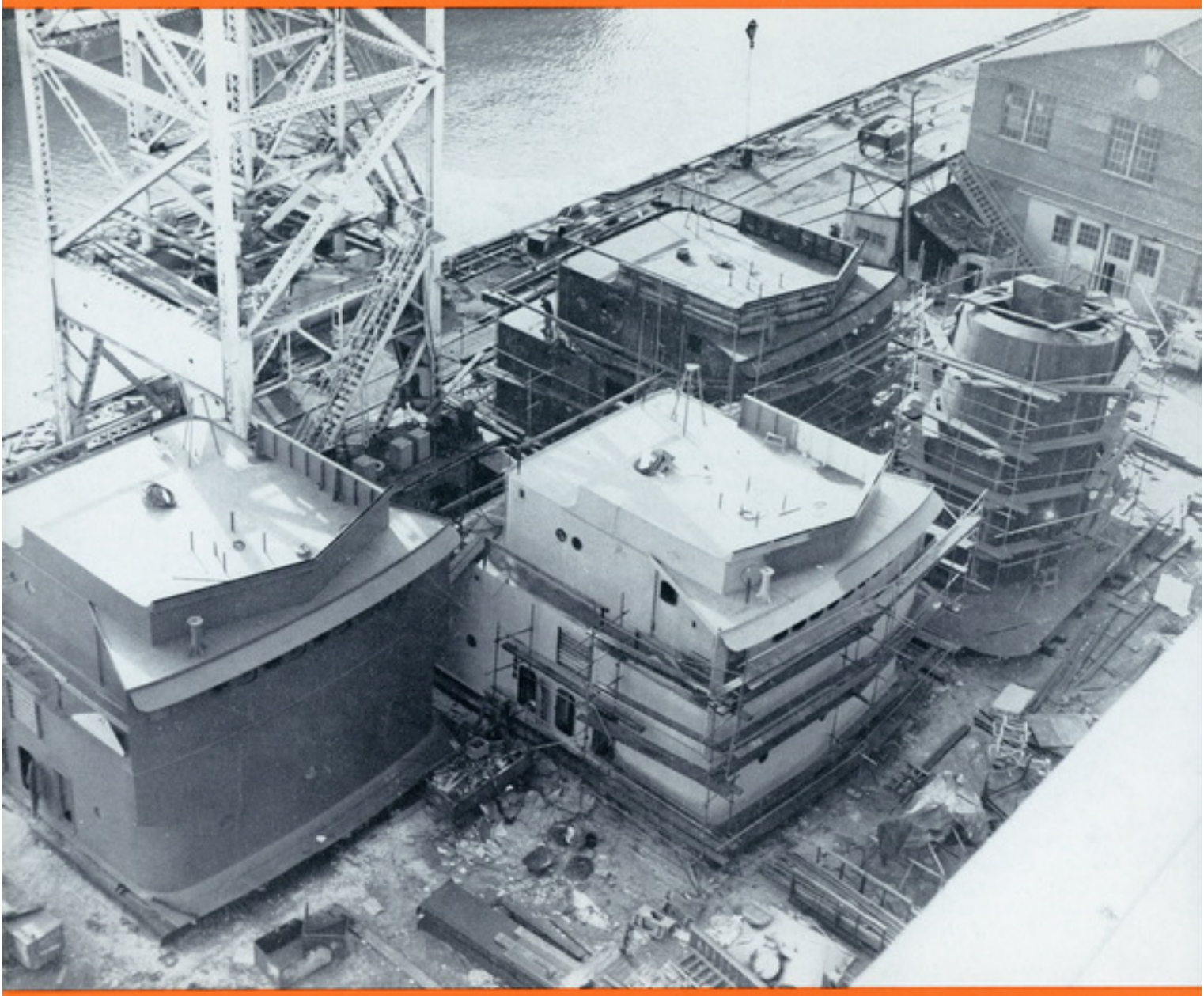
Our Yard

SUN'S SPLIT LEVELS
MODELS 598-600



MAY, 1956

SUN SHIPBUILDING & DRY DOCK COMPANY • CHESTER, PA.

MANAGEMENT HAS ITS MOMENTS

In the course of human events, even in the management of a corporation, some heart warming incidents take place. The following three letters are an example, which I would like to share with you.

Many things go on while management discharges its responsibilities to customers, employees and owners, and as this correspondence reveals, some are intricately involved with an individual's philosophy or basis of life.

John G. Pew, Jr. March 56

Dear Sir:

I was employed by you during the World War II. While working for you I took a few things that did not belong to me, such as, six wrench sockets, a few small drills and taps, pencils, pencil sharpener, four or five chipping tools, two or three flash lights, an extension cord, and I turned in some work that I did not do. What this all would amount to I could not say, I am leaving it up to you. You send me the bill whatever it amounts to and I will pay you as soon as I can.

I have started out living for the Lord and I feel as though I should let you know about it.

I am asking you to forgive me.

Sincerely yours,

Mr. ——————————

Reviewing this letter, I discussed it with our Treasurer, William Craemer. To his credit, his suggestion was incorporated in my reply — a satisfying solution for all concerned.

March 56

Dear Sir:

This will acknowledge your letter of March in reference to your employment at Sun Ship.

As far as the Company is concerned, in regard to the material you took while in our employ, you are gorgiven and we do not expect payment for same; however, I would suggest that you figure out the value of these tools and make a contribution to your church.

Yours very truly,

John G. Pew, Jr.,
Vice President

April 1956

Dear Sir:

You don't know how much I appreciate what you have done for us. I don't know how to thank you, but I know that God will Bless you richly for the kindness you have done.

We are so happy that we found the Lord. Serving him makes our home happy. The world is so full of sin today.

Once again I say God bless you. My husband has put the money in the church and that's a big burden off his heart.

Mrs. ——————————

VICE PRESIDENT NORTON RETIRES—ILL HEALTH
PAUL E. ATKINSON PROMOTED

MARCH SAFETY CONTEST

"Lucky Bucks" amounting to $131.00 were distributed to employees in departments that worked through the month of March without a lost-time accident. As one man said, "There is quite a bit of 'cheer' in a buck, if a man cares to use it for that purpose."

Ten departments were ineligible because they produced 14 lost-time cases. These accidents had the effect of making the first quarter only a shade better than the first three months last year — and we had a fine start on a much better rate during January and February.

The bright spots, of course, were the departments that did NOT have a lost-time case. Here they are: Patternmakers, Sheet Metal workers, both the installation and maintenance Electricians, 34 Maintenance, 36 Machinists, Blacksmiths, 45 Berthing, 47 Fabricating shops and the Mold Loft, Drillers and Reamers, Edectors, Welders, Burners, Joiners, Painters, Toolroom attendants and Hose Repairmen, Plate Yard employees and Engine Crews, Storeroom employees, Yard general men, and the 91, 93 and 95 departments.

Some of the above departments DO escape many shipyard hazards. But you cannot laugh off the fact that there are plenty of groups listed who deserve a generous amount of praise for the maintenance of safe working conditions and constant effort to avoid accidents. The record is not a "flash in the pan" either, because 17 of them not only cleared March without a lost-time accident, but the entire first quarter of the year!

MORE POWER TO THEM!

AUDREY BLOSSIC, AND JESSIE HARDCASTLE of Stenographic pick the "lucky buck" winners in the March Safety Contest while Ass't. Safety Engineer "Bush" Cochran looks on.

At the April 24, 1956 stockholders and board of directors meeting, Paul E. Atkinson was elected a director and vice president of the Sun Shipbuilding and Dry Dock Co. in Chester, Pa.

PAUL E. ATKINSON

Mr. Atkinson was born in Mineola, Long Island, New York, June 21, 1921, and attended public grade and high schools in Hempstead, Long Island, where the family had moved. After one year at Hofstra College, he transferred to Webb Institute of Naval Architecture. During two summer vacations he worked as a shipfitters helper and welder in the Sun shipyard.

After graduation in 1942, Mr. Atkinson entered the production department and became a cleaner boss until 1944. For the next six years, he was in charge of the iron work at the dry docks as assistant to the hull superintendent.

In 1950 Mr. Atkinson became assistant director of operations. He is a member of the Society of Naval Architects and Marine Engineers, and resides in Springfield, Pa. with his wife and four children.

ALTON A. NORTON

Mr. Alton A. Norton retired from the board of directors and as vice president of the Sun Shipyard on April 24, 1956. He had requested the move for reasons of ill health.

Mr. Norton was a fisherman and oiler on the Great Lakes before attending Webb Institute of Naval Architecture. Upon graduation he entered the drawing office of Harlan and Hollingsworth. Several months later in 1916 he joined Sun Ship.

Mr. Norton became superintendent of hull construction in 1926, and in 1950, vice president in charge of operations. He is presently in West Jonesport, Maine, where his cottage has been a center of interest for a number of years.

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John Hart, Editor; Ann Smedley, Secretary. REPORTERS: Al Bagby, Harold Baker, "Fireball" Bentley, Frank Brooks, "Whitey" Burr, Dick Clendening, Pearson Embree, "Fifty" Fithian, Charlie Grauel, John Hefflefinger, Norm Kefford, Joe McBride, Peggy McKinney, Gavin Rennie, Harry Sanborn, Eddie Wertz, Bob Wilson, Mike Znachko.

New Production Means Greater Job Security at Sun

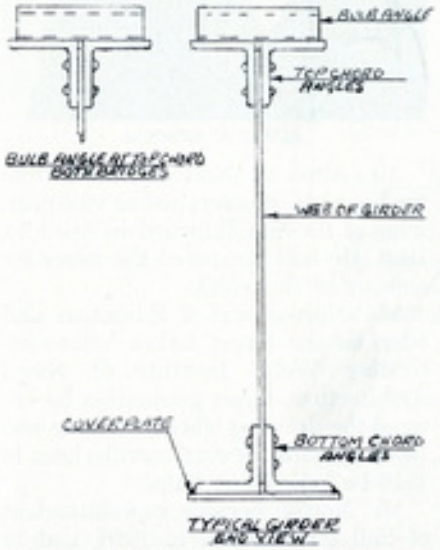
47 DEPT. ENTERS THE BRIDGE FABRICATION FIELD

By entering the bridge fabrication field it is hoped that Sun employees will have steadier work. Expansion of our highway system can mean much, if we prove ourselves capable and competitive in providing some of the steel work needed.

By George Trosley, Foreman

Contract 60091 was started in 47 Dept. in March 1956. The contract consists of 818 tons of steel. 24 girders for Route 41, N. J., and 12 girders for Browning Road, N. J., the smallest girder being 65' 11" and the largest 120' 6".

The scratching of heads, and pulling out of hair (the author's) started when steel began to arrive in the yard. 75 Dept. steel receivers could not unload the shipments, because of inadequate facilities. The largest plate was 76" x ¾" x 68' and the longest angle was 8" x 8" x 1⅛" x 121'. The plates were therefore unloaded by using two cranes, and racked at the North end of "C" Shop.

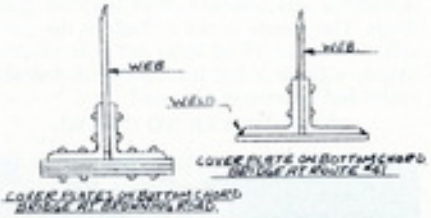


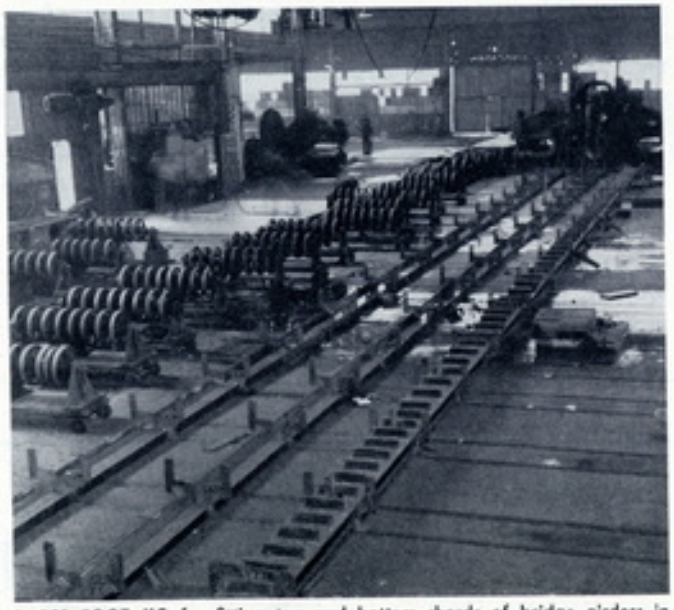
The angles were delivered to us on three cars, being loaded on the center car, with an idler car fore and aft. Due to curves in the tracks of our railway system, the carloads of angles could not be delivered to the "C" shop area, so they were placed on the straight track under No. 8 Shipway. They were of little value to us there so we had to find a method of transferring them to the "C" shop area. Using No. 8 Shipway, the Beach, and "C" shop cranes, we accomplished the task.

All material was stored in sequence, so that double or unnecessary handling would not occur. The layout of the material was planned so that long members would never have to be turned end for end, being limited by the width of the shop.

The top chords were fitted by inserting two angles in a jig, with a spacer to compensate for the web. Bulb angles 16" long were then welded to the angles about 12" apart. This jig was located in "B" Shop and was 121' 0" long (photo No. 1). The long chord angles were transported from "C" shop area to "B" shop and returned by two straddle carriers.

The bottom chords of "Route 41" were fitted with one cover plate and welded on the platten in "C" shop. The bottom chords for the Browning Road job consisted of two angles 8" x 8" x 1⅛" x 121' and three covers, one plate 18" x ¾" x 117' 6", one plate 18" x ¾" x 64', and one plate 18" x ¾" x 64', and one plate 18" x ¾" x 44'. These covers were riveted to the angles. The fitting and drilling of these chords was accomplished in the jig located in "B" shop (photo No. 1). They were then moved by straddle carriers to the lower bay of "B" shop and hull riveted. The





1. **121 FOOT JIG** for fitting top and bottom chords of bridge girders in "B" shop.

2. **FITTING AND TACKING** webs to top and bottom chords. Bridge girder about 107'-0". 47-867 J. Falcone checking Blueprint. 47-229 K. Koukedis looks on.

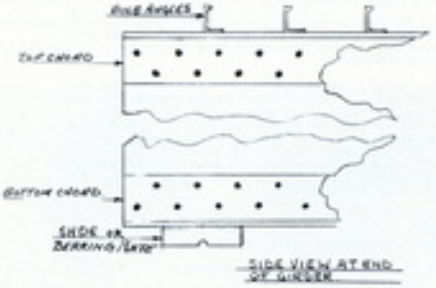
3. **DRILLING** rivet holes with toggle bug drill. "C" shop.

total weight of each chord was 12 tons.

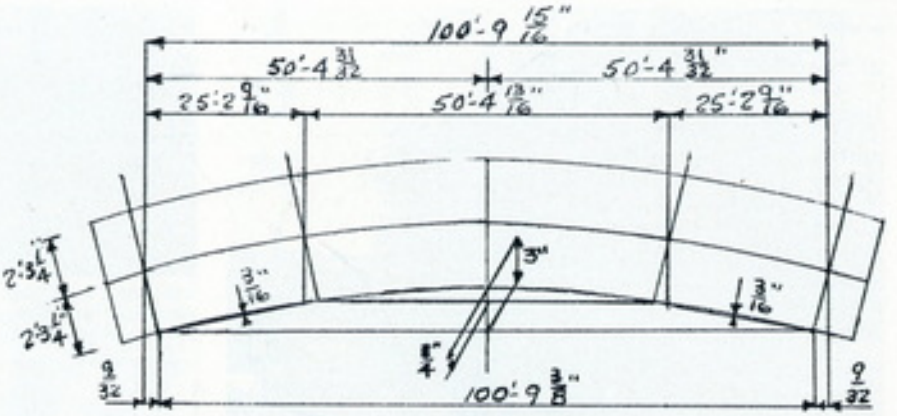
The webs and covers were laid out and burned at the North end of "C" shop, and then butt welded on the platten.

The sequence of fitting the girders was as follows: 1. The bottom chord was set up on the platten, and blocked to the camber required. 2. The web was inserted between the two angles and two hydraulic jacks were then used to force the three thicknesses together for tack welding. 3. The top chord was then installed on the top of the web, jacked and tack welded (photo No. 2).

The girders were then laid on their side. At this point all rivet holes were laid out, using a wooden strip template, and a special center punch. The center punch was made from tool steel and machined to fit a chipper's air gun. This method is used to insure a center punch mark large enough for the "Toggle Bug" drill to get started. All holes were then drilled (photo No. 3). (Apologies to P. Simononis, who was not in camera range, but certainly did a lot of drilling on this contract).



The method of fit, tack weld, layout and drill, worked so well that not one bolt was required to pull members tight before riveting. The Inspector, Mr. Harry Darraugh of the New Jersey Testing Lab., agreed that they were "sure" knife tight. In fact they were so tight that we had to stop using water to cool the drills on the "Toggle Bugs," because the water could not seep out between the fitted members.



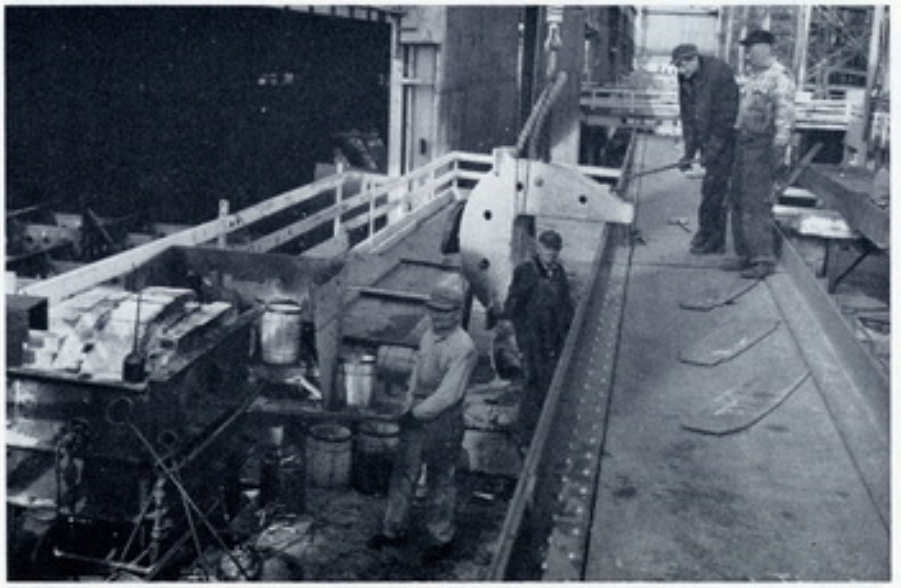
TYPICAL CAMBER DIAGRAM
3/4" TO 5"

The girders were then moved to the head of No. 2 way for bull machine riveting (photos No. 4 and No. 5). The bull machine used was at one time a stationary machine in "C" shop. Incidently, it was the only bull riveter available for this contract. With an estimated 29,000 rivets to drive (13,900 on No. 2 way, 6,600 "B" shop, and 8,500 No. 4 way) we had to devise rigging to make the bull machine portable. (photos No. 4 and No. 5 show rigging required.)

A final check was made after riveting to insure, proper camber, distance between center line of bearings, rake or bracket connections, alignment of connection holes and length over all. (photo No. 6 shows completed girder).

The girders were then placed 8' apart in an upright position, sandbrushed, sprayed with red lead and all identifying marks stenciled.

5. BULL RIVETING at head of 2 way. Way is 110'-0" wide and girders extended over way.



4. DRIVING BULL MACHINE RIVETS at head of 2 way: riveter 47-40 G. Pokopich, holder on 47-900 V. Pojan, heater 55-60 P. Summa, passer 47-212 J. Kopulinski.

The girders were transported by Cornell Trucking Co. to the bridge site in New Jersey, via Chester Bridgeport Ferry.

Six of the girders on Route 41 were wide flange beams 36" x 12" x 194' x 66' 6". The flange thickness was 1⅛" and the web ¾". These beams required a cover plate welded to the bottom flange, and bulb angles welded to the top flange. The beams were received in a straight condition from the mill, and we were required to camber them 1¼".

We know from experience, welding tends to camber beams. We thought we were on easy street, weld the cover plates and there you have your camber. But lo and behold, after welding we still had a straight beam. Other methods were tried but to no avail. 42 Dept. came to our rescue with their 1500 ton press, and cold pressed the camber in short order.

As of this writing, the keel laying of Hull 601 on No. 2 way is scheduled for May, so we are moving our riveting operations to No. 4 way. When the Browning Road girders, 120' 6" long, are riveted on No. 4 way they will extend onto No. 3 way. These girders will weigh 28¼ tons. (*See Page 4*)

6. **FABRICATING SUPERVISORS** P. Chubb and G. Trosley on completed girder. 2 way.

In closing this article, I want to thank all the men who took part in the fabrication of these girders, for their cooperation; and compliment them on their workmanship. They deserve it. GEORGE TROSLEY

DONALD J. CLARE and **GILBERT WIDDOWSON** were among 25 from leading companies who participated in an arbitration workshop seminar at New York's Ambassador Hotel, March 15-16. Am. Arbitration Assn.

CUSTOMER COMPLIMENTS SHIPYARD EMPLOYEES

WATERMAN STEAMSHIP CORPORATION

Branch Offices — Freight and Passenger Service — Cable Address "WACOR" — Branch Offices

Philadelphia 7, Penna

March 5, 1956

Mr. Harry E. Chaver, Sales Engineer
Sun Shipbuilding & Drydock Corp.
Chester, Pennsylvania

Dear Mr. Chaver:

With the sailing of the SS FAIRSILE from Pier 1 at 5:40 p.m., Saturday, March 3rd, this company completed an operation at your installation which was without precedent in the area for our organization.

It is fitting that we should extend to you and the various representatives of your company with whom we came in contact our sincere thanks for the excellent cooperation which featured the dismantling and loading of the two cranes at Sun Shipyard. Everyone with whom we came in contact in the Yard was most helpful and went out of their way to assist even on matters which would be technically considered outside the scope of their daily activity. Special mention must be made of the high caliber of the courtesy and cooperation offered us by the excellent Guard staff. Not only at the gate but elsewhere in the Yard did we find representatives of your Guard organization most helpful and courteous.

Basically, what I am trying to say is that we think the people at Sun Ship are mighty outstanding individuals and we certainly enjoyed working with all of you. Our thanks to the Sun organization for such splendid cooperation and assistance.

Sincerely,

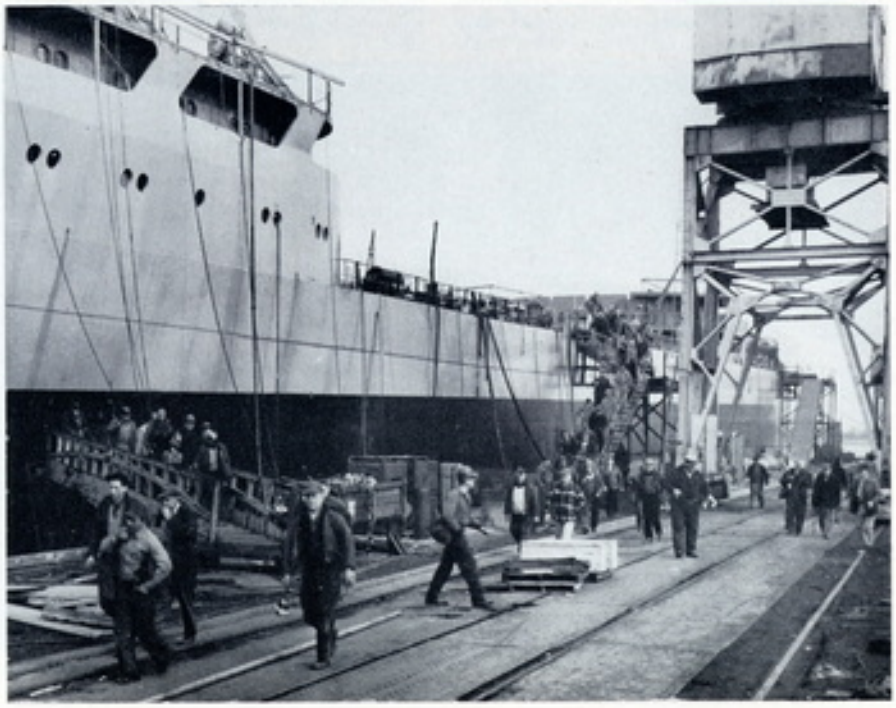
WATERMAN STEAMSHIP CORPORATION

John C. Tatterall
District Manager

JCT/ss

AT RIGHT: Sun Ship recently adopted a gangway entrance (left) for employees working in machinery compartment. By removing hull plate men no longer need to climb up to and down from the main deck.

BELOW: The same gangway sports a colored poster in the new "clean up drive."



Good Advice

A TV repairman was trying to locate the trouble in a friend's set. The 6-year-old had watched the whole operation, fascinated. "I'll bet," he said, "if you'd clean out the dead cowboys from the bottom of the set it would work again."

JUNIOR MEMBERS

8 GIRLS IN A ROW

Above: **MARLEEN, 2, JULIA ANN, 4, GLORIA JEAN, 5.** Below: **JOYCE LINDA, 7, SYLVIA LAMORE, 10, LORETTA JANE, 12, WILMA MAE, 14, BERNICE, 16,** the 8 daughters of Joshua Spradley of 81 Dept. The two oldest will be remembered as entertainers at our picnics. Joshua would like 8 sons to follow.

ANNA MARIE, 14, a freshman at Notre Dame, is the daughter of Leonard Cardile of 59 Department.

Russian weather broadcast: "Tomorrow will be sunny. That's an order."

NANCY LOUISE WORRALL, 6, WARREN D. RENZ, JR., 5, AND SANDRA LEE BROOKS, 10 months, are the grandchildren of Harry W. Renz, Sr., of 91 Dept. Nancy is the daughter of Dorothy Renz Worrall a former Sun Ship employee.

Rod and Gun News

By Mike Znachko

Once in a blue moon, or perhaps every now and then, any gun toter who has reached two score and ten, and owned dozens of hunting dogs, should be allowed to put down a few of his thoughts on the training of dogs. It is a well known fact that whether or not you have a top-notch hunting dog all depends on how well you do the preliminary training. Most experienced dog men agree that there is probably no one, sure-fire system of training that will work with each individual dog. There are, however, certain broad, basic principles that the inexperienced trainer can follow which will produce positive results with a dog of average intelligence.

This discussion will concern itself with the early and basic training of the Beagle puppy. The development of a good hunting Beagle is not an unexpected happening. The story behind this dog is really the story of the life work through the different stages or periods of his training, as a child starts to school and advances through different grades until he graduates. First and foremost a matter of bloodlines in the selection of your Beagle is very important. You should make it your first point to select your pup from pedigreed parentage, and you will have the satisfaction of getting started right. Until he reaches the age of five months, your puppy will have very little to do. During this time, feed a well balanced ration — at least twice a day — so that his body will develop and be capable of endurance in the hunt and field work ahead.

Get to know him well. Give him the opportunity to know you. For successful training depends upon companionship rather than procedure, and a true understanding of each other will make all problems much easier for both. Exercise him daily, and if possible, give him free rein of the place. Acquaint him with livestock, chickens, and all the other things that he will become associated with during his trips to the field.

Control is basic, but it should be acquired with a firm, gentle hand. Commands should be given without variation. They should be only loud enough to be properly heard and given without emotion. The objective being to inform him as to what is wished of him, it should be a direction, not a reprimand. Having learned what a particular command is for, a dog will respond for it is our belief that he derives much pleasure from pleasing his owner. Shouts, repetition, reprimands and emotional gestures can make the dog as confused as the handler. If the lesson has not been taught, it needs teaching — not punishment.

I personally feel that a training program involving a lot of praise for simple tasks well done, will bring splendid results. Another essential phase of his training is to train him for gunfire. A very simple plan to get the puppy accustomed to the gun is to fire a 22 cal. pistol over him at feeding time. Up to this time he has had no reason to feel fear, and he will come to associate the gun with the feeding and soon consider it a signal that lunch time is here.

Time and space does not allow us to go into detail on this training business. And we do not profess to know all the answers, NOR have we any intention of trying to impress anyone that we DO know all the answers. Our main purpose in this commentary is to acquaint some of our younger dog owners with some of the preliminary training that is necessary in preparing their dogs for the field. For example one cardinal point is the fact that you cannot train your dog in the backyard. Get him out into the woods as soon as possible. If your dog has a nose, let him use it. If he hasn't, trade him for a wheelbarrow or something useful.

Butting in to tell a dog how to run his own business has ruined many a dog. Let him develop his own judgment in searching and finding game during his early starting period, and allow him the freedom to do his job. In conclusion, may we suggest that comparing experiences with other dog men will add to the sum total of your training knowledge.

This reporter, along with CLIFF (REDS) FLEMING, BOB CLENDENING, GEORGE MILNE, GERALD EVANS AND OSCAR HOLT shown aboard the "Cleaver" while on a trolling trip to Indian River.

Gwenn Briston, author of "Tomorrow is Forever" provided us with some food for thought when he wrote, "The worst experience on earth isn't tragedy that comes from outside — it is almost pleasant, compared with the experience of being worsted from within."

On Sunday, May 13, the nation will again pay special honor and tribute to Mother. Not with gifts alone — for the gift without the giver is bare — but with an open expression of that devotion which in normal people is felt, not only one day of the year but every day. NO, we honor her on this day, especially, for the sacrifice of her own desires to reach this state. She chose to suffer, work and pray — many times to the detriment of her own rights and happiness. She decided to set herself aside, that her young might prosper.

SO, once again on this Mother's Day, let nothing interfere with our admiration for these women who have been able to be so unselfish in a selfish world — be so close to God in a Godless age — be so compassionate in an era of hard feelings.

When a Mother, after years of sacrifice, looks at her children and says, "This is my reward", may none be unworthy of that sacrifice. And if honor and respect seem too sober, in words to apply to the mothers of today, the words of an eight year old will do. "MOM, YOU'RE O.K.".

Just a reminder, boys — Wildlife is a direct product of the land. It is dependent for it's very existence upon suitable habitat, food and cover. You can help by keeping our forests green. LET'S HELP PREVENT THOSE FOREST FIRES.

SHERMAN GRAYBEAL AND NORMAL DULIN of 59 Dept. along with Mevvy Cabello and W. Kolosky of the Linde Air Co. shown discussing the day's events at a hunting camp in New Brunswick, Canada.

This month of May brings to us another day which is an integral part of our daily life — Memorial Day. It is a day when the nation pays honor to the heroes of its armed forces, who paid the supreme sacrifice. They were the men of energy, who exiled Wilhelm II to his woodpile in Holland, who forced Hitler to a gasoline soaked dogs death, who set the "Son of Heaven" to licking the boots of McArthur. They were the self-reliant men of opinion who fought one another at Gettysburg and Atlanta, but who closed ranks to win the Argonne, Alamein, the Battle of the Bulge and Iwo Jima. They were men of victory who fought behind Washington and Stephen Decatur, Grant and Stonewall Jackson, Black Jack Pershing and "Old Blood and Guts" Patton.

If they had not died as they did, our enemies may have moulded what is now the free United States of America into something vastly different — and not free at all. The price they paid was a high one, and we are the ones who have reaped the benefits. That we owe them SO MUCH and we cannot begin to repay them is evident. One thing, however, we CAN do. Keep faith with these heroic dead on this MEMORIAL DAY by praying that Almighty God will extend to them His Protection and His Blessings — and fly an American flag.

A tip from your Uncle Dudley — The new puppy's first night in a strange home is a fearsome experience, and he usually lets the world know it by wailing inconsolably from dusk till dawn. Both you and the pup can get a nights sleep if you put an alarm clock beside his bed or in his kennel. The sound of its loud ticking will reassure him and supply the companionship he longs for.

ROBERT HAHN of 59 Dept. shown preparing himself for the Pistol Matches which are often held by his Club.

On Thursday, March 22, this reporter attended the meeting of the Chester County Federation of Sportsmen, which was held at the Italian American Social Hall in West Chester. I was there as the guest of Robert Hahn, of 59 Dept., and other members of the West End Gun Club of West Chester. Several talented speakers were present, and 39 resolutions were screened prior to presenting them to the State Federation at Harrisburg, Pa. We enjoyed the program immensely and commend the generous hospitality of our hosts.

It has been brought to our attention that a new sportsmen's club has blossomed forth among our employees, namely, "The Beaver Dam Rod and Gun Club" whose objective is the conservation of our wildlife. James Vincent of 59 Dept. is president of the organization, while Walt Brysiak, also of 59 Dept., holds the Financial Secretary post. The cooperation of all sportsmen will be greatly appreciated by this club, which is still in its infancy.

Do you know it is unlawful to use aircraft for hunting big game?

The regular monthly meeting of the Bear Hollow Fishin', Shootin' and Deuces Wild Club was held at the home of Norman Dulin of 59 Dept. on Sunday, April 29. Vice President, Gerald Evans, presided. The meeting was opened with a moment of silent prayer in tribute to the memory of Bill Styer, who passed away last August 15. (Bill was a charter member of the club, and one of our most avid sportsmen.) May he rest in peace. A motion was immediately put forth to set aside all order of business in order to give the members an opportunity to hear the Hon. C. B. Trooper, who delivered an excellent address on the "Dangers of Guzzling while handling deadly weapons". After the discourse, the ceremonial jug of "Old Graphite" was brought forth and discussion was still in progress as this reporter left in the wee hours.

Charlie Worrell, veteran angler of the Blacksmith Shop, reports some excellent catches of white perch on several of his angling trips to Port Penn, Delaware.

Pennsylvania anglers were greeted by clear skies on opening day of the Trout Season, and were able to enjoy at least five hours of fishing before the traditional rains arrived. And although most of our anglers reported very poor luck, some exceptionally fine catches were made by several of our veterans.

ROY BLAKE, veteran angler of 33 Dept., shown along with his party aboard the "Miss Nottingham" at Indian River.

"Fifty" Fithian, of 33 Maintenance, reports a catch of five speckled beauties and one sucker out of Chester Creek, near Locksley. . . . Rupert Shoemaker, 35 Dept. Coppersmith, snagged one rainbow; missing three, also at Locksley. . . . Charlie Rhodes, veteran shipfitter of 47 Dept., pulled four nice ones out of the West Branch of Chester Creek. . . . Bill Ford, automatic burning machine operator in 47 Dept., returned with four nice ones caught at Glen Mills. . . . Walt Brysiak, old veteran of 59 Dept., registered the usual limit which he caught in Chester Creek above Markham.

Russ Rothka, old rod and reeler of 47 Dept., fished Pine Creek in Centre Co. returning with five beautiful rainbows and three browns. . . . Roy Haskell, 84 Dept's. veteran fly caster, filled his skillet with five nice brook trout which he caught at Glen Mills. . . . Sherman Graybeal, Norman Dulin, George Ridgley and Bob Roath, all of 59 Dept., fished French Creek near Lake Hopewell all returning with excellent catches.

Carl Finks, 47 Dept. Leader, pulled six dandies out of the West Branch of Chester Creek. . . . Ed Clark, 78 Dept's. up and coming young angler, reports a nice catch of five speckled beauties taken out of Chester Creek near Lenni. . . . John April, 55 Dept. old line caster, caught his limit of trout at Sycamore Mills in time to return home and attend Church services.

Why Overdo?

The old mountaineer gran' paw was sitting in his favorite rocker on the front porch of his little cabin. He was rocking leisurely east and west.

Sitting beside him, rocking north and south, was his youngest son, Bud, an innocent shaver of 42.

Without turning his head, the old man said: "Sonny boy, 'sno use t'wear yerself out thataway. Rock with the grain and save yer stren'th."

Women prefer men who have something tender about them — especially the legal kind.

Supt. Arthur Holzbaur congratulates **WILLIAM NOWAK, 42-47,** 35 years; **JOHN MALLEN, 55-86,** 30 years; **JOSEPH GRANEY, 47-2829,** 25 years; **VERNON LOUNSBERRY, Sr., 47-63,** 25 years; **PERCY HARDY, 55-30,** 30 years; and **WILLIAM SMITH, 47-201,** 25 years.

Controller Charles H. Doyle congratulates **J. ALFRED DAVIS, 91-102,** on receipt of his 30 year Service Pin.

Supt. Frank M. Hoot, Jr., awards Service Pins to **HARRY SANBORN, 68-36,** 25 years and **MAJOR PALM, 67-509,** 25 years.

WILLIAM DILL, 30-26, 35 years; **SAMUEL FAULKNER, 36-543,** 25 years and **MAURICE BAYNES, 36-109,** 25 years are awarded Service Pins by Supt. Raymond J. Flanigan.

Service-Loyalty

SERVICE EMBLEMS FOR MARCH, 1956

35 Years

30-26 ..... William Dill
42-47 ..... William Nowak

30 Years

55-30 ..... Percy Hardy
69-48 ..... Ernest Carr
91-102 ..... J. Alfred Davis

25 Years

67-509 ..... Major Palm
36-543 ..... Samuel Faulkner
68-36 ..... Harry Sanborn
47-2829 ..... Joseph Graney
47-201 ..... William Smith
47-63 ..... Vernon Lounsberry, Sr.

SALARY ROLL

10 Years

91-1764 ..... Hester Archer

HOURLY ROLL

20 Years

31-70 ..... Carl Komisor
33-305 ..... Harold Baldwin
33-517 ..... Paul Hermann
33-797 ..... Charles R. Beaumont
34-135 ..... William P. Kelly
36-135 ..... David R. Wright
36-855 ..... Floyd H. Ozman
58-101 ..... William Gierula
59-624 ..... Albert R. Giampietro
59-1413 ..... John R. Stolz
66-101 ..... Thomas W. Brown
68-122 ..... Joseph Magasick
75-85 ..... Adolph Eagle
80-51 ..... John Bogucki
80-78 ..... Thomas Leeson

15 Years

33-139 ..... John J. Fitzgerald
34-1075 ..... David R. Esrey, 3rd
59-188 ..... Reynold Aurite
59-833 ..... William H. Graham
88-64 ..... Frank McLaughlin

10 Years

34-70 ..... Lewis S. Jones
34-1415 ..... Edwin White
46-77 ..... John F. Robbins
46-115 ..... John L. Warren
59-73 ..... David H. Dickerson
59-522 ..... Clarence L. Brown
59-897 ..... James E. Fitzgerald
59-983 ..... Eugene Garrison
60-94 ..... Joseph Shepherd
68-78 ..... Thomas Jackson

Lawyer: "You say you want to get a divorce on the grounds that your husband is careless about his appearance?"

Client: "Yes, he hasn't shown up in nearly two years."

Sun Ship Mutual Benefit Association

The following is a statement of the Receipts and Disbursements of the Sun Ship Mutual Benefit Association for the months of January, February and March 1956.

Securities as of December 31, 1955			$174,365.07
Balance on hand December 31, 1955			17,592.91
RECEIPTS:			
Dues received from Members			
January	2,862.50		
February	2,377.80		
March	2,404.05	7,644.35	
Equal Amount from Company			
January	2,862.50		
February	2,377.80		
March	2,404.05	7,644.35	
Cash Dividends from Investments			
Dividends a/c Sun Oil Co. Stock	1,192.50		
Dividends a/c U. S. Steel Co. Stock	350.00		
Dividends a/c A. T. and T. Co. Stock	225.00	1,767.50	
Redemption of 1,060 Shares of Sun Oil Co. Pfd.		121,900.00	138,956.20
			$156,549.11
DISBURSEMENTS:			
Sick Benefits			
January	5,352.87		
February	5,731.30		
March	6,105.56	17,189.73	
Compensation Cases			
February	94.24		
March	144.23	238.47	
Miscellaneous Expenses			
January	185.12		
February	6.97		
March	22.69	214.78	
Stock Purchased:			
100 Shares R. J. Reynolds Tobacco Co.	10,300.00		
100 Shares International Harvester Co.	17,100.00		
100 Shares Pillsbury Mills Co.	10,200.00		
100 Shares American Tobacco Co.	14,499.45		
200 Shares Ohio Edison Co.	21,625.00		
50 Shares Amer. Smelting & Ref. Co.	8,518.48		
150 Shares Con. Edison Co. of N.Y.	16,387.50		
100 Shares Duquesne Light Co.	5,350.00		
100 Shares Bethlehem Steel Co.	16,900.00	120,880.43	138,523.41
Balance on hand March 31, 1956			$ 18,025.70
Securities as of March 31, 1956			$173,345.50

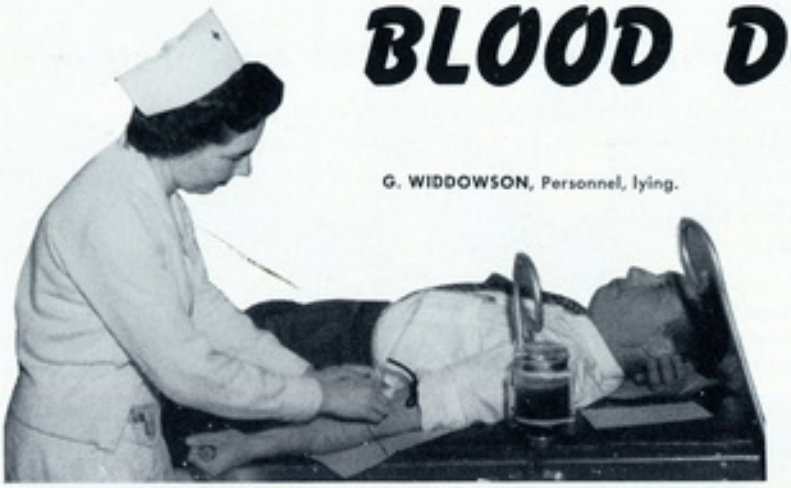
Business First

Notice in a Washington, D. C., restaurant: "In case of atomic attack, keep calm. Pay check then run like mad."

That's Bad

If you're calm and collected when everyone else is losing his head — maybe you just don't understand the situation.

BLOOD DONORS



G. WIDDOWSON, Personnel, lying.

REGISTRATION, physical exam.

WILLIAM COOPER, Ass't. Foreman, 47 Dept, handheld.

A. SANETRICK, Welding leader on table giving blood.

REGISTERING blood donations.

AFTER DONING BLOOD, filling up on doughnuts.

L. HINDERHOFER, Burner 47 Dept. and H. Robertson, Truck Driver, 80 Dept. registering as blood donors.

SHIPS AND THEIR EVOLUTION

By Frank L. Pavlik, Naval Architech

Necessity — Mother of Invention

The evolution of ships by man in his search for the most facile and economical method of transportation dates back to the most primitive of civilizations. Ships have been built to fit the purposes of peace and war, although in general the urge for trade has been dominant. It is a saga of oars, sail and motive power, in which the inventions have come slowly in man's quest for improved methods of transportation over-seas. It has been a continual struggle to increase carrying capacity, and gain speed, without sacrificing any of the necessary qualities of seaworthiness.

Probably the first water-borne craft were dugout logs, canoes made of the bark of trees, or the coracles made of the hides of animals stretched over a framework, and propelled by hand or paddle. The Polynesian catamaran is a primitive craft still in use to this day.

Early Sailing Vessels

Inscriptions on pottery and tablets dating around 6000 B.C., and discovered in the Red Sea area, disclose that sailing vessels were then in use. Apparently these ships were designed to resemble water fowl and stepped a single, unstayed mast.

Likewise, the early Egytians used sailing ships in their commerce on the Nile and along the Red Sea. Later, about 1600 B.C., they added banks of long oars to gain speed, and for propulsion when becalmed. These ships were known as galleys and were about one hundred-fifty feet long

To protect their commercial interests, the Egyptians produced the first warships, and fitted them with bulwarks to protect the warriors who used bows and arrows for weapons. It is interesting to note that the Egyptians were familiar with the principle of the heat engine but failed to apply it as a source of motive power for transportation.

We quote the following from "Ships" as illustrating this point: "A favorite trick of Egyptian priests to impress the laity was to have the gates of the temple closed, thus indicating that the gods were angry.

"The crowds would gather, a fire would be lighted in the temple yard and offerings would be made to the reluctant gods. Presently, the awed and deeply impressed assemblage would witness the gates of the temple slowly open, untouched by human hands. Clearly, this was a miracle.

"In reality, the miracle was a great one. Yet, like many miracles of this character, there was an explanation. Underneath the altar was an area filled with air and channeled to a vat of water. The heat of the votive fire expanded the air and its pressure forced the water through pipes into buckets attached to the temple doors. When the buckets were filled, their weight opened the doors.

"This crude device contained the essential elements of the earliest practical heat engine. Fifteen centuries later these engines became a reality."

Although there is no evidence of any extensive voyages by Egyptians, their shipbuilding ideas are reflected in the construction of vessels built in Phoenicia, Greece, Rome and even in the Orient. The early Chinese shipbuilder developed the junk and made use of the compass and rudder principles.

The Phoenicians, merchants of Tyre, stepped into the picture as competitors of the Egyptians and became the master shipbuilders, navigators and sea rovers of the Mediterranean. They perfected the use of the oars in banks; two high on their commercial vessels, and three high on their warships; with shorter oars used in the lower banks.

Roman Galleys

Rome and Carthage in like manner decided to expand their commercial interests by way of the sea. The Roman trireme is an extreme example of their naval architecture, combining sail power with three banks of oars. These galleys had a ratio of length to beam of approximately seven to one. When the interests of Rome and Carthage clashed, the first naval war resulted. Rome continued to develop her warships and became a sea power in the Mediterranean. With the loss of power when overrun by the tribes from the north, the Roman maritime interests declined.

In passing we note the Greek galleys of 700 B.C. They carried two masts and double banks of oars, and were no mean examples of the naval architecture of that period.

The Vikings

About 800 A.D. the Norsemen perfected their seaworthy dragon ships and became daring explorers. The explorations of Eric the Red and of his son Lief were made in this type of vessel, and carried them to Iceland, Greenland and Labrador. It was a Viking custom that upon the death of a Norse Cheftain his body was placed in his ship together with his weapons, and unaccompanied, sent to sea. Others were buried ashore with their ships, and thus the discovery of one of these near Gogstadt, (or Gokstad) in Oslo fjord, well preserved in the Scandinavian blue clay, has furnished us with an excellent example of the construction of vessels of this period.

Post Viking Period

After the Viking ships there came a transitional period, an era wherein the combination of oars and sail for the propulsion of ships gave way to the development of vessels propelled by sail alone. It was another great forward step in shipbuilding when the rigs were improved to the point where ships could tack, and make a voyage against the direction of the wind.

As compared with the galleys, the sailing ships became wider and deeper, had a much smaller crew, and were better commercial projects because larger cargoes could be transported.

Explorations Affect Development

It will be recalled that up to the fifteenth century the greater portion of maritime activity was concentrated in the Mediterranean Sea. Prince Henry the Navigator, of Portugal, was responsible for the explorations southward along the west coast of Africa, discovering the Cape of Good Hope in 1487. He then realized that at last a sea route to the fabulous Far East was possible.

Columbus' explorations in 1492 also expanded the area of Maritime activity. A reflection of this is found in the larger ships required for the longer voyages, enabling them to carry a sufficient quantity of provisions and water for the trip. Let me review for you the size of Columbus' caravels; the "Nina" of forty tons displacement, the "Pinta" of fifty tons and the "Santa Maria", his flagship, of one hundred tons and about ninety feet long. The three ships carried a total of ninety men. The present "United States" has a displacement of 50,000 tons.

Caravels of a Later Day

The progress continued with the building of sturdier and faster caravels in the sixteenth century. History has recorded the use of such vessels by the British Navy, lead by the "Ark Royal" of eight hundred tons, defeating the invincible Spanish Armada in 1588. The Spanish ships-of-war of this period were known as galleons, and were large for their time.

In passing review are the Dutch merchant ships of the seventeenth century, for example Hendrik Hudson's "Half Moon"; the English capital ships, "Sovereign of the Seas", of 1600 tons, and Admiral Nelson's "Victory" (Trafalgar — 1805). The vessels of the French of this period were generally of the same size but credited with a greater refinement of design.

American shipbuilding, except for small boats, started in New England in 1636. All woods were then plentiful in this country for the building of sturdy and seaworthy ships.

The eighteenth century is characterized abroad by the construction of English and French capital ships carrying seventy-four guns; and by the East Indiamen, slow merchant vessels that were heavily armed as a defense against pirates. American shipbuilding continued with the building of smaller but faster vessels which eventually led to the development of the Clipper Ships.

Clipper Ship Era

As speed became a dominating factor in

competition in the trade routes of the world, the American shipbuilders forged ahead with their sailing packets. We entered upon the era of the "golden age of sail". Our shipbuilders violated the early concepts of naval architecture by building ships of narrower beam and finer line than was customary abroad. The "Rainbow" of seven hundred and fifty tons was launched in 1845 and was the first vessel of a class notable for speed and beauty of line. Donald McKay (1810-1880) was a famous shipbuilder of this period, and the "Flying Cloud", and the "Glory of the Seas", were outstanding examples of many famous designs by him. The dimensions of the "Flying Cloud" were 225' x 40' 8" x 21' 6". Equally famous ships by other builders include the "Red Jacket", "Challenge", "Surprise" and "Lightning".

Steam Power

We now arrive at that stage in maritime history where steam gradually supplanted sail as a source of motive power. In July 1786, John Fitch installed a steam engine of his own design in a forty-five foot vessel. The engine was connected to two fore and aft rods, one on either side of the vessel, driving oar-like paddles which propelled the ship at a rate of three miles per hour. At this speed the vessel could not compete with stage coach transportation; therefore a faster vessel was built, with paddles located at the stern. This vessel, known as the "Arch Street Ferry", operated between Philadelphia and Trenton at a speed of six to eight miles per hour but failed commercially because public opinion was distrustful of the noisy, mechanical method of ship propulsion.

We recall the story of "Fulton's Folly", the "Clermont", which in 1807 chugged up the Hudson from New York to Albany at a speed of five miles per hour. The would-be jeers of those assembled to witness a failure on the trial trip turned to cheers as the vessel moved up the river under the new source of motive power. The "Clermont" was propelled by side paddle wheels, the first practical installation of its kind in this country.

In May 1819 the "Savannah", a sailing packet fitted with side paddle wheels for auxiliary power, made the Atlantic crossing in twenty-seven days. Her steam engine was used seven times during the voyage.

The first transatlantic steamships were all driven by paddle wheels and had sails to move the vessel when the wind was right. Two examples are the "Sirius" and "Great Western".

The Screw Propeller

Paddle wheels gave way to the screw propeller invented in 1836 by John Ericeson. The application of this device was regarded as thoroughly practical by 1850. It will be recalled that the "Great Eastern", largest vessel constructed up to 1858, was driven by a propeller, side paddle wheels and sail. She was not regarded as a good commercial venture and is principally famous for laying the first successful transatlantic cable in 1866.

The use of the screw propeller reduced the space requirements for propelling machinery, as compared with paddle wheels, and permitted a greater cargo carrying capacity.

FRANK L. PAVLIK

As a substitution for wood, iron was employed in hull construction as early as 1820, and by 1850 its use was quite common. Steel construction started in 1859 and by 1873 mild steel of fairly good quality was available for this purpose. Composite construction, employing both wood and steel, was used for many years.

Modern Trends

Prime factors in the design of a vessel from an owners point of view are the cargo capacity and speed. As with other modes of transportation the tendency has been to increase size and speed. Thus our super-liners are 800 to 1000 ft. long and can do over thirty knots. And while we are talking about supers," let us mention the supertankers of 24,000 to 83,000 tons deadweight and speeds ranging from 16 to 20 knots; in service — 321 ships, and building — 289 ships.

Within our generation we have witnessed technological developments coupled with improved materials and methods of construction, e.g. welding, resulting in substantial reductions in ship weights which, for a given displacement, have resulted in increased cargo capacity.

The welded ship was born in the U.S.A. in the late 'thirties, and the trend has been to employ electric welding to the greatest extent possible because of the factors of weight saving, less time required for construction and reduced cost. Abroad the tendency has been to adhere to riveted construction to a much greater degree.

We have gained experience with welded construction during these years by means of experiment and by observation of ships in service. As a result it has been found necessary to re-write specifications for the manufacture of steel in order to produce a material that is tougher and has less notch-sensitivity. Presently, we are using three grades of steel in our welded hull constructions.

The timetable for producing ships during World War II was only made possible by welding. The volume of ship construction during this period was unprecedented and involved the employment of a preponderence of inexperienced labor; yet the percentage of marine casualties directly attributable to welded construction is small compared with the number of ships built. Many welded vessels withstood the ordeal of enemy attack during World War II, making port with gaping holes and vital portions of their structure torn away. The damages were localized to the area of the explosion and were expeditiously repaired by welding, to return the ship to active duty. Those vessels are conclusive evidence of the worth of welded construction. Under similar conditions, riveted ships would have opened seams for quite a distance from the damage, resulting in the probable loss of the ship. In cases of grounding or collision, the damages sustained by welded ships have been confined to the local area of the accident.

There is an increasing tendency toward the use of light weight aluminum alloys to effect weight savings, but gains must be balanced against the greater cost of such materials. Aluminum alloys of good strength, with excellent corrosion resisting properties are now available.

The uses of wood for furniture and interiors have steadily diminished under the combined effects of building a fire-proof ship and the increased cost of these materials. The safety requirements for ships built in this country are far more stringent than those of our foreign competitors; resulting in ships that are more seaworthy, safe and habitable, but also unquestionably more expensive.

The rules are enforced by the U. S. Coast Guard, American Bureau of Shipping, U. S. Public Health, etc., and run the gamut of adequate subdivision and stability, strength, life-saving equipment, fireproof construction and fire fighting equipment, sanitation, etc.

The bulkheads in way of accommodations are of light steel or asbestos board construction and are fitted with hollow metal doors. The furniture is usually of metal construction and fireproof or fire-retardent materials are used where possible.

Heating and ventilation of accommodations is usually by means of mechanical, filtered warm air systems, using ventilation air for the heating medium and providing about a five minute air change. There is a greater trend toward air-conditioning for both passenger and cargo vessels, particularly in tropical services or where dusty cargoes are handled.

The de-humidification of cargo spaces to protect hygroscopic and other perishable cargoes is increasing. This involves the fitting of equipment using silica gel, lithium chloride, or tri-ethlylene glycol to remove moisture from the air before it is introduced into the cargo spaces.

The aspect of corrosion engineering is receiving more attention and includes the elements of surface preparation and protection by coatings or by means of cathodic protection.

So much for some of the hull details. Let us take a look at some of the new ship types developing, such as the roll on/off trailer ship concept. One of these is now under construction at Sun Ship to transport military

vehicles. At least fourteen others are projected for commercial use, and include the features of loading ports and ramps so that the vehicles may be driven on and off the ship under their own power.

We have previously mentioned the super tankers, and there are variations to carry liquid chemicals and also liquefied petroleum gases. Some of these vessels have been designed as combined oil and ore carriers, and of course seagoing ore carriers have recently been built and are building to transport ore from South America and Canada to the U. S. A., Europe, etc.

Ship Propulsion

There has been a rather steady upward trend in marine propulsion technology. Using reciprocating engines, the Atlantic lines of the 1890's were making 22-23 knots.

The reciprocating steam engine was the principal propulsion element for screw steamers up to 1906. It reached a high point of simplicity, efficiency, and dependability and was constructed in units as large as 20,000 horsepower. A recent example of this type of engine, in 2500 horsepower units, was installed in the Liberty Ships made famous by World War II. Simplicity, reliability and ease of manufacture placed this veteran at the fore in building the bridge of ships so essential to victory.

The steam turbine was developed around 1884. Sir Charles A. Parsons of Great Britain and Dr. De Laval of Sweden separately invented and patented the propulsion machinery of this type and applied it to ship propulsion. The "Turbinia" first demonstrated the speed and power made available by this kind of propulsion unit when she easily outdistanced a pursuing squadron at a naval review at Spithead during Queen Victoria's Diamond Jubilee in 1897. The "Turbinia" made a speed of thirty-four knots and opened a new era in ship propulsion. In 1906 the fast "Mauretania", with a turbine power plant, attained a record 26 knots and held the Blue Ribbon for twenty years. This mythical trophy was later held by the "Bremen", "Europa", "Queen Mary", "Queen Elizabeth" and now by the "United States" with a record 35.59 knots.

The Diesel Engine

A very economical unit for ship propulsion as regards fuel consumption, was developed in 1893 by Dr. Rudolph Diesel, a German inventor. He proposed the method of utilizing directly the energy created by the internal combustion of fuel oil in a reciprocating engine. The first marine diesel engine was built in 1902, and in 1910 a 370 horsepower diesel unit was installed in the "Vulcanus". The diesel has a fuel consumption of about 0.38 lbs. per S.H.P. hr. It is particularly an excellent power plant for vessels on standby duty including tugs, fireboats, and the like as it can be ready for service from a cold start in a matter of minutes.

The diesel engine is presently built in units up to 12000 BHP, turbo-charged; has reversing features, and may be used for direct drive, geared drive or diesel-electric propulsion.

Gas Turbine Installations

Marine gas turbine installations are still in the experimental stage. They possess advantages of light weight and a fuel consumption of about 0.47 lbs. per SHP hr. The English diesel-electric tanker "Auris" replaced one of four 1200 HP diesels with a gas turbine, which operated very successfully for 17000 hours (about 3 years). As a result of this experiment, the entire power plant is now being replaced by a 500 SHP gas turbine installation.

In the U. S. A. the Maritime Administration is presenting pioneering with the installation of gas turbines of 6000 HP (open cycle) as a conversion project in some Liberty freighters. One of these ships will have a free piston engine, in lieu of a turbine driven multi-stage compressor unit.

The potential advantages of the closed cycle gas turbine as compared with the open cycle are: improved part load performance under cruising conditions; small weight per horsepower; less ducting; and smaller space requirements. The indications are that the closed cycle units will come in for serious consideration once satisfactory operating experience is logged with present units.

The reversing feature may be attained in several ways, viz:

1. D. C. Electric Drive
2. Mechanical Reversing Gear
3. A. C. Electric Drive
4. Controllable Pitch Propeller

Nuclear Power

With the successful completion and sea service of the submarine "Nautilus", following with the "Sea Wolf", the technical feasability of using nuclear power for the propulsion of large ships has been established. With obsolescence threatening the U. S. merchant fleet between 1960 and 1965 there is an urgency to rush the program. Within the next five years, there will be a few nuclear-powered merchant ships in operation, but they will not be competitive in capital investment or operating costs, due to developmental costs of machinery. For the same reason, a lower limit of power at about 15,000 S.H.P. seems to be indicated. Weight and spacewise there may be somewhat of an increase over present installations, with the reactors replacing boilers in the present arrangement. There is a definite cost and space saving for the fuel that is used in the conventional arrangements.

The cost of nuclear fuel should be reduced with the increase in the number of breeder reactors. The disposal of spent fuel is presently a problem; perhaps chemical re-processing will be the solution for the elimination of health hazards.

The Congressional Atomic Committee has unanimously approved the U. S. Navy's request to rush construction of an atom-propelled cruiser, super carrier and six more submarines. The Navy visualizes possible conversion of all medium and heavy ships to nuclear propulsion.

Propulsion Machinery — General

The selection of the power plant for a vessel is predicated upon several factors, viz: owners preference, reliability and simplicity, cost and ease of repairs and maintenance, economy of operation, weight and space requirements and capital investment. Each factor must be considered and its importance analyzed from the standpoint of making the vessel an economical carrier for the entire period of its life expectancy. In the last analysis the effect of all combined factors in re-

MERCHANT SHIPBUILDING IN PRINCIPAL COUNTRIES OF THE WORLD

JANUARY 1956

NEW CONSTRUCTION IN HAND OR IN ORDER

(1,000 Gross Tons and Over)

Country	No.	Gross Tonnage	Per cent
U. S. A.	25	312,460	1.7
Great Britain	462	4,417,002	24.8
France	112	1,155,916	6.5
Belgium	28	234,000	1.3
Holland	172	1,667,412	9.3
Italy	99	1,186,190	6.6
Germany	311	2,650,701	14.9
Norway	76	740,493	4.1
Sweden	157	1,600,500	9.0
Europe — Total	1417	13,652,214	
Japan	195	3,096,000	17.4

*Shipbuilders Council of America

ducing transportation costs and arriving at destination on time governs the choice.

A brief analysis of these factors seems in order. Owners preference may be based upon a satisfactory experience with a certain type of prime mover and, that he desires to maintain similar units in his fleet for transfer of parts and personnel. Reliability and simplicity are considered as they affect design, materials and construction, assurance of maintaining schedules and absence of mechanical failures at sea. Economy of operation presently stresses fuel economy as the major factor, but lube oils, etc. must be considered. The weight element is reflected in a loss or gain of deadweight, and similarly space requirements affect cubic available for cargo. An expensive machinery installation may be the cheapest, providing that reliability, combined with high fuel economy is realized and that low repair and maintenance costs are effected.

Types of power plants presently installed include: geared steam turbines, turbo-electric, direct diesel, geared diesel and diesel electric. The first three embrace the great majority of installations. The trend in the U. S. A. has been to favor the steam propulsion plant installations, whereas in Europe the internal combustion engines have taken the lead. In the U. S. A. the majority of shipyards purchase the propulsion machinery from a sub-contractor and install it in the vessel.

The cross compound turbine plant, using double reduction gears, has the advantages of light weight combined with flexibility of arrangement and low spacial requirements. The present practice favors steam conditions at 600 P.S.I.G., 850°F. total temperature, fuel economy 0.52#/SHP Hr.

The turbo-electric installation was brought to the fore by the manufacturing exigencies created by World War II. It is a reliable power plant, possesses great flexibility for maneuvering and can easily meet large steam and electric port requirements. The source of power is alternating, current supplied at 2400 volts to the propulsion motor, 440 volts to auxiliary motors and 114 volts for lighting. As compared with the geared turbine job there are slight increases in fuel consumption, plant weight and cost.

The direct Diesel installation has a higher plant weight, offset by the weight savings effected by greater fuel economy, reduced water requirements.

Conclusion

World War II found us lacking in many of the components required in ship construction and substitutes had to be found, more often than not at greatly increased cost. By instituting a planned replacement program for our present fleet, enlarging it as we go, the costly lessons of the past will not have to be repeated.

We are aware of the fact that the objectives to be attained in building a naval vessel are dissimilar from those of a merchant ship.

The naval vessel is a fighting machine, and all other considerations must be subordinated to obtain the most effective weapon, as their is no economy in a battle lost, if it be due to a deficiency in the ship.

The merchant vessel must meet competition in the transportation of passengers and cargo, and so must first be an economical carrier.

Both types require good ship building, and the know-how to do this is available in the shipyards of the U. S. A.

BITS OF INTEREST ABOUT LIGHTNING

By Joseph DiGiovanni

There are various kinds of lightning. "Cold" lightning is of very short duration (a couple of millionths of a second) and produces little heat in anything it passes through. "Hot" lightning has a duration of about one-hundredth of a second and produces a great deal of heat. "White" lightning passes through dry air and is very likely to set fire to anything it hits. "Red" lightning flashes through rain and is partial to wet objects; it isn't likely to cause fire. "Ball" lightning, which is rare, appears as a ball of fire. (Heat lightning is merely the reflection of lightning too distant to be actually seen.

When lightning passes through sand it causes particles of it to fuse together in tubes up to four inches around. These tubes have glass-like interiors, and extend as much as 30 feet underground. They are called "fulgarities" and "petrified lightning."

Lightning helps to produce millions of tons of fertilizer for the soil each year by causing a chemical reaction involving oxygen and nitrogen. The product of this reaction is nitric acid, which is delivered to the soil by rain and snow.

The Mongols under Genghis Khan were so deathly afraid of lightning (and thunder) that many of them would dive into rivers and lakes for protection during electrical storms. As a result Genghis Khan issued an order forbidding them to bathe or launder in running water during such storms.

The behavior of lightning is sometimes very capricious. It has been known to strip victims of their clothing, and of hair or beards, without otherwise harming them.

At Mountain Lake, New Jersey, in July of 1951, a bolt of lightning split a 60-foot oak tree; tore into the ground, digging a trench 30 feet long and 5 feet wide; entered a garage, dashed about without touching the car in it, but hit and destroyed a fuse box; sped into the cellar of the adjoining house, streaked up to the first floor, where it broke a window, and then, going to the porch of the house, it passed through a collection of pewter mugs and left them fused together. There were three persons in the house at the time and one of them, an 87-year-old woman, was knocked to the floor. But no one was seriously hurt.

It's not true that lightning never strikes twice in the same place. A farmer in Woodsboro, Maryland, was hit by lightning while working in his barn, and survived. A year later, while working in the same barn, he was hit by another bolt, and survived that too. In June of 1951 lightning set fire to a home near Quarryville, Pennsylvania, and while the owner was fighting the blaze, another bolt hit the house and knocked him flat.

One of the great disasters caused by lightning occurred on the 10th of July 1926 at the Picatinny Naval Arsenal at Lake Denmark, New Jersey. A lightning bolt hit a powder magazine and the resulting fire spread rapidly to surrounding ammunition-filled warehouses, which were blown to bits in a conflagration that was out of control for 24 hours.

When a tree hit by lightning explodes, it isn't because of the force of the bolt, but because the heat of the lightning has caused the tree's sap to turn into steam. Oaks are hit most often; beech trees least often.

Though many of us are understandably terrified by lightning, the chance of any individual's being hit by a bolt is very small. Only about 400 persons are struck annually in the United States (and not all are killed).

Lightning travels at a rate of about one million miles per minute; and since this speed is far greater than that of sound, you can be sure when you hear thunder, that the lightning bolt that caused it is nowhere near you.

DEMOCRACY

U. S. ARMY DEFINITION, 1928:

Democracy. A government of the masses. Authority derived through mass meeting or any other forms of "direct" expression. Results in mobocracy. Attitude toward property is communistic — negating property rights. Attitude toward law is that the will of the majority shall regulate, whether it be based upon deliberation or governed by passion, prejudice, and impulse, without restraint or regard to consequences. Results in demagogism, license, agitation, discontent, anarchy.

United States Army Training Manual, No. 2000-25, 1829, p. 91

U. S. ARMY DEFINITION, 1952:

Meaning of Democracy. Because the United States is a democracy, the majority of the people decide how our government will be organized and run — and that includes the Army, Navy and Air Force. The people do this by electing representatives, and these men and women then carry out the wishes of the people.

The Soldier's Guide, Department of the Army Field Manual, FM 21-13, June 1952, p. 69

The second definition, rather than contradicting the first, appears only to acknowledge that democracy is now with us.

Actually the election of qualified representatives to conduct government is one of the important characteristics of a *republic*. Founding fathers believed so much in giving responsibility for public affairs to men who had a logical vested interest in the national and state welfare, that the vote was permitted only to property owners.

With an estimated 3 to 5 million illegal aliens in the U. S., effecting the outcome of our electoral college, perhaps we should restudy the early American reasoning.

By Harold Baker

This month your reporter joined the ranks of those goofy characters who get out and leave their cars parked in the parking lot with the headlights on. Thanks to the alertness of Randy Boulden, I managed to go out and turn them off before the battery ran down. . . . The only consolation that I had was that I am not alone in this club. One of the supervisors in our yard got out and left his car locked up with the radio playing, the lights on, the motor running, and the keys were locked inside too!

Since we have begun to work short time, we heard that John Hausman can no longer afford to buy a new car. As a matter of fact, it has been rumored that John is looking for a good second hand bicycle! . . . John should go over to #1 Shipway and talk to Bill Evans. Bill has a bike that he might be willing to sell. His bike is in very good condition, considering that it has only 100,000 miles on it! . . . Pat Hughes has been in a very grumpy mood lately. He has been that way ever since his old buddy Adrian McGovern left. Pat really misses those friendly discussions that they used to have.

Every Spring Leo Wiseley has been buying either baby chickens or ducks. However, this year he didn't buy any. Leo says it isn't very profitable trying to raise poultry in the basement. And besides they do give the house a certain distinctive fragrance which Mom Wiseley is glad to do without. . . . Dan Dougherty complains that those 25c cigars aren't as good as they used to be. Dan says he just can't pick up a good cigar anymore!

Richard Sipps has been commuting between North Carolina and Chester on weekends. We would like to know why, and what is her name? . . . We send our congratulations to Arthur Millay. On Friday, April 13th his quick thinking and actions saved a woman's life. . . . We offer our condolences to the friends and family of Thomas Clark. Tom was a well known and popular member of our group for over a quarter century. He passed away suddenly on April 5, 1956.

A FEW CHIPS FROM 55 DEPT.

While Casey was working on the third shift, we heard that he was developing a silent type of chipping hammer. This would be a welcome invention for all the other workmen in the yard. However, Benny Burke put a stop to it: Ben couldn't hear whether his men were working or not if such a tool was invented! . . . Ben returned to day shift recently and said five minutes after he saw Harry Rickenback all of his old ulcers began to act up again.

Frank "Grandstand" April says he gets a kick out of demonstrating his talents with a chipping hammer to the rest of the crowd. That is how he got that title! . . . We hear that John McDonough is thinking of buying a country estate. . . . It isn't every foreman that has his men come in to serenade him in the morning, and we wonder how Carl Lohrke liked Harry Rickenback's rendition of "Working on the Chain Gang"? . . . Leo McCabe has set up a camp over on Bob VanHorn's big hause pipe project on Hull 589. He expects to be there quite a while before those plaster patternmakers complete their job.

BE KIND TO THE OLD

Be kind to the old, my friend;
They're worn with this world's strife,
Though bravely once perchance they fought
The stern, fierce battle of life.

They taught our youthful feet to climb
Upwards life's rugged steep;
Then let us lead them gently down,
To where the weary sleep.

Anon.

By Frank Brooks

I'm glad to report that Dick Johnson is back to work again after a long illness and is looking very well. We are glad to have you back, Dick! . . . Our department has gone three months without a lost time accident. Do you realize this is one quarter of the year? So keep up the good work, fellows. Who knows this could last a year?

Those new dollar bills look good each month. Some of our careful safety winners are: Nick, Big Boy, Stanley, Frank, and Dick. . . . Sugar takes Buss home from work in his maroon Buick, sometimes. Well, Hunley said it's Sugar's car because he always calls Buss to get in. . . . They tell me Nick goes "Bowling" when he takes the children along. That's real nice of him.

Sugar is still watching television's late show. Bob said he will break that up soon. . . . Two of our men are known around the department as "Hi Boy" Herb and "Apple" John. . . . With the baseball season just opening, I will go out on the limb and pick Brooklyn and the New York Yankees to repeat. I also pick Pittsburgh and Washington to fill the number eight spot of each league.

SHIPYARD FICTIONARY

By N. O. Webster

Web Frame — Doublecross by Sergeant Friday.

Tee Bar — May be served instead of crumpets.

Planimeter — Corresponding to a taximeter except used to charge for airplane travel.

Permeability — Having infinite lasting qualities.

Anneal — Irish surname, like in song "That's Peggy Anneal".

Binnacle — Highest point.

Bridge Deck — 52 cards, no jokers.

Flat Bar — A place serving stock ale and still wines.

Boom — What we go when we fall down.

Yoke — That's funny?

Blueprint — Fingerprint of royalty or aristocracy.

Radius — More than one radio.

FAXEN FIGURES

By Colin James

Brother! can this be? **32,000,000 glasses of orange juice in one container!**

You find that it can be when the container is the Fruit Industries, Inc. orange juice tanker, the *TROPICANA*, which is being converted to carry a **million gallons** of fresh juice under vacuum from Florida to New York in two and a half days.

* * *

You wonder if Uncle Sam polled only convents, old ladies' homes, and sanitariums when he comes up with figures to show that only **one in four adult females is a cigarette smoker.** And you find it mildly surprising to learn that **among men,** about **53%** use **the weed** in its most popular form, with **only 6% being regular cigar smokers,** and **8% fumigating** us with their **pipes.**

* * *

Sometime during 1957 you will be able to **get high on Seagram's but remain a teetotaler.**

"High" would be atop their now under-construction 38 story skyscraper in New York, which interests you because this is the **world's first building with an all bronze exterior.** As they claim for their products, time will also mellow and improve their building.

* * *

You try to figure, and you can't, whether it is courage, faith, or a gambling instinct that **spends $4,000,000 and gets nothing in return.** So, you conclude that it must be a combination of all three that prompted *Sun Oil Company* to sink that amount into exploration and drilling dry holes in Canada between 1944 and 1954.

But, WHAM! The three bells came up in 1955. **Sun sank 56 wells** and hit **— yep! 56 producers.**

* * *

While you are still in an oily mood, you think of the **45,000 wells drilled each year,** and it is good to know that only about **25 of these go wild,** with probably **just six, or 13/1000 of 1%,** catch fire.

* * *

Your own retirement plans look a lot bigger when you consider what a President of the United States can expect upon retirement. He receives free **one copy of the daily Congressional Record,** and **free use of the Library of Congress.**

Husband, struggling with budget, to wife: "We should have saved during the depression so we could live through this prosperity."

FAMILY REUNION — It took a long time to get the whole family together, but when Ileen Sellers, youngest in the family of George Sellers, (33 Department Crane Operator) was married, it happened! Standing: Lionel, Jean Mrs. Sellers, Ileen, George Sellers, Sr., George Sellers, Jr., and Muriel. Seated: Doris and Lillian. There are thirteen grandchildren.

By John F. Hefflefinger

This month ushers in the month of May flowers and from the amount of rain we had during April, it should really be a banner month in the way of production. Those rainy weekends sure play havoc with the schedule of the gardeners. And we hear reports that they don't help the fishermen either! And by the way, on the fishing subject we overheard one angler say, "you could not see the water for fishermen". His luck evidently was on the poor side.

Sorry to learn of the serious illness of Clint Miller. We sincerely hope that by the time this issue arrives, he will be well on the road to recovery. . . . Reports also on Larry Bruggeman state that he is slowly improving. . . . Those Wilmington lads had better steer clear of Chester motorists. "Whitey" Peet, while stopped for a red light, had that brand new Dodge smacked in the rear by a lady driver who must have had very poor vision. She claims she never saw him! . . . And Brownie, while stopped on Ninth Street to have his throat swabbed, had his Chrysler side swiped by a lad who was so excited over seeing his father on the corner that he never even saw Brownie's car. And little Andy again came to the rescue. It sure would have been a hit and run case if Andy hadn't just been in the car and seen him coming, got the license number, etc.; while Brownie, in spite of his former remarks, just was not able to do or say anything. As a reminder, Brownie should see the Lawrence Welk show on Saturday evening T.V. That new song should fit him to a T. We mean that "Practice What You Preach" ditty. Very appropriate!

"Big Jeff" recently went on his first outing of the season with his troop of Boy Scouts. Says he sure was cold on Friday night. By Saturday things were more ship shape, and that big fire in the fireplace was really appreciated. . . . What's this we hear about Mert Neiman and that beautiful redhead? Are wedding bells to peal after all these years? No denials as yet, so, might be some truth in it at that. . . . Just who deserves the title of "Mean old man"? Wonder if Bucky could enlighten us any?

We are all glad to learn that Buffington (Buff to us) has left the hospital after emergency treatment and is now recovering at home. Hope to see you soon, Buff! . . . We learn that Yogi has joined the ranks of the movie fans having recently purchased a complete outfit. Good luck, Yogi! . . . From the glowing tales related at 5 Way Maintenance Shop, that lad, Rudy, is some "Ladies Man". At least his pals think so!

Bill Higgins is now our official cat custodian as he feeds them and finds homes for the kittens. We are going to see if he can get a badge from the S.P.C.A. . . . Our old friend, John Marley, paid our department a recent visit and is looking and feeling well after his serious illness. He sends his regards and best wishes to all his friends he didn't get a chance to see.

Why is it that when the phone rings at noontime, everyone shouts out for Norm Fellenbaum? . . . We surmise by now that Jim Wilroy is well aware of Kennedy's wins and losses at pinochle. His attitude sure betrays him. . . .

By Bob Wilson

On April 13th at the Polish American Club in Chester, the third and final square dance for this season was held. As in the previous two, it was a very successful affair with everyone having a good time. Once again, on behalf of the Social Club members and their guests who attended, I would like to thank the members and the dance committee who worked so hard to make these dances a success. A job well done!

BARBARA JANE WRIGHT, 18 graduated from Springfield High June 1955. Daughter of Bob Wright, Engine Drawing Room, she is now working for a commercial moving picture firm in Phila.

Ross, back from his trip to Florida, has been subjected to some criticism for the poor quality and quantity of post cards he sent the boys in the office. Before he left, Ross vowed "he would beat Ralph Morgan's record." He didn't even come close. Better luck next time, Ross! . . . Water skis and high powered speed boats are not enough. Now our boy, Vic, is planning on a motorcycle. Along with the motorcycle, Vic will get his membership card in the "Suicides, Inc., Club."

John Martin is reported making progress, although he is still hospitalized. The swelling in his legs has gone down sufficiently to allow the doctors to put his legs in casts. We are all pulling for you John, and hope it will not be too long before you are back with us.

"SCRAPS FROM HERE AND THERE"

Claude Allen's got the "old fishing bug" again. How big will it be this year, Claude? The one that got away we mean. . . . Some people have funny ways of telling the time of year. George "Salty" Blair for instance insists summer is not far away. He knows, he says, because, and we quote, "the Wilson liner is in Drydock". . . . Ernie Brownhill's new alias, "Butterworth". . . . Bill Burns looking forward to his trip to Scotland next month.

Jack Carroll and Jack Culley didn't approve of stock mufflers on their cars. P.S. The local State Troopers changed their minds. . . . Stanley hopes to move into his house later this year. Going to have a house warming party, Stan?

That's all for this month, but before I go, just a reminder; if anyone has suggestions for next fall on activities for the Social Club, the officers would appreciate having them. Get them in early, and it will give your officers a chance to work them up.

INK SPOTS
FROM THE HULL DRAWING ROOM

By C. J. Grauel

Bob Filliben left on April 16, 1956, for the Marine Corps training base, Paris Island, South Carolina, where he will be booked for a ten week period. He has the Marine Corps completely buffaloed, as he volunteers for K.P. duty every day. . . . We would like to welcome Ken Cadman and Leon Reed into our group. Ken was formerly with the Mold Loft.

Miss Eleanor Carlsen of Stenographic and Edward Clark of Hull Structural became engaged on April 14, 1956. . . . We wonder why Bob Scull is only too glad to get stationery on the first floor these days. Could be a girl. How about it Bob? . . . The Philadelphia Section of the Society of Naval Architects and Marine Engineers held their Dinner-Dance on April 21, 1956, at the Cherry Hill Inn, Haddonfield, New Jersey. Sun Ship had quite a representation. All had an enjoyable evening.

As of this writing Joe Ambrosino is holding first place for high average in the Sun Ship Mixed Bowling League with a total of 178 points and in the Men's League with 176.44. Having averages like these, proves Joe isn't going to let his boys get ahead of him when it comes to winning awards. . . . We're very happy to have Steve Slatowski back with us again, especially Johnny Borsello because he had nobody to argue with. . . . Also laid up last month was John Petchel who had quite a bad back.

Henry McDermott's wife had a bad fall in front of her home last month. Fortunately her injuries were limited to cuts and bruises. . . . Earl McElroy while vacationing in Florida for a week took in the Seabring Twelve Hour Endurance Race, which outside of three Chevrolet Corvetts included English and Italian sport cars. Interesting to hear, one Chevrolet completed the endurance race coming thru in ninth place.

WE KNOW IT

Historically the decisive weapon in the arsenal of Marxism has been debauchery of the currency. Consider the boast by Communist K. Shmelev in his book, Soviet Policy in Public Finance:

"In the archives of the great proletarian revolution, alongside the modern guns, rifles and machine guns which mowed down the enemies of the proletariat, an honor place will be occupied by that machine gun of the People's Commissariat of Finance which attacked the bourgeois regime in its rear — its monetary system — by converting the bourgeois economic law of money circulation into a means of destruction of that same regime, and into a source of financiang the revolution."

Also consider the warning by the one American statesman who has demonstrated competence to cope with our adversaries in the Kremlin:

"And as we continue these wastrel policies without promise or hope of regaining normalcy . . . it becomes increasingly clear that the pattern of American fiscal policy is being brought into consonance with the Karl Marx Communist theory . . . Such policy . . . is leading us toward a Communist state with as dreadful certainty as though the leaders of the Kremlin themselves were charting our course." — General Douglas MacArthur before the Mississippi State Legislature in 1952.

By Howard E. Buffett
Human Events, April 7, 1956

NO HOGAN

WILLIAM MacLENNAN, of Woodlyn, Pa., was born in Rothesay, Scotland in 1894. His first job was as an apprentice machinist with Scott & Co. on the Clyde. In the first World War he served with the British Army (Argyll & Southerland Highlanders). Bill arrived in Philadelphia in 1923 aboard the S.S. Celtic, and went to work for Baldwin and DuPont before coming to Sun Ship in 1937. Married and the father of one girl, golf is his hobby but he admits he is not as good as Ben Hogan. However, he's a high class machinist, well known and liked by all. — E.E.W.

59 & 60 DEPARTMENTS

By L. "Fireball" Bentley

Deepest sympathies are extended to Frank McShane on the recent death of his beloved wife. And to Blair Gibbs and family who lost their little one shortly after birth, our sincere condolences.

Death is one of the adversities we all face in this life. Practically each one of us have seen a loved one taken from our midst to sleep the long sleep. But isn't it nice to remember and know that a Man died and lived again, for all of us? He is our proof that from death can only come a greater life.

His resurrection is evidenced every Spring. We think this glorious season of the year is the nicest because in it we experience with all nature the victory of life over death. Outstanding examples of the exhilaration people derive from this victory is seen in the great throngs that annually make their way to Washington, D. C. to see the cherry blossoms; and to Valley Forge for a glimpse of the dogwood in bloom. Many people unknowingly participate in botanical resurrections every year when they plant, prune, cultivate, or fertilize trees and flowers. We think this is what our Creator intended us to do. Didn't He set an example for us? Think about it!

The following was gleaned from a little pamphlet. It bears repeating now:

Suffering leads to better things? When Spring came to England after the great air raids of 1941, it brought a great botanical resurrection. The bursting of bombs in the fields and cities brought subsoil to the surface which contained the seeds of plants which had long since been extinct. These resurrected seeds which had slumbered for decades were brought to life and induced to grow prolifically by the aid of nitrates from exploding bombs which had enriched the soil. Some ninety-five different kinds of flowers and shrubs were found in the bomb-packed landscape of England. Adversity in life has the effect of turning up unexpected and undeveloped parts of our lives.

A few weeks ago the order of the men in blue bellowed in no unmistakable voices, "play ball," and the baseball season of 1956 was underway. Facing these sixteen major league teams is a 154 game schedule, ending with the annual autumnal classic, the World Series.

Hope eternal dwells in the hearts of all these men that their team will be the one to win the pennant in their respective leagues. Some play in many Series, some never make it. But now to get back to opening day, and what a day it is. You get to the park early. Upon first glance you see the seats have been freshly painted, and the gay bunting decorating the whole park adds in its quiet way to the excitement which is felt more than heard or seen.

During the fielding and batting drills quite a bit of soda pop, peanuts, ice cream and hot dogs are consumed. The raucous cries of the vendors selling their wares is punctuated by the crack of the bat as it meets the ball, and the resounding thuds of the ball in the pockets of the gloves as the batting and fielding drills progress. Now from somewhere out of all this din a bell rings. It has a Pied Piper effect on the players, they disappear into the dugouts as if by magic as the ground crew manicures the field.

A band appears with the color guard and they make straightway for the flagpole which is usually positioned deep in center field. The flag is raised upon the staff while the strains of our National Anthem fill the air. The flag is flying high and mighty; the band is returning among the exciting hum which usually proceeds the throwing out of the first ball; and your goose-bumps have returned from whence they came.

But you are thinking, thinking and remembering that the game of baseball is truly the national game. A sport that has succeeded in overcoming the obstacles of race, creed and color which confronts so many today. So not only on opening day, but any day you see a ballgame, be it in a major league park or just the little leaguers, you are truly seeing a democratic spirit in action. Isn't it great to live in America?

RAISED PRODUCTION CROP

SEBASTIAN OBENHEIN, of 1000 Baldwin Street, Chester was born at Woodhaven, New Jersey on January 12, 1887. His first job was driving a grocery wagon, then twenty years with the Long Island and Pennsylvania Railroad. He is a graduate of Sheet Metal School of Phila. Sebastian came to Sun Ship as a Boiler Room operator in 1927 and still holds this job, where he is well-liked by everyone. Married and the father of two children, both of whom apprenticed at Sun Ship—Everett in Engineering Drafting and George as a Machinist. Everett is with Hill Dredge Co. and George with Sun Oil Company. — E.E.W.

Due credit and recognition is hereby given to Arthur Millay, Foreman of the Standards Dept., for his valiant effort, without regard for his own safety. He plunged into Ridley Creek and saved a woman who tried to take her life. Congratulations, Arthur Millay!

Nice to have a fellow like C. "Pappy" Jenkins hand over the news of the Second Shift. Thank you, Pappy! . . . Glad to see Mike Znachko back in print again! . . . By the way, Dick Clendening, we miss your column and your views on many diversified subjects. Know the medic told you to rest awhile, so get a nice rest so we can some future day see you in print as well as in person.

A speedy recovery is in the books for you Mr. A. A. Norton. You have the best wishes from all of us.

Only the crazy, says an old Welsh saying, give aid to the lazy!

Homer claims the only way one can keep from paying too much income tax is to take it easy and not work too much. HMmmmm, some should make out alright!

Who is the person on the 2nd shift who goes to visit his in-laws with all the cheerfulness of a pall bearer? . . . Hear that John McDonough of 55 Dept. is in the market for a new ranch type house. There seems to be only one hitch. He has to sell the old one first. . . . A little bird told us the office gals think the perfect husband is kind, considerate, gallant, handsome, and a good provider, but is usually married to someone else. . . . While we are in the office, Tom Kelly thinks he has solved the riddle as to how they keep their fair complexions. Yep, they hide their jars of lotion from the kid sister.

The inventions dictated by necessity are older than those suggested by pleasure!

Say, Harold Baker, why do you leave your car lights on in the parking lot? Will have to tell Al Davis, Joe Greco, Jack Hausman, Joe "Little Caesar" Hubert, Warren, Matt Michie, Sam Mason and Randy Boulden to go easy on you during lunch hour.

Wonder why Jack Kiley, the 2nd shift liner, calls Alvin Harris "Big Chief Knucklehead"? Speaking of the talented men of 46 Dept., on the second shift they possess one of the most unusual caterwauling song stylists this side of the Mississippi in the person of Marty "Meatball" Lopane. There seems to be one dissenter. Pat Mooney says Marty couldn't carry a tune in a bucket with a lid on it. . . . Then there's Frank "Army" Armstrong. All he did was go out and buy a big, beautiful bar. To his utter dismay he found out it was too big. So he went out and bought a bigger house for that beautiful bar. Now what do you think of that?

Freddie Strowe says fools are really clever, because as yet no one has been able to make anything that is foolproof! . . . It's a great kindness to trust some people with a secret. They feel so important while telling it. . . . Note to Supt. Ray Flanigan. Have you noticed how slim Andy Adam, Sr. of Coppershop is getting? Looks as if he just stepped out of Esquire. Could it be that Mr. Wally Brotherston, of Sun Oil Inspection, has been reading Esquire, too. Something must have prompted him to buy that new car of his. You know the one you've seen whose color defies description.

To the Hot Rod:- The most effective safety sign on the highway is on the side of the car that says Police.

When success turns some men's head, 'tis a pity it doesn't wring his neck at the same time!

By the time some people learn to believe in themselves, they are too old for anything else. . . . Anyone who would like to get a haircut on the 2nd shift see Bill Feehan of the Safety Dept. during lunch hour. . . . Have you heard about the owl killer? This particular gentleman resides in two states, namely, Delaware and Maryland. He shot the bird who lived in the oak, beg your pardon, in his barn. It was for no reason at all. the bird did fall, that's all. It is really the truth.

Overheard in an Internal Revenue office. Woman to the clerk: "I do hope you'll give my money to some nice country" . . . . Speaking of trade relations, we know a few who would like to do just that. . . . Dudley claims a year ago he had enough money to choke a horse, but made the mistake of not choking the horse but betting on him. He also says the horse never eats the day before the race, and seldom eats the day after.

One of the greatest mistakes you can make in your life is to be fearful you will make one!

In a recent bowling match between the Safety and Supervisor teams, the Supers really put it on Safety. Was it because they (Safety) were up against the Supers who won the four points, or did they have butterflies? . . . Sluggo says some people will never tell a lie, providing the truth will do as much harm.

We all welcome back "Free Loader" Charlie Filbert. He likes pie and cake, so bring in that extra piece in your lunch.

Young father Hubbard went to the cupboard
To satisfy hunger's throes.
But there wasn't a bite, or morsel in sight,
That wasn't completely froze!

Ralph "Chris" Christopher was seen anchoring himself in a recent windstorm by tying a five gallon bucket of nuts and bolts to himself. . . . Why is it almost everyone has been calling "Jock" Laird of 36 Dept. "Jelly Bread"? . . . Pugh, one of the old pros of 39 Dept., 2nd shift, states an alarm clock is a devilish device, invented to scare the daylights into you every morning. . . . Notice to all anglers, "Smoke" Cauley of 55 Dept. is on call to take out fishing parties. For your reservations, and get them in early, you can see his Chief Engineer, Bush Cochran, who for some unknown reason took wonderful care of Jim Devine's lunch when Jim went to the dispensary on a rather unexpected visit.

Most people can agree to meet each other half way, but can't agree on where the half way point is!

Reds "Bulgy" Graham would like you all to know a reckless driver drives as though he owned his car. . . . At one o'clock in the afternoon, March 31st, Miriam Salus of Philadelphia and Frank Hibbs of 81 Dept. were united in marriage at the Covenant Pres. Church in Germantown. They spent the weekend at Haddon Hall, Atlantic City. Congratulations to the both of you for many happy years ahead. . . . Say Frank what is Jim Madden talking about when he says you like a certain kind of pillow. What kind are they? The ones you sleep on, hug, or throw away?

Henry "Lover Boy" Kloeppfer knows money may not be able to buy love, but it sure puts one in a better bargaining position. . . . Why did Hilbert Cooper buy 15¢ worth of peppermints after he was out with Leo McCabe? . . . "Tank Sniffer" Dell defines spring as the time of the year when you don't want to do all the things you planned all winter.

How come nothing is impossible to the man who doesn't have to do it himself?

Almost everyone knows Joe Ozar, of 46 Dept. They know he is an ex-coal miner from Scranton; that he laid the forms for the Turnpike; but what they don't know is why he has the name "Nellie" on his safety hat. . . . Al Schwartz says a good music lover is one who upon hearing a good-looking soprano singing in the bathtub puts his ear to the key hole.

Al Williams of 55 Dept., from over New Jersey way (where Mercury's do 90 in second, and Hudson Hornets do 108 and their not wide open) is having a little bit of trouble. Something or someone is digging up his yard. That is the reason he is advertising for a wild animal trapper. Just see him and he will let you have all the information you may desire.

Until next month so long and good luck!

IRISH

JAMES LAWRENCE McCANN, a full-blooded Irishman, was born at Quincy, Mass., February 11, 1896. He is married and has one daughter. Mc' (that stands for "Mack," not emcee) started his career as an apprentice draftsman in the Joining Dept. of the Fore River shipyard. Through competitive exams, he progressed to a full-fledged draftsman — remained with Fore River 14 years.

He moved on to Bethlehem, Pa. where he met another Irishman (none other than our distinguished ship repair estimator) Harry McBride. Then on to Lawley's shipyard at Leponset, Mass., finally arriving at Sun Ship with Hopeman Brothers. His duties take him to the Cramp Shipyard and the Federal Yard. Mac has been Hopeman's foreman for the past twenty-five years and a more genial and competent foreman has yet to be found. — E.E.W.

To Many of My Shipyard Friends—

With deep gratitude for the flood of birthday cards pouring over my threshold in recent days I want to thank Sun Ship's boys and girls for their goodness. It was not a surprise because no act of kindness ever can be a surprise, but the volume of the love you poured out did touch my soul.

Yes, I have travelled far on the Express of Life, an adventure filled with joys and sorrows; victories and defeats; laughter and tears.

Each of us is a passenger as the roaring flight speeds on its way. We were lifted aboard by the hand of God, and Time, the Conductor, holds the tickets.

Father and Mother watch over us tenderly as the trip begins. Fellow travellers join us. Brothers and sisters take part in our play. Other loved ones become our companions. The journey lengthens; we wed, come into parenthood and the Express plunges deeper into eternity.

Time still holds the tickets; only he and our Creator dictate when and where we get off. A tap on the shoulder and we know that the next station is ours.

So the years pass; so the Express speeds ahead.

New faces appear; new friends come and go.

For some the journey is brief. Youths in service uniforms join the travellers full of life and health. Time the Trainman, picks out alloted ones, taps them and they too depart.

Babes, children, adults all leave the Express. The mighty and the weak. The rich and the poor. All are called at the right stopping place.

Please God, may your trip be long and full of happiness.

BOB VALE

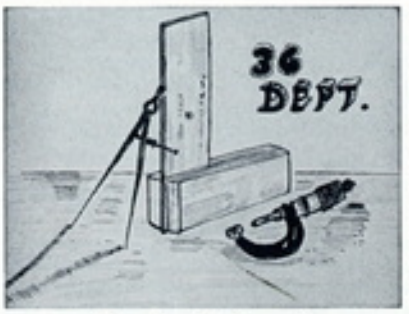
VISIT YOUR PARENTS

If you live in the same place, let your steps be — if possible daily — a familiar one in the old home; if you are miles away — yea many miles away — make it your business to go to your parents. In this matter do not regard time or expense; the one is well spent, and the other will be, even a hundred-fold, repaid. When some day the word reaches you, flashed over the telegraph, that your mother is gone, you will not think them much, those hours of travel which at last bore you to the loved one's side.

Anon

He: "Your husband looks like a very brilliant man. I suppose he knows everything."

She: "Don't be silly; he doesn't suspect a thing."



By Gavin Rennie

The month of May is the month of flowers. After a cool, wet April they should be very nice this year. . . . Jack Beatty reports that he is enjoying a new home at Brookhaven Farms. . . . F. Smith was the only one in the shop who thought of the old cat on Good Friday. Frances also has had his share of bad luck with the heavy fog getting in the carburetor of his car. . . . Whitey Burr did not think much of the April Fool joke pulled on him on the 2nd of April.

Lester Jillson was sporting a new bonnet after Easter. Was it because of the wash and wax job on the car on Good Friday? Lester is also having trouble with the Drawing Room. They do not make the prints like his jobs. . . . Clarence Ross and Farmer Biebas are off the sick list. Glad to see you back, fellows! The farmer was sporting a new pair of bed slacks. . . . Woodie claims he gets more pleasure watching somebody else eating peanuts than if he eats them himself.

Darby Welsh is planning on a new trailer hitch for his car for a trip to Michigan. . . . Ralph Dantonio is spending his spare time overhauling the motor for the fishing trips to the shore this summer. If he takes the Mrs. along, she will catch all the fish as usual! . . . The first day of the trout season was very damp. A few fish were caught. Jack Rowe, formerly of 8 Dept., reports three nice trout caught in Chester Creek. . . . If Mike Znachko wants a whopper of a fish story, he should see Amos Strickland of 75 Dept. Amos pulls them out of the Delaware Bay by their tails, no hooks, no nets — just grabs them by their tails as they swim by!

Earl Houtz, one of the old timers, is back on the 2nd shift. . . . George Lynam is out on the sick list. Hope he has a speedy recovery! . . . Get well wishes to 2nd shift's Sam Custer who was painfully injured in an automobile accident. . . . We are sorry to learn of the death of Fred Simpson who, we are informed recently, died in England. Fred will be remembered by many of the old timers at Wetherill Plant where he worked for many years. In behalf of his many friends here, we wish to extend deepest sympathy to the family.

"Should Law and Order break down and, should there be domestic violence in the future, it will be because citizens have failed in the discharge of their duties."

J. Edgar Hoover

Darts

By Jim Connor

I bet ten
Once again.
Where's my horse?
Last, of course.

* * *

Fierce Injun!
"Halp! Halp!"
Too late.
No scalp.

* * *

Just tell me.
Don't yell me!

By Mike Znachko

Once again it becomes our sad duty to inform our readers of the death of another of our valiant warriors, Thomas C. Clark, of 34 Maintenance, undoubtedly died as he wished to — without much fuss — at his home 1318 Terrill Street, Chester, on Thursday, April 5, following a one week illness. To his fellow employees, who were daily associated with him, he left a shining example of patience and fortitude. Despite the many obstacles, he never faltered in carrying out his work. He had a kindly understanding in his association with others and always manifested a cheerful willingness to help. It is at times like this that we find that words become inadequate and futile — in trying to convey our inmost feelings. His death brings a sense of grief, not only to the family, but to his fellow employees and a host of friends throughout the region. WE, along with his survivors mourn the death of a loyal employee.

Heartfelt sympathy is extended to the Charles Wright family on the death of their maternal grandmother, Mrs. Carrie Ansell of 720 Potter Street, Chester, who passed away at the age of 85. To those who survive her, we extend our condolences. . . . It has been reported that Edward Stryzala, 58 Dept. Leader, became the proud possessor of a new camera.

Rumors have it that Vic Pajan, veteran chipper of 47 Dept., has been seen quite frequently on his hands and knees underneath the bar of the Eagles Clubhouse. Must be looking for a lost dime, or ???? . . . This department was well represented at the Big Blood Blast that was held in the yard cafeteria on Monday, April 2. However, due to the quota being filled, Abe Adelman, Mike Cassidy and Frank Troyan were the fortunate ones who were given the opportunity to donate the red fluid. The remainder of us were placed on the reserve list, pending any emergency calls for good Grade A Royal Blood.

Willie the Wise Owl says — When we can't make light of our troubles, we can keep them in the dark.

It has been brought to our attention that Charles Gear, 58 Dept. Leader, has again taken up the art of face washing; ever since Ed Stryzala purchased the new camera. . . . Mr. and Mrs. Mike Cassidy, along with all the little Cassidys, journeyed to Bethlehem, Pa. to spend the Easter holiday with relatives. . . . Abe Adelman and the "Missus" enjoyed Easter with relations at Moosic, Pa. . . . Mr. and Mrs. Rufus Ingram were guests at the Ray Burgess homestead in Ridley Park over Easter.

Elmer Lowry, Tom Bell, Joe Woods, Harold Radabaugh and James Kerrigan were content to spend a quiet holiday at home after attending Easter Sunrise Services at their respective churches.

It has been brought to our attention that Mrs. Gerald Evans has acquired somewhat of a reputation as being an excellent baker of pies, especially apples pies. May we suggest to Mrs. Evans that inasmuch as this reporter has always been considered a capable judge of pies, and especially apple pies, our expert opinion may be had upon receipt of some of the product. (Note: Please give an advance notice of delivery to the Editor, who is also a conniseur of apple pie.)

It has been rumored that certain individuals connected with the Safety Dept. have delegated themselves to the task of assuming full charge of any lunches that may be left behind by the men who sustain injuries and are removed to their homes. Hmmm!

"If America is ever destroyed, it will be from *within*, not from without."

Abraham Lincoln

GEORGE, JACK, FRITZ AND BILL DRAUSCAK, nephews of our Rod and Gun Reporter shown along with Mike Znachko, Jr.

By Eddie Wertz

Congratulations this month go to Mr. and Mrs. Zwicky on the 14th and Mr. and Mrs. Rumbold on the 21st. Both are celebrating their first year of married life, while on the 31st Mr. and Mrs. Stokarski celebrate their 31st year. Don't forget the flowers, fellows! . . . On April 14 Mr. Stanley Thompson and Mr. Harvey Pugh journeyed to Brooklyn Navy Yard to witness the commissioning of the U. S. S. "Saratoga" of which Mr. Thompson's son, Robert, is a crew member.

Clarence Copper, Jr., a former co-worker here at Wetherill, now is doing research work in his own medical laboratory located in Artesia, New Mexico, and is using the African frog in conducting his blood tests. Papa Copper tells us his son pays 6 to 8 dollars per frog, looking for a shipment of frozen frog legs any day now.

Black walnut cake Mmmm good! Hope I never have to judge a contest. Thank you Mrs. Strohl. Oh, did you hear your husband is getting a medal from the Audubon Society. He bravely rescued a pigeon from the foundry blowers. . . . Glad to see Hank Weaver back on the job. He returned just in time to see Johnny Gorman in spring training. When Johnny sees a tall board, he tries to look over it or find a knot hole. Planning to see all Media's baseball games this year again, John?

Ziegler found a way to get homemade nutbread even tho Ward would not donate. Hear Ward is always "bellyachin" about something on your toes, Miller. Sell him some Pepto Bismol and get your dime back. . . . No Worrell the honeymoon is not over when you get artichokes in your lunch. . . . The large question now is where are AMB and JG going to get their cars repaired and inspected since the "wreck fixerupper" is retiring?

Dunkin' doughnuts may be bad form, but it's awfully good taste!

Going to have a "fat man" contest between Jules Schulberger and Johnny Begley. Anyone with a large pair of calipers can be the judge. . . . Why are they calling Herman Greenfield "Romeo"? Is it his personality or the perfect fit of those long white jeans? . . . Guard McGeoghegan — next time you desire to be a sailor and go to sea, make sure which way the ship is sailing so they cannot bring you back in a station wagon. . . . Gillespie must have been an onery critter. Jack, just why did you chase old Mrs. Dunkin's goats?

Knowledge is what you learn from others. Wisdom is what you teach yourself!

Herby Hughes is getting mercenary again — saving rain water to bottle and sell for bathing water, and looking for a cabin in the Pocono Mts. "to let" to you fellows on weekends at high rent. Of course there will be a fee for transportation in his station wagon to cover incidentals such as

We will soon see the perriwinkle trail again. Charlie Grant has that gleam in his eye, and soon the boat's bottom will be wet and we hope Charlie's is not as it was last year. . . . Well, the "Wild" Irishman really had his "Dutch" up. Seems someone watched where he tied his "goat" and finally got it. . . . Jack Rowe, our retired farmer, in for a visit, requested I let you boys know he has cabbage, tomato, and pepper plants from 35¢ to $2.00 a dozen.

INTRODUCING THE GRANT FAMILY — Back row: John Pendergrast, Jack Grant, Jr. Seated: Mrs. Grant, formerly of the Payroll Dept., Jack Grant, Sr., our disc jockey, and daughter Marie Pendergrast with grandchildren, Mike, David and Mark.

MR. AND MRS. HARRY SANBORN, JR. Harry now resides at #11 Chester Pike, Ridley Park, Pa. Regards from all the boys at the Wetherill Plant.

Beverly Weidner, we hope you enjoyed your prom Friday, April 13th — and we don't mean hairdo. "Bev" graduates from Eddystone High this June. May we extend our congratulations and wish you every success! . . . H. Finck is watching the newspaper announcements for forthcoming family reunions — time for free eats! Said he was waiting for the McCormick clan to gather. . . . Blackie is trying to save money. He takes the fuses out of the oil burner, and his wife gets cold, his poor little daughter has to phone and beg for them to get warm. Blackie you cannot take it with you!

It's not how many years you get in life, but how much life you get in your years!

Who was the fellow, when stopped by the police, told the cop "either you or me is crazy." Cop said "I'm sure it's not me so go ahead." I got away with it, too. . . . Why is it Gillespie is the last one out of the shop on paydays so no one can walk down the street with him? Any other night he likes lots of company. . . . Hank and Gorman say good old fashion mud is swell for those "B" stings. . . . "Bev" Weidner and her dog, "Greta," won her dad two box tickets for the Phillies opening game. Guess I'll have to see "Bev" for some pictures and information since Don is so lax with the news.

We all wish Jimmie Bell the very best of health on his retirement last month.

MOTHERS, SPARE YOURSELVES

Many a mother grows old, faded, and feeble long before her time, because her boys and girls are not thoughtfully considerate and helpful. When they become old enough to be of service in a household, mother has become so used to doing all herself, to taking upon her shoulders all the care, that she forgets to lay off the burden little by little, on those who are so well able to bear it. It is partly her own fault, to be sure, but a fault committed out of love and mistaken kindness for her children.

Anon.

HEADQUARTERS
10th AIR DIVISION (DEFENSE)
APO 942, Seattle, Washington

Mr. and Mrs. Richard F. Burke
7159 Clover Lane
Upper Darby, Pennsylvania

Dear Mr. and Mrs. Burke:

I thought you might be interested to know how well your son, Richard, is doing. When I became his supervisor last July, the other officers in the Division briefed me on the extent to which Richard had progressed since his assignment to the 10th Air Division. He has continued to develop right along since then. . . .

We are all extremely pleased with the effort Richard has been making. It is through such efforts on the part of our younger airmen that we build a better Air Force. Consequently, we were all very pleased to see Richard recently promoted to Airman First Class.

I hope that you, and Richard himself, feel proud of the progress he has made so far. I am very glad indeed to have such a pleasant and effective individual working for me, and it is a pleasure to pass this feeling on to you.

Most sincerely yours,
L. T. ZELL
Lt. Colonel, USAF

The above paragraphs are taken from a letter received by the parents of Richard F. Burke, Jr., 19, Airman 1st Class, stationed at Elmdorge Air Base, Anchorage, Alaska. Richard is the son of R. F. Burk of 45 Department.

RICHARD F. BURKE

According to the National Board of Fire Underwriters, losses for the past three years were:

1953	**$903,400,000**
1954	**$870,984,000**
1955	**$885,218,000**

How have you prepared at home for this year?

By Harry "Clovehitch" Sanborn

Glad to welcome back quite a few of the boys who were laid off a while back. Hope their stay will be a long one. . . . We hope by the time this goes to press, Steve and Leo will be back with us. Both have been recuperating for a month or more. . . . What happened to all the repair work we had last month? Then we had too much work with not enough men, now the tables are turned.

The new automat by No. 1 Way will certainly be appreciated. Too many times we had to work 4 to 12 hours overtime without anything to eat. No more from now on I hope. (No more which? Ed.) Also it will help when we work outside the yard—getting our meals before we leave. . . . Was real thrilled last month to receive my 25 year service pin. Sometime this year I will write my memoirs of my years at Sun Ship for publication.

Who is the best dressed rigger in our department? Every day he wears a white shirt to work. Ask Brownie, he knows, Dandy Joe, he calls him.

By Joe McBride

Sheldon (There'll be Some Changes Made) Cochran informs this reporter that "B&G" Evans of 33 Dept. is indebted to him. My advice to (B&G) is to pay the fifty cents as "Bush" was seen leaving a lawyer's office a few days ago.

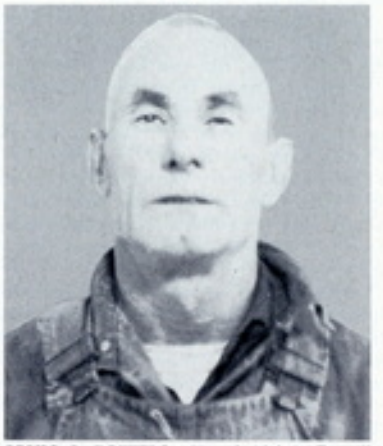
A panel discussion of World Affairs is held every noon at No. 1 table in the yard cafeteria. The moderator, Brutus Falcone, has as his guests, William Larsen and Stanley Passick of 47 Dept. opposing Bill Emery of 59 Dept. and M. "Tucker" Cappa of 58 Dept. Everyone present seems to enjoy these discussions except Joseph H. Proctor who cannot get interested for looking at the amount of his check.

George "Mumbles" Lynn has a heck of a time on the new inter com. system. His recent operation could have some effect on his manner of speech. We earnestly hope it will improve as time goes by. . . . Amos Strickland opened the fishing season by getting a record catch of perch and catfish. He said he could have done much better if he had used a fishing rod instead of his hands.

Slaughter:

Auto accidents have killed more Americans than all our wars. That's well known. Last year ALONE, however, more people were INJURED in auto accidents than were wounded in all our wars!

STANLEY PILECKI, 75, of 715 Eddystone Ave., Eddystone, Pa. died on February 20. Born in Warsaw, Poland, he came to United States in 1905. Coming to Sun Ship in May of 1918 he was employed as a carpenter and minus interruptions, acquired 23½ years of service. He retired in June of 54 due to ill health. A member of St. Hedwig's Church and the Polish American Eagles Citizen Club, he is survived by a son, Henry; three daughters, Viola Gaskell, Josephine Lawrence and Irene Pilecki; and five grandchildren.



JOHN J. POWERS, 67, of 826 McDowell Ave., Chester, Pa., died on March 4, 1956. Born and raised in Chester, he came to Sun Ship on July 20, 1920 as a regulator. Eight days later he became a rigger, a position he held at the time of his death — with the exception of several occasions when he left our employ. A former steeplejack, Mr. Powers had painted many church steeples in this area. Survivors include his wife, Elva, a son David, a daughter, Irene, and one grandson.

At the Marine Section of the National Safety Council and Exposition, Hotel Statler, New York, April 18-19 our Naval Architect, Frank L. Pavlik delivered the paper "Paper Architecture versus Shipyard Hazards."

John G. Pew, Jr., presided over the meeting. He is chairman of the Shipbuilding and Ship Repair Division of the Council.

Enterprise

10,969 business enterprises went under in 1955; 139,637 new ones were started however.

Oil production hit a new high — over 7 million barrels a day, and electric power production, up 15% over last year, hit a new weekly rate of 11½ billion kilowatts.

In Memoriam

Sun Shipbuilding and Dry Dock Company extends its sympathy to the families of the following employees who died during the months of April 1956.

WALTER KUCHARSKI, 84-53, 2620 S. Shield Street, Philadelphia, Penna., who died on April 3, 1956.

THOMAS CLARK, 34-54, 1318 Terrell Street, Chester, Penna., who died on April 6, 1956.

LEROY B. MARRYOTT, 60, of 817 11th Ave., Prospect Park, Pa., died on March 18, 1956. Born in Port Elizabeth, New Jersey, he came to Sun Ship in 1919 until 1921. He returned in 1940 where he worked as a crane operator until his retirement in 1955 due to ill health. A hunting and fishing fan, he is survived by his wife, Dorothy C., a daughter and four sons.

GENNARO AMALFITANO, 73, was born in Italy in 1882 and came to America in 1915. He came to Sun Ship in 1922 as a marine rigger in which capacity he served til his retirement due to ill health in 1954.

Survivors include his wife, Archangelo; three sons, George, Neil and Frank; and a daughter Mrs. Marie DeSantis.

TO MY MOTHER

Deal gently with her, Time: these many years of life have brought more smiles with them than tears.
Lay not thy hand too harshly on her now
But trace decline so slowly on her brow,
That like a sunset of the Northern clime
Where twilight lingers in summertime,
And fades at last into the silent night
Ere one may note the passing of the light.
So may she pass — since 'tis our common lot,
As one who resting, sleeps and knows it not.

By John Allan Wyeth
(Contributed by Gavin Rennie)

LISTEN AMERICANS !

. . . By Dr. George S. Benson
DIRECTOR — NATIONAL EDUCATION PROGRAM
Searcy, Arkansas

An Associated Press dispatch notes that 14-year-old George Wright III, who won $100,000 on the television quiz program "The Big Surprise," would normally owe $75,000 of it in income tax under existing laws. But there is a way, the boy's father says, through which George may be able to keep a little more than $25,000. Through a legal maneuver the boy may become the "head of the family" and claim his mother, brother and sister as his dependents. Lawyers figured this one out and apparently they are still searching for other maneuvers which might aid the tax-stricken boy.

But all agree that even with recourse to all legal maneuvers, young George will not be able to salvage more than a few extra thousand above the $25,000. This is a ridiculous situation — through no fault of the boy — even though the money was not earned in the normal sense. A 75 per cent tax on income is ridiculous. And it is much worse in the still higher brackets.

For instance, the president of a certain big manufacturing plant, whose production genius has provided constantly better jobs for nearly 10,000 employees, is worth more than $100,000 a year to his company on the basis of comparative salaries throughout the business and professional world. But he doesn't make $100,000 a year. Here is the shocker: This man's salary is $575,000 a year. The federal government takes in taxes $156,820 of the first $200,000. On the remaining $375,000 the government then levies a 91 per cent tax. Thus from this one man — working for a salary — the government takes $498,070 as its first mouthful.

That's just the Federal government's income tax. On top of this, state income taxes must be paid. And out of every expenditure the man makes with the money he retains, still other direct and indirect taxes are paid. The Federal income tax alone cuts his $575,000 salary to about $76,000; and when the other state and Federal taxes are extracted, the net income is considerably lower.

The situations created by our ridiculous tax structure are so fantastic that actually in some cases people are better off financially if they refuse to accept a raise in salary or if they carefully limit their earning capacity — their productive capacity. And herein lies one of the many grave dangers in our tax structure.

A number of people within my acquaintance — not big producers; but ordinary small business operators — have come to the point where normally their business should expand. Additional investment of savings, or even borrowing, would be necessary. In some cases the division was not to expand. This blacked out quite a number of jobs which would have been created in the expansion. It also had the effect of holding back progress which would have directly and indirectly improved the welfare of all citizens. Some changes are in order in our tax structure.

EVERYTHING YOU DO

On a transatlantic liner one day, the chief engineer, coming down the companionway into the engine room, shouted to one of the men:

"How long have you been working in this compartment?"

The Fireman, recently assigned to the crew, answered very honestly: "Ever since I saw you coming down the ladder."

There is a constant temptation for all of us to "take it easy" when nobody is checking up on us. The more you realize that God knows your every thought, sees everything you do and hears everything you say, the more likely you are to bring out the best that is in you on all occasions.

If you do, one day Christ will say to you:

"Well done, good and faithful servant. . . . enter into the joy of thy Lord." (Matt. 25:21)

— The Christophers

Food Stuff

The farm problem and the question of reducing our farm surpluses was answered by a statistician over the radio last week.

A very large percentage of our population is at least twenty-five pounds overweight. This means in the actuary tables of the insurance companies, that their life expectancy has been cut by five years.

In order to acquire this 25 lb. overweight average it took approximately 5-6 hundred thousand calories.

Now, if the overweight person were to reduce 25 lb., it would restore the five years to his life's expectancy.

With years added to his life he will consume approximately 5-6 million calories, which would increase total consumption of calories between 4½ and 5½ million.

If we multiply the 4½ to 5½ million calories by all persons overweight in the U. S., you can readily see how our worrisome surpluses would vanish.

"A home that is a home" is the proud boast of the Veterans of Foreign Wars when they refer to their "National Home" for widows and orphans at Eaton Rapids, Michigan. There is much justification for the boast too.

The children at Eaton Rapids literally have everything — that is almost everything. The one important thing lacking is a father, for these are the children of deceased veterans and those who because of disability are unable to care for their families.

The VFW cannot replace fathers, but it does replace just about everything else. On the physical side the "National Home" is a city within itself. They have their own community center, hospital, swimming pool, recreation field, playground, fire department, nursery, hobby shop, library, chapel, guest house, grocery store, laundry, dairy herd, orchard and so on down the line.

Perhaps more important, each child can feel he does have a home. The VFW's "children city" is made up of individual homes housing family groups of not more than six. In charge of each of the more than 30 individual units is a house mother. It is her responsibility to see that the children are brought up as they would be in their own home.

Part of the training is teaching the children how to shop at the stores right on the premises, teaching them to assume responsibility around the home and finally teaching them how to live with others.

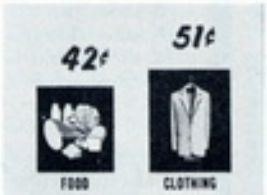
Funds to support this wonderful project come from the annual sale of Buddy Poppies by the Veterans of Foreign Wars. They go on sale in most communities during the period of Memorial Day. This is the only time during the year that the VFW solicits from the general public.

THIS HUNGRY CROWD was advertised for sale in September OUR YARD. All have been sold. Picture of the pedigreed beagle pups was sent by Ted Zigler of the Wetherill Plant.

WANTED!

THREE DOLLARS has been offered (by Supt. Bill Smith, Safety's Ed White and the editor) for the best signed caption for this picture, received in the OUR YARD office before June 15, 1956.

1939 DOLLAR BUYS



ALL TAXES UP NEARLY 11 TIMES

FOR SALE, RENT OR WHAT HAVE YOU?

Our advertising rates bother no one. All you need is membership in the Sun Family to use these columns.

Started, to get rides to and from the plant, they now have brought readers satisfaction in other areas. (Note beagles at left.)

Give your copy to Fifty Fithian of clock repair; or mail direct to OUR YARD.

FOR SALE — STORM WINDOWS, 8 — Standard Size, 5 — ¾ Size, 5 — Cellar windows. The same in screens, 31-50, call Chester 2-5037.

FOR SALE — 3 Window Screens, 28½" x 48½", 9 Window Screens, 28½" x 56½", 1 48" Porcelain Sink. Company phone 562, home phone Chester 2-5442.

FOR SALE — NOW is the time to buy complete Lionel electric train set on 8' x 4½' platform (with horses). Includes 2 transformers, cars, track, lights, etc. Over $100 value; priced to completely thrill your children at only $50.00. You can see it running. Phone 467 in yard, or Elgin 6-2495.

FOR SALE — Tompson, 14' Run-About with 1953, 6 horse super twin motor, wizard. J. Turner, 59-1462. 102 Center Ave., Essington, Pa.

FOR RENT — 1 or 2 rooms, share bath. A former shipyard worker, J. Clarence Pontzler of 2405 Chestnut St., Chester. Phone 3-4252.

FOR RENT — 5 room modern apt. with heat and water, in Lenni. Adults. Available now from former employee. Phone Valleybrook 2377-J.

WAshburn 8-3900

STARR LYNN

3 & 4 Bedroom Apts.

815 PENNLYN PLACE, OCEAN CITY, N.J.

DAVID C. STARR, OWNER
209 URBAN AVE. NORWOOD, PENNA.

Here Rests In Honored Glory an American Soldier Known But to God

Every American knows the above inscription but very few of us know how the Unknown Soldier was selected and the details concerning the Eternal Vigil at the Tomb. The following information was compiled by Ray Chandler* from information obtained from the Haskin Information Service, Arlington National Cemetery, and the U. S. Army, Office of the Chief of Information and Education, in the Pentagon Building in Washington, D. C.

The tomb of the Unknown Soldier of the First World War, in Arlington National Cemetery, is located opposite the East front of the Memorial Ampitheater. In a single grave not far away repose the remains of 2,111 unknown dead of the Civil War. Union and Confederate alike, they were gathered from the fields of Bull Run and the route to the Rappahannock, and buried on what had once been the estate of General Robert E. Lee. The relatives of Confederate dead, decorating the graves of both friend and foe, inspired the first Memorial Day in 1868. The Tomb itself honors all our Unknown.

The first Tomb of the Unknown Soldier was a sub-base and a base only. It was about the height of the present base but not so large. When the new Tomb was started, August 27, 1931, the old sub-base and base were torn away, and the present Tomb constructed. The Tomb weighs about 64 tons. The cap stone was placed on the Tomb December 31, 1931, the carvings and lettering completed and the Tomb open to the public April 9, 1932, without ceremony

Marble for the Tomb was furnished by the Vermont Marble Company of Danby, Vermont. It was quarried in Colorado and is known as Yule marble.

The only inscription on the Tomb is on the West end of the die and reads: HERE RESTS IN HONORED GLORY AN AMERICAN SOLDIER KNOWN BUT TO GOD. On the East end of the die are carved three figures, left to right, Peace, Victory, and Valor. Carved, in low relief, on either side of the Tomb are three laurel wreaths, inverted, indicating mourning.

The sarcophagus is of concrete, 5 feet deep, in the bottom of which is sail brought from the battlefields of France, on which rests the hermetically sealed metallic casket of the Unknown Soldier. The head of the Unknown Soldier is toward the West. Thomas Hudson Jones, sculptor, and Lorimer Rich, architect, constructed the Tomb and East approach to the Tomb.

On October 24, 1921, in the Hotel de Ville, at Chalons-sur-Marne, France, the Unknown Soldier was selected by Sergeant Edward F. Younger of the American Forces in Germany. Four identical caskets, containing the remains of four soldiers, unidentified by name, but known to be American soldiers, were in position side by side. Sergeant Younger selected one of these four, to be known as "The Unknown Soldier," by placing a bouquet of roses on his casket.

The remains of the Unknown Soldier were brought from France to Washington, D. C. on Admiral Dewey's flagship, the U. S. S. Olympia. The ship arrived at Washington, November 9, 1921. The United States honored the Unknown Soldier with the Congressional Medal of Honor and Valor, and the Allied Powers bestowed upon him their highest military decorations.

On April 6, 1948, in an entirely new role for the fighting Third Infantry, affectionately known as the "Old Guard" was given the most vital and sensitive assignment of guarding the heart of our land, the Nation's Capitol. At the same time the Third Infantry became the Army's official ceremonial regiment at high level functions in the Washington, D. C. area.

In the latter assigned mission, the Third receives the coveted honor of acting as personal escort to Presidents of the United States in Inaugural Parades and the unit is among the lead elements at annual Armed Forces Day Parades. To Company A befell the most singular honor entrusted to a military unit. Members of this select company comprise the sentinel detail which maintains the Eternal Vigil at the Tomb.

Night and day, regardless of weather conditions, the finest example of America's fighting men are placed on public view. Each sentry taking his appointed turn to pace the narrow mat before America's Shrine to the Unknown Soldier . . . symbol of those who have fallen in defense of our nation.

The Honor Guard consists of 16 enlisted soldiers. They are: a Non-Commissioned Officer in command with the rank of Master Sergeant, three Non-Commissioned Officers in charge of reliefs, with the rank of Sergeant First Class, and 12 Sentinels with the rank of Corporal or Private First Class. An individual sentinel is on guard for a period of one hour and off three during the day and on guard for two hours and off six during the night.

The members of the Guard are chosen from among volunteers from the Third "Old Guard" Infantry stationed at Fort Myer, Va. and Fort Leslie J. McNair, Washington, D.C. They are placed on temporary duty with Company "A." They must be between 5' 11' and and 6' 2" in height, of commensurate weight and build, but have no physical disabilities that will detract from their appearance, and without disciplinary action against them on their record. Misconduct as trivial as a traffic violation in the City of Washington is sufficient to cause removal from the Guard.

During the period of one hour a sentinel walks his post 42 times. He walks at a cadence of 128 steps per minute, eight steps per minute faster than the normal, at strict attention, taking twenty-nine thirty inch steps from one end of his post to the other. He keeps his rifle on the shoulder away from the Tomb at all times thus necessitating a movement of the rifle at each end of his post. Upon reaching the end of his post the sentinel faces toward the City of Washington for twenty seconds, then toward the Tomb for a similar period. Immediately after facing the Tomb he executes the manual of arms. This sequence is then repeated. During inclement weather, the sentinel may stand at "Parade Rest" within either of two sentry boxes, located at each end of his post.

The Sentinel is armed with a highly polished U. S. Rifle, M-1 caliber 30, on which is fixed a chrome plated bayonet.

The tour of duty on the Honor Guard is normally a six month period. This, however, is often extended in the case of an outstanding sentinel or in the event a suitable replacement is not available. Upon successful completion of a tour, each sentinel is awarded a special Certificate of Achievement, "In recognition of outstanding performance of duty while a Member of the Guard at The Tomb of the Unknown Soldier." After six months of normal duty a soldier is again eligible to volunteer for the Guard.

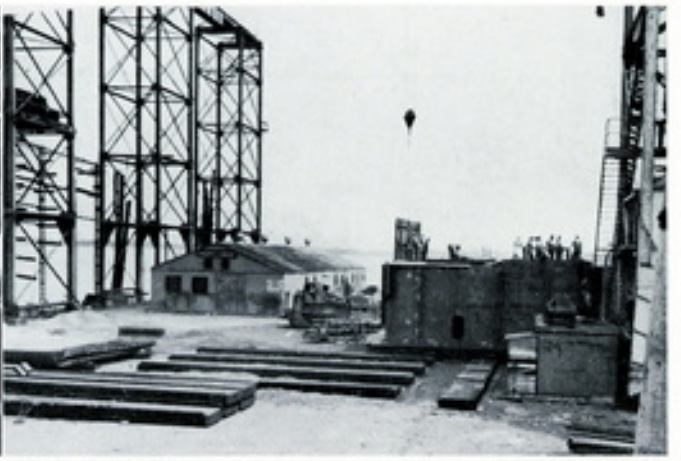
**Ray Chandler is Sec'y. of the Delco Shrine Club*

Will Rogers once said "America never lost a war or won a peace conference." That was before Korea. May thirtieth is Memorial Day and the Tomb of the Unknown Soldier will be featured in services commemorating our dead. Has he made the supreme sacrifice in vain?

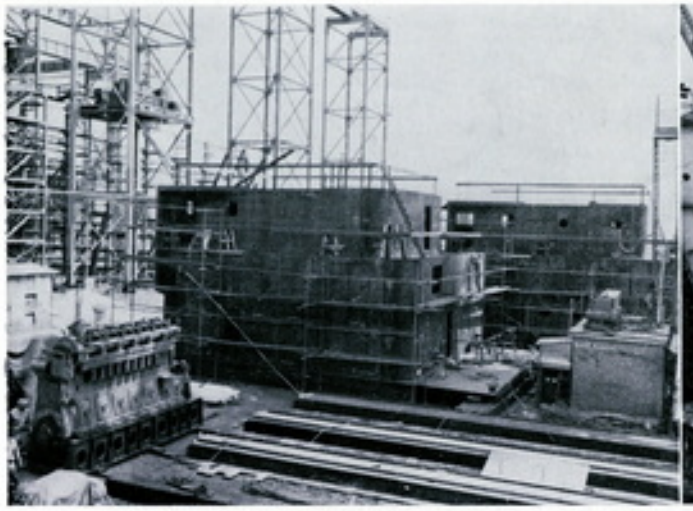
This period in our National life finds other American servicemen stationed in more than forty-five countries throughout the world, including 1800 marines recently sent to join the fleet in the tense Near East. Why? A show of strength to avert war, or, will those men be caught in another Pearl Harbor or retreat from a foreign reservoir? Can we stand in truth before the Unknown Soldier, while preparing to spill more young American blood on far-away soil?

SUB-ASSEMBLIES GROW STEP-BY-STEP

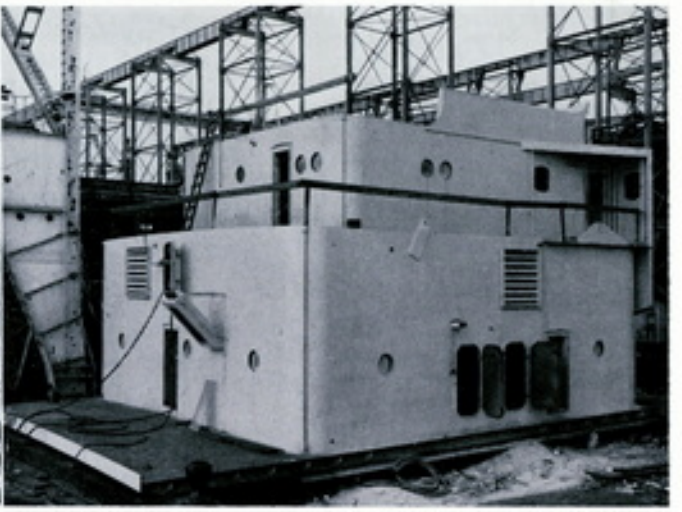
UNDER THE HAMMERHEAD CRANE pier #5 is cleared for construction of deckhouses.



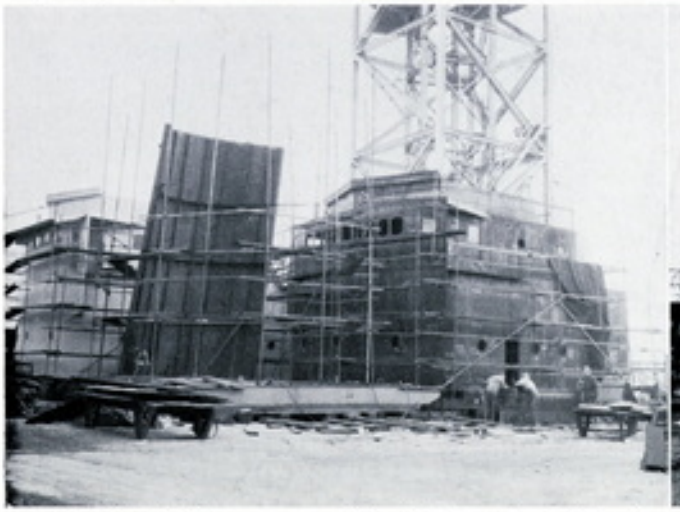
HEAVY TIMBERS become temporary foundations as the sub-assembly for contract 598 develops.



DECKHOUSE FOR HULL 599 comes into being. A diesel engine stands nearby temporarily.



THE FIRST HOUSE (598) gets a coat of paint upon completion. Lifting pads included.



AS 599 AND 600 deckhouses near completion the first stack erection begins.

DECKHOUSE FOR 598 awaits Westinghouse strike settlement when turbines too can be swung aboard. (See Cover.)