A BRIEF HISTORY OF EARLY AMERICAN WHALING

MODERN WHALING (1864 - 1938)

OR WHERE ALL THE WHALES WENT

"THE ULYSSES EXPEDITION" 1937-1938 ADDENDUM

> BY CAPTAIN Q.R. WALSH United States Coast Guarc

CITATION TO ACCOMPANY THE AWARD OF

THE COAST GUARD COMMENDATION MEDAL

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CAPTAIN QUENTIN R. WALSH (RET.)

UNITED STATES COAST GUARD

Captain WALSH is cited for outstanding achievement while assigned myriad duties associated with the investigation of pelagic whaling operations and representing the United States Government at the International Conference for the Regulation of Whaling from May 1937 to July 1939. While enduring an arduous law enforcement assignment aboard the ULYSSES, he provided the Coast Guard with its first comprehensive assessment of pelagic whaling. He gathered invaluable information for the United States Government and transmitted coded messages to Coast Guard Headquarters that resulted in a joint Coast Guard, Department of State and Department of Commerce initiative to prevent "dumping" of (duty free) whale oil into the United States. Simultaneously he provided valuable scientific data to the Museum of Natural History in Washington, DC, and artifacts to Mystic Seaport in Mystic, Connecticut. As a result of his outstanding efforts, President Franklin D. Roosevelt chose him as one of three delegates to represent the United States at the International Conference for the Regulation of Whaling. His recommendations for conservation of this important natural resource were clearly ahead of their time and in the national interest of the United States. Captain WALSH's dedication, judgment, and devotion to duty are most heartily commended and are in keeping with the highest traditions of the United States Coast Guard.





UNITED STATES COAST GUARD

THIS IS TO CERTIFY THAT THE COMMANDANT OF THE UNITED STATES COAST GUARD HAS AWARDED THE

COAST GUARD COMMENDATION MEDAL

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CAPTAIN QUENTIN R. WALSH (RET.) UNITED STATES COAST GUARD

FOR

OUTSTANDING ACHIEVEMENT FROM MAY 1937 TO JULY 1939



J. W. KIME Admiral, U. S. Coast Guard Commandant

GIVEN THIS

17th DAY OF September¹⁹ 93



UNITED STATES DEPARTMENT OF COMMERCE The Under Secretary for Oceans and Atmosphere Washington, D.C. 20230

FEB 1 6 1994

Captain Quentin R. Walsh, USCG (Ret) Willsons Chance 23931 Shore Highway Denton, MD 21629

Dear Captain Walsh:

The Coast Guard has forwarded to me your letter about your role in enforcement of whaling laws while you were in active duty in the Coast Guard in the 1930's. I am writing to you in my capacity as the United States Commissioner to the International Whaling Commission to commend you for your achievements and to thank you for your contributions to today's national policy on whaling.

I was very interested to learn of your active role in enforcement of the law during your tour of duty during 1937 and 1938 on board the whaling factory ship Ulysses and your representation of the United States in London at the International Conference for the Regulation of Whaling in 1939. I was impressed to see how you carried out your role in very demanding circumstances.

You did indeed successfully accomplish a unique tour of duty. Your example is one that helped set the stage for the current United States policy which is to oppose commercial whaling. I enclose a copy of a recent statement by President Clinton that explains our policy, with particular reference to Norwegian whaling.

May I express my admiration for your accomplishments and wish you all the best for the future.

Sincerely,

Hume Baker

D. James Baker

Enclosure

cc: Rear Admiral R. A. Appelbaum Rolland Schmitten



A BRIEF HISTORY

OF

EARLY AMERICAN WHALING

BY

CAPTAIN Q.R. WALSH

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WHALES AND WHALING

To discuss the subject of Whales and Whaling without including the history of early American whaling would omit an epoch in our country's history. The men who chose to earn a living by spending years away from their home ports and thrusting harpoons into whales at arm's length away have left a proud and enduring American legend.

American Indians were the first whaleman on our shores, not the settlers from England and Europe.

As early as 1650 the Nantucket, Martha's Vineyard, and New Bedford inhabitants were hiring Indians to kill whales for them but they eventually replaced the Indians because they had better boats and attached a rope to the harpoon which was secured in the boat after being embedded in the whale.

The earliest organized whaling operations in our country were land bases. Lookouts spotted the whales, gave the alarm; the whalers ran down to the shore, launched their boats, gave chase and, if successful, the dead whale was dragged to the shore. Here the blubber was stripped from the carcass, placed in iron pots and boiled down for cil. It was not long before yankee sailors changed the industry from attacking nearby off-shore whales to the worldwide cruise of whaling vessels that would not return to their home ports sometimes for three to four years.

Now, what is a whale. Let's find out about this animal that caused an industry to flourish for about two centuries in our country. One thing is certain. Sighting a whale is not easy. It requires an attentive patient lookout to make a scrutinizing search of the ocean surface.

Though possessed with modified body activities, a whale is like a cow or a dog. Its ancestors were terrestrial animals with four legs that went to sea millions of years ago. Hair is present in most whales in the form of bristles on the snout. They also have lice and parasite worms. I kept some whale lice in a match box but eventually lost them.

All whales belong to the order Cetacea. Cetacea pertains to the animals of the whale class. There are two sub-orders:

1. The Whalebone Whales

(Mystacoceti)

and

2. The Toothed Whales

(Odontoceti)

Whalebone Whales are composed of seven Genera which means they are a sort of species having distinctive characteristics in common.

At this point let us be sure we understand what we mean by the expression "Whalebone". Whalebone is a comblike mass of horny plates hanging from the upper jaw. It is also known as "baleen". It is not the bone forming the skeleton.

The whale is the largest creature our planet has known, not excepting the dinosaurs.

Whales are huge warm blooded mammals; are born alive, suckle their young with milk, have a fishlike body, horizontal caudal fin (tail); forelimbs are reduced to side fins called the pectoral fin (fingers, arm bones, ect. are buried in the flesh); hind limbs are not externally visible (they are buried in the posterior under-part of the the body and look like two small ham bones, have a thick layer of blubber (fat) beneath the skin (to keep heat in the body), have small eyes, a little larger than a baseball (you can see two of these eyes which were my gift to the Mystic Seaport, Mystic Connecticut); have small ears, located adjacent to the eyes (just big enough to hold a pencil); they breathe by lungs; have a peculiar breathing apparatus for inhaling and exhaling, located near the top of their head; Bowhead, Right and Gray Whales do not have dorsal fins.

According to the Norwegians that I sailed with, the biggest whale ever killed and measured was a 110 ft. blue whale killed and processed at a whaling station ashore in South Georgia about

1920. The Ulysses expedition killed a 98 foot pregnant female blue whale. I actually measured this whale so can verify its length.

(It produced about 150 barrels of oil.)

A blue whale fetus before it was born was 17 ft. long and weighed 2,443 lbs. These are actual measurements I made. From these measurements it may be stated that a blue whale when born could be 20 or 25 ft. long and weigh approximately 2 tons.

One scientist has estimated that a blue whale calf grows about eight and a half pounds per hour while suckling gallons of fat rich milk per day during an estimated six month nursing period.

It is estimated that mature whales can weigh a ton or more per foot. A full-grown whale consumes tons of food per day and its natural habitat, the ocean, sustains its tremendous size without any physical effort except to swim and breathe.

Many people have asked me how long a whale lives. I do not know. I question if it can be determined with any accuracy. However, there is a theory that allows an estimate to be made of the lifespan of baleen whales by measuring layers of wax in the ear canal. These layers are thought to be deposited in different colored streaks of wax which taken together represent a year's growth. This theory resembles the tree ring theory for determining the age of trees. Unless harpooned or killed by natural means or disease, I would state whales live a lifespan comparable to man.

Now, let's look at what we call Whalebone Whales. As I have stated before, these whales have horny plates with hairy fringes in the upper jaw in place of teeth. They eat small minute animals resembling shrimp which float in thick masses on the ocean surface during the Arctic and Antarctic summer. This food is called krill or britt. I have stood knee-deep in krill in the stomach cavity of a whale being cut-up on the factory ship.

When feeding, the whale swims with its mouth open to take in huge guantities of water and krill. When the mouth cavity is filled the jaws close and the water is allowed to drain out by the upward movement of the huge tongue in the buccal cavity. But the hairy fringes on the whalebone act as a sieve and retains the krill until it can be swallowed.

Whalebone was used for making stays, corsets, riding and carriage whips, umbrella handles, and other objects requiring both strength and flexibility. It sold for over a dollar per pound.

Baleen whales inhale and exhale through two nostrils, called blow holes, which resemble large slits on top of the head.

The whale's internal body temperature is high and constant. The hot air from the lungs therefore condenses in the atmosphere (like a human's breath on a cold day) when exhaled as an umbrella shaped spout which can be seen for miles in calm seas and clear weather. The height and size of the spout depends on the length of time the whale has been below the surface and also on the size and kind of whale.

For purposes of this discussion we are going to consider only seven species of whalebone whales. These were the ones commercially hunted for the products that could be derived from them.

Here they are:

Specie	Adult Length
Blue	80' - 98'
Fin	70' - 79'
Səi	45' - 55'(Baleen yellow on
	one side)
Humpbacks	40' - 55'
Right	50' - 55'
Bowhead	50' - 65'
Gray	40' - 45'

American whalers generally sought the right, bowhead and sperm because they floated when killed. Occasionally they killed humpback and gray whales. They could not cope with the blue, sei, and fin because they were just too big and cumbersome to handle. Also, they sank when killed.

The gray whale if sought and hunted was generally killed in the shallow waters of the lower California coast lagoons. This whale is only found in the ocean trough from Japan to California and along our West Coat. Frotected for years, it is becoming quite numerous. The sperm whale, also known as the cachalot, was the one most desired by American whalers. It averaged about 50', occasionally 65', and produced about 50 barrels of oil. There are 40 to 50 obvious teeth in the lower jaw which fit into the upper jaw. This whale's head is so huge that it appears to be all head, being about one third of its total length. It eats squid and cuttlefish.

This whale produced sperm oil, found in a pure state in its head and of such high guality it required little or no refining before being used for illumination and lubricating purposes. Spermaceti, a spongy fatty substance, inodorous and nearly tasteless was extricated from the oily matter of the head and was used to make the finest grades of candles. Sperm oil produced was.

It was the sperm whale that produced ambergris, an opaque, ash-colored matter found in rare instances in the intestines of diseased whales. It was believed to be the result of cuttlefish beaks being caught in the whale's intestines. It was used particularly in the making of perfume because it had the property of uniting thoroughly and permanently all the other ingredients. It was also in demand in some oriental countries as an aphrodisiac. It was very valuable owing to its rarity. Only about a ton of it was found by the whole American whaling fleet from 1840 to 1880. It may be identified because it is soluble in alcohol. On ' one occasion 136 pounds of ambergris sold for \$23,000.

It should be noted that the sperm whale exhales at a forty-five degree angle via a single blow hole at the forward part of its head. It resembles more of a forward puff than the umbrella shaped blast produced by the Whalebone Whales.

THE WHALING SHIPS

Whaling ships were the ugliest vessels ever built in America. They were as chunky as a loaf of bread. Merchant sailors derided them - stating they were built by the mile and purchased by the foot if you really wanted to buy one. However, they were suited for the job they had to do even though broad beamed and squat. They were not built for speed. All they had to do was stay afloat. They were so stoutly built that many cruised the oceans of the world for over fifty year.

They were usually bark rigged, about 110' long, 25 to 30 feet wide and 20 feet deep; were 200 to 500 tons and carried a crew of about thirty men.

They were constructed to carry a large cargo of whale oil, equipment, supplies and food for long voyages.

By bark-rigged we mean a vessel with three masts, which were called fore, main and mizzen, with square sails on the fore and main mast and fore and aft sails on the mizzen.

Whaling ships carried four whaleboats, swung in davits on both sides of the vessel. These whaleboats were about thirty feet long, strong but light and shaped to a sharp point at each end for rowing, sailing or paddling. They carried a small mast and sail and a long steering oar which allowed for fast, easy control. A boat crew had six men made up of a boat steerer, who hurled the harpoon and the ship's mate who handled the steering oar while directing the chase. A boat's equipment consisted of harpoons, lances, cars, paddles, emergency rations, a compass and two tubs of whale line, one end of which was secured to the harpoon. Four men could row one of these boats at about ten miles per hour.

One important point to remember here is that the old type harpoon was not used to kill the whale. It was used to attach the whaleboat to the whale after it was imbedded in the animal. After the whale was harpooned it was killed by repeated jabs of a lance by the mate who tried, as soon as possible, to strike some vital organ of the stricken animal as it tried to escape. When harpooned the whale sounded and pulled the boat by the line attached to the harpoon. This was known as a "Nantucket sleigh ride."

F H O T O (Fut in here the picture opposite F. 206 in Man Ships and the Sea)

Here you see the four man crew in the boat handling the harpoon line after the whale has been harpooned; the mate in the bow hoping to kill the whale with his lance; and the man handling the steering oar, under such circumstance a rudder would be useless.

P H O T O (Fut here the picture opposite p. 151 from the book Seafaring America)

This picture shows what happened when a Sperm Whale upsets the whaleboat by diving under it.

The crew of a whaling ship lived under deplorable conditions. They were housed in a forward section of the ship in a compartment which followed the blunt curves of the bow. It was about thirty feet leng. Rough bunks in double tiers were along the hull. The only ventilation was a small hatch overhead to the deck.

Men stood deck watches to handle the sails, two hour wheel watches, and look-out watches of two hours from dawn to dusk at the mast head where on a clear day and calm sea a whale spout could be seen up to six miles or more.

When the crew was alerted by the lookout's cry of "Thar she blows", the Captain took charge by directing how the sails were to be handled to maneuver the vessel, followed by orders to lower the boats, and the chase was on. When one or more whales were killed the crew worked almost around the clock flensing the whale to remove the blubber from the carcass, rendering the blubber down in the fired up brick try works erected on deck for boiling out the oil. The oil was then cooled and later stowed below in casks. Old time whalers flensed and cut-up the carcass while it was in the water alongside the ship by standing on staging made of planks to form a platform on the side of the ship.

Old time whalers took only the blubber and whalebone from Whalebone Whales. The carcass was cast adrift.

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THE WHALING INDUSTRY

As a general discussion here American whaling was a thriving industry from 1800 to 1860. The peak period may be considered to be 1840 to 1846 when 750 whalers sailed the oceans of the world and 20,000 men and \$20,000,000 in capital was involved. From 1800 to 1860 about 293,000 whales were killed of which 162,000 were sperm and the rest can be considered to be right, bowhead, gray and humpbacks.

Sperm oil brought \$2.00 per gallon while baleen whale oil was half this price. The great whaling ports were Nantucket, New Bedford, New London, Sag Harbor and Fair Haven. There were a few ports on the West Coast after the Civil War.

From 1850 to 1900 over 700 American Whalers disappeared. What became of them?

The industry declined for various reasons, these being: the Civil War; petroleum; financial investments ashore; losses in the Arctic; and the decline in character and efficiency of the whaling crews available to man the vessels.

Let's look at the Civil War.

The Federal government purchased scores of whalers, and filled them with stone to block southern ports like Savannah and Charleston.

The Confederate cruisers Alabama and Shenandoah sank scores of whalers in the Atlantic and even in the Arctic from 1861 to 1865. Many owners transferred their ships to foreign flags or ownership.

The discovery of oil in Pennsylvania about 1859 was the most potent single cause of whaling decay. Natural gas for illuminating purposes supplanted whaling illuminate and petroleum products replaced whale oil as a lubricant.

Efforts to revive whaling in the Arctic after the Civil War met with disaster in 1876 and 1889 when ships were lost or abandoned due to ice conditions or Artic gales.

Whaling decline came at a time when amassing wealth on land was unsurpassed because of hectic exploitation of natural resources in this country after the Civil War. Even New England capital, far from the prairies and mines of the West, was invested in cotton mills in place of harpoons and whaling vessels.

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The origin of the crews of whaling vessels began to change in the nineteenth century. At first they were mostly Yankees, mostly from the same ports and many from the same families. But with the passage of time, capital was not the only loss. More and more intelligent and ambitious young men of character and ability refused to go to sea even in New England. This drift from the sea began about 1845 by the better types of Americans who were lured by the gold of California and industrial expansion following the Civil War. Their places were filled by criminal and lascivious adventurers and a collection of crossbreed Negroes, Portuguese from the Azores, from the Cape Verde and outcast from the merchant services of the Old and New World, Ignorance incompetency and general insufficiency resulted. It is too much to say that personnel was the main cause of decline in whaling but the presence of adverse characters added nothing to the effectiveness of an industry that was struggling for survival. It confirmed what was apparent that throughout the last guarter of the nineteenth Century, American whaling was doomed.

In 1906, sixty years after New England reached its peak of 735 vessels, only forty-two remained afloat. Another decade of disintegration and decay continued and only one whaleship remained. This was the Charles Morgan, the sole survivor of a fleet which once sailed every ocean. This vessel has been restored and preserved as an exhibit at the Mystic Seaport, Mystic, Connecticut. Built in 1841 the Morgan was tied up for good in 1921 after eighty sea-going years. This vessel should be visited to visualize the experience of life aboard an American whaling ship. Also we

should remember American whaling was responsible for producing that masterpiece of prose composition - Herman Melville's immortal "Moby Dick." All should read it. And if you think modern whaling was devoid of dangers and near catastrophe, read my two volume report at (the Caroline County Library, Denton, Maryland) on the cruise of the Ulysses Expedition of 1937-1930. We will discuss these in detail later.

EARNINGS OF WHALERS

The whaleman was not paid by the day, week, or month. His earnings, known as the lay, were a fractional share of the total net proceeds of a voyage. The captain, master, boatsteerers, and carpenters received "short lays" varying from 1/8 to 1/100 of the net proceeds. The remainder of the crew received "long lays" which varied from 1/160 to 1/250 of the net proceeds. As a general statement, owners got about seventy percent of the net income of the industry and the officers and men got thirty percent. Captains made out better also because they were allowed to run a bartering business in foreign ports of call from his personal investments. In other words, he stashed up merchandise of his own on his vessel and sold it at exorbitant prices to natives at the ports visited by the vessel to restock water, food and supplies. But this small percent of the voyage net proceeds received by the whaleman by no means represented actual cash received. This was reduced in order to pay for numerous personal

charges from the ship's so-called slop chest where tobacco, clothing, etc. could be purchased during the voyage at exorbitant prices, the profits of which went to the owners. It was not unusual for a prosperous voyage to pay a whaleman only about \$200.

The most troublesome aspect of the whaling industry was the risk involved. No other industry was subject to financial returns which ranged from ruinous losses to fabulous gains. The owner was a dealer in risk involving the crew, the vessel, and the whale oil market when it came time to sell the products accrued from the voyage. In balance, the risk was against the owner. Everything was uncertain until the end of the voyage when the vessel returned to her home port. Communications between owners and their vessels was practically non-existent and under the best of circumstances were infrequent letters received and sent in far away places.

It is estimated that about ten percent of all voyages represented a net loss to the owner. Consequently, it was common practice to divide the ownership of a vessel among a relatively small group of investors. The single owner could seldom afford the cost of a vessel, equipment and supplies. Spreading risk also applied to insurance.

Let's think of the industry as producing huge profits or ruinous losses.

The owners provided and paid for three meals per day at a cost of about thirty cents per day per man. The daily menu consisted mainly of salt beef or salt pork and hard bread or duff. The officers had about the same but occasionally got soft bread.

SCRIMSHAW

What was scrimshaw? American whaling cannot be discussed without referring to it. Scrimshaw was produced by crew members carving ingenious devices by use of a jackknife out of whalebone or etching designs on a sperm shale's tooth. These carvings were the first American folk art to be collected and good examples found today are both scarce and expensive. Mystic Seaport has a fabulous display. I have a sperm tooth with the name of a ship on it, and the name of the carver, with the date 1873. For insurance purposes it is appraised at \$800.

Whalebone was used to produce baskets, bird cages and sewing boxes. For examples, visit Mystic Seaport. Scrimshaw was produced generally as presents for loved ones at home.

In 1938 I gave the Commandant of the Coast Guard a whale's eye and two sperm whale teeth. He had them mounted on a piece of wood about a foot long with the whale's eye in the center of the two vertically mounted teeth. He presented this to the Secretary of the Treasury as a gift and I saw it in the Main Treasury Building in Washington, D.C. about 1958.

When the Coast Guard was transferred to the Department of Transportation, I wrote to the Secretary of the Treasury and asked him to send this museum piece to the Coast Guard Academy at New London, Connecticut. After several years of correspondence the Treasury Department had to admit this object had disappeared and could not be found; apparently misplaced or stolen. Any maritime museum would consider this of great value. Where can you find a mounted whale's eye and two sperm whale teeth today in this country?

HAZARDS OF WHALING

There is a multitude of whaling anecdotes too numerous to recount of occupational disasters and adversity which include mutinies, stove boats by harpooned whales, vessels rammed and sunk by infuriated whales and the loss of all hands when ships foundered in storms or on uncharted reefs.

Voyages to the luxurious South Seas, the voluptuous Orient and the barren waste of the Arctic and Antarctic took their toll against life, health and character. However, it is believed few things can compare with the intensity of the excitement and the accomplishment which comes with the pursuit and capture of the world's largest animal.

MODERN WHALING

(1864 - 1938)

OR

WHERE ALL THE WHALES WENT

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MODERN WHALING

We have told you of the rise and fall of the whaling industry in the United States; that the apex of American Whaling came in 1840-1850; that in 1846 the industry was valued at \$20,000,000 and employed 20,000 people and that by 1886 we saw the ghost of a fleet that at one time comprised 735 vessels and sailed the seas from Point Barrow to Patagonia and from New Bedford to Japan. That by 1906 American whaling had just about disappeared and only a few vessels remained, which then succumbed to disintegration and decay, with only the Charles E. Morgan preserved at Mystic Seaport, Mystic, Connecticut.

While American Whaling was disintegrating and disappearing, the industry was being developed in Europe. Perhaps the greatest factor contributing to the European establishment was the invention of the whale gun by Svend Foyn in 1864. Later developments are more improved in detail, enlargement and expansion; their introduction depends on, and evolves around Foyn's accomplishment.

The Norwegians commenced active and extensive operations with the introduction of the whale gun. The Coast of Norway and northern latitudes were hunted with such alacrity and enthusiasm that the whale stock was noticeably depleted and the whalers came in conflict with the fighermen on the Coast; the fighermen accused the whalers of ruining the figheries. The Norwegian government therefore banned further whaling operations along its coast or territorial waters. The industry was then forced to seek new whaling grounds. As a result shore stations rapidly appeared in all sections of the world where whales were found but, due to the fact that whales are easily exterminated, and migrate if actively hunted, the success of the various locations in the tropics and temperate latitudes was soon negligible. It was necessary therefore to seek whales elsewhere.

Based on reports from exploring expeditions in the Antarctic, C. A. Larsen, Alexander Lang, and others sought and found large numbers of whales in the high southern latitudes. Shore stations were founded at South Georgia, the South Shetlands, and other islands of the far south. As a result, in a guarter of a century over two hundred thousand whales were killed and perhaps three hundred thousand exterminated, if gestating females were considered. This slaughter occurred in the southern latitudes alone. Such extensive operations resulted in the depletion of the whale stock in the vicinity of the shore stations.

This condition produced modern pelagic whaling by factory ships, about 1920, and operations were carried out as far south as seventy five degrees latitude, almost in sight of the south pole bases for exploration. Here in the Antarctic appeared scores or more of floating factories, ranging from ten thousand to thirty-five thousand tons, sweeping the ice strewn waters for whales between fifty-five degrees south latitude and Antarctica, each

factory ship accompanied by five to nine killer boats. The areas over which these expeditions moved were devastated by every method and ingenuity that modern scientists could invent and install for the purpose of killing the animals rapidly and hastening the processing systems of the carcass to derive the oil.

Now, let's take a look at this whale gun invented by Foyn, the harpoon that it shoots, the killer boat upon which it was mounted, and the factory ship that processed the results of this invention.

The Whale Gun

It can best be described by stating how it is loaded and fired.

We will discuss the muzzle loading gun which was widely used although the breech loading type was also employed.

Two men loaded the gun. One hundred ninety to two hundred grains of smokeless powder was used for the propelling charge, depending on the wishes of the gunner.

The charge is introduced via the muzzle in a small bag, then a twelve inch wad of cardboard, or any compressed paper that will burn, is inserted. Sometimes the powder is contained in a fastening of paper wadding by means of an elastic arrangement.

A wooden plug is then inserted between the powder and the harpoon, the plug being hammered in tight with a wooden rammer. The harpoon is slid into the gun via the muzzle and brought up just tight against the plug; it is an easy fit.

A detonating fuse is screwed into the nose of the harpoon before the grenade is screwed on the head. It is this fuse that shatters the grenade three seconds after the harpoon leaves the gun. Prior to the securing of the grenade to the harpoon head, approximately one pound of black powder is dumped into its hollow interior.

After the harpoon is placed in the bore, a four inch forerunner line is spliced to a wire traveler that moves in the aperture formed by the double shaft of the harpoon.

A piece of small thread is passed around the barbs of the harpoon to keep them in place and a small bight of the same material is passed around the front sight of the gun to keep the projectile from working loose in the bore while the killer boat rolls and pitches in a seaway.

The same procedure and equipment is used in a breech loading gun except the smokeless power, wad, etc. are in a brass cartridge which is inserted in the breech by manipulating a sliding wedge system of breech lock.

The Harpoon

Now let's look at the modern harpoon which is a massive projectile. I presented one of these to the Museum of Natural History in Washington, D.C. as a gift to show my appreciation to Dr. Remington Kellogg, with whom I consulted during this expedition. I also gave him the head of a right whale and the jaws of a killer whale. These gifts will be discussed later.

The harpoon weighs approximately one hundred and fifty pounds; it is five feet long from the posterior end to the threads on the head by which the grenade is attached and is so constructed that for three feet of its length it forms a double shaft. It has a four inch solid base, three and one-half inches in diameter. The forward end of the shaft terminates in an eyelet by which the head is secured; the head has an oval on the after end of it that fits into the eyelet; this method of articulation prevents the head from moving on the shaft until after the harpoon enters the body of the whale. The head of the harpoon is ten inches long. It has a hollow threaded projection two inches long on its anterior end for holding the fuse and by which the grenade is screwed on. It is also equipped with four prongs, thirteen point six inches in length, that have three point two inch barbs on the ends of them. The prongs are attached to the head by means of hinges. They are tied back and parallel to the shaft with a small cord which is passed around the tips of the barbs. After the harpoon enters the whale and a strain is exerted on the harpoon line, this cord is broken, the prongs open up and the harpoon is prevented from drawing out.

The harpoon grenade is a hollow, pointed cast iron bomb, fifteen inches long with a four and one-half inch diameter at the base. It weighs fourteen pounds. A threaded section is inserted in the aperture of the base. One pound of black powder, in a small bag, is inserted within this bomb prior to screwing it on the harpoon head.

A fuse is screwed into the hollow cavity of the threaded projection on the forward end of the harpoon for detonating the grenade. This fuse functions in such a manner that it sets off the black powder of the grenade three seconds after the harpoon is fired from the gun. The grenade is thus fragmented within the body of the whale with devastating results.

The Killer Boats

After the whale gun and harpoon were invented they had to build a boat upon which to mount the gun.

Boats equipped with a whale gun are known as killer boats.

Killer boats employed by expeditions are between one hundred sixty and one hundred eighty feet in length with a sixteen to twenty foot beam. They vary from one hundred sixty to two hundred tons with a speed of eleven to sixteen knots and a cruising radius of three to five thousand miles. Original cost, about 1936, would be around two hundred thousand dollars.

The killer boat has an extreme sheer forward that gives the forecastle an extreme angle; the bow is high, sharp and possesses great flare. The gun platform is mounted on the extreme summit of the bow which is reinforced to prevent vibration and thus allows more accurate shooting. This high bow allows a gunner to shoot down and also to obtain greater distance.

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The freeboard aft is extremely low; in fact, this part of the vessel is almost always awash even in a slight sea. They have a cruiser stern and are so constructed that the propeller is exceptionally deep in the water and seldom comes out. This is important. These boats can ride any kind of a sea, it is merely a case of how much the crew can endure. Anyone who sails one of these through the "Roaring Forties" can go to sea in anything.

They are oil burners, with a reciprocating drive and are generally equipped with fire tube boilers which are generally less trouble than a water tube boiler.

The killer boats accompany the factory ship to and from the whaling grounds, remaining in sight. The factory ship fuels and provisions them as necessary. They carry a crew varying from 12 to 16 men consisting of a gunner, mate, chief engineer, cook and mess boy; the remainder makes up the deck and engineer's force.

In the majority of cases the gunners do not possess a mate's license in any form but are in command of the vessel. The majority never know where they are, cannot use a sextant and if they do, the results are worthless for even practical purposes. All navigation is carried on by radio with each boat equipped with a radio phone and key set but the phone is used practically all the time. Each boat does have a radio direction finder. The navigation system generally used is to run by dead reckoning until a whale is sighted. After the chase, if successful, a killer boat calls the factory ship for a radio bearing, runs it down and makes contact. A loud speaker is installed on the bridge of the boats which allows all boats to listen to the conversation be-

tween the factory and her killer boats, between the killer boats themselves, and for instruction from the factory ship. Crews of killer boats are selected generally on a personal basis by the gunners so they work together as a team season after season. Family relationships are important here. The mate is the one who actually does the work on a killer boat. The gunner kills the whale and then walks off. It is up to the mate to secure the carcass, contact the factory ship, deliver the whale, etc. The mate is generally an apprentice gunner and in most cases is a blood relative of the gunner or has some other influence which will eventually make him a gunner. It is a closed shop deal. Blood relatives and family relationship count.

In the Antarctic each killer boat carried about one mile of harpoon line which consisted of one seventy fathom shot of four and one-half inch line, one one-hundred twenty fathom shot of six inch line and six one hundred twenty fathom shots of seven and one-half inch line. The lines used for humpbacks in Shark Bay were of five and six inch line because these were smaller whales. Bigger whales required heavier gear on both killer boats and factory ships.

The diagram illustrates the general outline of a killer boat and we will try to describe briefly the special tackle and rigging used to eliminate the strain resulting from the harpooning and killing of a whale.

The bins containing the harpoon lines are located below deck in the forward part of the vessel. The six and seven inch lines are carefully flaked down in bins. The four inch forerunner line is coiled down on the ready tray which is located on the bow, below and forward of the gun. The harpoon line is brought from the bin through a hole in the deck, passed about four times around a drum on the deck winch, then taken up through the accumulator block, and down underneath the gun platform where it is spliced to the forerunner line which is then attached to the harpoon shaft by means of a wire runner. The harpoon line thus functions as a gantline through the accumulator block.

'Each killer boat has a large set of springs, generally sixty-four located in the forward hold and firmly attach to the hull of the vessel. A wire cable has one of its ends attached to the springs and the other end to the accumulator block, after it passes through a stationary block, which is located just below the crow's nest on the foremast. The result is that when a strain is placed on the harpoon line the accumulator moves up and down, parallel to the mast, and compresses the springs via the wire cable. The springs are arranged in eight parallel row, each row containing eight springs. As one row is compressed, the stress is transmitted to the next by means of a cable. When the harpoon line becomes slack, the accumulator moves up and the strain is removed from the springs. It is by this arrangement that most of the strain is removed from the harpoon line and the killer boat and, if any strain is sustained, it is introduced gradually.

The Factory Ship

The Ulysses was converted to a whaling factory ship by building a 14 foot superstructure on the hull of an oil tanker to provide the necessary space to install the equipment necessary to extract the oil from the whale carcasses.

With a length of 536 ft., a beam of 55 ft., a 3,000 horsepower propulsion plant, she could make about 16 knots and house a crew of 300 men.

A ramp was built in the open stern which allowed the dead whales to be pulled aboard by a wire hawser attached to a large hook which grasped the tail. On the flensing deck the blubber was stripped off by using wire hawsers, toggles and men using two feet long sharp curved knives with eight foot handles. These were called flensing knives. The stripped blubber was cut into chunks before being put in deck openings to the factory system below, where it was boiled down with water to extract the oil. The baleen was extracted from the mouth and thrown overboard.

With the blubber removed, the carcass was hauled to the cutting deck by a wire hawser attached to a winch where men dismembered it with flensing knives, wire hawsers, toggles and steam saws. The chunks of meat and bone were put in deck openings leading to large revolving drums where it was boiled down with water for about eight hours to extract the oil.

A ninety foot whale could be flensed and cut-up in about ninety minutes. All parts of the whale were processed for oil except the baleen. After the blubber, meat and bone was boileddown, the equipment was stopped and allowed to stand to allow the water and oil to separate. The oil, forming on top, was drained off to storage tanks. The water and residue was blown overboard. It looked like sawdust.

The three hundred man crew operated the factory ship, processed the whales, provided a medical staff, and provided food, supplies, fuel and equipment for the killer boats besides using tons of meat, flour, and vegetables to feed the crew, using dozens of cooks and mess boys. When whales were available the ship operated twenty-four hours a day in two twelve hour shifts.

From July 4, 1937 to October 8, 1937, 2,037 humpback whales were killed and processed to produce 78,750 barrels of oil or about 13,000 tons, which at the time was worth \$150 per ton or a market value of about two million dollars.

Strange as it may seem, no food was found in the stomachs of the humpback whales killed in Shark Bay or off the West Coast of Australia. Apparently the whales used the area for mating and calving.

The Captain with a masters license navigated the ship with three deck officers. The Chief Engineer was responsible for the engineering and whale factory processing departments. Another man was the so-called factory manager. A ship's purser was responsible for buying, preserving, cooking and serving the food. The head gunner on his own killer boat directed the operation of

killer boats, determined where the factory ship was positioned, the area to be hunted for whales and the number of whales to be killed per day in consultation with the factory manager. Needless to say, it was a big operation requiring team work and coordination of all details.

Antarctic Operation

We departed Australia October 9, 1937 and dry-docked in Simons Town, South Africia November 3, 1937 because Cape Town did not have a dry-dock large enough to take the Ulysses. We left Simons Town November 10, 1937 and arrived Walvis Bay, South West Africa November 13, 1937, where we re-rigged the killer boats and factory ship for the Antarctic Season in preparation for hunting the massive blue, fin, and sei whales. Walvis Bay weather was awful. Thick fog arrived at sunset and remained until the next mid-morning when the fog lifted and the temperature rose to about 90 degrees and stayed there until the evening fog returned. We left for Cape Town November 27, 1937 and arrived November 30th where we took on fuel and stores. We departed Cape Town December 1, 1937 and traversed the "Roaring Forties", where we were forced to heave to for eight hours on 5 December 1937 due to a full gale with mountainous seas. The killer boats lost life-boats. The

factory ship lost several ventilators. We encountered field ice and icebergs on December 7, 1937 and killed our first whales December 8, 1937 about 1,400 miles south of the Cape of Good Hope. This put us in the Weddell Sea area where we remained until March 16, 1938, the factory ship having cruised about five thousand miles by sailing various courses and speeds south and west.

There was an extreme change of temperature after crossing 50 degrees South. The weather was not awfully cold but was disagreeable about ninety per cent of the time due to severe storms, snow and fog, but no rain. The longest period of sunshine occurred for six hours on Christmas Day. The Christmas season was observed on Christmas Eve by stopping work for six hours. It should be noted that this was the only time the crew paused for rest and amusement during the Antarctic season. Daylight lasted twenty-four hours. Accordingly, whales were hunted for twenty-four hours, and the factory ship worked two twelve-hour shifts during the twenty-four hours.

During the Antarctic season we killed 1,628 whales and could have killed at least several hundred more if we had had the fresh water. The Ulysses was always short of water in Shark Bay and Antarctica.

I wish to note here that we departed Cape Town December 1, 1937, and hunted whales in the Weddell Sea until March 16, 1938. We departed the Weddell Sea March 18, 1938 and arrived New York April 11, 1938, after a voyage of seven thousand miles. This indicates we did not enter a port nor make a landfall for 132
days, which is seagoing in any sailor's notebook and perhaps a record for a Coast Guard officer to be at sea.

It is also noted that the crew of the factory ship got ashore in Simons Town October 31, 1937 for the first time since June 13, 1937, having been at sea for 140 days. And then they would be at sea another five months before getting home in Norway.

Discovery Committee "DARTS"

The British had a novel way of checking the growth of whales and their migration habits by firing darts into them from the Ship, RRS William Scoresby, operated by the Discovery Committee but under the control of the Colonial Office. I think this operation started in 1932.

The dart was about six inches long with a pointed solid lead bead attached to a hollow copper tube. Each dart had a number which was recorded when fired by a 12 gauge shotgun into the whale's back; also noting the species of whale, its approximate length and the date and latitude and longitude. Six of these darts were found in the whales' carcasses when cut-up on the factory ship. The required reports were made to the Discovery Committee.

I paid five dollars to any man who found a dart and gave it to me. I gave several darts to Mystic Seaport, Mystic, Connecticut.

The dart method allowed the British to approximate the whales' growth and their migratory habits.

As a matter of passing interest, I was aboard the Ulysses for ten months. We cruised 29,350 miles. I got ashore three times in Carnarvon, Australia. It had a population of about 700 people. While in Simons Town, South Africa for nine days, I visited Cape Town for five days. While in Walvis Bay for two weeks, I got ashore twice. What a helluva place. There were a few houses built in sand dunes, no trees. Wild dogs were outside the town. It was a port of call for ships connected with whaling.

There were about two hundred white people and eight hundred Hottentots as residents. Sand storms were frequent. The cold Benguela current flows northward along the coast producing a miserable climate along with the Kalahari desert to the east which has diamonds in large guantities but is patrolled by Camel Corps law officers. While in Walvis Bay about fifty per cent of the crew contracted severe colds and many suffered from influenza. None of the crew was allowed ashore. The town's electric lights were turned on from 5:30 p.m. to 10:00 p.m. daily.

While in Carnarvon in August 1937, I visited the Boolathana Sheep Station which had 350,000 acres and sixty thousand sheep. My host was Major Chenery who won the Victoria Cross in WWI.

He challenged me to ride his horses during my visit. I took the challenge and am documented as an Australian cowboy in the local newspaper, "The Northern Times of Carnarvon" dated 21 August 1937, a copy of which is found in my whaling report. I left 14 square inches of my hide on Chenery's saddle. While in Carnarvon, I ate kangaroo meat and drank Australian beer. Both were enjoyable.

From June 12, 1937, upon leaving Sandefjord, Norway, to November 1, 1937, upon arrival Simon's Town, S.A., I was ashore a total of thirty-two hours.

This cruise was not a sinecure for Walsh. A Skein, Norway newspaper dated October 30, 1937, published letters from the factory ship's crew, which documented three big fires on the Ulysses.

The first occurred by pure negligence in the Bay of Biscay after we left Southampton, England. They had failed to remove the wooden structure over the boilers which had been constructed during the ship's conversion to a factory ship. After we got underway the heat of the boilers set the wood afire. The crew finally got the fire out after about one hour. Captain Mikkelson told me he was about to send an SOS.

The second fire occurred in the Red Sea when the cork insulator caught fire while they were cutting a large hole in the side of the ship to lower the temperature below decks, which was over 130 degrees. This fire lasted about an hour.

The third fire occurred about 2:00 a.m. on the morning of October 5, 1937, which almost terminated the cruise of the Ulysses in a catastrophe. Two cases of powder exploded in the midship powder magazine on the weather deck of the ship. The explosion sent forty foot flames in the air and set fire to the magazine's interior which contained five tons of black and smokeless powder in one hundred twenty-two cases. Fortunately the magazines' door had not been fully "dogged" and was blown off, allowing one of the crew to pour water into the magazine from a deck hose. This stopped the rest of the powder from exploding, which, if it had occurred, would have blown the Ulysses out of the water. The explosion occurred when the smokeless powder broke down because it was stored in high temperature with no ventilation. During this time the temperature was 86 degrees to 120 degrees F. during the day and night.

Hunting Whales - Humpback

We have described the modern harpoon, the modern whale gun and the killer boats. Now let's hunt the whales.

First, we will hunt the humpback and then a blue whale.

The Humpback, being smaller, requires different tactics from those used hunting blue whales.

There must have been four thousand humpbacks in Shark Bay from June to October, 1937. The expedition hunted this area for seventy days and killed 2,037 whales which produced 78,750 barrels of oil.

The stalking method was used in Shark Bay. This method is used when killer boats cannot make more than about 12 knots.

As a general statement, any whale, thirty-five feet and longer, sighted in Shark Bay was a dead whale. Thirty-five feet was the legal limit.

When hunting, the killer boat has a look-out in the crow's nest and one on the bridge's wings to scan the beams. In the generally calm waters of Shark Bay the spout can be sighted under ordinary weather conditions at three to five miles. Sometimes the whale is sighted because he "breeches" or "lobtails".

When the whale is sighted the crew man their stations without command regardless of whether they just came off watch or not. One man goes halfway up to the crow's nest. The Chief Engineer operates the windlass on the forecastle which allows the whales to be played by controlling the harpoon line which has a turn on the windlass. The gun is already loaded with the harpoon ready for firing. The man on the wheel issues orders to the engine room by voice tube after he gets them from the gunner who is at the gun. In fact, all noise is avoided so as not to alarm the whale.

As the killer boat comes near the whale it can be followed by the gunner and the lock-outs who see the dark colored hulk coming up from the depths to break the ocean surface, followed almost immediately by the umbrella shaped spout. The long line of the whale's back appears, tipped by the dorsal fin as it rolls

up obliquely. The body disappears, the flukes go up in the air like a giant butterfly on the water and the whale dives. The whale soon realizes it is being chased but has to come to the surface every few minutes to breathe. The pursuit is relentless to keep the whale ahead of the bow.

The whale eventually tires. The killer boat practically runs it down. Finally the whale surfaces off the port or starboard bow at a distance of ten to forty feet with a rush and a puff of vaporized breath. The snout comes clear of the surface and it blows. The dorgal fin appears and the gunner fires, aiming, if at all possible, so the harpoon enters close to the pectoral fin. This allows the harpoon to penetrate the lungs where the harpoon's cast iron grenade explodes by its fuse in three seconds. If the harpoon goes straight to its mark, the stricken animal sounds. The harpoon line tears through the blocks at terrific speed and disappears in the depths where the whale dove. After a short interval the whale comes to the surface, its distance depending on the size of the animal, scope of harpoon line, etc. It blows every few minutes and attempts to swim away. The engines are kept going astern to keep the animal near the bow and the harpoon line clear of the propeller. While on the surface the animal lashes in all directions with its flukes and pectoral fins.

If the whale starts blowing blood it will be dead in a few minutes; the grenade has destroyed the lungs. However, if the harpoon is imbedded back of the dorsal fin, or failed to deliver a death blow, the harpoon line becomes taunt as the whale tries to escape. The animal is allowed to struggle at the end of the line; the engines are kept in reverse, and the gun is reloaded. While the whale is being played by use of the winch and allowed to exhaust itself, very little strain is placed on the running gear, or any part of the ship's superstructure, because of the special tackle on the foremast activating the springs along the keel in the bottom of the killer boat.

After the whale's struggle becomes weaker it is hove close to the bow by means of the deck winch. The gunner kills the whale by firing a killer iron just back of the pectoral fin so a grenade enters the lung area. The killer iron hardly strikes the animal before there is a muffled explosion as the grenade goes off with devastating results. The whale dies almost immediately with its entire weight supported by the harpoon line. Otherwise, it would sink.

A killer iron is similar to a harpoon except it has no line attached to it.

The carcass is brought alongside, a perforated iron pipe, about three feet long, is plunged into the abdominal cavity by means of a long pole. Compressed air is forced through the perforated pipe into the abdominal area to make it float. The perforated pipe is removed and the hole is plugged with wadding made from unlaid rope to prevent the air from escaping.

A chain is passed around the small of the body just forward of the flukes to form a strap. This is brought through chocks in the side of the boat and made fast. The line is cut free from the imbedded harpoon, which, with the killer iron, is generally recovered on the factory ship when the whale is cut-up.

The chain allows the whale to be towed alongside the killer boat with the tail lashed near the bow and the head pointed aft. This prevents the whale's mouth from opening while being towed.

A wire strap is also passed around the small of the body to allow the carcass to be pulled aboard the ramp in the factory ship's stern. This wire has two eyes spliced at its end and inserted in holes cut in the flukes. It is important this strap be properly adjusted and the holes in the flukes properly located so the carcass can be pulled on its back through the ramp to the flensing deck.

Small mistakes or omissions can lead to trouble when landing these large animals in rough seas.

The tips of the caudal fin are cut off to avoid towing problems. The number or name of the killer boat is carved on the ventral surface of the flukes to enable the factory ship to determine who killed the whale.

When the carcass is secured for towing, the harpoon gun is reloaded and made ready for the next whale.

Sometimes the dead whale is flagged and set adrift instead of being towed while hunting continues. When this happens the same procedure is followed as before except a thirty foot pointed staff is imbedded in the carcass. This staff has a flag and lantern attached allowing recovery by day or night unless sharks or killer whales intervene.

Whales are flagged when plentiful in the area and hunting continues only on orders of the factory ship when too many carcasses are tied astern unprocessed.

When the harpoon gun is fired it is possible to see the harpoon flung through the air with the harpoon line snaking out behind it. Then comes the roar of the gun and the muzzle smoke blinds you. When you look toward the spot where the whale was last seen only a vaporous cloud hangs suspended above the churned up water to indicate where the beast disappeared.

While on a killer boat during one hunt I was struck by the vapor that results when the whale exhaled. The whale broke water and blew about thirty feet from the side of the killer boat but too far astern for the gunner to shoot. The wind carried the vaporized breath across the ramp, leading from the bridge to the gun platform on which I was standing with a camera. It covered me and the camera with a light film of vapor that apparently contained oil because it took considerable time to clean the camera lens. The whale also possessed an advanced case of halitosis because of the sickening odor I experienced.

The Antics of Whales

Here are some of the antics performed by whales:

- Breeches Whale projects itself head-first vertically one-half its length out of the water with great velocity and falls back in the water with a huge splash.
- Lobtails Whale hangs vertically in the water, head submerged, and sweeps its tail back and forth in the air.
- Flukes Whale strikes the water with flat surface of its tail.
- Sounds Whale lifts forward part of its body out of the water a few feet, spouts, arches its back, throws tail in the air, and dives beneath the water in a perpendicular descent. The tail may appear as a giant butterfly on the water just before it disappears below the surface. When a whale sounds it is generally an indication it will be under water for an extended period of time. However, I have never seen a whale below the surface for more than twenty minutes.
 Settles Whale slides beneath surface in gliding motion without changing horizontal motion of its body.
 - This is what whale generally does between breaths and indicates it will be only a short time below the surface of the water.

Hunting the Blue Whale

This species is the largest animal known in the history of the world. Experts believe it took twenty million years for whales to evolve from their land ancestors. It is hunted by one of two methods. First, the stalking method.

This is used when the gunner has a slow killer boat capable of up to eleven knots. This is tiring, long and requires abundant patience. It is similar to hunting the humpback already described. It is now discarded with the introduction of the modern killer boats capable of fourteen to eighteen knots, like the ones used in the Antarctic.

Second, the "come up and out method", with the killer boat going at fourteen to eighteen knots, fine judgement of species and habits, and long patient stalking is not necessary.

The killer boat maintains full speed at all times. The whale comes up for breath but is forced below before completing its respiration by the boat charging down on it. The tactics are followed for perhaps half an hour or longer, the whale trying to get its breath and the determined action of the gunner to keep it down. The whale acts terrified, short of breath and commences to swim rapidly. This increases its need for air. The situation develops into a chase with the animal breaking the surface at full speed, exhaling and inhaling in a split second, then diving. The whale does not travel very deep under these circumstances and is generally visible to the crew of the killer boat which remains as close as possible. Even the blue whale cannot endure this

type of pursuit more than about thirty minutes without showing signs of fatigue. The animal commences to tire, loses its speed, and surfaces more frequently for air. Finally the killer boat overtakes the guarry, the whale surfaces within gun range, then the harpoon is imbedded as close to the pectoral fin as possible.

It is this type of whaling that led to the extermination of so many blue, fin, and sei whales. The whales had no chance. They are smothered into exhaustion and then killed.

It is a rare occurrence, once a blue whale's large umbrella spout is sighted, that the animal escapes a modern killer boat under command of a good gunner unless ice, sea conditions or the weather intervenes.

Once a harpoon is imbedded, one of two procedures may be followed.

The gunner allows the harpooned whale to take out plenty of line, even up to a guarter or one-third of a mile in length, which is controlled by the deck winch. The killer boat engines are stopped or going slowly astern to keep the line out of the propeller. There is no strain on the killer boat because the pull of the whale is transferred by the running rigging on the foremast to the springs in the bottom of the killer boat. The whale is allowed to exhaust itself, if still alive, and is then hauled in by the winch or the killer boat advancing on it. The animal is hauled under the bow and dispatched with a killer iron.

After a big whale is harpooned, another method may be used in dispatching it.

Here the whale is chased down and harpooned. Immediately the killer boat is swung away and at right angles to the direction taken by the whale. The whale is taking out line and the killer boat is paying it out also by steaming at full speed away from the animal. After a long scope of line is out, the killer boat swings parallel to the course taken by the whale. This results in a long bight of line in the water with the whale towing one end of it and the boat paying out but towing the other end. This maneuver soon exhausts and slows down the whale from the sheer weight and drag of the line. The boat now heads toward the whale, practically completing a circle from the area where the harpoon was imbedded. A killer iron finishes the whale.

This method is fast but puts more of a strain on the running rigging of the vessel and requires care in keeping the line out of the propeller.

After the blue, fin and sei whales are killed, the procedure for towing them to the factory ship is the same as for humpback or flagging them for later recovery.

On one occasion in the Weddell Sea I went whaling with a gunner who had been hunting whales with modern killer boats for about twenty years in the Antarctic. He told me that in the 1920's the factory ships used to stay in open water on the edge of the field ice and the killer boats killed and delivered the whales to the factory ship which remained in sight. In 1937-1938 we had to go miles away and out of sight of the factory ships.

On this trip we sighted a large fin whale, about 80 feet long. We had a fairly strong wind blowing on a clear cold day with fairly rough seas when clear of field ice. The harpoon hit this whale in the back by the caudal fin which did little harm to the whale and above all it did not impair his ability to swim. The whale took off at tremendous speed, heading for some field ice. The killer boat engines were put full astern but the whale just towed the killer boat and into the field ice we went. Ι just wrapped myself around a stanchion on the bridge along with the rest of the crew because it was impossible to stand up without support. The whale literally just dragged us through the field ice on a zigzag course as we bumped from one chunk of ice to another with the engines at full astern, we must have been making six or seven knots through the water. Finally the whale towed us free of the stretch of ice and several harpoons were put in it when we were in clear water. All told it must have taken over two hours before we had a dead whale. This episode showed what a misplaced harpoon can do besides showing the strength of these animals.

I think I can say without being egotistical that I witnessed the slaughter of more whales in the history of American modern whaling than any other native born in the United States. My duty on the expedition was to ensure that the whaling laws of the united States were observed. It was not my duty to interfere with the slaughter so long as the killing was carried out legally. The expedition was out to make money. My duty was to see that the profit was legal.

I expressed my views subsequently that eventually led to the demise of pelagic whaling under the United States flag. The Ulysses made two more trips but did not make "two seasons" on either voyage.

By two seasons is meant the Ulysses would hunt the Indian Ocean or Australian waters, then proceed and fit out in a foreign port to hunt the Antarctic without returning to a United States port. Then she would come to a United States port at the end of the Antarctic season. This arrangement saved money in travel time, simplified the signing on of personnel of the expedition, who were Norwegians; also, it prevented trouble with United States navigation laws and the Norwegian whaling union regulations. In short, the company made a greater profit without cumbersome restrictions.

A "one season" arrangement allowed the ship to go to either the Indian Ocean or Antarctic from the United States, then she had to return to the United States.

In other words, she could not go to the Indian Ocean and then to the Antarctic as she did when I was aboard.

I look back on this assignment with a great deal of satisfaction and a feeling of accomplishment. I was instrumental eventually in curtailing pelagic whaling under the U.S. flag by my one season recommendation and by also showing it was a foreign controlled operation.

However, from June 11, 1937 to April 11, 1938, approximately ten months, I got ashore fourteen days. So my mission was accomplished by an arduous tour of duty.

However, it must be emphasized that pelagic whaling stopped for most nations when it was no longer commercially profitable. During the 1937-1938 season Norwegian, German, British, Japanese and Russian expeditions slaughtered thousands of whales in the Ross and Weddell Seas. This is one of the reasons why whales became scarce. However, the Japanese, Russia and Iceland persisted after other nations stopped. Japan today still kills about two thousand per year and consumes tons of whale meat in their daily diet. But even the Japs realize now the end of whaling is in sight.

Most of the whale bil coming to this country was used to produce expensive scaps. The oil was used in European countries for commercial purposes and to supplement dietary requirements.

Some of the whale oil coming to this country, however, competed with peanut, cotten seed, and menhaden oil and this created friction with these products.

After WW II several nations made efforts to revive pelagic whaling. They introduced bigger and faster killer boats, more efficient factory ships, search planes and employed sonar and radar. However, the big whales were too scarce to guarantee a profit against the high cost of fitting out a big commercial expedition. Only Japan, Russia and Iceland persisted. But even they had to resort to killing the smaller species or almost anything else that produced oil.

Another factor curtailing Norwegian whaling was the fact Norway could not use all the whale oil it produced and had to sell it on the foreign market. But the Japs could produce it and sell it about \$7/ton cheaper than the Norwegians.

Right Whale Head for Museum

A gunner killed a right whale by mistake. The killing was illegal but excusable under the circumstances of the weather, ice, and sea conditions. To make amends the expedition gave me the head of this whale and I gave it to Dr. Remington Kellogg at The Museum of Natural History in Washington, D.C. As I recall however, Dr. Kellogg told me that if a right whale was killed legally or illegally, he wanted the head for The Smithsonian. Strange as it may seem the killer boat and factory ship had never seen a right whale before and did not know what kind of whale it was until I identified it for them.

This whale, called the right whale, got its name from the early American whalers who believed it to be the "right" whale to kill because it swam slowly, was easy to approach and kill, and did not sink when dead. They may reach 50 to 60 feet and run about a ton to the foot. It yielded plenty of valuable oil and large baleen slabs from its arched head. Baleen of a right whale is much larger than in blue and fins. It is a series of long horny plates or slabs that form a square footage surface that acts as teeth. These plates hang from the upper jaws and are

finely fringed on the tongue side. Anytime a baleen whale shuts its mouth to squish out the sea water while retaining krill, it has the same effect as casting a large net in the water for its food. It has a barnacle infested "bonnet" on its head in front of its blow holes. It does not have a dorsal fin.

The complete head was placed on deck. On the 7,000 mile, twenty-seven day voyage from the Weddell Sea to New York, I spent most of my time separating the flesh from the head bones with a hand knife, flensing knife and steam hose. Then the head was crated for shipment from New York to Washington, D.C. Crated for shipment, it weighed several tons.

. On arrival in Washington the head was to be taken apart. The bones were to be placed in sand for several years and then several more years in a running brook. This was to remove all the oil from the bones. It should be remembered that any part of a whale is full of oil.

After the sand and water treatment the head is reassembled for exhibit. To assemble the head without first removing the oil would eventually cause the specimen to rot and fall apart.

I gave a fully assembled harpoon to the Museum in Washington, D.C. also.

Besides the right whale head and harpoon, I also gave the jaws of a killer whale to Dr. Kellogg.

Killer Whale Jaws for Museum of Natural History

The killer whale is also known as the Orca. They run anywhere from 20 to 30 feet in length; are generally recognized by their black and white markings from the lower jaws to anus, extending along their sides and all topped by a tall erect dorsal fin, which may be several feet high.

This whale is seen frequently on display in aquariums performing acrobatic feats for the public's enjoyment. But in their native habitat they are different. Here they possess ferocious feeding habits. While traveling in groups they actually attack, mutilate, and even kill baleen whales. They also kill seals, fish, squid, sea turtles and sea birds. In attacking baleen whales they lacerate its hide and frequently mortally wound the animal by ganging up on it until it is exhausted and tearing out its huge tongue.

There are Antarctic expedition records which note that killer whales have attempted to attack men and sledge dogs on ice flows. Whalers do not like them and are extremely cautious when in their presence. They have a broad rounded head, large mouth and big numerous, sharp pointed teeth in the upper and lower jaws, which, as I recall, are so placed that they mesh when the jaws are closed to produce a rendering capability. In other words, the teeth allows them to tear apart whatever they attack.

Only the jaw bones and teeth were given to the Museum.

Whale Meat

We ate guite a bit of whale meat during the Antarctic catch. The meat itself was sort of stringy and resembled pot-roast when cooked. The meat came from fin whales early in the season before the whale started to get fat. A strip of meat, about eight feet long, two feet wide, and several inches thick would be stripped from the whale's back; then hung in the rigging for about a week or ten days. Here it turned a black-brown color in the sterile atmosphere. When removed to the galley the meat was cut into steaks and then soaked in vinegar while treated with salt and pepper for about a week. It was very good when served broiled or fried. I enjoyed it. You would never know it was whale meat. Of course the secret of making it edible was to take it off the whale before the whale got fat and the meat became oily.

Whale Milk

I did not drink the milk but I did taste only a small bit of it. Unfortunately it came from a dead female which had been killed several hours before.

The two teats of a female whale are in two slits on the side of the female opening located on the underside of the body's posterior section.

All That Glitters Is Not Gold

The Western Operating Corporation was incorporated under the laws of Delaware with headquarters on Lower Broadway, New York City at the Isbrandtson Steamship Company. Lord, Day and Lord of New York City was their legal representative.

It was emphasized to me, when I met with members of the corporation at their New York headquarters in May 1937, that the purpose of the Corporation was to resurrect American whaling under the U.S. flag. They suggested I expedite my departure from the United States for Gothenburg, Sweden, where a vessel was being converted to a whaling factory ship and was just about ready for a cruise to the Indian Ocean and then to the Ross Sea, Antarctica.

I believe it was at this time I learned that the cost of outfitting the expedition was two million dollars.

I arrived Gothenburg, Sweden on May 11, 1937 via the Gripsholm of the Swedish American Line, and went aboard the Ulysses at the local ship yard. It was readily apparent that the ship was not ready for sea, being still in dry-dock. Everything to fit the ship out as a factory ship was late in arriving from Norway. There was no water, living guarters or food facilities. The yard was working 24 hours per day to get the ship out. I had to live ashore in a local hotel.

While talking to Capt. Mikkelson, master of the Ulysses, and his other officers, I learned they never heard of the persons I had talked to in New York and they thought I was telling them a joke when I stated the ship was going to the Ross Sea after being in Australia.

The only name I heard in Sweden controlling the Ulysses outfitting belonged to a person by the name of Anders Jahre. I soon learned he was a whaling tycoon in Sandefjord, Norway, owned several factory ships and practically controlled Norwegian whaling. He was running the show. He ordered the Ulysses to sail regardless of her condition on May 26, 1937 because she was supposed to be on the Australian whaling grounds by June 1937. We sailed all right on the 26th of May but had to return immediately to the shipyard for about two weeks while they added 800 tons of ballast to her starboard guarter to make her seaworthy and stable.

And what did we find out eventually was behind all this turmoil! Here it is.

The Anglo-Norsk expedition exploited Shark Bay in 1936 without an Australian license. This ship flew the British flag, had a Norwegian crew and was owned by a company in the Falkland Islands. At the conclusion of these operations this expedition crossed the Pacific, hunted sperm whales off Peru and then went to Panama for recreation after laying up her killer boats at the Galapagos Islands. It was intended to send the Anglo-Norsk to Shark Bay in 1937 again because Jahre had obtained an Australian license to hunt whales in Australian waters. The license was obtained by a man named Melsom, a Norwegian, who became a naturalized Australian. The Ulysses took the place of the Anglo-Norsk and went to Shark Bay.

This situation created a difference of opinion between Jahre and Lars Christenson of Sandefjord, Norway, another Norwegian whaling tycoon, who had an interest in a factory ship by the name of Frango. Christenson threatened to send one of his modern factory ships to Shark Bay and Jahre retaliated by planning to send one of his huge Kosmos factory ships. Such a course of action would have just about exterminated the whales on the west coast of Australia in one season. A compromise was reached between Jahre and Christenson. Jahre would send the Ulysses as planned, and Christenson would send the Frango but only after Jahre and his associates had agreed to pay Christenson some money for using a smaller factory ship. Thus, the Ulysses went to Shark Bay and the Frango went north but in Australian coastal waters.

This arrangement was made because the Ulysses oil could be introduced into the United States duty free (she was under our flag) and a larger profit could be realized than if the Anglo-Norsk had gone to Shark Bay for the 1937 season.

This information aroused my suspicions that all is not gold that glitters. The fact Jahre was running the Western Operating Corporation, became apparent by the way he controlled the Ulysses and issued all the orders governing her operations.

Accordingly, I informed Coast Guard Headquarters via a cipher I was carrying, that in my opinion this operation should be investigated because I thought it was a subterfuge to dump whale

oil duty free into the United States. This led to an investigation in Washington which subsequently confirmed my suspicions. Congressman Bland of Virginia and others in Congress became interested because peanut oil and fish oil competed with the whale oil on the U.S. market.

To make a long story short, the Western Operating Corporation was eventually hauled into Federal Court in Norfolk, Virginia, where they paid a fine for short whales killed in violation of the law. Then the State Department got in the act and the whale oil matter, as I recall, was handled under the Most Favored Nation Treaty Act.

It should be kept in mind that this expedition could never have taken place without the consent and control of Anders Jahre and the Norwegian Whaling Union, which approved crews for the Ulysses; the killer boats, and the gunners, etc. It was a Norwegian operation; there is no guestion about it.

The gunner's contract was drawn up for the killing of whales according to Norwegian law and not the United States laws. Norwegian law allowed 30 ft. humpbacks to be killed. The United States law allowed only 35 ft. This caused a great deal of confusion before I made them abide by the 35 ft. limit. Jahre and Mikkelson did not like it but finally agreed to do it and only after Washington backed me up. It was a helluva mess and led to numerous heated discussions between me and Mikkelson. However, I realized Mikkelson's position. He had to produce for Jahre or he would have been replaced in short order.

I want to point out at this time that the Norwegians learned their lesson by cooperating with Japan years ago when Japan wanted to start whaling and got the Norwegians to indoctrinate and train them in all aspects of whaling. The Norwegians cooperated fully. Then after several years the Japs got rid of the Norwegians and ran their own whaling operations. The Norwegians never forgot this double-cross. And this is why the Norwegian Whaling Union made sure that their members worked expeditions controlled from Norway.

I have no animosity towards the Norwegians on the Ulysses for what transpired. You could not meet more pleasant, more respectable, finer, hard working, people. My relations were friendly and pleasant with all ship personnel. However, Mikkelson and his corporation were out to make money. Walsh was out to enforce the law. There were frictional moments but under the circumstance, that had to be expected. If Mikkelson did not produce, Jahre would have replaced him.

I want to point out at this time that, in my opinion, Norwegian whaling in 1937-1938 was to Norway what the auto industry was to this country. In my opinion, it was the backbone of their economic life. It was therefore with reluctance that I predicted its decline in 1938 and stated it would eventually disappear. And it did.

Most of the Norwegians could speak some English. I learned from frequent and long conversations with them that most appeared to be home loving people who missed their families. They go to sea because they have to make a living. Norway has a long coastline. A large part of the country is above the Arctic Circle. According to my Norwegian friends, the southern part of the country supports the rest which is barren and bleak. Seafaring becomes one of the few outlets for their economic endeavors.

Whale Data - General Information

Ulysses departed Cape Town December 1, 1937 and was in the Weddell Sea until March 16 1938. Then proceeded 7,000 miles directly to New York where she arrived April 11, 1938. Sandy Hook, N.J. was the first land sighted since leaving The Cape of Good Hope December 1, 1937. The Ulysses arrived New York ten months after leaving Sandefjord, Norway, June 12, 1937. During these eight months the ship was in port eight days, cruised 30,000 miles, killed 3,665 whales and obtained 191,030 barrels of whale oil.

Legal Limits

Legal Limits for Killing - 1937

Whale	Legal	Length
Blue	70	ft.
Fin	55	ft.
Humpback	35	ft.
Sperm	35	ft

Length of Whales

Whale	Average Length	Largest					
Blue	80 ft.	110ft					
Fin	70 ft.	84 ft.					
Sei	45 ft.	62 ft.					
Humpback	38 ft.	50 ft.					
<u>Weight - Estimated</u>							
Whale	Length	Weight/Foot					
Blue	80 ft.	1 1/4 ton/ft.					
Fin	70 ft.	1 ton/ft.					
Sei	62 ft.	3/4 ton/ft.					
Humpback	40 ft.	3/4 ton/ft.					

Some scientist believe a whale's blubber can sustain it for months without food.

A Dutch scientist estimates that a blue whale calf grows about eight and one-half pounds per hour during its seven month nursing period when it gets 130 gallons of fat rich milk a day from its mother. Do not forget, by actual measurement, a blue whale foetus, before it is born, can be 17' long and weigh 2,443 pounds.

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Barrels_of_Oil/Whale/Foot
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Whale			Barrels	of	0il	-	Month	of	March
90'	Blue	- Male	~		125				
90'	Blue	- Female	(pregnant)		225				
70'	Fin				70				

Rough Estimate 1.5 barrels/ft.: Blue Whale 80' Rough Estimate 1.0 barrels/ft.: 70' Fin Whale Estimate 37.4 barrels per whale in Shark Bay

In Shark Bay fifty per cent of oil came from blubber and the tongue; fifty per cent came from bone and meat. Whales were fat having migrated from their pastures in Antarctica where they had consumed tons of krill.

It is estimated that a blue whale may eat 200 tons of krill/day or about 4% of its body weight. This krill is near the surface during the Antarctic summer. Whales are believed to migrate to warm waters only to mate. This is why apparently I never saw food in the whale stomaches in Shark Bay.

Ulysses could only make 160 tons of water per day when she needed 400 tons per day. This cut production of whale oil from roughly 1,800 barrels/day to 1,600 barrels/day.

Market value of whale oil during Shark Bay season was \$100/ton if I recall correctly.

A modern whaling factory ship requires one barrel of water for every barrel of oil derived from the whale. Ulysses was always short of water

Expedition could legally dispose of only: internal organs; baleen; pectoral fins.

Recapitulation of Catch

Whales Kil	<u>Oil Obtai</u>	- Barrela			
Shark Bay	2,037	Shark Bay		78,750	
Antarctic	1,628	Antarctic	; -	112,280	
TOTAL:	3,665	TOTAL:		191,030	

There were thousands of humpbacks in Shark Bay on July 24, 1937, when we started killing them. On August 30 the ship had 26 whales secured astern at noon waiting to be flensed. On August 31 there were 21 astern. On both occasions the killer boats had stopped hunting for the day. An experienced gunner told me he had never realized whales could exist in such numbers. He estimated 4,000 whales were in Shark Bay in July 1937.

During the Shark Bay season it cost the Western Operating Corporation approximately five thousand dollars per day to operate the entire expedition. The Ulysses is alleged to have paid for the cost of the expedition after 70,000 barrels of oil had been obtained.

By arriving late in Shark Bay, and being short of water due to evaporator troubles, the Ulysses lost hundred of thousands of dollars because she could have doubled the number of whales killed during the 70 days of operation.

Casualties

One man died from natural causes and was buried at sea July 4, 1937 after the government of Aden refused our request for permission to land him ashore.

A man was killed instantly on a killer boat in Shark Bay when struck by the tail of a whale alongside the killer boat when he was passing a towing chain around the carcass just forward of the tail. The whale appeared to be dead but apparently was not.

After spending months in the warm dry climate bordering The Tropic of Capricorn in Australia, the miserable climate of Walvis Bay and the cold Benguela Current took its toll on personnel. At least fifty per cent of the personnel contracted severe colds and many suffered from a chest condition similar to influenza according to the doctor.

Any open cut, scratch, or severe bruise became infected if it came in contact with any part of a dead whale. First aid was administered immediately and daily checks followed for several weeks by the doctor. In one instance a man came in contact with the blade of a deck steam saw. He tore his pants but only scratched his leg. He failed to report it. Subsequently a severe infection followed which lasted several months.

Whale Fopulation

Past and Present

There is no doubt that at one time there were hundreds of thousands of whales of different species in the oceans of the world. Commercial whaling deciminated them. However, recent statistics seem to take an optimistic view that current hunting quotas established by international agreement will protect some species from extinction. But it must be accepted that surveying the oceans of the world is vague for detecting how many whales may still exist. They roam over extensive regions and are hidden from view even during a diligent search. It is questionablewhether any estimates will ever be accepted without contention by commercial interests or conservationists.

The blue, fin, sei, and humpback population has been fragmented when compared to their former numbers. Can they stand any more ravaging? How about the toll from natural enemies and diseases? Strange as it may seem, whales are subject to many internal diseases and parasitic worms. They have tumors, pneumonia and stomach ulcers.

It is my opinion when the big whale species are found again to be in such numbers that will make pelagic whaling profitable for Norway, Japan, the Soviet Union and Iceland, then pelagic whaling will return and be governed only by profits, economics and politics. I question whether legal quotas will be observed.

I guestion whether the United States will become involved again in pelagic whaling.












FLOATING FACTORY "ULYSSES": THE ULYSSES IS ONE OF THE TWO FLOATING FACTORIES REG-ISTERED UNDER THE AMERICAN FLAG; THE OTHER BEING THE FRANGO. THE ULYSSES IS A 12,395 TON VESSEL AND IS 514 FEET IN LENGTH. THE FRANGO IS 6,400 TONS, LENGTH 401 FEET. FLOATING FACTORIES ARE IN OPERATION TODAY THAT ARE OVER 30,000 TONS. THESE VESSELS WITH THEIR FLEET OF SIX OR MORE FAST KILLER BOATS, EXPLOSIVE HARPOONS, MODERN EQUIPMENT, AND GREAT CRUISING RADIUS ARE A FAR CRY FROM THE OLD NEW BEDFORD WHALERS. SOME OF THE LARGER FACTORY VESSELS WITH THEIR CAPACITY OF OVER 2,500 BAR-RELS OF OIL PER DAY CAPTURE MORE IN TWO DAYS THAN THE ORIGINAL FLOATING FACTORIES OF 1904 WERE ABLE TO CARRY AWAY WITH THEM IN AN ENTIRE SEASON. ONE MODERN FACTORY SHIP CAN TAKE MORE WHALES IN ONE SEASON THAN THE ENTIRE AMERICAN WHALING FLEET OF 1846 WHICH NUMBERED OVER 700 VESSELS.



<u>KILLER BOATS</u>:- KILLER BOATS MOORED ALONGSIDE THE FACTORY SHIP "ULYSSES". MODERN KILLER BOATS ARE STEEL HULLED VESSELS, MANY WELL OVER 150 FEET IN LENGTH, AND POWERED BY POWERFUL STEAM ENGINES THAT DRIVE THEM THROUGH THE WATER AT SPEEDS AROUND SIXTEEN KNOTS. THEY ARE SELF SUSTAINING UNITS AND CARRY CREWS OF TWELVE OR MORE MEN EACH. THEIR ONE AND ONLY FUNCTION IS TO KILL WHALES AND DELIVER THEM TO THE FACTORY.



<u>KILLER BOAT: AIMING THE HARPOON GUN:</u> THIS 3¹/₂ INCH CANNON FIRES A HARPOON SIX FEET IN LENGTH AND WEIGHING BETWEEN 100 AND 200 POUNDS. THE HARPOON IS POINTED WITH A HOLLOW CAST IRON BOMB WHICH IS FILLED WITH BLACK BLASTING POWDER. THIS BOMB IS EXPLODED IN THE WHALE'S VITALS BY A TIME FUSE THAT IGNITES THE FOWDER THREE SECONDS AFTER THE HARPOON HAS LEFT THE GUN.



KILLER BOAT:- THE GUN GOES OFF WITH A CANNON ROAR AND THE EARPOON BURIES ITSELF IN THE BODY OF THE WHALE.



KILLER BOAT:- THE DEAD WHALE IS INFLATED WITH AIR, THE FLUKES SECURED ALONGSIDE THE BOW AND TRIMMED, AND THE TOW BACK TO THE FACTORY SHIP STARTED.



A LARGE BLUE WHALE BEING HAULED UP THE SLIPWAY. THE BLUE WHALE IS THE LARGEST ANIMAL THAT HAS EVER LIVED UPON THE EARTH OR IN ITS WATERS. THE GIANT PREHIST-ORIC DINOSAURS COULD NOT APPROACH A BLUE WHALE IN EITHER LENGTH OR WEIGHT. THE ULYSSES TOOK A 96 FOOT BLUE DURING THE 1938 ANTARCTIC SEASON. A BLUE WHALE WILL AVERAGE ABOUT 100 BARRELS OF OIL, BUT AS MANY AS 305 BARRELS WERE ONCE OBTAINED FROM A BLUE WHALE AT WALVIS BAY, WEST AFRICA.



TLENSING DECK: - THREE LONG SLITS ARE CUT IN THE BLUBBER FROM HEAD TO TAIL. THIS VIRTUALLY SEPARATES THE BLUBBER INTO THREE LONGITUDINAL STRIPS, UPON ONE OF WHICH THE WHALE IS RESTING. THE FLENSERS USE A RAZOR SHARP KNIFE WHICH IS CURVED AND ATTACHED TO A LONG WOODEN HANDLE AND CAN BEST BE LIKENED TO A HOCKEY STICK.



THE CUTTING DECK: AFTER THE BLUBBER HAS BEEN STRIPPED FROM THE WHALE THE CARCASS IS PULLED FORWARD TO THE CUTTING DECK WHERE IT IS DISMEMB-ERED. HERE THE CARCASS IS PRACTICALLY TORN APART BY THE USE OF STEEL WIRES ATTACHED TO POWERFUL WINCHES.TRUE, THE FLENSING KNIVES PLAY AN IMPORTANT PART, AS THE WORKERS KNOW JUST WHERE TO CUT WHEN A STRAIN IS TAKEN ON THE CARCASS, BUT BRUTE FORCE IS THE MOST IMPORTANT FACTOR.



THE CUTTING DECK:- IN THIS SCENE THE WHALE IS WELL ON THE WAY TO COMPLETE DISMEMBERMENT. THE STEAM IS FROM THE BATTERY OF COOKERS WHICH LINE EACH SIDE OF THE DECK. IT IS IN THESE COOKERS THAT THE OIL IS BOILED FROM THE MEAT, ENTRAILS, AND BONES.

The Ulysses Expedition

<u> 1937 - 1938</u>

ADDENDUM

This should be read with the Two Volume Report submitted to Coast Guard Headquarters in 1938, copies of which are at the U.S. Coast Guard Academy, New London, Connecticut.

Walsh

ESS OFFICIAL COMMUNICATIONS TO THE SECRETARY OF STATE WASHINGTON, D. C.



In reply refer to IC 562 8 F 2/418 DEPARTMENT OF STATE WASHINGTON

July 5, 1939

Lieutenant Q. R. Walsh,

United States Coast Guard,

Treasury Department.

Sir:

The President has approved your appointment as a delegate on the part of the United States to the International Conference for the Regulation of Whaling and as a representative on the part of the United States at a meeting of inspectors appointed to enforce the provisions of the International Agreement for the Regulation of Whaling. These meetings will convene concurrently on July 17, 1939.

In the absence of specific instructions from the Secretary of State you are not authorized to enter into any oral or written agreement which might be construed as committing this Government to any definite course of action. It is understood that no expense incurred in connection with your appointment will be chargeable to the Department of State.

You

You are requested to submit as soon as convenient after the termination of the meeting of inspectors a brief report of the activities and results of the meeting. There is enclosed an outline of the information desired, which should be followed as closely as the nature of the meeting permits.

The object of your journey entitled you to make application for an official passport.

You are requested to inform this Department of the name of the ship upon which you will return to the United States, the port of entry, and the anticipated date of arrival. This information should be received by the Department of State at least three weeks prior to your return.

Very truly yours,

For the Secretary of State:

George S. Messersmith Assistant Secretary

Enclosures:

1. Certificate.

2. Outline.

ADDRESS OFFICIAL COMMUNICATIONS TO THE SECRETARY OF STATE WASHINGTON, D. C.



DEPARTMENT OF STATE WASHINGTON

OUTLINE OF INFORMATION DESIRED IN REPORTS SUBMITTED BY AMERICAN DELEGATIONS TO INTERNATIONAL CONFERENCES

I. Name of Conference or Congress.

A. Place held.

B. Opening date.

C. Closing date.

II. Agenda.

III. Representation.

A. List of countries represented by official delegates.

1. Total number of delegates present.

B. Names of American delegates present.

IV. Organization of the Conference.

A. List of principal committees.

V. Results of the Conference.

A. Resolutions adopted, giving texts.

1, Comment.

B. Conventions or treaties concluded, giving texts.

l. Oomment.

C. Important points on which no agreement was reached.

1. Comment.

D. Publications.

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4

1. It is important that a full set of Conference documents and publications accompany the report. If, however, documents or publications for any reason are not enclosed, information should be given as to:

- a. Titles.
- b. Contents.
- c. Place where they may be obtained.
- d. Cost.

E. Part taken by American delegation,

F. Action taken by the Conference with regard to future meetings,

VI, General comment.

A. Importance of the Conference.

1. To the United States.

2. In general,

B. Recommendations regarding American participation in future conferences of this series.

-2-

SIMON'S TOWN, SOUTH AFRICA OCT. 31, 1937

ULYSSES CATCHES FIFTEEN MILES OF WHALES

FOR ANTARCTIC AFTER AUSTRALIAN SEASON

AFTER three months' extensive work in the Western Australian whaling grounds, the American whale factory ship Ulysses is in Simon's Bay, waiting to be drydocked to-day before leaving for another whaling season in the Antarctic.

The Ulysses and her catchers operated from July 24 to October 8, during which time 2,037 whales were caught, from which a cargo of 13,330 tons of whale oil, valued at upwards of £300,000, was extracted.

It is expected that she will leave Simon's Town during the week-end, going to Walvis Bay to pick up new fleet of catchers before going to the Antarctic.

OIL WORTH £300,000

SIMON'S TOWN, Tuesday.

FOR the first time in almost half a century the Stars and Stripes of the United States of America are being flown at the Naval Port, where the large American whale factory ship Ulysses arrived yesterday and anchored in the bay.

Five months at sea since sailing from Norway in May last, the Uysses is straight in from the Western Australian whaling grounds where she has had a successful sea-SOD.

American owned, the expedition is manned almost entirely by Nor-wegians, but six Americans and two South Africans are in its complement.

ment. The Ulysses has been operating with eight catchers, the A.N. num-bers 1, 4 and 5, the Kos 1, 2 and 9, the Hval 1 and the Ross 1. None of these catchers will be permitted to take part in the coming Antarctic season, and, instead of accompany-ing their parent ship to Simon's Town, they have gone up to Walvis Bay, where they will be laid up. Immediately the Ulysses has com-

Immediately the Ulysses has com-pleted at Simon's Town she will also go to Walvis Bay to pick up a new squadron of catchers and then head south again for another five months in the Antarctic. The Ulysses is inaugurating a new

The Ulysses is inaugurating a new good the ravages of a strenuous custom in respect to whaling expedi- whaling season.

(From the Cape Times Correspondent) tions, in being the first big factory ship to dry-dock, refit and turn about at the Cape instead of proceeding home to Norway for this purpose.

The advantage of a 6,000-mile start in the race to find the whales is a valuable one, and it is known that the Ulysses' experiment is being closely waiched by other companies. It is likely to be followed by other expeditions, which would be of con-siderable commercial value to South Africa.

TOO BIG FOR CAPE TOWN

Being too big for Cape Town's dry-dock, the Ulysses has brought much needed employment to many men at Simon's Town and in the South Peninsula, while Cape Town firms will also benefit considerably as a result of large purchases of stores and equipment.

Simon's Town's big naval dry-dock can comfortably accommo-date the largest factory ship afloat, and it is known that the Naval authorities are willing to do all they can to assist in meeting the dry-docking requirements of the big ships.

All preparations have been made at Simon's Town for a record job. As soon as the Ulysses anchored in the bay workmen from the Naval dockyard swarmed aboard to make

She will be dry-docked on Wed-nesday and gangs of men specially engaged for the purpose will thor-oughly scrub and scrape her huge hull. Two coats of paint, specially imported from England, will be given to the whole of the underwater por-tion of the Ulysses in readiness for the Antarctic. The Illysses is commanded by

The Ulysses is commanded by Captain Gans Mauriz Mikkelsen, a genial Norwegian who has spent his whole life at sea. Born at Greenock, in Scotland, aboard a Norwegian sailing ship, Captain Mikkelsen in Scotland, Captain Mikkenson never came ashore to live until he years of age. Back at never came assure to nive of never senter as was seven years of age. Back at sea again within a few years, he made his home in America, and holds the rank of Lieutenant-Com-mander in the United States Navy Reserve.

Captain Mikkelsen's last call at a Union port was in 1908, when, serv-ing aboard a windjammer, he called to deliver a cargo of Swansea coke at Walvis Bay.

SUCCESSFUL SEASON

The Ulysses has had one of the The Ulysses has had one of the most successful seasons yet experi-enced by any expedition in tropical waters. She arrived at Shark Bay, off the coast of Westerp Australia, on July 24, and when she ceased whaling and headed for Simon's Town on October 8, her catchers had captured 2,037 whales, resulting in a carron of 13 300 torse of whale oil cargo of 13,300 tons of whale valued at upwards of £300,000. oii.

The Ulysses' biggest catch was' The Ulysses' biggest catch was 44 whales in 48 hours, after which orders had to be given to the catchers to "ease up" to let the factory ship cope with the job of dealing with the record catch. Stretched head to tail, the Ulysses' season's catch would stretch for 15 miles of whales.

An interesting feature of the Ulysses' big catch was the fact that six of the whales captured were found to contain the specially marked darts with which the R.R.S. Discovery II is tagging whales in the Antarctic, thus proving the north-ward movement of the whale shoals

ward movement of the whale shoals during the Antarctic winter season. The darts, with full particulars of the whales from which they have been taken, have been sent to Eng-land to the Discovery's Committee, where they will furnish valuable data.

Scated high up in the Captain's quarters of the Ulysses one would imagine oneself to be in a modern hotel apartment, with its panelled walls and pastel-shaded and soft furnishings. On the deck the latest in automatic telephones is connected to every part of the ship. A quarter of a million pounds

(Continued in pext column.) ٩

-worth of the Ulysses' whale oil carg Jassed through Cape Town last weel in the tanker, Charles Racine, bound for New York, and close on anothe. 1,000 tons are aboard at present having been collected since the tanker sailed from Shark Bay.

U.S.N. OFFICER ABOARD

Aboard the Ulysses also i: Lieutenant Walsh, an officer of the United States Coastguard Service. who accompanied the expedition as Whaling inspector on behalf of the United States whaling department at Washington.

Claimed to be one of the most up to date whale factories afloat, the Ulysses can deal with a 45 foot humpback whale in 35 minutes from the time it comes aboard through the huge slip built in the stern of the veiscl

Vessel, Winches and derricks are every-where to facilitate handling the whales and huge saws, conveyer belts, bone grinders and bollers are ranged along the decks to ensure that not a scrap of waste takes place.

not a scrap of waste takes place. As soon as the Ulysses is finished at Simon's Town she will go to Wal-vis Bay to pick up a squadron of more powerful catchers than accom-panied her on her last trip. With these in company, she will head south again, the vanguard of the huge armada now steaming for the Antarctic. The Ulysses is expected to be out about six months before reaching New York after her double season. season.

A sister expedition, but smaller than the Ulysses—the factory ship Frango—is due in Table Bay on Saturday next en route to New York. Bay ou York.

Saturday next en route to New York. Although the Frango operated for about five weeks longer than the Ulysses, she collected 35,000 barrels less than the Ulysses. The Ulysses' crew will spend a few days ashore at Simon's Town. They have not set foot ashore since June 12-140 days-and will put in another five months at sea after leaving the Naval Port.

THE ULYSSES EXPEDITION

The expedition was owned allegedly and operated by the Western Operating Corporation of Wilmington, Delaware, under United States Whaling License #28. The enterprise was formed to carry out pelagic operations under the United States Flag and the license was obtained under the pretext of resurrecting Whaling in the United States.

In April, 1937, I met with the principals fostering the expedition on this side of the Atlantic at Lower Broadway, New York City. They stated the intent and purpose of the expedition as heretofore stated. They claimed positively the Whaling operations were going to be in the Indian Ocean and the Ross Sea. Also, that the ship was outfitting in Goteborg, Sweden and ready for sea.

Sailing from New York on the Gripsholm, I arrived Goteborg 11 May 1937. The ship was in dry dock and only fifty percent converted from an oil tanker to a whaling factory ship. The master was a naturalized U.S. citizen of Norwegian ancestry. He never heard of the people in New York, nor did the crew.

I lived ashore in a nearby hotel.

I soon learned the people in New York did not know what they were talking about concerning the itinerary of the ship nor its operations even though they claimed they had invested two million dollars. The whole deal appeared to be Norwegian with a man by the name of Anders Jahre, a Norwegian whaling tycoon of Sandefjord, Norway, being the boss. The master never heard of the Ross Sea for a destination. The entire expedition was made up of Norwegians. I was the only native born American. All hands signed on in foreign ports.

The situation aroused my suspicions that this was not a United States flag operation.

The ship was not ready for sea 26 May 1937 in my estimation. Tugs had to pull her out of drydock. She listed immediately about thirty-five degrees to starboard. Photographs confirm this condition. Cargo piled high on deck rolled over the side. We just missed several ferries in the harbor. Proceeding precariously, we anchored five miles outside the port. The ship flopped from starboard to port while anchored. We lost all power. I went back to Goteborg.

The ship had to return to the shipyard. After they added about eight hundred tons of ballast in the stern, we finally sailed for Sandeford on 11 June 1937.

It did not take long to confirm my suspicions that the expedition was a farce under the U.S. flag; that the purpose was to run it as a Norwegian business under the U.S. whaling license in order to dump the oil duty free in the United States. Anders Jahre was the boss. He owned and operated several whaling factory ships under the Norwegian flag.

If this expedition had been run by Americans under the U.S. flag, they would not have had access to the Norwegian whale gunners, the killer boats, nor the factory workers on the Ulysses that processed the whales. The Norwegian Whaling Union would not have allowed it.

The Norwegians had learned a bitter lesson from their experience with the Japanese years before. The Japs had hired Norwegian whale gunners and other Norwegian whaling experts to run their business for several years. Then the Japs got rid of them and ran their own expeditions which rivaled the Norwegians in the business.

There was an ill wind blowing this ship along. To confirm this statement, it is suggested the news items be read in the files from the Norwegian newspaper, "Peoples Newspaper, Skien, Norway, October 30, 1937." This reflects the fires on board and the powder magazine explosion 5 October 1937.

There is no doubt if the water tight door of the magazine had been dogged completely, the ship would have foundered. I examined the powder after the fire when sixty cases were stacked on deck. It was apparent the powder was breaking down because of the heat in the magazine. I told the master if he did not throw the powder overboard, I was leaving the ship. The crew refused to work. After two days the powder was jettisoned. The crew returned to work.

When my suspicions were confirmed that the legal operations of the ship were questionable, I notified Headquarters via the code I had with me. All hell broke loose in Washington. Congress, the State Department, and Customs became involved along with Congressman Bland of Virginia. He was interested in the cotton seed and fish oil interests. Some of the whale oil being transported from the Ulysses to the United States via tankers was not allowed to enter until a bond covering the value of the cargo was posted by the Corporation.

Lt. Comdr. Merlin Oneill (later Commandant) had a purview of the situation at Coast Guard Headquarters, Washington.

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I suggest the file of coded and decoded messages at the Academy be perused to understand the background of what happened.

The State Department and the Federal Court in Norfolk, Virginia, were involved eventually with the legal aspects. Illegal whales had been killed and navigation laws of the U.S. had been broken.

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Regardless of what happened, the Corporation made a two million dollar net profit on their investment in 1937-38.

When I was assigned to this duty, Lt. Comdr. Oneill, who was number two man in Operations at Headquarters under Commander Derby, directed that I not only enforce the whaling laws but I was to make a detailed report to reflect all aspects of pelagic whaling. Oneill stated the Coast Guard and the government did not know anything about such operations. They had to be indoctrinated.

The Ulysses organization was unique. Hans Mikkelson was master of the ship. However, another Norwegian, (Hanson) was manager of the factory part of the operation; processing the whales when they were hauled aboard. The whale gunners had their own contract with the owners, which were drawn up according to the Norwegian whaling laws. This arrangement allowed the gunners to kill thirty foot humpbacks but the legal U.S. limit for this species was thirty-five feet. It took a lot of doing on my part to change this during the operations in Australia where the humpbacks were the only whales available. After some heated discussions, the U.S. law was observed.

Mikkelson, the factory manager, the whale gunners and the factory workers were out to make money. Walsh was out to enforce the law. When the law conflicted with their pocketbooks, the Norwegians favored their pocketbooks. Being the only inspector aboard, I know they processed illegal whales and threw the meat overboard, instead of boiling it down, when I was not present. When whales were available the ship operated twenty-four hours per day.

The Australian inspector, aboard during the Shark Bay season, as required by the Australian license, was a useless individual. In all frankness, he did nothing. He was not aware of the Australian law, even though we were in Australian waters from July 24 to October 8, 1937.

I enjoyed what may be described as an "antagonistic friendly relationship" with all hands. I would deal only with Mikkelson in solving problems. There were many occasions when we had some heated discussions, to put it mildly. He

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was told he was responsible to observe the United States whaling laws and would have to answer for it when the ship returned to the United States. However, I realized he had to make money for the owners and, if he did not, he would be replaced in damn short order.

He realized I was going to enforce the law. I think his attitude, on the surface, was to cooperate with me when he had to, while planning to let the owners and their lawyers take care of him when he returned to the United States to face the violations.

Off the whaling grounds Mikkelson and I socially accepted each other, but guardedly.

There was a friendly rivalry between me and the ship's officers concerning our navigational results involving the ship's nautical position. I took sun and star sights daily. The ship's officers took only sun sights. They put more faith in my positions after I plotted twelve miles ahead on making the Chagos Archipelago for the landfall at Diego Garcia, which came at dawn.

(I am going to be immodest here with a little bragging. I was the only officer who got a perfect mark on the navigation promotion exam about October 1939.)

Strange as it may seem, the Norwegian master gunner controlled the expedition during the Antarctic season. He gave the orders for positioning the factory ship, deployed the killer boats and determined how many whales should be taken daily. This situation arose because he was considered the leader from his previous excellent performance on other expeditions.

In 1939 I was one of three delegates appointed by the State Department to attend the International Whaling Conference 17-20 July 1939 in London, England. The other delegates were Lieutenant Commander Alfred C. Richmond, USCG (later Commandant) and Herschell V. Johnson, Counselor, American Embassy, London, England. (There is a complete file on this conference at the Coast Guard Academy.)

It was at this time I sowed the seeds that eventually led to the demise of pelagic whaling under the United States flag. The Ulysses made two more trips but she did not make "two seasons" on either of these voyages.

By "two seasons" is meant the Ulysses would go to the Indian Ocean, then proceed and outfit in a foreign port for the Antarctic without returning to a United States port. Then she would come to the United States at the end of the Antarctic season. This arrangement saved money in travel time, simplified the signing on of personnel for the expedition, all of whom were Norwegian. Also, it prevented trouble with United States navigation laws and the Norwegian Whaling Unions. In short, the company running the expedition could not make as large a profit. A "one season" arrangement allowed the ship to go to either the Indian Ocean or the Antarctic from the United States; then she had to return to the United States. In other words, she could not go to the Indian Ocean and then to the Antarctic as she did when I was aboard.

-Financial profits was the governing factor, and not the preservation of the whales.

There is no doubt the whales were becoming scarce. In 1937 to 1939 Norwegian, German, British, Japanese and Russian expeditions were slaughtering them by the thousands each season in the Ross and Weddell Sea. Eventually, the expeditions resorted to the use of airplanes and sonar to locate whales. If the Ulysses was capable of producing more fresh water during 1937-38, we could have killed another five hundred to a thousand whales. These were baleen whales. We only took a few sperm whales to use as fenders while loading or unloading the killer boats, etc. alongside.

I was aboard the Ulysses for ten months. We cruised 29,950 miles and killed 3,665 whales. While in Shark Bay, I visited Carnarvon, Australia three times and stayed ashore only one night.

While the ship was in Simons Town, South Africa for nine days, I visited Cape Town for five days. The ship was in Walvis Bay, South West Africa, for two weeks. I got ashore twice.

The Antarctic season ended 15 March 1937. The Ulysses factory workers were transferred to other Norwegian factory ships in the area for the voyage to Norway, accompanied by our killer boats which we had fueled and provisioned prior to their departure.

The Ulysses had departed Cape Town December 1, 1937, for the Weddell Sea and left there 16 March 1938. We proceeded directly to New York and did not see land until we sighted Sandy Hook, New Jersey, on 11 April 1938. Thus, we were 132 days at sea and never saw land.

-5-

This might be some kind of a record for a Coast Guard officer to be at sea without making a landfall or entering a port for 132 days.

After only four months aboard the Ulysses off Australia, I learned that my assignment to the expedition was to be classified as "special duty", not "sea duty". I got word to Headquarters that if any of those gold bedecked bastards did not think I was on sea duty, then I wanted those sons of bitches to try and walk ashore. I learned later the letter was received with a great deal of humor and hilarity. It was duplicated and circulated widely. I was told that a copy of it got to the Academy where it was read by one of the instructors to his cadet classes.

Anyway, I got credit for sea duty. Headquarters assigned me to the Academy on temporary duty for three weeks to write my report. Fort Trumbull base was to furnish a chief yoeman for dictation, typing and duplication. They called every day to find out when they were going to get their man back.

There were at least five copies of the report sent to Headquarters. The two volumes now at the Academy were for my personal file and the only ones available to my knowledge.

I look back on this assignment with a great deal of satisfaction and a feeling of accomplishment.

In the long haul, I was instrumental in stopping pelagic whaling under the U.S. flag. Eventually this helped to save some of the baleen whales from extinction. Pelagic whaling stopped when it was no longer comercially profitable.

ULYSSES EXPEDITION

29,000 Mile Voyage; 3,665 Whales Killed

April 1937 to April 1938

On Special Assignment from Coast Guard Headquarters to Enforce Whaling Treat Act.

May 1, 1937 --- Departed N.Y. on Swedish Liner, "Gripsholm" May 11, 1937 -- Arrived Gotherburg, Sweden May 26, 1937 -- Boarded Ulysses in shipyard dry dock June 11, 1937 - Departed Gothenburg June 12, 1937 - Arrived Sandefjord, Norway June 13, 1937 - Departed Sandefjord June 15, 1937 - Arrived Southampton, England June 16, 1937 - Departed Southampton June 17, 1937 - Big fire in ship's firercom June 20, 1937 - Passed Gibralter June 26, 1937 - Arrived Port Said, Egypt June 26, 1937 - Transitted Suez Canal June 30, 1937 - In Red Sea; sand storm; 98° F., midnight July 2, 1937 -- Off Yemen; taking fuel oil from tanker July 4, 1937 -- Gulf of Aden, burried crewman at sea July 6, 1937 -- Rounded Socotra; entered Indian Ocean July 8, 1937 -- Another fire; cut plate out of starboard side due to heat below decks July 10, 1937 - Crossed Equater - 66° 11' East July 12, 1937 - Arrived - departed Diego Garcia; Chagos Archepelago July 22, 1937 - Killed ten of thirty pigs aboard July 24, 1937 - Arrived West Coast of Australia Oct. 5, 1937 -- Catastrophic Fire aboard Ulysses - Powder magazine blew-up Oct. 9, 1937 -- Departed Australia Oct. 31, 1937 - Arrived Simons Town, South Africa Nov. 2, 1937 -- Visited Cape Town, South Africa Nov. 10, 1937 - Departed Simons Town, South Africa Nov. 13, 1937 - Arrived Walvis Bay, Southwest Africa Nov. 27, 1937 - Departed Walvis Bay Nov. 30, 1937 - Arrived Cape Town, South Africa - fuel Dec. 1, 1937 -- Departed Cape Town for Antarctica Dec. 5, 1937 -- In the "Roaring Forties" - rough Dec. 8, 1937 -- Pack Ice and Icebergs (huge) Dec. 9, 1937 -- Commenced killing whales, Weddell Sea, Antarctica March 15, 1938- Terminated whale operations March 18, 1938- Departed Weddell Sea for New York April 11, 1938- Arrived New York

CARNARVON, AUSTRALIA

THE NORTHERN TIMES

ROUND ABOUT BY "AUDANTA"

A BREAK FROM WHALES.

To most people who live in the Nor'-West, sheep stations are just common-place things, of course, and are not looked upon as being places where one can find much novelty--though, strange as it may seem, there are quite a number of "townites" who, though claiming familiarity with stations, sheep, and all pertaining thereto. would probably find that life, work, and scenes out in "the scrub" hold much that is really quite unknown to them. But to the gentlemen who live, move and have, their being in the atmosphere of whale oil on the fleet now at work off our shores, the chance of a visit to a station was welcomed us an enjoyable break from their everyday business of converting whales into so many barrels of oil, and DANCERS WANT MORE ROOM. also as an opportunity to see what to them was something quite unique. The apportunity came last Saturday, when a visit to Boolathana station was arranged, and a party of the officers from the fleet were taken out by Mr. Shallcross, of Elder Smith and Co., and Major Cheuery. One of the party, Lieut, Walsh, who halls from "The States," was particularly interested in this sheep "ranch," and, no doubt being inspired by the deeds of during of his connatriots who made so much history, and gave novelists so much material for blood-and-thunder ndventure storles of the "wild west," decided to see something of the station from the suddle. The result was, according to his companions, that he afterwards found it difficult to regain his sea legs-and also, for a while to take his meals from the usual posltion on a chair. It is strange that seafarlug men so often seem to flud some great attraction in horse-riding; and generally find, like they យីមេ lieutenant, that the after effects leave much to be desired. However, the broncho-busting Texas Ranger, as he has been alluded to since his equestrian efforts, majorning that he greatly enjoyed his expedition, and now claims a bond of relationship with bls.Auttralian friends-for, in his own

words: "Having left approximately 14 square lucies of my skin on Major Cheneys saddie, 1 guess 1 am now just about 50 per ceut Anzac." The young American officer was also not a little interested in the Boolathana goldfish pond. Seeing the goldfish happily swimming about he cast a suspicious look in the direction of his companions from the fleet. Then he called to Major Chenery: "If you've got any humpbacks in that pond I guess you'd better lock them up before Captain Mikklesen sees them." Of course to get the full signifiance of this sally, you must know that humpbacks are whales, of the species that are providing the whaling fleet's harpoon gunners with so much practice out from here.

21 August 1937

Visited Boolathana Sheep Station outside Carnarvon Australia. Major Chenery was my host. Holds Victor Cross - WWI.

Boolathana Station has 350,000 acres and sixty thousand sheep.

(Translation of News Item from the Norwegian Paper "Peoples Newspaper") (Skien, Norway, Oct 30th 1937. Regarding Gunpowder Explosion-ULYSSES)

Headline: "ACCIDENTS CONTINUE TO BESET WHAKER ULYSSES. Sub-Head: "There has been explosion in Gunpowder room but through miracl no one injured."

ITEM: The Whaler Ulysses which has aboard a great number of men from Skien and Porsgrunn seems continually to be in bad luck. Troubles began in Gothenburg when the vessel nearly capsized, and ever since there has been a little more here and there. In previous letters from members of the Expedition we have learned of deaths and sickness. There has not been less than three fires aboard and now, on October 5th, we learn of a powder explosion in the gunpowder magazine. It is only a miracle that the "Vestfold Abeiderblad" has had permission to copy excerpts from letters received from some of the crew aboard. We copy verbatim.

THREE CASES GUNPOWDER BLOW UP "I must say I'm a lucky slob to be able to write you. We have been near death, all of us. On the night of the 5th inst. the fire alarms rang for the fourth time. Can you imagine what was burning this time? No? Just the powder magazine...three cases amongs 160 others. So you see, It's a miracle we are alive."

"You understand we have the powder magazine at a place where 60 degrees centigrade exists beneath. Three cases went up as said, but luckily the iron door blew out allowing air into the chamber immediately, which saved us. A full fire raged but three men were able to stand in the damaged doorway with hoses and you can bet it was no pleasant job. They were heroes. Think of sprinkling water on a 160 cases of gunpowder in a flaming chamber, about five tons of it. We thought everything was quits.

"All this comes of carelessness. Some seven weeks ago we had a fire in the cookery beneath the magazine and we asked for a change but were answered that it was not dangerous. But the temperature has been over 40 degrees centigrade the whole time in spite of the fact that the powder factory warns that the powder must not be kept in temperatures of over 40 degrees (cent) for protracted periods." The letter closes with the statement that other plans for keeping the powder will be made at Capetwo

In another letter we learn the following: This fire we will never forget. Just imagine a room the size of a bedroom loaded to the top with gunpowder...and nearest the door, three cases explode. Flames leaped to the mast tops, the fire lasting 30 minutes. Can anyone explain why the remainder failed to blow up? The door, a thick iron affair was blown 15 meters, smashing against the rails. We stood by the lifeboats, but some could not be lifted. We were like a louse between two thumbnails. In the sea were swarms of 20 foot sharks....so the outlook was good.

The letter continues with expression regarding the temperature of the magazine and quotes warnings from the manufacturers regarding the 40 degree mark. At the close the writer remarks that the only solution for storing powder aboard is introverse control to cookery and line the bulbeads with to isolate the chamber from the hot cookery and line the bulbeads with six inches of cork. The chamber which exploded is now demolished and the 5000 Kg of powder involved in the blaze has been cast to sea.

The Paper adds: The men aboard have taken mananrag of the situation and instant that meder of the situation and