

American Method of Preparing Canned Salmon.

The American method of canning salmon differs in some important respects from the modes of putting up fish practiced in Europe. As time and labor are of importance in the United States, the effort in preparing food has been mainly directed to arrive at immediate results. The salmon is cooked in the cans in which it is put up. In all fish put up in oil or canned in Europe, the fish is first partially or entirely cooked in distinct vessels, and then transferred to the cans, where another cooking or heating takes place before the closing of the tins is effected. The process of canning the salmon of the Columbia River, at Astoria may be briefly described as follows: As soon as the fish caught during the night are landed at daybreak at the factory, gangs of Chinamen take the fish, scale and clean them, cut off heads, tails, and fins, and place the fish in tanks filled with salt and water. Here the salmon remain for a certain length of time, and the cleansing process is known as "slimming." Now the fish are brought into the factory. A Chinaman with a peculiar machine, at a single stroke of a lever, cuts the fish into exactly the proper sized slices which will fit the cans. Another set of hands take these bits of fish, place them deftly in the cans, whence they go to other workmen, whose duty it is, by means of an apparatus, to put in each can a small amount of brine; nothing else is added, the salmon being cooked *au jus*. Now the cans filled with the raw fish pass to workmen, who apply the lid and solder it on. Next, the cans are placed, hundreds together, in iron rings, each form holding 800 cans, and, by means of cranes, all lowered into steam-boilers, where they are cooked for an hour. Now quite a nice operation takes place, similar to that employed by the champagne-wine manufacturers, which is called venting. A hole is pricked in the top of the can, and the air and the gases generated are allowed to escape, when the little vent-hole is instantly re-soldered again. A second cooking now takes place, when the culinary portion of canning is ended. The cans are again taken from the boilers, and are showered with cold water. If the vacuum is perfect, and the package sound, the top of the can hollows in and assumes a concave form. If, however, there is the least convexity, this condition of "swell heads," as it is called, causes the rejection of the package, for the salmon would not keep a week, and manufacturers know that a single spoiled can would injure the reputation of a thousand packages. It will not even do to tinker with these "swell heads," as they would cost too much to put in order. If they are worked over, however, they are never shipped as first-class goods. It is a necessity, in order to insure the excellence of the canned product, that each day's catch of fish should be prepared within twenty-four hours. Should there be any hitch in the factory and the all day's salmon cannot be canned, what remains over is salted and barreled. So far, the barreling of salmon has by no means been profitable, a barrel of salted salmon being worth only seven dollars the two hundred pounds; and three and one-half cents a pound is very cheap food indeed. These salted fish are, however, finding a market in the United States, where they are freshened and smoked. It is, perhaps, not out of the way to say that the can of salmon, before it is completed, with a handsome label put on it, and boxed, goes through as many as a hundred different operations, from the catching of the fish until it is sold as a finished product. Through April, May, June, and July the factory has no idle moment. The fishermen ply their nets all night, and the Chinamen work all day and up to ten o'clock at night, when the canning is carried on by gas-light.

Oregon salmon, as a canned product, has nearly driven out all other similar preparations of the fish, and the Eastern establishments are fast passing out of existence. In 1875 England took 165,600 cases of Oregon salmon; New England, 2400; South America, 1500; Australia, 14,190; and New York and the Atlantic coast, some 57,571. The European demand for the canned salmon product of Oregon is steadily increasing, and the cry is a constant one for more. The value of salmon as put up on the Columbia River alone is estimated at \$2,500,000. *General Report of the Judges of Group V, Centennial Exposition.*

FOR KEEPING crackers dry, unslaked lime is recommended. The wooden boxes for the crackers should be about 12 inches deep, and have a tray 1 inch deep to rest just beneath the lid, which should fit tightly. The lime is placed on the tray, and is said to keep the crackers dry for six months if the box is not opened.

PREHISTORIC RELICS IN ARIZONA.

Arizona Territory is perhaps less known, to the majority of our inhabitants, than any other part of the country; and yet it has a remarkably fine climate, moderate temperature, fertile soil, and unbounded mineral wealth. No railways, however, have as yet been constructed in Arizona; but the Atlantic and Pacific and the Texas Pacific companies have obtained charters and land grants, and, when these roads are constructed, there is every likelihood of this beautiful region being reached by settlers from the East; and its land, now chiefly occupied by nomadic tribes of Pimas, Maricopas, Mohaves, Utas, and Apaches, will be brought into cultivation.

To the traveler and antiquary, Arizona is a land possessing especial interest, as it abounds with relics of two populations, probably widely separate in point of time. There are to be found here numerous ruins of Aztec sculptures and buildings, which were probably of great antiquity when Cortes arrived in Mexico, and Don Jose de Vasconcellos crossed Arizona towards the Great Canon, in 1526. But the remarkable painted rocks, shown in our illustration, are doubtless much older than the Aztec relics; and there is no history, legend or tradition that even attempts to explain the origin of the inscriptions. The marks are not painted but scratched on the surface of the rock, which is a kind of gritty sandstone, of red colour; and many of the animals thus rudely depicted are not, and perhaps never have been indigenous to Arizona. The alpaca, for instance, belongs to the uplands of South America; and the buffalo's native land is far to the northeast of these rocks. It seems reasonable, therefore, to believe that the inscriptions were part of an account of some travelers' wanderings, who thus recorded news of the remarkable countries they had visited.

The pitahiya, or giant cactus, several specimens of which are shown in our engraving (which we select from the pages of the *Illustrated London News*), sometimes reaches the height of seventy feet. It has a curiously weird appearance, with its huge pronged branches looming in the distance. The fruit is a favorite food with the natives, who knock it down with their arrows. They also use the fibres of the trunks, matting them together to roof their wigwams with.

The Aztec relics are very numerous on the Colorado plateau, in the northwestern part of Arizona; and the Spaniards subsequently erected reservoirs, terraces, and buildings of great extent. Stone fortifications are also very frequently met; and it has been estimated from such indication that at least 100,000 people inhabited the Gila valley at one time. It is probable, moreover, that some further light may be thrown on the history of this wonderful region, as much of the northern part of the country has never been explored. *Scientific American.*

A CURIOUS CLOCK.

The Reading (Pa.) *Eagle* has the following: "In Mengel's building is now on exhibition in all probability the most curious clock in the world. It was built by Stephen D. Engle, a watchmaker at Hazleton, Pa. He is about 45 years of age, and has spent 20 years in perfecting the clock, for which he has received \$5,000. Engle never saw the Strasburg clock—in fact, he has not travelled more than 200 miles from home at any time. This clock stands 11 feet high; the Strasburg clock is 30 feet high, yet its mechanism is not so intricate, nor has it so many figures as the Hazleton clock. The Strasburg clock's figures are about 3 feet high, while those of the American clock are about 9 inches. Every hour a pipe-organ inside the clock plays an anthem. It has five tunes. Bells are then rung, and when the hour is struck, doors open and a figure of Jesus appears; doors to the left then open, and the Apostles appear one by one in procession. As they pass Jesus, they turn towards him, and Jesus bows: the Apostles then turn again and proceed through the door in an alcove on the right. As Peter approaches, Satan looks out of a window above and tempts him. Five times the Devil appears, and when Peter passes, denying Christ, the cock flaps its wings and crows.

DIAMOND STONE-DRESSERS.

CARBONITE has been applied to the dressing of freestone ashlar by fixing a number of diamonds in a gun-metal or steel block, and giving them a reciprocating and traversing motion over the face of the stone. This machine will dress from 600 to 1000 square feet per day, or as much as 100 or 150 men can do in the same time.