroad car, and is warmed by steam. It will accommodate one hundred passengers. It is propelled by an engine acting on a single driving wheel. Adhesion is given to the wheel by means of penetrating or sharp flanges. The velocity is controlled by a steam brake. The runners are so adjusted that it may be made to run through snow five feet deep. The cabin of the boat is twelve by forty feet, and I estimate its weight when loaded with passengers and freight, at twelve tuns. It is my firm conviction that its ordinary speed will be from 20 to 40 miles, and on clear, solid ice, its speed may be increased to from 40 to 80.

"The whole sum expended, including the value of the engine, in the construction of this boat, I estimate at about $6,000."

The questions usually raised as to the practicability of running this boat are: I. As to the strength of the ice; II. The danger from momentum if run into open holes; III. The obstruction from deep snow, &c., all of which Mr. Niard endeavors to answer in his pamphlet. In case the ice-boat proves a success, it will be of immense value to the countries requiring such communication, as well as prove a profitable investment to the parties directly interested in it. We earnestly wish it success.

THE BEE MOTH.—Mr. Henry Steele of New-Jersey has invented an attachment to the bee-hive, which, he declares, prevents the depredations of the Moth. We have little faith in anything for this purpose, and especially doubt whether the bee has sagacity enough to open one door to get into his hive, and another one to get out again. Still, did we keep bees, we should feel sufficient interest to investigate the matter. The inventor describes his device as follows:

My invention consists of a perch for the hive, perforated with eight entrances, each of the size and shape of an American quarter dollar. Each perforation is provided with a door or valve of thin zinc, suspended by a hinge at the upper edge—four opening inward for the ingress of the bee, and four outward for the egress. The valves are light, and swing easily, so that they constitute no obstruction to the bee, which readily learns to go in and out without inconvenience, while the moth has neither the strength nor sagacity to make an entree.

SIEVIER'S IRON FURNACE.—The proprietors of the American patent for this furnace represent that it is to revolutionize the iron business of the world. As we are informed that they are about putting one in operation here, we publish their communication without further comment, until the furnace has demonstrated its own merit:

"The object of this furnace is to revolutionize the science of metallurgy. It dispenses with the expensive process of puddling, will make wrought iron as cheap as pig is now made, and in a quarter of the time. It is not a theory but a demonstrated fact. This invention has been thoroughly tested in the kingdoms of Prussia and Hanover, Germany; first on a small, and subsequently on a larger scale; furnaces are now in the course of erection in England, in various parts of Germany, in Austria and in Russia.

"The principle is perfectly simple, being in no ways complicated. Any smelting master will comprehend the whole process at a single glance.

"It consists in causing a current of air necessary for the reduction of the ore in the furnace, by extracting the air or gases as produced by the combustion of the carbon; the exhaust is effected by means of a fan, pumps, or other means.

"The air in either case is drawn through the mass of material, out of the upper part of the furnace, thus causing a sharp draft or current of air of sufficient density to enter into the lower part of the furnace, and produce the effect desired. The power required for this is about a tenth of that now used; for example, in ordinary blast-furnaces a pressure of 2 to 3 lbs. of blast is required to penetrate the mass of ore, carbon and lime in the furnace; this applies to furnaces where coal or coke is used; in charcoal furnaces ½ lbs. pressure of blast is required. Now by Mr. Sievier's system you require an exhaust equal to but four inches of water, or two ounces weight, to produce the effect obtained by the old system at 2 to 3 lbs. pressure. In a charcoal furnace but 5 inches of water is required or ½ ounces of pressure.

"The air, instead of impinging upon one or two points, rushes in equally at the bottom of the furnace, gets warm and melts the iron in less than half the time of the ordinary blast. The different qualities of iron, viz: steel, cast or malleable, are produced by raising or lowering the movable crucible."

SPINAL ASSISTANT.—Dr. Charles F. Taylor, No. 29 Cooper Institute, sends us the following description of his improvement in the above instrument. The Doctor says:

"This is a new contrivance to aid in the treatment of angular curvatures of the spine; that species of curvature caused by those caries of the spinal bones known in the medical profession as 'Pott's Disease.'

"Supporters of various kinds have been used with more or less benefit, but their fault has been that they all embrace the trunk as a whole; while sustaining the spine, holding the muscles, preventing their action and preventing, to a certain extent, all movements of the body. Also, as a general thing, the pressure is at the point of disease, which is the particular thing to be avoided. But still worse, if possible, the pressure on the spinal muscles, causes still further weakness of these muscles and increased inability to sustain the trunk.

"My instrument effectually sustains the spine, but it is so constructed as to allow a backward flexion of the trunk whenever the spinal muscles act, but not a forward bending. Such movement tends to strengthen the muscles of the back and correct the curvature. The apparatus is adjustable, simple, easily applied, and very light."

ROTARY WARD LOCK (Patented August 31, 1858).—The peculiarities of this lock consist in the innumerable ways of adjusting the driving pins in the wards, so that their location may be known only to the person adjusting them, increasing geometrically as the wards are increased numerically; also in allowing several different ways to lock and unlock the same one. To illustrate this, three persons can each have a different way by which neither of the others can unlock, and a fourth person can have another way by which he can not only unlock any one of the three given, but also lock in such a way as to render all but himself unable to unlock.

Another and the most important peculiarity of this lock is—the slots of all the rotary wards are required to be on an exact parallel line with the guards before it can be opened. In order to do this, it is necessary, first, to place the slot of the ward most distant from the motive power on a parallel line with the guards, otherwise it would be in vain to correctly place the others. Second, the slot of the next ward must be placed correctly on the first trial, otherwise it will displace the first, (allowing that to be right), and thus with all, observing that either one not placed correctly on the first trial will displace those preceding, even should they all be right; for each and every ward requires a certain number of turns and part turns in order to place them all correctly.

Every individual can therefore judge for themselves the possibility or impossibility of unlocking. Any desiring to do so can at any time have an opportunity to test their skill and the merits of the Lock—during the Exhibition of the American Institute at the Crystal Palace, New-York, and at the Industrial Museum, Boston, Mass.,—or at any subsequent time at Manchester, New Hampshire, and shall have the same privileges allowed in the challenges given at the above named places.

On all other Bank and Safe Locks, a skillful burglar can combine his false key with a good chance of success, as the lock remains precisely in the same condition, while being operated upon; nor is there any means of knowing, were they tampered with night after night for months; again, the changes of the key can be kept by the burglar.

While with Lord's Lock, the Index cannot be moved even one point without causing a complete change, nor can this be done without giving undoubted proof that it has been turned or tampered with, and were millions of changes made, not one combination can be known.

HORSE RAILROADS.—*The Cincinnati Gazette* notes a new kind of rail on exhibition in that city, adapted to street railroads. It is designed to dispense entirely with wooden cross-ties, and can be put down at much less expense than the ordinary way. The rails are joined together, and made continuous by means of a splice wedge inserted in cleets about ten inches long, cast with the rail. Trenches are opened in the pavement, eighteen inches wide, and from eight to twenty inches deep, the bottom compacted by the use of the rammer; and the rail put in. At the ends and in the middle of each rail, a block of plank, about ten inches surface, is laid crosswise of the track; the gravel is then replaced and the pavement closed in. The weight of the rail is from eighty to one hundred pounds per yard, and the cost per mile, when laid, from $6,000 to $8,000.

NEW FLOOR COVERING MATERIAL.—*The London Mechanics' Magazine* states that an original material for floor covering has recently been patented by Mr. Dunn a member of C. Goodyear's India-Rubber Company, London, which meets all these conditions. It consists of a composition of cork, flock cotton, wool, and other fine fibrous materials of various colors, mixed with India-rubber. These are spread on a canvass back and embossed. The result is a material of great permanence and beauty, having all the softness of a carpet, with the elasticity and noiseless tread which constitute the beauty of a real "velvet-pile Brussels."

IRON COTTON HOOPS.—The cotton buyers and brokers of New-Orleans have petitioned the Chamber of Commerce of that city to make a rule allowing a tare of not less than twelve pounds per bale on all cotton hooped with iron; assigning as a reason, that the hoops are of no use to their constituents, while the rope is. The practice of using iron in the baling of cotton is of recent origin, but has greatly increased in the last few years, to the great detriment of manufacturers and raisers of hemp. This move in New-Orleans, we are informed, will receive the sanction of nearly all the buyers and brokers of cotton. The petitioners ask that the rule shall be adopted at once and take effect from date.

PATENT BAG-FASTENER.—The idea of a patent bag-string first struck us as not only novel but funny. After examining the invention carefully, we have come to the conclusion that the Patent Bag-Fastener is a very useful article. It is about the size of an old-fashioned cent, made of metal, with a leather string attached. The fastener is permanently fastened to the bag, and is used by gathering up the end of the bag, and winding the string round it, then giving the string one turn round the fastener, and passing the end of it through a slot or hole in the fastener. It was patented by William P. Maxon, Albion, Dane County, Wis.

A CONVENIENT DEVICE.—Shaver's Patent Eraser, Polisher, Paper-Cutter, Folder and Pencil-Sharpener is the name of a little instrument that answers all these purposes. It has a short, wide blade, terminating in a point, in the center of which is a groove, with sides cut like a file. The point is used to erase marks, blots, &c., from paper, and for cutting sheets in two where they are folded. Near the shank the blade is kept sharp for sharpening pencils, and the file-groove gives a neatly finished point to the lead, without soiling the fingers in the least. It works admirably, and is a very nice thing.

IMPROVED HOLLOW AUGER.—C. J. L. Meyer of Newark, N. J., has shown us an improved auger for making round tenons, finishing the ends of spokes, &c. The improvement consists in making the cutter expand or contract to adapt itself to any sized tenon required, by connecting the cutter to a scroll, on the principle of the scroll chuck, thus saving the necessity of loosening and carefully setting each cutter.

H. GARDINER'S COMPOUND CAR WHEEL AND AXLE.—The inventor of this valuable improvement has obtained patents in the United States, Great Britain and France, and is making arrangements to obtain them throughout Europe. The invention consists of a compound axle of three parts, and a compound wheel of six parts.

The journal part of the axle is about 16 inches long, of sufficient length for the bearing, and passes to the center of the hub of the wheel; the other part is of sufficient length to reach from center to center of the hubs, constituting the main or middle part of the axle. It is joined at each end by the short axles, and so coupled together inside of the hub as to render it as strong as the solid axle. The wheel is pressed on the short axle in the ordinary way, giving the result of a loose and tight wheel on the same end of the axle—so that, while running on a straight line, the wheels and axle revolve together in the ordinary manner; but, upon striking a curve, they act independently, adjusting themselves, whatever the radius may be, without causing the least tension on the axle.

The short parts of the axle can be made of cast steel with advantage—the difference in cost being more than equaled by its superior durability—the steel axle lasting four or five times as long as one made of wrought iron. As there is no twist on the main axle, it will last for many years, the short ones only wanting to be renewed. In this way, the cost of axles for a term of years will be reduced nearly 50 per cent, to say nothing of the prevention of accidents, now so frequent from the breakage of axles. An important feature is, that the axle can be as well made from old axles, which have been worn out at the journals, and can be applied to an ordinary cast wheel, or to the improved wheel described as follows:

The side plates and tire are made of wrought iron; the hub is of cast iron, and consists of three parts—a center and two side pieces.

The side plates will outlast several tires, which can be renewed whenever they wear out. The whole wheel can be made at a little over half the cost of the ordinary wrought iron wheel, and will save over three-quarters of a tun on the weight of an eight-wheeled car. [American Railway Review.

THE ORANGE COUNTY MILK BUSINESS.

[Fifth Article.]

CREAMERIES—CREAM—CHEESE-MAKING—PREPARING THE RENNET—DAIRY REGULATIONS, ETC.

There are four establishments in the county, from which cream and cheese are exported instead of milk. The two most extensive are those of Foster Clark, and Minard Sutton, both situated at a distance of five miles from the station at Chester. The farm of Mr. Clark lies upon the shores of a beautiful pond which bears his name, and is worthy of all commendation for its neatness and good management. There is no great attempt at show, but everything about the dairy seems arranged with the view of practical working.

The farm comprises two hundred and ten acres, nearly all of which is in meadow and pasture, a few acres only being reserved for raising the grain needed for the Winter feed of the cows, and the supplies for the household of the proprietor. There are usually thirty cows on the place in Summer and forty in Winter. The animals receive in the Winter a daily allowance of four to five quarts each of corn and oats, ground, together with as much hay as they may require. It is the practice to cut half the quantity of hay consumed, moisten it with water, and add to it the corn and oat meal in the usual way. As yet the cows in this herd have manifested no disposition to suck their calves, for which their owner is duly thankful, and well he may be. He has fed no roots or other of the feeds used by the dairymen whose practice has been recited in our preceding articles. His reasons for confining himself so strictly to the old "stand by" feed is, that this does well enough for him, and he feels no anxiety to make experiments. In this, according to our judgment, he errs, for there can be no doubt that there are other articles of diet which possess more milk-making properties than corn and oats, and a man is not wise who refuses to profit by the experiments of practical men. He knows his own business best, however, and if he is satisfied with his receipts, we cannot complain. He has been in the cream business for four years, previous to which time he sent milk to the city, and occasionally a mess of cream. Finding the latter the more profitable product, he gradually abandoned the more bulky milk, and has gradually worked into the largest cream and cheese business in the county.

The average daily yield of the cows is said to be ten quarts each, Winter and Summer, a better result than is obtained ordinarily, and an evidence either that he is an excellent judge of milking stock, or gives his cows the best of care. It is a very good dairy of cows that will make an average of ten quarts, Winter and Summer; good management will sometimes do it. Thus, in Mr. Roe's dairy, from August 1 to 7th, 42 cows gave 2,525 quarts; 50 cows in May gave 3,170 quarts; 35 cows in January gave 1,951 quarts; 30 cows in January (another week) gave 2,125 quarts—in all of which cases the average is near ten quarts for each cow per diem.

Mr. Minard Sutton's creamery is a short distance from the one above described. It is scarcely so extensive, but is kept in good order, and pays a good profit. Mr. Sutton sends in May eight cans of cream, of forty quarts each, per diem to the city. These he gets from 2,400 quarts of milk, or at the rate of about one of cream to eight of milk. He skims closer than Clark, that he may have more cream to sell, not having, as the other has, a partner in the city who supplies a regular route of customers. This month he sends ten cans, and from the 20th of June to the middle of July will send as many as twenty. For two weeks preceding the 4th of July an extraordinary demand is experienced, so great that the large confectioners in the city are compelled to store extra quantities of cream in ice-houses, else they would not have enough to supply their customers on the National feast-day.

Mr. Sutton keeps ten cows in Summer and fifteen in Winter. The milk he does not produce he purchases of neighbors.

The remaining two creameries are those of Richard W. Woodhull of Blooming Grove, who sends from 150 to 160 quarts daily, and of David Henyan, who sends about the same quantity.

DAIRY REGULATIONS.

Mr. Clark's practice is to milk at 5 a. m. in Summer, and 6½ a. m. in Winter; at 4 p. m. in Winter, and 7 in Summer. The milk is strained into coolers—the long tin pails 18 x 4 inches—for the cream to rise. The coolers are set in cold spring-water vats, constructed in the dairy-house itself, where they remain for twelve or twenty-four hours, or until the animal heat is thoroughly expelled. The cream is skimmed off and put into ordinary milk-cans, which when sent to market are set in wooden tubs so large that four or five inches in thickness of ice can be packed around the cream-can. Kept cool in this way, the cream reaches the city even in the hottest months perfectly sweet.

The ordinary export of cream from this farm is 300 quarts daily, but in Summer, when there is the greatest consumption of ice-creams, and fruit with cream, this quantity is doubled. Taylor, the Broadway restaurateur, gets from 160 to 300 quarts daily, according to the demand.

To make one quart of cream ten quarts of milk are needed; so that Mr Clark consumes as high as 6,000 quarts of milk a day when in the hight of business. To furnish such a vast quantity would require 600 cows, and it may readily be imagined that on a farm of 200 acres they would scarcely be maintained without a good system of soiling were followed. His own production is only 300 or 400 quarts; the balance he purchases of neighboring dairymen, taking the entire year's product from such as he contracts with. Some persons get a quart of cream from less than ten quarts of milk by skimming closer than does Mr. Clark, as, for instance, will be seen by the following table, kept by a dairyman near Chester:

Month.	Milk.	Cream.
January	5,560	1,062
December	4,710	920
August	9,240	1,577
July	10,110	1,594

—or ranging from six to eight quarts of milk to one of cream. The cream that remains in the milk at Mr. Clark's dairy is not by any means lost, for it is all worked into cheese with the skimmed milk. In Summer-time, when the market may be overstocked with cream, he either sends a portion of milk to the city, or works it up, cream and all, into cheese.

CHEESE-MAKING.

The process of cheese-making in use here does not much differ from that practiced elsewhere. The skimmed milk is put into large tin vats, placed in wooden cases, leaving between the two a chamber into which steam from a boiler may be discharged. The milk is heated in this way to about 85° Fahrenheit, when the rennet is added, and suffered to stand for three-quarters of an hour, or until in curd. There are two of these large vats of the capacities respectively of 1,700 and 1,300 quarts. The curd having been nicely formed, it is cut with first a wooden rake, and afterward a frame of small squares of tin. The wooden rake, or "machine" as it is called, has six long thin teeth about eighteen inches in length made flat, like the tines of a digging fork. In the head-piece to which they are attached, a stout short handle is set at right angles with the teeth. The other tool consists of a light iron frame of 14 x 20 inches, the whole space inside which is filled with squares of tin about an inch square, made by strips crossing each other and soldered together at each place of junction. The wooden tool first, and this latter one afterward, are drawn through the curd to and fro until it is cut into a proper consistency for pressing. It is "wheyed off," and the steam is again let on, when the whole mass is worked over by hand, until it is heated up to 95° to 100° Fahrenheit, according to the heat of the weather, and the way in which the milk has been skimmed. It now stands for fifteen to thirty minutes, when it is removed from the vats to sinks and left to drain. The draining complete, it is salted, put into hoops, and pressed for twenty-four hours. From the press it goes to the curing room—a long, cool apartment with stone walls, and a grouted floor—where the cheeses are upon wooden shelves, and are turned once or twice a day so that both sides will dry and harden evenly. In the curing room they stand for a month or forty days, and are then ready to be packed and shipped.

In Winter, six cheeses are sent away each day, but in Summer fifteen, weighing an average of 35 lbs. each. They are almost all sold to go South, the price usually obtained being seven cents per pound. Cheese-making is commenced in the morning, to give time to go through all the parts of the process.

It will be understood that in all the different stages of the cheese-making process the greatest attention must be given to details, and the best cheese can only be made by skillful hands. If, for instance, the milk is heated to too high a temperature until the curd is obtained, the oily particles—those which impart all the richness to cheese—will run off with the whey; and if during the hand-working of the curd so much heat is added as to scorch the smallest portion, the taint will be communicated to the entire mass. So, too, if milk is curdled below 85°, the cream is as likely to work off with the whey as when overheated. The fact is that the buttery particles remain in suspension in the watery portions of the milk at a certain temperature, and at a certain other will be caught in the curd, while any extreme departure from this degree of heat will suffer them to flow out in the whey.

Perhaps there is no part of cheese-making of so much importance as the preparation of the rennet. This, as our country readers all know, is made of the inner lining, or mucous membrane, of the stomach of the young suckling calf, and the use of it was undoubtedly suggested by observing the complete and rapid coagulation or curdling of milk in the stomach of a calf newly killed. The mode of preparing rennet, as given by Mr. Fish of Herkimer Co., in a statement made by request of our State Agricultural Society, is as follows: "The rennet should never be taken from "the calf till the excrement shows the animal to be "in perfect health. It should be emptied of its contents, salted, and dried, without any scraping or "rinsing, and kept dry for one year, when it will be "fit for use. It should not be allowed to gather dampness, or its strength will evaporate. To prepare it "for use, into ten gallons of water, blood warm, put "ten rennets; churn and rub them for twenty-four "hours; then rub and press them to get the strength; "stretch, salt, and dry them as before. They will "gain strength for a second use. Make the liquor as "salt as it can be made; strain and settle it, separate "it from the sediment, if any, and it is fit for use. "Six lemons, two ounces of cloves, two ounces of cinnamon, and two ounces of common sage are sometimes added to the liquor to preserve its flavor and "quicken its action. If kept cool in a stone jar it will "keep sweet any length of time required, and a uniform strength is secured while it lasts. Stir it before dipping off. To set milk, take of it enough to "curdle milk firm in forty minutes."

Mr. Flint, in his admirable work on Dairy Farming, coincides with our views as to the importance of properly preparing the rennet, and makes use of the following language: "In my opinion, the point in which "many American cheese-makers fail of success is in "hurrying the pressing. I think it will be found that "the best cheese is pressed two days at least, and in "many cases still longer." The Gloucester cheese is pressed five days; the Dunlop, a celebrated Scotch cheese, three; the Cheshire three or four, and the other famous European cheeses for a like period; while in South Holland the skim-milk cheese, after being pressed by hand in a most thorough manner, goes into three distinct mechanical presses, each succeeding one more powerful than its predecessor.

[To be continued.]

CLAMS.

Our old and tried friend the Clam—may his flavor never be less—whose excellence is unaffected by changes of temperature—who is as delicious in August as he is savory in January, and who never becomes less palatable on account of family cares, is the honored subject of our present discourse. Of course the fearful men of science couldn't let him alone, but have christened him with several long and high-sounding names that he doesn't thank them for; and not content with this, they heap opprobrious epithets on all his connections, whom they stigmatize in a lump as a "family of lamellibranchiate bivalves." After that, no one will wonder that the outraged clam frequently retires to those secluded nooks only found in 40 feet water, that he may escape further gratuitous insult. But they follow him even here, and hurl their scientific Billingsgate after him in this wise: the broad sea-clam they vilify under the barbarous title of *Mactragigantea*; if they see an innocent soft clam, they defame him as a *Mya Arenaria*, and if they put their impertinent eyes on an unoffending hard clam, known to us under the endearing title of "Quahaug," they straightway take away his character under the name of a *Venus Mercenaria*. Now, as the original Venus was a blacksmith's wife of bad character, and as a mercenary Venus must be several shades worse than the first one, we submit that the title was defamatory, and that Linnaus has clearly given ample provocation for a libel suit, and if he never had to pay any damages, it is because immutable justice does not comprehend the wrongs of clams.

The Pilgrim Fathers knew the inestimable value of our friend, and he was many a time made the subject of a special thanksgiving. It is set down by veracious writers that "in the early history of Plymouth "Colony, clams and fish were several times the principal source of sustenance of the people. The devout Elder Brewster, it is said, supported himself "and family many months without bread, thanking "God that 'they could suck of the abundance of the "'seas and of the treasures hid in the sands.'" Before we discourse further of the clam of our own kettle and saucepan, the giant clam of the tropical seas deserves a word of notice. The naturalist Lamarck calls this gentleman *Tridacna Gigas*, and tells some curious stories of his great size and weight. He is edible, though rather overgrown, and he has his home in the sheltered lagoons of the Coral Islands, where he is found embedded in the coral. The animal himself sometimes weighs 20 pounds, and the shells weigh more than 500 pounds. Sir Joseph Banks once went a clamming, and was lucky enough to catch a clam, the shells of which weighed, the one 285 and the other 222 pounds.

Goodness gracious! what an astonisher. Think of a shell-fish big enough to afford roast and boiled, to say nothing of steaks and chops.

"Boy, is the clam roast in fine cut?"

"Clam roast, Sir—yes, Sir; am afraid you'll find it a little rare, Sir."

"Well, then, bring me a clam cutlet."

The Chinese, with their remarkable ingenuity, carve a great many characteristically useless articles out of these huge shells; beads and bangles, and complicated toys and puzzles, to say nothing of snuff-bottles, tops of walking-sticks, and similar trifles.

The soft clam comes to this market, but in no great abundance, as it is difficult of transportation, and the demand is by no means so great as for quahaugs. The soft clam is found in great abundance on the various islands in the immediate vicinity of New-York, all along the coast of New-England, and in many other places too numerous to specify. Those that are brought here are found within a few miles of the city. The soft clam is not only of great importance as an article of food, but is largely used as bait for the larger fishes, as cod, haddock, &c. They lie together in little groups, about a foot or so under the sand, all along that part of the shore that is exposed at low water. They are found congregated in little families of from five or six to a dozen, so that digging for soft clams is not unlike digging potatoes. The presence of each of these nests is discovered by a smooth round hole about the size of the little finger, by means of which orifice the clams communicate with the water at high tide. How the gentleman clam with his family gets into his snug quarters under the sand is a question of difficult solution. The clam has neither spade nor pick nor crow, nor has he discoverable digging apparatus of any sort; nor has he hands or feet; nor is he withal an animal of active temperament, distinguished for energy and industry; but, for all this, for a workman to dig a hole without tools, commend us to the soft-shell clam.

It is perhaps cruel to mention here, in an article that will meet the eyes of thousands who only know clam by hearsay, and who have never seen the sea-shore, that Paradisaic institution known as a "clam-bake." Dig your clams, set them up edgewise in a symmetrical layer on the clear, clean sand—if you've ever done it before you'll know that you'll want a good many bushels, and if you never have, the instant you get the first taste you'll wish you'd made your pile twice as big, and hadn't eaten anything for two days—then cover them with a tolerably thick layer of dry seaweed, or driftwood, or any other quickly-burning fuel. Set it afire on the windward side; then, when your fire is burnt out, your clams are cooked, and your dinner is ready; further particulars are unnecessary.

"Quahaug" is the popular name of the hard clam, which is the bivalve most in use in and about New-York. This euphonious name is supposed to have been invented by the Indians, and it is conjectured to have some occult significance, now lost to the world forever. They are abundant on a very great proportion of the North American seacoast, and edible species of the genus clam are known in nearly all the seas of the globe.

The greater quantity of quahaugs that supply the New-York market come from Long Island Sound and the East River; also from the shoal waters about the south side of Long Island. Oyster Bay, Cow Bay, City Island, Flushing Bay, and Little Neck Bay, all of which are noted oyster localities, also produce a considerable number of clams. These are all called East River clams. They are not like the soft-shelled varieties found in the sand at low tide, save in exceptional cases, but are fished up from the bottom, in water varying in depth from six to twenty feet. They are dragged up with rakes, in the same manner that oysters are taken. The difference in flavor between these different varieties is very slight, and is imperceptible to most people, but the Little Neck clams have the reputation of being the best in market. They are good all seasons of the year, as their wholesomeness is not affected by the spawning, which they do in July and August, and they have no diseases of any sort.

An inferior variety of the quahaug is brought from Little Egg Harbor, Great Egg Harbor, Barnegat Bay, Absecom Inlet, and other coves, bays and inlets along the Atlantic coast of New Jersey. These are, however, regarded as far inferior to the East Rivers, and command but half the price in market. About 25 sloops, of from 20 to 30 tuns burden, are employed in the Jersey clam trade. Each sloop makes from six to ten trips per year, bringing to market from 100,000 to 150,000 of the bivalves at a load. They are sorted into three lots, according to the size, and vary slightly in value accordingly. They command a price of from $2 25 to $3 per 1,000. Many thousands are shipped hence all over the country in barrels, as they will keep in moderately cool weather a sufficiently long time to be transported to any part of the United States. The East River Clams bring from $1 to $1 50 per basket, which is supposed to contain a bushel, or from 50c. to $1 50 per hundred, according to size. There are about a hundred boats, large and small, giving employment to 150 or 200 men, constantly engaged in clam catching in the East River. The shell-fish are transferred from the small boats to the sloops, and in these they are brought to market. The clam is a prolific insect, as may be judged from the fact that the East River fishery alone produces 100,000 per week, and the supply continues undiminished.

Rockaway Beach, Fire Island, and other places along the south coast of Long Island, also produce their hundreds of thousands weekly. There are 30 sloops, of from 12 to 30 tuns, constantly engaged in the Long Island trade; these sloops carry from 50,000 to 150,000 per trip, and make a trip once a fortnight. Although by far the greater quantity of clams are taken from deep water, by means of the rake, many are also found on sand-bars that are left exposed by the receding tide, and are carried thence by enterprising seekers after testaceous treasures.

The stories of pearls of great price being sometimes found in clams are not altogether unfounded; it is true that sometimes valuable pearls are so found, but they are very few, and particularly far between, and the yield is by no means to be depended on; we would not recommend any of our readers to base hopes of an immediate fortune on the prospect of finding huge, unexpected pearls in corpulent clams—better give Pike's Peak another chance.

Beside the thousands of clams that are sent away in barrels, many other thousands are exported, after having undergone a preliminary pickle. Who has not given himself a story indigestion and a consequent nightmare, by a spicy surfeit of pickled clams? If any such there be, and he desire to make the acquaintance of the nocturnal, equi-feminine quadruped, we would seriously recommend the pickled clams aforesaid to his immediate attention. Eat a moderate quantity, say three pecks, late at night, and go at once to bed, lie on your back, and you will not have to wait long to hear the furious charger prancing over your prostrate body.

In Jersey, the clam trade is a separate and distinct one; but in New-York it is carried on by the oyster dealers, and Fulton Market is of course the head-quarters of the clam merchants. The daily sales of clams for city use are about 150,000, and as many more for immediate shipment.

By our statistics it will be observed that 230,000,000 of clams are brought to New-York City every year, which would be a clam apiece for several small parties.

THE BLACKBERRY TRADE IN KENTUCKY.

Correspondence of the Cincinnati Gazette.

MILTON, Trimble Co., Ky., July 20, 1859.

When you and your readers sit down at your tables, take your new-paper in your hand and eat freely of blackberries, in some one of the many shapes in which they come ready for the palate, do you ever wonder where so many come from, or did you ever think that men of your own city invest, this year, in their purchase, at least $30,000.

This (Trimble) County probably turns out more berries than any other place of its size in the world. Until this year, the farmers have generally been accustomed to speak of the briar as the "farmers' pest," so little do they know of the ways of Providence, who, in giving them this unfailing crop, has put ready to hand, without toil of cultivation, a crop which this year brings them in a larger income than would the same space of ground, planted in wheat, at 90 cents per bushel. Walk from this town to Bedford, and even that branch out to Palmyra, on the one side, or to Hall's Landing on the other, and so long as the freestone formation lasts, there the briers are running with berries, bearing them down in all sorts of entanglements.

On the ten mile line, between this and Bedford, there are ten buyers; in Bedford there are two; at Palmyra three; beyond Bedford two, and in the vicinity of Hall's Landing one. There are a few others who visit points on the river, but these do no great amount of business. These buyers are the agents of fruiterers in Cincinnati, who receive two dollars each per day, for receiving the berries and shipping them. Generally these men are owners of briar-patches of their own. They are authorized to pay at this time thirty cents per bucket for all berries taken in; but at the commencement of the season, when the ripe berries were more scarce upon the bushes, as high as sixty cents was paid, and two days later, forty cents.

I will explain the operations at one stand, which will show how the business is managed at all, then I will make up the figures to show the extent of the outlay.

The buyer, whose business I am going to explain, owns several patches of berries; one he reserves for the picking of his own family, all of which, from the mother, who is well nigh on to fifty years of age, down to the youngest child, are out in that field. Beside these, he has in other patches, their own and their neighbors, 14 pickers. These start out at break of day, and pick until about 10 o'clock, when the sun being very hot, the berry does not stand so well as when picked during the cooler hours. Men, women and children now shoulder their buckets, carry them to the receiver, who empties them into the stands, each drawer of which holds one bushel and one peck. The number of buckets are now set down to the picker's credit, at the rate of 30 cents per bucket, and occasionally, when a bucket of extra-sized berries are brought in, an additional five cents is added to its cost.

Wagons now come along and bring the stands to the river at this point, where each day between one and five o'clock there can be seen from a hundred to one hundred and fifty stands and half stands, equal to about 800 bushels of berries, which are daily shipped.

In the evening some picking is again done, the berries being brought in the following morning. On Friday evening and Saturday no picking is done, for the reason that the packet does not run on Saturday to your city.

I was present on Friday at the paying of the pickers at no less than three stands, and I found upon inquiry that the pickers collectively at each earned about $20 per diem. This yields from $1 20 to $2 50 to each picker as the result of their day's exertions. One family received for the week's picking, $27 and over. Not bad wages for children to make.

Up toward Bedford the farmers have only this year got into the business, the consequence of which is that they are very liberal, and they allow their pickers to pluck the fruit, and make no charge therefor; but down nearer this place, where every ripening berry is watched and plucked as soon as it is black, the pickers pay five cents per bucket to the owner of the patch, so that he has not only the profit made by the picking of his own family, but the additional clear profit of about 15 cents per bushel on the berries, which, considering there has been no cost of cultivation, and that there is a surety of the crop, is not so bad. The season lasts from four to six weeks.

All the buying here, or nearly all of it, being for two or three firms in Cincinnati, I have been enabled to come pretty nigh the exact figures of the trade. There are in all 19 receivers at a cost of $2 per day, 273 pickers, averaging to receive $2 10 per day; 7 haulers, averaging to receive $1 50 per day; freight on 150 stands of drawers per day, at $1, making a daily outlay in cash payable weekly of $769 50; or for the season of its usual length, equal to $20,685, all of which is expended within the county, except about $1,000. Add to the total amount the occasional expenditures for premium buckets, and we have a total expenditure of about $25,000.

FARM GATES, TO PREVENT DRAGGING.—In soft ground where it is impossible to bed the post with stones so as to prevent it from being drawn over by the weight of the gate, a stick of timber may be bedded in the ground under the gate, between the posts, so that any inclination of the post on which the gate hangs, is entirely prevented, by its brace against that opposite.

Another plan, recommended as effectual by a correspondent at Manlius, N. Y., is to bed a stick at an acute angle with the gate, slightly inclined, so that the gate if it has sagged shall strike this timber in swinging to, and rise gradually to the latch, where, being supported by the foot resting on the timber, it will not pull the gate forward.

FIRES.

FIRE IN JACOB STREET.

About 11½ o'clock Wednesday morning, an alarm of fire in the Seventh District was caused by the burning of a portion of the roof of the tenement house No. 17 Jacob street. Damage about $250. The building is occupied by fifteen or twenty families, all of whom sustained slight damage by water. The fire was caused by children playing with matches.

FROM HAVANA.

The steamer Empire City, Capt. S. P. Griffin, left New-Orleans July 20, arrived at Havana on the 23d at 6 o'clock p. m., and left for this port at 9.30 a. m. the next day, the 23d. There is not much new at Havana. The most important item is the consummation of a postal arrangement negotiated between his Excellency the Captain-General of Cuba and the United States Consul, Gen. Helm. The United States mails will after the 1st of November proximo be made up at the office of the Consulate General.

Sugar transactions are light, with no decline from late advices; stock about the same. Exchange is quoted: London Sterling, 60 days sight, 12¼ to 13 prem.; Northern United States, New-York, &c., par to 2 prem.

The health of Havana is understood to be much better than in any Summer for several years past, yet considerable intermittent fever of a light type prevails. A report had reached Havana, corroborated by the agent of the line, that the last new steamer of the British West India Mail line, said to be the Paramatta, had been wrecked, a short distance to the eastward of St. Thomas. No particulars were gathered.

On the 26th inst., at 5 a. m., Mrs. J. P. Cloyd, a passenger from Havana died on board, of hysterical fits, and was the same day buried at sea. On the 27th, at 6 a. m., John Mullaly steerage passenger, died of general debility, and was likewise buried.

MARINE AFFAIRS.

LOSS OF THE PARAMATTA.

The British Mail steamer wrecked near St. Thomas is doubtless the Paramatta—not Merlin, as stated by telegraph from Boston. *The Panama Star* of the 5th says:

"The magnificent new steamship Paramatta was wrecked on the Island of Anegada.

"The Paramatta is the first of a new class of iron steamers now being built by the Royal Mail Company, and was on her first trip out. She is one of the largest and finest steamers that was ever sailed from England, being 3,500 tuns British register, 800 horse-power and about 400 feet in length.

"We have not heard whether she will be a total wreck, or whether the cargo will be lost, but the mails and passengers have fortunately been saved.

"The Paramatta had made a fine run out of 12 days, and when within 60 miles of St. Thomas ran aground on a coral reef, where she lay at last accounts, with bow in twenty feet of water and her stern in thirty feet.

"The island of Anegada, where this misfortune occurred, is the most northerly part of the Antilles, British West Indies, 18 miles north of Virgin Gorda. It is low and of coral formation; at its south-east extremity is a low reef extending 10 miles outward, upon which many vessels have been wrecked before.

"As the Royal Mail Company insure their own ships, this will prove a severe blow to them should they not succeed in saving the vessel, as it will probably eat up the entire insurance fund they had on hand at their last report, £300,000.

"This Company have been exceedingly unfortunate, having lost on an average about one vessel each year for the past nine years, and it is greatly to be regretted that so fine a ship as the Paramatta should be the one to whose lot the present accident has befallen. We trust, however, to receive news of her being saved by the next mail."

VOYAGE OF THE WASHINGTON.

The voyage of the steamer Washington from New-York to San Francisco was, in many respects, a remarkable one. Her report says:

The Washington was detained three weeks at St. Catharine