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THE PROGRAM OF THE INSTITUTE

The Seamen's Church Institute of New York, an agency of the Episcopal Church in the Diocese of New York, is a unique organization devoted to the well-being and special interests of active merchant seamen.

More than 753,000 such seamen of all nationalities, races and creeds come into the Port of New York every year. To many of them the Institute is their shore center in port and remains their polestar while they transit the distant oceans of the earth.

First established in 1834 as a floating chapel in New York harbor, the Institute offers a wide range of recreational and educational services for the mariner, including counseling and the help of five chaplains in emergency situations.

Each year 2,300 ships with 96,600 men aboard put in at Port Newark, where time ashore is extremely limited.

Here in the very middle of huge, sprawling Port Newark pulsing with activity of container-shipping, SCI has provided an oasis known as the Mariners International Center which offers seamen a recreational center especially constructed and designed, operated in a special way for the very special needs of the men. An outstanding feature is a soccer field (lighted at night) for games between ship teams.

Although 55% of the overall Institute budget is met by income from seamen and the public, the cost of the special services comes from endowment and contributions. Contributions are tax deductible.

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SEAMEN'S CHURCH INSTITUTE OF NEW YORK 15 State Street, New York, N. Y. 10004 Telephone: 269-2710 The Right Reverend

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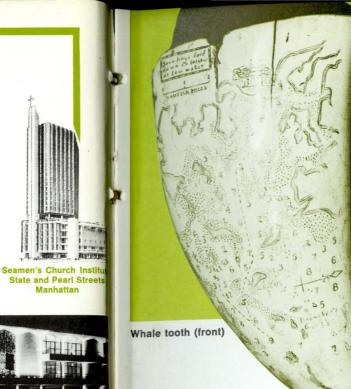
Mariners International Center (SCI)

Export and Calcutta Streets

Port Newark, N.J.

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COVER: "Cutting In," painting by George Dale. (Wrenching out of jaw of sperm whale.) From collections of Marine Historical Association, Mystic Seaport, Mystic, Connecticut.



MARINE ART BONANZA by Joseph C. Salak

In the 1840's, when whaling was at its peak, ships were often at sea from two to four years. Frequently, a whale wouldn't be sighted for months and to pass the dull time — between the sheer excitement of "thar she blows" — the seaman found an escape from insufferable boredom in his jackknife.

With this indispensable seaman's tool he would carve the long hours away on whale ivory and any other material available. Some, so desperate, even did fancy embroidery and dainty needle work. And none of the crew ever dared laugh.

This marine art is so much in de-

mand today by collectors of Americana that it has not only become big business but encouraged forgeries.

The most popular of this pastime art, with seamen away from home and loved ones for long periods of time, was called "scrimshaw" — with a knife and a sailmaker's needle, carving on whale ivory such subjects as ships, tropical islands, flags, yes, even whales or, in the case of a young homesick sailor, a pretty girl's face with the Gibson purity.

This scrimshaw art, of past generations of men who were lured to ships and the sea, chronicled disasters, recreated events, or portrayed patriotic symbols, all painstakingly carved on teeth from the sperm whale.

These primitives are particularly sought for by collectors and for good reason.Witness the success of Grandma Moses (Anna Mary Robertson Moses, 1860-1961), who began painting in her 70's and became an instant sensation with primitives depicting scenes of farm life.

During voyages out of New England ports — to remote fishing banks; or in search of the giant sperm whale; or in trade runs to the Barbadoes, Trinidad or Port au Prince, sailors also spent idle hours sculpting in wood.

Returning to shore, they arranged to have their handiwork cast in metal. In lieu of cash, they'd relinquish all claim to the original wood carving in exchange for the metal casting.

As a consequence, today dealers are prospering, marketing rustic driftwood models of sperm whales with a knot for an eye; sperm whale coat racks with actual boat cleats for hooks; and wall plaques of the humpback whale hand-carved and finished in antiqued blue.

The dramatic saga of whaling is further kept alive and captured in stirring black and white prints by the nautical illustrator, Robert J. Pailthorpe.

More than a century ago the ingenious crewman originated his own "do it yourself kit" by simply transferring

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(Photo at left): Whale stamp (Center): Line illustration of whaling in the 1840's.

(Photo below): Pen stand

Scrimshaw photos from collections of Marine Historical Association, Mystic Seaport, Mystic, Connecticut.

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pictures from Harper's Weekly and Godey's Lady's Book.

He neatly cut a picture out, pinned it onto the whale's tooth, and pricked the outline of the illustration. Then he removed the picture and joined the pinpricks of the transferred outline to form the complete picture on the tooth. To achieve a polychromed effect, dyes were used to color certain parts. His primitive sources for darkening-in the incised lines were India ink, soot, tobacco juice, tar and ashes.

Besides producing simple scrimshaw art, many more useful objects were carved which have long since become collectors items. These included blocks for the running rigging, fids for splicing line, belaying pins, tool handles and ditty boxes for personal belongings.

Only a seasoned connoisseur, or a marine museum director, can detect the difference between American and English scrimshaw.

English sailors always engraved their teeth much deeper than the Amer-

icans. Their subject was usually mythological while the American was more realistic. If the English tar's subject was a whaler there would be the British ensign flying from the rigging. They also inscribed their name and home town.

A sailor's most inner thoughts were often unconsciously reflected in what he carved. So it was that a married seaman who was intimately familiar with female conveniences would carve out of whalebone, corset stays, rollings pins, jagging wheels for crimping pie crusts and, of course, toys, small eating utensils and shoehorns.

Perhaps the rarest, safe and secure in museums, are items like busks and ditty boxes carved and engraved from baleen, the fibrous, brown-black substance found only in the mouth of the baleen whale.

Seamen also found artistic release in carving ship models such as full-hulled vessels which, because mariners had spare time in abundance, were complete in every detail and almost perfect to scale.

For the less talented there was the shadow-box model. This, only half a ship, was set into a case with the sails, masts and rigging glued to the backing board. The base was solid and the hull rested upon simulated water made out of plaster of paris.

While the seaman was scrimshawing away the hours, engraving whaling scenes, showing men in whale boats battling the whales, the master of the vessel was far from idle.

He faithfully kept a "log" book, depending on his background, in cramped writing, or flowing Spencerian script; the spelling phonetically pungent, the text prosaic to them but dream-laden to landlubbers.

Many masters illustrated the pages of their logs, some in watercolors, some with pencil, often creating very beautiful masterpieces.

Others may have been crudely, but feelingly drawn and were always accurate and precise. The whaler's life glowed fiercely on the pages of such graphically illustrated logs.

The shorthand aspect of these lengthy daily recordings was accomplished by the use of carved handmade wooden dies or stamps; a tail on a stamp indicated a whale struck and lost; impression of a whole whale meant a kill; the number of barrels "stowed down" was indicated with LB, SB, WB (larboard, starboard, waist boats).

Most of the primitive marine paintings were done by artists with little or no formal art training, between the years 1800 and 1875.

The routine subjects were ships' captains, seascapes, harbor scenes, and ships, especially clippers. Naval engagements became popular with the War of 1812 and the Civil War as themes.

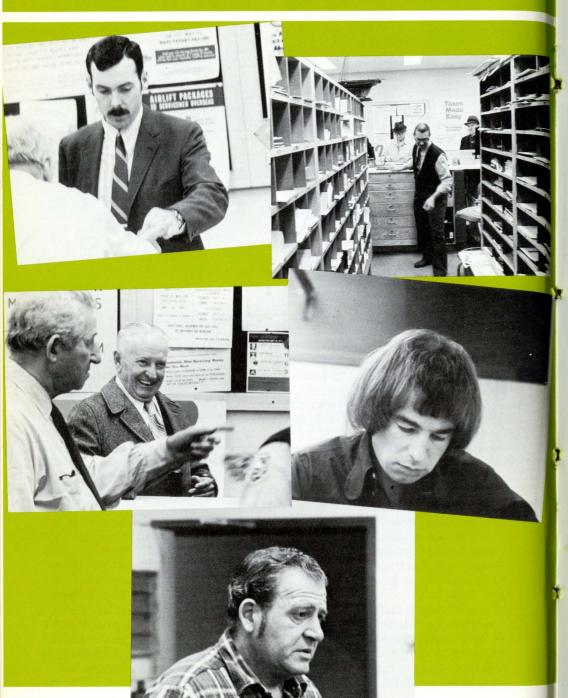
Because of popularity, scarcity and price an original engraved seven-inch whale tooth is now estimated to have a value of over \$700; it's alleged one New England dentist with his molar mechanical devices, has become so skilled as to professionally duplicate these rare antiques so authentically they smell of the sea, and only the most astute collector can detect the forgery.

As for the current bonanza; at the October, 1970, auction in New York's Parke-Bernet Galleries, a painting of an American ship by the 19th century English-born artist, R. Salmon, brought \$63,000.

One year later trade rumors had it that the same painting was being offered for \$100,000.

Still more amazing about the reviving interest in marine art is that it was probably conceived at the beginning of the 17th century when large-scale whaling was first organized at Spitsbergen, and a lonely, homesick Dutch seaman began to whittle, innocently enough, on a discarded piece of whalebone.

We are a kaleidoscope of the waterfront



kaleidoscope

The special seamen's U. S. Post Office station on the third floor of the Institute is always busy. It is especially so during the first few days of each month; that is when retired seamen living in the various New York boroughs come in to the Post Office to pick up their Social Security and other pension checks.

The Lookout editor positioned himself inconspicuously at the rear of the facility on one of those days and took candid photo shots of these men as they stood hopefully at the postal counter waiting to learn if their checks had arrived.

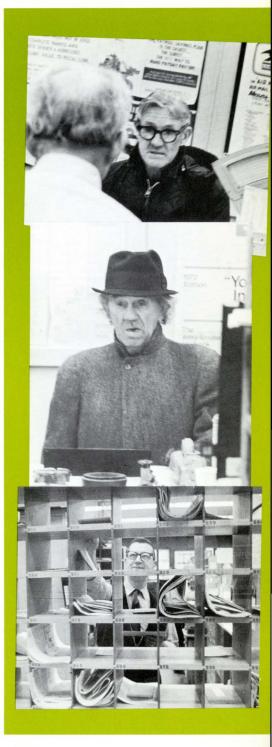
Many retired seamen, according to the postal men at the SCI station, prefer to pick up their checks at the Institute rather than at their home address even though this means a bus or subway ride to and from wherever they live.

They feel their checks are safe when in the custody of the SCI station; some of the men live in rooming-houses of dubious quality where mail is sometimes lost or stolen. Other seamen change their place of residence frequently.

The Institute did not always have a federal Post Office. Not until 1927 did the government establish special facilities in the old South Street building at the behest of the then SCI Director, Dr. Archibald R. Mansfield.

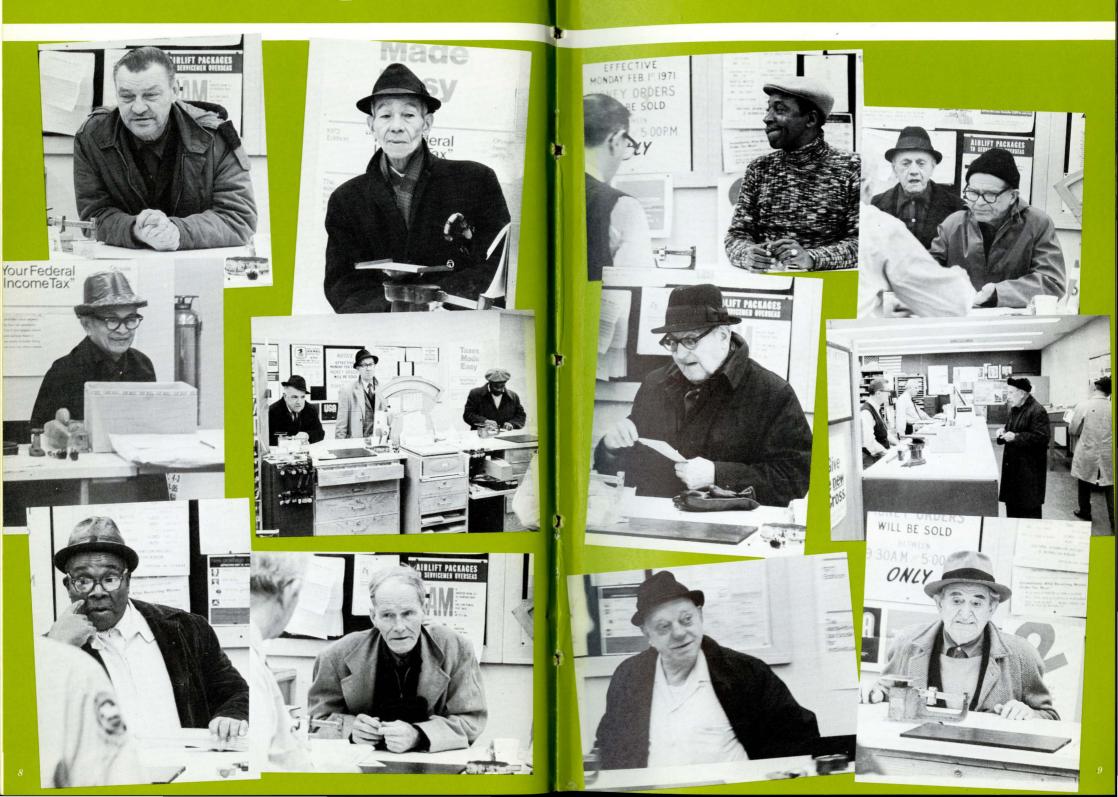
Prior to this, five people were employed full-time by the Institute to sort and deliver the letters that came to seafarers from all over the world. The Institute was handling the first-class mail of a small city but it was lacking the full postal facilities of a government station.

Following the federalization of the SCI mail office the government established five similar stations catering to the special needs of seamen in the principal American seaports; these were patterned after the SCI station.



kaleidoscope

kaleidoscope



kaleidoscope

kaleidoscope

The International Club at the Institute was jammed to capacity with seamen for the special St. Patrick's Day dance – the largest crowd at an SCI dance, perhaps, since the State Street building was opened in 1968.

A headliner woman magician kept her audience entranced – and baffled – by her magical feats, the sleight-of-hand and the pigeons which appeared out of nowhere and disappeared into the same mysterious limbo. A female singer sang classical as well as popular songs, exhibiting a remarkable vocal range.





When the girl at left asserted, with tongue-incheek, that she was Irish, she broke up SCI hostess Noreen Killilea (right), who was born and reared in Ireland.



Some 112 members of the Women's Council came to the Spring Luncheon at the Institute to hear reports on the past year's activities.

Merchant marine officers, preparing for renewal of their licenses, brush up on radar theory in the MARAD recertification center in the Institute. New U. S. Coast Guard regulations require demonstrable proficiency in the operation of radar by all officer radar observers as a condition of re-licensing.





The Right Reverend J. Stuart Wetmore, Suffragan Bishop of the Diocese of New York, made the official Episcopal visitation to the Institute Maundy Thursday and presided at the Service of Holy Communion which was celebrated by the Reverend Dr. John M. Mulligan, SCI Director. The Reverend Miller M. Cragon of the SCI clerical staff participated as the Chaplain to the Bishop. From left: Chaplain Cragon, Bishop Wetmore, Dr. Mulligan.





by Alice G. Tucker

The true story of Captain Kris and the <u>Rotula</u> first came to my attention in a sermon by Father John Vanden Berg, S.J., given at Gesu Church in Detroit in January of 1966. Father Vanden Berg was here for studies. His home is Nymegen, Holland. The story fascinated me to the extent that I had no peace of mind until I spoke with him about it. Father Vanden Berg vouches for its truth.

- Alice Tucker

"Father in Heaven, I must speak with you!"

Captain Kris of the Dutch tanker Rotula knelt in prayer in his cabin. There was an urgency in his voice as he addressed the Almighty. To kneel in prayer was not strange to this devout man. Throughout the years he was accustomed to pray regularly at least three times a day. This, however, was not part of the daily routine.

"Grant me light and understanding. Why must my men and I die like this?" He spoke as one man to another.

The *Rotula*, flying the Dutch flag and manned by a Dutch crew, was in the Irish Sea and was loaded with 11,000 tons of gasoline for the planes based in England. It was during World War II and there were six ships in the convoy but the escort vessel was some distance away when the attack came. Captain Kris was on the bridge when he saw two big German bombers begin their swoop toward the slow-moving, heavily laden tanker, March 1, 1942 — he knew his ship could not escape; he was powerless.

A loud explosion at the stern, the silence of the engines, and the sight of burning gasoline spreading rapidly from a huge hole aft confirmed his fears. In a moment he and his men were locked in a sea of flames. As fast as the lifeboats were lowered, just so fast

were they consumed.

Some of the crew seeing small openings in the inferno dived overboard but they, too, were destroyed. The back half of the ship was burning fiercely driving the men toward the bow. Other ships could not draw near without jeopardizing themselves in what was obviously a hopeless situation. It was at this point that the captain rushed into his cabin to pray.

"Why must my crew suffer? How do they deserve this? I do not understand but — Thy Will be done."

Returning to the bridge he witnessed the advance of the flames and the despair of his men. At that moment when he himself almost despaired, he received God's answer.

"The sea below is 300 feet; your anchor chains are twice that length. There is a current here."

"Drop the anchors!" cried the captain as he ran to the front of the deck.

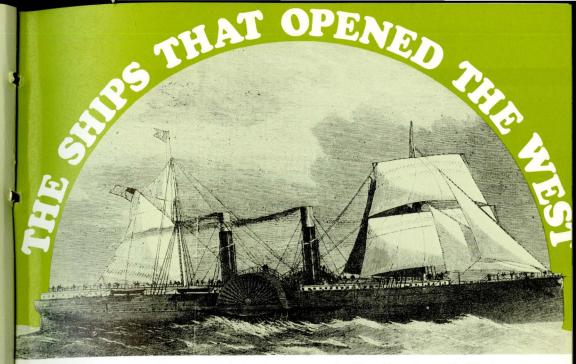
His immediate subordinates looked at him in astonishment. They thought the danger and shock caused him to lose his mind.

"He's mad!" they exclaimed.

The deckhands, accustomed to obey the voice of authority, hastened to do as directed. They raced to the anchor blocks, released them, and heard a noise like thunder as the two anchors plunged to the depths of the ocean floor and bit into it. Held firmly, the *Rotula* swung in a semi-circle away from the devouring flames of gasoline which now floated away on the current.

The other ships soon rescued the survivors. Upon being congratulated for his quick thinking and the maneuvering of the tanker, Captain Kris gave all credit to God.

"It was God's voice and His Will that this should be."



The story of ships and their contributions to the opening of the West has seldom been told.

Most of California's written history is preoccupied with great overland expeditions that crossed the mountains, deserts, and Indian-infested prairies under extreme hardships, but California owes much also to the thousands of hardy sailing ships and sailors that reached its shores.

From 1542, when Cabrillo sailed two bouncing caravels — short pear-shaped craft with high stern castles — ships have streamed to California to help build the West.

Even before California was wrested from the Spanish, "Boston ships" sailed here with goods — though the Spanish at San Diego would loft cannon balls at the intruders. Ships stopped along the coast and brought the Spanish-Americans on board to view showcases full of merchandise which they traded for hides needed by Boston shoe factories, tallow, and the lucrative sea otter skins which brought \$100 apiece in China ports.

The first ship to enter the Golden Gate with a good number of passengers was the *Brooklyn* in 1846. That was two years before the Gold Rush. When gold fever hit the nation, every navigable ship headed for California even if the average trip took 142 days around Cape Horn.

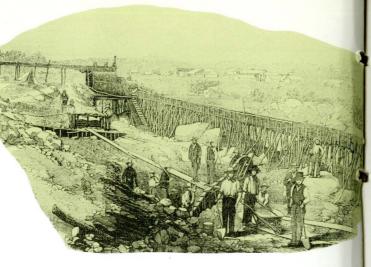
Paddle-wheelers, brigs, schooners, barques, anything that would float set sail. Some were in such disrepair that they had to be patched up with wood scrounged from South American jungles. Others were never heard from again. A few even perished within sight of California, crushed by offshore reefs.

Ships came pouring in from London, Lisbon, Liverpool, Malabar and Honolulu. It was not unusual to see 500 ships rocking at anchor in San Francisco Bay. Some came with smaller ships on their decks to run ferry service in the Bay. In a year some 700 ships hit San Francisco alone and most of these never returned. They were turned into hotels, brothels, stores and plain firewood when necessary.

The trip around Cape Horn at the tip of South America was a tough one with 100-mile-an-hour gales creating monstrous waves. Icebergs sometimes blocked their path. Yet thousands of <text><section-header>

WILLIAM MAYNARD YOUNG & CO.

THROUGH TO SAN FRANCISCO







ships came. After all, California needed supplies desperately during the Gold Rush. Ships that got here quickly could sell eggs at a dollar apiece and boots for \$50.

The *California* was the first American paddle-wheel steamer to enter San Francisco Bay and what a trip she had! When she reached Panama, 1,500 gold seekers had crossed the Isthmus and were waiting to board. The price of tickets skyrocketed to \$300 apiece.

- With so many ships sailing from the eastern seaboard to California, a shortage of ships occurred. This brought on a surge of American shipbuilding. That's when New England shipyards began to build the speedy "California Clippers" — lean and tall, with immense sails that sucked the last ounce of breeze from the sky.

They were pre-eminent from 1850 to 1860 when the American Merchant Marine became the finest in the world. Although the Clippers existed earlier, it was not until 1849 that they were fully developed as a sailing craft.

There were river steamers too, to take the gold miners right off the ocean vessels down the Sacramento or San Joaquin rivers to the gold fields. At first only sloops and schooners sailed the rivers, but when the paddle-wheeler *Senator* came in from New York she sailed the river in ten hours instead of three days.

When the first clipper set a record of 120 days the Eastern shipyards frantically began to build more. From 1850 to 1860, some 160 clippers were built and sent churning toward San Francisco carrying freight for the rapidly growing state. Every clipper sailing West tried to break the existing record and bets were placed much like on horse races today. Soon the record was cut to 89 days by *Flying Cloud*.

Profits were enormous. Flour was selling for \$44 a barrel and one ship brought home a net profit of \$80,000 on one trip.

After the clippers and the Civil War, new ships were designed to haul California's new gold — wheat — to eager European markets. These were the down-Easters. From 1870 to 1890 these heavy ships sailed around the Horn to England in six months. They came back from the Orient with silk, tea, coal, hemp, and sugar. By 1890 San Francisco became the third most important port in the world.

But even newer ships were in blueprint. Now the Iron Ships took over. Not that the down-Easter went out of business. They went up the coast to haul lumber and Alaskan salmon.

Ships were being built in California too, some as early as 1849. (The Russians actually built four 160-200 ton vessels back in 1815-23.) Local shipbuilding really boomed when the Pacific coast lumber industry got rolling around 1875 to supply the needs of the new inhabitants.

Shipyards opened right on the beaches near the lumber camps all along the coast to build the powerful lumber ships which carried the wood south. Matthew Turner in his California shipyards launched more vessels (228) than any other shipbuilder in the history of North America!

As California and the West grew, its need for mail service grew, and it was the ships again that brought it in. The Pacific Mail Steamship Company used paddle-wheel steamers to carry the mail between Panama and Oregon and all along the western coast. Soon the ships were carrying mail clear to China.

Whalers, too, had their influence on California. A whaling expedition out of New England to the Pacific usually took three years and whalers needed a stopover to resupply and patch up. Although Hawaii was their favorite nesting spot, California soon became the second best.

In time, California ports were used as temporary bases from which to extend their whaling activity as far as the Bering Sea, Japan and Peru. By 1855 over 500 whaling vessels used California harbors. From 1880 to 1900 San Francisco was the largest whaling center in the world. These ships didn't come here empty-handed either. They brought goods to sell, often undercutting local merchants. And when they took back glowing reports about the wonderful West, more emigrants set sail for this Shangri-La.

Steam and powered ships finally took over the shipping chores and many of California's early ships can only be seen now in museums or picture books. But these ships played a mighty big part in the early years.

can ships'cats avoid catastrophes?

by Alan Major

For centuries seamen have fondly kept cats aboard ship as pets. In that time there have been numerous cases of strange behavior on the part of the animals that have made mariners wonder if sea-going cats are able to foretell disaster and accidents, so much so that the old saying, "Watch which way the cat jumps," has at times had an ominous meaning.

For about a year a tom cat lived on board the island vessel *Joyita* which plied from Apia in Samoa to Maiana some 20 miles away. One day in 1955 the *Joyita* was on the point of sailing when the cat appeared on deck in an agitated condition, walked around the deck for a while then suddenly dashed down the gangplank and disappeared among the cargo on the wharf.

The *Joyita* sailed shortly afterwards and was not seen or heard of until two

months later when she was discovered north of Fiji, apparently abandoned, with her crew and passengers missing. Although an extensive search was carried out they were never found, so did the cat have a premonition of danger to come?

Another curious case was that of the ship's tabby cat aboard the tanker *Stony Point*. It had joined the ship ten months earlier and had settled down to a life at sea, until the tanker called at her last port before embarking on what was to prove the ship's final voyage.

As the tanker was about to sail the cat came up on deck and leapt a 20 foot wide gap on to the quay and evaded attempts to recapture it by shore workers. Eventually the tanker sailed and later collided with another vessel, the *Ioannis*, with a heavy loss of crew lives.

The British armed trawler Remindo

used to guard shipping in the English Channel between Portland, England, and Cherbourg, France, in the First World War. It was due to sail in search of German submarines on February 2, 1918, when the ship's pet cat leapt from the vessel's deck, landed on the quay and ran off.

The trawler sailed shortly afterwards and had hardly cleared port when she was torn apart by an explosion. Rescue ships raced to the scene but all that remained of the crew and disintegrated vessel was some floating debris. It was never discovered if the ship was mined or sabotaged.

In 1957 when the liner *Reina del Pacifico* struck a reef near Bermuda a ship's cat ran on to the deck and stared through the rails at the sea. Then it calmly walked over to a lifeboat and sat down to wait. The shock of the grounding had been so slight few of the passengers on board knew it had happened; but the cat had known and also where to go for safety when an accident occurred. But upon looking at the sea did the cat realize it could not save itself by jumping into the water, or did it somehow know it was in no danger anyway?

The British merchant ship *Tara* had a black cat which had seemed happy aboard ship. The *Tara* was one of the ships that took part in the famous Malta convoys to supply the island during the siege in the 1939 War, and the cat seemed accustomed to all the hell of gun-firing during some voyages.

But on one occasion as the ship was on the point of sailing, the cat became nervous, jumped into the sea and started to swim towards the island's shore. The crew lowered a boat, soon overtook the cat, hauled it out of the water and returned to the ship despite the cat struggling fiercely to escape again.

The cat was locked in a cabin and the *Tara* sailed. A week later the ship was torpedoed and sank in eight minutes. The cat went to the bottom with her.



But not all cat desertions occur because disaster is imminent to the ship it lives on. Sometimes the cat leaves to avoid a personal calamity. When the steamer *Saturn* was in port in San Francisco in 1903, the ship's cat gave birth to a litter of kittens among the freight on the wharf.

The cat was on board when the vessel began moving from the pier. The animal somehow realized what was happening and that her kittens would be left behind, perhaps to starve; it leapt overboard and swam over a hundred yards back to the pier, climbed a piling and ran to the kittens. The crew of another steamer saw what had happened and gave the cat and its family a new home.

Equally amazing is the case of a cat which was taken on board a ship in Liverpool by a man as a present for a friend. Several days after the ship arrived in Bombay and the cat was handed over as a gift, it was missed and after a search was given up for lost.

But the cat had made its way back to the ship, apparently not liking its new home, and stowed away on board, somehow knowing it would be taken back on the return voyage to where it started. Eventually the man in India received a letter from Liverpool to say the cat had casually strolled into its old home as if a trip to and from India was an everyday event for it.

Perhaps cats, those on board ship, anyway, do have some sixth sense or intuition enabling them to foresee trouble and this is the reason why they are claimed to have nine lives.

by D. England sailfish

Few of us realize that, apart from birds, some species of fish are the fastest moving creatures. Man's top speed over 100 yards is 9.1 seconds, working out at 22.5 m.p.h.; a racehorse has clocked up just over 42 m.p.h.; and hunting leopards known as cheetahs can reach a speed of 45 m.p.h. in two seconds from a standing start. Over 100 yards they are the fastest of all animals, getting up to 70 m.p.h.

The swordfish can beat it, although its maximum speed has never been accurately ascertained. But, remembering the astonishing feats of penetration achieved with their tremendously strong snouts, scientists put the allout velocity of swordfish at between 80 and 100 m.p.h.

One of the most impressive aspects of a swimming fish is the brief time it takes to "get into its stride," so to speak, making man look sluggish. The Marine Laboratory, Aberdeen (Scotland), and the Cambridge School of Zoology have done work on this. Small fish can reach top speed in less than a twentieth of a second, and the initial thrust that the fish exerts on the water may be as much as four times its own weight.

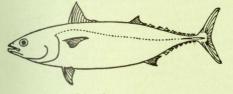
An equivalent human performance would be for a sprinter to spring from the starting blocks to top speed in just over a quarter of a second. In fact, he reaches top speed only in the second half of a 100-yard race. The reason is that a fish applies a higher proportion of its total muscle to moving its tail than an athlete does in getting thrust from his feet. In terms of "all out" speed it appears that a small fish can move in a short burst at a rate equivalent to swimming 10 times its own length in a second. The tail plays a vital role: the frequency of its movements is in direct proportion to its speed.

How does the greatest of all living creatures compare? Not a fish, one knows, but a true "denizen of the deep," since a whale can plunge to 100 or more fathoms. A British Scientific Expedition to the Antarctic made a report on the blue whale, which sometimes grows to a length of 90 feet, and has a weight of 120 tons.

The blue whale can raise a speed of 20 knots (approx. 23 m.p.h.) for a short burst of 10 minutes or so, and maintain $14\frac{1}{2}$ knots (16.5 m.p.h.) for some hours. A killer whale is swifter

still, and its top speed has been put as high as 35 m.p.h. It is the fastest of all cetaceans. These remarkable velocities are largely accounted for by the fact that 40 per cent of a whale's bulk consists entirely of muscle.

All cetaceans are capable of considerable speeds. Writing of a grampus, which is a blunt-headed dolphin-like species, an observer recorded: "The speed of the vessel in which I made the passage was fully 18 knots; but the little whale seemed to maintain its position with the same absence of effort as does the albatross over the mast-



bluefin tuna

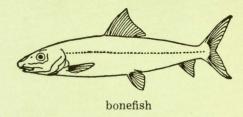
head of a swift steamer. Occasionally, with the same utter ease it glided ahead for a ship's length, then dropped alongside again, until its visiting time having expired apparently, it sheered off at right angles and disappeared."

The tunny's body is regarded as one of the most perfectly streamlined contours known to nature. The thickest part is in front of the middle, and the width diminishes gradually to the tail. This is known to engineers to be the shape which offers the least resistance, and is why a tunny is capable of high speeds. Canadian tunny fishermen equipped a line with a speedometer, which registered the rate at which a hooked fish went away. A 60 pound specimen topped 44 m.p.h., but the large ones of around 500 pounds are believed to be capable of higher speeds than this.

The tropical sailfish, which can grow

to 12 feet, is one of the fastest species. It has been timed at 68 m.p.h. That remarkable phenomenon, the flying fish, is not far behind it. The cine-camera has cast much light on its movements. It breaks surface at 15-20 m.p.h., and is almost horizontal at that moment. But it does not glide at once; instead "taxis" along the surface. It threshes the top of the water with its tail fin as this gives additional speed. Air speed has been estimated at anything between 35 and 55 m.p.h. Then follows the glide, which may last up to four seconds, carrying the fish 50 yards or so, and perhaps more with a following wind.

One must not overlook that comparatively small, though very fast mover, the bonefish. It varies from 3 to 10 pounds, and veteran anglers say it is one of the gamest of all species. Zane Grey, famous writer of Westerns, was an inveterate fisherman, and he had



great admiration for this particular species, saying "No other fish celebrated for swift motion is in his class." One angler who had hooked a bonefish reckoned that his catch hurtled out 400 feet of line at a speed of 40 m.p.h. It is the habit of the bonefish, if taken close inshore, to rush for the land at top speed. Such is its velocity that it has been known to rocket out of the water and land up on the beach, unable to check its headlong career earlier. Seamen's Church Institute of N. Y. 15 State Street New York, N. Y. 10004

Address Correction Requested

INTUITION

lichens growing on rocks

And see lights on waves.

Dorothy Mitchell Bechhold

dark with distance

a shell to my ear

a dream of hope.

I can hear

I place

And clasp

SECOND CLASS POSTAGE PAID AT NEW YORK, N. Y.

RECOVERY

I had a ship with silver spars And sails of silk and gold; A maiden was her figurehead, And gems were in her hold.

I had a ship with ivory decks, Lost in a sapphire sea; Your eyes have fired her signal lights – Now sail her back to me.

Breathe on her rudder and she'll return Cutting the green and blue, Ploughing through golden fires of dawn Where I can board her too.

John C. Evans

WHAT HOLDS THE SEA IN PLACE?

A hammering wind nails rain and hail Into breakers also pounding loudly. Submerged volcanoes weld wet depths To heights of islands sunning proudly.

Industrious fingers of surf endlessly Stitch at mending ocean edges, And greedy landfalls squeeze out shores Imbedding sea with rocky wedges.

Gravity also secures the ocean With weighted sky where white caps clown,

Where soundings plunge to clutch sea bottom Where molluscs clamp each fathom down.

Lloyd Stone

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