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FEBRUARY 1970



XI Central American  
Caribbean Games

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W. P. LEBER, Governor-President

R. S. HARTLINE, Lieutenant-Governor

FRANK A. BALDWIN  
Panama Canal Information Officer



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MORGAN E. GOODWIN, Press Officer  
Publications Editors

LOUIS R. GRANGER, TOMAS A. CUPAS  
News Writers

EUNICE RICHARD, FANNIE P. HERNANDEZ,

JOSE T. TUÑON, WILLIE K. FRIAR, and  
LUIS C. NOLI

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## Our Covers

THE PANAMA CANAL REVIEW features on its covers the XI Central American and Caribbean Games which bring together in Panama City athletes from 22 nations of this hemisphere.

Three posters, which won honorable mention in a contest sponsored by the Games' Organizing Committee, were used to create the covers' designs. The runners were drawn by Bolívar Rivera, the symbolic torch and emblem of the Games, by Juan Carlos Marcos, and the pole vaulter is the creation of Cesare Motta, whose discus thrower on another poster won him first place.

The runners symbolize the participants at the starting point awaiting the signal which will bring them the glory of triumph or the darkness of defeat.

The torch bearing the Olympic flame is carried by relays of runners on its arrival at David from Mexico City to the Olympic Stadium where the sacred fire is lit.

According to custom, a well-known sports figure of the past will carry the Olympic flame to the stadium. Frank Prince of Panama, Central American and Caribbean champion of the 800 and 1,500 meter dash, will have the honor on this occasion.

The pole vaulter is the symbol of human effort to overcome obstacles while the pole denotes help which is needed to overcome these obstacles.





Basketball games for the XI Games will be held at the Olympic Gymnasium. The \$2 million gymnasium has a transparent dome and will be used for other athletic events.

By Tomás A. Cupas

THE CENTRAL American and Caribbean Games, which brought together in Panama athletes from 10 countries in 1938, will be held again this year at the Crossroads of the World—this time with competitors from 22 sister nations who will strive during 2 weeks to win honors for their respective flags.

Things have changed a lot in Panama City in the 32 years between the IV Games in 1938 and the XI Games to be held this year from February 28 to March 14.

Then, there was only one Olympic Stadium for track and field, basketball, soccer, boxing, baseball, and tennis events; one National Gymnasium for volleyball, weight lifting and wrestling; the Olympic Pool for swimming, high diving, and water polo; the Miramar Athletic Club for fencing; the old Juan Franco racetrack for cycling events; and a shooting range in Paitilla.

Modern Panama City now has a stadium-gymnasium-swimming pool complex in the Presidente Remon racetrack area for track and field, basketball and soccer. The old Olympic Stadium—now named "Juan Demostenes Arosemena" after the ex-President of Panama who was the patron of the IV Games in 1938—will be the scene of baseball games. The old National Gymnasium, now named Neco de la Guardia after the "Father of Panamanian Sports," will be the site of boxing events. The old Olympic Pool, now named Adan Gordon after one of the country's outstanding swimmers, will be used for water polo competition.

Other new installations include the Stadium of the Melchor Lasso de la Vega Arts and Crafts School, for soccer games; the Tocumen Velodrome, for cycling, and the Shooting Range in the same area.

(See p. 4)

## They Strive For Honor and Glory

# Games 1970

(Continued from p. 3)



Appearing almost like an artist's creation, the hanging roof of the Olympic Gymnasium is supported by 92 cables which stretch from a reinforced concrete base to a central steel cylinder. The covering is of aluminum and an insulating material.



The Olympic Stadium accommodates 20,000 persons and will house the opening and closing ceremonies. Various events will be held there including the soccer and boxing finals. The track is topped with a rubberized material for better traction. The only other track of this type in Latin America is in Mexico City.



The new \$1 million Olympic Pool constructed specially for the XI Games has a capacity for 3,000 spectators to view the swimming competitions.



Olympic cyclists take a practice run around the Velodrome near Tocumen Airport. The Velodrome has a 250 meter ring and a cement track with an inclination of from 12 to 45 degrees. Approximately 2,500 cycling fans can watch the races.

Wrestling, judo, and weightlifting events will be held in the Colegio Javier Gymnasium; volleyball, in the Colegio San Agustín; fencing at the Colegio de las Esclavas del Sagrado Corazón de Jesús; and gymnastics in the Colegio La Salle.

For the IV Games in 1938, athletes came from Colombia, Costa Rica, Cuba, El Salvador, Jamaica, Mexico, Nicaragua, Panama, Puerto Rico, and Venezuela. Twelve countries have been added to that list for the 1970 Games: Netherlands Antilles, Bahamas, Barbados, Guatemala, Guyana, Haiti, Honduras, British Honduras, Virgin Islands, Dominican Republic, Surinam, and Trinidad-Tobago.

Four years ago, at the X Games in San Juan, Puerto Rico, there were 1,689 athletes from 16 countries. In Panama this year there will be some 2,700 athletes from 22 countries—a record number of both competitors and countries.

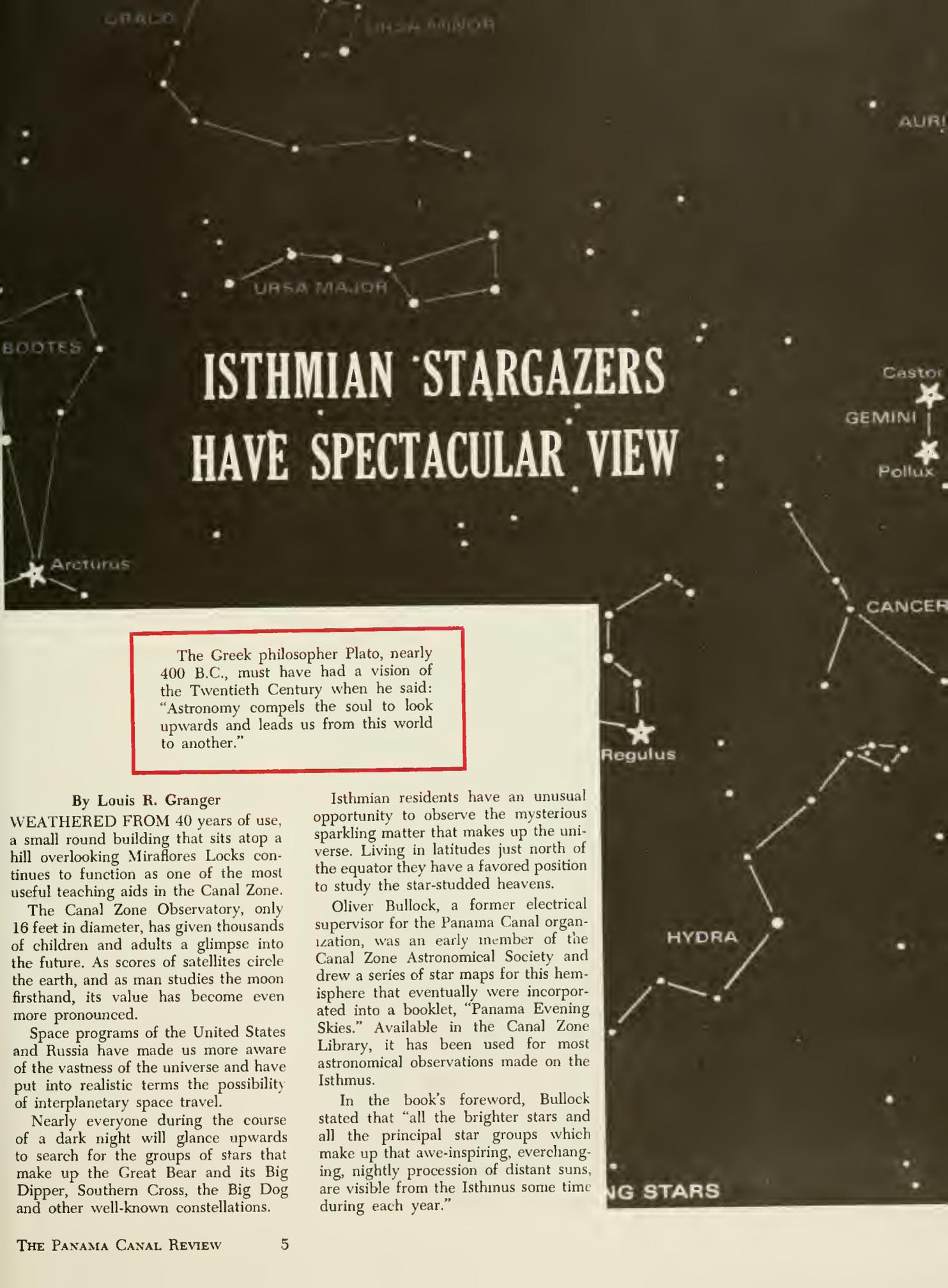
The largest delegation to the Games is from Cuba, 372 athletes—277 men and 95 women, who will compete in all sports. Next is Panama's with 329 athletes—253 men and 76 women, while Mexico's is in third place with 269 athletes, of whom 210 are men and 59 women.

The smallest delegation comes from Surinam, whose two athletes will compete in track and field. They will be accompanied by one non-playing delegate.

Barbados, Guyana, and Surinam will not be represented in women's sports.

The only countries to compete in all sports will be Cuba, Mexico, and Panama. Puerto Rico will not participate in gymnastics and Venezuela will not compete in water polo.

For two weeks, these young men and women will be competing as friends, fulfilling the vision of Baron Pierre de Coubertin, who revived the modern Olympic games. They will be inspired by the traditional Olympic oath: "We swear that we will take part in the Olympic Games in loyal competition, respecting the regulations which govern them and desirous of participating in them in the true spirit of sportsmanship for the honor of our country and for the glory of sport."



# ISTHMIAN STARGAZERS HAVE SPECTACULAR VIEW

The Greek philosopher Plato, nearly 400 B.C., must have had a vision of the Twentieth Century when he said: "Astronomy compels the soul to look upwards and leads us from this world to another."

By Louis R. Granger

WEATHERED FROM 40 years of use, a small round building that sits atop a hill overlooking Miraflores Locks continues to function as one of the most useful teaching aids in the Canal Zone.

The Canal Zone Observatory, only 16 feet in diameter, has given thousands of children and adults a glimpse into the future. As scores of satellites circle the earth, and as man studies the moon firsthand, its value has become even more pronounced.

Space programs of the United States and Russia have made us more aware of the vastness of the universe and have put into realistic terms the possibility of interplanetary space travel.

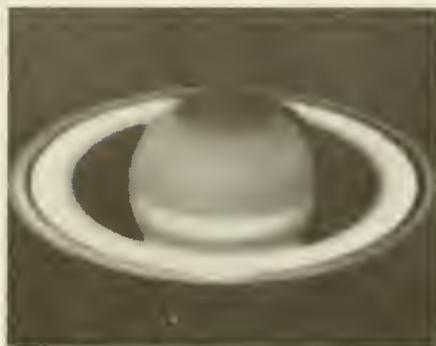
Nearly everyone during the course of a dark night will glance upwards to search for the groups of stars that make up the Great Bear and its Big Dipper, Southern Cross, the Big Dog and other well-known constellations.

Isthmian residents have an unusual opportunity to observe the mysterious sparkling matter that makes up the universe. Living in latitudes just north of the equator they have a favored position to study the star-studded heavens.

Oliver Bullock, a former electrical supervisor for the Panama Canal organization, was an early member of the Canal Zone Astronomical Society and drew a series of star maps for this hemisphere that eventually were incorporated into a booklet, "Panama Evening Skies." Available in the Canal Zone Library, it has been used for most astronomical observations made on the Isthmus.

In the book's foreword, Bullock stated that "all the brighter stars and all the principal star groups which make up that awe-inspiring, everchanging, nightly procession of distant suns, are visible from the Isthmus some time during each year."

# Dry Season Offers Nightly Panorama of Stars and Planets



The rings of the planet Saturn show up clearly when seen through a telescope.



The Spiral Nebula Andromeda, one of the most prominent seen in the tropical skies.



Children have always enjoyed looking for the Big Dipper "Big Bear" in the sky.

This nightly panorama of stars and planets is best viewed during the dry season when the sky is clear.

Astronomy lectures are given at the Observatory on Sundays and Tuesdays from 7 to 9 p.m. by J. Wes Seaquist, coordinator of the Audio-Visual Center of the Division of Schools who is in charge of the Observatory, and B. J. Brown, a long-time astronomy authority who works in the Engineering Division.

Visitors are allowed to view the moon, stars, and planets through the Observatory's 5-inch equatorial telescope.

At this time of the year, Observatory visitors can see six interesting constellations directly overhead. The brightest stars in these form what is known locally as the Dry Season Circle. This huge ring consists of seven bright stars called Sirius, Canopus, Castor, Pollux, Capella, Aldebaran, and Betelgeuse.

Many persons head for the Observatory during a full moon thinking that is the best time to view it. Actually it is the worst time.

Seaquist explains that the ideal time to see features on the moon is between the new moon and when it appears to be a half image. At this time the sunlight strikes it from an angle which accents the mountain ranges. During full moon the sun is shining directly on the moon and the appearance is flat because there are no shadows.

One of the most interesting of the planets is Venus. A few years ago a security officer at Quarry Heights excitedly called Seaquist about what appeared to be a UFO (unidentified flying object). The officer said that a bright object disappeared on one horizon and almost immediately appeared on the other horizon indicating tremendous speed. Seaquist investigated and discovered that Venus, the brightest appearing planet, had moved below the horizon, and Sirius, the brightest star, had just come up.

Another incident involving Venus occurred during World War II. A bright spot continued to appear in the sky

within range of observers at a U.S. military base in Costa Rica and caused enough concern that the Canal Zone Astronomical Society was asked to investigate.

Three amateur astronomers, Bullock, Earl O. Dailey, and Clarence H. True, packed up the telescope and headed for Costa Rica. The uneasiness about the strange object had increased considerably when someone thought he saw a basket hanging from it.

The local astronomers identified it immediately as the planet Venus and another space mystery was solved.

The North Star which has guided sailors to their destinations for ages can be seen every cloudless night. It is always 9 degrees above the horizon. For persons south of the equator the Southern Cross is the navigational guide.

One of the most valuable constellations for navigational purposes in this latitude is Orion, the Great Hunter. This group of stars can be seen throughout the dry season in the early evening. Once it's pointed out it becomes easy to recognize and appears like a big compass box in the sky. A group of stars within Orion forms an arrow pointing directly north.

Orion's belt acts as a pointer in two directions. To the northwest, it points toward Aldebaran in Taurus, the Bull. In the opposite direction, the belt points toward Sirius, the Dog Star.

Many other constellations, stars, and planets can be seen from the Observatory including the Spiral Nebula Andromeda beyond our own galaxy. It is so far away it took the light from its stars 2 million years to reach earth.

Located just off Gaillard Highway near Miraflores Locks, the Observatory is easily accessible and there is a large parking lot for convenience of visitors.

Work on the edifice began in April 1930, and was completed that June. All construction was carried on by what was then known as the construction quartermaster's force of Pedro Miguel. Plans and specifications for the building

Weathered from 40 years of use, the Canal Zone Observatory sits atop a hill overlooking Miraflores Locks and gives thousands of Canal children a chance to observe the sparkling matter that makes up the universe.



were drafted by former Panama Canal Architect Meade Bolton.

The building is topped by a mobile dome and equipped to travel on a circular track, making it possible to move the telescope around to cover every point of the compass and facilitate the observation of the celestial bodies in any part of the heavens.

Former Panama Canal towing locomotive operator, James A. Hess, is given credit for bringing the Observatory to the Zone. An amateur astronomer, Hess obtained the telescope from the Naval Observatory in Washington, D.C. It was one of six built in Massachusetts to observe the rare transit of Venus across the face of the sun in 1874 and again in 1882.

It took more than a year for Hess to wangle the telescope from the Naval Observatory that refused to lend it to the Canal Zone Astronomical Society which had not been officially organized.

Finally, after much correspondence and conversations with the superintendent of the Naval Observatory, the chief of the Panama Canal Washington office, and former Canal Zone Governor H. Burgess, it was agreed that the telescope could be loaned to the Panama Canal Government.

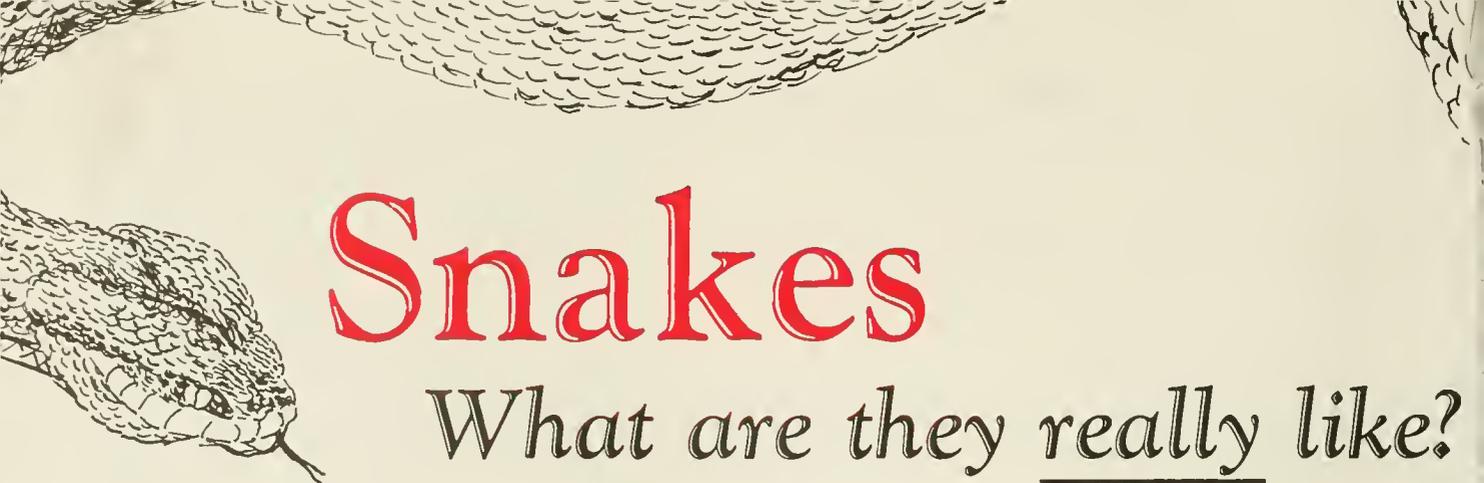
It was about this time that Hess organized the society to care for and control the use of the telescope which was set up at the Hess home in Pedro Miguel until a more suitable site was found.

After much pondering, it was decided to house the telescope in a building of its own. Approximately \$1,750 was spent from clubhouse funds to construct the Observatory.

It is estimated that nearly half a million persons have visited the Observatory during the past 40 years. Many Boy Scouts have received merit badges in astronomy for their studies there and students in Canal Zone Schools' science classes are given a closeup look at planets that they may be able to visit some day.

The ideal time to view the moon is between the new moon and when it appears to be a half image as the sunlight strikes it from an angle at this time and accents the mountain ranges.





# Snakes

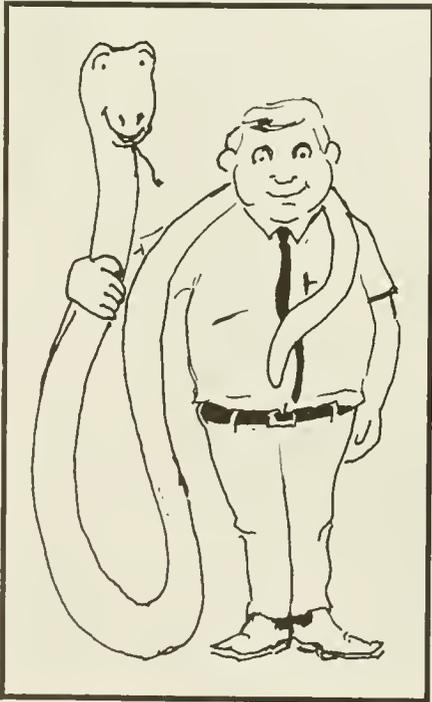
## What are they really like?

By Willie K. Friar

"THIS CREATURE FILLS its mouth with venom. And walks upon its duodenum." So wrote Ogden Nash about the cobra and the information which most people have about snakes is limited to this—his method of locomotion and his venomous nature.

But superstition and mythology abound and over the years have blended with a few facts to give the snake his tarnished image. His reputation began to slip when he first encountered Eve and it has continued to deteriorate ever since.

Movies set in the tropics often feature oversized snakes festooned in the trees or slithering at a fantastic speed in pursuit of the hero who more likely than not ends up in a fight to the death with an all embracing boa constrictor or is gobbled up whole as an appetizer by an anaconda.



Small wonder then that it comes as a surprise to many that there are more snakes in the temperate zone than in the tropics; that snakes are more inclined to run away from a man than to pursue him; and that only two will even consider man as a part of their menu. The anaconda and the python can be classed as possible people-eaters, but they rarely choose humans, finding smaller animals more to their liking.

### Swallowed

The natives of South America call the anaconda "the spirit of the Amazon" and many believe that if you are swallowed by an anaconda you live on forever inside the snake.

But in the mutual eating of snake and man, the snake gets the worst of it, ending up being eaten by man more often than the other way around. In fact, the boa constrictor, which is referred to by some as "a fine hunk of meat," is a regular part of the menu served to students at the Air Force Tropical Survival School in the Canal Zone.

### Exotic Cocktail

A somewhat exotic cocktail may be concocted by adding boa meat to aguardiente, a local liquor. This is drunk by some of the natives of Panama and Colombia as a treatment for pancreas ailments and malaria. One need not fear eating snake meat or even drinking a boa cocktail since all snakes are safe to eat provided the head has been removed and the meat cooked thoroughly.

Life is far from easy for the local snakes. In addition to being eaten by man, their worst enemy, the snakes in Panama often fall victim to armadillos, peccaries, skunks, and snake eating falcons as well as other snakes, reducing the snake population to much less than that found in the temperate zones. There are more varieties in the tropics but not as many individual snakes.

In his fight for survival, the snake is up against tremendous odds for in addition to being eaten by other snakes and animals, numerous parasites feed on him. He has to contend with such things as ticks and other small insects and he sometimes carries lungworm which can be fatal to him.

### No Rattlesnakes

No snakes are vegetarians, but snakes of one kind or another will eat almost anything from insects to people. However, none of the man-eaters are found in Panama and apparently neither is the rattlesnake which is found in Colombia and Costa Rica, but for some unknown reason no specimen authoritatively identified as native to Panama has been found here.

Through the ages the snake has held a strange fascination for man. Jewelry and pottery unearthed by archeologists show that the snake was used as a symbol and decoration throughout most periods in history. Today it remains a popular design for jewelry.

Still, the snake is more hated than loved and though he is a household word he shows up mainly in such derogatory phrases as "snake in the grass," "mean as a snake," and "a viper in the nest." The one bright spot in his murky public relations was being chosen to grace the physician's insignia, the caduceus, which features two snakes entwined on a staff.

### Snakes Helpful

Dr. Sam Telford, herpetologist, now doing research at the Gorgas Memorial Laboratory in Panama, speaks out for snakes, saying, "They are a group of animals much misunderstood by the public. They have a reputation which they don't deserve; because a few of them are dangerous all of them have been maligned."

Always a popular design for jewelry, snakes have appeared on bracelets, necklaces, and numerous other ornaments since ancient times.



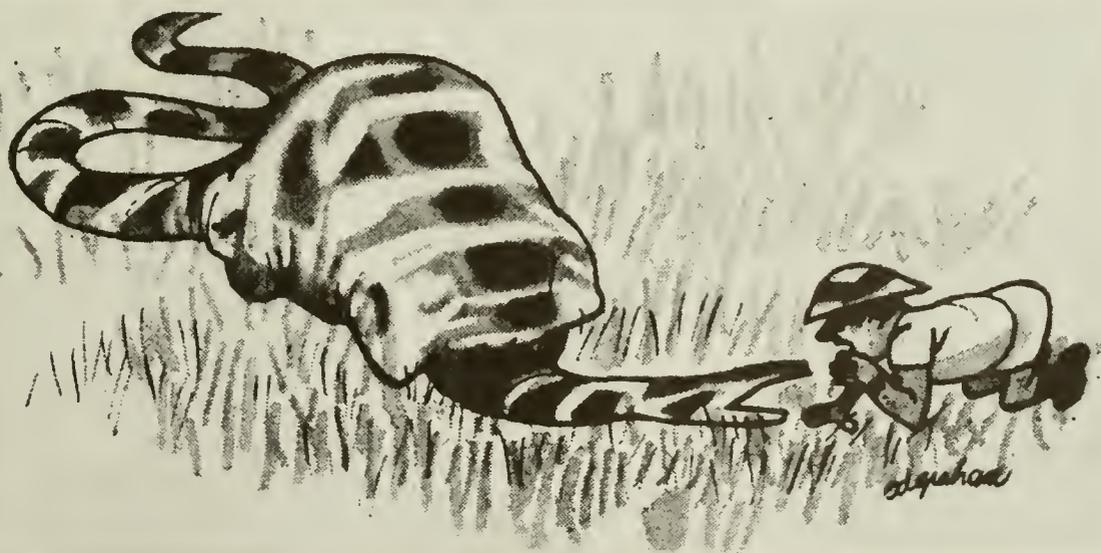
Vicki Sizemore, of Balboa, models a brooch and ring featuring a snake motif as she shops for jewelry at the Balboa Retail Store.

Dr. Telford points out that snakes are very helpful to farmers in the control of pests. They help keep the balance of nature and without them the rodent population would be much larger than it is now. They also are useful in industry where their hides are popular in the manufacturing of belts, shoes, and bags.

In Panama, where the chance of being bitten by a snake is about the same as being struck by lightning, only 21 of the more than 125 species found here are known to be dangerous. Actually, most places have more harmless than venomous types. Of the approximately 2,400 kinds of snakes in the world, there are only about 200 venomous species.

*(See p. 10)*

*—Reprinted with permission of TRUE magazine.*



"Rev it up and then let the clutch out fast!"

# Snakes

(Continued from p. 9)

## Fer-de-lance

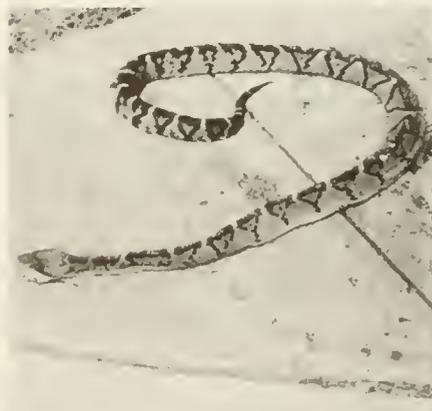
Although the chances of being bitten in Panama are not great there are several snakes that it is wise to know about. Of Panama's venomous snakes the fer-de-lance frequently is regarded as the most dangerous, partly because there are so many of them. This snake gives birth to as many as 70 wriggling venomous young at one time. From the moment of birth they are dangerous.

The fer-de-lance gets its name from the lance shape of its head. The name is a Creole-French term widely used in Martinique and St. Lucia where the snake was once extremely abundant. In Panama, it is often called "equis" (Spanish for "X") because of its X-like body markings and is also known as "barba amarilla" or yellow beard because of the yellow hue of the mouth region.

This snake strikes so fast that the eye



Fer-de-lance



Bushmaster

can hardly see it. But the striking range is very short, usually only about 6 to 10 inches. Although the mongoose invariably masters the cobra, it has been said that he has only a 50-50 chance with the fer-de-lance.

The venom of the fer-de-lance is mainly hemotoxic, breaking down the blood-vessel walls and destroying the red blood cells. The purpose of the venom is to aid the snake in capturing small animals for food and the seriousness of a bite is partly determined by whether the snake has eaten recently and used up much of his venom.

The chance of recovery from a fer-de-lance bite is generally good if the victim is taken immediately to a doctor, but often among the natives in the bush, superstition intervenes. There are those who believe, among other things, that you must not kill the snake that bites you or cross a stream once bitten.

Among the Cuna and Choco Indians numerous snakebite remedies are used. All are applied externally. With the Choco, ferns are often used in treatment. The Cuna sometimes isolate the victim on a small island in a special bohio where a white flag flies until the victim either recovers or dies. Some of the Choco believe that when a snake enters a bohio everyone in it will die unless the snake is killed and rubbed on the residents to rid them of the hex.

## Bushmaster

Of all the venomous snakes in the world, the bushmaster is second in size only to the king cobra, and unlike other snakes he may not run away. He has been described by some as "sullen, fearless, and deadly," and "shy, inoffensive and retiring" by others.

Because of the extremely rough scales on his back he is called "Verrugosa," the warty one, and in Panama, he is called the king of the jungle. The bushmasters found here seldom exceed 8 feet in length. Since they lay eggs, 10 to 14 at a time, which are often eaten by coati-mundis, peccaries, and rodents before they hatch, the bushmaster population is not large. Once hatched, the young live in the burrows of rodents and feed on the young of these animals, spending little time above ground. It's only when they are quite large that they leave these holes to feed on larger rodents.

The bushmaster's head is almost rectangular in shape compared to the pointed head of the fer-de-lance and on the tail there is a growth similar to the rattle on a rattlesnake's tail. His "spine" may warn of a pending attack with a noise similar to that of the rattlesnake. The bushmaster may attack for no

apparent reason and with enough force to embed its fangs deeply in its target.

## Coral Snakes

The coral snakes of Panama are similar to the coral snake of North America and are just as dangerous. The venom of the coral attacks the nervous system and can result in death within an hour if the bite is serious and is not treated.

The coral is much smaller than the fer-de-lance and the bushmaster, seldom growing more than 4 feet in length. It doesn't strike but will bite or chew if it is stepped on or handled. The young of the coral snake, like the bushmaster, are hatched from eggs.

Its body is banded with various combinations of red, black, yellow, and cream and is marked with a black band from the tip of its nose to its eye. Because of the beautiful colors, children are inclined to pick it up and play with it. Fortunately, it does not always bite.

## Pacific Sea Snake

A possible hazard to bathers along Pacific coast beaches is the Pacific sea snake, a small brightly marked black and yellow snake. These snakes possess a highly toxic neurotoxin for which no antivenin is available locally. They probably will not bite unless handled or stepped on but it's a good idea to avoid them when swimming.

## Palm and Hog-Nosed Vipers

Other snakes that are poisonous but not found in great numbers are the palm and hog-nosed vipers. They are short, slender snakes which seldom grow as much as a yard in length and are about as big around as a man's finger.

Their heads and fangs are large, however, and they are quite dangerously venomous. The hog-nosed viper is found under trees and rocks in the jungle and on the savannas and will strike at a man's foot or leg. The palm viper is found in all types of trees and bushes, especially certain palm trees. It will often strike at a person's head or neck. Like the fer-de-lance and the bushmaster, the poison of both of these snakes attacks the circulatory system but because of the small size of the snakes, the victim's chances for survival are much greater.

The rest of Panama's snakes may be classified as either non-poisonous or semi-poisonous.

Although many are harmless and some very attractive, it's best not to play around with snakes. After all, statistics show that most of the people bitten are snake handlers. Innocent though a snake may appear, it would seem there's no predicting when one might get hold of a "snake in the grass."

# Snakebite

## Prevention and Treatment

THE BITE of a poisonous snake may be distinguished by the two distinct lacerations that are produced by fangs but this is not an absolute criterion. When there is doubt whether or not the snake is poisonous, the bite should be treated as possibly poisonous until the snake can be properly identified.

To make sure of the identification, a snake that inflicts a bite should be killed and taken to the hospital along with the victim so that the doctor can identify the type and provide the proper treatment for the bite. It should be remembered that the fangs of a dead snake are as dangerous as those of a live one, so care should be taken in the handling of the snake.

### Mouth Suction

The victim should be rushed immediately to a doctor and if a doctor is an hour or less away, the victim should be immobilized, treated for shock, and suction should be started and continued until the victim reaches the hospital.

The best method is to use the

mouth and attempt to suck out the venom through the fang holes. Do not cut the wound. This only spreads the venom. The person applying suction should make sure that his mouth is free of ulcers or open sores.

If a doctor or hospital is 1 or more hours away then treatment should be as shown above but a tourniquet should also be used. The tourniquet should be loose enough that two fingers can be forced underneath it. The tourniquet pressure should be relieved for a short time every 15 minutes to prevent damage from the tourniquet itself.

### Be Alert

The best way to avoid being bitten is to be alert to the possible presence of snakes and to exercise caution, especially when working in the garden, around trees, or shrubs or when traveling in the bush. Care should be taken at all times as the fer-de-lance, in particular, frequents well populated places and may be found even in the carport. Do not go

outside at night without shoes and always carry a flashlight.

When working or traveling in the jungle, be careful in using hands for climbing or clearing brush. The person who uses a machete correctly has a bent stick in his other hand to hold branches and small vegetation prior to cutting it with his machete. Always wear shoes or boots and tuck trousers loosely into the top.

### Estimate Situation

If you see a snake, freeze in your tracks until you can estimate the situation. The snake, ordinarily, will not attack you since he will be as surprised as you are. If you must travel alone, make a lot of noise to give snakes a chance to get out of your way. Be especially watchful at night. This is when hungry snakes are out hunting for food. They will be hunting rodents, not you, but they might make a mistake.

If these simple precautions are taken the chance of being bitten may be reduced to practically zero.



**CANAL COMMERCIAL TRAFFIC BY NATIONALITY OF VESSELS**

| Nationality      | First half, fiscal year |               |                 |               |                   |                    |
|------------------|-------------------------|---------------|-----------------|---------------|-------------------|--------------------|
|                  | 1970                    |               | 1969            |               | 1961-65           |                    |
|                  | No. of transits         | Tons of cargo | No. of transits | Tons of cargo | Avg. No. transits | Avg. tons of cargo |
| Belgian          | 69                      | 241,471       | 60              | 73,007        | 22                | 77,724             |
| British          | 777                     | 6,687,097     | 719             | 6,001,715     | 632               | 4,124,334          |
| Chilean          | 58                      | 358,117       | 59              | 391,073       | 64                | 451,191            |
| Chinese (Nat'l.) | 69                      | 497,150       | 68              | 503,756       | 41                | 301,600            |
| Colombian        | 103                     | 263,662       | 95              | 238,500       | 129               | 209,189            |
| Cypriot          | 33                      | 286,279       | 17              | 129,128       |                   |                    |
| Cuban            | 35                      | 331,135       | 24              | 244,460       | 2                 | 5,369              |
| Danish           | 215                     | 1,031,080     | 209             | 1,184,859     | 154               | 725,383            |
| Ecuadorian       | 34                      | 54,870        | 28              | 34,251        | 24                | 27,366             |
| Finnish          | 35                      | 194,526       | 20              | 126,433       | 11                | 41,202             |
| French           | 122                     | 460,386       | 125             | 535,235       | 66                | 364,357            |
| German, West     | 549                     | 2,222,759     | 570             | 2,264,784     | 558               | 1,687,827          |
| Greek            | 267                     | 3,439,293     | 284             | 3,096,111     | 316               | 3,077,249          |
| Honduran         | 75                      | 50,048        | 119             | 75,433        | 105               | 80,942             |
| Israeli          | 46                      | 210,722       | 55              | 396,184       | 34                | 128,409            |
| Italian          | 137                     | 763,729       | 127             | 831,446       | 97                | 561,167            |
| Japanese         | 580                     | 5,276,848     | 551             | 4,622,648     | 433               | 2,542,668          |
| Liberian         | 787                     | 12,776,623    | 807             | 12,126,913    | 458               | 4,416,239          |
| Mexican          | 47                      | 298,488       | 58              | 196,778       | 12                | 29,179             |
| Netherlands      | 243                     | 1,392,450     | 230             | 1,165,276     | 294               | 1,346,865          |
| Norwegian        | 646                     | 7,934,316     | 678             | 7,106,639     | 695               | 5,078,587          |
| Panamanian       | 387                     | 2,179,714     | 313             | 1,347,241     | 221               | 959,816            |
| Peruvian         | 100                     | 492,013       | 93              | 413,628       | 58                | 296,697            |
| Philippine       | 57                      | 330,475       | 50              | 278,068       | 33                | 135,090            |
| South Korean     | 40                      | 404,449       | 22              | 183,792       | 4                 | 24,027             |
| Soviet           | 73                      | 510,270       | 46              | 327,519       | 6                 | 48,219             |
| Spanish          | 33                      | 126,150       | 16              | 116,115       | 8                 | 31,538             |
| Swedish          | 238                     | 1,534,958     | 254             | 1,698,578     | 181               | 1,026,269          |
| United States    | 759                     | 4,015,349     | 839             | 4,386,105     | 877               | 5,259,746          |
| Yugoslavian      | 20                      | 307,111       | 13              | 199,290       | 7                 | 53,543             |
| All Others       | 126                     | 1,067,630     | 157             | 788,107       | 89                | 306,362            |
| Total            | 6,760                   | 55,739,168    | 6,706           | 51,083,072    | 5,631             | 33,418,154         |

**MONTHLY COMMERCIAL TRAFFIC AND TOLLS**

Vessels of 300 tons net or over—(Fiscal years)

| Month                  | Transits |        |                           | Gross tolls* (Thousands of dollars) |        |                       |
|------------------------|----------|--------|---------------------------|-------------------------------------|--------|-----------------------|
|                        | 1970     | 1969   | Avg. No. Transits 1961-65 | 1970                                | 1969   | Average Tolls 1961-65 |
| July                   | 1,137    | 1,122  | 960                       | 7,787                               | 7,089  | 4,929                 |
| August                 | 1,186    | 1,109  | 949                       | 8,136                               | 7,362  | 4,920                 |
| September              | 1,133    | 1,115  | 908                       | 7,870                               | 7,473  | 4,697                 |
| October                | 1,089    | 1,138  | 946                       | 7,771                               | 7,472  | 4,838                 |
| November               | 1,060    | 1,103  | 922                       | 7,401                               | 7,279  | 4,748                 |
| December               | 1,155    | 1,119  | 946                       | 8,059                               | 7,571  | 4,955                 |
| January                |          | 958    | 903                       |                                     | 6,715  | 4,635                 |
| February               |          | 875    | 868                       |                                     | 5,780  | 4,506                 |
| March                  |          | 1,135  | 1,014                     |                                     | 7,616  | 5,325                 |
| April                  |          | 1,168  | 966                       |                                     | 7,526  | 5,067                 |
| May                    |          | 1,200  | 999                       |                                     | 8,109  | 5,232                 |
| June                   |          | 1,108  | 954                       |                                     | 7,466  | 5,013                 |
| Totals for fiscal year |          | 13,150 | 11,335                    |                                     | 87,458 | 58,865                |

\* Before deduction of any operating expenses.

**TRAFFIC MOVEMENT OVER MAIN TRADE ROUTES**

The following table shows the number of transits of large, commercial vessels (300 net tons or over) segregated into 8 main trade routes:

| Trade routes                                    | First half, fiscal year |       |                           |
|---|-------------------------|-------|---------------------------|
|   | 1970                    | 1969  | Avg. No. Transits 1961-65 |
| United States Intercoastal                      | 201                     | 196   | 231                       |
| East coast United States and South America      | 666                     | 765   | 1,208                     |
| East coast United States and Central America    | 277                     | 353   | 241                       |
| East coast United States and Far East           | 1,681                   | 1,655 | 1,133                     |
| East coast United States/Canada and Australasia | 232                     | 237   | 171                       |
| Europe and West Coast of U.S./Canada            | 502                     | 474   | 459                       |
| Europe and South America                        | 616                     | 616   | 592                       |
| Europe and Australasia                          | 210                     | 198   | 176                       |
| All other routes                                | 2,375                   | 2,212 | 1,420                     |
| Total traffic                                   | 6,760                   | 6,706 | 5,631                     |

# New Shipping Trends Eyed by Experts

CHANGING TRENDS in shipping, the shift in world markets and construction of ports to handle the new giant container ships and bulk carriers—these are all factors that are affecting national economies and the volume and type of traffic the Panama Canal can expect during the decade just beginning.

The experts, who keep an eye on the general trends of waterborne commerce, predict that the growth in size of vessels will have some effect on the type of Canal traffic as well as the volume. The Canal, however, will continue to be able to accommodate the great majority of ships in the world and will accommodate the new shipping innovations, such as the container and the LASH or lighter aboard ships, where speed and not size will be the important consideration.

They point out that one of the most important trends in recent years has been the growth in the size of the bulk carriers and crude oil tankers with the emergence of the new ore-bulk-oil carriers and the need for construction of ports able to handle the giant ships.

**Bigger Ships**

During the past 20 years, maximum ship size has geometrically progressed by doubling every 5 years. A typical large crude carrier now has 16 times the deadweight of vessels whose useful operational years are just now expiring. Some have already outgrown the Panama Canal and most of the world's ports.

Ships as large as 500,000 deadweight tons have been designed by Japanese shipbuilders and there are designs being made in Great Britain for a million-ton tanker.

The same trend is occurring in other cargo bulk trades. World shipping figures show that in 1967 about 85 percent of the international iron ore was carried in specialized bulk carriers. More than half of this tonnage was in vessels larger than 25,000 deadweight tons and about 40 percent was being carried in vessels larger than 40,000 deadweight tons. Today, there are ore carriers exceeding 100,000 tons, but they do not use the Canal. So far, the

largest vessel to use the Panama Canal has been *The Phillips Louisiana*, an oil-ore carrier, 80,261 long tons summer deadweight.

#### Scrap Metal Carriers

Figures quoted in a recent issue of *WORLD PORTS* showed that the movement of fertilizer raw material has gone from vessels of 10,000 to 15,000 tons to vessels up to 40,000 tons in the past 4 years. And as a change from the days when scrap moved in worn-out hulls of tramps, special scrap metal carriers of 25,000 tons have appeared. There are a number of old scrap carriers still using the Canal today.

The movement of coal from Hampton Roads, Va., to Japan in the "Panama" type bulk vessels began 9 years ago. They have carried through the Canal bulk coal cargoes as high as 60,000 long tons, the record for the Canal. The aluminum trade also is using larger ships, with 55,000 ton cargoes of bauxite and alumina not unusual.

The emergence of the ore-bulk-oil carriers with the capacity to haul full cargoes of coal or grains; the capability of these ships to stow and pump liquid petroleum cargoes; and the strength to load full dense ore cargoes while filling only alternate cargo holds, probably all will have great effects on shipping trends.

#### 150,000-Ton Ships

These giants, which have been in existence since 1964, are getting to a size that will not be handled by the Panama Canal. Many of the new vessels now scheduled for delivery in the next 2 years will be larger than 100,000 tons with 150,000 tons not uncommon.

The transporting of coal on the round-the-world voyage as bulk cargo has brought the coal shipping rates between Hampton Roads and Japan down 50 percent and made it competitive in the Japanese market with Australian coal despite the distance it has to travel.

Last year the big vessels in the 100,000 to 150,000 ton range were changing the whole operation by loading coal into alternate holds in Virginia and taking on iron ore in Brazil or Angola. After discharging ore and coal in Japan, these ships go on to the Persian Gulf to load crude oil for the Atlantic and start the cycle over again.

Now a new trend is being planned, the shipping experts say. It will take the bulk carriers from Hampton Roads to eastern Canadian ports to load iron ore for Japan. These ships then may pass up the Persian Gulf oil and go to the ore  
(See p. 31)

## PRINCIPAL COMMODITIES SHIPPED THROUGH THE CANAL

(All cargo figures in long tons)

### Pacific to Atlantic

| Commodity                                  | First half, fiscal year |                   |                    |
|--|-------------------------|-------------------|--------------------|
|  | 1970                    | 1969              | 5-Yr. Avg. 1961-65 |
| Ores, various                              | 2,813,388               | 2,146,711         | 519,996            |
| Sugar                                      | 1,548,915               | 1,513,091         | 1,235,175          |
| Iron and steel plates, sheets and coils    | 1,507,943               | 1,590,737         | N.A.               |
| Boards and planks                          | 1,454,893               | 1,757,183         | N.A.               |
| Petroleum and products                     | 1,164,088               | 320,674           | 1,024,347          |
| Iron and steel manufactures, miscellaneous | 718,356                 | 599,006           | N.A.               |
| Metals, various                            | 689,394                 | 677,888           | 566,481            |
| Bananas                                    | 598,421                 | 571,631           | 565,876            |
| Food in refrigeration (excluding bananas)  | 596,194                 | 595,417           | 394,842            |
| Fishmeal                                   | 547,021                 | 941,870           | N.A.               |
| Pulpwood                                   | 489,578                 | 588,836           | 249,504            |
| Plywood and veneers                        | 441,415                 | 471,100           | N.A.               |
| Petroleum coke                             | 423,342                 | 212,863           | N.A.               |
| Iron and steel wire, bars, and rods        | 333,149                 | 292,302           | N.A.               |
| Canned food products                       | 326,765                 | 350,309           | 517,232            |
| All others                                 | 6,036,157               | 5,367,695         | 9,809,816          |
| <b>Total</b>                               | <b>19,689,019</b>       | <b>17,997,313</b> | <b>14,883,269</b>  |

### Atlantic to Pacific

| Commodity                             | First half, fiscal year |                   |                    |
|---------------------------------------|-------------------------|-------------------|--------------------|
|                                       | 1970                    | 1969              | 5-Yr. Avg. 1961-65 |
| Coal and coke                         | 9,645,912               | 6,940,886         | 2,925,019          |
| Petroleum and products                | 7,126,203               | 7,652,739         | 5,484,146          |
| Corn                                  | 2,601,754               | 1,515,820         | 636,706            |
| Metal, scrap                          | 1,998,552               | 1,647,713         | 1,527,264          |
| Phosphates                            | 1,834,061               | 2,649,308         | 1,046,645          |
| Soybeans                              | 1,601,147               | 1,477,776         | 735,645            |
| Sorghum                               | 1,125,186               | 1,113,801         | N.A.               |
| Ores, various                         | 1,038,086               | 949,468           | 147,988            |
| Sugar                                 | 904,871                 | 529,297           | 516,556            |
| Metal, iron                           | 664,235                 | 791,536           | 100,447            |
| Rice                                  | 455,908                 | 303,246           | 56,257             |
| Paper and paper products              | 430,846                 | 445,800           | 225,987            |
| Chemicals, unclassified               | 424,646                 | 345,313           | 318,745            |
| Fertilizers, unclassified             | 332,992                 | 244,371           | 184,252            |
| Autos, trucks, accessories, and parts | 328,509                 | 295,936           | 160,582            |
| All others                            | 5,537,241               | 6,182,749         | 4,468,646          |
| <b>Total</b>                          | <b>36,050,149</b>       | <b>33,085,759</b> | <b>18,534,885</b>  |

## CANAL TRANSITS - COMMERCIAL AND U.S. GOVERNMENT

|   | First half, fiscal year |                     |              |              |                           |
|---|-------------------------|---------------------|--------------|--------------|---------------------------|
|   | 1970                    |                     |              | 1969         | Avg. No. Transits 1961-65 |
|   | Atlantic to Pacific     | Pacific to Atlantic | Total        | Total        | Total                     |
| <b>Commercial vessels:</b>                  |                         |                     |              |              |                           |
| Oceangoing                                  | 3,442                   | 3,318               | 6,760        | 6,706        | 5,631                     |
| Small                                       | 115                     | 106                 | 221          | 265          | 286                       |
| <b>Total Commercial</b>                     | <b>3,557</b>            | <b>3,424</b>        | <b>6,981</b> | <b>6,971</b> | <b>5,917</b>              |
| <b>U.S. Government Vessels: **</b>          |                         |                     |              |              |                           |
| Oceangoing                                  | 312                     | 323                 | 635          | 709          | 124                       |
| Small                                       | 15                      | 20                  | 35           | 75           | 82                        |
| <b>Total commercial and U.S. Government</b> | <b>3,884</b>            | <b>3,767</b>        | <b>7,651</b> | <b>7,755</b> | <b>6,123</b>              |

\* Vessels under 300 net tons or 500 displacement tons.

\*\* Vessels on which tolls are credited. Prior to July 1, 1951, Government-operated ships transited free.

# Board Of Directors Views Canal Operations

AN EXTENSIVE tour of the Canal Zone facilities and a business meeting held in the Administration Building at Balboa Heights on January 28, were among the highlights of the annual visit to the Canal Zone by the Panama Canal Company Board of Directors.

The quarterly winter meeting of the Board was attended by seven businessmen and one businesswoman from various parts of the United States who were appointed to the Board during 1969. They are Ralph H. Cake, of Portland, Oreg., who served on the Board previously from 1956 to 1961; A. Gray Boylston, of Fort Lauderdale, Fla.; Albert B. Fay, of Houston, Tex.; William F. Price, of Pasadena, Calif.; Webster B. Todd, of Oldwick, N.J.; Einar Viren, of Omaha, Nebr.; W. Walter Williams, of Seattle, Wash.; and Mrs. Marjorie B. Shanard, of Wayzata, Minn., the first woman ever to be appointed to the Board of Di-

rectors of the Panama Canal Company.

Also attending was Thaddeus R. Beal, Under Secretary of the Army, who is the Chairman of the Board; Governor W. P. Leber of the Canal Zone, who is President of the Panama Canal Company; Charles Meyer, Assistant Secretary of State for Inter-American Affairs; and Stephen Ailes, of Washington, D.C., who is an incumbent member.

During his stay on the Isthmus, Sec. Beal also visited Army installations in the Canal Zone accompanied by David H. Ward, recently appointed Deputy Under Secretary of the Army.

Governor Leber and directors of the various Panama Canal bureaus briefed members of the Board on the operation of Panama Canal facilities during the tour of the Panama Canal.

This was the first Board meeting to be held on the Isthmus since January 1969. The next meeting will be held in April 1970, in Washington, D.C.



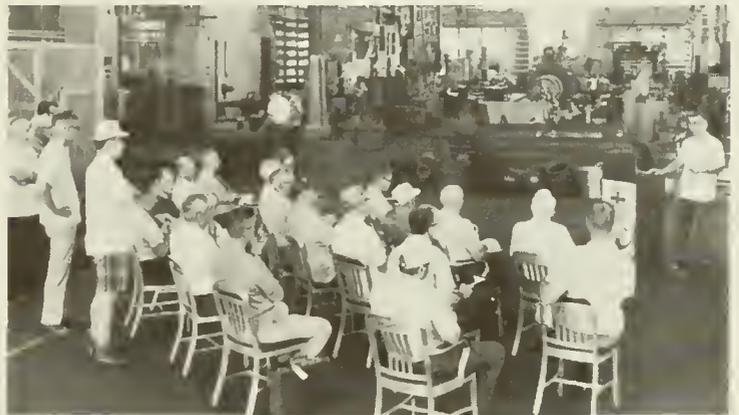
Members of the Board of Directors meet in the Board Room in the Administration Building at Balboa Heights. From left, clockwise, they are: Webster B. Todd, Director; W. Walter Williams, Director; A. Gray Boylston, Director; David H. Ward, Deputy Under Secretary of the Army; Thaddeus R. Beal, Under Secretary of the Army and Chairman of the Board; Stephen Ailes, Director; Ralph H. Cake, Director; W. M. Whitman, Secretary of the Panama Canal Company; William F. Price, Director; Albert B. Fay, Director; Philip L. Steers, Jr., Comptroller of the Panama Canal Company; Gov. W. P. Leber, President of the Panama Canal Company; Lt. Gov. Richard S. Hartline, Vice-President of the Panama Canal Company; Mrs. Marjorie B. Shanard, Director; and Einar Viren, Director. Second row: Paul M. Rnnestrand, Executive Secretary; and Capt. Donald A. Dertien, USN Ret., Chief, Executive Planning Staff.

The fine points of baseball are discussed by Ralph H. Cake, a member of the Board, and players of the Gibraltar Life Insurance Little League Team. At right is F. A. Cotton, team manager. Cake never misses a chance to greet Little League members whenever he is on the Isthmus.



Mrs. Marjorie B. Shanard, the only woman on the Board of Directors, confers at the La Boca Printing Plant with D. C. Miller, left, new Superintendent of the Printing Plant, and Juan Fernández, lithographer. Mrs. Shanard, a former reporter, writer, and special correspondent for newspapers, toured the Printing Plant and was briefed on publications.

Capt. A. L. Gallin, Marine Director, briefs members of the Board on the operations of the Industrial Division, one of the marine repair units under the direction of the Marine Bureau, in the main machine shop at Mount Hope on the Atlantic Side of the Isthmus.



Board members inspect navigation facilities aboard a Panama Canal launch passing through the main Canal channel. A ship in transit is in the background.

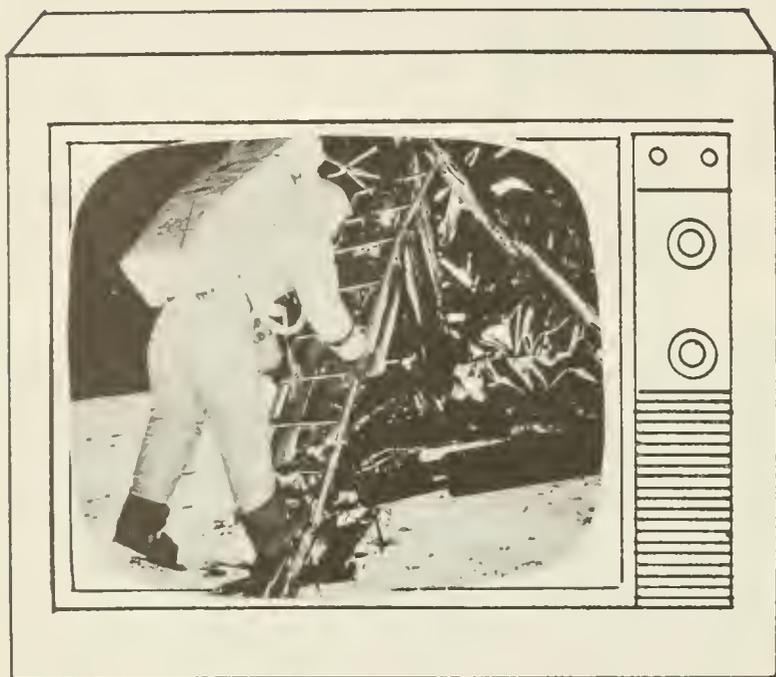


Years of

Canal growth

challenge and change . . . . .

# THE SIXTIES



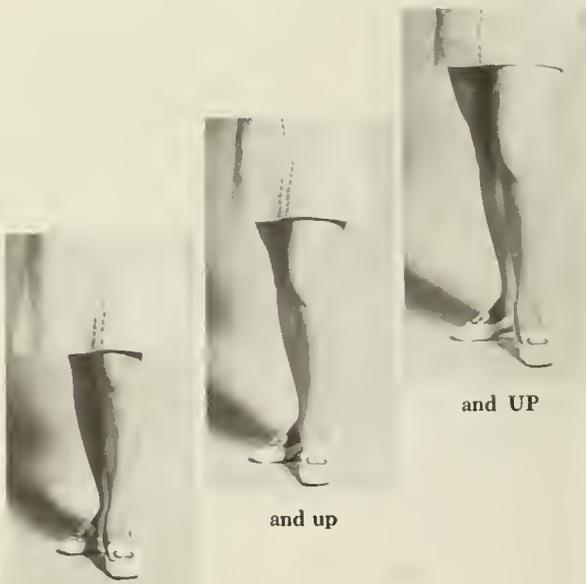
As the decade of the 1960's came to a close, life in the Canal Zone reflected some of the monumental changes that shaped life in the United States.

Instantaneous television via satellite brought Isthmians a clear view of man's first steps on the moon and astronauts were seen in the Canal Zone where they came for training and on good will tours.

Changing the local landscape were the new multi-million-dollar Thatcher Ferry Bridge over the Canal, a new hospital annex and new schools—one with a geodesic dome building. Computers took over the Panama Canal's payroll and the conversion of electric power from 25 to 60 cycles brought widespread air conditioning to public buildings and homes. New towing locomotives replaced the "old grey mules" and new tugs were put into service.

The Cut continued to be widened and the ships transiting the Canal grew increasingly longer and wider.

On these pages are shown some of the happenings that convey the changing times of the '60's in the Canal Zone.



Skirts went up

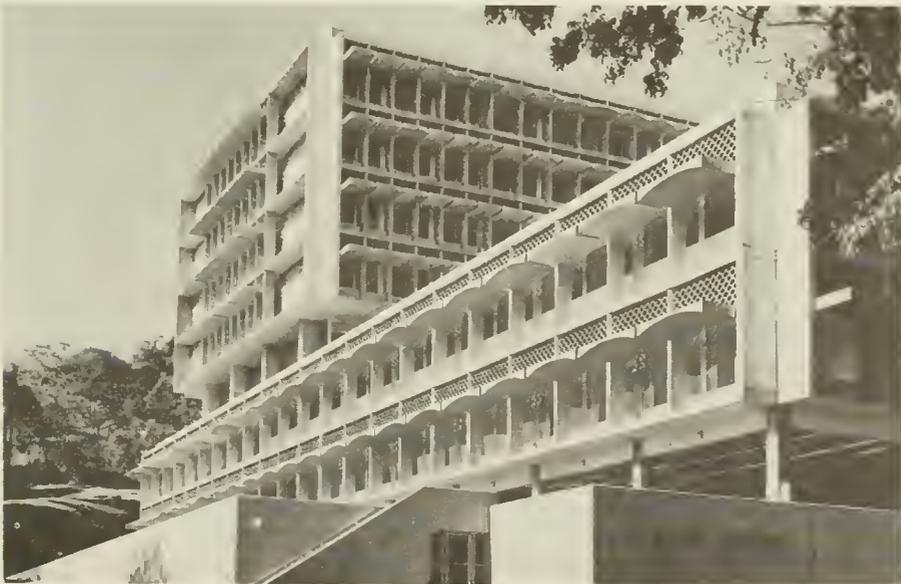
and up

and UP



On October 12, 1962, the new \$20 million Thatcher Ferry Bridge was dedicated and used by traffic for the first time. Soaring 201 feet above the Canal channel at Balboa at high tide, the bridge is among the highest in the world over navigable waterways. It unites two parts of Panama and two continents and is a link in the Inter-American Highway.

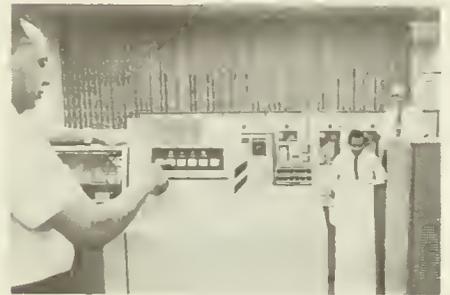
At left: Isthmians were not left out of the picture when the first astronauts landed on the moon. Through the use of the communication satellite, local TV sets received a clear view of man's first step on the moon. Some of the astronauts visited the Isthmus while on training programs and good will tours during the 1960's. A geodesic dome was part of the new multi-million dollar Curundu Junior High School built on the Pacific side of the Isthmus in the mid 1960's. The architectural form seen in the foreground was originated by the noted U.S. architect R. Buckminster Fuller. It houses the cafetorium, one of the units of the Junior High School complex which is designed to accommodate more than 2,200 students. Several other new schools were built on both sides of the Isthmus and are being air-conditioned.



The new Gorgas Hospital annex, the highest and the newest building in the Canal Zone, was put into operation in February 1965. Alterations to the existing plant and construction of this new 8-story air-conditioned building were made to consolidate all Gorgas Hospital activities into four buildings connected by two pedestrian bridges and a tunnel. Sections A and B, two areas devoted to the care of internal medicine patients, were remodeled in 1969 at a cost of more than \$1 million. Remodeling of Section O, which will house the pediatric ward and several other units, is scheduled to be completed in 1970.



Four white gloved Canal Zone policemen hoist the flags of Panama and the United States side by side implementing a decision announced by former President Dwight D. Eisenhower. Flags of Panama and the United States were raised on other buildings in the Canal Zone later. Panama National Guardsmen stand at attention in the foreground.



Computers took over the task of making out the Panama Canal's payrolls in 1968. The first of a series of new computers were put into operation in the Payroll and Machine Accounting Branch. These computers are used by the Data Processing Division in the Administration Building, Balboa Heights. A computerized marine traffic control system is now being considered.



Tourists ride through Pedro Miguel Locks aboard the sightseeing launch "Las Cruces." The launch was put into service in early 1962 to take visitors on partial transits of the Canal. The Canal Zone Guide Service was inaugurated the same year. It provides bilingual guides to explain operations of the Panama Canal to visitors on both the Atlantic and Pacific sides.

## The 1960's Increasing Canal Capacity



Improvements to the Canal which increased the capacity of the waterway opened the way for such giants as the bulk carrier "Scenic" which heads through Miraflores Locks with a cargo of coal from Newport News, Va., to Japan. She is one of an increasing number of longer and wider vessels now using the Panama Canal.



The multi-million-dollar widening of Gaillard Cut began in the 1950's and continued to progress as the decade of the '60's came to a close. By the end of 1969, the project of widening the Cut from 300 to 500 feet had entered its final stage. The entire project presently is scheduled to be completed by the middle of this year.



One of the new giant ships, this one a Sea-Land Service vessel named for Panama, passes through the Canal loaded with container vans. The containers, a relatively new method of shipping goods, are taken to port where they go back on wheels for the overland delivery to consignees. Sea-Land has an office in Balboa.



Lights illuminating banks of the Canal make a fairyland of the waterway at night. Installed along the approaches to the locks, they provide valuable assistance to pilots on ships entering and leaving the locks and help make possible the 24-hour schedule of operation which the Panama Canal began in the early 1960's.



One of the fast new towing locomotives built in Japan to replace the more than 50-year-old "mules" constructed in the United States in 1914, moves up the incline at Gatun Locks passing one of the old towing locomotives. The powerful new engines are one of the many improvements designed to speed up Canal transits.



The "Julian L. Schley" is one of the fleet of new tugs being purchased by the Panama Canal for use in Cristobal and Balboa harbors to help with the increasing traffic. The replacement of the tug fleet started early in the 1960's and is continuing in the '70's as one of the plans to help increase the capacity of the Canal.

# Boys Find Hope and a New Beginning at Chapala School

By Luis C. Noli

THE YOUTHFUL delinquents belong to either the Section of Hope or to the Section of Perseverance. From one to the other lies the path of regeneration.

This is the Vocational School at Chapala, a correctional institution for boys 12 to 18 that began operations barely 8 months ago in a 42.5 acre site in the hills beyond Arraiján, a half hour's drive from the capital city. It is 2½ miles off the main highway.

## Lion's Club Project

For the Panama Lions Club, which conceived and carried out the \$1 million project to completion, it won the title "The Best Lions Club in the World" a second time. (The Panama Lions won that designation from the international headquarters for its \$500,000 Children's Hospital project in Panama City.) Panama's National Government contributed about half the funds, but without the Lions' drive the Chapala School would not be what it is today: an up-to-date

center for rehabilitation of boys who have had an early start in crime.

The formal opening of Chapala on June 20, 1969, was the successful culmination of 7 years of dedicated effort by the Panama Lions.

Chapala was conceived in early 1962. Lion Federico Humbert, a charter member of the Panama Club, had become deeply concerned over the wave of juvenile delinquency sweeping the country, particularly the principal cities. He suggested to Lion Clarence Márquez, then president-elect of the club, to build his platform around the project. Márquez accepted the suggestion.

Then came a forum on juvenile delinquency, sponsored by the Lions, to awaken the community to the magnitude of the problem. Statistics cited at the forum showed that between 1951 and 1961 there were 7,170 minors brought before Juvenile Court in Panama City, the only one of its kind in the country. Many of them were repeat offenders.

The Chapala project was formally launched by Márquez in mid-1962. Six succeeding presidents devoted their energies to it—Stanley Fidanque, Henry Maduro, Guillermo A. Cochéz, Oscar C. Townshend, Dr. Rodolfo V. Young, and Raúl Cochéz. Through six administrations, ex-Lion Ricardo Arturo Meléndez was chairman of the Chapala committee.

## Set Aside

When the Lions chose the Chapala land for the school project after an inspection of several other possible locations, the site already had been set aside by the National Government for a reform-type school. But only one barracks-type building had been erected and less than a score of boys were lodged there, assigned to rudimentary farming activities. There was no rehabilitation program as such.

Now nine large buildings are clustered in the Chapala complex. Two are

(See p. 20)



Three of the seven members of the board that runs the Chapala Vocational School are shown with two of the Capuchine priests assigned to the institution. Left to right: Juan Aguirre R., treasurer, representing the Panama Lions Club; Rev. José Aínsa; Ramón I. Ramírez, representing the Panama 20-30 Club; Rev. Benedicto Quiroga, principal at Chapala, and Tomás G. Duque V., secretary, representing the Panama Rotary Club. Not in picture are Stanley Fidanque of the Panama Lions Club, who is vice president of the board, and the representatives of the Ministries of Education, Government and Justice, and Public Health. The board is presided over by the Minister of Education.



Belarvino Reyes, center, cabinet-making instructor at the Chapala Vocational School, shows two young inmates how to cut a board using an electric circular saw.

## Chapala vs. Delinquency

(Continued from p. 19)

dormitories, another is the administration center, a third houses workshops. There is a separate building for dining rooms, kitchen and laundry. Buildings for the students under observation and for those who have difficulty in adapting to the school's disciplinary system, a chapel and a gymnasium-swimming pool complete the installations at Chapala.

### Fund Raising

How did the Lions Club raise the funds for the Chapala project? Four mammoth raffles, each offering a multi-story apartment building as the main prize, provided the bulk of the money raised by the Club. The last raffle was held in December 1969. There was also an unexpected windfall of \$125,000 from an estate bequeathed for distribution by the National Government, which itself provided nearly half a million dollars.

Built to accommodate 300 boys, Chapala had 128 pupils by the end of last year—most of them from broken homes. Their usual crime is larceny or robbery. Some of them go to Chapala with a background of drug addiction. Enrollment is expected to reach 240 this year.

Admission to Chapala is by order of the Juvenile Court only. No boy is

sentenced in the strict sense of the word, as no term is fixed for his stay in Chapala. He is released when he has given evidence of readjustment to society—learning a gainful skill in the process. This takes, on the average, 2 or 3 years.

### Capuchines

The school is run by 10 priests of the Order of Tertiary Capuchines, which specializes in the rehabilitation of delinquent youth. The Capuchines run similar institutions in Spain, Germany, Italy, Colombia, Venezuela, Argentina, and the Dominican Republic.

The Rev. Benedicto Quiroga, who spent 13 years in Colombia, is the principal of the Chapala School.

Every boy committed to Chapala is assigned to either an adolescent or a youth group—a division that is carried through the entire process of re-education—and housed first in the Observation Section. Here he spends 3 months, undergoing psychological and other tests which determine how he is to be handled and what his aptitudes are. If the boy shows signs of rebellion in his new environment, he is placed in isolation for individual treatment until he becomes adjusted. The Isolation Section has a capacity of 20 inmates.

### Section of Hope

After the initial period of observation, the boy is assigned to the Section of Hope where the process of reform actually starts. For the next 3 months he is graded on work, learning, behavior, and culture. If he obtains passing grades, he is advanced to the Section of Perseverance. Now he is on his own, to a certain degree. He is accorded certain privileges, depending on his record. He may smoke, he may chat in the dining room, and he is on pass 1 day a month. But, as Father Quiroga stresses, these privileges are offered as incentives and can be retained only on the basis of a good record.

The last stage in the reform process—yet to be reached at Chapala—is the Section of Confidence, which is marked by a system of complete freedom for the young inmate on the school grounds in preparation for his return to society.

The re-educated inmate leaves Chapala upon an order of the Juvenile Court issued on the recommendation of the supervising priests.

### Shop Training

Throughout his stay in Chapala, every boy receives shop training from 7:30 a.m. to 10:45 a.m. and attends classroom instruction from 1 p.m. to 5 p.m. Monday through Saturday. Every waking hour of the day—whether he realizes it or not—he is under the watchful eyes of one of the priests (who generally wear sport clothes). Each group



Shopwork is stressed in the re-education program at the Chapala Vocational School.



The chapel at Chapala helps fill the spiritual needs of the boys. It is also a place where the youths can meditate and reflect.

of adolescents or youths in every section is assigned to a priest. Trained instructors impart practical training in the shops. At night, three watchmen are on duty in the dormitories. The school provides food and clothing for the boys. Family visits are permitted once a month.

There is no fence around the Chapala grounds and escape attempts are frequent, especially among the newcomers. As many as nine boys have run away at one time. But Father Quiroga says this poses no problem—eventually every escapee must get on the main highway and is usually recaptured within 24 hours.

#### Protestants

No attempt is made to impose religion on the young inmates. As Father Quiroga points out, the present student population includes several boys of Protestant faiths. But the attendance to

Sunday Mass is surprisingly large, he reports.

The Chapala shops are expected to be fully equipped by the end of March. Geared to job needs in Panama and to accelerated training, the crafts taught or to be taught at the school are machine shop, locksmithing, welding, spray painting, automobile repairing, electronics, printing, and cabinet making. If and when land becomes available, farming and poultry raising also will be taught.

When the shops are in full operation, orders from outside for jobs such as furniture making and machinery repair will be accepted. One third of the money will go to the school fund, one third will be set aside for shop improvements and one third will be paid to the students doing the work. The idea is to teach the boys to become self-sufficient.

Chapala is operating now with a \$240,000 annual subsidy from the National Government. The overall man-

agement of the school is under a board composed of one representative each from the Ministries of Education, Government and Justice, and Public Health, the Panama Rotary Club, the Panama 20-30 Club, and the Panama Lions Club. The board meets every Monday with Father Quiroga and his assistants.

#### Return To Society

By the time it is in full operation, the Vocational School at Chapala will be returning to Panamanian society re-educated youths at the rate of 100 a year—young men who have been led away from the path of crime and given a chance to become useful citizens. Thus, it will be fulfilling the pledge made when the cornerstone for the project was laid: "The Lions Club of Panama, with the full support of the National Government and the community, is building this school which will rehabilitate young men to serve and enhance the nation."



# Why Maru?

Ships named Maru follow  
ancient Japanese tradition

HUNDREDS OF Japanese ships, from *Aizu Maru* and *Bridgestone Maru* to *Zao Maru* and *Zuiyo Maru*, ply the world's oceans, proudly bearing the word "maru" on their bows and stems.

When asked why "maru" is used on Japanese merchantmen, men in the shipping industry will proffer many explanations. "It means ship in Japanese." "It's a sacred word that has always been part of the name of Japanese ships." "They put it on for good luck; the word doesn't really mean anything itself." "It refers to castles because ancient Japanese ships used to resemble fortresses."

Japanese shipbuilders and shipowners concur in saying: "Using 'maru' in the name of a Japanese ship is an ancient tradition. How the tradition arose is shrouded in the past."

So, the only certainty is the diversity of opinion existing about what the word "maru" means and where it originated. It is likely that in some measure all these opinions, as well as many others, are correct.

## A Circle

Literally, the modern Japanese character "maru" 丸 means small ball, sphere, or circle. Taking the last meaning, it is suggested that traditionally "maru" is attached to ship names because the ship embarks on a voyage to distant ports and returns, her trade route forming a circle. Following this line of reasoning, use of a word meaning "circle" in a ship's name will bring good luck to the ship, since it implies that the ship must return to her home port to complete the circle and justify her name.

A related explanation, focusing on "maru" meaning "circle," points out that a container or article in a circular or spheroid is sacred in oriental religions,

symbolizing the unity of heaven and earth. And since feudal ship hulls were roughly spheroid, ships were associated with this concept, leading to the use of "maru" in ship names.

But citing religious philosophy as an explanation for the word's origin also raises a three-part supposition linked to the fact that in Japan ships are referred to in the male gender rather than the feminine, as is the practice in Western countries. Thus, the Japanese describe ships in terms of masculine characteristics.

## Perfection

The three-part supposition states that in the past, it was customary to call a boy "-Maru" or "-Maro" for three reasons. First, "maru" was easy to pronounce, the sound was smooth and suggested a feeling of warmth. Secondly, "maru" means a smooth form without corners or edges, suggesting a sense of beauty and simplicity. Thirdly, "maru" has another meaning, perfection, and applied to a boy was meant to serve as inspiration and encouragement to help him develop and live an exemplary life as a man facing temptation and vicissitudes. These three connotations are thought to be applicable to a ship when "maru" is included in its name; it is pleasant to hear, it implies warmth, and the strength needed to survive the rigors of ocean voyages.

Another hypothesis with a religious overtone is that "maru" was first used in China. According to legend, during the reign of Emperor Ko (3,000 B.C.) a man named Hakudo Maru descended from heaven and taught men to build ships. It then became common practice to include his name in the name of ships. Though "maru" has the same literal meaning in Chinese as Japanese,

the Chinese do not use the word in any way associated with ships. In addition, Japanese historical records show that when Emperor Ojin (370 A.D.) ordered a ship built it was named *Karinu*. In 760 A.D. Emperor Junjin named two vessels for transporting government emissaries between China and Japan, *Iharima* and *Hayatori*. So it seems that the introduction of the word came later in Japanese history.

## Feudal Practice

Another explanation centers on the feudal practice that forbade Japanese merchants to use surnames. It therefore became customary to call men by the names of their shops for identification. "Maru" was alternatively a name applied to a shop or family; for example, a shop might be "Fushimi-ya" or "Fushimi Maru" and the owner similarly identified. This name would also be applied to a ship owned by the same family. Later, the name of the family, shop or business was not necessarily used but the term "maru" remained as the second part of a vessel's name. The first part of the ship's name continued to follow the practice of being called after a person, place or thing.

Another theory is that "maru" derives from an earlier word "maro," thought to be a personal pronoun for "I," which changed usage. Eventually "maro" was placed after a personal name. As an example, emperors used it in their names as "Kakinomotonohito Maro" (about 690 A.D.) and "Sakanoueno Tamura Maro" (about 800 A.D.). Later this custom was extended to the names of pets or prized objects but using the word "maru" as a dog, "Kisaki Maru," and a sword, "Hiza Maru." However, a person retained the form "maro" in his name. Gradually "maru" became

popular in the names of ships. As fleets grew in number, use of "maru" became habitual, as noted in the names of ships built during the Toyotomi Era (1582-1615 A.D.) and Tokugawa Era (1616-1867 A.D.). Examples were *Nippon Maru* and *Ataka Maru*. This practice continued to modern times.

### The Nippon

A corollary to this explanation is the idea that "maru" came into popular usage because it functioned as a definite article, in the sense that *Nippon Maru* is *the Nippon*.

As a kind of 16th-century dreadnought, the *Nippon Maru* may have been a turning point in the popular use of the word. This ship was 100 x 31 x 10 feet, and powered by sail and 100 oars manned by a crew of 180. She was fitted with three or more cannons and many scatter-shot guns and her principal hull parts were covered by iron plates. *Nippon Maru* was the flagship of the fleet, made up of 700 warships and several thousand supply ships, which unsuccessfully attacked Chosen (now Korea). It is suggested that since this ship was a marvel of her time successive ship initially were named "maru" out of respect to her, and that gradually the word became traditional.

However, a more popular theory centers on 16th-century ships, including the *Nippon Maru*, which looked like fortified castles, and the actual character 丸 which in old Japanese means castle, or more precisely, inner fortress of the castle. So, the theory suggests, "maru," meaning "castle," was applied to ships that resembled castles. Though ships gradually lost that resemblance, "maru" became traditional in ship names from the late 16th century to the present. Ironically, "maru" is not used for modern warships.

These explanations, from Japanese and Western scholars and shipping men, represent only some of the prevalent suggestions of the meaning and origin of "maru." It almost seems that for each person asked, there is a different explanation. And it seems unlikely that the one correct meaning—if indeed there is one—will be found soon.

*This article is a reprint from the American Bureau of Shipping magazine SURVEYOR which gave permission to use the story.*



The "Daigoh Maru," a gigantic bulk carrier squeezes through Pedro Miguel Locks, March 5, 1969, on her first voyage from Japan to the United States. The ship is owned by Mitsui O.S.K., and Boyd Brothers are the agents.

# Ships Named Maru



The "Amanogawa Maru," with a poop deck reminiscent of sterns of Japanese ships of feudal times, squeezes through Miraflores Locks. Much larger than her predecessors of the Middle Ages, the bulk carrier is a regular Panama Canal customer as she carries coal from the Atlantic coast of the United States to Japan. Owners are Kawasaki Kisen Kaisha of Japan. The Royal Netherlands Steamship Co. represents the ship at the Panama Canal.

# SHIPPING

## New Container Ships

SOME OF the longest ships to use the Panama Canal are included in an order for new container ships made recently by the East Asiatic Co., Inc. in a \$73.2 million shipbuilding program.

According to a recent issue of *SHIPPING DIGEST*, the company management located in Copenhagen has announced that the two larger ships will be built by Burmeister and Wain, world known Danish shipbuilders in Copenhagen, and will operate on the company's Far East to Europe route. Specifications for the new Far East ships are 900 feet in length and 106 feet beam at 29,600 deadweight tons. Capacity will be 1,700 containers of 20 by 8 feet.

Two other ships that will call on the west coast of the United States and Canada will be built by Nakskov shipyard in Denmark and will operate in conjunction with three existing ships that were partially converted for containerized cargo in 1958. These ships will be rated at 15,750 tons deadweight with a length of 654 feet and an 84-foot beam. They will have a cargo capacity for 820 standard 20-foot containers.

Delivery for all the ships is scheduled for the second-half of 1971 and the first-half of 1972. C. B. Fenton & Co. are agents for the line at the Panama Canal.

## Engines for Formosa

TWENTY-EIGHT diesel electric railroad engines went through the Canal recently as deck cargo aboard the *SS Union Friendship*. They were making the long journey from Chicago, through the St. Lawrence Seaway, down the east coast of the United States, through the Panama Canal and across the Pacific to

Formosa. The engines are to be used as replacements on the Nationalist Chinese railroads of Taiwan. The engines were being carried on deck but the rest of the 3,000-ton cargo consisted of engine parts which were carried in the ship's hold. The *Union Friendship* is a Liberian flag ship with a Chinese crew. Payne & Wardlaw is agent for the ship.

## All-Water Route

DOW CHEMICAL Company is using the all-water route from Michigan via the St. Lawrence Seaway and through the Panama Canal to the Pacific coast of the United States, and despite the greater distance, is saving money.

The tanker *Leland I. Doan* is passing through the Canal every 2 weeks on a round trip run between San Pedro, Calif., and gulf ports. On her southbound transit, she carries approximately 14,000 long tons of jet fuel additive for delivery to west coast oil refineries. The product is manufactured in Midland, Mich., and barged from Chicago to Texas where it is loaded aboard the ship at either Houston or Corpus Christi. Recently Dow announced that a new lake-river barge was built for shipment of the liquid chemicals between Michigan and the gulf coast. The 2,400-ton barge, upon completion at New Orleans, went into service before the Great Lakes froze for the winter.

According to *THE NEW YORK SHIPPING DIGEST*, Dow Chemical cited cost savings as the reason for Dow's increased use of water transportation by barge to the east coast as well as to the gulf coast and by oceangoing ships from gulf ports to the west coast.

Panama Agencies handle the ships at the Canal.

### PANAMA CANAL TRAFFIC STATISTICS FOR FIRST 6 MONTHS OF FISCAL YEAR 1970

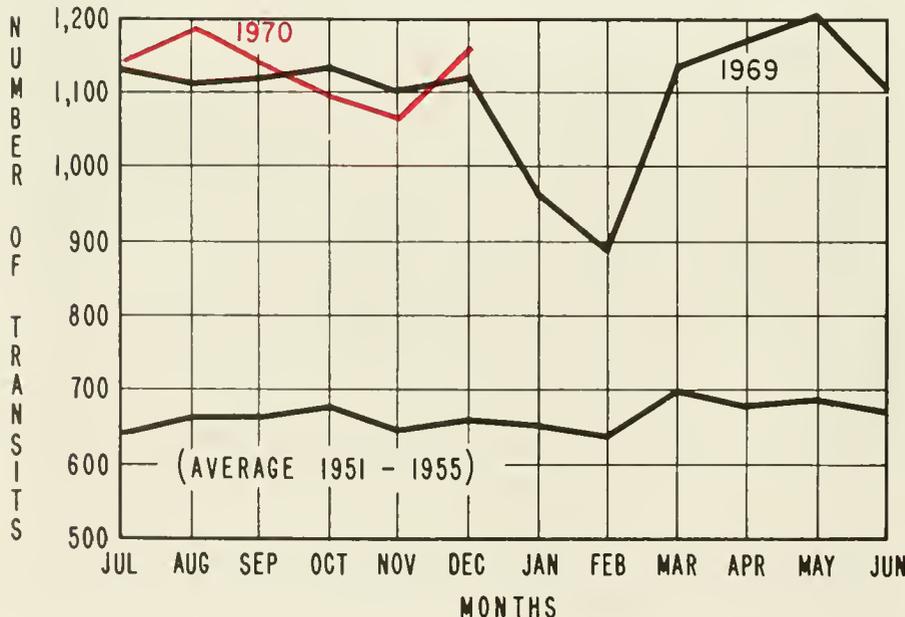
| TRANSITS (Oceangoing Vessels) |              |              |
|-------------------------------|--------------|--------------|
|                               | 1970         | 1969         |
| Commercial                    | 6,760        | 6,706        |
| U.S. Government               | 635          | 709          |
| Free                          | 54           | 33           |
| <b>Total</b>                  | <b>7,449</b> | <b>7,448</b> |

| TOLLS*          |                     |                     |
|-----------------|---------------------|---------------------|
|                 | 1970                | 1969                |
| Commercial      | \$47,037,608        | \$44,262,477        |
| U.S. Government | 3,595,286           | 4,471,273           |
| <b>Total</b>    | <b>\$50,632,894</b> | <b>\$48,733,750</b> |

| CARGO**         |                   |                   |
|-----------------|-------------------|-------------------|
|                 | 1970              | 1969              |
| Commercial      | 55,739,168        | 51,083,072        |
| U.S. Government | 2,359,144         | 4,167,389         |
| Free            | 81,538            | 57,360            |
| <b>Total</b>    | <b>58,179,850</b> | <b>55,307,821</b> |

\* Includes tolls on all vessels, oceangoing and small.

\*\* Cargo figures are in long tons.



# CANAL HISTORY

## 50 Years Ago

CANAL RECORDS were broken right and left in 1919 when the Panama Canal was only 5 years old and beginning to revert to peacetime status after World War I. More ships passed through the Canal during December 1919 than in any preceding month and new records were established for net tonnage, tolls, and cargo. A total of 281 oceangoing ships, of which 261 were commercial, carrying 931,203 tons of cargo, made the transit during the month. This surpassed the previous commercial record of May 1918 when there were 200 ships carrying 775,357 tons of cargo.

The SS *Orca* of the Pacific Steam Navigation Company, passing from the Pacific to Atlantic on December 18, carried the largest amount of cargo taken through the Canal on any one vessel since the Canal opened in 1914. It amounted to 15,735 long tons and consisted of general cargo from Chile and Peru for Liverpool.

The first oceangoing vessels to pass through the Canal under the German flag were the tugs *Einigkeit* and *Schelde* which went from the Atlantic to the Pacific on January 2 on their way from Hamburg to Valparaiso. They were on their way to tow disabled ex-German vessels from Valparaiso to Liverpool for overhaul.

The French cruiser *Jeanne d'Arc*, an active participant in naval operations during World War I, arrived at Cristobal January 26 and spent several days in port on an official visit.

## 25 Years Ago

THE EFFECTS of World War II, then in its final stages in Europe, were felt in the Canal Zone 25 years ago with war-work continuing through the holiday season. The Governor of the Canal Zone said that Christmas would be celebrated as a holiday but that work of high urgency would go forward on Christmas Day. Monday, January 1, however was a regular workday in accordance with instructions from the President of the United States.

A warning was issued in the Canal Zone that car owners with Canal Zone privileges who permit their tires to be worn down to the tread, thus making

them unfit for recapping, would not be eligible to receive tire replacements.

The names of 37 Panama Canal employees, all in the 26- to 37-year age group, were received by the Selective Service office at Balboa Heights in January 1945 as having been classified 1-A. This was the largest single group of Canal employees to be reclassified and the first in this age group to be reclassified after deferment as a result of the decision of the War Manpower Commission and Selective Service System to call into service men under 38 years of age.

## 10 Years Ago

HEAVY DECEMBER rains disrupted all traffic on the Boyd-Roosevelt Highway 10 years ago and a slide derailed a Panama Railroad train. Until repairs were made to the railroad bed and the highway, mail, supplies and personnel were shuttled back and forth between Gamboa and Gatun by Dredging Division launches. Rainfall was so heavy that all of the 14 gates at Gatun Spillway were opened for the first time in 16 years.

In January 1960, the new \$1½ million Cristobal Junior-Senior High School at Coco Solo was formally dedicated by Gov. W. E. Potter, Dr. James Ray Graham, Director of Special Education in Illinois, Canal Zone school officials and several hundred Atlantic side residents. The school, a former U.S. Navy barracks, was remodeled into a first-class modern school plant to replace the Cristobal High School, located in Colon on property which had been formally returned to the Republic of Panama a year before.

## One Year Ago

THERE WAS a surge of traffic through the Canal 1 year ago as ships departed from New York and other east coast and gulf ports to escape a tie-up by the longshoreman's strike. Despite the heavy traffic, both lanes at Gatun were closed to traffic from 10 p.m. to 6 a.m. daily during the last 2 weeks in January to permit installation of curtain wall panels on the north approach wall. Draft limitations started in mid-January 1969 when the draft allowance of 40 feet given large vessels during the rainy season, was cut by 6 inches.

## Carnival, 1920 Style

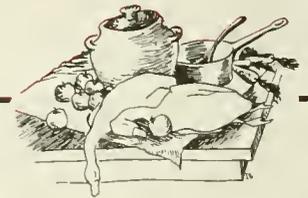


This was J Street at Central Ave. in downtown Panama City a half-century ago this month during the Carnival festivities of 1920. Thousands lined the streets to watch the parade.



# Culinary Capers

“Those were the days”



By Fannie P. Hernandez

REMINISCING ON the little things in life during the early construction days, Canal builders who are still with us recall a familiar picture of men going to work carrying round yellow food tins. The food, which played an important role in building the Canal was “Grapenuts,” the only cereal which, because of its baking process and packaging, withstood the effects of the tropics. The Canal workers frequently ate the food dry and enjoyed its sweet crunchy flavor.

Closely related to what seemed insurmountable obstacles in constructing the Panama Canal was the problem of food. If men could not be fed, there would be no Canal. No food was ever accumulated on the Isthmus, and in the summer of 1905, this disastrous situation was made even more serious by the almost total failure of crops for 2 preceding years. Farm laborers had abandoned the fields for work on the

Canal and a quarantine was in effect at the Port of Panama on the Pacific side because of bubonic plague, temporarily preventing the delivery of food from neighboring countries.

## Feeding Was A Problem

The United States was faced with the problem of feeding 12,000 men and their families. To do this, stores were opened at every labor camp, mess-houses were built, and food was furnished to all employees at cost.

Living conditions for the Canal builders had improved considerably by 1909. New quarters had been constructed and the area had been freed of pestilential tropical diseases. The Panama Railroad had built a cold storage plant, bakery, laundry, and wholesale warehouse at Cristobal. Refrigeration facilities were provided on the Panama Railroad ships and from three to seven carloads of meat were shipped weekly

from the United States to the Canal Zone. The cars were loaded with beef hindquarters, hickory-cured hams and bacon prepared from the finest young porkers, sausage, barreled pork, and lard. Large quantities of canned meat, beef extract, and barreled beef also were shipped to the Canal. Eggs, fowl, and butter arrived regularly; between 25,000 to 30,000 cases of eggs were shipped annually. Barrels of flour, coffee, tea, cocoa, and spices arrived in great quantities.

## Inadequate Facilities

In the beginning of the construction era, facilities for fresh milk were inadequate and large quantities of dry milk were consumed.

Fruit was an important item in the diet of the Canal workers and enormous quantities of both fresh and canned fruit were consumed during the construction. A New Orleans firm supplied fruit and

market produce. Refrigerated cars had been put into service by the Panama Railroad and supplies were distributed early each morning at Gatun, Gorgona, Empire, Culebra, Pedro Miguel, Ancon, and Balboa. The factory at Cristobal was making 100 tons of ice daily and the bakery was supplying 20,000 loaves of bread which were sold at cost.

Until the North Americans flocked to the Panama Canal, butter was little known in Central America and the Isthmus, and odd as it may seem, nearly all the butter which was consumed on the west coast of Mexico and Central America came from Europe. According to records, the first shipment of U.S. butter to Panama was at the beginning of 1909. Large amounts of syrup also were consumed in the Canal Zone during the construction days.

#### Wholesale Food Prices

The housewife bought groceries at the commissary store at wholesale prices. Fresh meat included lamb chops at 29 cents a pound, veal shoulder for roasting for 15 cents, beef sirloin steak for 22 cents, and tenderloin was 27 cents a pound. A large roasting chicken cost about \$1.50, and potatoes were 3 cents

a pound; onions, 3 cents, and tomatoes, 7 cents. Although prices were reasonable enough, a common complaint of the construction day hostess was "what is the fun of giving a dinner party if all the guests know exactly what the menu will be and how much it cost."

The U.S. Government provided free housing, furniture, electricity, water, cooking wood, coal, and ice. House-keeping was comparatively easy. Most households had a cook or at least part-time help to cope with the wood stove and woodbox in the 8 by 10-foot kitchen of the family quarters along the line.

Although cooking did not run a wide gastronomical gamut, the rugged spirited men and women who built the Canal ate wholesome meals. And not all was dull and tasteless, according to a cookbook of hints and favorite recipes compiled by members of the Home Department of the Canal Zone Federation of Women's Clubs residing on the Isthmus during the years 1909-10. The Home Department also covered such subjects as the making of tea and coffee, the evaluation of the kitchen, the study of food values and the esthetic side of

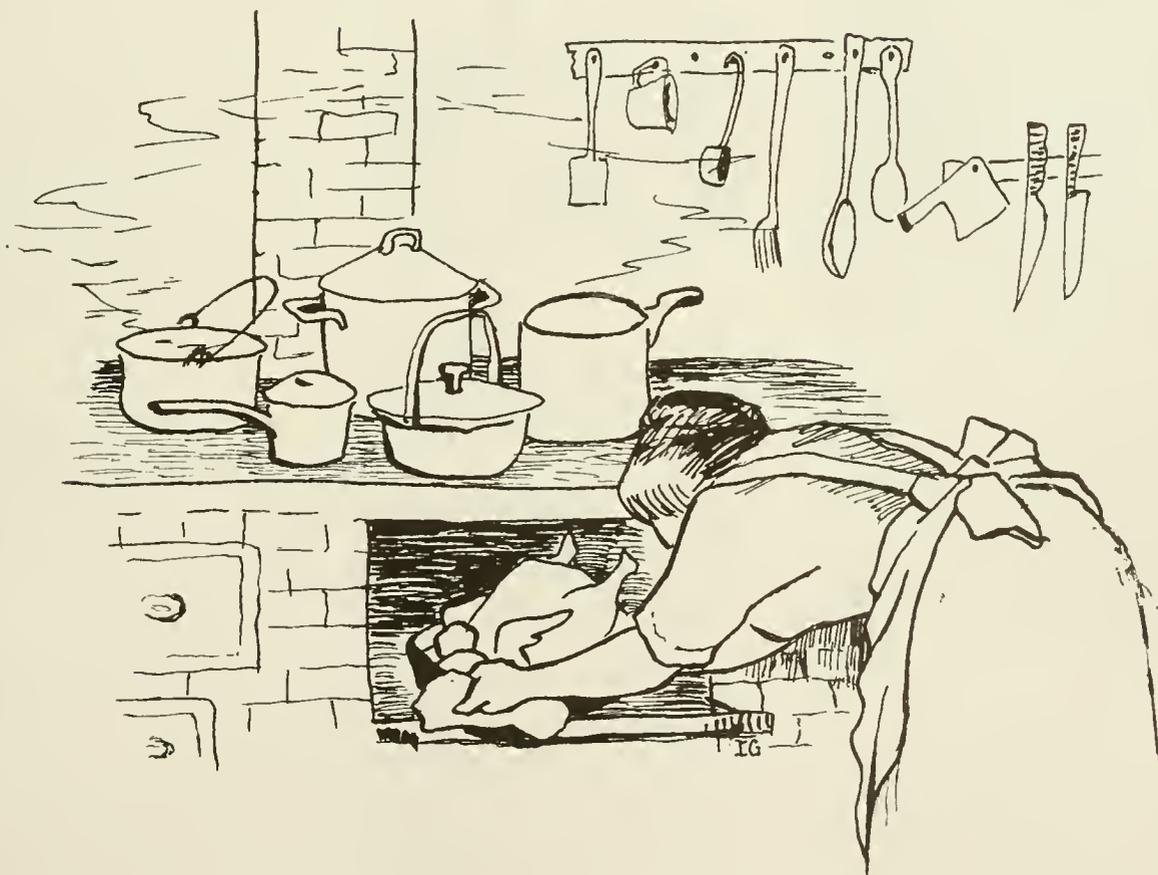
homemaking. The wives of the Canal builders took an active part in the department, generously sharing their recipes, some they had brought with them and others of native foods they had learned to utilize.

#### Trifling Things

The cookbook includes a section on "Trifling Things Worth Knowing" and informs the Isthmian housewife that "a soda bath will relieve tired feet," and "to keep lemons, cover with water, changing it every week," and "a dish of water in a hot oven will prevent food from burning."

A recipe for Christmas Pudding signed Anonymous goes like this, "Take five pounds of loving kindness, add one pound leaven of common sense, two pounds fruit of experience, one pound of spice of cheerfulness, one dozen good actions, two pounds sweet amiability, one pound finely minced individuality, essence of prudence, patience, and hospitality, according to requirements and some moderation seasoned with the spirit of merriment."

*(For other Construction Day recipes, turn the page.)*



—Sketches by Irene Gerdes.

# Construction Day Recipes

Here are a few of the recipes by construction day housewives exactly as they appear in the Canal Zone Federation of Women's Clubs Cookbook of 1909-10:

## Butter Bread

A recipe for *Butter Bread* which Mrs. William C. Gorgas, wife of the surgeon general, refers to as a "good old Southern recipe:" Two cups of fine hominy or grits. While hot, mix with a large tablespoon of butter, next add a pint of milk, gradually stirred in, then 4 eggs beaten lightly, and last a ½ pint of cornmeal; the batter should be the consistency of rich boiled custard; if it thickens, add more milk. Bake in a deep dish, cover with a tin plate which is taken off in time to allow bread to brown on top. Use as much baking powder as for a pint of flour.

## Brown Bread

Mrs. J. H. Higgins' recipe for *Brown Bread* calls for 2 cups of cornmeal (yellow is preferable), 2 cups of white flour, ½ teaspoon salt, 1½ cups molasses, 1 teaspoon vinegar, 1½ teaspoons soda, dissolved in warm water, adding enough hot water to make the batter drip from the spoon. Steam 3 hours in baking powder tins or lard pail. Place in moderate oven 20 minutes before removing from oven. (Mrs. Higgins' husband was a craneman.)

## Cocoanut Muffins

*Cocoanut Muffins* by Mrs. J. E. West-erly: 4 teacups flour, 3 teaspoons baking powder, ½ cup sugar, a teaspoon salt, a tablespoon melted butter, a medium sized grated cocoanut, enough milk to make a soft dough. Mix flour, baking powder, sugar, salt, cocoanut, then milk and butter. Bake in well greased muffin tins about 5 minutes. This will make 3 dozen.

## Chayote

Here is a recipe for *Chayote Pie* by Mrs. William L. Sibert, whose husband was in charge of all the lock and dam construction on the Canal: Pare and boil your chayotes until soft enough to be pressed through vegetable press

or strainer. To 1 cup of chayote pulp take 2 eggs, 1 cup milk, ½ cup sugar, 1 tablespoon melted butter, and cinnamon and ginger to make it taste like pumpkin pie, about ½ teaspoon cinnamon and twice as much ginger. When baked in a cover crust rather slowly it can scarcely be told from pumpkin pie.

Apparently Mrs. Sibert enjoyed experimenting with the local produce as her recipe for *Chayote a la Eggplant* also is found in the cookbook: Peel chayotes, slice them lengthwise in thin slices, lay them in cold salt water for at least ½ hour, then dip each slice in rolled bread crumbs, then in beaten egg, and again in bread crumbs. Let them stand an hour or so to stiffen, then drop in



hot deep fat and fry to a golden brown. (Even better than fried eggplant, noted Mrs. Sibert.)

Mrs. Chester Harding, wife of Major Chester Harding, the distinguished engineer who played an important role in the Atlantic Division construction work was a generous contributor of dessert recipes. Here are a few of them:

## Strawberry Parfait

*Strawberry Parfait*: Stir a cupful of strawberry jam over the fire until hot, then add gradually to the stiffly beaten whites of 2 eggs. Beat until cool, then add a tablespoonful of lemon juice, a few drops of vanilla, and stand aside until quite cool, then fold in two cupfuls of thick cream, beaten until stiff and

dry. Put into a mold, pack in ice and salt and allow to remain for 3 or 4 hours; turn out and garnish with whipped cream and strawberry jam.

## Chocolate Pie

Her *Chocolate Pie* calls for 1 coffee-cupful of milk, ½ cup of sugar, 2 table-spoonsful of grated chocolate, 3 eggs, ½ teaspoonful of salt, vanilla to flavor. Beat yolks of eggs until light and add to them 2 tablespoons of milk. Heat the chocolate and rest of milk together, put in salt and sugar and when scalding hot add the yolks of the eggs. Let the mixture cook for 2 minutes, remove from the fire and when cooled add the flavoring. Line a pie plate with crust, turn in the filling and bake 20 minutes in a quick oven. Beat the whites of the eggs very light, sweeten with a teaspoon of sugar and spread them over the pie, then brown the eggs slightly and serve cold.

## Sponge Cake

*Hot Water Sponge Cake*: Whites of 3 eggs beaten stiff, and 1 cupful of sugar, yolks of 3 eggs beaten light and thick, add 1 teaspoonful lemon juice, and ¼ cup hot water gradually, and continue beating; pour gradually into the whites and sugar, then gently fold in a cupful of flour. Bake in an oblong loaf in a moderate oven.

## Orange Sauce

Here is Mrs. Harding's recipe for *Orange Sauce*: Juice and grated rind of 1 orange, ½ lemon, ½ teaspoonful of cloves or cinnamon extract, 1 teaspoonful cornstarch, 1 cupful water; bring slowly to a boiling point, strain and serve.

## Kisses

Also among the dessert recipes is this one for *Kisses* by Mrs. H. J. Slifer whose husband was the general manager of the Panama Railroad: Whites of 4 eggs, 1¼ cups powdered sugar, 1 teaspoon vanilla. Whip eggs and gradually add sugar; add vanilla last. Dip out and place on glazed paper. Bake in very low oven 30 minutes or a little over.

# ANNIVERSARIES

(On the basis of total Federal Service)

## MARINE BUREAU

Laurence D. Duncan  
Oiler  
Omer N. Laval  
Shipwright (Maintenance)

## TRANSPORTATION AND TERMINALS BUREAU

Samuel B. Lashley  
Guard

## SUPPLY AND COMMUNITY SERVICE BUREAU

Augustus A. Nelson  
Food Service Worker  
C. Leroy Cockburn  
Assistant Milk Products Plant Manager

Cuthbert C. Rowe  
Retail Complex Manager  
George Thorbourne  
Guest House Supervisor

Joshua O. Sayles  
Truck Driver  
Norman A. Blades  
Lead Foreman (Grounds)

## ENGINEERING AND CONSTRUCTION BUREAU

Clyde A. Sealey  
Clerk (Typing)  
Samuel H. Blenman  
Meteorological Technician (General)

William Downs  
Laborer (Cleaner)  
Clarence A. Hope  
Pipe Coverer and Insulator

Daniel E. Nicholas  
Oiler (Floating Plant)  
Alfred C. Williams  
Clerk

Vernon L. Dalhoff  
Supervisory Electrical Engineering Technician

## HEALTH BUREAU

Winifred W. Gray  
Nursing Assistant

## OFFICE OF THE GOVERNOR-PRESIDENT

William S. Wigg  
Administrative Services Officer

## OFFICE OF THE COMPTROLLER

McDonald Brathwaite  
Accounts Maintenance Clerk

George H. Moore  
Payroll Clerk

Elmer J. Kruska  
Payroll Clerk

Stuart Wallace  
Budget Analyst

Richard W. Cov  
Operating Accountant

William B. Lloyd  
Supervisory Budget Analyst

Woodrow G. Turbert  
Staff Accountant

## MAGISTRATE'S COURT

Rathburn A. Springer  
Clerk Typist

## ADMINISTRATIVE SERVICES DIVISION

C. N. Brathwaite  
Messenger (Motor Vehicle Operator)

Lennard A. Johns  
Photographer, Laboratory

Jerry W. Detamore  
Printing Specialist

Victor L. Williams  
Messenger

Wilfred A. Pond  
Mail Clerk

## MARINE BUREAU

Victor Johnson  
Helper (General)

Alfred W. Lilly  
Guard

Earl W. Worrell  
Clerk  
Gilberto Escobar  
Clerk-Typist  
Vincent C. Lashley  
Time and Leave Clerk  
Garfield Mayers  
Guard

Glenn D. Redmond  
Lead Foreman, Welder  
Raymond W. Honker  
Maintenance (Boats)  
William H. Keller, Jr.  
General Foreman, Lock Operations

Leon R. Thompson  
Seaman  
Rafael V. Alleyne D.  
Seaman

Arnold Jones  
Motor Launch Operator  
Zephaniah C. Rowe  
Leader Seaman

José A. Cristobal  
Oiler (Floating Plant)  
Jay A. Elliott  
Oiler (Floating Plant)

Nevel O. Burnett  
Leader, Line Handler (Deckhand Boatswain)  
Felix A. Julienne  
Stockman

George L. Brown  
Preservation Mechanic  
Martin Griffith  
Preservation Mechanic

Rupert A. Sobers  
Line Handler (Deckhand)  
Ernest Verley  
Line Handler (Deckhand)

Cyril Williams  
Line Handler (Deckhand)  
Eric A. Francis  
Line Handler (Deckhand)

Ewart E. Marson  
Line Handler (Deckhand)  
Joseph T. McDonald  
Oiler (Floating Plant)

Albert A. Stewart  
Seaman  
Alfred Palmer  
Seaman

Claude A. Smith  
Motor Launch Operator  
Winston L. Piggott  
Motor Launch Operator

Beresford A. Boyce  
Automotive Crane Operator  
Aurelio Yeaza  
Crane Hookman

Alfred C. Goodridge  
Towing Locomotive Operator (Locks)  
Rolviv Gordon  
Helper Lock Operator

Edwin Baptiste  
Boiler Tender  
Frank F. Chase  
Painter

Eduardo Muñoz  
Painter  
Elrain A. Spaing  
Painter

George R. Williams  
Toolroom Mechanic (Maintenance)  
Adolphus J. Cole  
Machinist (Marine-Maintenance)

Mary L. Peterson  
Occupational Health Nurse  
Henry M. Leon  
Accounts Maintenance Clerk

Juan González M.  
Clerk  
Edward B. Callomn  
Clerk

Stanley C. Francis  
Truck Driver  
Olrick O. Alleyne  
Seaman

Fitz G. Perrott  
Oiler (Floating Plant)

Stanley W. Gunn  
Sailmaker  
Horace A. Elvy  
Oiler (Floating Plant)  
Arthur H. E. Curtis  
Line Handler (Deckhand)  
Johino Hurtadn  
Seaman

José F. Robinson  
Oiler  
Pedro Cañate  
Painter  
Rufrene Hemmings  
Helper Operating Engineer (Hoisting Equipment)

Victor Archibald  
Teletypist  
Alfonso Rowland  
Supervisory Supply Clerk

Dathan Martin  
Toolroom Attendant  
Fillmore Archibaldo  
Wharfbuilder (Maintenance)

Juan Melgarejo, Jr.  
Maintenance (Rope and Wire Cable)  
Gladstone L. King  
Line Handler (Deckhand)

Lloyd G. Lesley  
Line Handler (Deckhand)

## TRANSPORTATION AND TERMINALS BUREAU

Henry D. Luseap  
Helper (General)  
Canute S. Cockburn  
Supervisory Cargo Clerk

Fitz Charles  
Messenger (Motor Vehicle Operator)  
Roger W. Adams  
Motor Transportation Operations Officer

C. S. Daniels  
Motor Vehicle Dispatcher  
Eugene P. Earle  
Train Baggage

Fitzstephen R. Best  
Stevedore  
Cornelio Raven  
Lead Foreman Carpenter

Evelyn E. Collins  
Water Serviceman  
Fitzherbert Heath  
Leader Water Serviceman

Aaron N. Spalding  
Truck Driver  
Lorenzo DeGracia  
Truck Driver

Pablo Carrillo  
Truck Driver (Heavy Trailer)  
Ralph F. Rowland  
Automotive Mechanic (Maintenance)

Joaquin Rivera R.  
Truck Driver  
Dennis E. Clarke  
Liquid Fuels Wharfman

Andreas Nicolaisen  
Liquid Fuels Dispatcher  
Worden E. French  
General Foreman, Fuel Operations

Edwin Cobham  
Carpenter (Maintenance)  
Pablo Reyes A.  
Painter

Samuel Grant  
Helper Machinist  
Cyril J. Myers  
Messenger (Motor Vehicle Operator)

Hugh P. M. Sealey  
Clerk  
Kenneth L. Reid  
Supervisory Cargo Checker

William W. Campbell  
Cargo Checker  
Yeska E. Eastman  
Automotive Crane Operator

Clifford E. Ross  
Guard  
Ashby Graham  
Chauffeur

(See p. 30)

# Anniversaries

(Continued from p. 29)

Percival A. Appleton  
Truck Driver  
Daniel E. Gerald  
Materials Handling Equipment Repairman  
Sidney Crawford  
Centrifuge Operator  
Damaso Riquelme  
Railroad Trackman (Main Line)  
Albert D. Lord  
Motor Vehicle Dispatcher  
William B. Huff  
Cargo Checking Officer  
Herbert W. Rose  
Yard Locomotive Engineer  
Avon R. Farnum  
Helper (General)

## SUPPLY AND COMMUNITY SERVICE BUREAU

Alfred A. Shoy  
Clerk  
Nephi O. Harding  
Telephone Operator  
Arthur L. Betty  
Accounts Maintenance Clerk  
John H. Stevens  
Procurement Officer  
Clifford C. Reid  
Supply Clerk  
Kenneth O. Blackman  
Supply Clerk  
Ernesto L. Fields  
Supply Clerk  
Rostrom A. Alleyne  
Supply Clerk  
Alberto E. Caballero  
Tree Trimmer  
Walter E. Clarke  
Lead Foreman (Grounds)  
Nehemiah Moodie  
High Lift Truck Operator  
Josephine Bravo  
Marker and Sorter  
Ena M. Elliott  
Counterwoman  
George W. Anderson  
Stockman  
Sidney C. Thompson  
Stockman  
Nicanor Torres  
Scrap Materials Sorter  
George Chambers  
Truck Driver  
Gabriel Mendoza  
Garbage Collector  
Stanley A. Griffith  
Lead Foreman Laborer (Cleaner)  
Jorge C. Evers  
Laborer (Heavy)  
Verona Grant  
Sales Store Checker  
Winston M. Haye  
Supervisory Distribution Facilities Assistant  
Albertha L. Martin  
Supply Clerk  
Allen T. Hamlin  
Clerk Typist  
Conrad E. Frederick  
Leader Cook  
Francis A. Cadogan  
Utility Worker  
Felipe Aguilar  
Garbage Collector  
Victor Salazar  
Gardener  
David A. Hector  
Laborer  
Sydney E. Jones  
Laborer (Cleaner)  
David H. Gayle  
Laborer (Cleaner)  
Arthur B. Boyd  
Leader Washman  
Evadney O. Green  
Marker and Sorter

## ENGINEERING AND CONSTRUCTION BUREAU

Claudio Gil  
Seaman  
Nashbert Holmes  
Supervisory Clerk  
Ivan J. Stephens  
Clerk-Typist  
Carlos M. Badiola  
Supervisory Civil Engineer Technician  
Elmer Kanz  
Supervisory Hydrologist  
William A. Greenidge  
Helper, Electronics Mechanic  
Vicente Pinillo  
Helper Electrician  
A. F. Scantlebury  
Helper Electrician  
Edwin S. Anglenwhite  
Cement Finisher  
Gilberto Budil  
Roofers  
Alcibiades De León  
Paver  
Eustace A. Laurie  
Leader, Battery Services  
Charles G. Brown  
Painter  
Gilberto Llerena  
Painter (Sign)  
Arthur W. Trotman  
Carpenter  
Leahunte R. Straker  
Carpenter  
Wallace Cameron  
Carpenter  
George A. Morgan  
Maintenance (Dock)  
Robert C. Herrington  
Chief Foreman, Facilities and Equipment  
(Maintenance and Operations)  
Alcides Alcazar  
Oiler  
Eustorio Morales  
Boiler Tender  
Martin Hurtado  
Quarryman  
Everist A. Williams  
Rock Crushing Plant Operator  
M. A. Wilkinson  
Truck Driver  
Earl E. Mullins  
Master, Dipper Dredge  
Julian E. Albert  
Oiler (Floating Plant-Boom)  
José D. Calame  
Oiler (Floating Plant)  
Octavio E. Benítez  
Oiler (Floating Plant)  
Atkinson Myles  
Leader Seaman  
Percy Arthur  
Seaman  
Edward Shuffler  
Motor Launch Operator  
Wilfred B. Maynard  
Residual Fuel Treatment Plant Operator  
Milton Horter, Jr.  
Chief, Power Plant (Diesel)  
Wilbur B. Fall  
General Foreman (Facilities and Equipment  
Repair)  
Rupert V. Arthur  
Lead Foreman (Highway Maintenance)  
Lionel E. Fardin  
Carpenter  
Rupert A. Phillips  
Painter  
Thomas McGowan  
Helper Welder  
Gabino Morales A.  
Paver  
Francisco Peñalosa  
Asphalt or Cement Worker  
Jacob Murillo  
Winchman  
Irvin D. Armstrong  
Winchman  
Abner E. Smart  
Laborer (Heavy)  
Cecil A. Gayle  
Helper Cable Splicer  
Louis A. Browne  
Maintenance (Distribution Systems)

John N. Prince  
Electrician (Lineman)  
Eugenio D. C. Jones  
Helper Electrician  
Julian F. Scott  
Helper Electrician  
Alfred A. Bonnicks  
Dispatcher (Floating Equipment)  
Levy M. Evelyn  
Surveying Aid  
Marcos Reyna  
Surveying Aid  
Joseph M. Watson  
Administrative Officer  
Frank A. Anderson, Jr.  
Inspector (Plumbing)  
Filos H. Ward  
Electrical Equipment Repairman  
Vivian E. Wilson  
Toolroom Attendant  
José D. Ortiz  
Laborer (Heavy)  
Leonard A. Jackson  
Rock Crushing Plant Operator  
Harold M. Cummings  
Paver  
Anel I. Ruiz  
Carpenter  
José N. Rodríguez  
Painter  
Louis E. Sprauve  
Clerk  
Arthur N. Rice  
Helper Electrician  
C. E. Haywood  
Accounting Clerk  
Cleveland A. Jordan  
Electrician (Lineman)  
Isaiah C. Prosser  
Helper Cable Splicer  
Louis G. Small  
Clerk-Typist  
Lloyd W. Wade  
Surveying Aid  
Clifford O. Samuels  
Leader Seaman  
Donald G. Brewster  
Seaman  
Gerald Wilson  
Guard  
Clarence H. Fonseca  
Seaman  
Gladstone C. Bellamy  
Oiler (Floating Plant-Boom)  
Kelvin S. Barnett  
Clerk (Work Order)  
Ethelbert Howell  
Stockman  
Harland V. Howard, Jr.  
Supervisor, Generation and Transmission Plant  
(Power System)  
P. M. Disharoon, Jr.  
Test Operator Foreman (Mechanical Power  
System)  
Mario Calleja  
Supervisory Civil Engineer  
Joseph M. Evelyn  
Helper Machinist (Maintenance)

## CIVIL AFFAIRS BUREAU

James E. Stearns  
Teacher (Sr. Hi. U.S. Schools)  
Alfred C. Bushell  
Contraband Control Officer  
Arthur Baptist  
Swimming Pool Operator  
Joseph A. Forde  
Maintenance  
Viola B. Duncan  
Teacher (Jr. High-Latin American Schools)  
Rexford R. Inniss  
Clerk-Typist (Correctional)  
John H. West  
Recreation Assistant  
Albertha Tonge  
Dressing Room Attendant  
John R. Bovell  
Guard (Correctional)  
Fred E. Perra  
District Police Commander  
Lealand A. Larrison  
Finance Branch Superintendent  
James L. Phillips  
Fire Protection Inspector

(See p. 31)

# Anniversaries

(Continued from p. 30)

## HEALTH BUREAU

Viviana N. Martin  
Supervisory Clerk—Dictating Machine  
Transcriber)

Raymond G. Bush  
Supervisory Sanitation Inspector

Norman Walker  
Nursing Assistant

Lillith M. Blackwood  
Medical Technician

Clifford Pierre  
Medical Aid (Ambulances)

José M. Santimateo  
Laborer (Heavy-Pest Control)

Ivan S. Johnson  
Warehouseman

Allan A. Spencer  
Leader Sandblaster

Henry Johnson  
Medical Aid (Ambulances)

Winston O. Thomas  
Nursing Assistant (Operating Room)

Louise E. Griffon  
Secretary (Stenography)

Guillermo L. Dixon  
Admitting Clerk

Aston C. Philpotts  
Admitting Clerk

Charles Heath  
Nursing Assistant (Medicine and Surgery)

Louise L. Knight  
File Clerk

Alfredo Archibald  
Warehouseman



**TAKING ADVANTAGE** of balmy dry season weather, tourists play shuffleboard on the deck of the "Kungsholm" tied up at Balboa. The Swedish liner is one of many large ships bringing thousands of tourists to the Isthmus during the winter cruise season.

## Shipping Trends

(Continued from p. 13)

ports of West Australia to load ore for the Atlantic basin provided the western Atlantic ports are deep enough to accommodate these cargoes.

### New Ports Needed

Much of the success of this new trend in world commerce will depend on the construction, in the near future, of new deep water ports. This, as much as the growth in the size of the carriers, will have an effect on Panama Canal traffic.

For instance, the foresight of the Canadians in the construction of a new mammoth terminal complex at Roberts Bank, a site south of Vancouver, has given access to the large new western Canadian mines which produce high quality coal. This could take some of the market from West Virginia.

This new port will be serviced with vessels of 150,000 tons which will be able to haul coal profitably to Japan, even with a ballast return voyage, at rates under \$2 per long ton.

When more steel mills are built on the U.S. west coast, as they will be soon, this same Canadian terminal could enable coking coal and limestone to be transported to a U.S. west coast plant.



**LOADED TO CAPACITY** with cargo containers, the Sea-Land container ship "Long Beach" moves south through Gaillard Cut. It is one of several ships of this type transiting regularly.











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AMERICA



