#### Scientific American

## THE SECRET CANNIBAL SOCIETY OF THE KWAKIUTL.

BY WALTER L. BEASLEY.

Among the many Indian tribes of the northwest coast, probably the most interesting in regard to their mysterious and spectacular ceremonials is the Kwakiutl of North Vancouver Island. Their mythology is based upon the adventures of a number of their mythical and supernatural ancestors, who either dropped down from the sky, arose from the underworld, or emerged from the ocean. All the people are therefore supposed to be the descendants of these fabulous personages. This has afforded a wide range for their superstitious imagination to weave innumerable tales and legends and to construct enormous

grotesque masks. The wearing of these carved representations of their ancestral spirits, who are still supposed to be present, will bestow supernatural help and power upon the person or clan who has acquired the right to use them. The magical gifts, dances, and crests of these spirits are all hereditary, but can also be obtained by marriage and initiation into one of its secret societies. The Kwakiutls have a number of these organizations, the most important and highly prized of which is the Ha-matsa. The startling and surprising feature of the Hamatsa fraternity, aside from the weird and severe initiation, is the employment of a cannibalistic rite, which is rigidly enforced and enacted by the candidate. This flesh-eating habit, while known to a limited number of ethnologists who have witnessed and technically reported on the same, to the general public, however, has possibly never been pictured nor

described. The writer lately had the exceptional opportunity of having several interviews with the most enlightened and influential member of the Kwakiutls while on a visit to New York. This gentleman is the leading authority on the customs and mythology of his people, having collected and furnished the National Museum at Washington and other institutions here and abroad with specimens and ethnological material relating to his tribe. The following account of the initiation ceremony of the cannibal Ha-matsa society is based largely upon his narrative, though it has lost some of its old-time ferocious qualities, when the Ha-matsa candidate is said to have devoured a body, yet in its present modified form it is undoubtedly one of the most remarkable Indian ceremonials of to-day. The origin for the Ha-matsa is based on an old myth or tradition which is considered one of the most sacred of the tribe. An ancestor, the protector and founder of the cannibal society, came down from the sky and was possessed of magic power which he could throw into objects, making them

alive, and into men, either killing or transforming them. The source of this supernatural power lay in a small animal, said to be a frog that lived in his stomach, which caused unusual hunger. When his appetite had to be satisfied, a ceremonial piece was given, at which he wore ornaments of red cedar bark, which are at present the emblems of the society. He had four sons. Supernatural powers manifested themselves in one in his acting at times as a cannibal, and he also wore ornaments of red cedar bark. He was made invulnerable by being rubbed with the blood of the double-headed serpent, and thereafter became a great warrior and by conquering many chiefs acquired much property. Thus, to be victorious warriors, and to secure the above supernatural qualities of their



Mask of the Double-Headed Serpent.

great ancestor, the Kwakiutl instituted the Ha-matsa. In the initiation dances the candidate personates the protector by wearing his mask and ornaments, showing thereby to the assembled people that by a visit to the abode of the Spirit he has obtained his powers. The ceremony of initiation only takes place during the winter months. Before the candidate is admitted to the Ha-matsa he must have been a member for seven years of some of the lower orders. The preliminary meeting is called by the chief, who announces to the people that a certain young man is to be initiated. Shortly the candidate disappears and soon afterward his cry is heard in the forest. Then the head man of the society proclaims to the tribe that the Cannibal Spirit has taken the young man to his abode in the woods, to prepare him for initiation. He remains from three to four months in the forest. During this period he is isolated from the outside world, and is supposed to be living in touch with the supernatural Cannibal Spirit. When the time approaches for the return of the novice the various details for the initiation ceremony are arranged. Singing is one of the special features. Eight songs have to be arranged; these are looked after by the musical master, who takes a band of selected singers into the woods to compose and rehearse these new songs and tunes. A certain clearing in the thicket is always selected for this purpose. Here the songs are practiced which are to be used in the forthcoming performance. The Ha-matsa novice, however, listens unseen to the tunes, as he must dance to them correctly when he makes his first appearance. Any mistakes he should make are considered ill-omened and will bring disaster upon the people. When the time for the return of the absent novice draws near, the old members of the Ha-matsa and the rest of the various secret society men who are to

take part in the initiation ceremony assemble at a special dancing house set apart for the purpose, usually ornamented in front by a totemic column. capped by the curved beak of the Raven, who is a messenger of the Cannibal Spirit. Here, by loud singing and other demonstrative effects, it is intended to attract the attention of the absent aspirant and induce him to return, when, by specially composed songs and dances, it is hoped that his wild and halffrenzied nature will be subdued. The waiting assembly is made up of the highest rank of the various secret orders, a master of ceremonies, a musical leader and several rows of singers. The Bear fraternity, who are dressed in the skins of grizzly bears, do a sort of detective duty, observing and punishing any mistakes made during the performance. The person making the error is scratched with their claws, which afford painful injuries.

The singers beat their rhythm on pieces of pine boards, in a seated position. The square inclosure of earth is reserved for the dancing space, in the center of which a fire is kept burning. The faces of the old members are painted black and they wear rings of red cedar bark around the neck. Eagle-down feathers are worn in the head-dress. Then commences a loud musical and song recital, designed to charm back the novice. Messengers are sent out to report if he has been seen. Suddenly his steps are heard on the roof, which he has ascended by means of a pole arranged for the purpose. He jumps down and lands in a secret room in the rear set apart for him. This inclosure is dedicated to and supposed to be the abiding place of the cannibal deity of the Ha-matsa. The front curtain is ornamented with a design, which is intended to represent the great deity himself. By special arrangement, when the Ha-matsa candidate appears he is made to come out of the opening in the mouth of the drawing. He rushes out into the room in a frenzied state, wearing a head-dress of red cedar bark, with hemlock



The Cannibal Ha-Matsa Novice.

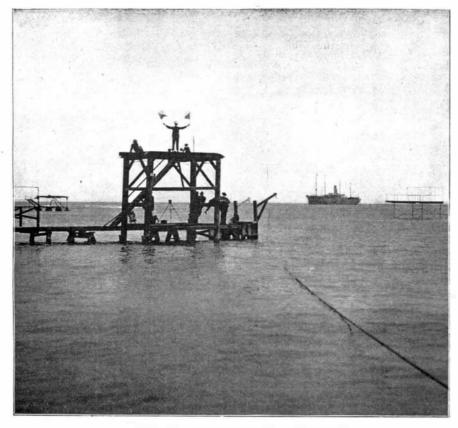


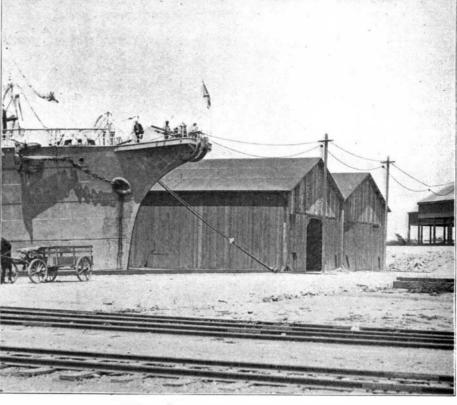
Dancing-House of the Ha-Matsa.





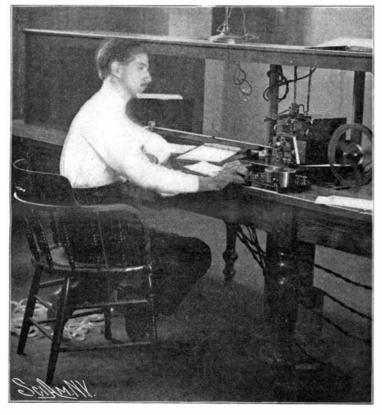
Master of Ceremonies of the Ha-Matsa Society.



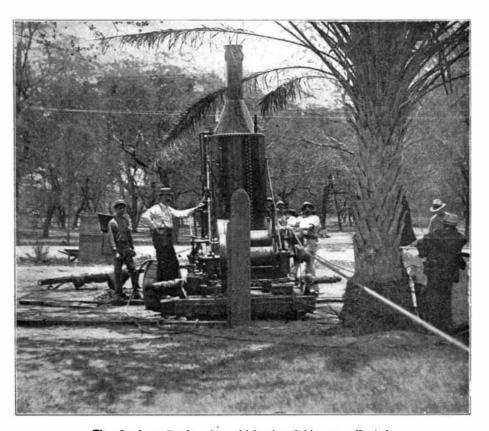


Wigwagging the Message from Shore to Ship.

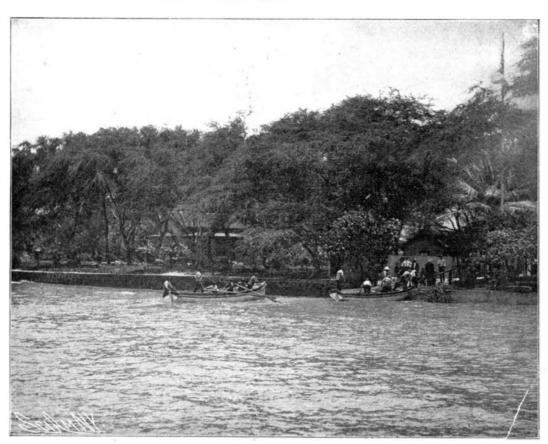
The Cable Ship Landing a Section of the Cable.

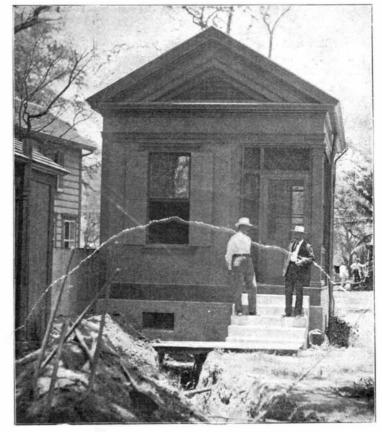


Operator Repeating the First Message from President Roosevelt to Governor Taft of Manila.



The Donkey Engine by which the Cable was Hauled Ashore.





Boats Landing the Light Line, by which the Heavy Hawser to which the Cable is Attached is Hauled In.

LANDING THE MANILA SECTION OF THE PACIFIC CABLE.—[See next page.]

The Cable-Hut on Sans Souci Beach.

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branches wound around his waist and ankles. Immediately upon his entrance he is seized by the large neck ring of cedar bark by several attendants, who try to hold him to prevent him from biting people. After wildly encircling the fire four times, during which time there is kept up a pandemonium of song and cries, he quickly makes his exit through the curtain of his secret apartment and disappears from the building. Not long after this his whistles are heard in the distant woods. The master of ceremonies then requests the assemblage to go out and try to recapture the fugitive novice. Outside the new songs composed are sung by all the people as they walk to and fro in the village and up and down the beach. During this interval the candidate has appeared several times

this interval the candidate has appeared several times at various nearby points. One of the assembly, half-clad, is then sent ahead to act as a decoy or bait for the novice. As soon as the Ha-matsa sees him he rushes up and bites mouthfuls of flesh from his arm. He is then surrounded by the assembly and marched toward the dancing-house, the people singing on their way. At this point a female dancer appears and begins to sing her new Ha-matsa songs, during which she moves toward the dancing-house, stepping backward and facing the novice, whom she desires to coax inside. Her hands and arms are extended as though she was carrying a body for the candidate to eat. The palms of both hands are turned upward in

front of him and he keeps watching the hands of the dancer. All the assembly enter the house. After lingering an hour or so the novice goes to the rear and climbs up the pole to the roof, and descends down into the secret room. Shortly afterward he dashes out among the people and seizes the nearest man and bites his arm. He circles round the fire holding on to his victim by the teeth. This performance is repeated four times, the novice selecting a different man on each occasion. He is still thought to be out of his

senses. In the first dance of the candidate he represents one looking for human flesh. His movements are executed in a squatting position, making wild and violent gestures as he proceeds. He wears a crown of red cedar bark, and is held by a large ring around his neck, so that he will not attack and bite more of the people. The female dancer again appears in front of him, dancing as before described. The candidate then returns to his secret quarters, and the people take off their cedar ornaments and throw them into the fire. This is called smoking the wildness out of the new Harmatsa. For two nights thereafter the dances are kept up, after which the novice shows signs that he has become nearly pacified. The last night of the ceremony ends in a general festival, at which all the men, women and children of the tribe

are invited. The candidate now appears dressed for the first time in a button blanket and a new headdress and neck-ring. He then pays the men for the bites he has inflicted during initiation, the price being a cance for each bite. The women dancers are given bracelets, and the men who sang button blankets. The campibal pole and curtain of the secret room are pulled down and burnt in the fire. The newfledged Ha-matsa is thenceforth considered a person of rank and power in the tribe, having acquired the magic gifts of his fabulous ancestor. The above is intended as a summary presenting some of the main features, and not a detailed account of the ceremony. The model of the Ha-matsa candidate and the masks here shown are now at the American Museum of Natural History, New York, which has the largest and most varied collection of Kwakiuti seremonials in existence. Precisely the most important is the immense mesk, nearly six feet in width, of the doubleheaded serposit used in the Ha-matsa and other will ter dances. It is the crest of one of their clans and has a borned head at each end, with a human face in the center. During the dance, by means of a cord which is pulled at the will of the wearer, the horns are erected, and the tongues of the snake are made to come out

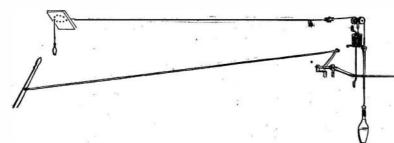
A system of deep well boring is practised in Japan, in the province of Kadzusa, which for cheapness and simplicity appears to be unequaled. An ordinary irrigation well leading down to the 30-foot water-bearing stratum in the province of Kadzusa costs only some \$15, and \$50 seems to be the highest price charged for going down to the 720-foot stratum. The secret of this system is the use of the bamboo.

# AN AUTOMATIC DEVICE FOR REPLACING BOWLING ALLEY PINS.

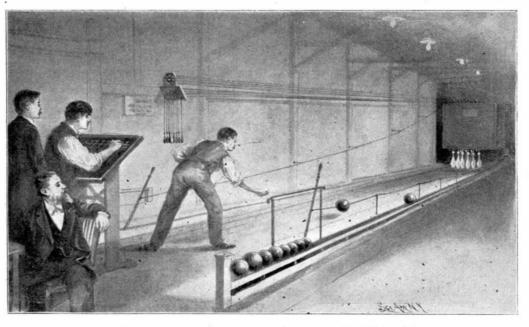
In Tempelhof, a Berlin suburb, an automatic bowling alley has been in operation which has aroused the greatest interest among bowlers.

At the end of the alley a box is erected through the bottom of which the pins are suspended, so that their bottom edges hang about 1½ inches over the board floor of the alley. The pins are suspended in the box in such a manner that they can oscillate freely. As soon as the angle resulting, on oscillation, with the perpendicular exceeds a certain degree, a catch which holds the edge of a heavy counterweight is released. The object slides down on an iron bar and the pin is jerked upward into the box. It is curious to observe when a "strike" is made how all the pins disappear simultaneously.

From the pin box, wires run on the left side of the alley to a point near the bowler's end. Here a lever is mounted (in the illustration at the left of the bowler). When the lever is pulled back, the counterweights in the box at the end of the alley are lifted by the wires, the pins slide down and are held fast by the catch which falls into position again. Along-side of the board where the balls are delivered (in the illustration above the left arm of the bowler), are nine little pins suspended on wires from a board, the



THE MECHANISM OF THE PIN-REPLACER.



A MECHANICAL PIN-REPLACER FOR BOWLING ALLEYS.

center pin or "king" being white to distinguish it from the others. These miniature pins are connected by wires with the apparatus in the box. When a real pin is jerked up through the action of the counterweight in the box, the miniature pin also flies up, so that the scorekeeper at the blackboard is enabled to see distinctly how many and what particular pins have been raised at the end of the alley.

The device for returning the balls is very simple. A ball of medium force, which has traversed the pin, drops into a groove which is inclined to the right. Through this groove the ball enters a small shaft. At the bottom of the latter is an iron tongue which is raised up by a pull on the lever (shown at the right-hand side in the picture), throwing the ball out and into the sloping return chute in which it rolls back to the players. Balls that have been delivered with great force run up an incline after going through the pins, drop into a groove and are conveyed to the right direct into the sloping chute in which they return the bowlers.

This automatic bowling alley presents the following intages: No pin boys are required and the party of carelessness on their part is done away with. After each throw all the pins can be brought into their correct position ready for the next throw, by a single pull at the lever.—Translated for the Scientific American from the Illustrirte Zeitung.

"Gassing" trees has become so large a business in California that a wos Angeles man has an outfit for it which cost \$10,000. Tents are used to confine the gas to the trees and to protect the operators from the deadly prussic acid which is liberated from a saucer at the tree's root.

### THE SENDING OF THE PRESIDENT'S MESSAGE AROUND THE WORLD.

On July 4, the dream of the late John W. Mackay of girdling the earth with his cable and telegraph system was realized; for on that day the laying of the Manila section of the Pacific cable was completed. About ten o'clock in the evening, the last connection in the new cable was made at Honolulu, and a test message was flashed around the world in nine and a half minutes. At ten minutes before eleven o'clock P. M., President Roosevelt sent a message from Oyster Bay to Governor Taft at Manila. The message read as follows:

OYSTER BAY, July 4.

Gov. Taft, Manila: I open the American Pacific cable with greeting to you and the people of the Philippines.

Theodore Roosevelt.

At nineteen minutes past eleven o'clock a reply was received from Governor Taft, which read as follows:

MANILA, July 4.

President, Washington:

The Filipino people and the Americans resident in these islands are glad to present their respectful greetings and congratulations to the President of the United States, conveyed over the cable with which American enterprise has girded the Pacific, thereby rendering greatly easier and more frequent communication be-

tween the two countries. It will certainly lead to a closer union and a better mutual understanding of each other's aims and sympathies and of their common interest in the prosperity of the Philippines and the education and development of the Filipinos.

It is not inappropriate to incorporate in this, the first message across the Pacific, from the Philippines to America, an earnest plea for the reduction of the tariff on Filipino products in accordance with the broad and liberal spirit which the American people desire to manifest toward the Filipinos and of which

you have been an earnest exponent.

TAFT.

The President then sent a message around the world westward to Clarence H. Mackay, who was with Mr. Roosevelt at Oyster Bay. The message was given to the operator at 11:23 P. M. It was received by Mr. Mackay twelve minutes after its journey around the world.

The course of President Roosevelt's message around the world was by the Postal Telegraph Company's land wire from Oyster Bay to San Francisco, thence by the Commercial Pacific cables to Honolulu, to Midway, to Guam, and to Manila. From Manila to Hongkong the message passed by the cable which was lifted and cut by Admiral Dewey on April 25, 1898, to cut off the Spaniards' means of communication with Spain. From Hongkong it went to Saigon, to Singapore, to Penang, to Ma-

dras, to Bomlay, to Aden, to Suez, to Alexandria, to Malta, to Gibraltar, to Lisbon, and to the Azores. Between Hongkong and the Azores it had passed by foreign cables. At the Azores it was taken up again by the Commercial cables and sent to Canso, to New York, and to Oyster Bay.

The message around the world was sent through the following sections of historical electrical circuits, these sections having been welded into one circuit and interpolated in the circuit of the Postal Telegraph Company, over which the message was sent:

- 1. Section of the wire over which Prof. Samuel F. B. Morse sent the first message by means of the Morse telegraph.
- 2. Section of the wire over which audible speech was for the first time transmitted by means of the Bell telephone by Prof. Alexander Graham Bell.
- 3. Section of the Atlantic cable through which the first cable message was sent across the ocean by 'Cyrus W. Field.
- 4. Edison plug and section of wire through which was lighted the first incandescent lamp ever lit from an electrical lighting central station.
- 5. Section of the first trolley circuit put up at the historic Richmond, Va., Electric Railroad by F. J. Sprague.
- 6. Section of the wire through which the current of electricity was sent by President Cleveland when he opened the World's Fair at Chicago.
- 7. Section of the wire through which the electricity was sent to illuminate the headquarters of the American Institute of Electrical Engineers by Moore's system of vacuum tube lighting, this being the first room in the world so lighted.
  - 8. Section of the cable through which the first cur-