

**Luckhardt's Process of Photo-Engraving.**

This process, which has been rightly called a "Columbus' egg," like so many others, owes its origin to chance. Being requested, at a few hours' notice, to draw a portrait for a circle of friends, I intended to use as a guide a photograph, the printing of which was, however, delayed. The idea then occurred to me to coat the negative, which was at hand, with yellow varnish, and to etch the portrait with the needle on that ground. As I wished to make a caricature, the salient characteristics of the negative were retained as a foundation, the transparent parts etched out, and the clothing altered. In this way the photo engraving was produced, the further use of which, I believe, is not to be undervalued. In view of the circumstance that the drawings and wood cuts of portraits which appear in the illustrated papers have frequently lost the likeness of persons whom they represent, and that notwithstanding they are costly and require a long time to produce, would it not be advisable to use engraved photographs instead, even when the original negative, taken from nature, is not to be had, but only a negative reproduced from it?

The yellow varnish—consisting of common negative varnish to which a suitable quantity of aniline yellow has been added until it has assumed a dark sherry color—may be grained very well for a few days; but the older the varnish film the more brittle it becomes, and, therefore, a few drops of castor oil are added to it to render it elastic. The action of light upon sensitive paper placed beneath the negative is effectually suspended by the yellow varnish, so that only the transparent lines, produced by the graver, print. When once the principal lines of the original picture have been faithfully laid down, even an untaught draughtsman may produce an engraving of the portrait that shall at least have some resemblance; while a draughtsman skilled in cross-hatching or a xylographer should furnish a work which, placed beside a good woodcut, should exhibit a superiority recognizable even by the unprofessional eye. Besides the rapidity with which the engraving can be made, the possibility of the utmost correctness is offered, since lines which have been too deeply grained or wrong lines may be filled up again with yellow varnish and engraved anew, a printing frame and silvered paper offering a convenient method of watching and controlling the progress of the work. Where broken lines are desired a pencil may be passed over them, and then they may be pricked and so on. By transfer paper an impression from an engraved, yellow varnished negative plate may be transferred to zinc, and in this way a plate suitable for printing with the letterpress printing press will be produced.

The portrait of Dr. Emil Hornig, the President of the Photographic Society of Vienna, issued with the current number of the *Photographische Correspondenz*, was engraved in about an hour, the faultless zinc *cliché* being produced in a surprisingly short time, in the chemigraphic establishment of Herren Angerer and Goschel, so that in a single day a negative, the engraving, and the *cliché*, ready for printing from, may all be produced with ease.

As I never before made a drawing for a woodcut nor engraved a portrait, I must add that I by no means consider the portrait of my honored friend as a work of art; but my first attempt having attracted some attention in the Vienna Photographic Society, I was induced to prepare the present portrait for its organ. I hope the process may soon meet with extensive application at the hands of capable artists.—*Fritz Luckhardt, in Photographische Correspondenz.*

**FEAST OF STRANGE FISH.**

BY A. W. ROBERTS.

The second annual dinner of the Ichthyophagous Club, which was held on the evening of Friday, the 28th ult., was a complete success, not only as a social gathering, but for



Razor Clam.

the more important and practical object of developing hitherto neglected varieties of fish for human consumption.

Among the company, which numbered nearly one hundred guests, were men distinguished in the world of arts, of letters, and of science, and not a few who are deeply versed in the mysteries of the ocean. The tables were ornamented with flowering plants, and designs composed of materials collected from the sea, the most noteworthy being a pyramid, twenty feet high, consisting of the empty shells of the horseshoe crabs, between which were introduced sharks' fins and sea robins' heads.



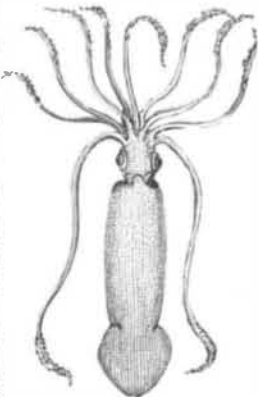
King Crab.

While the gathering was naturally social in its character, the practical result accomplished was the utilizing for food of certain fishes which have been considered the very refuse of

the ocean. Strange and repulsive-looking creatures (the most striking of which I have figured) were served up during the evening as the choicest of viands. These various dishes of strange fish were partaken of with a relish, which, until the experiments of last year and this were made and proved successful, were considered valuable only for fertilizers or curiosities for aquaria.

The consomme of moss-bunker was very palatable and entirely free of all oleaginousness.

The "Bisque of razor clams" was as delicate in flavor as



Squid.



Hell-bender.

oyster soup. "Gray snapper a la Blackford" was another equally palatable dish. Although the gray snapper is not equal in flavor to the red snapper, there is no reason why it should be neglected by our fishermen, as it generally is, as a marketable fish.

"Horseshoe crabs a la diable" were served from dishes composed of the empty shells of the horseshoe or king



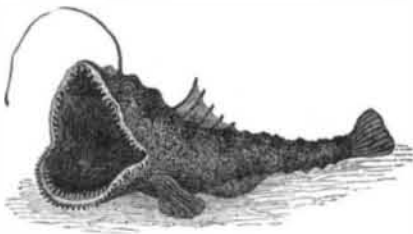
Sea Robin.



Blow Fish.

crab. The flesh of this crab was found to be coarser and more stringy than that of the ordinary crab, and the flavor more pungent, but not sufficiently so as to make it unpalatable.

"Drumfish a la Cope" was very suggestive of sheep's head. The drum fish is never to be found in our markets,



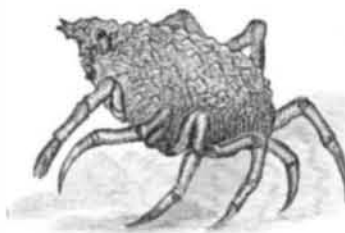
Lophius a la Beard.

and in the severest sense is looked upon as an "evil" fish by the fisherman, it being one of the greatest enemies to the oyster.

"Saute of shark, Chinese style," was not very successful, as the portion that I partook of left a disagreeable taste in



Sea Lettuce.



Spider Crab.

the mouth, though others declared it equal to halibut steak; perhaps I got the evil part of the beast.

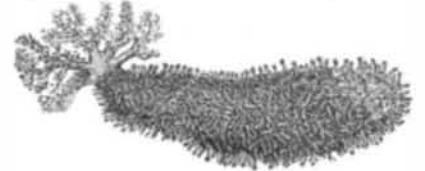
"Squid a la Starin." Without exception the squid is one of the most repulsive-looking animals of our coast, and yet



Skate.

from it was produced a black colored and gelatinous soup, which, if you could forget the disgusting form of the creature, was very pleasant to the taste. Next on the menu

came hell-benders, sea robins, "Lophius a la Beard," and blow fish, with sea-lettuce salad, from which were produced fries, broils, and salads, all more or less enjoyable.



Sea Cucumber.

On last year's menu were spider crabs, gar fish, skate, and sea cucumber, of which strange looking creatures some idea can be formed by the accompanying illustrations.

In some future number detailed accounts of the habits and uses of many of these fish will be given.

**The New England Exhibition.**

The New England Manufacturers and Mechanics Institute are making a special effort to secure this year an adequately representative exhibit of the products of New England industry and skill. The Exhibition building, now nearing completion, is the largest building in New England, covering five acres of ground and offering over eight acres of flooring available for exhibition purposes. It is situated in Boston, on a spur track of the Boston and Providence Railroad.

Space has already been assigned to a considerable number of prominent industries. The exhibit of the boot and shoe trade is expected to be more extensive and complete than has ever been made before. It will comprise a model factory with 129 distinct machines in operation.

The office of the Institute is at No. 5 Pemberton Square, Boston.

**Prof. Carhart's Lecture.**

In the notice of Prof. Carhart's recent lecture before the New York Electrical Society it was incorrectly stated that the Crookes experiments had not before been publicly repeated in this country. The same lecture, with illustrated experiments, was given by Prof. Carhart before the Chicago Electrical Society, last winter, January 24.

**Carlyle and His Dyspepsia.**

In his "Reminiscences," Carlyle tells how he once rode sixty miles to Edinburgh, "to consult a doctor, having at last reduced my complexities to a single question. Is this disease curable by medicine? or is it chronic, incurable except by regimen, if even so? This question I earnestly put; got response: 'It is all tobacco, sir; give up tobacco.' Gave it instantly and strictly up. Found, after long months, that I might as well have ridden sixty miles in the opposite direction, and poured my sorrows into the long, hairy ear of the first jackass I came upon, as into this select medical man's, whose name I will not mention."

**Discolored Brick Walls.**

The white saline substance that "comes out" upon brick walls, and which has been a source of annoyance to a great many, may, according to the *American Architect*, be remedied. In reply to a query on the subject, it says: The "saltpetre" of brickwork can generally be prevented by adding oil to the mortar, at the rate of a gallon to the cask of lime. If cement is used in the mortar, an additional gallon of oil must be allowed for each cask of cement. Linseed oil is generally employed, but any kind which does not contain salt will answer. The incrustation, once formed, can be removed with hot water, or by the muriatic acid generally used for cleaning down brickwork, but it will reappear again by exudation from the interior of the wall, and usually leaves a permanent black or brown stain.

**Another Large Casting.**

The large iron bed plate for the Fall River steamer Puritan, cast at the foundry of John Roach & Son, in this city, May 17, will be, when trimmed and completed, 21 feet 9 inches long, 12 feet 6 inches wide, and 3¼ inches thick. The mould was 37 feet long, 14 feet wide, and required 2,000 feet of timber for the frame. It was roofed with brick.

**AGRICULTURAL INVENTIONS.**

An improved corn sheller with which an ear of corn can be shelled very rapidly and perfectly without crushing or bruising the kernels and without any great exertion of power on the part of the operator, has been patented by Mr. Charles F. Shaw, of Boston, Mass. It consists of two semi-annular sections, each provided with an arm, the arms being pivoted to each other at the outer ends, so that the sections can be swung open or closed. These sections each have a series of teeth, all tapering toward the same point, fastened to the inner sides, so that an ear of corn is passed in between the semi-annular sections, and the latter are held tightly while the ear is being rotated to and fro. The teeth will tear the kernels from the cob.

An improved butter worker has been patented by Mr. John McAnespey, of Philadelphia, Pa. The invention consists in a body having rim and boss, a shaft passing through the body and connected by a gear with a hand crank shaft, a cross piece provided with a median square hole fitting a squared part of the body shaft, and beveled rolls arranged on journals of cross piece.