

Source of Nehalem Beeswax Still Mystery

Scientists Agree, However, That Mysterious Deposit is the Product of the Bee, and Historians Believe it is From Ship Wrecked Long Ago On Oregon Coast.



Nehalem Coast Near Where Beeswax Found. (Inset Photo)

WHAT IS "beeswax" wax Nehalem Beach—a shipwreck cargo, instead of "mineral wax"—a natural deposit?

The wax substance which white persons have known now more than a century and which Indians found previously for untold generations—why is this substance called by chemists and most geologists and history seekers the product of the honey bee, and by others the fossil residue of petroleum?

If beeswax, the material is obviously the remnant of prehistoric shipwreck; its place in the ocean sand is beyond no doubt of that. If mineral wax, deposited by natural process, we look for more of it elsewhere, also for corroborative evidences, on the Oregon coast, of its petroleum parent in a more convincing place than the storm-beaten sand of the sea.

And if it is mineral wax, we are driven to the conclusion again that the ocean cast it up on the beach. For, whether one kind of wax or the other, it is a substance foreign to Oregon. Mineral wax, or its parent, petroleum, is not found on this Northwest coast, despite the belief of some persons that they have seen "signs."

The substance is, in all probability, beeswax from a ship cast up 150 or 200 years ago. Tides and winds strewed the wax on the beach; alternately covered and uncovered it with the sand, and exposed it to ocean winds. Freshets of the Nehalem River probably flowed over it and scattered it still wider. Indians and white men carried it broadcast and used it for fire and lighting and water-proofing. Later, after the surface "croppings" disappeared, white men dug it out and sold it for profit.

Even at an early day white men noted ship wreckage nearby. Below the wax "mine," at low tide they saw relics of old wreckage. Tom H. Roger, of McMinnville, found the remnant of what seemed a ship hull in 1900; the wood was not Oregon—it was teak. He presented the Oregon Historical Society with a gavel made of this very wood. Many years before, John Hobson, of Clatsop County, recovered ship timbers and an anchor chain that were found alongside the wax.

All this has been frequent theme in Oregon since 20 years. The wax was known to white men from earliest times, and by them was regarded as beeswax until in 1833 the ozocerite theory sprang up from the opinion of the Austrian commissioner at the Chicago Exposition. As is well known, Austrian Galicia is the chief source of the world's paraffin, which is derived mainly from the mineral ozocerite. The Austrian commissioner, evidently being "strong" on the Galician substance, saw a resemblance from Nehalem, and pronounced "ozocerite."

This made considerable scientific trouble. It then became necessary to employ chemistry to vindicate what had long been an accepted historical or mythical or self-evident truth. There were persistent legends, from the Indians, about the wreck of a beeswax ship, and the white explorer, Alexander Henry, who was at Astoria in 1813, reported having seen a red-headed Indian, "the supposed offspring of a ship that was wrecked within a few miles of the entrance of this river many years ago. Great quantities of beeswax continue to be dug out of the sand near this spot, and the Indians bring it to trade with us." (Covey, Vol. II, page 768.) We shall mention again the shipwreck legends in a later connection.

In the dispute between "beeswax" and "ozocerite," champions of the former have won frequent victories, from support of chemists and geologists and pioneer historians. After each debate the question has been laid away, supposedly for good, tagged "beeswax."

And why is the "beeswax" theory so convincing? Else why should much of the wax have form of candles between one inch

and two inches in diameter, with central wick holes and—in earlier pioneer days—with some of the wicks intact?

Else why should cakes of the material have been marked with letters and crosses or trade signs?

Else why should cakes be rectangular, between two and six inches thick, and between one and two feet across?

Else why should the imprint of the bee have been found within the wax?

Else why should chemists unanimously declare "beeswax"? The writer has read all the "literature" on this subject within his reach during many years and studied the wax and consulted with discriminating persons whose experience antedates his time and surpasses his in authority. He has long held the opinion, "beeswax"; and now he offers this article for the purpose of reviewing the "authorities."

And although it is expected that the "mineral" theory will continue to have champions—chiefly optimists seeking petroleum in Northwestern Oregon—yet the "beeswax" theory has the overwhelming support of historical probability and scientific authority.

Even if Northwestern Oregon had many signs of petroleum—which it has not; only scantiest traces of its ancient presence and abundant geological evidences of its disappearance and absence—and even if this part of Oregon had frequent deposits of mineral wax—paraffin—even then, the geological explanation of the Nehalem wax would be impossible or improbable; besides, we have the dictum of the chemists—beeswax—and, moreover, the kind of beeswax produced in Southern Asia; mind you, not the kind produced in America or Europe. Chemists of high standing have shown that the Nehalem wax contains organic compounds unknown in mineral wax but present in beeswax and produced only by bees.

Round about the place of the wax—on a long, sand peninsula, between the ocean and Nehalem River—are amearings or drippings of the wax, where evidently it had been melted into the sand in driftwood fires. This compound of sand and wax has been "mineral" theorists to declaim "wax rock" and "asphaltic sandstone" and mud at the mouth of the Nehalem River are saturated with mineral wax. But the specimens submitted for chemical analysis show beeswax or pitch—evidently oozed from beneath and over the "sandstone" and asphaltic sandstone has been submitted from any locality in Northwestern Oregon," says Bulletin 599 of the Geological Survey. Just issued, "and at this date the writer knows of none in the state." (Page 67.)

The pitch-cemented sand is common on the Oregon coast, along which there is a great quantity of pitchy evergreen timber. Variations of color between specimens of the "sand rock" may be due to variations in the content of the wax which the pitch. Discovery of wax chunks near Iwaco and Chinook, Wash., and oil traces at the Hawkins farm near Chinook, do not prove the mineral wax theory. Nehalem chunks have been scattered widely by Indians and whites from time immemorial. We have the testimony of early pioneers that Indians, both north and south of Nehalem, used the sea beach wax for fires and lighting and water-proofing. Even the whites scattered the wax widely.

George H. Himes, curator of the Oregon Historical Society, says that his parents at Puget Sound in boyhood in the early fifties used Nehalem wax for domestic purposes—that is, wax which they knew came from Nehalem, and which they called beeswax. Let the scientists or future time prove whether there be petroleum in this region, or residual wax—ozocerite, as it is commonly called. There may be both petroleum and ozocerite, though the writer strongly doubts, right here

it is the point to say that the scanty signs of "oil-saturated sands" of the sea beaches of Oregon and Washington—really pitch-soaked—and the slight traces (geologically very old) of liquid oil at several localities would appear to fall as far short of proving that the wax in the tidal sand of Nehalem is ozocerite or mineral residue as a particular hue of the moon falls to prove that luminary made, or green cheese.

Especially do these proofs fall when we remember that chemical authority proclaims "beeswax." And who are the scientific authorities? J. S. Diller, United States Geological Survey, held in 1896 that the location of the wax and the man-made marks thereon "clearly indicate that the product is not a natural product of Oregon." But Professor Diller went on to say that these evidences "do not prove that it is wax and not ozocerite. It is evident," he wrote, "from the location of the body of the wax that it was not derived from the adjacent land, but was transported in a body by the sea and dumped not far from its present location." (Letter in Oregonian, March 27, 1896, page 8.)

H. N. Stokes, chemist of the Geological Survey, in 1896, held that "the material is evidently wax and not ozocerite" (ibid).

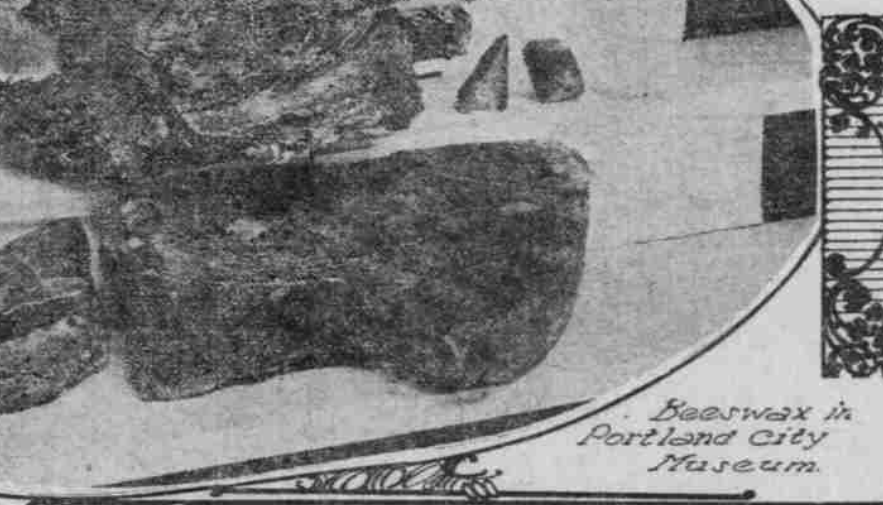
George P. Merrill, head curator in the Department of Geology, United States National Museum, in 1893 wrote in a magazine, Science, that "the substance has all the characteristics of genuine beeswax."

O. F. Stafford, professor of chemistry in the University of Oregon, holds that the identity of Nehalem wax with beeswax is beyond question (Oregonian, January 28, 1908; reprinted in quarterly of Oregon Historical Society, Vol. IX).

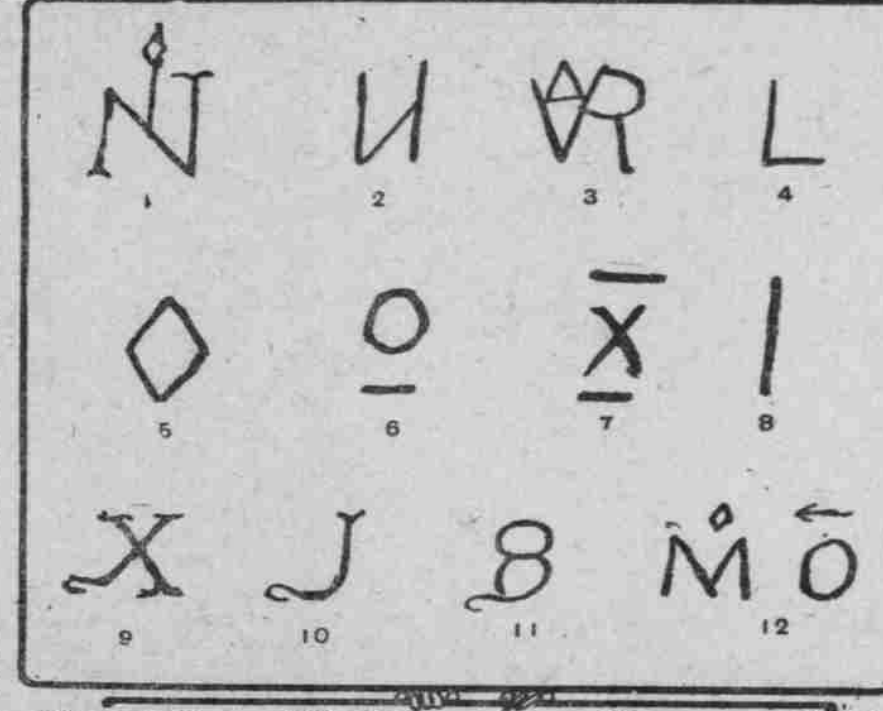
Professor C. E. Bradley, professor of chemistry in Oregon Agricultural College, at the Oregon Academy of Sciences June 16, 1906 (Oregonian, June 17, 1906, page 8), said: "Physically, chemically and in my opinion, indisputably, the substance found on the Nehalem beach is real beeswax and not a natural deposit."

Chester W. Washburne, geologist of the United States Geological Survey, says in Bulletin 590: "Whatever its source, there is no doubt as to its nature, and no ground remains for calling it ozocerite. It has no more connection with the occurrence of oil than the primitive Spanish cannon found nine miles farther north in the sands of Cannon Beach."

Chemists of the Commissioner of Agriculture of British Columbia, to whom specimens were submitted by George H. Himes some years ago, named the substance "beeswax." In the Oregonian of August 22, 1909, a letter from a chemist of New York to S. G. Reed, of Portland, said: "The wax is not a residue of hydrocarbon oil, has no resemblance to petroleum, and has some specific gravity and melting point as beeswax."



Beeswax in Portland City Museum.



Facsimiles of the Characters Observed Upon Pieces of Nehalem Wax.

have pronounced the substance "mineral" are the late J. H. Fisk, who called it a residue of paraffin oil (Oregonian, February 27, 1906, page 9); and the late Dr. Augustus Kinney, of Astoria, who called it ozocerite.

Neither of these men was a chemist in the expert sense. Mr. Fisk was a mineralogist of high reputation and Dr. Kinney was distinguished in pathology. Dr. Kinney evidently relied upon tests made by others, among whom Professor Stafford's article mentions a Chicago chemical company, and the Scientific American. Neither test seems to have been exhaustive or conclusive.

H. A. Mears, of Southern Oregon, upheld the ozocerite theory with the same kind of authorities as Dr. Kinney; Professor Stafford says of them that they relied upon mistaken physical examinations, which were wholly insufficient.

Mineral wax, ozocerite or native paraffin is used for candles, ointments, pomades and for various adulterations of beeswax. Also for manufacturers of electric cables and matches, for preserving wood, water-proofing fabrics, coating steel tanks and glossing laundry work. The chief source of paraffin until the last 50 years was ozocerite, which is mined extensively in Galicia and Moldavia, and is the solidified residue of evaporated petroleum. Lately, paraffin has been manufactured from petroleum, coal and peat. Ozocerite, the large source of paraffin, was known to the Romans as bitumen, which was their general name for fossil resin, mineral pitch, etc. The word ozocerite means "smelling like wax," a quality which is probably imaginary. One reason for the difficulty of distinguishing

it from beeswax by mere physical examination is due to the wide range of its specimens as to specific gravity, melting point, color and hardness. But for the positive identification of the Nehalem substance as beeswax, it could be inferred that the "wrecked ship" was freighted with ozocerite.

The most complete and recorded analysis of the wax by chemistry are those of Professor Stafford in volume IX of the quarterly of the Historical Society. These analyses, in the present writer's view, are conclusive evidences of beeswax.

Now for historical evidence of beeswax. The first mention of the wax in recorded history is in the journal of Alexander Henry (1813-14), as referred to in the foregoing. Lewis and Clark (1805-6) are silent on this subject in their journals. Indian tradition told of the wreck of a ship freighted with beeswax.

The late John Hobson, pioneer of Clatsop County (1843), gave evidence, very convincing kind, of beeswax. Mr. Hobson states that the wax was imported with letters and signs; that some specimens were in the form of candles, the wicks of which, in frequent cases, were perfect; that with the wax were found pieces of ship wreckage. Mr. Hobson's letter to The Oregonian on this subject (published June 20, 1894, page 6), says that in that year he exhibited at the pioneer reunion in Portland a large piece of the wax, with the lettering "I. H. S." on its face, "which I know was on it when taken from the sand at the mouth of the Nehalem River in 1868 by a man named

Baker, from whom I purchased it." The letter continues: "When I first came here, 51 years ago (1843), there was beeswax among the Indians, from Salmon River on the south to Columbia River on the north. They did not know what it was, and used it for lights and leaky canvas. They said it came from a wreck near the mouth of the Nehalem River.

"In talking with the Indians from that place often they would tell us of the wreck and of the vessel that brought the gold and silver coin and carried it up Necanicum (Necanicum) Mountain. After the wreck of the Hudson Bay Company's bark Vancouver, in 1845, a large cargo of drugs came on shore near that place. Solomon H. Smith and myself concluded we would go down and buy the drugs and find out what we could from the old Indians about the wax and money vessels.

"All they could tell us was that long before they were born the wax vessel was lost on the spit, and another anchored near the shore and some people brought a chest up on Necanicum Mountain and carried sacks of money and put them in the chest and killed a man and put him also in the chest.

In 1868 Mr. Hobson arrived as guide for a corps of Government engineers, who surveyed Nehalem River and bar. His letter continues:

"This peninsula (at mouth of Nehalem River) lies on the line of travel of all the coast and the wax scattered in all conceivable shapes and sizes, including many candles from one and one-half inches to two inches in diameter, and where the sun had closed the end the wicks were perfect.

"Here is where the Indians used to pick it up when crossing this waste. When the whites came here to settle they collected wax, and one, Baker, made a business of it and found that the most of it when exposed to view, being in this stratum of earth, like the sediment of a river freshet (which I believe it is) and scattered all over the peninsula.

"Baker took his spade and would prospect the sand dunes. If the clay stratum was found, he would follow it up and find large quantities of wax in all conceivable shapes and sizes, including many candles from one and one-half inches to two inches in diameter, and where the sun had closed the end the wicks were perfect.

I believe that some time after the wreck there was a high freshet in the river, which spread the wax, logs and timbers all over the peninsula. "On these dunes, many of them, logs rotted and grass grew in places and the drifting sands would sweep over them, thus protecting the wax and the stratum, for there were remnants of the sediment of a river freshet. The one in which this large piece (wax) was found was near the center of the spit. There was also found the remnant of a ship timber, with some rusty wrought-iron nails, four square, thin at head, even from head to point, six or eight inches long, and about five-eighths of an inch thick at the head. There was also a copper chain, about 50 inches long, with a swivel in the middle of it; links, four or five inches long and five-eighths wide. It was brought from that place by J. Larsen and changed ownership several times, finally being placed in the mining bureau in San Francisco by Mr. Charles Hughes.

"I do not pretend to know where these remnants came from, but believe the vessel to have been English, or Spanish, from China, freighted with wax for some of the American ports for church purposes, as the large wax candles would indicate. The monogram (I. H. S.) was cut on this piece, for pastime, I have no doubt, by one of the sailors. The wreck must have occurred in the fifteenth or sixteenth century."

Mr. Hobson wrote this letter at the sergeant's "wax's" in Beechwood, 12 Westleyana, six Primitive, Methodist, two Jews and four peddlers. That sergeant would be able to face the hottest fire without flinching. One or two men in the ranks singled out, but the sergeant was as solid as a rock,

commerce on the Pacific Ocean, before the pioneer settlement of Oregon, and it is plausible that a beeswax ship should have been driven on the Oregon beach. I am indebted to Mr. Himes for the information that in the 400 (probably 1847) a Honolulu newspaper mentions the arrival there of a vessel from the Columbia River with several tons of beeswax. Mr. Himes could not find the article for this writing, but Mr. Himes' memory is always reliable. The article continued to say that it was common knowledge that a ship laden with beeswax for the Spanish missions of California, in the latter part of the preceding century, had been lost on the Northwest Coast; the article gave the inference that the wax then arrived at Honolulu was part of the wrecked cargo.

Of course, this wax, then at Honolulu, could have come from some other port than Columbia River; probably old.

Again in 1847, another mention of a beeswax cargo in the Pacific Ocean. The Polynesian, of Honolulu (October 27, 1847) reported in Oregonian, American and Evangelical Unionist, July 19, 1848, Washington County, Rev. J. S. Griffin, editor, said that the Bremen whaling ship Otaheto on April 21, 1847, fell in with a Japanese junk in distress, laden with beeswax, east of Japan. Mr. Griffin commented as follows:

"These junks have sometimes been known to approach our coast and one of them to come ashore and deliver up to the Indians three Japanese men in 1828. May we not suppose our coast beeswax, which the Indians so often bring in to the settlements, picked up near the mouth of the Columbia, from among the gravel and of such mineral-like appearance until melted over, found its way by some lost junk, over a century since?"

Chemistry tells us the Nehalem beeswax is the kind produced by bees in Southern Asia. The Nehalem beeswax could plausibly have been wrecked in a Japanese or a Chinese ship; or in a Spanish ship, en route from Asia to California or South America. The candles would be useful in the Catholic settlements.

This seems the most likely theory. It is the oldest theory and the most credible.

The French "Green Fairy"

GUSTAVE Tery, in the Paris Journal, asserts that the first shot from the enemy's cannon killed "the green fairy," in other words, absinthe. He adds that though the question of absinthe is settled, the matter of indemnity still remains and asks what indemnity shall be given to the manufacturers of this poison. "A number of honest people," says M. Tery, "are astonished that this question should be discussed at all; and a socialist deputy, M. Ringuler, asks that if the pain of death should be suppressed, will it be necessary to give the community to Deibler (the public executioner)." M. Tery is of the opinion that the government hardly owes to the manufacturer of absinthe the same consideration that it owes to M. Deibler; that it one kills a mad dog he is owner to be compensated for his loss. But there remain the workmen who have been employed in making absinthe and for whom it will be necessary to procure other work. As for the millionaires who at such an hour have the effrontery to demand indemnity, M. Tery is of the opinion that they should esteem themselves lucky that the nation does not demand damages of them for the ruin they have wrought. —Indiana News.

Volubility of a Sergeant

Manchester (England) Guardian. This story comes from one of the training camps. Captain — who only a few days before had been transferred to the command of H. Company from another battalion and consequently had not time to become acquainted with its idiosyncrasies, was inspecting his men for church parade on the first Sunday of his new command. Noticing at once that the company was far from being up to strength, he asked the color sergeant why there was such a small muster. "Well, sir," explained the sergeant, "we've 16 Roman Catholics, 12 Wesleyans, six Primitive, Methodist, two Jews and four peddlers." That sergeant would be able to face the hottest fire without flinching. One or two men in the ranks singled out, but the sergeant was as solid as a rock,