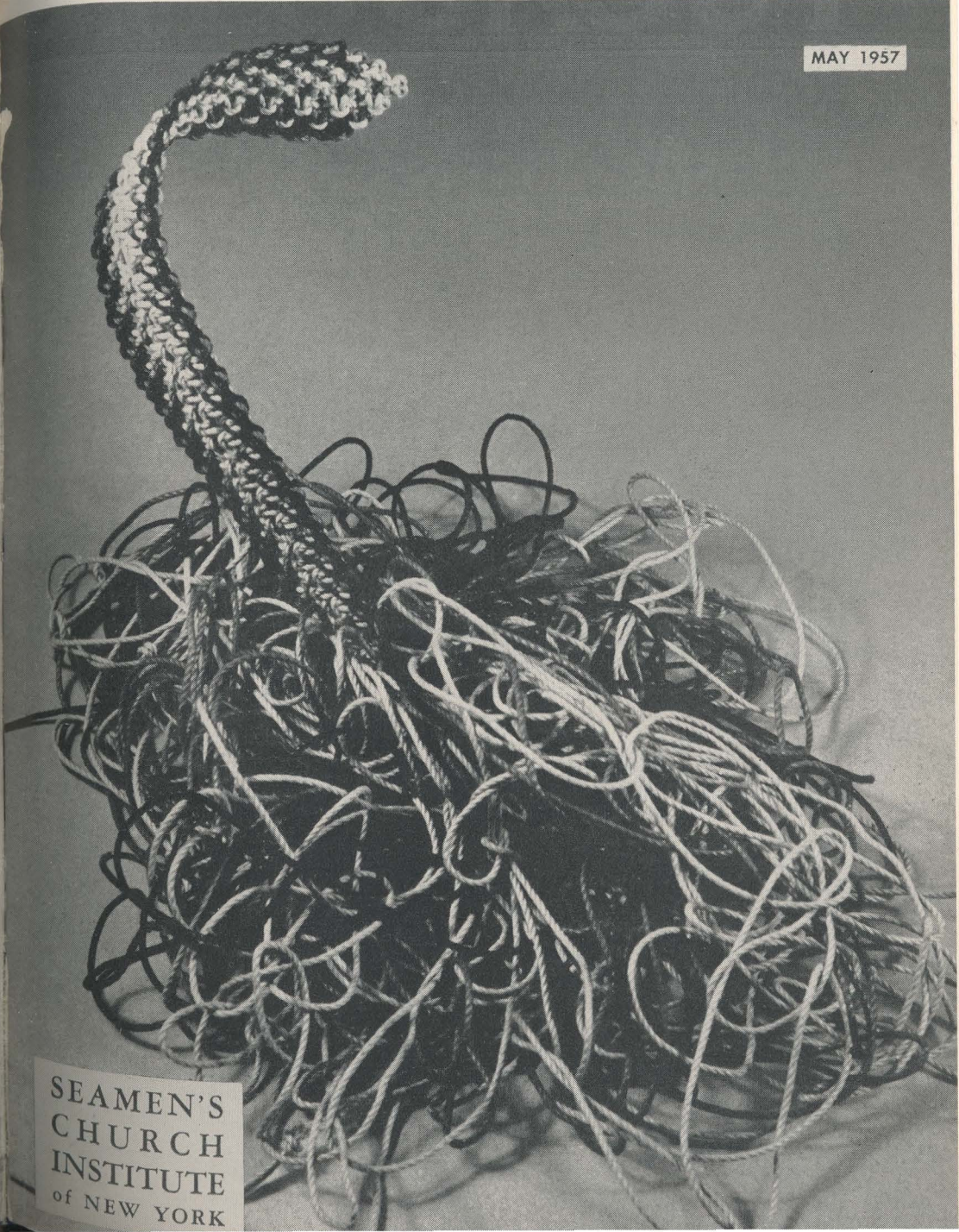
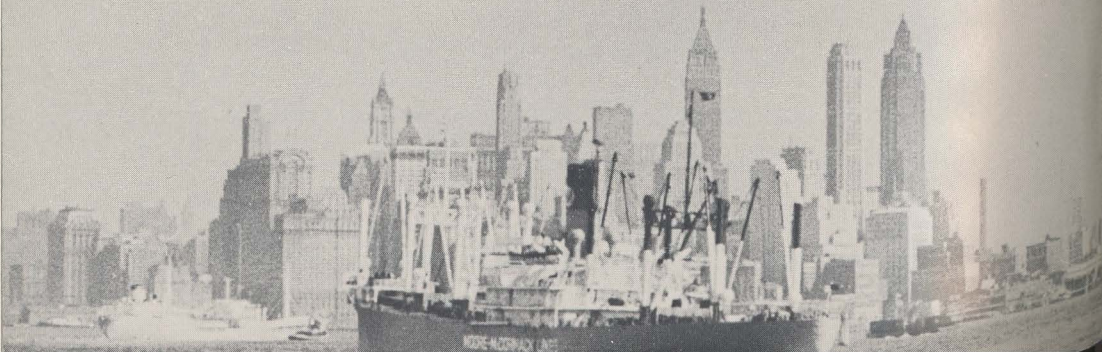
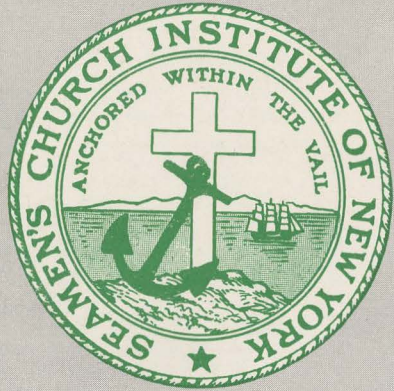
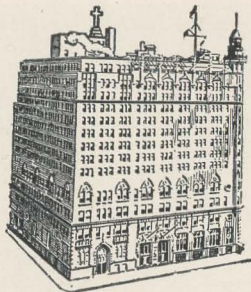


The LOOKOUT

MAY 1957



SEAMEN'S
CHURCH
INSTITUTE
of NEW YORK



THE SEAMEN'S CHURCH INSTITUTE OF NEW YORK is a shore center for merchant seamen who are between ships in this great port. The largest organization of its kind in the world, the Institute combines the services of a modern hotel with a wide range of educational, medical, religious and recreational facilities needed by a profession that cannot share fully the important advantages of home and community life.

The Institute is partially self-supporting, the nature of its work requiring assistance from the public to provide the personal and social services that distinguish it from a waterfront boarding house and give the Institute its real value for seamen of all nations and all faiths who are away from home in New York.

A tribute to the service it has performed during the past century is its growth from a floating chapel in 1844 to the thirteen-story building at 25 South Street known to merchant seamen the world around.



The LOOKOUT

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MAY, 1957

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THE COVER: The genesis of form, bringing order out of chaos, is accomplished by scads of square knots in almost a hundred yards of cord. When finished, it will be a belt. See page 8.

Chief Mate Howard A. Prince and Captain Talbert K. Tonneson of Farrell Line's S.S. *African Lightning* take a last look at the bottle-messages they are about to heave into the deep.



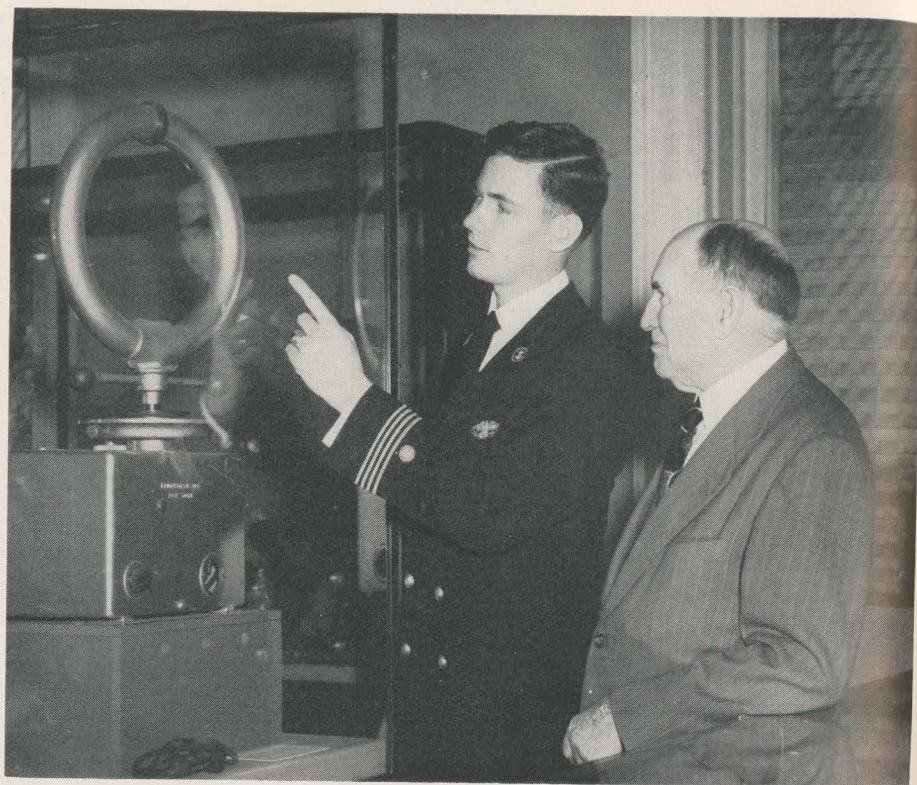
...They're Off!

HALFWAY between the Virgin Islands and the coast of French West Africa, 360 bottle-messages have started uncharted journeys that may take them to any of the four continents bordering the Atlantic. They were dropped there in the middle of March by the crew of the S.S. *African Lightning*, enroute to Capetown, South Africa for visitors to the Institute's ship model exhibit last February at the Jersey Coast Boat Show. The first one to be returned to the Institute will win a \$200 oil painting for its sender.

In previous large-scale mailings between New York and England, an average of two out of each 100 bottle-messages have been returned to the Institute after drifting

ashore in the British Isles or Northern Europe. Last December, David E. Burt of Rumson, New Jersey won the 1956 marathon when his bottle-message was found in Ireland after a drift of nine months. He was awarded a valuable model of the clipper *Flying Cloud*.

Meanwhile, from Inishbofin, Ireland, where Burt's message turned up, comes the promise that many more bottle messages will be returned to the Institute. Young Edward Schofield, who received an oil painting for finding the first bottle, writes: "The picture arrived in grand condition and the whole island came to see it...everyone is out looking for bottles now."



King's Point Cadet James S. Field shows retired ship captain Fred S. McMurray the intricacies of the radio direction finder, part of the exhibition of old and new navigation instruments now at the Marine Museum of the City of New York.

From Ravens to Radar

MAN'S conquest of the sea is expressed in the perfection of his navigation instruments. Without them, the great voyages of discovery and exploration, the voyages that founded a world and opened the sea lanes of trade and commerce, would have been impossible. New York, a giant born because of the sea, acknowledges her debt to the art of navigation in an exhibit currently on display at the Marine Museum of the City of New York. "New York and Navigation, from Astrolabe to Radar" features instruments that have guided ships into the port of New York from 1524 to the present.

Despite their importance, accurate navigation instruments are something relatively new in world history. Way back in 330 B.C., a genius named Pytheas of Massilia first hit upon the idea of locating places on the earth by reference to the sun and stars, but not much progress was made for more than 1,000 years. For the Vikings, a successful landfall was a piece of marvelous guesswork. Brilliant sailors that they were, they had to rely on flocks of ravens, released when they thought they were approaching land, to lead them to shore. It was not until about the 15th century that anything resembling

an efficient complement of nautical instruments could be found aboard a Western ship. By that time, sailors had gotten over their superstitious fear of the Chinese magnetic needle, and European astronomers and mathematicians had been led to new progress made in these fields by the Arabs. In 1524, Verrazano's *Dauphine*, the first European ship known to have sailed into New York harbor, had on board a lodestone, hour sand-glass, traverse board, astrolabe and cross-staff — instruments all on view at the Museum of the City of New York.

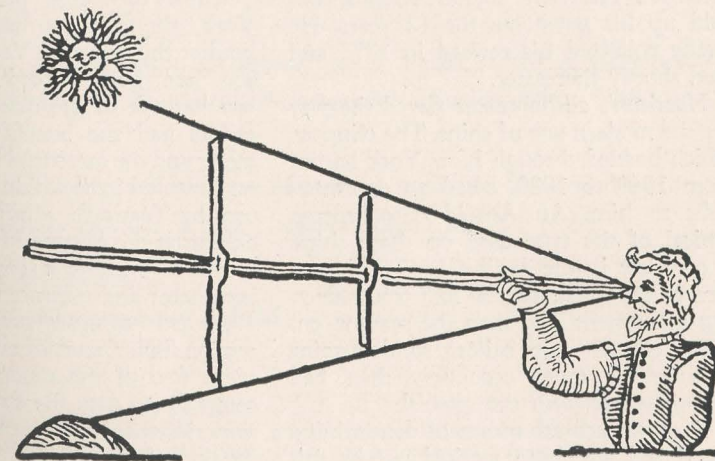
With the astrolabe, an instrument for calculating a ship's latitude, the development of modern navigation really began. As long as men sailed only along the coast, they could more or less feel their way by sounding the lead. But once they ventured out of sight of land, it became necessary to establish the ship's position, and this the astrolabe, by measuring the altitude of sun and stars (the word comes from the Greek "to take a star"), could at least help to do. Taking a reading on the flat brass ring, measuring some 9" to 15" in diameter and divided into degrees and minutes, was a job for three sailors. One held the ring suspended from his thumb, a second swung it so that the sun's rays passed through the first sight and fell on the second sight, and the third read the altitude.

Because rolling and pitching of the ship often made it difficult to get an ac-

curate reading on the astrolabe, many ships also used the cross-staff to measure latitude, checking the accuracy of one instrument against the other. This was a wooden staff on which two or three moveable cross-pieces of different lengths were fitted at right angles. The cross-pieces were capable of intercepting arcs of 30, 60 and 90 degrees. To measure altitude, an Elizabethan navigational expert instructed the mariner to put the "transitorie" or crosspiece upon the long staff, set the end of the long staff close to the eye, "winking with your other eye," and then move the transitory forward or backwards until its lower end was "just with the horizon" and its upper end was in line with the celestial body. The sailor then read the height from the staff scale at the point of intersection of the cross staff.

By 1609, when Henry Hudson, in search of a short route to the Indies, happened upon New York harbor instead, little change in navigation instruments had taken place. Aboard the *Half Moon*, Hudson, like Verrazano before him, determined course and direction by a magnetized compass needle and measured speed, as did Verrazano, by throwing a chip of wood or "log" overboard at four-hour intervals. Its rate in passing from bow to stern was gauged against the time it took a sailor to walk or run the same distance; this gave a rough approximation of the ship's speed.

Time was measured aboard both ships



The cross-staff, used by this 16th-century navigator, was quite a handful.

A compass, an hour-glass, globes, a cross-staff and charts can be seen in this drawing of 16th-century seamen studying the art of navigation.



by an hour sand-glass, which was far from accurate. Yet, until a precise time-piece could be made for ships, there was no way of comparing time aboard ship with time at the prime meridian at Greenwich, and thus determining exact longitude. So a ship's position had to be determined by "dead," or deduced, reckoning until 1761 when an English watchmaker by the name of John Harrison succeeded in inventing an accurate chronometer. Governments had offered prizes for such a device for several centuries; England had promised Harrison 20,000 pounds, but held up his payments for 12 years. He finally collected his reward in 1773 and died shortly thereafter.

Harrison's chronometer paved the way for the modern age of ships. The clippers, which bustled through New York harbor from 1840 to 1880, owed an enormous debt to him. An Arnold chronometer, typical of the type used on these ships, is on view in the exhibition. The invention of the quadrant, the first true reflecting instrument, and then the sextant, enabled clipper ship sailors to determine latitude far more accurately than had been possible with the astrolabe.

A more accurate means of determining speed had also been worked out by this

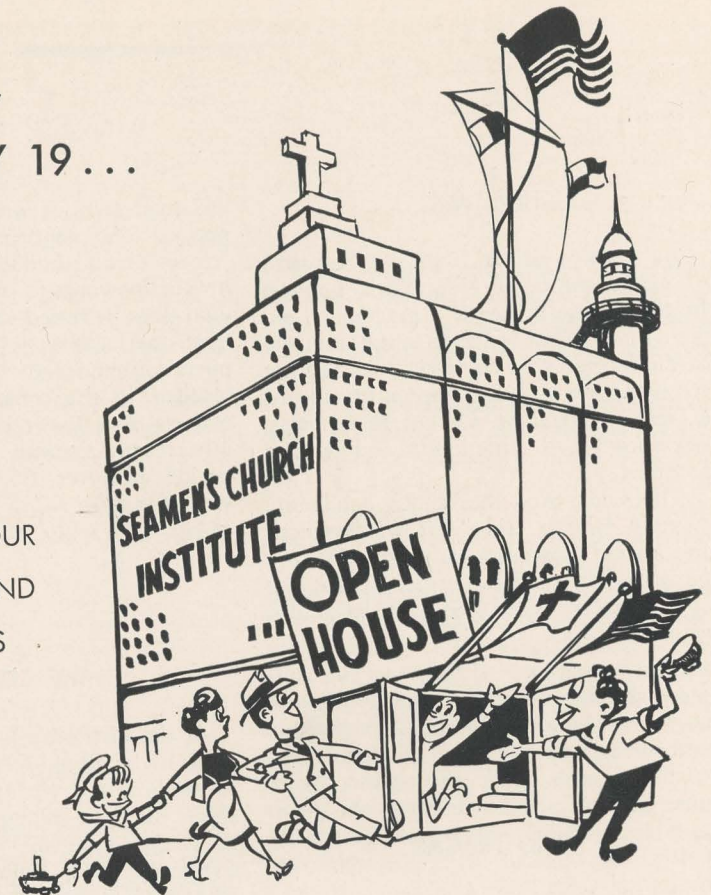
time. Until the mid-19th century, it was gauged by a chip log, consisting of the chip, line, reel and a 14 or 28-second sand glass. Knots of marline and white and red rags were tied to the line at regular intervals. The instant the sand in the glass ran out, the line was checked. The number of knots paid out were counted and this was the ship's speed — hence, the derivation of "knots" to indicate rate. In the latter clipper era, a patent taffrail log, which is essentially a revolving propeller fin, was used to measure speed.

Unlike their other predecessors in New York, the clippers had instruments to predict the weather. Verrazano and Hudson had been forced to rely on the weather eye of the mariner; clipper ship sailors had the benefits of the thermometer and the mercurial barometer, the latter invented in the middle of the 17th century by Torricelli, a pupil of Galileo. On exhibit at the Marine Museum of the City of New York is a combined mercurial barometer and thermometer.

An astro-compass, radar, loran, radio direction finder, anemograph and barograph are a few of the modern devices which complete to date the story of the navigation aids that have helped great ships find the port of New York.

SUNDAY,
MAY 19 ...

BRING YOUR
FAMILY AND
FRIENDS



Featuring —

- Guided tours, starting every few minutes from 1:30 P.M. to 2:30 P.M.
- An Auditorium program at 3 P.M., with a preview showing of the outstanding new marine film, "Naked Sea."
- The Institute's Marine Museum, with the largest display of ship models in the country, open until 6 P.M.
- Refreshments.
- Chapel service at 5 P.M.

To reach the Institute—

Take the Broadway bus or Seventh Avenue subway to South Ferry, the BMT subway to Whitehall Street, or the Lexington Avenue subway to Bowling Green and walk east on South Street. By car take the East River Drive or the West Side Highway to 25 South Street. Parking space will be available.

The World of Ships

HEP TALK

As a ship visitor from the Seamen's Church Institute of New York, Captain Jorgen Bjorge makes it a practice to express his words of welcome in the language of the foreign ship he is visiting. Talking recently with a young apprentice aboard a German freighter, Captan Bjorge was, accordingly, all sauerkraut and wiener schnitzel.

Their talk over, they shook hands and Captain Bjorge said "Auf wiedersehen" and started down the gangplank. With a pleasant wave and a German accent, the apprentice answered, "See you later, alligator!"

FLAG FRACAS

The Seafarer's International Union of North America is going into high gear in its fight against the transfer of American ships to foreign flags, Paul Hall, new president of the 100,000-member union said early this month.

Appearing before a subcommittee of the Senate Interstate and Foreign Commerce Committee, the union cited the transfer problem as the most serious menace facing American seamen. It intends to give strong support to a bill recently introduced by Senator Warren G. Magnuson which will curb ship transfers to foreign flag and registry.

Just a week before, Maritime Administrator Clarence G. Morse had told the House Merchant Marine Committee that American shipyard workers and seamen had directly benefited from the foreign-flag transfer program, to the tune of 24,

747 man-years of work over a 21-month period. The Maritime Administration's "trade-out and build" program which allows shipowners to put vessels under foreign flags provided they agree to build at least one large vessel in this country for operation under the American flag, has resulted in the construction of 21 new tankers and the reconstruction of two others in American yards. During that period, however, 66 "tanker-type" ships went foreign.

THE CENSOR

At the Institute's Janet Roper Club the other night, an old German seaman, about to swallow the anchor, was reminiscing about his days sailing in the North Sea. A young shipmate had asked him to translate a letter from a girl he had just met in Germany. Our friend was happy to oblige, but as soon as he started to read the letter aloud he found two fingers stuck in his ears. "I don't want you to hear what you're reading," said the young man. "It may be personal."

WOMEN'S WORLD

Old sea dogs may take it hard, but women are gaining on them in their efforts to get jobs aboard ships. From Sweden comes word that the 100-ton sailing vessel *Svea* is now captained by a woman. And back home, Moore-McCormack has announced that it will hire about 50 waitresses for each of its two new passenger

liners which will go into service between New York and South America in January of 1958.

Up to now, women have managed to find niches aboard American ships as room stewardesses, telephone operators, pursers, etc., but the job of dining room stewardess, except on Grace Line ships, has been traditionally closed to them. The Moore-McCormack project will be the biggest of its kind.

And what's more, fellas, they expect to hire a lady headwaiter and a lady maitre d' hotel, too!

MARINE STUDIES

Students of American maritime history will once again have a chance to study their subject against the ideal background of Mystic Seaport when the third summer session of the Frank C. Munson Institute of American Maritime History gets underway at Mystic on July 8.

The six-weeks course, jointly sponsored by the Munson Institute and the University of Connecticut, will trace the development of American merchant shipping from colonial times to the present and examine its relationship to American political, economic and cultural history. Graduate students, who may earn six credits for this course, will attend classes in the historical buildings and aboard the ships of Mystic Seaport, and will have access to the original log books, journals, manuscripts, ship's papers, etc., in Mystic's library.

Properly qualified graduate students should apply to the University of Connecticut Summer Session Office for admission to the course.

GREEN GILLS

Ever hear of a seasick fish? Well, brace yourself, because Glasgow's *Nautical Magazine* reports that fish get sicker on a rolling ship than humans and animals put together.

Reports the magazine has gathered from seamen tending fish and animals aboard ship, indicate that sheep, goats, lions and other animals are just about impervious to the worst heaving and pitching of a vessel. But fish, it seems, absolutely cannot stand to have the water swishing around in their tanks. A seaman who had to tend to some five dozen tropical fish on a recent rough voyage from the Far East told the magazine that he would have preferred to look after an equal number of tigers. He spent his days running around with thermometers, checking the temperature of the water, and at the same time trying to steady the bowls to prevent the fish from getting that very human green-around-the-gills feeling.

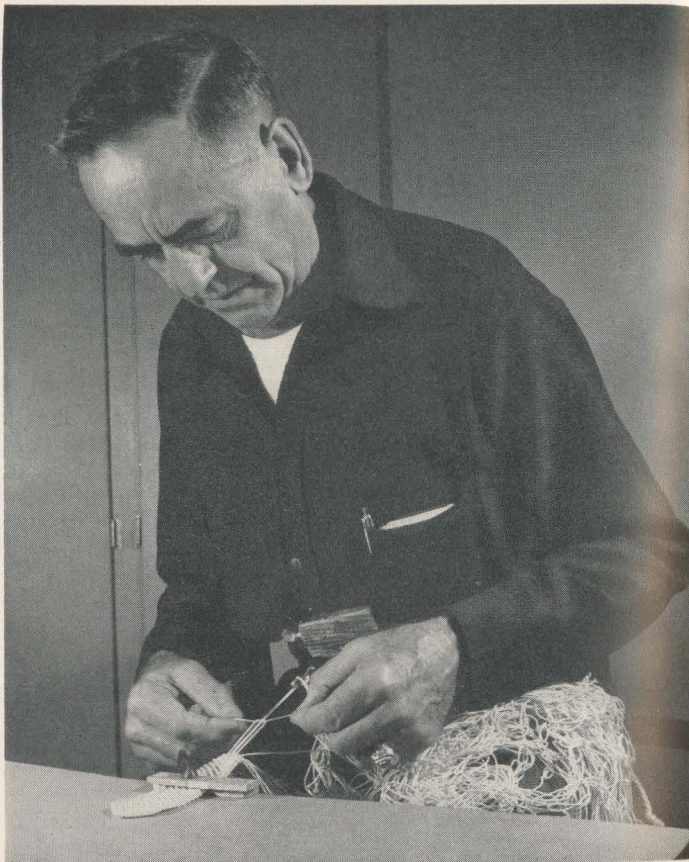
ATOMS FOR TRADE

America's first nuclear-powered merchant ship should be ready by early 1960.

The Atomic Energy Commission has just announced that the Babcock & Wilcox Company of New York have been awarded a \$9,872,000 contract to design, develop and fabricate a pressurized water reactor and components of the vessel's propulsion system.

No secrecy will surround work on the reactor, according to the A.E.C., and technology developed in the project will be made available to industry.

After 40 years of practice during his years in the regular navy and the merchant marine, Carl M. Olson is a master of the art of square knotting. A square knot is a common knot with the ends coming out parallel to the standing part. Any questions?



Squaring Away

TO most people, a lot of knots in a piece of string is a spiteful mess, yet there are those who can compound confusion and make a good thing of it. These people—most of them sailors—call themselves squareknotters. They like nothing better than to sit down with breathtaking lengths of nice straight, clean string and then turn it into the worst imaginable tangle. About the time a bystander is really disgusted, things take a turn for the better. The squareknorter begins pulling strings left and right, and the knots all go zinging out to one end, lining up as pretty as you

please. After two hours or two years of this happy process, the tangle vanishes and out come a lamp cord, a dog leash, a lanyard, a belt, a handbag, a picture frame or some other cunning thing.

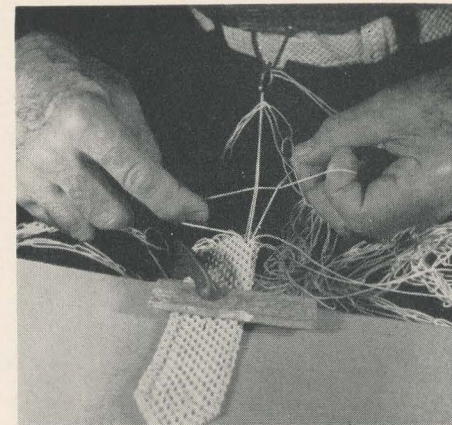
The bystander walks away saying things like, "I guess it's always darkest before the dawn"... or, "Sometimes things have to get worse before they can get better"... or, "It's an ill wind that blows no one good." There must be a moral caught up somewhere in all that string.

Sailor Carl Olson says he ties square knots in order to relax. Without it, if he

would have done to his nervous system what he has done to string in the past 40 years, he would be somewhat less than square himself today. As it is, he is a fine guy, so perhaps squareknotting isn't as aggravating as the bystander might think.

Headquarters for most squareknotters in this country is a little shop over in Brooklyn, at 39 Henry Street. It is run by the acknowledged "King of the Squareknotters," Mr. P. C. Herwig, who has managed to stay millions of knots ahead of his customers ever since he left the navy and began quietly selling squareknotting supplies back in the Roaring Twenties. His knowledge of squareknotting skills, designs and materials has been transcribed into a series of instruction booklets that over the years have kept the art alive by interesting new talent to replace the old practitioners passing from the scene. During World War II, Herwig's manuals helped many wounded men to a new interest and a new grasp on life. The "hard core" of squareknotters in America, however, have traditionally been sailors, navy and merchant marine, whose work life seems suited to the hobby.

Today, squareknotting is regarded as



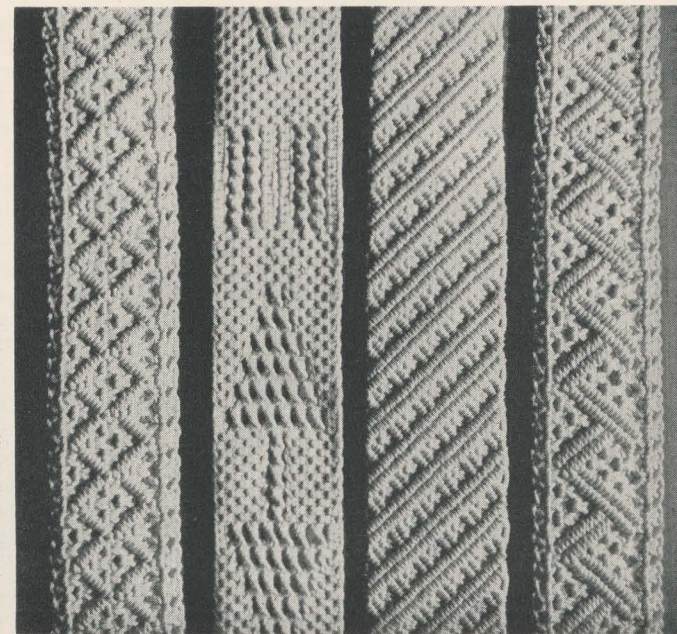
The beauty of squareknotting depends a good deal on pulling the same degree of tightness into each knot.

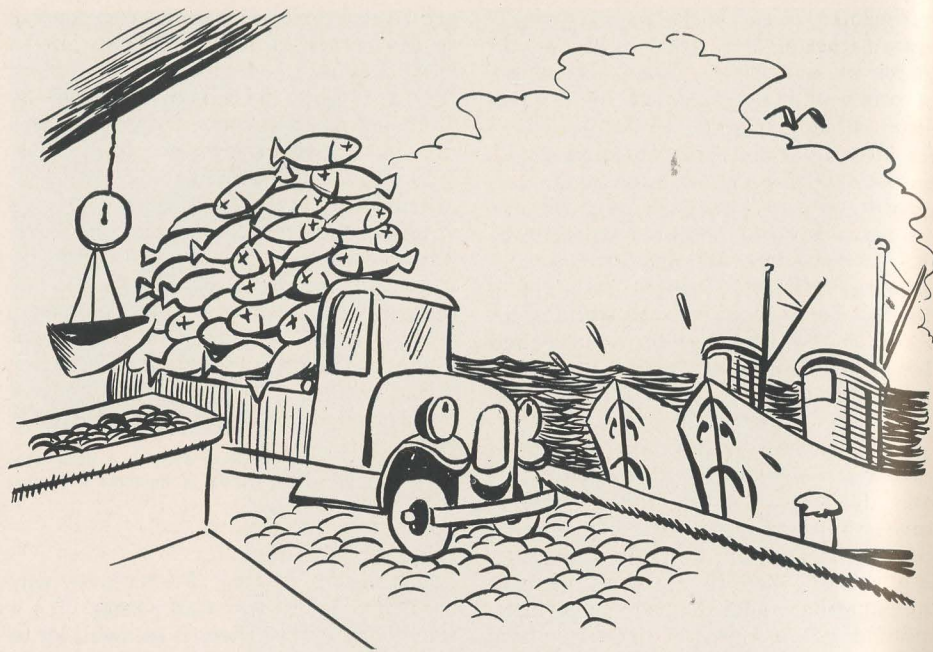
being a little "square." "I don't know why that should be," says Carl Olson. "It's a fine hobby, really. There is an awful lot to learn about it. As long as I have been squareknotting, I can still take a look at Herwig's stuff and feel just like a beginner!"

—Tom Baab

Known in Europe as "macrame," squareknotting is thought to have originated in Arabia in the 15th or 16th century.

By combining square knots, half-hitches and cords of varying colors, an almost endless variety of textures and patterns can be achieved. These designs in solid white were executed by Carl Olson at the Seamen's Church Institute.





The Fish That Got Away

(FROM THE NEW YORK FLEET)

THOSE tasty frozen fish fillets that you pick up at the corner grocery, pop into the broiler and serve in five minutes flat may be a blessing to the housewife and a bonanza to certain portions of the fishing industry, but to the men of New York's vanishing fishing fleet, they symbolize a future in which New York's fishermen have less and less a part. Modern developments in refrigeration and freezing have worked a revolution in the marketing, processing and distribution of fish which is taking a toll of what was once a prosperous and extensive fishing fleet. Diminished from hundreds of vessels, the New York fleet is barely holding its own today with about thirty boats.

Around the turn of the century, local and coastal boats furnished the city with 80% of its supply of fresh salt-water fish. Today they bring in less than 10%. The rest of the fresh supply comes largely

from fish landed at other ports and brought to New York by refrigerated trucks. According to a spokesman for the Fishery Council, a group representing seafood dealers of New York and the Middle Atlantic states, the refrigerated truck, which has edged out both ships and railways as the most convenient and economical way of transporting fish, is one of the largest single factors accounting for the decline of the local fleet. Since a fishing vessel is built for fishing, not for transport, every hour it spends traveling is wasted time, as far as earning power is concerned. Thus the advantage falls to the New England fleets, located closer to the large fishing areas and able to command better prices with a fresher catch. Refrigerated trucks can carry as much as 15 tons in one load to New York's Fulton Fish Market.

Even more threatening to the New York fleet, however, than the rise of the

refrigerated truck, is the growing trend toward freezing and packaging fish at the source of production. When the source of production is outside of the United States, all the country's fishing fleets suffer. Often, frozen fillets from Canada and Europe can be bought at a fraction of the price it costs to produce a similar product here. The most striking example of this occurred one day this year when a giant supermarket chain was selling five lbs. of a Canadian frozen fish for 85¢. At Fulton Market, wholesalers were paying 21¢ per lb. for a comparable fresh fish.

What can be done about foreign competition? Not very much, so it seems. Various segments of the fishing industry have been fighting for protective tariffs over the last 20 years, but their efforts have been largely unsuccessful, mainly because the United States fishing industry is a house divided. Many of its members are importers. And occasionally a tariff measure has been about to go through only to be stopped by the President on recommendation of the State Department, fearful of antagonizing foreign nations whose friendship we are trying to win.

The freezing and packaging of fish at the source of production in our own country has, of course, favored ports closer to the fishing areas than New York, just as the development of the refrigerated truck has favored them. New Yorkers today buy about 50% of their fish frozen, but the percentage is increasing. Retailers are de-

lighted that they no longer have to depend on the fluctuating supply of fresh fish at Fulton Market, which could be either feast or famine. Consumers are becoming more and more insistent on getting their fish in an easy-to-prepare form—like those frozen fillets that can be served in five minutes preparation time.

What then remains for the New York fleet? Manned largely by the colony of Argentines in Bay Ridge, Brooklyn, descendants of the original Newfoundland settlers, the boats that remain make their living largely by scalloping. Scalloping is a relatively young branch of deep-sea fishing, started about 25 years ago. The scallop trawlers go out for about a week at a time, scooping the ocean bottom near Nantucket Shoals and Georges Bank with heavy steel rakes, and returning to Fulton Fish Market with an average cargo of about 11,000 pounds of the delectable mollusks, all cleaned and packed in large linen bags. From December to April, when the weather is too rough for scalloping, the fleet fishes for flounder and butter fish, fluke and sea bass, along the coast. There's not much profit, but it keeps the boats going.

Meanwhile, New York, a city of eight million appetites, rates fish high on its list. At Fulton Market, business is still booming—210 million lbs. of fish are traded every year. But each year, a smaller share of that fish comes from the once flourishing New York fleet.



Book Watch



THE SEA DREAMER

A Definitive Biography
of Joseph Conrad
Gérard Jean-Aubry

Doubleday & Co., Inc., New York, \$4.50

"Indeed, it seemed to me impossible," writes the author of this biography of Joseph Conrad, "to recount the successive phases of a seaman's life except in the precise and detached fashion of a ship's log. Others may perhaps, in time to come, paint portraits in their own style: the first thing needed was to set down the indisputable facts." As they are set down here in this careful and compassionate work of scholarship, these facts provide an illuminating look at the man Conrad and the way in which he wove the details of his adventurous life into the luminous fabric of his work.

Born just 100 years ago, Theodor Jozef Konrad Korzeniowski lived a life that was remarkable for its richness, variety and vitality, a life of action as a sailor and a life of contemplation as one of the great masters of the written word. The son of idealistic and politically persecuted parents, Conrad left Poland at the age of 15 to roam the world on sailing ships. He became a British subject and received his Master's certificate at 29, and quite by chance, began to write during one of his voyages. His first novel, "Almayer's Folly," published when he was 34, started him on his career as one of the truly extraordinary writers of his adopted English.

These are the skeleton facts of his life. M. Jean-Aubry, a friend of Conrad's during the later years and the French translator of many of his works, has devoted over 20 years to filling them out. For its

own intrinsic interest and as a basis for future critical works on Conrad, his book deserves a wide audience.

RADAR NAVIGATION

Christian Hengst

Codan Marine, Inc., New York, \$5.00

"Radar is one of science's greatest gifts to the mariner... However, a radar navigator guided by pips on the radar chart which he does not fully understand should consider himself a serious hazard to navigation in his domain." So states the author of *Radar Navigation*, and proves his point throughout the book.

The moving pip or target on the radar screen of a moving vessel is not true motion but relative motion. This is due to the fact that the operator is always in the center of the radar screen. Land appears to move. Other vessels move in relation to the vessel's movement.

In order to create true motion, the navigator, by plotting successive movements of the target vessel and developing a radar triangle, is able to find the true course and speed of the target, thus converting relative speed and motion to true speed and motion.

By using the radar triangle he is able to calculate accurate course changes in order to avoid collisions. If the reader is inclined towards mathematics, the Keystone Formula discussed in Chapter XI of *Radar Navigation* will solve course change problems.

The book is a must for the modern deck officer.

C. R. Shanholtzer
Sperry Gyroscope Company Radar School
Seamen's Church Institute of New York

SPRING COMES TO THE SEA

Underneath these lateral waves
And more remote than shoal or shelf,
there lies an incubating depth
as ancient as the Sea itself,
the whereabouts of shark and whale,
of nameless spore and nautilus.

Above, the surface waters blaze
and bloom with living phosphorus
when roving species in the spring
return from secret latitude,
finned and fleshed in luminance,
keyed to the Ocean's changing mood.

What then is salty vein to do
among the shining squid and krill,
save from the natant heart cry out,
"O Sea, the pulse remembers still!"

Sarah Howard

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